



PRECISION GROUND FLAT STOCK, reg, O/S

\$MART FLAT STOCK

HARD FLAT

EDM BLOCK HARDENED

DRILL ROD

COLD FINISHED ROUNDS

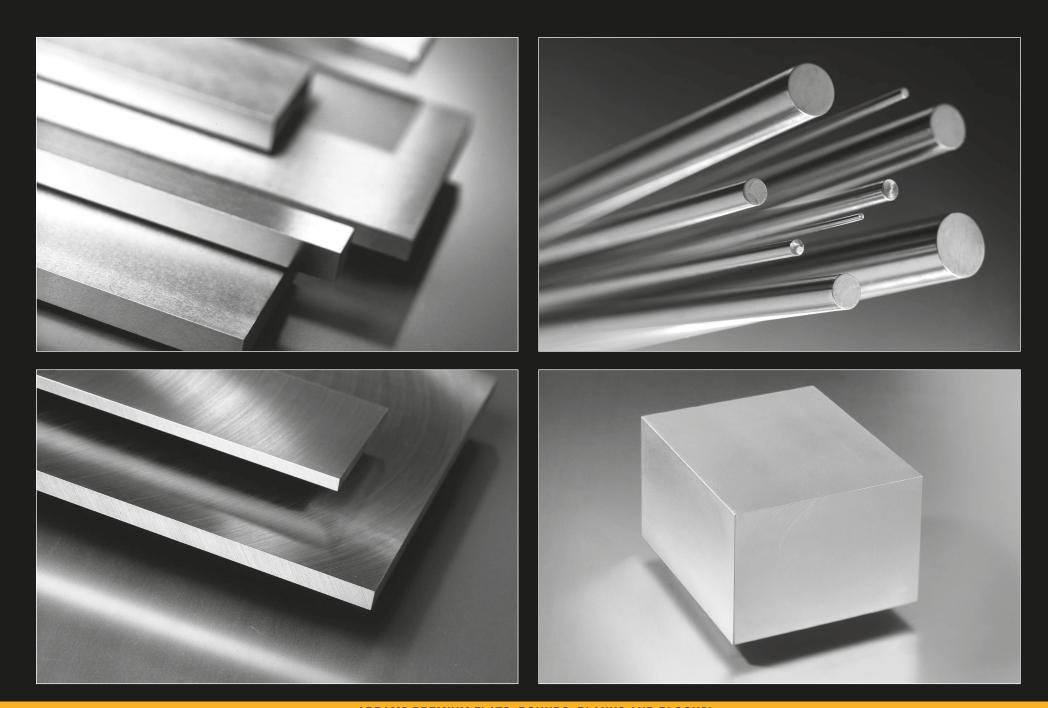
DECARB FREE ROUNDS

THE POWER OF STEEL GRADE VARIETY!

A2	L6			
A8 mod./ Chipper	01	Toolox 33	420 ESR	
D2	P20	Toolox 44	420 LC	
H10	P20 PH	W1	420FM	
H13	P20+Ni	1018/A36	5120	
H13 ESR	S1	1045	52100/ L1	HSS M2
L3	S7	2990mod.	6F7 ESR	HSS PM M4 HC

410 420 420 mod. 420RM 303 304 430F 431 4140/ 4142 314 440B 316L/ 4140 PH/ 4142 PH 440C 316Ti 5115





ABRAMS PREMIUM FLATS, ROUNDS, BLANKS AND BLOCKS!

ABRAMS

BECOME BETTER THAN YOUR COMPETITION

WIN WITH ABRAMS PREMIUM STEEL

- + 44 steel grades
- + More than 53,000 items
- + As Flats and Rounds
- + In Imperial and Metric Sizes
- + NO minimum order value
- + NO minimum order quantity
- + Specials on request
- + Same day shipping (subject to availability)
- + From our Production Site / Warehouse in Illinois, U.S.A.
- = Sum of your competitive advantages!



PRODUCTION + STOCK

3 MAIN REASONS WHY ... ABRAMS INDUSTRIES IS AN APPROVED SUPPLIER FOR MANY TOP US INDUSTRIAL COMPANIES:





1 AGILITY

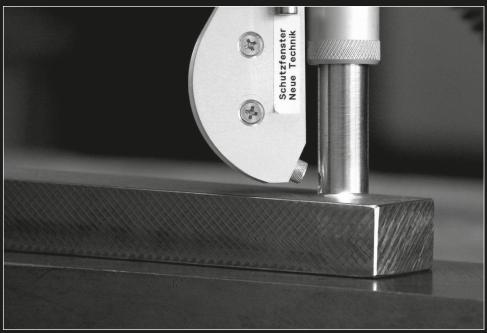
due to our deep inventories of raw material and production capacity in our PRODUCTION SITE in Illinois, U.S.A.

2 FAST SHIPPING

due to our finished stock inventories.

QUALITY



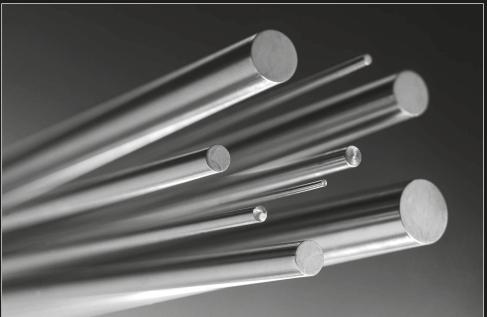


3 PREMIUM QUALITY

because of the availability of a Positive Steel Identification provided by certified Spectrometer Analysis.







TOOL STEEL
HIGH SPEED STEEL
STAINLESS STEEL
HEAT-TREATABLE STEEL
CASE HARDENING STEEL

CONSTANTLY EVOLVING

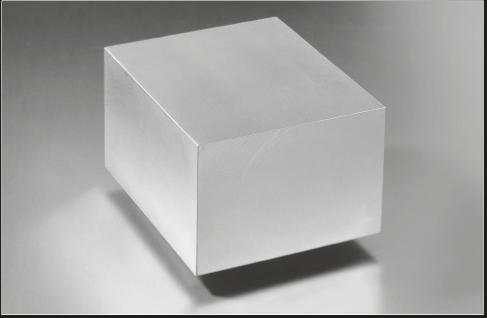
... that is ABRAMS INDUSTRIES.





TOOL STEEL
HIGH SPEED STEEL
STAINLESS STEEL
HEAT-TREATABLE STEEL
CASE HARDENING STEEL

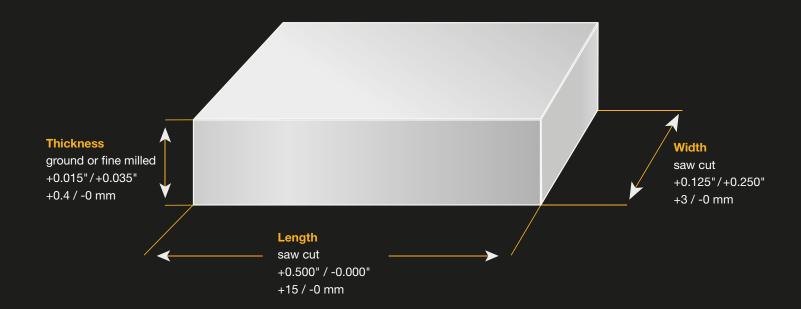




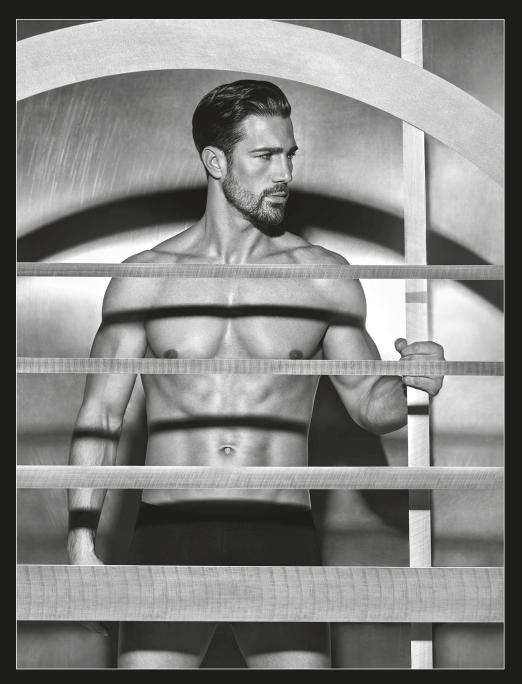
NEW TO THE MEXICAN MARKET!

\$mart Flat Stock: \$AVES YOU TIME - \$AVES YOU MONEY

Always close to your final dimensions.







WATCH THE MAKING OF THE 4TH MOTIF FOR CALENDAR 2016 / 2019



ABRAMS VARIETY

... 44 DIFFERENT STEEL GRADES

						410	
A2	L6					420	
A8 mod./ Chipper	01	Toolox 33	420 ESR			420 mod.	
D2	P20	Toolox 44	420 LC		303	420RM	
H10	P20 PH	W1	420FM		304	430F	
H13	P20+Ni	1018/A36	5120		314	431	4140/ 4142
H13 ESR	S1	1045	52100/ L1	HSS M2	316L/ 316	440B	4140 PH/ 4142 PH
L3	S7	2990 mod.	6F7 ESR	HSS PM M4 HC	316Ti	440C	5115



THE ABRAMS STEEL GUIDE!

Our patented application can be downloaded free of charge onto your smartphone (iPhone/android phone) or tablet (iPad/android tablet), as well as being available as a free web browser version on your PC (see abrams-steelguide.com).

The following graphics have been taken from the Android version.



STEP 1 A

You know the technical requirements and you are looking for the suitable steel grade.

> In the ABRAMS STEEL GUIDE menu you will find a full text search, a summary of technical properties, a list of specifications we deliver and a glossary of steels, alloys and heat treatments.

STEEL GUIDE

1

#

Search
 Se

Properties ! Specifications

ABRAMS!

H13 ESR

i.e. you require TOOL STEEL for a stamping tool.

STEP 1 B

Choose a steel grade you know and usually work with.



Your desired steel grade will be shown with first indicative traits.

ABRAMS STEEL GUIDE

Patent No.: US 8,463,771 B2 Date of Patent: June 11, 2013



Choose the most important technical properties – in any desired combination.

STEP 2 A

STEP 2 B

For example, click to open

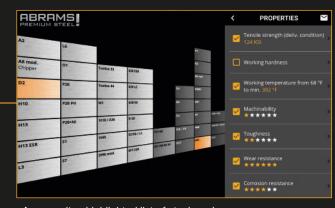
the property view.



Here you can optimize any property, such as wear resistance - e.g. if it is less important or very important for your stamping tool. You immediately get the steel grade vou need.



All the details of the chosen steel grade are provided: technical properties, chemical composition and specifications. Search for alternatives and get direct access to our online shop.



As a result, a highlighted list of steel grades appears with similar or possibly better properties than AISI D2. Adjust or delete single properties to find the ideal steel grade for your stamping tool.

STEP 3 B

STEP 3 A

Here we have chosen the function "alternatives to the grade AISI D2".



ABRAMS ART PROJECT

"EXCELLENT WORK!" ...

... is the praise that we receive from our customers and partners.

ABRAMS Industries is proud to produce a high quality photographic calendar, which has been very highly coveted by our valued customers and partners. Not to mention the honor of having had our calendar recognized multiple times in the "JAHRBUCH DER WERBUNG / GERMANY" (the renowned Yearbook of Advertising and Marketing) as well as further accolades in a variety of trade journals.

Through our photographic art project, we have sought to contrast the highly technical qualities of our steel with the warmth of the human form and the beauty of both with a modern interpretation. To date, our efforts have been presented in 7 limited edition art calendars, which we trust will continue to enrich your working day.

We have staged iconic cultural symbols with the perfection and variety of ABRAMS PREMIUM STEEL and ABRAMS PREMIUM ALUMINUM products, under the guidance of our Art Director Ms. Nur Hayat Nezir.

The result: 13 exceptional motifes with models from Milan, Amsterdam and Berlin, taken by the photographer Benjamin Becker.

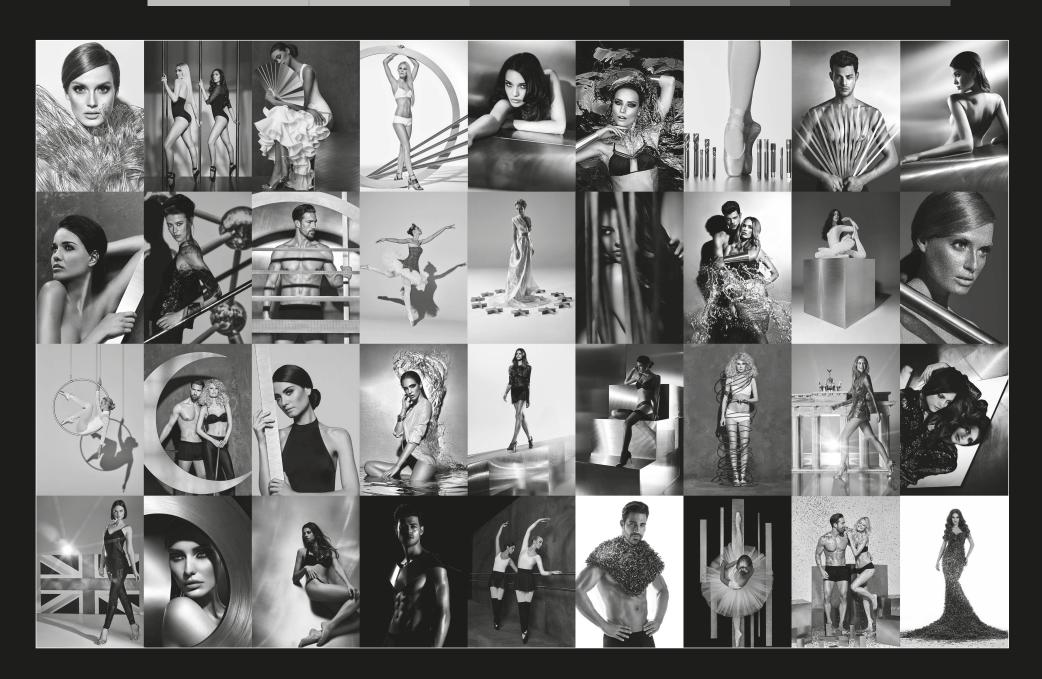
The art calendar is a limited release to our valued customers and partners around the world.

To view the making of the ABRAMS Art Project 2022 / 2025, simply scan the QR code:





ABRAMS
TOOL STEEL I
TOOL STEEL II
HIGH SPEED STEEL
STAINLESS STEEL
corrosion resistant / acid resistant
CASE HARDENING-STEEL
INFORMATION





FLATS!

Below are our flats in different categories in imperial as well as metric sizes.

Every item is available in different **thickness**, **width** and **length**. On request – specific to your needs!

IMPERIAL

1

Precision Ground Flat Stock, regular [GFS reg]

For example: 3/4" x 4" x 36" reg

- Thickness ground, tol. +/-0.001"
- Width ground or fine milled, tol. +0.005" / -0.000"
- Length milled or saw cut, tol. +0.125" / +0.500"

METRIC



Precision Ground Flat Stock Metric, regular [GFSM reg] acc. to DIN* 59350

For example: 20.0 x 100.0 x 1,000 mm

- Thickness ground or fine milled, tol. +0.05 / -0 mm
- Width ground or fine milled, tol. +0.2 / -0 mm
- Length milled or saw cut, tol. +35 / -0 mm

Exception: AISI 1045: **T** +0.25 / -0 mm; **W** +0.4 / -0 mm



Precision Ground Flat Stock, oversize [GFS O/S]

For example: 3/4" x 4" x 36" O/S

- Thickness ground, tol. +0.010" / +0.015"
- Width ground or fine milled, tol. +0.010" / +0.015"
- Length milled or saw cut, tol. +0.125" / +0.500"



Precision Ground Flat Stock Metric, oversize [GFSM O/S]

For example: 20.3 x 100.3 x 1,000 mm

- Thickness ground or fine milled, tol. +0.4 / -0 mm
- Width ground or fine milled, tol. +0.4 / -0 mm
- Length milled or saw cut, tol. +35 / -0 mm



\$mart Flat Stock [\$mart]

Standardized Precision Blanks

For example: 3/4" x 4" x 24"

- Thickness ground or fine milled, tol. +0.015" / +0.035"
- Width saw cut. tol. +0.125" / +0.250"
- Length saw cut, tol. +0.500" / -0.000"



\$mart Flat Stock Metric [\$martM]

Standardized Precision Blanks Metric

For example: 20.3 x 103 x 600 mm

- Thickness ground or fine milled, tol. +0.4 / -0 mm
- Width saw cut. tol. +3 / -0 mm
- Length saw cut, tol. +15 / -0 mm



EDM Block hardened [EDM]

For example: 1/2" x 4" x 4"

- Thickness ground or fine milled, tol. +0.010" / -0.000"
- Square dimension ground or fine milled, tol. min. +0.0125"
- Grain structure is perpendicular in relation to top & bottom.



Hard Flat Metric [HardM]

Hardened Standardized Blanks Metric

For example: 10.2 x 250 x 500 mm

- Thickness ground or fine milled, tol. +0.2 / -0 mm
- Width saw cut or sheared, tol. +10 / -0 mm
- Length saw cut or sheared, tol. +10 / -0 mm

Flatness tolerance: +0.2 / -0 mm across the item (aimed for)

*DIN: DEUTSCHE INDUSTRIE NORM (GERMAN INDUSTRY STANDARD)!

Precision ground flat stock is a bar with a sharp-edged, rectangular or square cross-section made of tool steel with finely machined, decarburization-free longitudinal surfaces. In Germany, it is standardized in DIN 59350. Precision ground flat stock is used primarily as a semi-finished product in machine, tool, fixture and mold construction.



For more details on our shapes see: us.abrams-industries.com/product-overview



ROUNDS

Below are our rounds in different categories in imperial as well as metric sizes. Any item is available in different diameters and / or length. On request – specific to your needs!

IMPERIAL



Drill Rod [DR] **Precision Round Bars**

For example: DR 3/4" x 36" Turned, ground & polished (TGP)

- Tol. Dia. < 1/8": +/-0.0003", L +0.125" / -0.000"
- Tol. Dia. 1/8" to < 1/2": +/-0.0005", L +0.125" / -0.000"
- Tol. Dia. 1/2" to 2": +/-0.001", L +0.125" / -0.000"

METRIC



Drill Rod Metric [DRM]

Precision Round Bars Metric

For example: DRM 10.0 mm x 914 mm (36")

Turned, ground & polished (TGP) - ISO h9

- Tol. Dia. \leq 10.0 mm: +0 / -0.036 mm, L +tol.
- Tol. Dia. > 10.0 mm to 18.0 mm: +0 / -0.043 mm, L +tol.
- Tol. Dia. > 18.0 mm to 25.0 mm; +0 / -0.052 mm, L +tol.

These are maximum tolerances. For more exact tolerances call our sales team.



Cold Finished Rounds [CF] Precision Round Bars

For example: CF 3/4" x 36"

Drawn, smooth turned, ground, or ground and polished

- Tol. Dia. < 1/2": +/-0.0015", L +tol. / -0.400"
- Tol. Dia. 1/2" to < 1-1/2": +/-0.0025", L +tol. / -0.400"
- Tol. Dia. 1-1/2" to 4": +/-0.004", L +tol. / -0.400"

These are maximum tolerances. For more exact tolerances call our sales team.



Cold Finished Rounds Metric [CFM]

Precision Round Bars Metric

For example: CFM 10.0 mm x 914 mm (36")

Drawn, smooth turned, ground, or ground and polished (ISO h9)

- Tol. Dia. \leq 10.0 mm: +0 / -0.036 mm, L +tol.
- Tol. Dia. > 10.0 mm to 18.0 mm: +0 / -0.043 mm. L +tol.
- Tol. Dia. > 18.0 mm to 25.0 mm: +0 / -0.052 mm, L +tol.

These are maximum tolerances. For more exact tolerances call our sales team.



Decarb Free Rounds [DCF] Oversize Round Bars

For example: DCF 3/4" x 36"

Peeled or rough-turned

- Tol. Dia. min. +0.010", L +tol. / -0.400"
- Exception: 4XX Series stainless steel, tol. Dia. +tol. / -0.000", L +tol. / -0.400"

These steel rounds are oversized to finish to nominal diameter.



STEEL CATEGORIES!

Steel grades are classified by their technical properties and/or by their intended use.

For example: Cold work steel, hot work steel, plastic mold steel, high speed steel, corrosion resistant steel or case hardening steel. Steel grades are often assigned to several classification groups.

For more details on our shapes see: us.abrams-industries.com/product-overview





Shapes







TOOL STEEL I		/.	zi ,	35	// 6) frift, 1,00°	d titt. 1 da	i /	hr. 600 m	in 500 mm	ja /	M STA FIFT	(ser)		Ser) en	i hardness	idened in establish	HRCI .	approx. It's	hardness.) 8) / <u>s</u> e	steel ct	geel .ce	d corrosion	acid resits	ring Steel
STEEL GRADE - AISI	6	E REU TO	35 OF 18	ats regul	if SM reg Su	FSM OF ST	mari it ,	marin 300	ardin 250 r	JM tharden	,36 d	AM STA THE	Tei Sei	M St A FIFT	18" ,36 dei	inested Printer	hardenedlar Andenedlar Tensile	strensond.	ax. working	d Mork St	MOK St.	astic Mold	di speed?	ainless stu	dinless Situ	ar Treated Case Harde	
PREMIUM A2	~	✓			✓					✓	✓			✓	241		118.2	62	✓		✓						
PREMIUM A8 mod. / Chipper						✓	✓								250		123.2	60	✓								
PREMIUM D2	~	✓			✓			✓	✓	✓	✓			✓	255	57	124.7	62	✓		✓						
PREMIUM H10						✓	✓								229		111.6	52		✓	✓						
PREMIUM H13						✓	✓							✓	229		111.6	56		✓	✓						
PREMIUM H13 ESR						✓	✓								229		111.6	56		✓	✓						
PREMIUM L3						✓	✓								223		108.7	64	✓								
PREMIUM L6						✓	✓							✓	250		123.2	54		✓							
PREMIUM 01	~	✓		✓	~			✓		✓	✓			✓	229	57	111.6	62	✓		✓						
PREMIUM P20						✓	✓								225		108.8	50	✓		✓						
PREMIUM P20 PH					~	✓	✓								325		159.5	50	✓		✓						
PREMIUM P20+Ni						✓	✓								325		159.5	50	✓		✓						
PREMIUM S1						✓	✓								229		111.6	60	✓								
PREMIUM S7						~	~			✓				✓	225		110.2	60		✓	✓						

IMPERIAL

Precision Ground Flat Stock, regular [GFS reg]
Precision Ground Flat Stock, oversize [GFS O/S]
\$mart Flat Stock [\$mart] - Standardized Precision Blanks
EDM Block hardened [EDM]
Drill Rod [DR] - Precision Round Bars
Cold Finished Rounds [CF] - Precision Round Bars
Decarb Free Rounds [DCF] - Oversize Round Bars

METRIC

Precision Ground Flat Stock Metric, regular [GFSM reg] - acc. to DIN* 59350
Precision Ground Flat Stock Metric, oversize [GFSM O/S]
\$mart Flat Stock Metric [\$martM] - Standardized Precision Blanks Metric
Hard Flat Metric [HardM] - Hardened Standardized Blanks Metric
Drill Rod Metric [DRM] - Precision Round Bars Metric
Cold Finished Rounds Metric [CFM] - Precision Round Bars Metric
*DIN: Deutsche Industrie Norm (German Industry Standard)

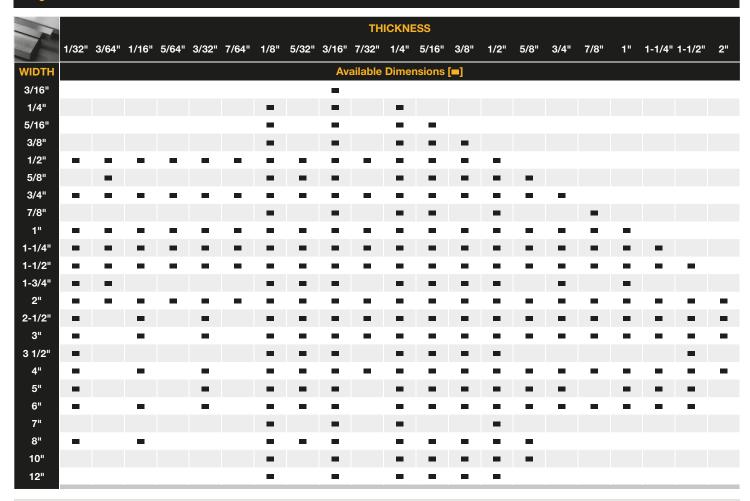


PREMIUM A2 - PRECISION GROUND FLAT STOCK, REGULAR

TOOL STEEL

Length: 18"

IMPERIAL DIMENSIONS in inch





Technical Properties

Air hardening cold work steel, good machinability, high wear resistance and improved toughness (reduced occurence of hard carbides with about 5% chromium compared to 12% chromium in ledeburite AISI D2). Good dimensional stability during heat treatment and easily repairable through welding.

Working hardness: 58-62 HRC.



Applications

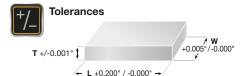
Blanking tools, stamping tools, dies, punches, trimming tools, cutting tools, thread rolling tools, thread rolling dies, shear knives, circular shear knives, cold pilger mandrels, cold stamping tools, plastic molds.



[GFS reg]: Surface Condition

Thickness: ground
Width: ground or fine milled

Length: milled or saw cut





Standard values

Delivery condition: maximum 241 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V
			0				
1.05	0.4	0.8	0.03	0.03	5.5	1.2	0.35



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



Contact us

+1 (331) 234-9900 sales@abrams-industries.com



Direct access to our online shop

abrams-steel.com/A2-1



AISI A2 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/A2



Length: 36"

PREMIUM A2 - PRECISION GROUND FLAT STOCK, REGULAR

IMPERIAL DIMENSIONS in inch

THICKNESS 1/32" 3/64" 1/16" 5/64" 3/32" 7/64" 1/8" 5/32" 3/16" 7/32" 1/4" 5/16" 3/8" 1/2" 5/8" 3/4" 7/8" 1" 1-1/4" 1-1/2" 2" **NIDTH** Available Dimensions [=] 3/16" 1/4" 5/16" 3/8" 1/2" 5/8" 3/4" 7/8" 1" 1-1/4" 1-1/2" 1-3/4" 2" 2-1/2" 3" 3 1/2" 4" 5" 6" 7" 8" 10" 12"



Technical Properties

Air hardening cold work steel, good machinability, high wear resistance and improved toughness (reduced occurence of hard carbides with about 5% chromium compared to 12% chromium in ledeburite AISI D2). Good dimensional stability during heat treatment and easily repairable through welding.

Working hardness: 58-62 HRC.



Applications

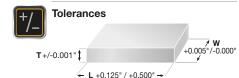
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TOOL STEEL

[GFS reg]: Surface Condition Thickness: ground

Width: ground or fine milled Length: milled or saw cut





Standard values

Delivery condition: maximum 241 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V
			0				
1.05	0.4	0.8	0.03	0.03	5.5	1.2	0.35



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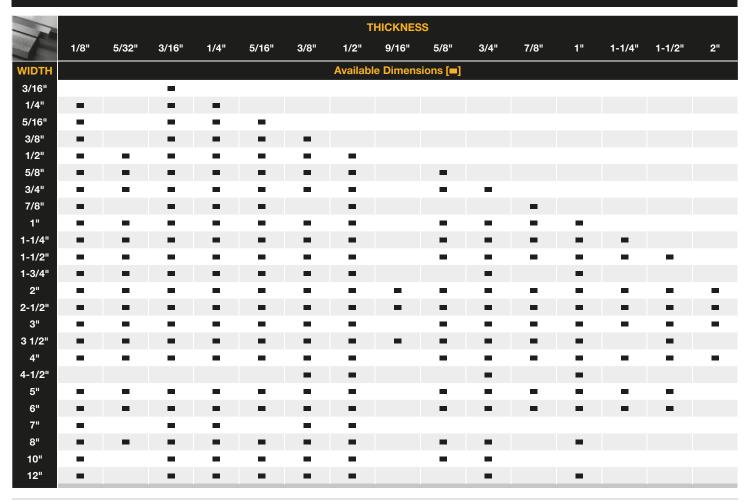


PREMIUM A2 - PRECISION GROUND FLAT STOCK, OVERSIZE

TOOL STEEL

Length: 18"

IMPERIAL DIMENSIONS in inch

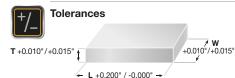




[GFS O/S]: Surface Condition

Thickness: ground

Width: ground or fine milled Length: milled or saw cut





Standard values

Delivery condition: maximum 241 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V
0.95	0.1	0.4	0	0	4.8	0.9	0.15
1.05	0.4	0.8	0.03	0.03	5.5	1.2	0.35



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AISI A2 – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/A2

via smartphone/tablet:



Technical Properties

Air hardening cold work steel, good machinability, high wear resistance and improved toughness (reduced occurence of hard carbides with about 5% chromium compared to 12% chromium in ledeburite AISI D2). Good dimensional stability during heat treatment and easily repairable through welding. Working hardness: 58-62 HRC.

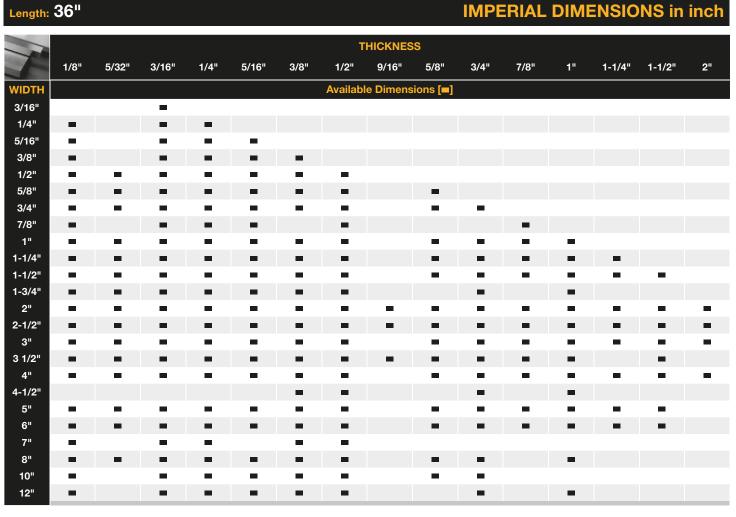


Applications

Blanking tools, stamping tools, dies, punches, trimming tools, cutting tools, thread rolling tools, thread rolling dies, shear knives, circular shear knives, cold pilger mandrels, cold stamping tools, plastic molds.

PREMIUM A2 - PRECISION GROUND FLAT STOCK, OVERSIZE

IMPERIAL DIMENSIONS in inch





Technical Properties

Air hardening cold work steel, good machinability, high wear resistance and improved toughness (reduced occurence of hard carbides with about 5% chromium compared to 12% chromium in ledeburite AISI D2). Good dimensional stability during heat treatment and easily repairable through welding. Working hardness: 58-62 HRC.



Applications

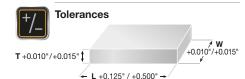
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TOOL STEEL

[GFS O/S]: Surface Condition Thickness: ground

Width: ground or fine milled Length: milled or saw cut





Standard values

Delivery condition: maximum 241 BHN Chemical composition:

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AISI A2 - all at a glance!

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PREMIUM A2 - PRECISION GROUND FLAT STOCK METRIC, OVERSIZE

TOOL STEEL

METRIC DIMENSIONS in mm Length: 500 mm **THICKNESS** 4.2 6.2 12.3 15.3 16.3 25.3 30.3 32.3 8.2 10.3 20.3 Available Dimensions [=] **NIDTH** 10.3 12.3 16.3 20.3 25.3 30.3 32.3 40.3 50.3 60.3 63.3 80.3 100.3 125.3



Technical Properties

Air hardening cold work steel, good machinability, high wear resistance and improved toughness (reduced occurence of hard carbides with about 5% chromium compared to 12% chromium in ledeburite AISI D2). Good dimensional stability during heat treatment and easily repairable through welding.

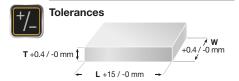
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[GFSM O/S]: Surface Condition Thickness: ground or fine milled Width: ground or fine milled Length: milled or saw cut





Standard values

Delivery condition: maximum 241 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V
0.95	0.1	0.4	0	0	4.8	0.9	0.15
1.05	0.4	0.8	0.03	0.03	5.5	1.2	0.35



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PREMIUM A2 - PRECISION GROUND FLAT STOCK METRIC, OVERSIZE

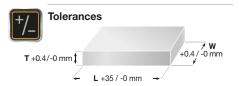
TOOL STEEL

METRIC DIMENSIONS in mm Length: 1,000 mm





[GFSM O/S]: Surface Condition Thickness: ground or fine milled Width: ground or fine milled Length: milled or saw cut





Standard values

Delivery condition: maximum 241 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	٧
			0				
1.05	0.4	0.8	0.03	0.03	5.5	1.2	0.35



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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AISI A2 – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/A2

via smartphone/tablet:



Technical Properties

Air hardening cold work steel, good machinability, high wear resistance and improved toughness (reduced occurence of hard carbides with about 5% chromium compared to 12% chromium in ledeburite AISI D2). Good dimensional stability during heat treatment and easily repairable through welding. Working hardness: 58-62 HRC.



Applications

Blanking tools, stamping tools, dies, punches, trimming tools, cutting tools, thread rolling tools, thread rolling dies, shear knives, circular shear knives, cold pilger mandrels, cold stamping tools, plastic molds.

PREMIUM A2 - DRILL ROD

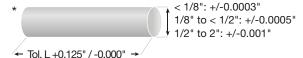
TOOL STEEL

Length: 36"

IMPERIAL DIAMETERS in inch

			Av	ailable Diameters [•]		
1/16"	•	»		»		»	
5/64"	•	17/64"	•	29/64"	•	7/8"	•
3/32"	•	9/32"	•	15/32"	•	1"	•
7/64"	•	19/64"	•	31/64"	•	1-1/8"	•
1/8"	•	5/16"	•	1/2"	•	1-1/4"	•
9/64"	•	21/64"	•	17/32"	•	1-3/8"	•
5/32"	•	11/32"	•	9/16"	•	1-1/2"	•
11/64"	•	23/64"	•	19/32"	•	1-3/4"	•
3/16"	•	3/8"	•	5/8"	•	2"	•
13/64"	•	25/64"	•	21/32"	•		
7/32"	•	13/32"	•	11/16"	•		
15/64"	•	27/64"	•	3/4"	•		
1/4"	•	7/16"	•	13/16"	•		
*		*		»			

Tol. Dia.





Technical Properties

Air hardening cold work steel, good machinability, high wear resistance and improved toughness (reduced occurence of hard carbides with about 5% chromium compared to 12% chromium in ledeburite AISI D2). Good dimensional stability during heat treatment and easily repairable through welding. Working hardness: 58-62 HRC.



Applications

Blanking tools, stamping tools, dies, punches, trimming tools, cutting tools, thread rolling tools, thread rolling dies, shear knives, circular shear knives, cold pilger mandrels, cold stamping tools, plastic molds.

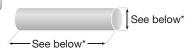


[DR]: Surface Condition

Turned, ground & polished (TGP)



Tolerances





Standard values

Delivery condition: maximum 241 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	٧
0.95	0.1	0.4	0	0	4.8	0.9	0.15
1.05	0.4	0.8	0.03	0.03	5.5	1.2	0.35



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks). Custom orders on request

- according to your requirements.



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AISI A2 - all at a glance!

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PREMIUM A2 - DRILL ROD METRIC

THE MISH AL BRILL HOD METH

Length: 914 mm (36")

	Available Diameters [●]
3.0	•
4.0	•
5.0	•
6.0	•
8.0	•
10.0	•
12.0	•
15.0	•
16.0	•
20.0	•
25.0	•

Tol. Dia.

\$\leq 10.0 \text{ mm: } \text{+0 / -0.036 mm} \\ > 10.0 \text{ mm to } 18.0 \text{ mm: } \text{+0/-0.043 mm} \\ > 18.0 \text{ mm to } 25.0 \text{ mm: } \text{+0 / -0.052 mm} \end{array}

← L +tol. →



TOOL STEEL

METRIC DIAMETERS in mm

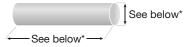


[DRM]: Surface Condition

Turned, ground & polished (TGP) - ISO h9



Tolerances





Standard values

Delivery condition: maximum 241 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	٧
							0.15
				. .	-		0.35
1.05	0.4	0.8	0.03	0.03	5.5	1.2	0.35



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks).
Custom orders on request

- according to your requirements.



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Technical Properties

Air hardening cold work steel, good machinability, high wear resistance and improved toughness (reduced occurence of hard carbides with about 5% chromium compared to 12% chromium in ledeburite AISI D2). Good dimensional stability during heat treatment and easily repairable through welding.

Working hardness: 58-62 HRC.



Applications

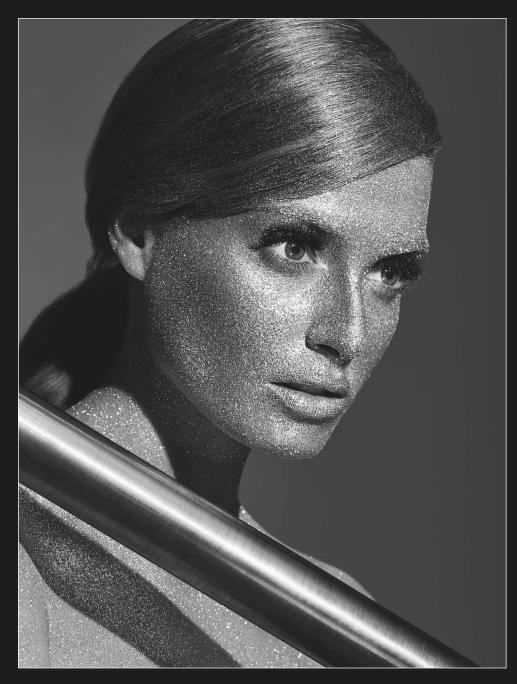
Blanking tools, stamping tools, dies, punches, trimming tools, cutting tools, thread rolling tools, thread rolling dies, shear knives, circular shear knives, cold pilger mandrels, cold stamping tools, plastic molds.



AISI A2 - all at a glance!

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WATCH THE MAKING OF THE 10TH MOTIF FOR CALENDAR 2016 / 2019

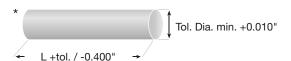




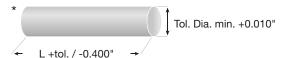
PREMIUM A2 - DECARB FREE ROUNDS

Length: 18" Length: 36" IMPERIAL DIAMETERS in inch

	Available Diameters [●]
1/4"	•
1/2"	•
3/4"	•
1"	•
1-1/8"	•
1-1/4"	•
1-3/8"	•
1-1/2"	•
1-3/4"	•
2"	•
2-1/2"	•
3"	•
3-1/2"	•
4"	•



	Available Diameters [●]
1/4"	•
1/2"	•
3/4"	•
1"	•
1-1/8"	•
1-1/4"	•
1-3/8"	•
1-1/2"	•
1-3/4"	•
2"	•
2-1/2"	•
3"	•
3-1/2"	•
4"	•



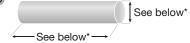


[DCF]: Surface Condition Peeled or rough-turned



Tolerances

TOOL STEEL





Standard values

Delivery condition: maximum 241 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V
			0				
1.05	0.4	0.8	0.03	0.03	5.5	1.2	0.35



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks).
Custom orders on request

- according to your requirements.



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[18"] - abrams-steel.com/A2-22

[36"] - abrams-steel.com/A2-23



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Technical Properties

Air hardening cold work steel, good machinability, high wear resistance and improved toughness (reduced occurence of hard carbides with about 5% chromium compared to 12% chromium in ledeburite AISI D2). Good dimensional stability during heat treatment and easily repairable through welding. Working hardness: 58-62 HRC.



Applications

Blanking tools, stamping tools, dies, punches, trimming tools, cutting tools, thread rolling tools, thread rolling dies, shear knives, circular shear knives, cold pilger mandrels, cold stamping tools, plastic molds.

PREMIUM A8 mod. / Chipper - \$mart FLAT STOCK

TOOL STEEL

Length: 12"

IMPERIAL DIMENSIONS in inch

					THIC	KNESS				
	3/32"	1/8"	3/16"	7/32"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"
WIDTH					Available Di	mensions [=]				
1"			-			-	•	•	-	
1-1/4"	-	-	-	-	-	-	-	-	-	-
1-1/2"	-	-	-	-	-	_	-	-	-	-
2"		-	-	-	-	-		-	-	
2-1/2"	-	-	-	-	-		-	-	-	-
3"	-	-	-	-	-	-	-	-	-	-
3-1/2"	-	-	-	-	-	_	-	-	-	-
4"		-	-		-	-		-	-	
4-1/2"	-	-	-	-	-	-	-	-	-	-
5"	-	-	-	-	-	-	-	-		
5-1/2"	-	-		-	-	_	-	-	-	-
6"	-	-	-	-	-	-	-	-	-	
6-1/2"	-	-	_	-	-		-	-	-	-
7"	-	-	-		-	-	-	-	-	-
7-1/2"	-	-	-	-	-	-	-	-	-	-
8"	_	_	_	_	_	_	_	_	_	_
8-1/2" 9"	-	-	-	-	-	-	_	_	-	-
	-	-	-	-	-	-	-	-	-	
9-1/2" 10"	-	-	-	-	-	-	-	-		
10-1/2"		-	-	-	-				-	
11"				-	-	-	-		-	-
11-1/2"	-	_	-	-	_	-	-	-	_	_
12"	-			_	_	_			_	_
12	_	_	_	_	_	_	_	_	_	_



[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut



Tolerances

T+0.015"/+0.035" \$\dagger\$ +0.125"/+0.250" \$\dagger\$ \quad \text{L} +0.500"/-0.000" \$\dagger\$



Standard values

Delivery condition: maximum 250 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V
0.45	0.7	0.35	0	0	7.3	1.3	1.3
0.5	0.9	0.45	0.02	0.005	7.8	1.5	1.5



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Technical Properties

Very robust cold work steel which can be used for a wide range of applications. Has good through-hardenability and high toughness (reduced occurence of hard carbides with about 8% chromium compared to 12% chromium in AISI D2). High cutting power, high wear resistance as well as excellent tempering resistance. Working hardness: 50-60 HRC.



Applications

Blanking tools, stamping tools, embossing tools, forming dies, press dies, die inserts, extrusion dies, reinforcements, cold extrusion tools, tube tools, cutting tools, industrial knives, wood chipping knives, veneer knives.



AISI Chipper – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/A8

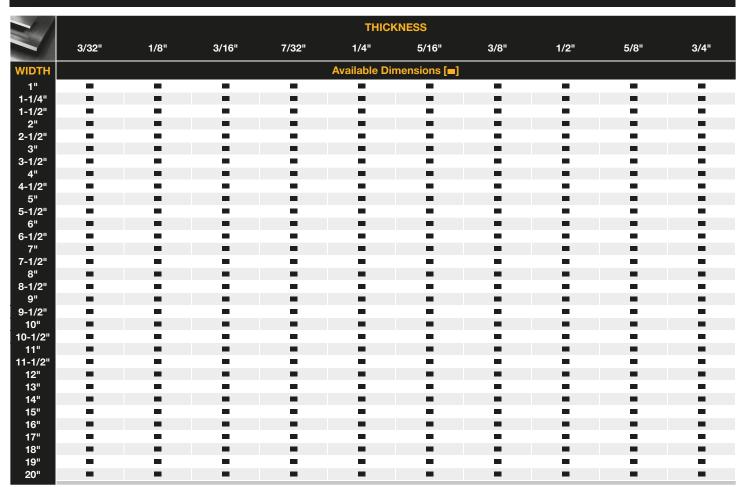


PREMIUM A8 mod. / Chipper - \$mart FLAT STOCK

TOOL STEEL

Length: 24"

IMPERIAL DIMENSIONS in inch



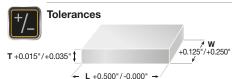


[\$mart]: Surface Condition
Thickness: ground or fine milled
Width: saw cut

A8 mod. /

Chipper

Length: saw cut





Standard values

Delivery condition: maximum 250 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V
				0			
0.5	0.9	0.45	0.02	0.005	7.8	1.5	1.5



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Technical Properties

Very robust cold work steel which can be used for a wide range of applications. Has good through-hardenability and high toughness (reduced occurence of hard carbides with about 8% chromium compared to 12% chromium in AISI D2). High cutting power, high wear resistance as well as excellent tempering resistance. Working hardness: 50-60 HRC.



Applications

Blanking tools, stamping tools, embossing tools, forming dies, press dies, die inserts, extrusion dies, reinforcements, cold extrusion tools, tube tools, cutting tools, industrial knives, wood chipping knives, veneer knives.



AISI Chipper – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/A8

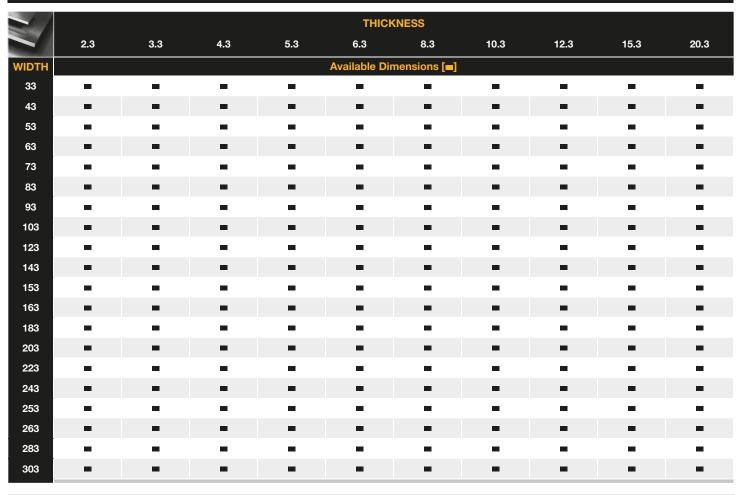


PREMIUM A8 mod. / Chipper - \$mart FLAT STOCK METRIC

TOOL STEEL

Length: 300 mm

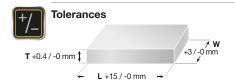
METRIC DIMENSIONS in mm





[\$martM]: Surface Condition

Thickness: ground or fine milled Width: saw cut
Length: saw cut





Standard values

Delivery condition: maximum 250 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V
0.45	0.7	0.35	0	0	7.3	1.3	1.3
0.5	0.9	0.45	0.02	0.005	7.8	1.5	1.5



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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AISI Chipper – all at a glance!

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via smartphone/tablet:



Technical Properties

Very robust cold work steel which can be used for a wide range of applications. Has good through-hardenability and high toughness (reduced occurence of hard carbides with about 8% chromium compared to 12% chromium in AISI D2). High cutting power, high wear resistance as well as excellent tempering resistance. Working hardness: 50-60 HRC.



Applications

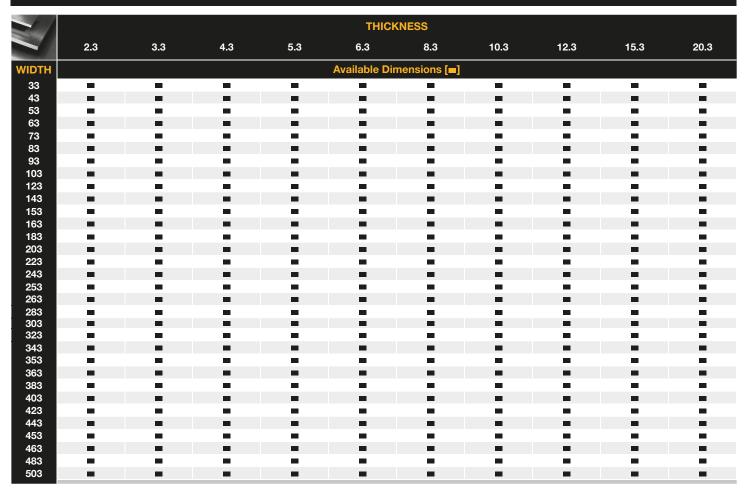
Blanking tools, stamping tools, embossing tools, forming dies, press dies, die inserts, extrusion dies, reinforcements, cold extrusion tools, tube tools, cutting tools, industrial knives, wood chipping knives, veneer knives.

PREMIUM A8 mod. / Chipper - \$mart FLAT STOCK METRIC

TOOL STEEL

Length: 600 mm ME

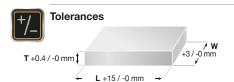
METRIC DIMENSIONS in mm





[\$martM]: Surface Condition
Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 250 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	٧
				0			
0.5	0.9	0 45	0.02	0.005	- 7.8	1.5	1.5
0.0	0.0	0	0.02	0.000			



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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Technical Properties

Very robust cold work steel which can be used for a wide range of applications. Has good through-hardenability and high toughness (reduced occurence of hard carbides with about 8% chromium compared to 12% chromium in AISI D2). High cutting power, high wear resistance as well as excellent tempering resistance. Working hardness: 50-60 HRC.



Applications

Blanking tools, stamping tools, embossing tools, forming dies, press dies, die inserts, extrusion dies, reinforcements, cold extrusion tools, tube tools, cutting tools, industrial knives, wood chipping knives, veneer knives.



AISI Chipper – all at a glance!

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via smartphone/tablet:



A8 mod. / Chipper





PERFECTION FROM TIP TO TOE!



A2

PREMIUM D2 - PRECISION GROUND FLAT STOCK, REGULAR

TOOL STEEL

Length: 18"

IMPERIAL DIMENSIONS in inch

	THICKNESS												
7	1/16"	3/32"	1/8"	5/32"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	7/8"	1"
WIDTH						Availab	le Dimensi	ons [=]					
1/2"	-	-	-	-	-	-	-	-	-				
5/8"										-			
3/4"	-	-	-	-	-	-	-	-	-	-	-		
7/8"												-	
1"		-		-		-	-	-					-
1-1/4"	-	-	-	-	-	-	-	-		-			-
1-1/2"	-	-	-	-	-	-	-	-	-	-	-		-
2"	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1/2"	-	-	-	-	-	-	-	-	-	-	-		-
3"	-	-	-	-	-	-	-	-	-	-	-	-	-
4"	-	-	-	-	-	-	-	-	-	-	-	-	-
5"	-	-	-	-	-	-	-	-	-	-	-		-
6"	-	-	•	-	-	-	-	-	-	•	-		-



Technical Properties

Secondary-hardening, ledeburitic cold work steel, can be used for a wide range of applications. Low distortion, excellent wear resistance and good toughness. Temper-resistant, even at high hardening temperatures. In addition it can be nitrated without any reduction in hardness despite that it is a cold work steel. Working hardness: 57-62 HRC.



Applications

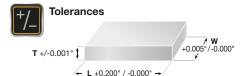
Blanking tools, precision cutting tools, dies, punches, thread rolling dies, broaches, milling cutters, press tools, shear knives, deep drawing dies, cold rollings, measuring tools, woodworking tools, cold pilger mandrels, plastic molds.



[GFS reg]: Surface Condition

Thickness: ground
Width: ground or fine milled

Length: milled or saw cut





Standard values

Delivery condition: maximum 255 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V
1.45	0.1	0.2	0	0	11.0	0.7	0.7
1.6	0.6	0.6	0.03	0.03	13.0	1.0	1.0



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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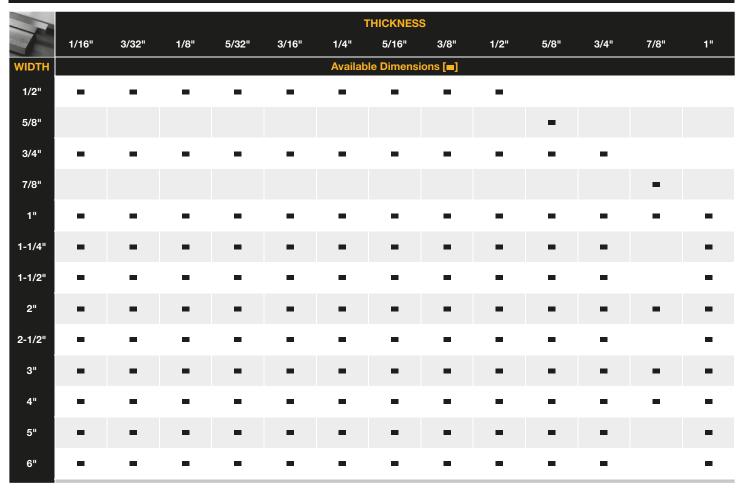
Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/D2



PREMIUM D2 - PRECISION GROUND FLAT STOCK, REGULAR

TOOL STEEL

Length: 36" **IMPERIAL DIMENSIONS** in inch





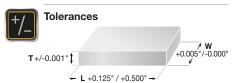
[GFS reg]: Surface Condition Thickness: ground Width: ground or fine milled Length: milled or saw cut

A2

D2

A8 mod. /

Chipper





Standard values

Delivery condition: maximum 255 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V
1.45	0.1	0.2	0	0	11.0	0.7	0.7
1.6	0.6	0.6	0.03	0.03	13.0	1.0	1.0



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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AISI D2 – all at a glance!

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via smartphone/tablet:





Technical Properties

Secondary-hardening, ledeburitic cold work steel, can be used for a wide range of applications. Low distortion, excellent wear resistance and good toughness. Temper-resistant, even at high hardening temperatures. In addition it can be nitrated without any reduction in hardness despite that it is a cold work steel. Working hardness: 57-62 HRC.



Applications

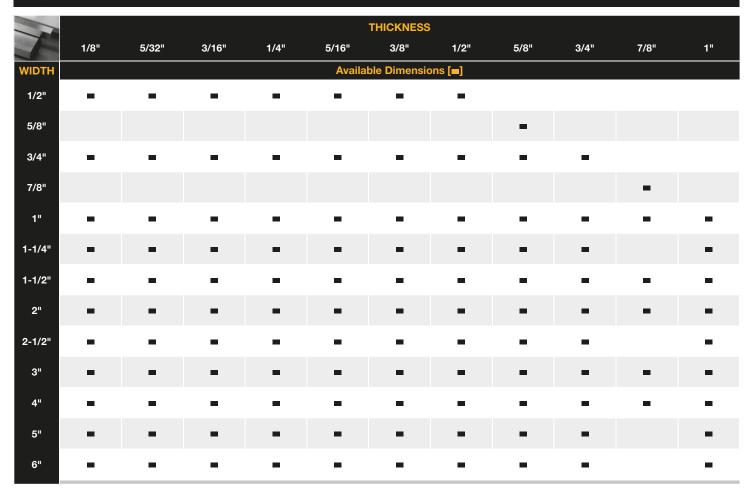
Blanking tools, precision cutting tools, dies, punches, thread rolling dies, broaches, milling cutters, press tools, shear knives, deep drawing dies, cold rollings, measuring tools, woodworking tools, cold pilger mandrels, plastic molds.

PREMIUM D2 - PRECISION GROUND FLAT STOCK, OVERSIZE

TOOL STEEL

Length: 18"

IMPERIAL DIMENSIONS in inch





Technical Properties

Secondary-hardening, ledeburitic cold work steel, can be used for a wide range of applications. Low distortion, excellent wear resistance and good toughness. Temper-resistant, even at high hardening temperatures. In addition it can be nitrated without any reduction in hardness despite that it is a cold work steel. Working hardness: 57-62 HRC.



Applications

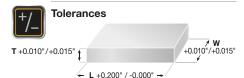
Blanking tools, precision cutting tools, dies, punches, thread rolling dies, broaches, milling cutters, press tools, shear knives, deep drawing dies, cold rollings, measuring tools, woodworking tools, cold pilger mandrels, plastic molds.



[GFS O/S]: Surface Condition

Thickness: ground

Width: ground or fine milled Length: milled or saw cut





Standard values

Delivery condition: maximum 255 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V
1.45	0.1	0.2	0	0	11.0	0.7	0.7
1.6	0.6	0.6	0.03	0.03	13.0	1.0	1.0



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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AISI D2 – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/D2

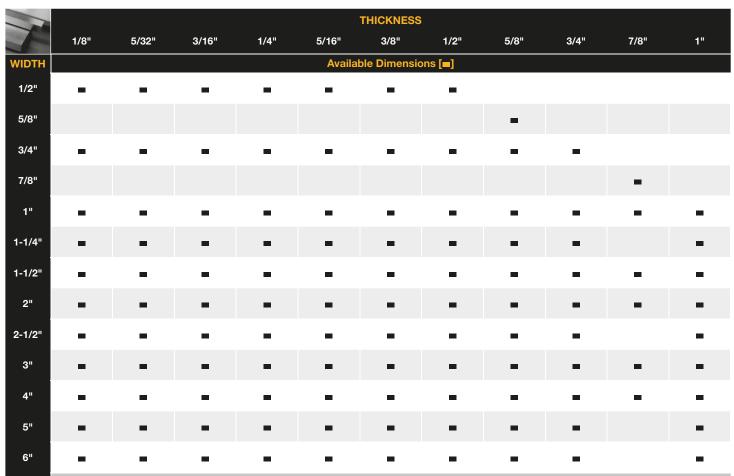


PREMIUM D2 - PRECISION GROUND FLAT STOCK, OVERSIZE

TOOL STEEL

Length: 36"

IMPERIAL DIMENSIONS in inch





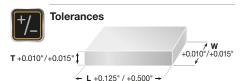
[GFS O/S]: Surface Condition Thickness: ground Width: ground or fine milled Length: milled or saw cut

A2

D2

A8 mod. /

Chipper





Standard values

Delivery condition: maximum 255 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	٧
			0				
1.6	0.6	0.6	0.03	0.03	13.0	1.0	1.0



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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AISI D2 – all at a glance!

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via smartphone/tablet:





Technical Properties

Secondary-hardening, ledeburitic cold work steel, can be used for a wide range of applications. Low distortion, excellent wear resistance and good toughness. Temper-resistant, even at high hardening temperatures. In addition it can be nitrated without any reduction in hardness despite that it is a cold work steel. Working hardness: 57-62 HRC.



Applications

Blanking tools, precision cutting tools, dies, punches, thread rolling dies, broaches, milling cutters, press tools, shear knives, deep drawing dies, cold rollings, measuring tools, woodworking tools, cold pilger mandrels, plastic molds.

PREMIUM D2 - PRECISION GROUND FLAT STOCK METRIC, OVERSIZE

TOOL STEEL

Length: 500 mm **METRIC DIMENSIONS in mm THICKNESS** 2.2 3.2 5.2 6.2 30.3 4.2 8.2 10.3 12.3 15.3 20.3 25.3 Available Dimensions [=] **WIDTH** 6.2 8.2 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 80.3 100.3 125.3 150.3 200.3 250.3 300.3



Technical Properties

Secondary-hardening, ledeburitic cold work steel, can be used for a wide range of applications. Low distortion, excellent wear resistance and good toughness. Temper-resistant, even at high hardening temperatures. In addition it can be nitrated without any reduction in hardness despite that it is a cold work steel. Working hardness: 57-62 HRC.



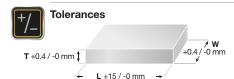
Applications

Blanking tools, precision cutting tools, dies, punches, thread rolling dies, broaches, milling cutters, press tools, shear knives, deep drawing dies, cold rollings, measuring tools, woodworking tools, cold pilger mandrels, plastic molds.



[GFSM O/S]: Surface Condition Thickness: ground or fine milled Width: ground or fine milled

Length: milled or saw cut





Standard values

Delivery condition: maximum 255 BHN Chemical composition:

				S			
1.45	0.1	0.2	0	0	11.0	0.7	0.7
1.6	0.6	0.6	0.03	0.03	13.0	1.0	1.0



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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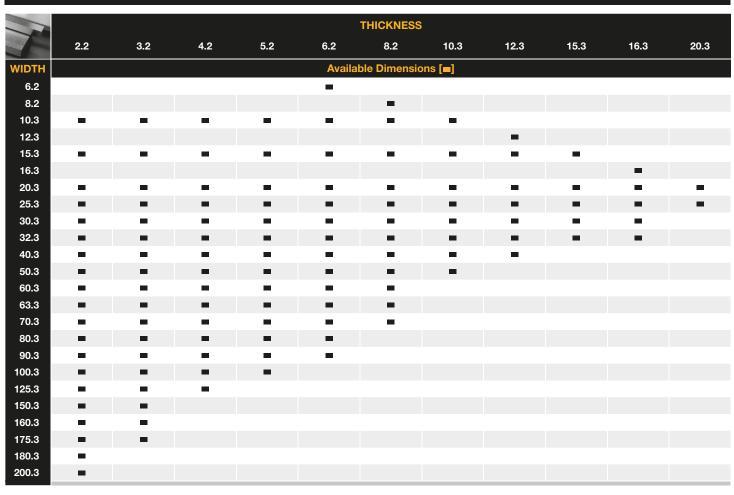


PREMIUM D2 - PRECISION GROUND FLAT STOCK METRIC, OVERSIZE

TOOL STEEL

Length: 1,000 mm

METRIC DIMENSIONS in mm





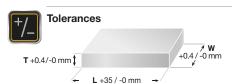
[GFSM O/S]: Surface Condition Thickness: ground or fine milled Width: ground or fine milled Length: milled or saw cut

A2

D2

A8 mod. /

Chipper





Standard values

Delivery condition: maximum 255 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V
1.45	0.1	0.2	0	0	11.0	0.7	0.7
1.6	0.6	0.6	0.03	0.03	13.0	1.0	1.0



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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AIS

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via smartphone/tablet:





Technical Properties

Secondary-hardening, ledeburitic cold work steel, can be used for a wide range of applications. Low distortion, excellent wear resistance and good toughness. Temper-resistant, even at high hardening temperatures. In addition it can be nitrated without any reduction in hardness despite that it is a cold work steel. Working hardness: 57-62 HRC.



Applications

Blanking tools, precision cutting tools, dies, punches, thread rolling dies, broaches, milling cutters, press tools, shear knives, deep drawing dies, cold rollings, measuring tools, woodworking tools, cold pilger mandrels, plastic molds.

PREMIUM D2 - HARD FLAT METRIC

TOOL STEEL

Length: 250 mm **METRIC DIMENSIONS in mm THICKNESS** 4.7 9.2 2.2 2.7 3.2 3.7 4.2 5.2 6.2 7.2 8.2 **NIDTH** Available Dimensions [=] 250



THICKNESS 2.2 2.7 3.2 3.7 4.2 WIDTH Available Dimensions [=]

Hardened dimensions are delivered with approx. 57 HRC, at least double tempered.



Technical Properties

Secondary-hardening, ledeburitic cold work steel, can be used for a wide range of applications. Low distortion, excellent wear resistance and good toughness. Temper-resistant, even at high hardening temperatures. In addition it can be nitrated without any reduction in hardness despite that it is a cold work steel. Working hardness: 57-62 HRC.



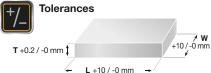
Applications

Blanking tools, precision cutting tools, dies, punches, thread rolling dies, broaches, milling cutters, press tools, shear knives, deep drawing dies, cold rollings, measuring tools, woodworking tools, cold pilger mandrels, plastic molds.



[HardM]: Surface Condition

Thickness: ground or fine milled Width: saw cut or sheared Length: saw cut or sheared





Standard values

Delivery condition: maximum 255 BHN Chemical composition:

				S			
1.45	0.1	0.2	0	0	11.0	0.7	0.7
1.6	0.6	0.6	0.03	0.03	13.0	1.0	1.0



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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[250 mm] - abrams-steel.com/D2-14

[500 mm] - abrams-steel.com/D2-15



AISI D2 – all at a glance!

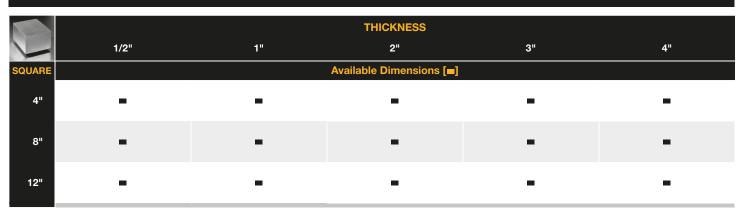
Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/D2



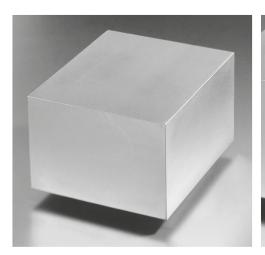
PREMIUM D2 - EDM BLOCK HARDENED

Square: 4-12"

IMPERIAL DIMENSIONS in inch



Hardened erosion blocks are tempered at least three times at approx. 61 HRC.









Technical Properties

Secondary-hardening, ledeburitic cold work steel, can be used for a wide range of applications. Low distortion, excellent wear resistance and good toughness. Temper-resistant, even at high hardening temperatures. In addition it can be nitrated without any reduction in hardness despite that it is a cold work steel. Working hardness: 57-62 HRC.



Applications

Blanking tools, precision cutting tools, dies, punches, thread rolling dies, broaches, milling cutters, press tools, shear knives, deep drawing dies, cold rollings, measuring tools, woodworking tools, cold pilger mandrels, plastic molds.



TOOL STEEL

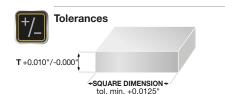
[EDM]: Surface Condition
Thickness: ground or fine milled
Square dimension: ground or fine milled

A2

D2

A8 mod. /

Chipper





Standard values

Delivery condition: maximum 255 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V
1.45	0.1	0.2	0	0	11.0	0.7	0.7
1.6	0.6	0.6	0.03	0.03	13.0	1.0	1.0



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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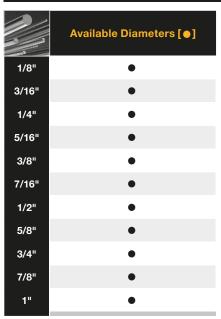
AISI D2 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/D2



Length: 36"

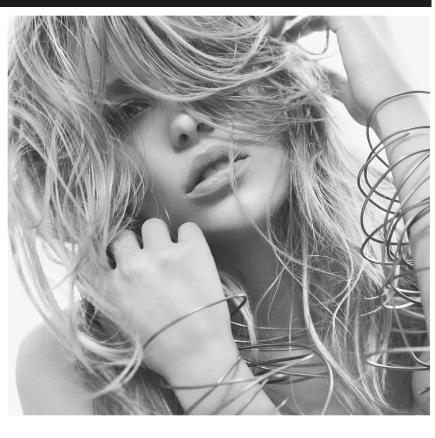
IMPERIAL DIAMETERS in inch





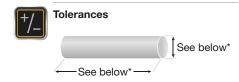


	Tol. Dia.
١	< 1/8": +/-0.0003"
l.	1/8" to < 1/2": +/-0.0005"
,	1/2" to 2": +/-0.001"





[DR]: Surface Condition Turned, ground & polished (TGP)





Standard values

Delivery condition: maximum 255 BHN Chemical composition:

				S			
1.45	0.1	0.2	0	0	11.0	0.7	0.7
1.6	0.6	0.6	0.03	0.03	13.0	1.0	1.0



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks).
Custom orders on request

- according to your requirements.



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Technical Properties

Secondary-hardening, ledeburitic cold work steel, can be used for a wide range of applications. Low distortion, excellent wear resistance and good toughness. Temper-resistant, even at high hardening temperatures. In addition it can be nitrated without any reduction in hardness despite that it is a cold work steel. Working hardness: 57-62 HRC.



Applications

Blanking tools, precision cutting tools, dies, punches, thread rolling dies, broaches, milling cutters, press tools, shear knives, deep drawing dies, cold rollings, measuring tools, woodworking tools, cold pilger mandrels, plastic molds.



AISI D2 – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/D2

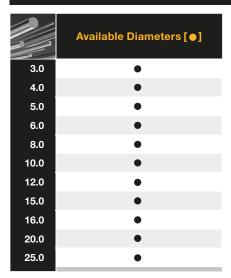


PREMIUM D2 - DRILL MOD METRIC

TOOL STEEL

Length: 914 mm (36")

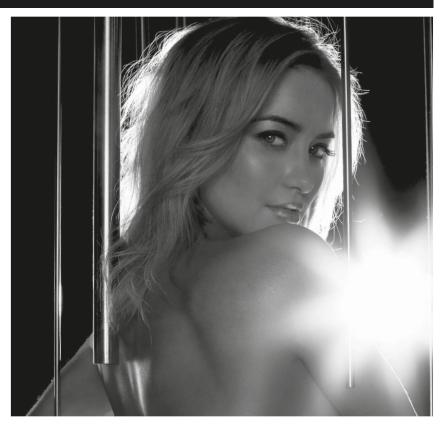
METRIC DIAMETERS in mm



Tol. Dia.

* 10.0 mm: +0 / -0.036 mm > 10.0 mm to 18.0 mm: +0/-0.043 mm > 18.0 mm to 25.0 mm: +0 / -0.052 mm

/ - L+tol. →



[DRM]: Surface Condition

Turned, ground & polished (TGP) - ISO h9

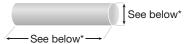
A2

D2

A8 mod. / Chipper



Tolerances





Standard values

Delivery condition: maximum 255 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V
			0				
1.6	0.6	0.6	0.03	0.03	13.0	1.0	1.0
1.0	0.0	0.0	0.03	0.03	13.0	1.0	١.



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks). Custom orders on request

- according to your requirements.



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Technical Properties

Secondary-hardening, ledeburitic cold work steel, can be used for a wide range of applications. Low distortion, excellent wear resistance and good toughness. Temper-resistant, even at high hardening temperatures. In addition it can be nitrated without any reduction in hardness despite that it is a cold work steel. Working hardness: 57-62 HRC.



Applications

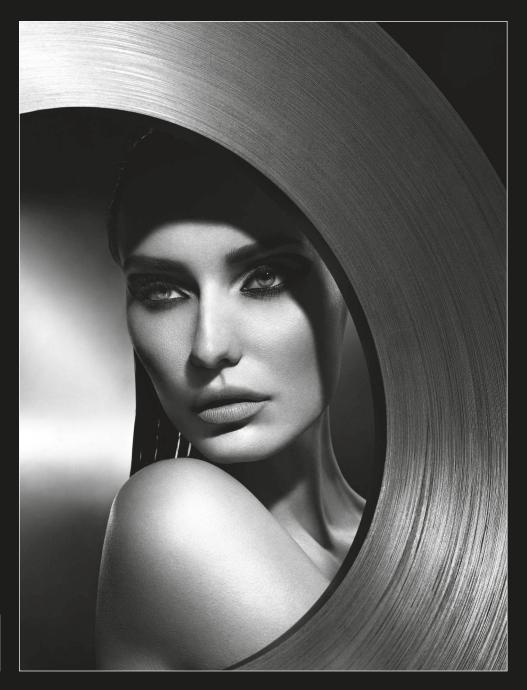
Blanking tools, precision cutting tools, dies, punches, thread rolling dies, broaches, milling cutters, press tools, shear knives, deep drawing dies, cold rollings, measuring tools, woodworking tools, cold pilger mandrels, plastic molds.



AISI D2 – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/D2





WATCH THE MAKING OF THE 2ND MOTIF FOR CALENDAR 2013 / 2016





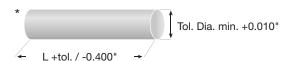
PREMIUM D2 - DECARB FREE ROUNDS

TOOL STEEL

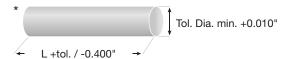
Length: 18"

IMPERIAL DIAMETERS in inch Length: 36"

	Available Diameters [●]
1/4"	•
1/2"	•
3/4"	•
1"	•
1-1/8"	•
1-1/4"	•
1-3/8"	•
1-1/2"	•
1-3/4"	•
2"	•
2-1/2"	•
3"	•
3-1/2"	•
4"	•



	Available Diameters [●]
1/4"	•
1/2"	•
3/4"	•
1"	•
1-1/8"	•
1-1/4"	•
1-3/8"	•
1-1/2"	•
1-3/4"	•
2"	•
2-1/2"	•
3"	•
3-1/2"	•
4"	•

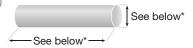




[DCF]: Surface Condition Peeled or rough-turned



Tolerances



A2

D2

A8 mod. / Chipper



Standard values

Delivery condition: maximum 255 BHN Chemical composition:

C	Si	Mn	Р	S	Cr	Мо	V
1.45							
1.6	0.6	0.6	0.03	0.03	13.0	1.0	1.0



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks). Custom orders on request

- according to your requirements.



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[18"] - abrams-steel.com/D2-22

[36"] - abrams-steel.com/D2-23



Technical Properties

Secondary-hardening, ledeburitic cold work steel, can be used for a wide range of applications. Low distortion, excellent wear resistance and good toughness. Temper-resistant, even at high hardening temperatures. In addition it can be nitrated without any reduction in hardness despite that it is a cold work steel. Working hardness: 57-62 HRC.



Applications

Blanking tools, precision cutting tools, dies, punches, thread rolling dies, broaches, milling cutters, press tools, shear knives, deep drawing dies, cold rollings, measuring tools, woodworking tools, cold pilger mandrels, plastic molds.



AISI D2 - all at a glance!

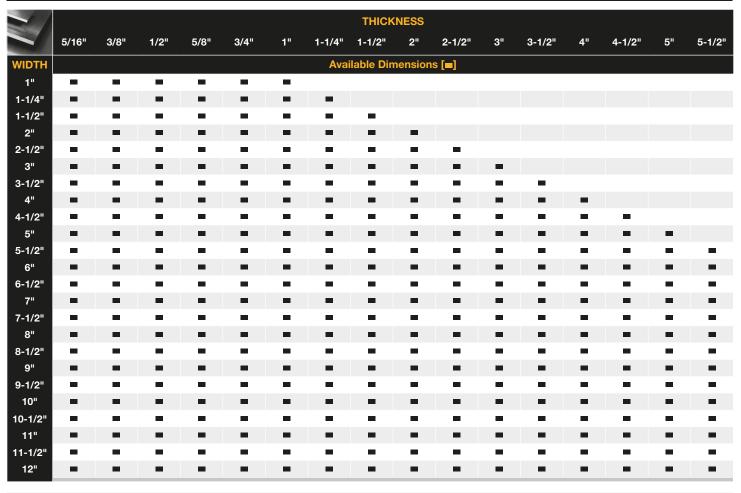
Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/D2



PREMIUM H10 - \$mart FLAT STOCK

TOOL STEEL

Length: 12" IMPERIAL DIMENSIONS in inch



Technical Properties

Hot work steel with high toughness, heat resistance and tempering resistance. Air-hardening steel grade with good thermal conductivity. Can be water cooled.

Working hardness: 50-52 HRC.



Applications

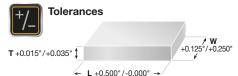
Extrusion presses, brass casting, press tools, die inserts, die casting molds, plastic molds, recipient bushes, pressure dies, press mandrels, tube extrusion mandrels, piecer plugs, press dies, block receivers, screw production, nut production, rivet production, bolts production, hot shear knives.



[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 229 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V
		0.15					
0.35	0.4	0.45	0.03	0.02	3.2	3.0	0.7



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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AISI H10 - all at a glance!

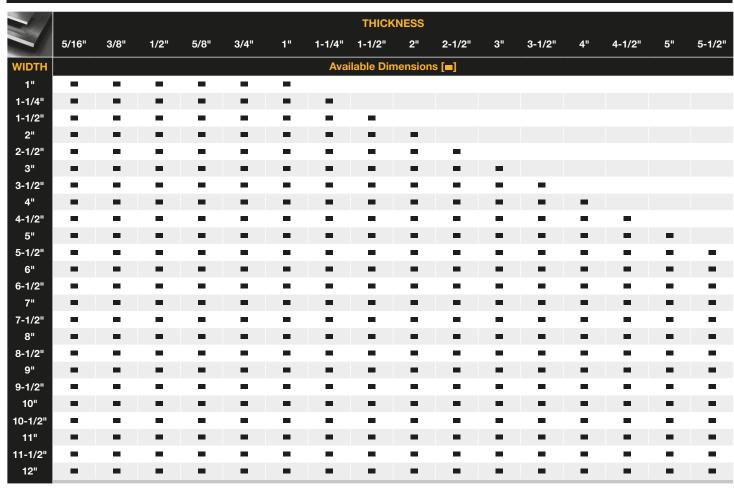
Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/H10



PREMIUM H10 - \$mart FLAT STOCK

TOOL STEEL

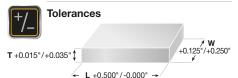
Length: 24" IMPERIAL DIMENSIONS in inch





[\$mart]: Surface Condition
Thickness: ground or fine milled
Width: saw cut

Length: saw cut





Standard values

Delivery condition: maximum 229 BHN Chemical composition:

H₁₀

С	Si	Mn	Р	S	Cr	Мо	٧
		0.15					
0.35	0.4	0.45	0.03	0.02	3.2	3.0	0.7



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Technical Properties

Hot work steel with high toughness, heat resistance and tempering resistance. Air-hardening steel grade with good thermal conductivity. Can be water cooled.

Working hardness: 50-52 HRC.



Applications

Extrusion presses, brass casting, press tools, die inserts, die casting molds, plastic molds, recipient bushes, pressure dies, press mandrels, tube extrusion mandrels, piecer plugs, press dies, block receivers, screw production, nut production, rivet production, bolts production, hot shear knives.



AISI H10 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/H10



PREMIUM H10 - \$mart FLAT STOCK METRIC

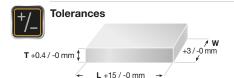
TOOL STEEL

METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 **WIDTH** Available Dimensions [=] 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283 303



[\$martM]: Surface Condition

Thickness: ground or fine milled Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 229 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V
		0.15					
0.35	0.4	0.45	0.03	0.02	3.2	3.0	0.7



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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via smartphone/tablet:



Technical Properties

Hot work steel with high toughness, heat resistance and tempering resistance. Air-hardening steel grade with good thermal conductivity. Can be water cooled.

Working hardness: 50-52 HRC.



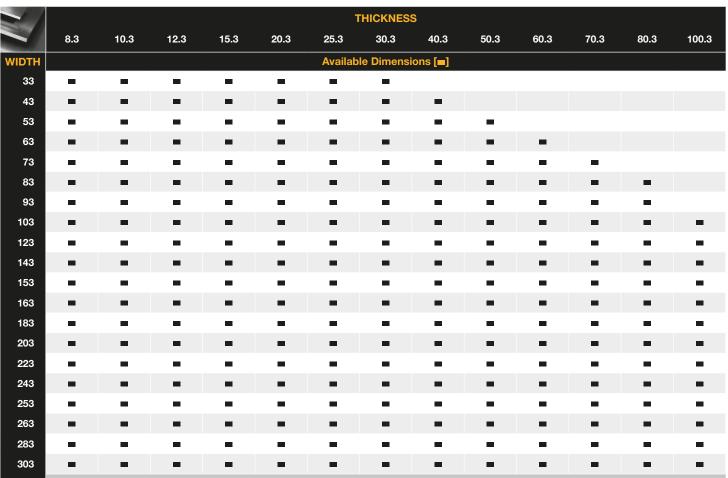
Applications

Extrusion presses, brass casting, press tools, die inserts, die casting molds, plastic molds, recipient bushes, pressure dies, press mandrels, tube extrusion mandrels, piecer plugs, press dies, block receivers, screw production, nut production, rivet production, bolts production, hot shear knives.

PREMIUM H10 - \$mart FLAT STOCK METRIC

TOOL STEEL

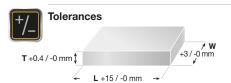
Length: 600 mm THICKNESS METRIC DIMENSIONS in mm





[\$martM]: Surface Condition
Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 229 BHN Chemical composition:

H₁₀

С	Si	Mn	Р	S	Cr	Мо	V
		0.15					
0.35	0.4	0.45	0.03	0.02	3.2	3.0	0.7



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Technical Properties

Hot work steel with high toughness, heat resistance and tempering resistance. Air-hardening steel grade with good thermal conductivity. Can be water cooled.

Working hardness: 50-52 HRC.



Applications

Extrusion presses, brass casting, press tools, die inserts, die casting molds, plastic molds, recipient bushes, pressure dies, press mandrels, tube extrusion mandrels, piecer plugs, press dies, block receivers, screw production, nut production, rivet production, bolts production, hot shear knives.



AISI H10 - all at a glance!

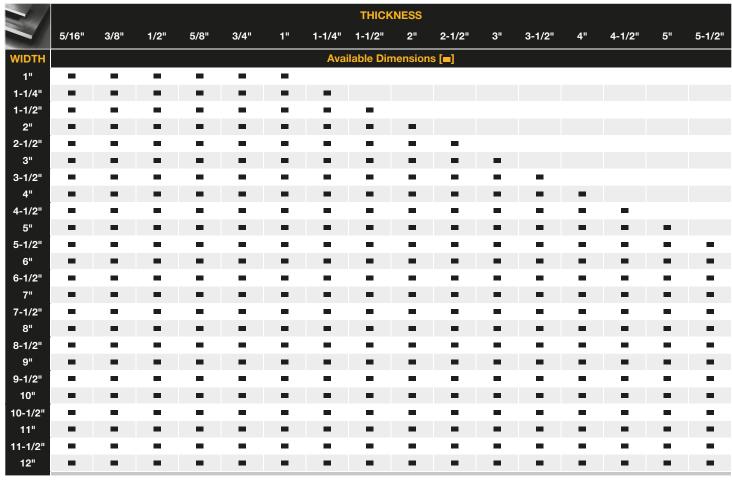
Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/H10



PREMIUM H13 - \$mart FLAT STOCK

TOOL STEEL

Length: 12" **IMPERIAL DIMENSIONS** in inch





Technical Properties

Hot work steel with excellent heat resistance and high wear resistance. Good toughness and thermal conductivity. Can be water cooled and is resistant to thermal shock. Working hardness: 50-56 HRC.



Applications

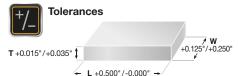
Forging tools and dies, hot shear knives, hot extrusion tools, extrusion press tools, press tools, block receivers, die casting tools, light metal die casting, press mandrels, press dies, piecer plugs, screw production, rivet production, bolts production, ejectors, plastic molds.



[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 229 BHN Chemical composition:

	С	Si	Mn	Р	S	Cr	Мо	V
(0.35	8.0	0.25	0	0	4.8	1.2	0.85
(0.42	1.2	0.5	0.03	0.02	5.5	1.5	1.15



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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AISI H13 - all at a glance!

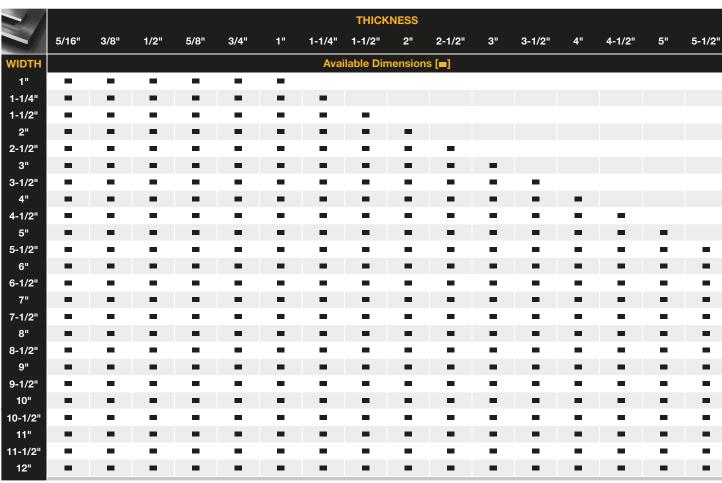
Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/H13



PREMIUM H13 - \$mart FLAT STOCK

TOOL STEEL

Length: 24" IMPERIAL DIMENSIONS in inch





[\$mart]: Surface Condition
Thickness: ground or fine milled
Width: saw cut

A2

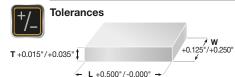
D2

H10

H13

A8 mod. /

Length: saw cut





Standard values

Delivery condition: maximum 229 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	٧
		0.25					
0.42	1.2	0.5	0.03	0.02	5.5	1.5	1.15



Don't see your exact dimension(s)?

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AISI H13 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/H13

via smartphone/tablet:





Technical Properties

Hot work steel with excellent heat resistance and high wear resistance. Good toughness and thermal conductivity. Can be water cooled and is resistant to thermal shock. Working hardness: 50-56 HRC.



Applications

PREMIUM H13 - \$mart FLAT STOCK METRIC

TOOL STEEL

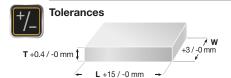
METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 Available Dimensions [=] **WIDTH** 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283 303



[\$martM]: Surface Condition

Thickness: ground or fine milled Width: saw cut

Length: saw cut





Standard values

Delivery condition: maximum 229 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	٧
							0.85
0.42	1.2	0.5	0.03	0.02	5.5	1.5	1.15



Don't see your exact dimension(s)?

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AISI H13 – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/H13

via smartphone/tablet:



Technical Properties

Hot work steel with excellent heat resistance and high wear resistance. Good toughness and thermal conductivity. Can be water cooled and is resistant to thermal shock. Working hardness: 50-56 HRC.



Applications

PREMIUM H13 - \$mart FLAT STOCK METRIC

TOOL STEEL

METRIC DIMENSIONS in mm Length: 600 mm **THICKNESS** 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 **VIDTH** Available Dimensions [=] 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283



[\$martM]: Surface Condition
Thickness: ground or fine milled

A2

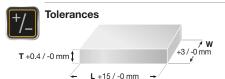
D2

H₁₀

H13

A8 mod. /

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 229 BHN Chemical composition:

		Mn					
0.35	0.8	0.25	0	0	4.8	1.2	0.85
0.42	1.2	0.5	0.03	0.02	5.5	1.5	1.15



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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via smartphone/tablet:





303

Technical Properties

Hot work steel with excellent heat resistance and high wear resistance. Good toughness and thermal conductivity. Can be water cooled and is resistant to thermal shock. Working hardness: 50-56 HRC.



Applications



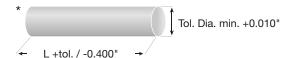


PREMIUM H13 - DECARB FREE ROUNDS

TOOL STEEL

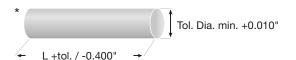
Length: 18"

	Available Diameters [●]
1/4"	•
1/2"	•
3/4"	•
1"	•
1-1/8"	•
1-1/4"	•
1-3/8"	•
1-1/2"	•
1-3/4"	•
2"	•
2-1/2"	•
3"	•
3-1/2"	•
4"	•



Available Diameters [●] 1/4" 1/2" 3/4" 1" 1-1/8" 1-1/4" 1-3/8" 1-1/2" 1-3/4" 2" 2-1/2" 3" 3-1/2"

Length: 36"

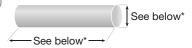




[DCF]: Surface Condition Peeled or rough-turned



Tolerances



A2

D2

H10

H13

A8 mod. /

Chipper



Standard values

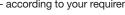
Delivery condition: maximum 229 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	٧
0.35	0.8	0.25	0	0	4.8	1.2	0.85
0.42	1.2	0.5	0.03	0.02	5.5	1.5	1.15



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks). Custom orders on request - according to your requirements.





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[18"] - abrams-steel.com/H13-22

[36"] - abrams-steel.com/H13-23



Technical Properties

Hot work steel with excellent heat resistance and high wear resistance. Good toughness and thermal conductivity. Can be water cooled and is resistant to thermal shock. Working hardness: 50-56 HRC.



Applications

Forging tools and dies, hot shear knives, hot extrusion tools, extrusion press tools, press tools, block receivers, die casting tools, light metal die casting, press mandrels, press dies, piecer plugs, screw production, rivet production, bolts production, ejectors, plastic molds.

IMPERIAL DIAMETERS in inch



AISI H13 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/H13

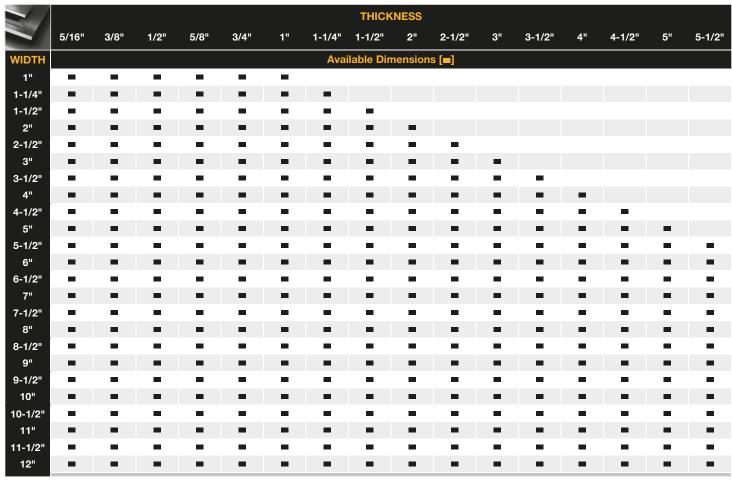


PREMIUM H13 ESR - \$mart FLAT STOCK

TOOL STEEL

Length: 12"

IMPERIAL DIMENSIONS in inch





Technical Properties

Hot work steel with excellent heat resistance and high wear resistance. Good toughness and thermal conductivity. Can be water cooled and is resistant to thermal shock. The ESR (Electro Slag Remelted) steel production guarantees pureness and homogeneity, as well as improved toughness.

Working hardness: 50-56 HRC.

Applications

Forging tools and dies, hot shear knives, hot extrusion tools, extrusion press tools, press tools, block receivers, die casting tools, light metal die casting, press mandrels, press dies, piecer plugs, screw production, rivet production, bolts production,

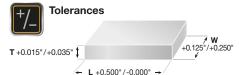
ejectors, plastic molds.



[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 229 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V
0.35	0.8	0.25	0	0	4.8	1.2	0.85
0.42	1.2	0.5	0.03	0.02	5.5	1.5	1.15



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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AISI H13 ESR - all at a glance!

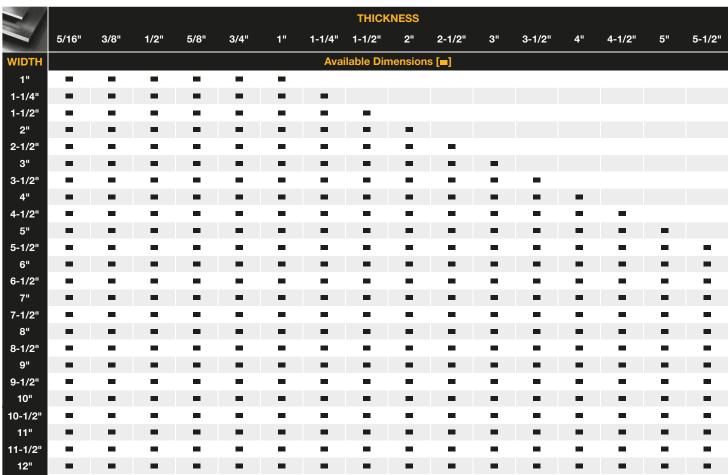
Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/H13ESR



PREMIUM H13 ESR - \$mart FLAT STOCK

TOOL STEEL

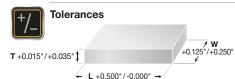
Length: 24" IMPERIAL DIMENSIONS in inch





[\$mart]: Surface Condition
Thickness: ground or fine milled
Width: saw cut

Length: saw cut





Standard values

Delivery condition: maximum 229 BHN Chemical composition:

H₁₃ ESR

С	Si	Mn	Р	S	Cr	Мо	V
		0.25					
0.42	1.2	0.5	0.03	0.02	5.5	1.5	1.15



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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Technical Properties

Hot work steel with excellent heat resistance and high wear resistance. Good toughness and thermal conductivity. Can be water cooled and is resistant to thermal shock. The ESR (Electro Slag Remelted) steel production guarantees pureness and homogeneity, as well as improved toughness.

Working hardness: 50-56 HRC.



Applications

Forging tools and dies, hot shear knives, hot extrusion tools, extrusion press tools, press tools, block receivers, die casting tools, light metal die casting, press mandrels, press dies, piecer plugs, screw production, rivet production, bolts production, ejectors, plastic molds.



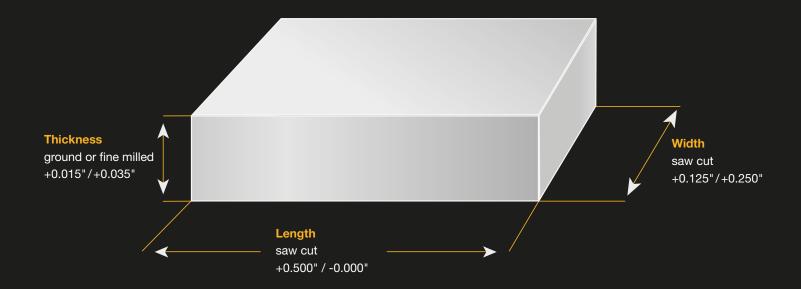
AISI H13 ESR – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/H13ESR



\$mart Flat Stock: \$AVES YOU TIME - \$AVES YOU MONEY

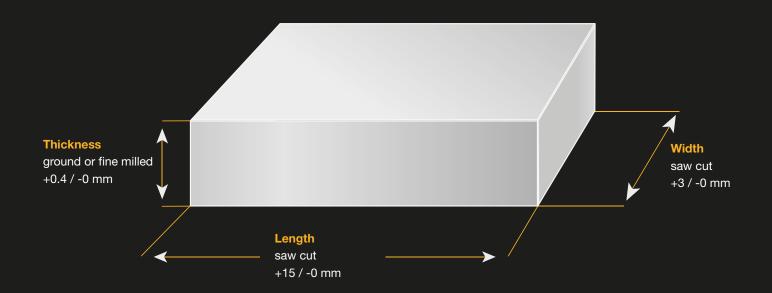
Always close to your final dimensions.



H₁₃ ESR

\$mart Flat Stock: \$AVES YOU TIME - \$AVES YOU MONEY

Always close to your final dimensions.



ABRAMS

PREMIUM H13 ESR - \$mart FLAT STOCK METRIC

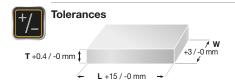
TOOL STEEL

METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 WIDTH Available Dimensions [=] 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283 303



[\$martM]: Surface Condition
Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 229 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V
0.35	0.8	0.25	0	0	4.8	1.2	0.85
0.42	1.2	0.5	0.03	0.02	5.5	1.5	1.15



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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AISI H13 ESR - all at a glance!

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via smartphone/tablet:



Technical Properties

Hot work steel with excellent heat resistance and high wear resistance. Good toughness and thermal conductivity. Can be water cooled and is resistant to thermal shock. The ESR (Electro Slag Remelted) steel production guarantees pureness and homogeneity, as well as improved toughness.

Working hardness: 50-56 HRC.

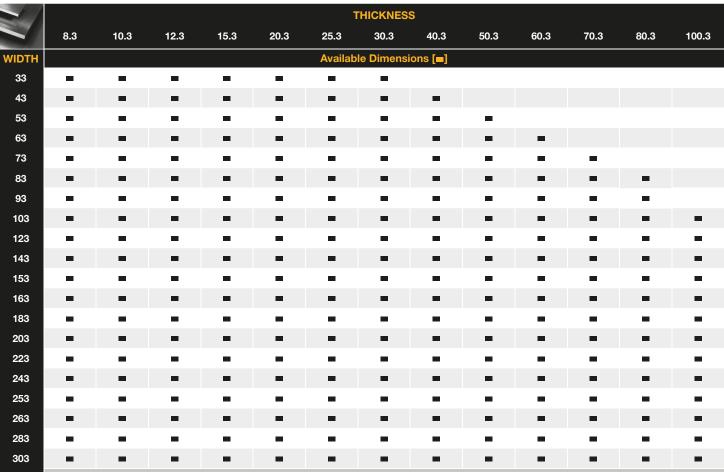


Applications

PREMIUM H13 ESR - \$mart FLAT STOCK METRIC

TOOL STEEL

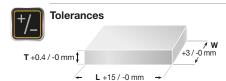
METRIC DIMENSIONS in mm Length: 600 mm





[\$martM]: Surface Condition Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 229 BHN Chemical composition:

H₁₃ ESR

С	Si	Mn	Р	S	Cr	Мо	٧
		0.25					
0.42	1.2	0.5	0.03	0.02	5.5	1.5	1.15



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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AISI H13 ESR - all at a glance!

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via smartphone/tablet:





Technical Properties

Hot work steel with excellent heat resistance and high wear resistance. Good toughness and thermal conductivity. Can be water cooled and is resistant to thermal shock. The ESR (Electro Slag Remelted) steel production guarantees pureness and homogeneity, as well as improved toughness. Working hardness: 50-56 HRC.



Applications

PREMIUM L3 - \$mart FLAT STOCK

Length: 12"

9"

9-1/2"

10"

10-1/2

11"

11-1/2"

12"

TOOL STEEL

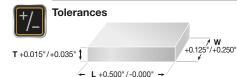
THICKNESS 5/16" 3/8" 1/2" 5/8" 3/4" 1-1/4" 1-1/2" 2-1/2" 3-1/2" 4-1/2" 5-1/2" WIDTH Available Dimensions [1" 1-1/4" 1-1/2" 2" 2-1/2" 3" 3-1/2" 4" 4-1/2" 5" 5-1/2" 6" 6-1/2" 7" 7-1/2" 8" 8-1/2"



[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 223 BHN Chemical composition:

				S			
0.95	0.15	0.2	0	0 0.025	1.35	0	0
-	-	-	-	-	-	-	-
1.1	0.35	0.4	0.025	0.025	1.6	0.1	0.4



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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AISI L3 - all at a glance!

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via smartphone/tablet:



Technical Properties

An all-purpose medium alloyed cold work tool steel with high hardenability, but low depth of hardening, good wear resistance and toughness. This steel grade belongs to the group of AISI L1 (roller bearing and ball bearing steel).

Working hardness: 60-64 HRC.



Applications

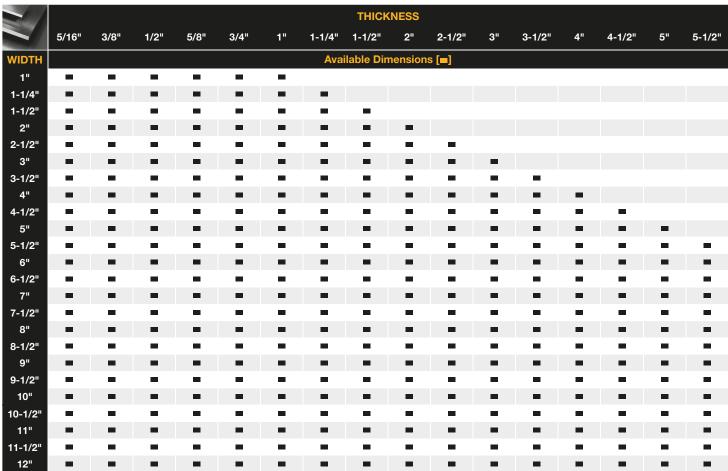
Drills, threading tools, centre lathes, milling cutters, reamers, small die plates, pressure rollers, cold rollings, measuring tools, cold pilger rollings, cold pilger jaws, gauges, mandrels, woodworking tools, cold extrusion tools, flanging rollers, shear knives, roller bearings, ball bearings (medium to large size).

IMPERIAL DIMENSIONS in inch

PREMIUM L3 - \$mart FLAT STOCK

TOOL STEEL

Length: 24" **IMPERIAL DIMENSIONS** in inch





[\$mart]: Surface Condition Thickness: ground or fine milled Width: saw cut

A2

D2

H₁₀

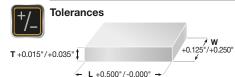
H13

L3

H₁₃ ESR

A8 mod. /

Length: saw cut





Standard values

Delivery condition: maximum 223 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni
				0			
1.1	0.35	0.4	0.025	0.025	1.6	0.1	0.4



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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AISI L3 - all at a glance!

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via smartphone/tablet:





Technical Properties

An all-purpose medium alloyed cold work tool steel with high hardenability, but low depth of hardening, good wear resistance and toughness. This steel grade belongs to the group of AISI L1 (roller bearing and ball bearing steel). Working hardness: 60-64 HRC.



Applications

Drills, threading tools, centre lathes, milling cutters, reamers, small die plates, pressure rollers, cold rollings, measuring tools, cold pilger rollings, cold pilger jaws, gauges, mandrels, woodworking tools, cold extrusion tools, flanging rollers, shear knives, roller bearings, ball bearings (medium to large size).

PREMIUM L3 - \$mart FLAT STOCK METRIC

TOOL STEEL

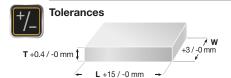
METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 Available Dimensions [=] WIDTH 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283 303



[\$martM]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 223 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni
0.95	0.15	0.2	0	0	1.35	0	0
1.1	0.35	0.4	0.025	0.025	1.6	0.1	0.4



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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AISI L3 – all at a glance!

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via smartphone/tablet:



Technical Properties

An all-purpose medium alloyed cold work tool steel with high hardenability, but low depth of hardening, good wear resistance and toughness. This steel grade belongs to the group of AISI L1 (roller bearing and ball bearing steel).

Working hardness: 60-64 HRC.



Applications

Drills, threading tools, centre lathes, milling cutters, reamers, small die plates, pressure rollers, cold rollings, measuring tools, cold pilger rollings, cold pilger jaws, gauges, mandrels, woodworking tools, cold extrusion tools, flanging rollers, shear knives, roller bearings, ball bearings (medium to large size).

Length: 600 mm

PREMIUM L3 - \$mart FLAT STOCK METRIC

TOOL STEEL

THICKNESS 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 **VIDTH** Available Dimensions [=] 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223



[\$martM]: Surface Condition
Thickness: ground or fine milled

A2

D2

H₁₀

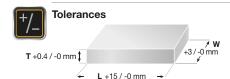
H13

L3

H₁₃ ESR

A8 mod. /

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 223 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni
				0			
1.1	0.35	0.4	0.025	0.025	1.6	0.1	0.4



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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243

253

263

283

303

Technical Properties

An all-purpose medium alloyed cold work tool steel with high hardenability, but low depth of hardening, good wear resistance and toughness. This steel grade belongs to the group of AISI L1 (roller bearing and ball bearing steel). Working hardness: 60-64 HRC.



Applications

Drills, threading tools, centre lathes, milling cutters, reamers, small die plates, pressure rollers, cold rollings, measuring tools, cold pilger rollings, cold pilger jaws, gauges, mandrels, woodworking tools, cold extrusion tools, flanging rollers, shear knives, roller bearings, ball bearings (medium to large size).

METRIC DIMENSIONS in mm

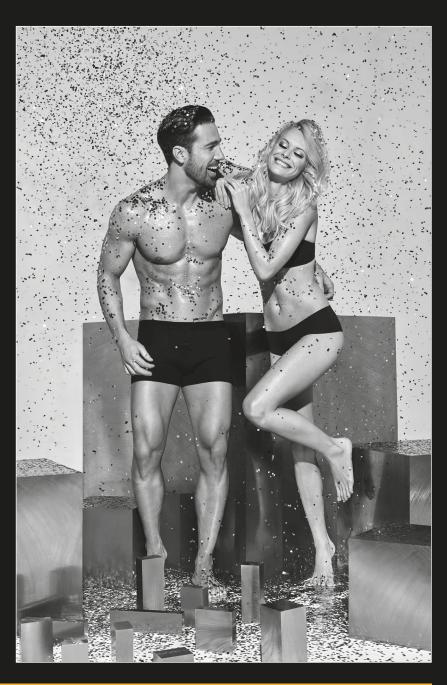


AISI L3 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/L3







. .

A8 mod. / Chipper

D2

H10

H13

H13 ESR

L3

ENJOYING VARIETY!



PREMIUM L6 - \$mart FLAT STOCK

TOOL STEEL

Length: 12" **IMPERIAL DIMENSIONS** in inch **THICKNESS** 5/16" 3/8" 1/2" 5/8" 3/4" 1" 1-1/4" 1-1/2" 2-1/2" 3-1/2" 4-1/2" 5-1/2" Available Dimensions [=] WIDTH 1" 1-1/4" 1-1/2" 2" 2-1/2" 3" 3-1/2" 4" 4-1/2" 5" 5-1/2" 6" 6-1/2" 7" 7-1/2" 8" 8-1/2" 9" 9-1/2" 10"



[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut



← L +0.500"/-0.000" →



Standard values

Delivery condition: maximum 250 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni	٧
0.5	0.1	0.6	0	0	0.8	0.35	1.5	0.05
0.6	0.4	0.9	0.03	0.03	1.2	0.55	1.8	0.15



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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AISI L6 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/L6

via smartphone/tablet:



Technical Properties

10-1/2

11"

11-1/2"

12"

Hot work steel that can be used for a wide range of applications. With good through-hardenability, tempering resistance, toughness, pressure and heat resistance. Delivery condition: annealed. Working hardness: approx. 40-54 HRC.



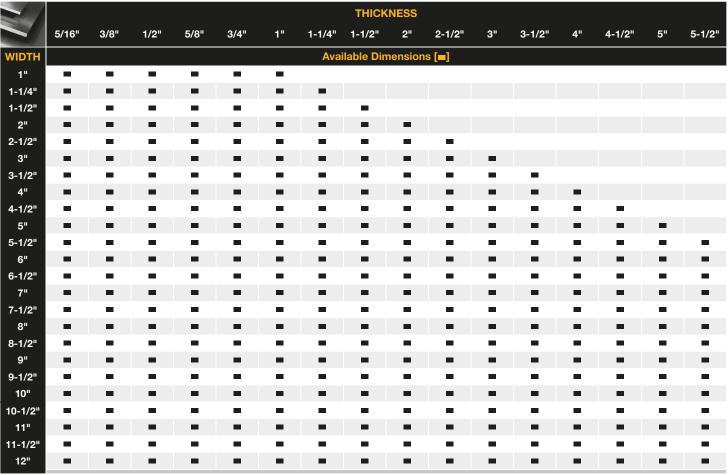
Applications

Forging dies, slides, punch heads, extruding stamps, press tools, hot shear knives, extrusion press tools, die holders, support tools, tool holders, pressure plates, armored die plates.

PREMIUM L6 - \$mart FLAT STOCK

TOOL STEEL

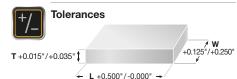
Length: 24" **IMPERIAL DIMENSIONS** in inch **THICKNESS** 5/16" 1-1/4" 2-1/2" 3" 3-1/2" 4-1/2"





[\$mart]: Surface Condition Thickness: ground or fine milled Width: saw cut

Length: saw cut





Standard values

Delivery condition: maximum 250 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni	V
								0.05
0.6	0.4	0.9	0.03	0.03	1.2	0.55	1.8	0.15



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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via smartphone/tablet:



L6



Technical Properties

Hot work steel that can be used for a wide range of applications. With good through-hardenability, tempering resistance, toughness, pressure and heat resistance. Delivery condition: annealed. Working hardness: approx. 40-54 HRC.



Applications

Forging dies, slides, punch heads, extruding stamps, press tools, hot shear knives, extrusion press tools, die holders, support tools, tool holders, pressure plates, armored die plates.

PREMIUM L6 - \$mart FLAT STOCK METRIC

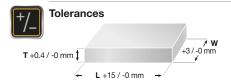
TOOL STEEL

METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 Available Dimensions [=] WIDTH 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283 303



[\$martM]: Surface Condition

Thickness: ground or fine milled Width: saw cut
Length: saw cut





Standard values

Delivery condition: maximum 250 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni	٧
0.5	0.1	0.6	0	0	0.8	0.35	1.5	0.05
0.6	0.4	0.9	0.03	0.03	1.2	0.55	1.8	0.15



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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via smartphone/tablet:



Technical Properties

Hot work steel that can be used for a wide range of applications. With good through-hardenability, tempering resistance, toughness, pressure and heat resistance. Delivery condition: annealed. Working hardness: approx. 40-54 HRC.



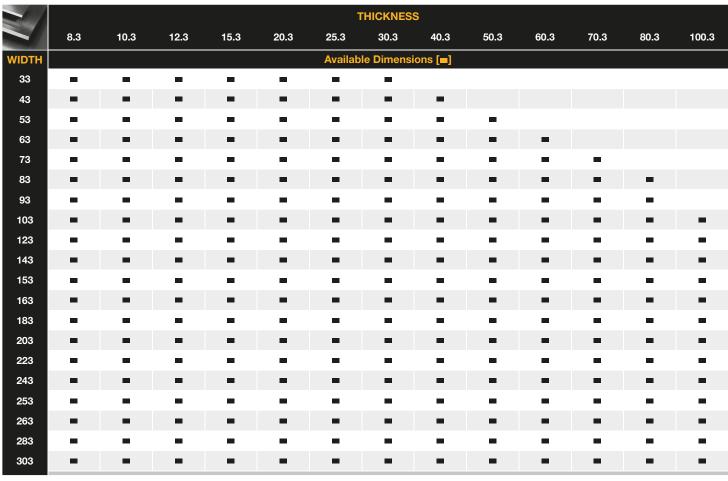
Applications

Forging dies, slides, punch heads, extruding stamps, press tools, hot shear knives, extrusion press tools, die holders, support tools, tool holders, pressure plates, armored die plates.

PREMIUM L6 - \$mart FLAT STOCK METRIC

TOOL STEEL

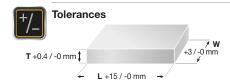
Length: 600 mm METRIC DIMENSIONS in mm





[\$martM]: Surface Condition
Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 250 BHN Chemical composition:

						Мо		
0.5	0.1	0.6	0	0	0.8	0.35	1.5	0.05
0.6	0.4	0.9	0.03	0.03	1.2	0.55	1.8	0.15



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Technical Properties

Hot work steel that can be used for a wide range of applications. With good through-hardenability, tempering resistance, toughness, pressure and heat resistance. Delivery condition: annealed. Working hardness: approx. 40-54 HRC.



Applications

Forging dies, slides, punch heads, extruding stamps, press tools, hot shear knives, extrusion press tools, die holders, support tools, tool holders, pressure plates, armored die plates.



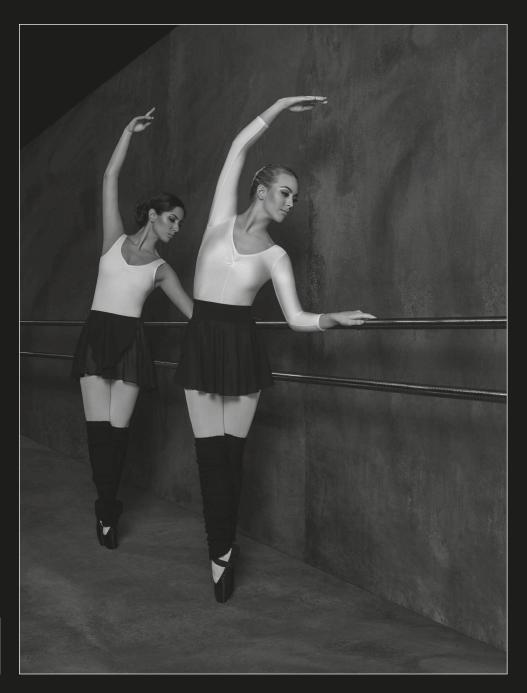
AISI L6 – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/L6

via smartphone/tablet:



L6



WATCH THE MAKING OF THE 3RD MOTIF FOR CALENDAR 2019 / 2022

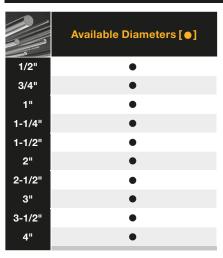


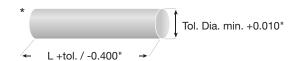


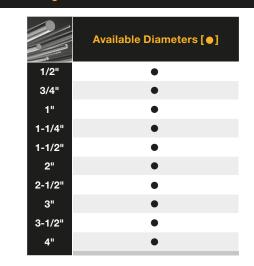
PREMIUM L6 - DECARB FREE ROUNDS

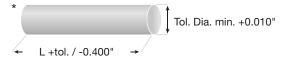
Length: 36" IMPERIAL DIAMETERS in inch

Length: 18"







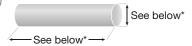


TOOL STEEL

[DCF]: Surface Condition
Peeled or rough-turned



Tolerances





Standard values

Delivery condition: maximum 250 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni	V
0.5	0.1	0.6	0	0	0.8	0.35	1.5	0.05
0.6	0.4	0.9	0.03	0.03	1.2	- 0.55	1.8	0.15

L6



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks).

Custom orders on request
- according to your requirements.



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[18"] - abrams-steel.com/L6-22

[36"] - abrams-steel.com/L6-23



Technical Properties

Hot work steel that can be used for a wide range of applications. With good through-hardenability, tempering resistance, toughness, pressure and heat resistance. Delivery condition: annealed. Working hardness: approx. 40-54 HRC.



Applications

Forging dies, slides, punch heads, extruding stamps, press tools, hot shear knives, extrusion press tools, die holders, support tools, tool holders, pressure plates, armored die plates.



AISI L6 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/L6

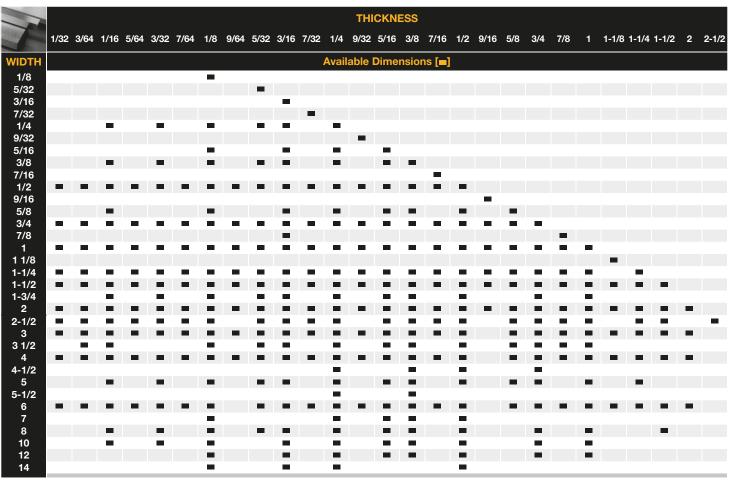


PREMIUM 01 - PRECISION GROUND FLAT STOCK, REGULAR

TOOL STEEL

Length: 18"

IMPERIAL DIMENSIONS in inch





Technical Properties

Alloyed oil hardener with focus on cold work; can be used for a wide range of applications: full hardenability, high degree of dimensional stability, good cutting power and good toughness. Working hardness: 57-62 HRC.



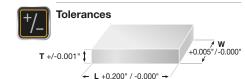
Applications

Blanking and stamping tools (up to 0.2362" thickness), shear knives, threading tools, thread dies, reamers, chasers, measuring tools, plastic molds, rubber molds, calibers, guide rails, dies, punches, woodworking tools, machine knives.



[GFS reg]: Surface Condition

Thickness: ground Width: ground or fine milled Length: milled or saw cut





Standard values

Delivery condition: maximum 229 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	٧	W
				0			
1.05	0.35	1.2	0.035	0.035	0.7	0.15	0.7



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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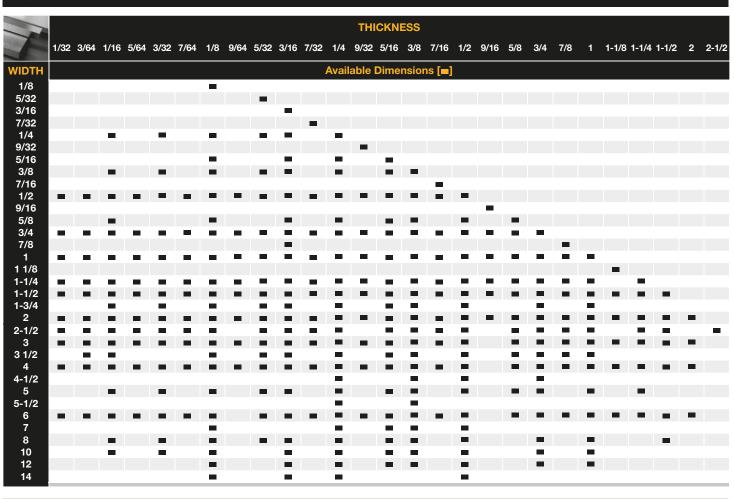


PREMIUM 01 - PRECISION GROUND FLAT STOCK, REGULAR

TOOL STEEL

Length: 36"

IMPERIAL DIMENSIONS in inch



Technical Properties

Alloyed oil hardener with focus on cold work; can be used for a wide range of applications: full hardenability, high degree of dimensional stability, good cutting power and good toughness. Working hardness: 57-62 HRC.



Applications

Blanking and stamping tools (up to 0.2362" thickness), shear knives, threading tools, thread dies, reamers, chasers, measuring tools, plastic molds, rubber molds, calibers, guide rails, dies, punches, woodworking tools, machine knives.



[GFS reg]: Surface Condition Thickness: ground Width: ground or fine milled Length: milled or saw cut

A2

D2

H10

H13

L3

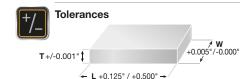
L6

01

H₁₃ ESR

A8 mod. /

Chipper





Standard values

Delivery condition: maximum 229 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	V	W
				0			
1.05	0.35	1.2	0.035	0.035	0.7	0.15	0.7



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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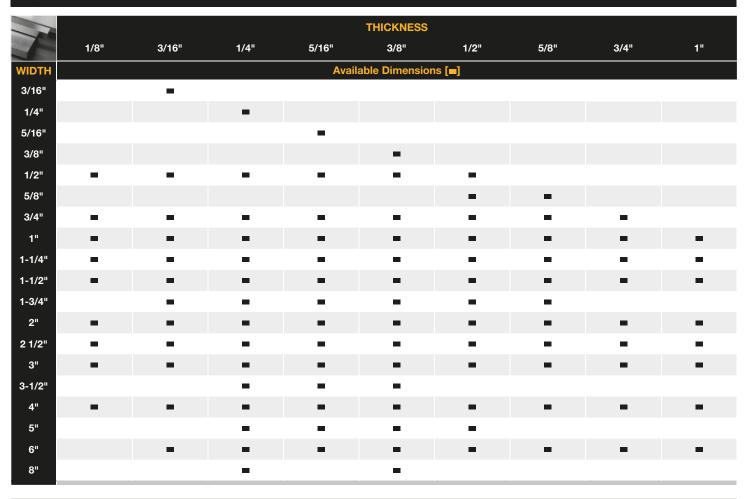


PREMIUM 01 - PRECISION GROUND FLAT STOCK, OVERSIZE

TOOL STEEL

Length: 18"

IMPERIAL DIMENSIONS in inch



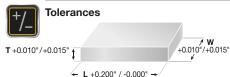


[GFS O/S]: Surface Condition

Thickness: ground

Width: ground or fine milled

Length: milled or saw cut





Standard values

Delivery condition: maximum 229 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	V	W
				0			
1.05	0.35	1.2	0.035	0.035	0.7	0.15	0.7



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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AISI O1 – all at a glance!

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via smartphone/tablet:



Technical Properties

Alloyed oil hardener with focus on cold work; can be used for a wide range of applications: full hardenability, high degree of dimensional stability, good cutting power and good toughness. Working hardness: 57-62 HRC.



Applications

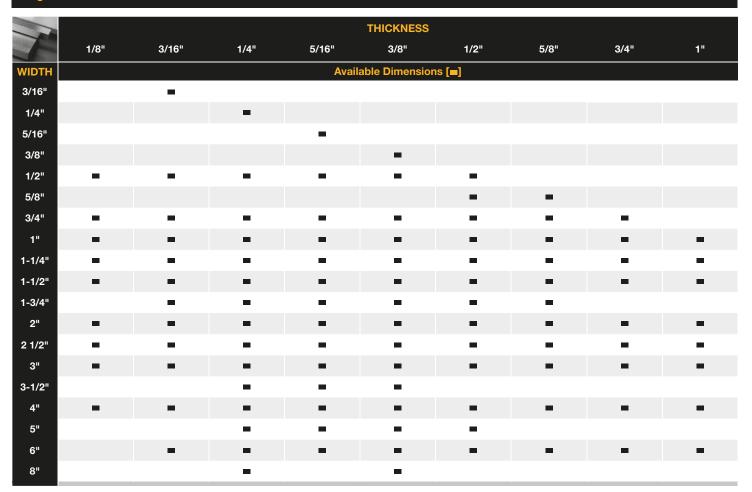
Blanking and stamping tools (up to 0.2362" thickness), shear knives, threading tools, thread dies, reamers, chasers, measuring tools, plastic molds, rubber molds, calibers, guide rails, dies, punches, woodworking tools, machine knives.

PREMIUM 01 - PRECISION GROUND FLAT STOCK, OVERSIZE

TOOL STEEL

Length: 36"

IMPERIAL DIMENSIONS in inch





[GFS O/S]: Surface Condition Thickness: ground Width: ground or fine milled Length: milled or saw cut

A2

D2

H10

H13

L3

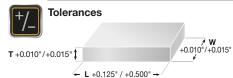
L6

01

H₁₃ ESR

A8 mod. /

Chipper





Standard values

Delivery condition: maximum 229 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	٧	W
				0			
1.05	0.35	1.2	0.035	0.035	0.7	0.15	0.7



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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Technical Properties

Alloyed oil hardener with focus on cold work; can be used for a wide range of applications: full hardenability, high degree of dimensional stability, good cutting power and good toughness. Working hardness: 57-62 HRC.



Applications

Blanking and stamping tools (up to 0.2362" thickness), shear knives, threading tools, thread dies, reamers, chasers, measuring tools, plastic molds, rubber molds, calibers, guide rails, dies, punches, woodworking tools, machine knives.



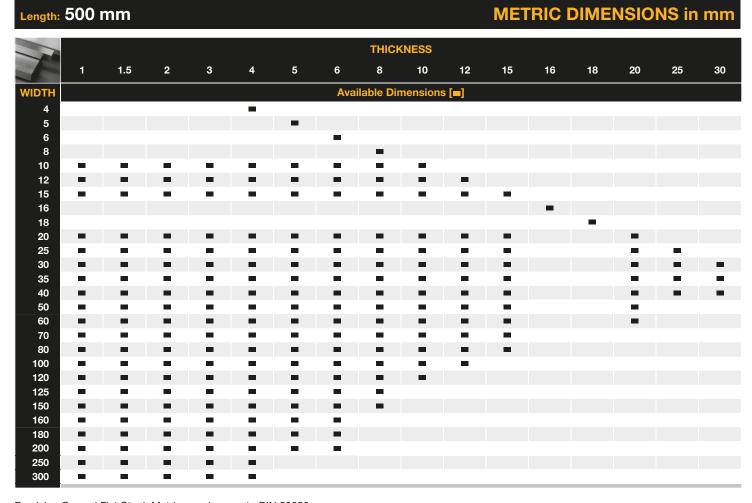
AISI O1 – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/O1



PREMIUM 01 - PRECISION GROUND FLAT STOCK METRIC, REGULAR

TOOL STEEL



Precision Ground Flat Stock Metric, regular acc. to DIN 59350



Technical Properties

Alloyed oil hardener with focus on cold work; can be used for a wide range of applications: full hardenability, high degree of dimensional stability, good cutting power and good toughness. Working hardness: 57-62 HRC.

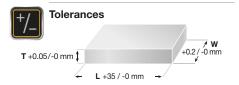


Applications

Blanking and stamping tools (up to 0.2362" thickness), shear knives, threading tools, thread dies, reamers, chasers, measuring tools, plastic molds, rubber molds, calibers, guide rails, dies, punches, woodworking tools, machine knives.



[GFSM reg]: Surface Condition Thickness: ground or fine milled Width: ground or fine milled Length: milled or saw cut





Standard values

Delivery condition: maximum 229 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	V	W
				0			
1.05	0.35	1.2	0.035	0.035	0.7	0.15	0.7



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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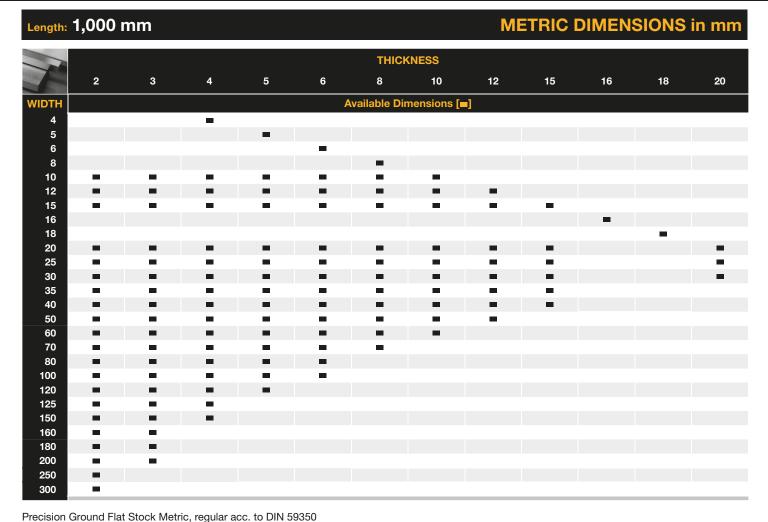
AISI O1 – all at a glance!

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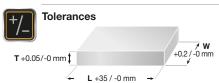


PREMIUM 01 - PRECISION GROUND FLAT STOCK METRIC, REGULAR

TOOL STEEL



[GFSM reg]: Surface Condition Thickness: ground or fine milled Width: ground or fine milled Length: milled or saw cut





Standard values

Delivery condition: maximum 229 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	V	W
				0			
1.05	0.35	1.2	0.035	0.035	0.7	0.15	0.7



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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Technical Properties

Alloyed oil hardener with focus on cold work; can be used for a wide range of applications: full hardenability, high degree of dimensional stability, good cutting power and good toughness. Working hardness: 57-62 HRC.



81

Applications

Blanking and stamping tools (up to 0.2362" thickness), shear knives, threading tools, thread dies, reamers, chasers, measuring tools, plastic molds, rubber molds, calibers, guide rails, dies, punches, woodworking tools, machine knives.



AISI O1 – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/O1

via smartphone/tablet:



A2

A8 mod. / Chipper

D2

H10

H13

H13 ESR

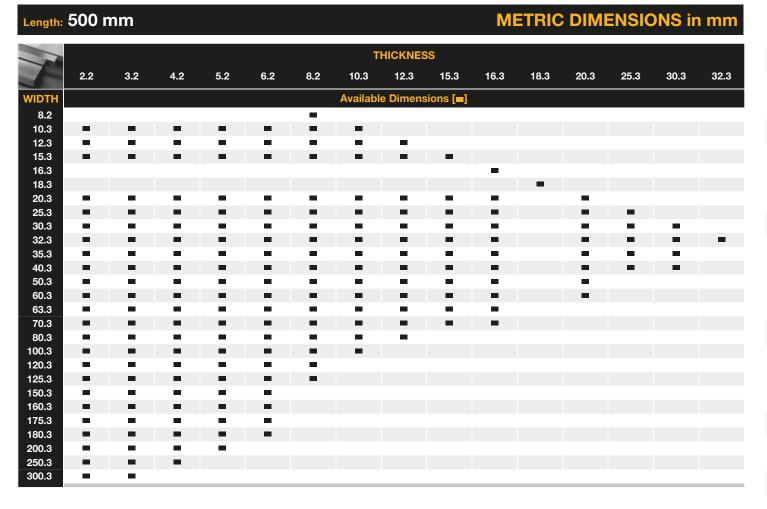
L3

L6

01

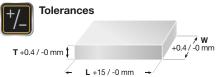
PREMIUM 01 - PRECISION GROUND FLAT STOCK METRIC, OVERSIZE

TOOL STEEL





[GFSM O/S]: Surface Condition Thickness: ground or fine milled Width: ground or fine milled Length: milled or saw cut





Standard values

Delivery condition: maximum 229 BHN Chemical composition:

C	Si	Mn	Р	S	Cr	V	W
				0			
1.05	0.35	1.2	0.035	0.035	0.7	0.15	0.7



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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Technical Properties

Alloyed oil hardener with focus on cold work; can be used for a wide range of applications: full hardenability, high degree of dimensional stability, good cutting power and good toughness. Working hardness: 57-62 HRC.



Applications

Blanking and stamping tools (up to 0.2362" thickness), shear knives, threading tools, thread dies, reamers, chasers, measuring tools, plastic molds, rubber molds, calibers, guide rails, dies, punches, woodworking tools, machine knives.



AISI O1 – all at a glance!

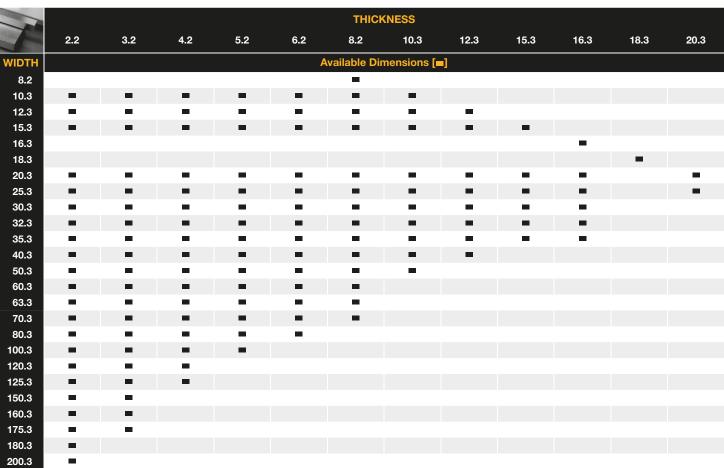
Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/O1



PREMIUM 01 - PRECISION GROUND FLAT STOCK METRIC, OVERSIZE

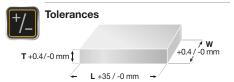
TOOL STEEL

Length: 1,000 mm METRIC DIMENSIONS in mm





[GFSM O/S]: Surface Condition Thickness: ground or fine milled Width: ground or fine milled Length: milled or saw cut





Standard values

Delivery condition: maximum 229 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	V	W
				0			
1.05	0.35	1.2	0.035	0.035	0.7	0.15	0.7



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Technical Properties

Alloyed oil hardener with focus on cold work; can be used for a wide range of applications: full hardenability, high degree of dimensional stability, good cutting power and good toughness. Working hardness: 57-62 HRC.



Applications

Blanking and stamping tools (up to 0.2362" thickness), shear knives, threading tools, thread dies, reamers, chasers, measuring tools, plastic molds, rubber molds, calibers, guide rails, dies, punches, woodworking tools, machine knives.



AISI O1 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/O1

via smartphone/tablet:



A2

A8 mod. / Chipper

D2

H10

H13

H13 ESR

L3

L6

01





PREMIUM 01 - HARD FLAT METRIC

METRIC DIMENSIONS in mm





Length: 500 mm

METRIC DIMENSIONS in mm

			THICKNESS		
	2.2	2.7	3.2	3.7	4.2
WIDTH			Available Dimensions [=]		
250	-	-		-	•

Hardened dimensions are delivered with approx. 57 HRC, at least double tempered.



Technical Properties

Alloyed oil hardener with focus on cold work; can be used for a wide range of applications: full hardenability, high degree of dimensional stability, good cutting power and good toughness. Working hardness: 57-62 HRC.



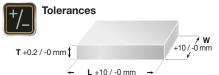
Applications

Blanking and stamping tools (up to 0.2362" thickness), shear knives, threading tools, thread dies, reamers, chasers, measuring tools, plastic molds, rubber molds, calibers, guide rails, dies, punches, woodworking tools, machine knives.

TOOL STEEL



[HardM]: Surface Condition Thickness: ground or fine milled Width: saw cut or sheared Length: saw cut or sheared





Standard values

Delivery condition: maximum 229 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	V	W
				0			
1.05	0.35	1.2	0.035	0.035	0.7	0.15	0.7



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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[250 mm] - abrams-steel.com/O1-14

[500 mm] - abrams-steel.com/O1-15



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via smartphone/tablet:



A2

A8 mod. / Chipper

D2

H10

H13

H₁₃ ESR

L3

L6

01

PREMIUM 01 - DRILL ROD

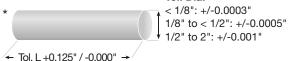
TOOL STEEL

Length: 36"

IMPERIAL DIAMETERS in inch

				Availa	ble Diamete	ers[•]			
1/16"	•	»		>>		»		>>	
5/64"	•	19/64"	•	33/64"	•	47/64"	•	1-1/8"	•
3/32"	•	5/16"	•	17/32"	•	3/4"	•	1-1/4"	•
7/64"	•	21/64"	•	35/64"	•	49/64"	•	1-3/8"	•
1/8"	•	11/32"	•	9/16"	•	25/32"	•	1-1/2"	•
9/64"	•	23/64"	•	37/64"	•	51/64"	•	1-5/8"	•
5/32"	•	3/8"	•	19/32"	•	13/16"	•	1-3/4"	•
11/64"	•	25/64"	•	39/64"	•	7/8"	•	1-7/8"	•
3/16"	•	13/32"	•	5/8"	•	57/64"	•	2"	•
13/64"	•	27/64"	•	41/64"	•	29/32"	•		
7/32"	•	7/16"	•	21/32"	•	15/16"	•		
15/64"	•	29/64"	•	43/64"	•	31/32"	•		
1/4"	•	15/32"	•	11/16"	•	63/64"	•		
17/64"	•	31/64"	•	45/64"	•	1"	•		
9/32"	•	1/2"	•	23/32"	•	1-1/16"	•		
*		»		*		*			

Tol. Dia.





Technical Properties

Alloyed oil hardener with focus on cold work; can be used for a wide range of applications: full hardenability, high degree of dimensional stability, good cutting power and good toughness. Working hardness: 57-62 HRC.



Applications

Blanking and stamping tools (up to 0.2362" thickness), shear knives, threading tools, thread dies, reamers, chasers, measuring tools, plastic molds, rubber molds, calibers, guide rails, dies, punches, woodworking tools, machine knives.

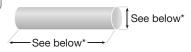


[DR]: Surface Condition

Turned, ground & polished (TGP)



Tolerances





Standard values

Delivery condition: maximum 229 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	V	W
				0			
1.05	0.35	1.2	0.035	0.035	0.7	0.15	0.7



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks). Custom orders on request

- according to your requirements.



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PREMIUM 01 - DRILL ROD METRIC

TOOL STEEL

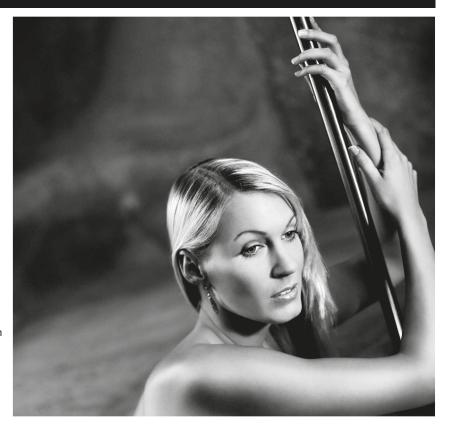
Length: 914 mm (36")

3.0 • 4.0 • 5.0 • 6.0 • 8.0 • 10.0 • 12.0 • 15.0 • 16.0 • 20.0 • 25.0 • •

Tol. Dia.

* \$\leq 10.0 \text{ mm} : +0 / -0.036 \text{ mm}\$ > 10.0 \text{ mm to 18.0 \text{ mm}} : +0/-0.043 \text{ mm}\$ > 18.0 \text{ mm to 25.0 \text{ mm}} : +0 / -0.052 \text{ mm}\$

← L +tol. →



METRIC DIAMETERS in mm



[DRM]: Surface Condition

Turned, ground & polished (TGP) - ISO h9

A2

D2

H10

H13

L3

L6

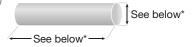
01

H₁₃ ESR

A8 mod. / Chipper



Tolerances





Standard values

Delivery condition: maximum 229 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	٧	W
				0			
1.05	0.35	1.2	0.035	0.035	0.7	0.15	0.7



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks).
Custom orders on request

- according to your requirements.



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Technical Properties

Alloyed oil hardener with focus on cold work; can be used for a wide range of applications: full hardenability, high degree of dimensional stability, good cutting power and good toughness. Working hardness: 57-62 HRC.



Applications

Blanking and stamping tools (up to 0.2362" thickness), shear knives, threading tools, thread dies, reamers, chasers, measuring tools, plastic molds, rubber molds, calibers, guide rails, dies, punches, woodworking tools, machine knives.



AISI O1 – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/O1







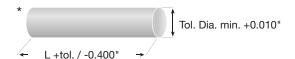


PREMIUM 01 - DECARB FREE ROUNDS

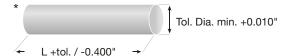
TOOL STEEL

Length: 18"

	Available Diameters [●]
1/4"	•
1/2"	•
3/4"	•
1"	•
1-1/4"	•
1-1/2"	•
2"	•
2-1/2"	•
3"	•
3-1/2"	•
4"	•



Length: 36"

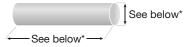




[DCF]: Surface Condition
Peeled or rough-turned



Tolerances



A2

D2

H10

H13

L3

L6

01

H₁₃ ESR

A8 mod. /

Chipper



Standard values

Delivery condition: maximum 229 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	٧	W
				0			
1.05	0.35	1.2	0.035	0.035	0.7	0.15	0.7



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks).
Custom orders on request

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[18"] - abrams-steel.com/O1-22

[36"] - abrams-steel.com/O1-23



Technical Properties

Alloyed oil hardener with focus on cold work; can be used for a wide range of applications: full hardenability, high degree of dimensional stability, good cutting power and good toughness. Working hardness: 57-62 HRC.



Applications

Blanking and stamping tools (up to 0.2362" thickness), shear knives, threading tools, thread dies, reamers, chasers, measuring tools, plastic molds, rubber molds, calibers, guide rails, dies, punches, woodworking tools, machine knives.

IMPERIAL DIAMETERS in inch



AISI O1 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/O1



PREMIUM P20 - \$mart FLAT STOCK

TOOL STEEL

Length: 12"

THICKNESS 5/16" 3/8" 1/2" 5/8" 3/4" 1" 1-1/4" 1-1/2" 2-1/2" 3-1/2" 4-1/2" 5-1/2" Available Dimensions [=] WIDTH 1" 1-1/4" 1-1/2" 2" 2-1/2" 3" 3-1/2" 4" 4-1/2" 5" 5-1/2" 6" 6-1/2" 7" 7-1/2" 8" 8-1/2" 9" 9-1/2" 10" 10-1/2 11" 11-1/2 12"



Technical Properties

Cold work steel and plastic mold steel (here annealed version). Good polishability and etchability. High through-hardenability and uniform component strength.

Working hardness: approx. 32-50 HRC.

Applications

Mechanical engineering, jigs, base plates, assembly parts, molding frames, plastic molds, plastic processing, injection molds, die casting molds, hydroforming tools, recipient sleeves, intermediate sleeves, folding bars, tool holders, extrusion presses, tube presses, die holders, die insert.

IMPERIAL DIMENSIONS in inch



[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut



Tolerances

/ W +0.125"/+0.250" T+0.015"/+0.035" 1 ← L +0.500"/-0.000" →



Standard values

Delivery condition: maximum 225 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо
0.35	0.2	1.3	0	0	1.8	0.15
0 45	- 04	16	0.035	0.035	21	0.25
0.10	0.1	1.0	0.000	0.000	2	0.20



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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AISI P20 - all at a glance!

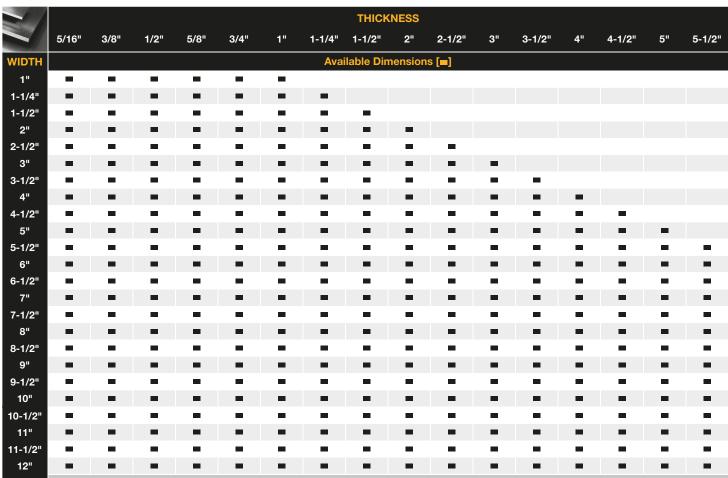
Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/P20



PREMIUM P20 - \$mart FLAT STOCK

TOOL STEEL

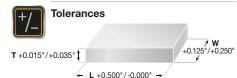
Length: 24" IMPERIAL DIMENSIONS in inch





[\$mart]: Surface Condition
Thickness: ground or fine milled
Width: saw cut

Length: saw cut





Standard values

Delivery condition: maximum 225 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо
0.35	0.2	1.3	0	0	1.8	0.15
0.45	0.4	1.6	0.035	0.035	2.1	0.25



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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Technical Properties

Cold work steel and plastic mold steel (here annealed version). Good polishability and etchability. High through-hardenability and uniform component strength.

Working hardness: approx. 32-50 HRC.



Applications

Mechanical engineering, jigs, base plates, assembly parts, molding frames, plastic molds, plastic processing, injection molds, die casting molds, hydroforming tools, recipient sleeves, intermediate sleeves, folding bars, tool holders, extrusion presses, tube presses, die holders, die insert.



AISI P20 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/P20

via smartphone/tablet:

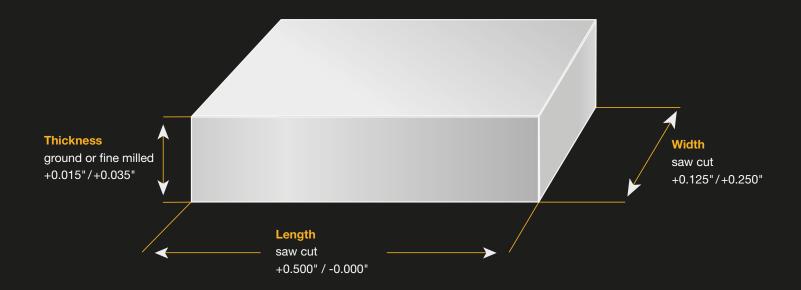


P20

91

\$mart Flat Stock: \$AVES YOU TIME - \$AVES YOU MONEY

Always close to your final dimensions.

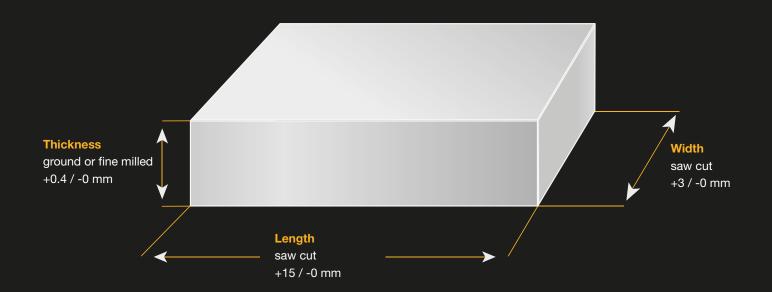


NEW TO THE MEXICAN MARKET!



\$mart Flat Stock: \$AVES YOU TIME - \$AVES YOU MONEY

Always close to your final dimensions.



A2

A8 mod. /

72

H10

H13

H₁₃ ESR

1.3

16

01

P20



PREMIUM P20 - \$mart FLAT STOCK METRIC

TOOL STEEL

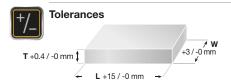
METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 Available Dimensions [=] WIDTH 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283 303



[\$martM]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 225 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо
0.35	0.2	1.3	0	0	1.8	0.15
0.45	0.4	1.6	0.035	0.035	2.1	0.25



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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AISI P20 - all at a glance!

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via smartphone/tablet:



Technical Properties

Cold work steel and plastic mold steel (here annealed version). Good polishability and etchability. High through-hardenability and uniform component strength.

Working hardness: approx. 32-50 HRC.



Applications

Mechanical engineering, jigs, base plates, assembly parts, molding frames, plastic molds, plastic processing, injection molds, die casting molds, hydroforming tools, recipient sleeves, intermediate sleeves, folding bars, tool holders, extrusion presses, tube presses, die holders, die insert.

Length: 600 mm

PREMIUM P20 - \$mart FLAT STOCK METRIC

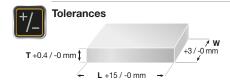
TOOL STEEL

THICKNESS 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 **VIDTH** Available Dimensions [=] 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263



[\$martM]: Surface Condition
Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 225 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо
0.35	0.2	1.3	0	0	1.8	0.15
0.45	0.4	1.6	0.035	0.035	2.1	0.25



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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283

303

Technical Properties

Cold work steel and plastic mold steel (here annealed version). Good polishability and etchability. High through-hardenability and uniform component strength.

Working hardness: approx. 32-50 HRC.



Applications

Mechanical engineering, jigs, base plates, assembly parts, molding frames, plastic molds, plastic processing, injection molds, die casting molds, hydroforming tools, recipient sleeves, intermediate sleeves, folding bars, tool holders, extrusion presses, tube presses, die holders, die insert.

METRIC DIMENSIONS in mm



AISI P20 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/P20

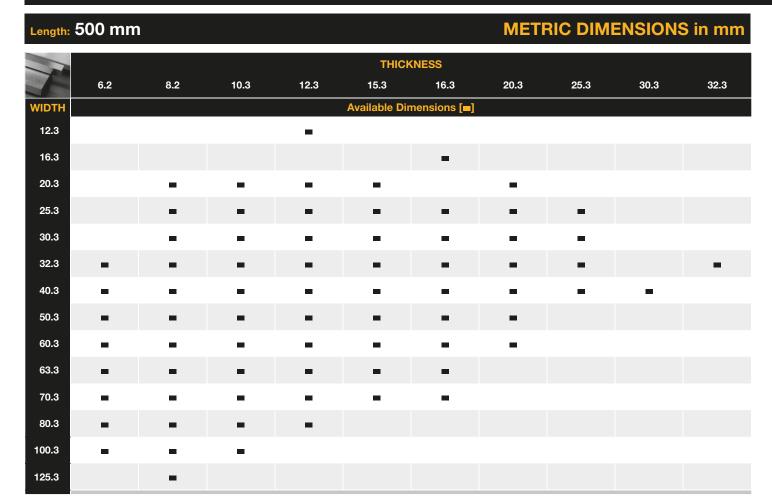
via smartphone/tablet:



P20

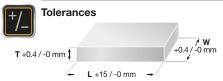
PREMIUM P20 PH - PRECISION GROUND FLAT STOCK METRIC, OVERSIZE

TOOL STEEL





[GFSM O/S]: Surface Condition Thickness: ground or fine milled Width: ground or fine milled Length: milled or saw cut





Standard values

Delivery condition: maximum 325 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо
0.35	0.2	1.3	0	0	1.8	0.15
0.45	0.4	1.6	0.035	0.035	2.1	0.25



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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Technical Properties

Pre-hardened cold work steel and plastic mold steel. Good polishability and etchability. High through-hardenability and uniform component strength.

Working hardness: approx. 32 HRC (delivery condition) up to 50 HRC.



Applications

Mechanical engineering, jigs, base plates, assembly parts, molding frames, plastic molds, plastic processing, injection molds, die casting molds, hydroforming tools, recipient sleeves, intermediate sleeves, folding bars, tool holders, extrusion presses, tube presses, die holders, die insert.



AISI P20 PH – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/P20PH



PREMIUM P20 PH - PRECISION GROUND FLAT STOCK METRIC, OVERSIZE

TOOL STEEL

METRIC DIMENSIONS in mm Length: 1,000 mm **THICKNESS** 6.2 8.2 12.3 10.3 15.3 16.3 20.3 Available Dimensions [■] **VIDTH** 12.3 16.3 20.3 25.3 30.3 32.3 40.3 50.3 60.3 63.3



[GFSM O/S]: Surface Condition Thickness: ground or fine milled Width: ground or fine milled Length: milled or saw cut

A2

D2

H10

H13

L3

L6

01

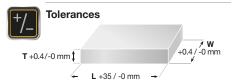
P20

P20 PH

H₁₃ ESR

A8 mod. /

Chipper





Standard values

Delivery condition: maximum 325 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо
0.35	0.2	1.3	0	0	1.8	0.15
0.45	0.4	1.6	0.035	0.035	2.1	0.25



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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70.3

80.3

Technical Properties

Pre-hardened cold work steel and plastic mold steel. Good polishability and etchability. High through-hardenability and uniform component strength.

Working hardness: approx. 32 HRC (delivery condition) up to 50 HRC.



Applications

Mechanical engineering, jigs, base plates, assembly parts, molding frames, plastic molds, plastic processing, injection molds, die casting molds, hydroforming tools, recipient sleeves, intermediate sleeves, folding bars, tool holders, extrusion presses, tube presses, die holders, die insert.



AISI P20 PH - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/P20PH

via smartphone/tablet:

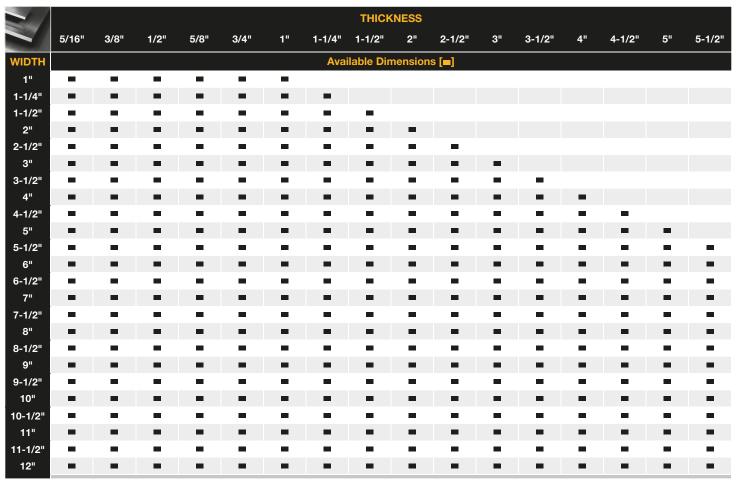


97

PREMIUM P20 PH - \$mart FLAT STOCK

TOOL STEEL

Length: 12" IMPERIAL DIMENSIONS in inch

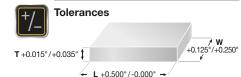




[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 325 BHN Chemical composition:

				S		
0.35	0.2	1.3	0	0	1.8	0.15
0.45	0.4	1.6	0.035	0 0.035	2.1	0.25



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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via smartphone/tablet:



Technical Properties

Pre-hardened cold work steel and plastic mold steel. Good polishability and etchability. High through-hardenability and uniform component strength.

Working hardness: approx. 32 HRC (delivery condition) up to 50 HRC.



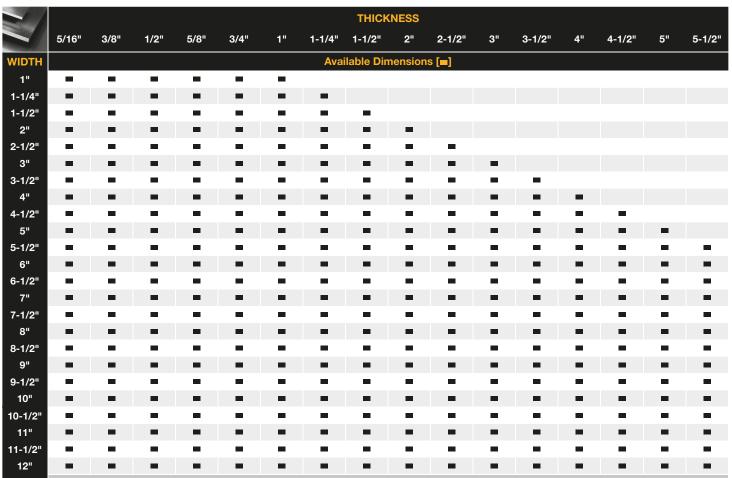
Applications

Mechanical engineering, jigs, base plates, assembly parts, molding frames, plastic molds, plastic processing, injection molds, die casting molds, hydroforming tools, recipient sleeves, intermediate sleeves, folding bars, tool holders, extrusion presses, tube presses, die holders, die insert.

PREMIUM P20 PH - \$mart FLAT STOCK

TOOL STEEL

Length: 24" IMPERIAL DIMENSIONS in inch





[\$mart]: Surface Condition
Thickness: ground or fine milled
Width: saw cut

A2

D2

H₁₀

H13

L3

L6

01

P20

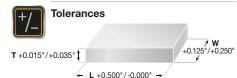
P20 PH

H₁₃ ESR

A8 mod. /

Chipper

Length: saw cut





Standard values

Delivery condition: maximum 325 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо
0.35	0.2	1.3	0	0	1.8	0.15
0.45	0.4	1.6	0.035	0.035	2.1	0.25



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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AISI P20 PH - all at a glance!

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via smartphone/tablet:





Technical Properties

Pre-hardened cold work steel and plastic mold steel. Good polishability and etchability. High through-hardenability and uniform component strength.

Working hardness: approx. 32 HRC (delivery condition) up to 50 HRC.



Applications

Mechanical engineering, jigs, base plates, assembly parts, molding frames, plastic molds, plastic processing, injection molds, die casting molds, hydroforming tools, recipient sleeves, intermediate sleeves, folding bars, tool holders, extrusion presses, tube presses, die holders, die insert.

99

PREMIUM P20 PH - \$mart FLAT STOCK METRIC

TOOL STEEL

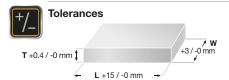
METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 Available Dimensions [=] WIDTH 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283



[\$martM]: Surface Condition

Thickness: ground or fine milled Width: saw cut

Length: saw cut





Standard values

Delivery condition: maximum 325 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо
				0		
0.45	0.4	1.6	0.035	0.035	2.1	0.25



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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AISI P20 PH - all at a glance!

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via smartphone/tablet:



Technical Properties

303

Pre-hardened cold work steel and plastic mold steel. Good polishability and etchability. High through-hardenability and uniform component strength.

Working hardness: approx. 32 HRC (delivery condition) up to 50 HRC.



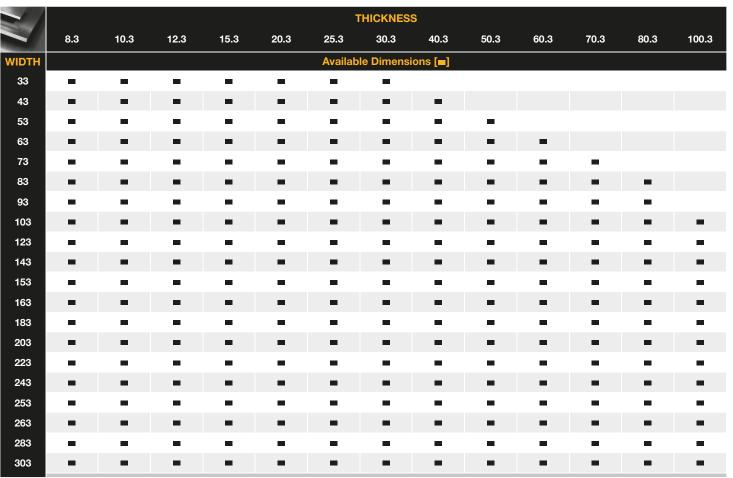
Applications

Mechanical engineering, jigs, base plates, assembly parts, molding frames, plastic molds, plastic processing, injection molds, die casting molds, hydroforming tools, recipient sleeves, intermediate sleeves, folding bars, tool holders, extrusion presses, tube presses, die holders, die insert.

PREMIUM P20 PH - \$mart FLAT STOCK METRIC

TOOL STEEL

Length: 600 mm METRIC DIMENSIONS in mm





[\$martM]: Surface Condition
Thickness: ground or fine milled

A2

D2

H10

H13

L3

L6

01

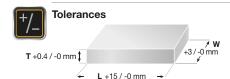
P20

P20 PH

H₁₃ ESR

A8 mod. /

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 325 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо
0.35	0.2	1.3	0	0	1.8	0.15
0.45	0.4	1.6	0.035	0.035	2.1	0.25



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Technical Properties

Pre-hardened cold work steel and plastic mold steel. Good polishability and etchability. High through-hardenability and uniform component strength.

Working hardness: approx. 32 HRC (delivery condition) up to 50 HRC.



Applications

Mechanical engineering, jigs, base plates, assembly parts, molding frames, plastic molds, plastic processing, injection molds, die casting molds, hydroforming tools, recipient sleeves, intermediate sleeves, folding bars, tool holders, extrusion presses, tube presses, die holders, die insert.

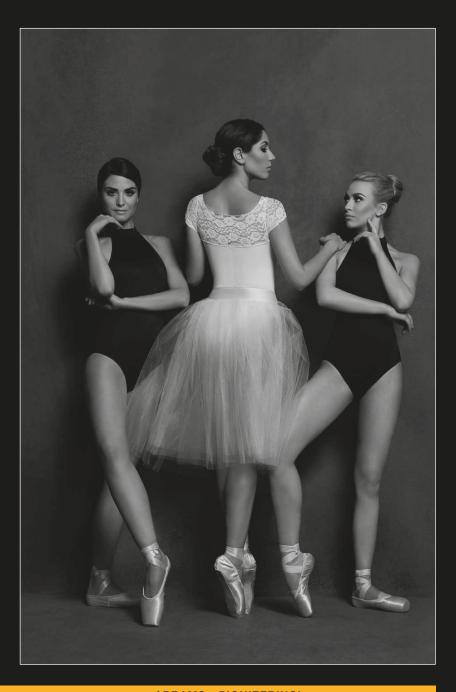


AISI P20 PH – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/P20PH







A2

A8 mod. / Chipper

D2

H10

H13

H13 ESR

L3

L6

01

P20

P20 PH

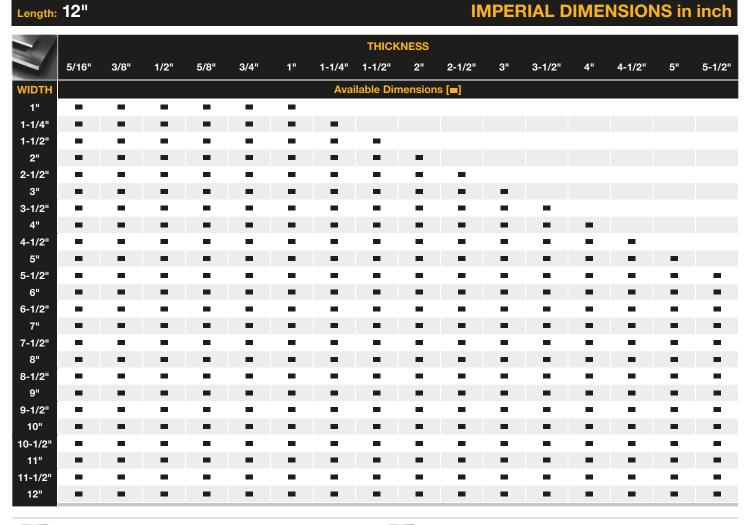




PREMIUM P20+Ni - \$mart FLAT STOCK

TOOL STEEL

IMPERIAL DIMENSIONS in inch

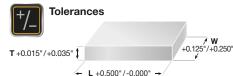




[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 325 BHN Chemical composition:

						Мо	
0.35	0.2	1.3	0	0	1.8	0.15	0.9
0.45	0.4	1.6	0.03	0.03	2.1	0.15 - 0.25	1.2



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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AISI P20+Ni - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/P20Ni

via smartphone/tablet:



Technical Properties

Steel grade with focus on plastic mold making; nickel additives for a better through-hardenability (constant strength), also for thicknesses >15.8" (> 400 mm).

Low sulphur steel and therefore polishable and easily grained. Working hardness: approx. 32 HRC (delivery condition: quenched and tempered) up to 50 HRC.



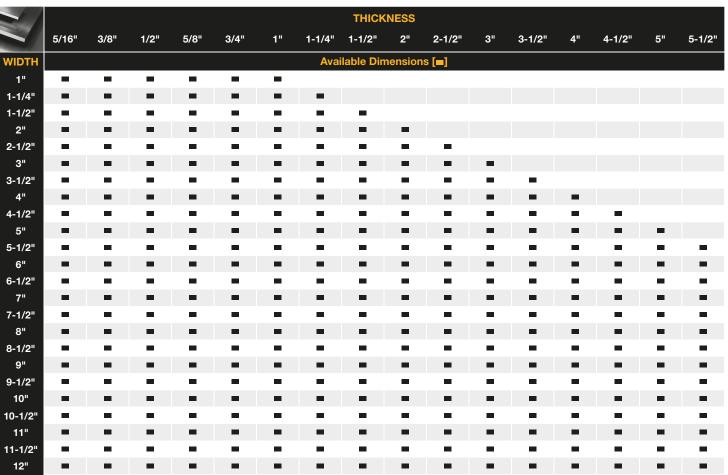
Applications

Plastic molds, molding frames, die casting molds, dies, forging tools, metal extrusion tools, tube presses, hydroforming tools.

PREMIUM P20+Ni - \$mart FLAT STOCK

TOOL STEEL

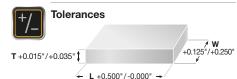
Length: 24" IMPERIAL DIMENSIONS in inch





[\$mart]: Surface Condition
Thickness: ground or fine milled
Width: saw cut

Length: saw cut





Standard values

Delivery condition: maximum 325 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni
						0.15	
0.45	0.4	1.6	0.03	0.03	2.1	0.25	1.2



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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AISI P20+Ni - all at a glance!

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via smartphone/tablet:



P20+Ni



Technical Properties

Steel grade with focus on plastic mold making; nickel additives for a better through-hardenability (constant strength), also for thicknesses >15.8" (> 400 mm).

Low sulphur steel and therefore polishable and easily grained. Working hardness: approx. 32 HRC (delivery condition: quenched and tempered) up to 50 HRC.



Applications

Plastic molds, molding frames, die casting molds, dies, forging tools, metal extrusion tools, tube presses, hydroforming tools.

PREMIUM P20+Ni - \$mart FLAT STOCK METRIC

TOOL STEEL

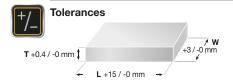
THICKNESS 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 Available Dimensions [=] WIDTH 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243



[\$martM]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 325 BHN Chemical composition:

						Мо	
0.35	0.2	1.3	0	0	1.8	0.15	0.9
0.45	0.4	1.6	0.03	0.03	2.1	0.15 - 0.25	1.2



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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AISI P20+Ni - all at a glance!

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via smartphone/tablet:



Technical Properties

253

263

283

303

Length: 300 mm

Steel grade with focus on plastic mold making; nickel additives for a better through-hardenability (constant strength), also for thicknesses >15.8" (> 400 mm).

Low sulphur steel and therefore polishable and easily grained. Working hardness: approx. 32 HRC (delivery condition: quenched and tempered) up to 50 HRC.



Applications

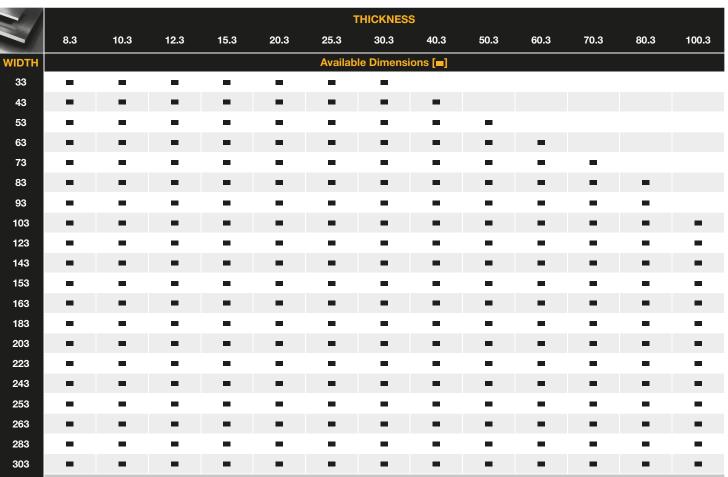
Plastic molds, molding frames, die casting molds, dies, forging tools, metal extrusion tools, tube presses, hydroforming tools.

METRIC DIMENSIONS in mm

PREMIUM P20+Ni - \$mart FLAT STOCK METRIC

TOOL STEEL

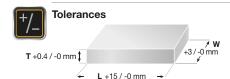
Length: 600 mm METRIC DIMENSIONS in mm





[\$martM]: Surface Condition
Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 325 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni
				0			
0.45	0.4	1.6	0.03	0.03	2.1	0.25	1.2



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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AISI P20+Ni - all at a glance!

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via smartphone/tablet:



P20+Ni



Technical Properties

Steel grade with focus on plastic mold making; nickel additives for a better through-hardenability (constant strength), also for thicknesses >15.8" (> 400 mm).

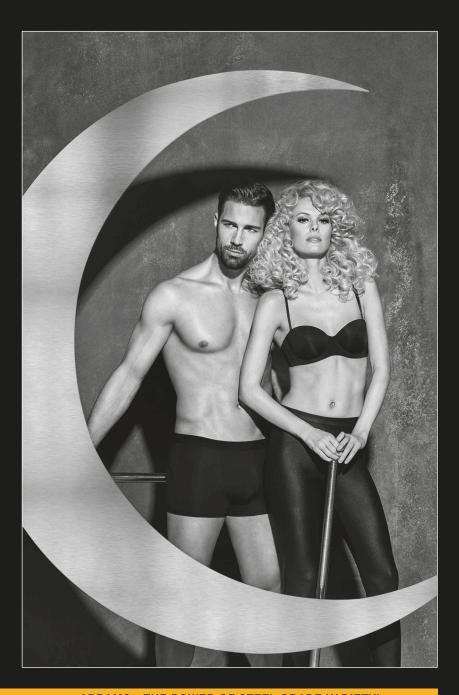
Low sulphur steel and therefore polishable and easily grained. Working hardness: approx. 32 HRC (delivery condition: quenched and tempered) up to 50 HRC.



Applications

Plastic molds, molding frames, die casting molds, dies, forging tools, metal extrusion tools, tube presses, hydroforming tools.





ABRAMS - THE POWER OF STEEL GRADE VARIETY!



A8 mod. / Chipper

)2

H10

H13

H13 ESR

1.2

6

1-6

DOO

P20 PH

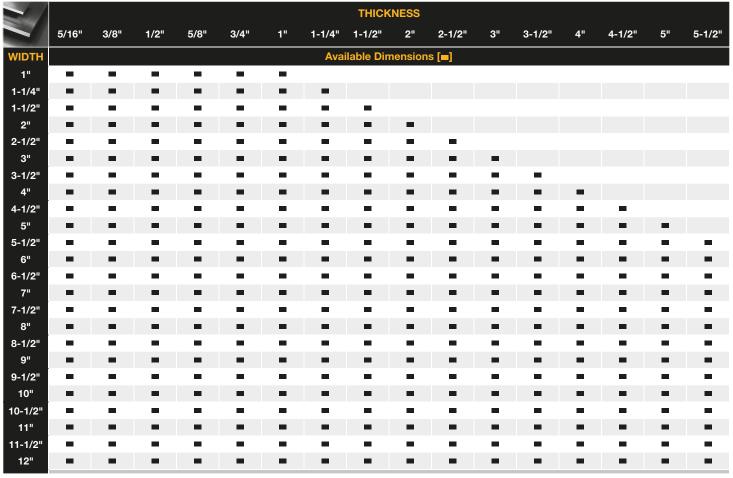
P20+Ni



PREMIUM S1 - \$mart FLAT STOCK

TOOL STEEL

Length: 12" **IMPERIAL DIMENSIONS** in inch





Technical Properties

Steel grade with focus on cold work, with full hardenability, excellent toughness, dimensional stability and impact strength. Working hardness: 56-60 HRC.



Applications

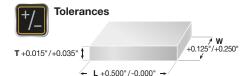
Blanking tools, dies, punches, forming dies, embossing tools, coining tools, tableting punches, plug-in tools, trimming tools, cold shear knives, riveting pins, hand chisels, pneumatic chisels, centre punches, ejectors, woodworking tools.



[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 229 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	٧	W
0.55	0.7	0.15	0	0	0.9	0.1	1.7
0.65	1.0	0.45	0.03	0.03	1.2	0.2	2.2



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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AISI S1 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/S1



PREMIUM S1 - \$mart FLAT STOCK

TOOL STEEL

Length: 24" **IMPERIAL DIMENSIONS** in inch **THICKNESS** 5/16" 3/8" 1/2" 5/8" 3/4" 1" 1-1/4" 1-1/2" 2-1/2" 3" 3-1/2" 4-1/2" 5-1/2" **VIDTH** Available Dimensions [=] 1" 1-1/4" 1-1/2" 2" 2-1/2" 3" 3-1/2" 4" 4-1/2" 5" 5-1/2" 6" 6-1/2" 7" 7-1/2" 8" 8-1/2" 9" 9-1/2" 10" 10-1/2"



[\$mart]: Surface Condition
Thickness: ground or fine milled
Width: saw cut

A2

D2

H₁₀

H13

L3

L6

01

P20

P20+Ni

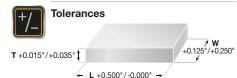
S1

H₁₃ ESR

A8 mod. /

Chipper

Length: saw cut





Standard values

Delivery condition: maximum 229 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	٧	W
		0.15					
0.65	1.0	0.45	0.03	0.03	1.2	0.2	2.2



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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via smartphone/tablet:





11"

11-1/2"

12"

Technical Properties

Steel grade with focus on cold work, with full hardenability, excellent toughness, dimensional stability and impact strength. Working hardness: 56-60 HRC.



Applications

Blanking tools, dies, punches, forming dies, embossing tools, coining tools, tableting punches, plug-in tools, trimming tools, cold shear knives, riveting pins, hand chisels, pneumatic chisels, centre punches, ejectors, woodworking tools.

PREMIUM S1 - \$mart FLAT STOCK METRIC

TOOL STEEL

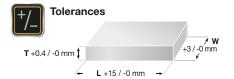
METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 Available Dimensions [=] WIDTH 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283 303



[\$martM]: Surface Condition

Thickness: ground or fine milled Width: saw cut

Length: saw cut





Standard values

Delivery condition: maximum 229 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	٧	W
0.55	0.7	0.15	0	0	0.9	0.1	1.7
0.65	1.0	0.45	0.03	0.03	1.2	0.2	2.2



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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via smartphone/tablet:



Technical Properties

Steel grade with focus on cold work, with full hardenability, excellent toughness, dimensional stability and impact strength. Working hardness: 56-60 HRC.



Applications

Blanking tools, dies, punches, forming dies, embossing tools, coining tools, tableting punches, plug-in tools, trimming tools, cold shear knives, riveting pins, hand chisels, pneumatic chisels, centre punches, ejectors, woodworking tools.

PREMIUM S1 - \$mart FLAT STOCK METRIC

TOOL STEEL

METRIC DIMENSIONS in mm Length: 600 mm **THICKNESS** 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 **VIDTH** Available Dimensions [=] 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283



[\$martM]: Surface Condition
Thickness: ground or fine milled

A2

D2

H10

H13

L3

L6

01

P20

P20 PH

P20+Ni

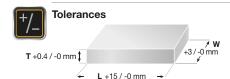
S1

H₁₃ ESR

A8 mod. /

Chipper

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 229 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	٧	W
		0.15					
0.65	1.0	0.45	0.03	0.03	1.2	0.2	2.2



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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via smartphone/tablet:





303

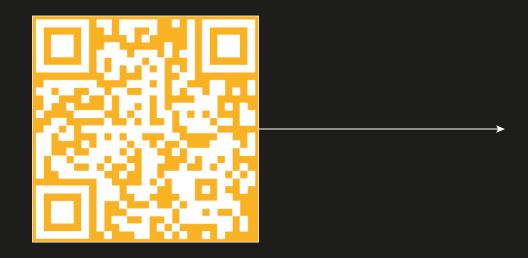
Technical Properties

Steel grade with focus on cold work, with full hardenability, excellent toughness, dimensional stability and impact strength. Working hardness: 56-60 HRC.



Applications

Blanking tools, dies, punches, forming dies, embossing tools, coining tools, tableting punches, plug-in tools, trimming tools, cold shear knives, riveting pins, hand chisels, pneumatic chisels, centre punches, ejectors, woodworking tools.





۸.0

A8 mod. / Chipper

D2

H10

H13

H13 ESR

L3

L6

01

P20

P20 PH

P20+Ni

S1



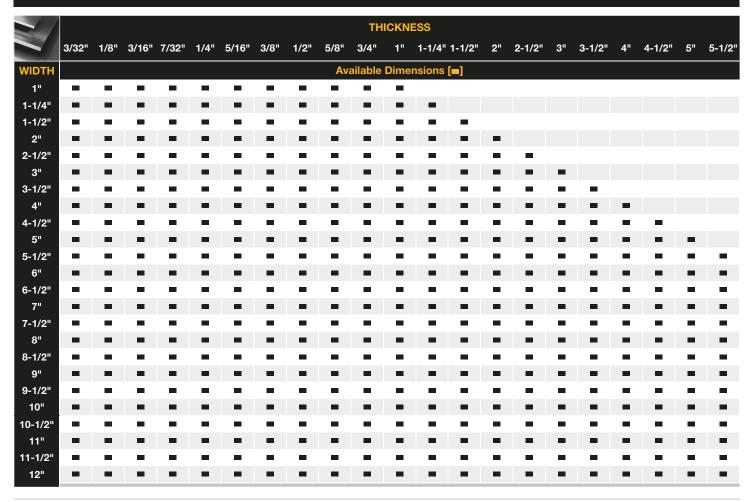


PREMIUM S7 - \$mart FLAT STOCK

TOOL STEEL

Length: 12"

IMPERIAL DIMENSIONS in inch





[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut



← L +0.500"/-0.000" →



Standard values

Delivery condition: maximum 225 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	٧
0.45	0.2	0.2	0	0	3.0	1.3	0
0.55	1.0	0.9	0.03	0.03	3.5	1.8	0.35



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Technical Properties

This tool steel is a general purpose air hardening grade having high impact and shock resistance. It has also a good resistance to softening at moderately high temperatures. This combination of properties makes it suitable for many hot-work and cold-work applications.

Working hardness: 56-60 HRC.



Applications

Cutting tools, cold forming and bending dies, plastic molding dies, shear blades, chisels, rivet sets, punches, driver bolts.



AISI S7 – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/S7

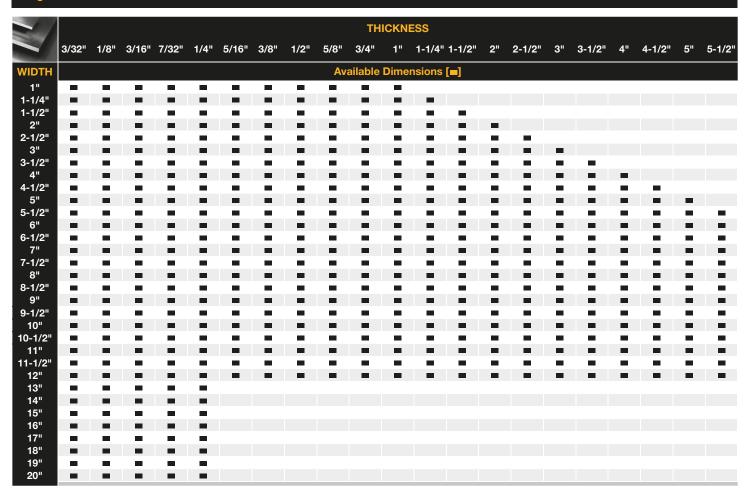


PREMIUM S7 - \$mart FLAT STOCK

TOOL STEEL

Length: 24"

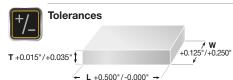
IMPERIAL DIMENSIONS in inch





[\$mart]: Surface Condition
Thickness: ground or fine milled
Width: saw cut

Length: saw cut





Standard values

Delivery condition: maximum 225 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V
				0			
0.55	1.0	0.9	0.03	0.03	3.5	1.8	0.35



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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via smartphone/tablet:



S7



Technical Properties

This tool steel is a general purpose air hardening grade having high impact and shock resistance. It has also a good resistance to softening at moderately high temperatures. This combination of properties makes it suitable for many hot-work and cold-work applications.

Working hardness: 56-60 HRC.



Applications

Cutting tools, cold forming and bending dies, plastic molding dies, shear blades, chisels, rivet sets, punches, driver bolts.

PREMIUM S7 - \$mart FLAT STOCK METRIC

TOOL STEEL

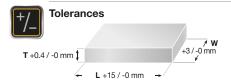
METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 2.3 3.3 4.3 5.3 6.3 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 WIDTH Available Dimensions [33 43 53 63 73 83 93 103 123 143 163 183 203 223 243 253 263 283 303



[\$martM]: Surface Condition

Thickness: ground or fine milled Width: saw cut

Length: saw cut





Standard values

Delivery condition: maximum 225 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	٧
0.45	0.2	0.2	0	0	3.0	1.3	0
0.45 - 0.55	1.0	0.9	0.03	0.03	3.5	1.8	0.35



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Technical Properties

This tool steel is a general purpose air hardening grade having high impact and shock resistance. It has also a good resistance to softening at moderately high temperatures. This combination of properties makes it suitable for many hot-work and cold-work applications.

Working hardness: 56-60 HRC.



Applications

Cutting tools, cold forming and bending dies, plastic molding dies, shear blades, chisels, rivet sets, punches, driver bolts.



AISI S7 – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/S7



PREMIUM S7 - \$mart FLAT STOCK METRIC

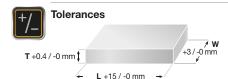
TOOL STEEL

METRIC DIMENSIONS in mm Length: 600 mm **THICKNESS** 2.3 3.3 4.3 5.3 6.3 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 **VIDTH** Available Dimensions [=] 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283 303 323 343 353 363 383 403 423 443 453 463 483 503



[\$martM]: Surface Condition
Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 225 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V
				0			
0.55	1.0	0.9	0.03	0.03	3.5	1.8	0.35



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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via smartphone/tablet:





Technical Properties

This tool steel is a general purpose air hardening grade having high impact and shock resistance. It has also a good resistance to softening at moderately high temperatures. This combination of properties makes it suitable for many hot-work and cold-work applications.

Working hardness: 56-60 HRC.



Application

Cutting tools, cold forming and bending dies, plastic molding dies, shear blades, chisels, rivet sets, punches, driver bolts.

)2

113

H13 ESR

L3

.6

01

20

'20 PH

P20+Ni

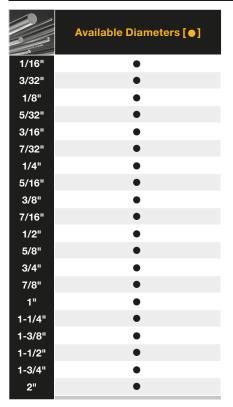
S1

S7

TOOL STEEL

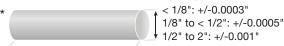
Length: 36"

IMPERIAL DIAMETERS in inch





Tol. Dia.



← Tol. L +0.125" / -0.000" →



Technical Properties

This tool steel is a general purpose air hardening grade having high impact and shock resistance. It has also a good resistance to softening at moderately high temperatures. This combination of properties makes it suitable for many hot-work and cold-work applications.

Working hardness: 56-60 HRC.



Applications

Cutting tools, cold forming and bending dies, plastic molding dies, shear blades, chisels, rivet sets, punches, driver bolts.

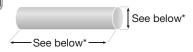


[DR]: Surface Condition

Turned, ground & polished (TGP)



Tolerances





Standard values

Delivery condition: maximum 225 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	٧
				0			
0.55	1.0	0.9	0.03	0.03	3.5	1.8	0.35



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks). Custom orders on request

- according to your requirements.



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AISI S7 – all at a glance!

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PREMIUM S7 - DECARB FREE ROUNDS

TOOL STEEL

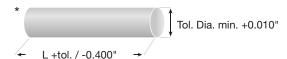
Length: 18"

Available Diameters [•] 1/4" 1/2" 3/4" 1" 1-1/4" 1-3/8" 1-1/2" 1-3/4" 2" 2-1/2" 3" 3-1/2" 4"



IMPERIAL DIAMETERS in inch Length: 36"

	Available Diameters [●]
1/4"	•
1/2"	•
3/4"	•
1"	•
1-1/4"	•
1-3/8"	•
1-1/2"	•
1-3/4"	•
2"	•
2-1/2"	•
3"	•
3-1/2"	•
4"	•

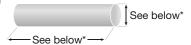




[DCF]: Surface Condition Peeled or rough-turned



Tolerances





Standard values

Delivery condition: maximum 225 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V
				0			
0.55	1.0	0.9	0.03	0.03	3.5	1.8	0.35



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks). Custom orders on request

- according to your requirements.



Contact us

+1 (331) 234-9900 sales@abrams-industries.com



Direct access to our online shop

[18"] - abrams-steel.com/S7-22

[36"] - abrams-steel.com/S7-23



AISI S7 – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/S7

via smartphone/tablet:



S7



Technical Properties

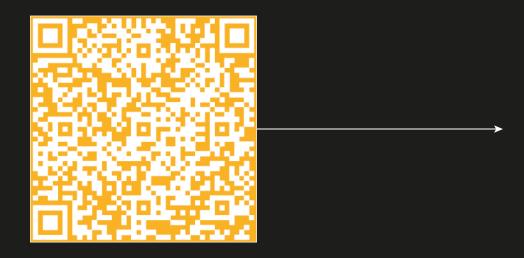
This tool steel is a general purpose air hardening grade having high impact and shock resistance. It has also a good resistance to softening at moderately high temperatures. This combination of properties makes it suitable for many hot-work and cold-work applications.

Working hardness: 56-60 HRC.



Applications

Cutting tools, cold forming and bending dies, plastic molding dies, shear blades, chisels, rivet sets, punches, driver bolts.



ABRAMS





FLATS!

Below are our flats in different categories in imperial as well as metric sizes. Every item is available in different **thickness**, **width** and **length**. On request – specific to your needs!

IMPERIAL

1

Precision Ground Flat Stock, regular [GFS reg]

For example: 3/4" x 4" x 36" reg

- Thickness ground, tol. +/-0.001"
- Width ground or fine milled, tol. +0.005" / -0.000"
- Length milled or saw cut, tol. +0.125" / +0.500"

METRIC



Precision Ground Flat Stock Metric, regular [GFSM reg] acc. to DIN* 59350

For example: 20.0 x 100.0 x 1,000 mm

- Thickness ground or fine milled, tol. +0.05 / -0 mm
- Width ground or fine milled, tol. +0.2 / -0 mm
- Length milled or saw cut, tol. +35 / -0 mm

Exception: AISI 1045: **T** +0.25 / -0 mm; **W** +0.4 / -0 mm



Precision Ground Flat Stock, oversize [GFS O/S]

For example: 3/4" x 4" x 36" O/S

- Thickness ground, tol. +0.010" / +0.015"
- Width ground or fine milled, tol. +0.010" / +0.015"
- Length milled or saw cut, tol. +0.125" / +0.500"



Precision Ground Flat Stock Metric, oversize [GFSM O/S]

For example: 20.3 x 100.3 x 1,000 mm

- **Thickness** ground or fine milled, tol. +0.4 / -0 mm
- Width ground or fine milled, tol. +0.4 / -0 mm
- Length milled or saw cut, tol. +35 / -0 mm



\$mart Flat Stock [\$mart]

Standardized Precision Blanks

For example: 3/4" x 4" x 24"

- Thickness ground or fine milled, tol. +0.015" / +0.035"
- Width saw cut. tol. +0.125" / +0.250"
- Length saw cut, tol. +0.500" / -0.000"



\$mart Flat Stock Metric [\$martM]

Standardized Precision Blanks Metric

For example: 20.3 x 103 x 600 mm

- Thickness ground or fine milled, tol. +0.4 / -0 mm
- Width saw cut. tol. +3 / -0 mm
- Length saw cut, tol. +15 / -0 mm



EDM Block hardened [EDM]

For example: 1/2" x 4" x 4"

- Thickness ground or fine milled, tol. +0.010" / -0.000"
- Square dimension ground or fine milled, tol. min. +0.0125"
- Grain structure is perpendicular in relation to top & bottom.



Hard Flat Metric [HardM]

Hardened Standardized Blanks Metric

For example: 10.2 x 250 x 500 mm

- Thickness ground or fine milled, tol. +0.2 / -0 mm
- Width saw cut or sheared, tol. +10 / -0 mm
- Length saw cut or sheared, tol. +10 / -0 mm

Flatness tolerance: +0.2 / -0 mm across the item (aimed for)

*DIN: DEUTSCHE INDUSTRIE NORM (GERMAN INDUSTRY STANDARD)!

Precision ground flat stock is a bar with a sharp-edged, rectangular or square cross-section made of tool steel with finely machined, decarburization-free longitudinal surfaces. In Germany, it is standardized in DIN 59350. Precision ground flat stock is used primarily as a semi-finished product in machine, tool, fixture and mold construction.



For more details on our shapes see: us.abrams-industries.com/product-overview



ROUNDS

Below are our rounds in different categories in imperial as well as metric sizes. Any item is available in different diameters and / or length. On request – specific to your needs!

IMPERIAL



Drill Rod [DR] **Precision Round Bars**

For example: DR 3/4" x 36" Turned, ground & polished (TGP)

- Tol. Dia. < 1/8": +/-0.0003", L +0.125" / -0.000"
- Tol. Dia. 1/8" to < 1/2": +/-0.0005", L +0.125" / -0.000"
- Tol. Dia. 1/2" to 2": +/-0.001", L +0.125" / -0.000"

METRIC



Drill Rod Metric [DRM] **Precision Round Bars Metric**

For example: DRM 10.0 mm x 914 mm (36")

Turned, ground & polished (TGP) - ISO h9

- Tol. Dia. \leq 10.0 mm: +0 / -0.036 mm, L +tol.
- Tol. Dia. > 10.0 mm to 18.0 mm: +0 / -0.043 mm, L +tol.
- Tol. Dia. > 18.0 mm to 25.0 mm; +0 / -0.052 mm, L +tol.

These are maximum tolerances. For more exact tolerances call our sales team.



Cold Finished Rounds [CF] Precision Round Bars

For example: CF 3/4" x 36"

Drawn, smooth turned, ground, or ground and polished

- Tol. Dia. < 1/2": +/-0.0015", L +tol. / -0.400"
- Tol. Dia. 1/2" to < 1-1/2": +/-0.0025", L +tol. / -0.400"
- Tol. Dia. 1-1/2" to 4": +/-0.004", L +tol. / -0.400"

These are maximum tolerances. For more exact tolerances call our sales team.



Cold Finished Rounds Metric [CFM] Precision Round Bars Metric

For example: CFM 10.0 mm x 914 mm (36")

Drawn, smooth turned, ground, or ground and polished (ISO h9)

- Tol. Dia. ≤ 10.0 mm: +0 / -0.036 mm, L +tol.
- Tol. Dia. > 10.0 mm to 18.0 mm: +0 / -0.043 mm. L +tol.
- Tol. Dia. > 18.0 mm to 25.0 mm: +0 / -0.052 mm, L +tol.

These are maximum tolerances. For more exact tolerances call our sales team.



Decarb Free Rounds [DCF] Oversize Round Bars

For example: DCF 3/4" x 36"

Peeled or rough-turned

- Tol. Dia. min. +0.010", L +tol. / -0.400"
- Exception: 4XX Series stainless steel, tol. Dia. +tol. / -0.000", L +tol. / -0.400"

These steel rounds are oversized to finish to nominal diameter.



STEEL CATEGORIES!

Steel grades are classified by their technical properties and/or by their intended use.

For example: Cold work steel, hot work steel, plastic mold steel, high speed steel, corrosion resistant steel or case hardening steel. Steel grades are often assigned to several classification groups.

For more details on our shapes see: us.abrams-industries.com/product-overview





Shapes



WATCH THE MAKING OF THE 4TH MOTIF FOR CALENDAR 2019 / 2022





				/ /	/ /	/ /	/ <u>"</u>	<u>"m</u>	/ /	/ /	/ /	/ /		/ /			ed RHM				_ -ci) /	/ /	/ /	/ /	/ /	rejetant rit	
TOOL STEEL II		, de .	Sign of the sign o	256 / II	/ is	innight	o ren. 1 de		750 m	in 500 mm		RIM STA FIET	1.0861) ET	M STA FIFT (36)		ry hardness	idened to	HRCI	approx. IKSI	hardness t	e e e e e e e e e e e e e e e e e e e	s luc	steel Ast	geel cité	al corresion	Te did resistant	Aning Steel
STEEL GRADE - AISI	er er	real et	si sois lei	E LEID OF	f SM reg 3	EM OF S	Mart 12th	Stratell 3de	ardin 250	JM thardb	A ^{NSE} (1	AM STATE	Tei sei	Mota mir	Mat. (at	they beineth	trattened) tensile	stron on one	ak. Works.	ad Work .	T MOLK ST	astic More	di speeu	ainless St.	ainless 31	at-Teatu Case Ha	
PREMIUM Toolox 33						✓	✓								330		163.1	36	✓		✓						
PREMIUM Toolox 44						✓	✓								418		205.9	45	✓		✓						
PREMIUM W1										✓					200		97.9	65	✓								
PREMIUM 1018 / A36			✓									~			162		72.5	60	✓								
PREMIUM 1045				✓											190		94.2	54	✓								
PREMIUM 2990 mod.						✓	✓								250		123.2	63	✓		✓						
PREMIUM 420 ESR						✓	✓								241		118.2	55			✓		✓	✓			
PREMIUM 420 LC					~	✓	✓								330		163.1	35			✓		✓				
PREMIUM 420FM					~	✓	✓								330		163.1	48			✓		✓				
PREMIUM 5120					~	✓	✓								217		104.4	60	✓		✓					✓	
PREMIUM 52100 / L1						✓	✓								223		108.7	64	✓								
PREMIUM 6F7 ESR						✓	✓								260		127.6	54	✓	✓	✓						

IMPERIAL

Precision Ground Flat Stock, regular [GFS reg]
Precision Ground Flat Stock, oversize [GFS O/S]
\$mart Flat Stock [\$mart] - Standardized Precision Blanks
EDM Block hardened [EDM]
Drill Rod [DR] - Precision Round Bars
Cold Finished Rounds [CF] - Precision Round Bars
Decarb Free Rounds [DCF] - Oversize Round Bars

METRIC

Precision Ground Flat Stock Metric, regular [GFSM reg] - acc. to DIN* 59350
Precision Ground Flat Stock Metric, oversize [GFSM O/S]
\$mart Flat Stock Metric [\$martM] - Standardized Precision Blanks Metric
Hard Flat Metric [HardM] - Hardened Standardized Blanks Metric
Drill Rod Metric [DRM] - Precision Round Bars Metric
Cold Finished Rounds Metric [CFM] - Precision Round Bars Metric
*DIN: Deutsche Industrie Norm (German Industry Standard)



PREMIUM Toolox 33 - \$mart FLAT STOCK

TOOL STEEL

Length: 12"

IMPERIAL DIMENSIONS in inch

61	THICKNESS													
	3/16"	7/32"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1-1/4"	1-1/2"			
WIDTH					Availal	ble Dimensio	ons [=]							
1"	-	-	-		-	-	-	-	-					
1-1/4"	-	-	-	-	-	-	-	-	-	-				
1-1/2"	-	-	-	-	-	-	-	-	-	-	-			
2"	-	-	-		-	-	-	-	-	-	-			
2-1/2"	-	-	-	-	-	-	-	-	-	-	-			
3"	-	-	-		-	-	-	-	-	-	-			
3-1/2"	-	-	-	-	-	-	-	-	-	-	-			
4"	-		-	-	-	-	-	-	-	-	-			
4-1/2"	-	-	-	-	-	-	-	-	-	-	-			
5"	-	-	-	-	-	-	-	-	-	-				
5-1/2"	-	-	-	-	-	-	-	-	-	-	-			
6"	_	_	_	_	-		_	_	_	_	_			
6-1/2"	-	-	_	-	-	-	-	-	_	-	-			
7" 7-1/2"	-	-	-	-	-			-	-	-	-			
7-1/2" 8"	-	-		-		-	-	-	-	-				
8-1/2"	-	-	-				-	-	-	-	-			
9"		_		_			_	_		_	-			
9-1/2"	-		_	_	_		_	_	_	_	_			
10"	_	_	_		_	_	_	_	_	_	_			
10-1/2"	-	-	-	_	-	-	_	-	-	_	-			
11"	-	-	-	-	-	-	-	-	-	-	-			
11-1/2"	-	-	-	-	-	-	-	-	-	-	-			
12"	-	-	-		-	-	-	-	-	-	-			



[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut



T+0.015"/+0.035" 1 ← L +0.500"/-0.000" →



Standard values

Delivery condition: maximum 330 BHN Chemical composition:

/ W +0.125"/+0.250"

C	Si	Mn	Р	S	Cr	Мо	Ni	V
0.2	2 0.6	0.8	0	0	1.0	0.3	0	0.1
0.2	4 1.1	0.8	0.01	0.003	1.2	0.3	1.0	0.11



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



Contact us

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Direct access to our online shop



abrams-steel.com/T33-10



AISI Toolox 33 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/T33

via smartphone/tablet:



Technical Properties

Quenched and tempered low alloy tool steel with good machinability, high toughness and low residual stresses. Can easily be polished, grained, eroded, etched, sliced, welded, nitrided, and coated with PVD (Physical Vapor Deposition). Further heat treatment is not intended.

Working hardness without nitriding: approx. 30-36 HRC (delivery condition).



Applications

Mechanical engineering, machine parts, guide rails, base plates, assembly parts, press brake tools, plate forming tools, wear parts, plastic molds, molding frames, forming tools, rubber molds, die casting molds.

PREMIUM Toolox 33 - \$mart FLAT STOCK

TOOL STEEL

Length: 24"

IMPERIAL DIMENSIONS in inch

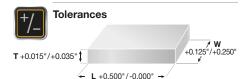
6 1						T. 0. () F.0.0					
						THICKNESS					
	3/16"	7/32"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1-1/4"	1-1/2"
WIDTH					Availa	ble Dimensio	ns [■]				
1"											
1-1/4"	-	-	-	-	-	-	-	-		-	
1-1/2"		_			_						
2"	-	_		-	-	-	-			-	
2-1/2"	-		-	-	-	-	-	_	-	_	_
3"	_		_	_	-	-	-	_		-	
3-1/2"	_	-	_		-	_	-	_	-	-	_
4"	-	_	-	-	-	-	-			-	
4-1/2"	-	-	-		-	-	-		-	-	-
5"			-	-		-	-				
5-1/2"	_	-	-		_	-		_	-	-	-
6"	_	_	_	_	_	_	_	_	_	_	_
6-1/2"	-	-	_			-		-	-	-	_
7"	_	_	_	_	_	_	_	_	_	_	_
7-1/2" 8"	-	-		-				-		-	-
8-1/2"						_					
9"	-	-	-								
9-1/2"		-			-		-	-	-	-	-
10"		_		_		_		_	_	_	_
10-1/2"		-	_	_	-		-	-		-	_
11"	_	_	_	_	_	_	_	_	_	_	_
11-1/2"		_	_	_	_		_	_		_	_
12"		-	_	-	-	-	-	-		-	
13"	-	-	-	-	-	-	-	-	-	-	-
14"		-	-	-	-	-	-	-		-	-
15"		_	_	_	_		_	_		-	
16"		-	-	-	-	-	-	-		-	-
17"		_									
18"		-		_	-	-	-	_		-	
19"		-	_		-	-	-	-		-	_
20"	-	_	-	-	-	-	-		-	-	-



[\$mart]: Surface Condition
Thickness: ground or fine milled
Width: saw cut

Toolox 33

Length: saw cut





Standard values

Delivery condition: maximum 330 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni	V
				0				
-	-	-	-	-	-	-	-	-
0.24	1.1	0.8	0.01	0.003	1.2	0.3	1.0	0.11



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



Contact us

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Direct access to our online shop

abrams-steel.com/T33-11



Technical Properties

Quenched and tempered low alloy tool steel with good machinability, high toughness and low residual stresses. Can easily be polished, grained, eroded, etched, sliced, welded, nitrided, and coated with PVD (Physical Vapor Deposition). Further heat treatment is not intended.

Working hardness without nitriding: approx. 30-36 HRC (delivery condition).



Applications

Mechanical engineering, machine parts, guide rails, base plates, assembly parts, press brake tools, plate forming tools, wear parts, plastic molds, molding frames, forming tools, rubber molds, die casting molds.



AISI Toolox 33 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/T33



PREMIUM Toolox 33 - \$mart FLAT STOCK METRIC

TOOL STEEL

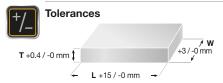
METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 3.3 4.3 5.3 6.3 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 Available Dimensions [■] WIDTH 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283 303



[\$martM]: Surface Condition

Thickness: ground or fine milled Width: saw cut

Length: saw cut





Standard values

Delivery condition: maximum 330 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni	V
0.22	0.6	8.0	0	0	1.0	0.3	0	0.1
0.24	1.1	0.8	0.01	0.003	1.2	0.3	1.0	0.11



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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AISI Toolox 33 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/T33

via smartphone/tablet:



Technical Properties

Quenched and tempered low alloy tool steel with good machinability, high toughness and low residual stresses. Can easily be polished, grained, eroded, etched, sliced, welded, nitrided, and coated with PVD (Physical Vapor Deposition). Further heat treatment is not intended.

Working hardness without nitriding: approx. 30-36 HRC (delivery condition).



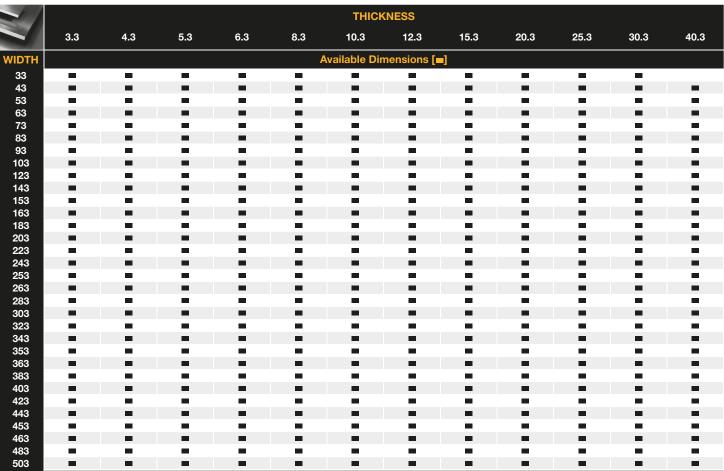
Applications

Mechanical engineering, machine parts, guide rails, base plates, assembly parts, press brake tools, plate forming tools, wear parts, plastic molds, molding frames, forming tools, rubber molds, die casting molds.

PREMIUM Toolox 33 - \$mart FLAT STOCK METRIC

TOOL STEEL

Length: 600 mm THICKNESS METRIC DIMENSIONS in mm

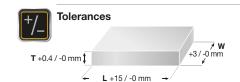




[\$martM]: Surface Condition
Thickness: ground or fine milled

Toolox 33

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 330 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni	V
				0				
0.24	1.1	0.8	0.01	0.003	1.2	0.3	1.0	- 0.11



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



Contact us

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Direct access to our online shop

abrams-steel.com/T33-13



Technical Properties

Quenched and tempered low alloy tool steel with good machinability, high toughness and low residual stresses. Can easily be polished, grained, eroded, etched, sliced, welded, nitrided, and coated with PVD (Physical Vapor Deposition). Further heat treatment is not intended.

Working hardness without nitriding: approx. 30-36 HRC (delivery condition).



Applications

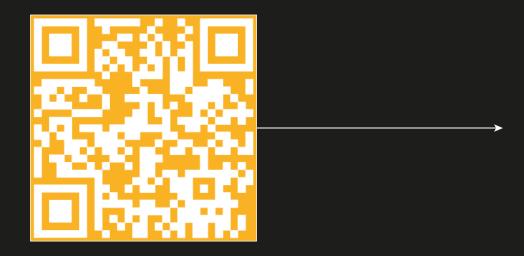
Mechanical engineering, machine parts, guide rails, base plates, assembly parts, press brake tools, plate forming tools, wear parts, plastic molds, molding frames, forming tools, rubber molds, die casting molds.

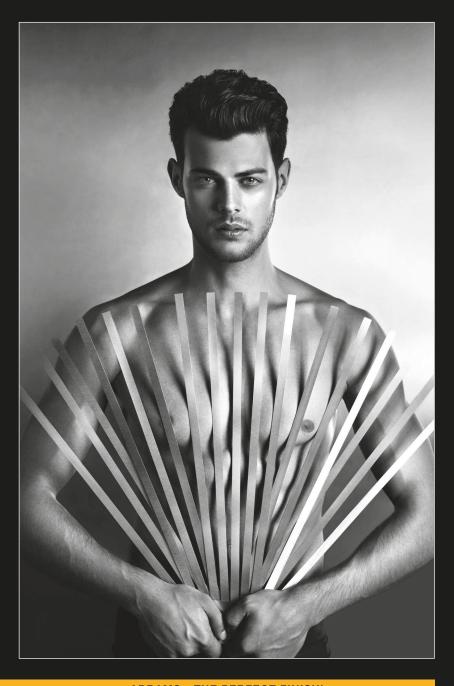


AISI Toolox 33 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/T33







ABRAMS - THE PERFECT FINISH!



PREMIUM Toolox 44 - \$mart FLAT STOCK

TOOL STEEL

Length: 12"

IMPERIAL DIMENSIONS in inch

6/						THICK	KNESS					
	3/16"	7/32"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1-1/4"	1-1/2"	2"
WIDTH					А	vailable Dir	mensions [•]				
1"	_		-	-								
1-1/4"	-	-	-	-	-	-	-	-	-	-		
1-1/2"		-	-	-	-	-	-	-		-	-	
2"	-	-	-	-	-	-		-		-	-	
2-1/2"	-	-	-	-	-	-	-	-	-	-	-	-
3"	-	-	-	-	-		-	-	-	-	-	-
3-1/2"	-	-	-	-	-	-	-	-	-	-	-	-
4"	-		-	-				-		-		
4-1/2"	-	-	-	-	-	-	-	-	-	-	-	-
5"	-	-		-	-			-	-			-
5-1/2"	-	-	-	-	-	-	-	-	-	-	-	-
6"	-	-	-	-	-			-	-	-	•	
6-1/2"		-	-	-	-	-	-	-	-	-	-	-
7"	-	_	_	-	-	-	_	_	_	-	_	_
7-1/2" 8"	-	-	-	-	-	-	-	-	-	-	-	-
	-		-	-		-	-	_	-	-	-	_
8-1/2" 9"		-			-	-	-	-	-		-	-
9-1/2"	-		-	-	-	-	-	-	-		-	-
10"	-	_	_		_	_	_	_	-	_	_	_
10-1/2"	_	_	-	-	_	_	_	_	_	-	_	_
11"	_	_	_	_	_	_	_	_	_	_	_	_
11-1/2"	_	_	-	-	_	_	_	_	_	_	_	_
12"	_	_	_	-	_	_	_	_	_	_		
		_	_	_	_	_	_	_		_	_	_



[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut



← L +0.500"/-0.000" →



Standard values

Delivery condition: maximum 418 BHN Chemical composition:

C	Si	Mn	Р	S	Cr	Мо	Ni	V
				0				
0.33	11	0.8	0.01	0.003	1 35	0.8	10	0 14
0.32	2 1.1	0.8	0.01	0.003	1.35	0.8	1.0	



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Low-alloyed tool steel with high-impact toughness, quenched and tempered up to approx. 45 HRC. Machinable with suitable tools because of its low carbide content. Good dimensional and shape stability. Can easily be polished, grained, eroded, etched, sliced, welded, nitrided, and coated with PVD (Physical Vapor Deposition).

Working hardness: approx. 45 HRC (delivery condition).

Technical Properties



Applications

Mechanical engineering, machine parts, guide rails, base plates, assembly parts, press brake tools, plate forming tools, wear parts, plastic molds, molding frames, forming tools, rubber molds, die casting molds.



AISI Toolox 44 – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/T44

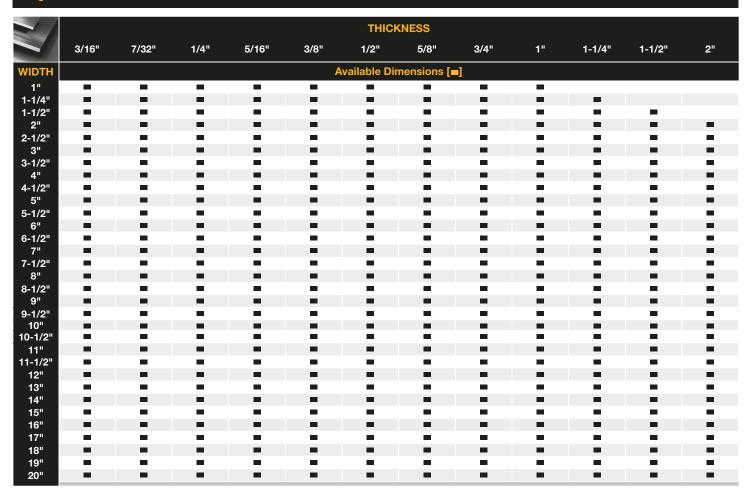


PREMIUM Toolox 44 - \$mart FLAT STOCK

TOOL STEEL

Length: 24"

IMPERIAL DIMENSIONS in inch

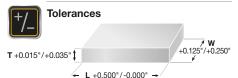




[\$mart]: Surface Condition
Thickness: ground or fine milled
Width: saw cut

Toolox 44

Length: saw cut





Standard values

Delivery condition: maximum 418 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni	٧
				0				
0.32	1.1	0.8	0.01	0.003	1.35	0.8	1.0	0.14



Don't see your exact dimension(s)?

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Technical Properties

Low-alloyed tool steel with high-impact toughness, quenched and tempered up to approx. 45 HRC. Machinable with suitable tools because of its low carbide content. Good dimensional and shape stability. Can easily be polished, grained, eroded, etched, sliced, welded, nitrided, and coated with PVD (Physical Vapor Deposition).

Working hardness: approx. 45 HRC (delivery condition).



Applications

Mechanical engineering, machine parts, guide rails, base plates, assembly parts, press brake tools, plate forming tools, wear parts, plastic molds, molding frames, forming tools, rubber molds, die casting molds.



AISI Toolox 44 – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/T44



PREMIUM Toolox 44 - \$mart FLAT STOCK METRIC

TOOL STEEL

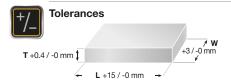
METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 3.3 4.3 5.3 6.3 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 WIDTH Available Dimensions [=] 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283 303



[\$martM]: Surface Condition

Thickness: ground or fine milled Width: saw cut

Length: saw cut





Standard values

Delivery condition: maximum 418 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni	V
				0				
0.32	1.1	0.8	0.01	0.003	1.35	0.8	1.0	- 0.14



Don't see your exact dimension(s)?

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AISI Toolox 44 - all at a glance!

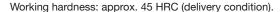
Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/T44

via smartphone/tablet:



Technical Properties

Low-alloyed tool steel with high-impact toughness, quenched and tempered up to approx. 45 HRC. Machinable with suitable tools because of its low carbide content. Good dimensional and shape stability. Can easily be polished, grained, eroded, etched, sliced, welded, nitrided, and coated with PVD (Physical Vapor Deposition).





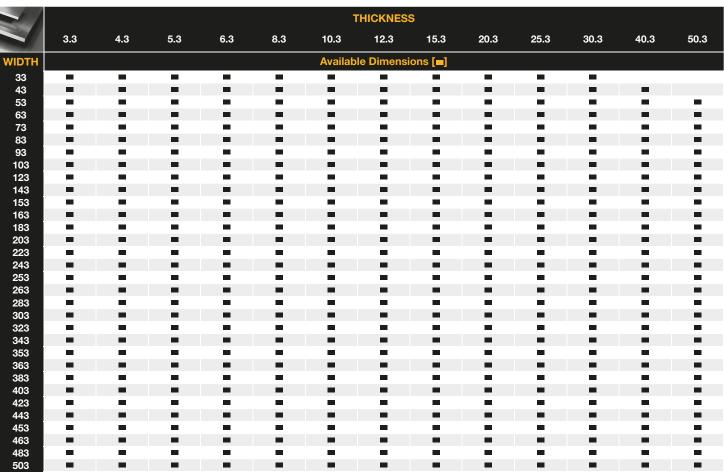
Applications

Mechanical engineering, machine parts, guide rails, base plates, assembly parts, press brake tools, plate forming tools, wear parts, plastic molds, molding frames, forming tools, rubber molds, die casting molds.

PREMIUM Toolox 44 - \$mart FLAT STOCK METRIC

TOOL STEEL

Length: 600 mm METRIC DIMENSIONS in mm

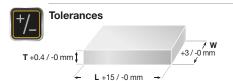




[\$martM]: Surface Condition
Thickness: ground or fine milled

Toolox 44

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 418 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni	V
				0				
0.32	1.1	0.8	0.01	0.003	- 1.35	0.8	1.0	- 0.14



Don't see your exact dimension(s)?

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Technical Properties

Low-alloyed tool steel with high-impact toughness, quenched and tempered up to approx. 45 HRC. Machinable with suitable tools because of its low carbide content. Good dimensional and shape stability. Can easily be polished, grained, eroded, etched, sliced, welded, nitrided, and coated with PVD (Physical Vapor Deposition).

Working hardness: approx. 45 HRC (delivery condition).



Applications

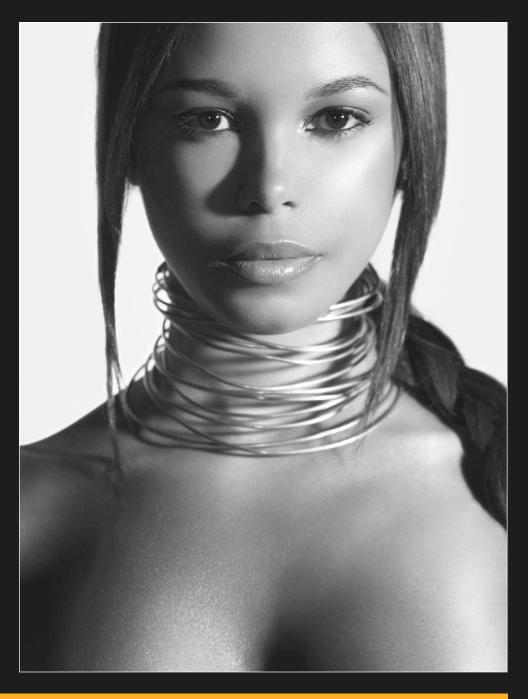
Mechanical engineering, machine parts, guide rails, base plates, assembly parts, press brake tools, plate forming tools, wear parts, plastic molds, molding frames, forming tools, rubber molds, die casting molds.



AISI Toolox 44 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/T44





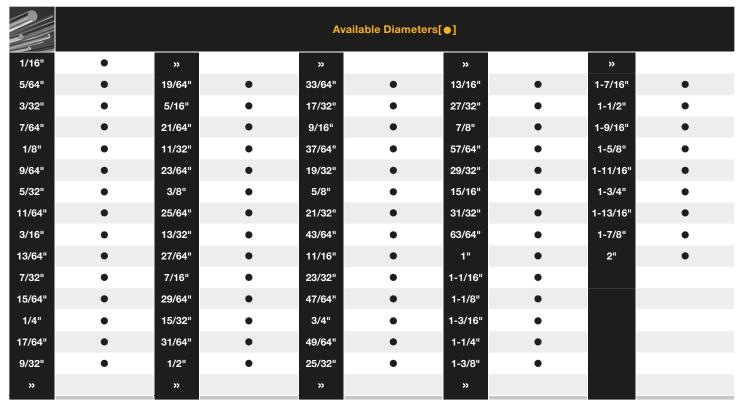


ABRAMS PREMIUM DRILL ROD - PRECISION ROUND BARS (TGP)!

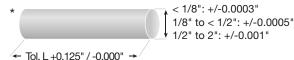
PREMIUM W1 - DRILL ROD

Length: 36"

IMPERIAL DIAMETERS in inch









Technical Properties

W1 is a water-hardening tool steel with a moderate wear resistance that is easy to machine. Its high carbon content results in a keen cutting edge. In essence, W1 is a simple high carbon steel and can easily be hardened by heating and quenching in water.

Working hardness: 55-65 HRC.



Applications

Cutting tools, knives, razor blades, broaching tools, tools for screw cutting, embossing taps, cutlery, chisels, drawing dies, tools for hardest stones, shafts, pins.



[DR]: Surface Condition

Turned, ground & polished (TGP)

Toolox 33

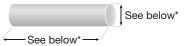
Toolox 44

W1



Tolerances

TOOL STEEL





Standard values

Delivery condition: maximum 200 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V	W
0.9	0.1	0.3	0	0	0	0	0	0
1.05	0.25	0.4	0.025	0.025	0.2	0.1	0.1	0.2



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks). Custom orders on request

- according to your requirements.



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abrams-steel.com/W1-17



AISI W1 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/W1

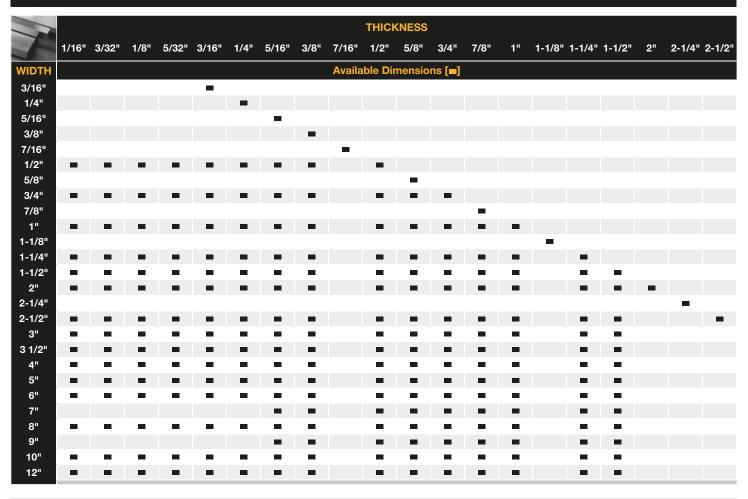


PREMIUM 1018 / A36 - PRECISION GROUND FLAT STOCK, REGULAR

TOOL STEEL

Length: 24"

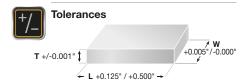
IMPERIAL DIMENSIONS in inch





[GFS reg]: Surface Condition Thickness: ground Width: ground or fine milled

Length: milled or saw cut





Standard values

Delivery condition: maximum 162 BHN Chemical composition:

С	Si	Mn	Р	S
0	0	0.6	0	0
0.29	0.4	1.2	0.04	0.05



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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AISI 1018 / A36 – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/1018-A36

via smartphone/tablet:



Technical Properties

This grade is one of the commonly used low corbon steels. It has good weldability, surface hardening quality, higher mechanical properties and a very good machinability.

Working hardness: 50-60 HRC.



Applications

Gears, pinions, ratchets, worms, pins, chain pins, machine parts, tools and mold components.

Length: 36"

PREMIUM 1018 / A36 - COLD FINISHED ROUNDS

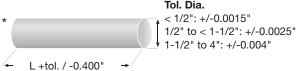
TOOL STEEL

Length: 18"

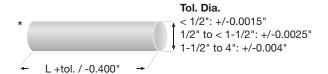
Available Diameters [●] 1/4" 3/8" 1/2" 5/8" 3/4"

1"
1-1/8"
1-1/4"
1-3/8"
1-1/2"
1-3/4"
2"
2-1/2"
3"
3-1/2"
4"

Tol. Dia.



Available Diameters [•] 1/4" 3/8" 1/2" 5/8" 3/4" 1" 1-1/8" 1-1/4" 1-3/8" 1-1/2" 1-3/4" 2" 2-1/2" 3" 3-1/2"



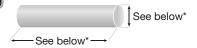


[CF]: Surface Condition

Drawn, smooth turned, ground, or ground and polished



Tolerances



W1

1018 / A36



Standard values

Delivery condition: maximum 162 BHN Chemical composition:

С	Si	Mn	Р	S
0	0	0.6	0	0
0.29	0.4	1.2	0.04	0.05



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks).
Custom orders on request

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[18"] - abrams-steel.com/1018-A36-19

[36"] - abrams-steel.com/1018-A36-20



AISI 1018 / A36 - all at a glance!

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ABRAMS STEEL GUIDE for alternatives:
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via smartphone/tablet:



Te

Technical Properties

This grade is one of the commonly used low corbon steels. It has good weldability, surface hardening quality, higher mechanical properties and a very good machinability.

Working hardness: 50-60 HRC.



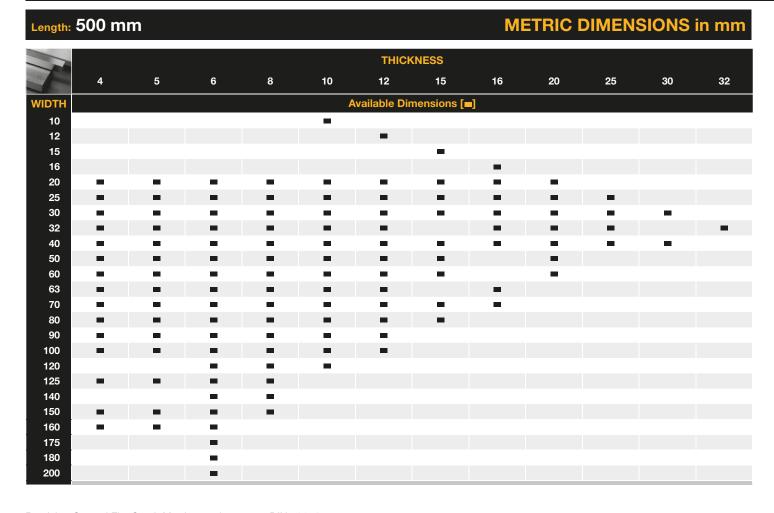
Applications

Gears, pinions, ratchets, worms, pins, chain pins, machine parts, tools and mold components.

IMPERIAL DIAMETERS in inch

PREMIUM 1045 - PRECISION GROUND FLAT STOCK METRIC, REGULAR

TOOL STEEL



Precision Ground Flat Stock Metric, regular acc. to DIN 59350



Technical Properties

Unalloyed tool steel with excellent machining properties for unhardened parts e.g. fixture construction, due to its carbon proportion (0.45%) it can be hardened, but has a low depth of hardening. Shallow depth case-hardening steel with a hard surface and a tough core.

Working hardness: approx. 190 BHN (annealed) up to 54 HRC (surface hardness).



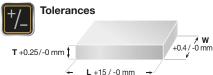
Applications

Mechanical engineering, construction materials, jigs, base plates, molding frames, small dies, hand tools, simple knives, sledges, pliers, forks, hatchets, axes, shears, screwdrivers, chisels.



[GFSM reg]: Surface Condition Thickness: ground or fine milled Width: ground or fine milled

Length: milled or saw cut





Standard values

Delivery condition: maximum 190 BHN Chemical composition:

С	Si	Mn	Р	S
0.42	0.15	0.6	0	0
0.5	0.4	0.8	0.03	0.03



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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AISI 1045 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/1045



PREMIUM 1045 - PRECISION GROUND FLAT STOCK METRIC, REGULAR

TOOL STEEL

METRIC DIMENSIONS in mm Length: 1,000 mm **THICKNESS** 5 6 8 10 12 15 16 20 Available Dimensions [■] VIDTH 10 12 15 16 20 25 30 32 40 50 60 63 70

[GFSM reg]: Surface Condition Thickness: ground or fine milled Width: ground or fine milled Length: milled or saw cut

Toolox 33

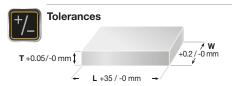
Toolox 44

W1

1018/

A36

1045





Standard values

Delivery condition: maximum 190 BHN Chemical composition:

С	Si	Mn	Р	S	
0.42	0.15	0.6	0	0	
0.5	0.4	0.8	0.03	0.03	



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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80

90

100

125

Technical Properties

Precision Ground Flat Stock Metric, regular acc. to DIN 59350

Unalloyed tool steel with excellent machining properties for unhardened parts e.g. fixture construction, due to its carbon proportion (0.45%) it can be hardened, but has a low depth of hardening. Shallow depth case-hardening steel with a hard surface and a tough core.

Working hardness: approx. 190 BHN (annealed) up to 54 HRC (surface hardness).



Applications

Mechanical engineering, construction materials, jigs, base plates, molding frames, small dies, hand tools, simple knives, sledges, pliers, forks, hatchets, axes, shears, screwdrivers, chisels.



AISI 1045 - all at a glance!

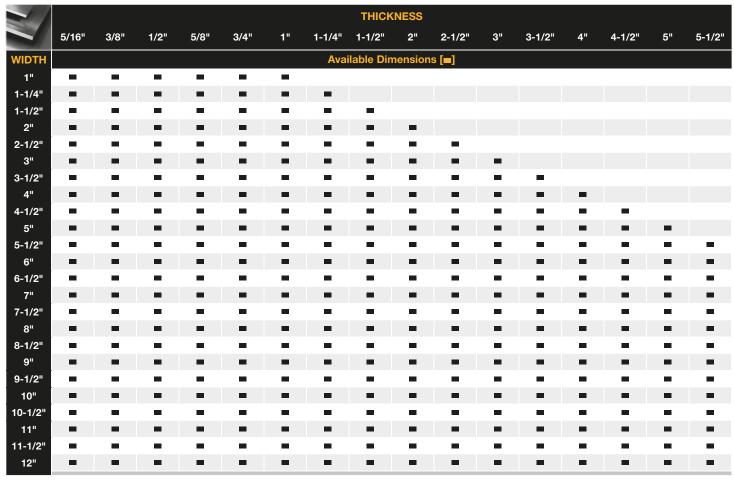
Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/1045



PREMIUM 2990 mod. - \$mart FLAT STOCK

TOOL STEEL

Length: 12" IMPERIAL DIMENSIONS in inch





Technical Properties

An all-rounder amongst the cold work steels: high toughness, good pressure resistance, excellent compression strength, excellent wear and tempering resistance. It is secondary-hardened and has a good dimensional stability, good erosion quality and excellent nitridability.

Working hardness: approx. 57-63 HRC.

Applications

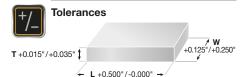
Blanking tools, stamping tools, precision cutting tools, dies, punches, thread rolling tools, cold pilger mandrels, plastic molds, cold rollings, cold extrusion tools, cold forming tools, deep drawing dies, woodworking tools, embossing tools, bending tools, machine knives, circular shear knives, machine parts.



[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 250 BHN Chemical composition: (+additives):

С	Cr	Мо	V
1.0	8.0	1.8	0.15
1.0	8.0	2.7	0.5



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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AISI 2990 mod. - all at a glance!

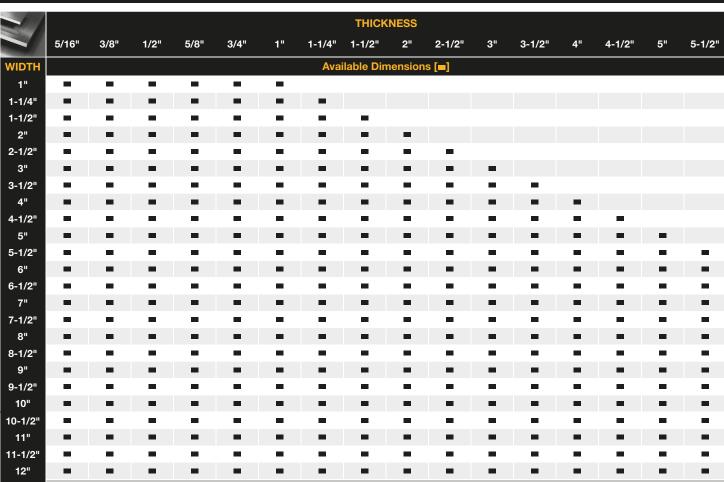
Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/2990mod



PREMIUM 2990 mod. - \$mart FLAT STOCK

TOOL STEEL

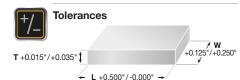
Length: 24" IMPERIAL DIMENSIONS in inch





[\$mart]: Surface Condition
Thickness: ground or fine milled
Width: saw cut

Length: saw cut





Standard values

Delivery condition: maximum 250 BHN Chemical composition: (+additives):

2990 mod.

С	Cr	Мо	V
1.0	8.0	1.8	0.15
1.0	8.0	2.7	0.5



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Technical Properties

An all-rounder amongst the cold work steels: high toughness, good pressure resistance, excellent compression strength, excellent wear and tempering resistance. It is secondary-hardened and has a good dimensional stability, good erosion quality and excellent nitridability.

Working hardness: approx. 57-63 HRC.



Applications

Blanking tools, stamping tools, precision cutting tools, dies, punches, thread rolling tools, cold pilger mandrels, plastic molds, cold rollings, cold extrusion tools, cold forming tools, deep drawing dies, woodworking tools, embossing tools, bending tools, machine knives, circular shear knives, machine parts.



AISI 2990 mod. – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/2990mod



PREMIUM 2990 mod. - \$mart FLAT STOCK METRIC

TOOL STEEL

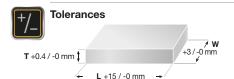
METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 **NIDTH** Available Dimensions [=] 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283 303



[\$martM]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 250 BHN Chemical composition: (+additives):

С	Cr	Мо	V
1.0	8.0	1.8	0.15
1.0	8.0	2.7	0.5



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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AISI 2990 mod. - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/2990mod

via smartphone/tablet:



Technical Properties

An all-rounder amongst the cold work steels: high toughness, good pressure resistance, excellent compression strength, excellent wear and tempering resistance. It is secondary-hardened and has a good dimensional stability, good erosion quality and excellent nitridability.

Working hardness: approx. 57-63 HRC.



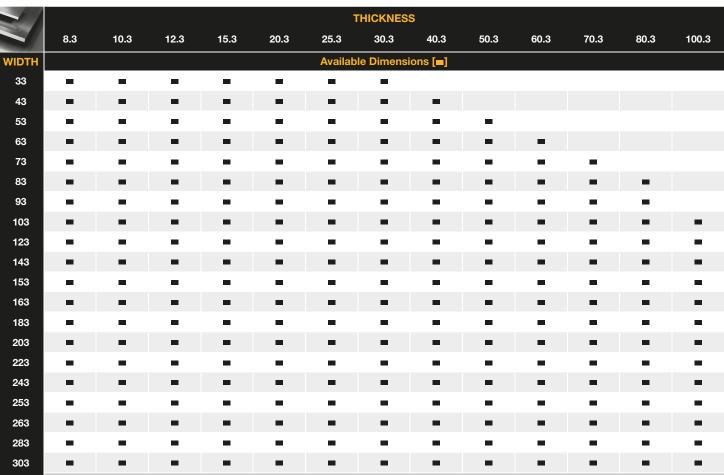
Applications

Blanking tools, stamping tools, precision cutting tools, dies, punches, thread rolling tools, cold pilger mandrels, plastic molds, cold rollings, cold extrusion tools, cold forming tools, deep drawing dies, woodworking tools, embossing tools, bending tools, machine knives, circular shear knives, machine parts.

PREMIUM 2990 mod. - \$mart FLAT STOCK METRIC

TOOL STEEL

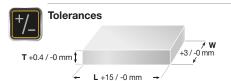
Length: 600 mm METRIC DIMENSIONS in mm





[\$martM]: Surface Condition
Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 250 BHN Chemical composition: (+additives):

2990 mod.

С	Cr	Мо	V
1.0	8.0	1.8	0.15
1.0	8.0	2.7	0.5



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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abrams-steel.com/2990mod-13



Technical Properties

An all-rounder amongst the cold work steels: high toughness, good pressure resistance, excellent compression strength, excellent wear and tempering resistance. It is secondary-hardened and has a good dimensional stability, good erosion quality and excellent nitridability.

Working hardness: approx. 57-63 HRC.



Applications

Blanking tools, stamping tools, precision cutting tools, dies, punches, thread rolling tools, cold pilger mandrels, plastic molds, cold rollings, cold extrusion tools, cold forming tools, deep drawing dies, woodworking tools, embossing tools, bending tools, machine knives, circular shear knives, machine parts.



AISI 2990 mod. – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/2990mod







ABRAMS - SUPERIOR!



Toolox 44

W1

1018 / A36

045

2990 mod.



PREMIUM 420 ESR - \$mart FLAT STOCK

TOOL STEEL

Length: 12"

THICKNESS 5/16" 3/8" 1/2" 5/8" 3/4" 1" 1-1/4" 1-1/2" 2-1/2" 3-1/2" 4-1/2" 5" 5-1/2" WIDTH Available Dimensions [=] 1" 1-1/4" 1-1/2" 2" 2-1/2" 3" 3-1/2" 4" 4-1/2" 5" 5-1/2" 6" 6-1/2" 7" 7-1/2" 8" 8-1/2" 9-1/2" 10" 10-1/2 11" 11-1/2 12"



[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut



← L +0.500"/-0.000" →



Standard values

Delivery condition: maximum 241 BHN Chemical composition:

С	Si	Mn	Р	S	Cr
			0		
0.42	1.0	1.0	0.03	0.03	14.5



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Direct access to our online shop

abrams-steel.com/420ESR-10

Corrosion-resistant cold work steel and plastic mold steel, good machinability, good hardenability and excellent polishing properties. Low distortion through-hardening steel with high hardness and high wear resistance. The ESR (Electro Slag Remelted Steel) steel production process provides for maximum

Working hardness: 50-55 HRC.

Technical Properties

polishability.



Applications

Mechanical engineering, medical technology, plastic molds, synthetic resin mold tools, die casting tools, light metal die casting, cutting tools, machine knives, kitchen knives, razors, shears, scraper blades, surgical instruments, measuring tools, roller bearings, ball bearings, ice-skates, pump parts, valves.

IMPERIAL DIMENSIONS in inch



AISI 420 ESR - all at a glance!

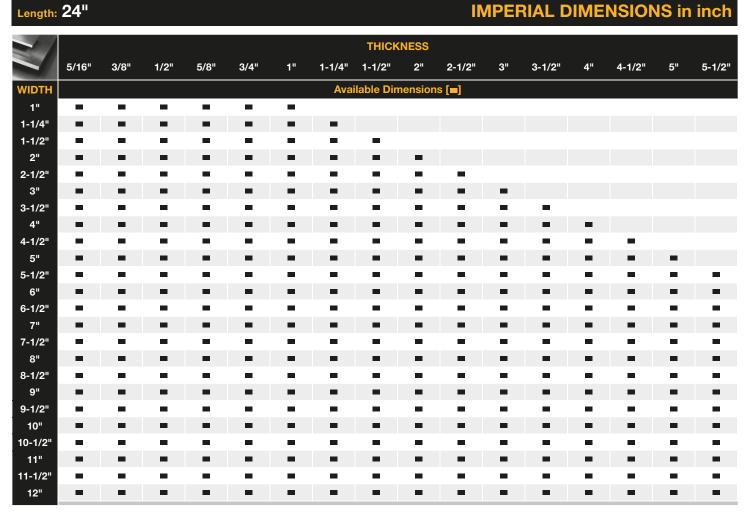
Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/420ESR



PREMIUM 420 ESR - \$mart FLAT STOCK

TOOL STEEL

IMPERIAL DIMENSIONS in inch





[\$mart]: Surface Condition Thickness: ground or fine milled Width: saw cut

Toolox 33

Toolox 44

W1

1018 /

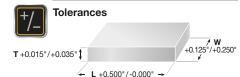
A36

1045

2990 mod.

420 ESR

Length: saw cut





Standard values

Delivery condition: maximum 241 BHN Chemical composition:

С	Si	Mn	Р	S	Cr
0.36	0	0	0	0	12.5
0.42	1.0	1.0	0.03	0.03	14.5



Don't see your exact dimension(s)?

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AISI 420 ESR – all at a glance!

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via smartphone/tablet:





Technical Properties

Corrosion-resistant cold work steel and plastic mold steel, good machinability, good hardenability and excellent polishing properties. Low distortion through-hardening steel with high hardness and high wear resistance. The ESR (Electro Slag Remelted Steel) steel production process provides for maximum polishability.

Working hardness: 50-55 HRC.



Applications

Mechanical engineering, medical technology, plastic molds, synthetic resin mold tools, die casting tools, light metal die casting, cutting tools, machine knives, kitchen knives, razors, shears, scraper blades, surgical instruments, measuring tools, roller bearings, ball bearings, ice-skates, pump parts, valves.

PREMIUM 420 ESR - \$mart FLAT STOCK METRIC

TOOL STEEL

Length: 300 mm THICKNESS 83 103 123 153 203 253 303 403 503 603 703 803 1003

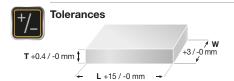
						1	HICKNES	8					
	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3	60.3	70.3	80.3	100.3
WIDTH						Availab	le Dimensi	ons [=]					
33	-	-	-	-	-	-	-						
43	-	-	-	-	-	-	-	-					
53	-	-	-	-	-	-	-	-	-				
63	-	-	-	-	-	-	-	-	-	-			
73	-	-	-	-	-	-	-	-	-	-	-		
83	-	-	-	-	-	-	-	-	-	-	-	-	
93	-	-	-	-	-	-	-	-	-	-	-	-	
103	-	-	-	-	-	-	-	-	-	-	-	-	-
123	-	-	-	-	-	-	-	-	-	-	-	-	-
143	-	-	-	-	-	-	-	-	-	-	-	-	-
153	-	-	-	-	-	-	-	-	-	-	-	-	-
163	-	-	-	-	-	-	-	-	-	-	-	-	-
183	-	-	-	-	-	-	-	-	-	-	-	-	-
203	-	-	-	-	-	-	-	-	-	-	-	-	-
223	-	-	-	-	-	-	-	-	-	-	-	-	-
243	-	-	-	-	-	-	-	-	-	-	-	-	-
253	-	-	-	-	-	-	-	-	-	-	-	-	-
263	-	-	-	-	-	-	-	-	-	-	-	-	-
283	-	-	-	-	-	-	-	-	-	-	-	-	-
303	-	-	-	-	-	-	-	-	-	-	-	-	-



[\$martM]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 241 BHN Chemical composition:

С	Si	Mn	Р	S	Cr
0.36	0	0	0	0	12.5
0.42	1.0	1.0	0.03	0.03	14.5



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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AISI 420 ESR – all at a glance!

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via smartphone/tablet:



Technical Properties

Corrosion-resistant cold work steel and plastic mold steel, good machinability, good hardenability and excellent polishing properties. Low distortion through-hardening steel with high hardness and high wear resistance. The ESR (Electro Slag Remelted Steel) steel production process provides for maximum polishability.

Working hardness: 50-55 HRC.



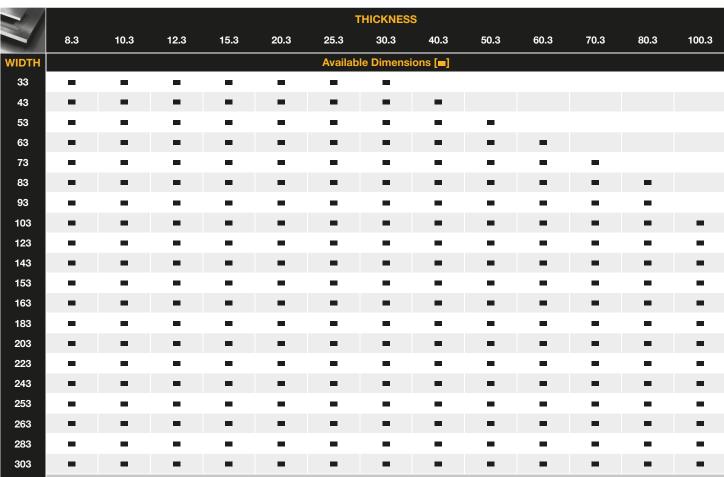
Applications

Mechanical engineering, medical technology, plastic molds, synthetic resin mold tools, die casting tools, light metal die casting, cutting tools, machine knives, kitchen knives, razors, shears, scraper blades, surgical instruments, measuring tools, roller bearings, ball bearings, ice-skates, pump parts, valves.

PREMIUM 420 ESR - \$mart FLAT STOCK METRIC

TOOL STEEL

Length: 600 mm METRIC DIMENSIONS in mm





[\$martM]: Surface Condition
Thickness: ground or fine milled

Toolox 33

Toolox 44

W1

1018 /

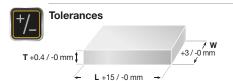
A36

1045

2990 mod.

420 ESR

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 241 BHN Chemical composition:

С	Si	Mn	Р	S	Cr
0.36	0	0	0	0	12.5
0.42	1.0	1.0	0.03	0.03	14.5



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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Technical Properties

Corrosion-resistant cold work steel and plastic mold steel, good machinability, good hardenability and excellent polishing properties. Low distortion through-hardening steel with high hardness and high wear resistance. The ESR (Electro Slag Remelted Steel) steel production process provides for maximum polishability.

Working hardness: 50-55 HRC.



Applications

Mechanical engineering, medical technology, plastic molds, synthetic resin mold tools, die casting tools, light metal die casting, cutting tools, machine knives, kitchen knives, razors, shears, scraper blades, surgical instruments, measuring tools, roller bearings, ball bearings, ice-skates, pump parts, valves.



AISI 420 ESR – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/420ESR

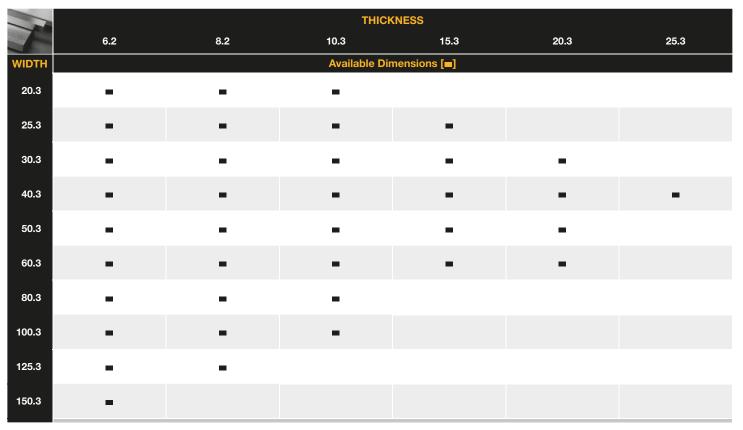




PREMIUM 420 LC - PRECISION GROUND FLAT STOCK METRIC, OVERSIZE

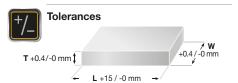
TOOL STEEL

Length: 500 mm METRIC DIMENSIONS in mm





[GFSM O/S]: Surface Condition Thickness: ground or fine milled Width: ground or fine milled Length: milled or saw cut





Standard values

Delivery condition: maximum 330 BHN Chemical composition: (+additives):

			S		
			0.12		
0.05	0.3	1.0	0.12	13.0	0.45



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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Technical Properties

Prehardened, corrosion resistant plastic mold steel. Magnetizable, excellent machinability and good weldability. Resistant to humid conditions. Further heat treatment is not intended.

Working hardness: approx. 33 HRC (reference value for delivery condition).



Applications

Mechanical engineering, apparatus engineering, plastic processing, injection tools, base plates, assembly parts, molding frames, plastic molds, extrusion tools, valves, steam valves, water valves, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical instruments.



AISI 420 LC - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/420LC

via smartphone/tablet:



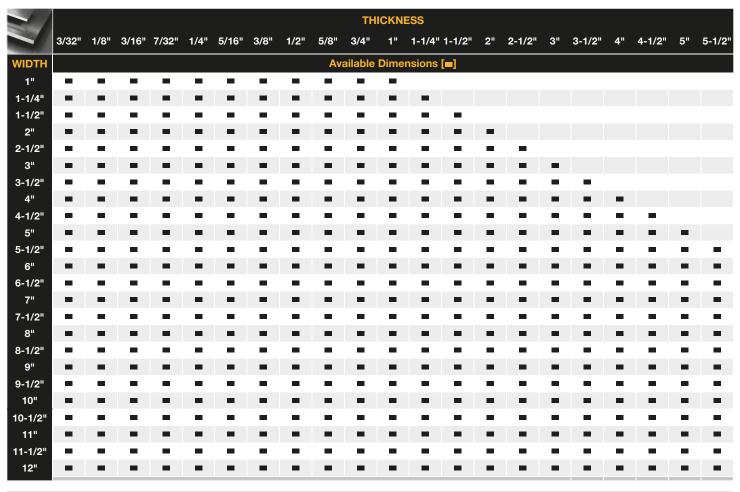
420 LC

PREMIUM 420 LC - \$mart FLAT STOCK

TOOL STEEL

Length: 12"

IMPERIAL DIMENSIONS in inch





[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut



← L +0.500"/-0.000" →



Standard values

Delivery condition: maximum 330 BHN Chemical composition: (+additives):

С	Si	Mn	S	Cr	Ni
0.05	0.2	0.9	0.12	12.5	0.4
0.05	0.3	1.0	0.12	13.0	0.45



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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Technical Properties

Prehardened, corrosion resistant plastic mold steel.

Magnetizable, excellent machinability and good weldability.

Resistant to humid conditions. Further heat treatment is not intended.

Working hardness: approx. 33 HRC (reference value for delivery condition).



Applications

Mechanical engineering, apparatus engineering, plastic processing, injection tools, base plates, assembly parts, molding frames, plastic molds, extrusion tools, valves, steam valves, water valves, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical instruments.



AISI 420 LC - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/420LC

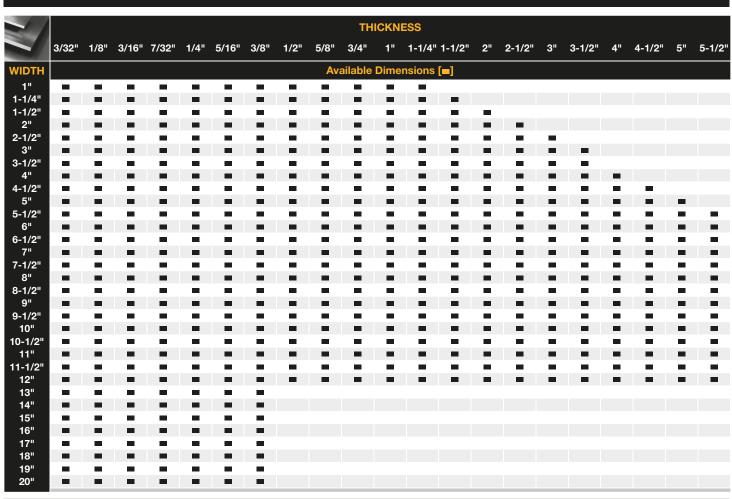


PREMIUM 420 LC - \$mart FLAT STOCK

TOOL STEEL

Length: 24"

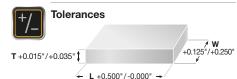
IMPERIAL DIMENSIONS in inch





[\$mart]: Surface Condition
Thickness: ground or fine milled
Width: saw cut

Length: saw cut





Standard values

Delivery condition: maximum 330 BHN Chemical composition: (+additives):

			S		
			0.12		
0.05	0.3	1.0	0.12	13.0	0.45



Don't see your exact dimension(s)?

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Technical Properties

Prehardened, corrosion resistant plastic mold steel. Magnetizable, excellent machinability and good weldability. Resistant to humid conditions. Further heat treatment is not intended.

Working hardness: approx. 33 HRC (reference value for delivery condition).



Applications

Mechanical engineering, apparatus engineering, plastic processing, injection tools, base plates, assembly parts, molding frames, plastic molds, extrusion tools, valves, steam valves, water valves, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical instruments.



AISI 420 LC - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/420LC

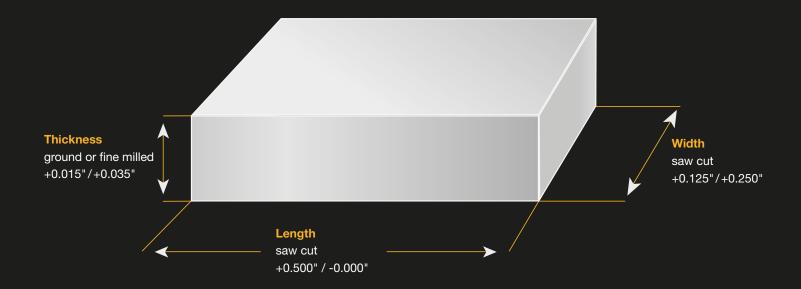
via smartphone/tablet:



420 LC

\$mart Flat Stock: \$AVES YOU TIME - \$AVES YOU MONEY

Always close to your final dimensions.



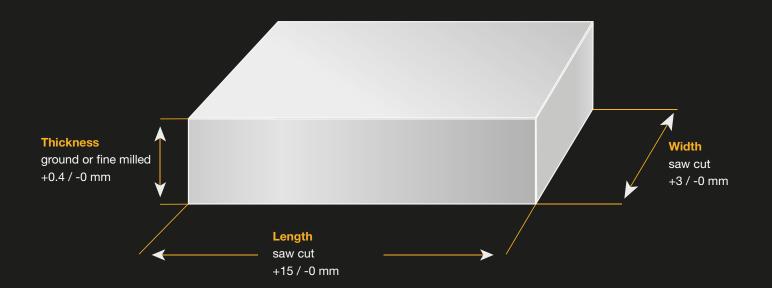
NEW TO THE MEXICAN MARKET!

METRIC

420 LC

\$mart Flat Stock: \$AVES YOU TIME - \$AVES YOU MONEY

Always close to your final dimensions.



PREMIUM 420 LC - \$mart FLAT STOCK METRIC

TOOL STEEL

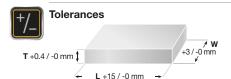
METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 2.3 3.3 4.3 5.3 6.3 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 WIDTH 33 43 53 63 73 83 93 103 123 143 163 183 203 223 243 253 263 283 303



[\$martM]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 330 BHN Chemical composition: (+additives):

С	Si	Mn	S	Cr	Ni
			0.12		
0.05	0.3	1.0	0.12	12.5	0.45



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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AISI 420 LC - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/420LC

via smartphone/tablet:



Technical Properties

Prehardened, corrosion resistant plastic mold steel.

Magnetizable, excellent machinability and good weldability.

Resistant to humid conditions. Further heat treatment is not intended.

Working hardness: approx. 33 HRC (reference value for delivery condition).



Applications

Mechanical engineering, apparatus engineering, plastic processing, injection tools, base plates, assembly parts, molding frames, plastic molds, extrusion tools, valves, steam valves, water valves, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical instruments.

PREMIUM 420 LC - \$mart FLAT STOCK METRIC

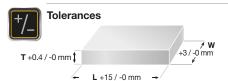
TOOL STEEL

METRIC DIMENSIONS in mm Length: 600 mm **THICKNESS** 50.3 2.3 3.3 4.3 5.3 6.3 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 60.3 70.3 80.3 100.3 VIDTH Available Dimensions [=] 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283 303 323 343 353 363 383 403 423 443 453 463



[\$martM]: Surface Condition
Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 330 BHN Chemical composition: (+additives):

			S		
			0.12		
0.05	0.3	1.0	0.12	12.5	0.45



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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483 503

Technical Properties

Prehardened, corrosion resistant plastic mold steel. Magnetizable, excellent machinability and good weldability. Resistant to humid conditions. Further heat treatment is not intended.

Working hardness: approx. 33 HRC (reference value for delivery condition).



Applications

Mechanical engineering, apparatus engineering, plastic processing, injection tools, base plates, assembly parts, molding frames, plastic molds, extrusion tools, valves, steam valves, water valves, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical instruments.



AISI 420 LC - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/420LC

via smartphone/tablet:



420 LC

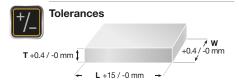
PREMIUM 420FM - PRECISION GROUND FLAT STOCK METRIC, OVERSIZE

TOOL STEEL

Length: 500 mm **METRIC DIMENSIONS in mm THICKNESS** 6.2 8.2 10.3 15.3 25.3 30.3 20.3 Available Dimensions [=] **WIDTH** 20.3 25.3 30.3 40.3 50.3 60.3 80.3 100.3 125.3 150.3



[GFSM O/S]: Surface Condition Thickness: ground or fine milled Width: ground or fine milled Length: milled or saw cut





Standard values

Delivery condition: maximum 330 BHN Chemical composition:

					Cr	
0.28	0	0	0	0.05	15.0	0
0.38	1.0	1.4	0.03	0.1	15.0 - 17.0	1.0



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Technical Properties

Pre-hardened, corrosion-resistant plastic mold steel. Magnetizable with good machinability. Resistant to humid conditions. Further heat treatment is not intended.

Working hardness: approx. 33 HRC (delivery condition) up to 48 HRC.



Applications

Mechanical engineering, apparatus engineering, plastic processing, injection tools, base plates, assembly parts, molding frames, plastic molds, extrusion tools, valves, steam valves, water valves, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical instruments.



AISI 420FM - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/420FM



PREMIUM 420FM - PRECISION GROUND FLAT STOCK METRIC, OVERSIZE

TOOL STEEL

Length: 1,000 mm

METRIC DIMENSIONS in mm

		THIC	KNESS	
	8.2	10.3	15.3	20.3
WIDTH		Available Di	mensions [=]	
20.3	-	-	-	-
25.3	-	-	-	-
30.3	-	-	-	
40.3	-	-		
50.3	-	-		
60.3	-			



[GFSM O/S]: Surface Condition Thickness: ground or fine milled Width: ground or fine milled Length: milled or saw cut

Toolox 33

Toolox 44

W1

1018 /

A36

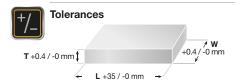
1045

2990 mod.

420 ESR

420 LC

420FM





Standard values

Delivery condition: maximum 330 BHN Chemical composition:

			Р			
0.28	0	0	0	0.05	15.0	0
0.28 - 0.38	1.0	1.4	0.03	0.1	17.0	1.0



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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Technical Properties

Pre-hardened, corrosion-resistant plastic mold steel. Magnetizable with good machinability. Resistant to humid conditions. Further heat treatment is not intended.

Working hardness: approx. 33 HRC (delivery condition) up to 48 HRC.



Applications

Mechanical engineering, apparatus engineering, plastic processing, injection tools, base plates, assembly parts, molding frames, plastic molds, extrusion tools, valves, steam valves, water valves, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical instruments.



AISI 420FM - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/420FM



PREMIUM 420FM - \$mart FLAT STOCK

TOOL STEEL

Length: 12"

IMPERIAL DIMENSIONS in inch

10%						1	THICKNES	S					
	3/32"	1/8"	3/16"	7/32"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1-1/4"	1-1/2"
WIDTH						Availab	le Dimensi	ons [=]					
1"	-	-				-		-	-	-			
1-1/4"	-	-		-	-	-	-	-	-	-		-	
1-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-
2"	-	-	-		-	-	-	-	-	-	-	-	-
2-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-
3"		-				-	-	-		-	-	-	-
3-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-
4"	-	-			-	-	-	-			-	-	-
4-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-
5"	-	-		-	-	-	-				-	-	-
5-1/2"	-	_	-	-	-	-	-	-	-	-	-	-	-
6"	-	_	_	-	-	_	_	_		_	_	-	_
6-1/2" 7"	-	-	-	-	-	-	-	_	-	-	-	-	-
7-1/2"	-		-	-	-	-	-	_	-	-	-	-	-
7-1/2" 8"	-	-	-		_	-	-	-	-	-	-		
8-1/2"	_	_	-	_		_		-	_	_	-	-	-
9"	_	_	_	_	_	_	_	-	_	_	_	_	_
9-1/2"	_	_		_		_	_	_	_		_	_	_
10"	-	-	-		-	-	-	-	-	-	-	-	-
10-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-
11"	-	-				-	-	-		-	-	-	-
11-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-
12"	-	-		-		-	-	-		-	-	-	-



[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut



Tolerances

T+0.015"/+0.035" \\ \tag{\text{\tinite\text{\te}\text{\texiclex{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tin}\text{\text{\ti}\tint{\text{\text{\text{\texiclex{\text{\text{\text{\text{\texi\tin\text{\texiclex{\texiclex{\text{\tin\tinte\tintett{\texit{\tin\tinte\text{\texit{\texi{\texiclex{\tilint{\texitilex{\tiinte\



Standard values

Delivery condition: maximum 330 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Ni
0.28	0	0	0	0.05	15.0	0
0.38	1.0	1.4	0.03	0.1	17.0	1.0



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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abrams-steel.com/420FM-10



Technical Properties

Pre-hardened, corrosion-resistant plastic mold steel. Magnetizable with good machinability. Resistant to humid conditions. Further heat treatment is not intended.

Working hardness: approx. 33 HRC (delivery condition) up to 48 HRC.



Applications

Mechanical engineering, apparatus engineering, plastic processing, injection tools, base plates, assembly parts, molding frames, plastic molds, extrusion tools, valves, steam valves, water valves, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical instruments.



AISI 420FM - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/420FM

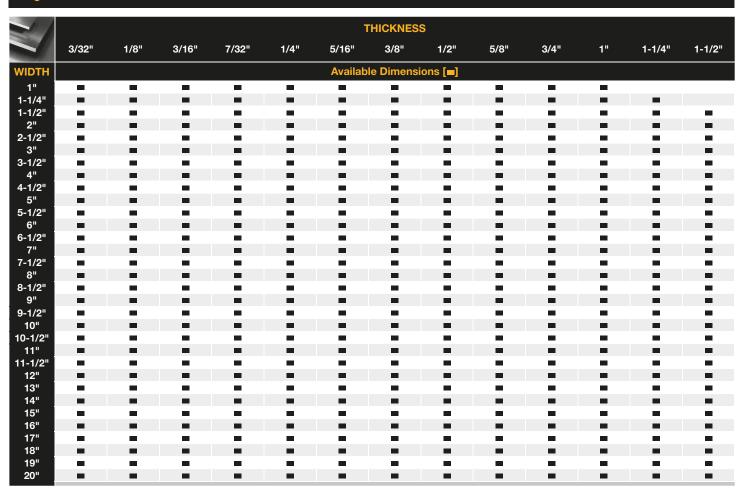


PREMIUM 420FM - \$mart FLAT STOCK

TOOL STEEL

Length: 24"

IMPERIAL DIMENSIONS in inch





[\$mart]: Surface Condition
Thickness: ground or fine milled
Width: saw cut

Toolox 33

Toolox 44

W1

1018 /

A36

1045

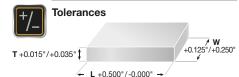
2990 mod.

420 ESR

420 LC

420FM

Length: saw cut





Standard values

Delivery condition: maximum 330 BHN Chemical composition:

			Р			
0.28	0	0	0	0.05	15.0	0
0.38	1.0	1.4	0.03	0.1	17.0	1.0



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Technical Properties

Pre-hardened, corrosion-resistant plastic mold steel. Magnetizable with good machinability. Resistant to humid conditions. Further heat treatment is not intended.

Working hardness: approx. 33 HRC (delivery condition) up to 48 HRC.



Applications

Mechanical engineering, apparatus engineering, plastic processing, injection tools, base plates, assembly parts, molding frames, plastic molds, extrusion tools, valves, steam valves, water valves, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical instruments.



AISI 420FM – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/420FM



PREMIUM 420FM - \$mart FLAT STOCK METRIC

TOOL STEEL

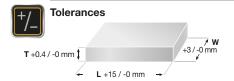
METRIC DIMENSIONS in mm THICKNESS 3.3 4.3 5.3 6.3 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 **NIDTH** Available Dimensions [=] 33 43 53 63 73 83 93 103 123 143 163 183 203 223 243



[\$martM]: Surface Condition

Thickness: ground or fine milled Width: saw cut

Length: saw cut





Standard values

Delivery condition: maximum 330 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Ni
0.28	0	0	0	0.05	15.0	0
0.38	1.0	1.4	0.03	0.1	17.0	1.0



Don't see your exact dimension(s)?

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AISI 420FM - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/420FM

via smartphone/tablet:



Technical Properties

253

263

283

303

Length: 300 mm

Pre-hardened, corrosion-resistant plastic mold steel. Magnetizable with good machinability. Resistant to humid conditions. Further heat treatment is not intended.

Working hardness: approx. 33 HRC (delivery condition) up to 48 HRC.



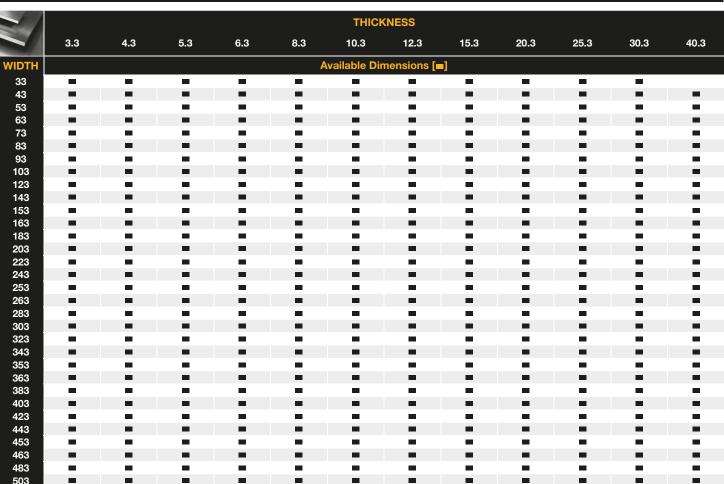
Applications

Mechanical engineering, apparatus engineering, plastic processing, injection tools, base plates, assembly parts, molding frames, plastic molds, extrusion tools, valves, steam valves, water valves, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical instruments.

PREMIUM 420FM - \$mart FLAT STOCK METRIC

TOOL STEEL

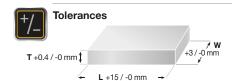
Length: 600 mm METRIC DIMENSIONS in mm





[\$martM]: Surface Condition
Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 330 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Ni
0.28	0	0	0	0.05	15.0	0
0.38	1.0	1.4	0.03	0.1	- 17.0	1.0



Don't see your exact dimension(s)?

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Technical Properties

Pre-hardened, corrosion-resistant plastic mold steel. Magnetizable with good machinability. Resistant to humid conditions. Further heat treatment is not intended.

Working hardness: approx. 33 HRC (delivery condition) up to 48 HRC.



Applications

Mechanical engineering, apparatus engineering, plastic processing, injection tools, base plates, assembly parts, molding frames, plastic molds, extrusion tools, valves, steam valves, water valves, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical instruments.



AISI 420FM – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/420FM

via smartphone/tablet:



Toolox 33

Toolox 44

W1

1018 / A36

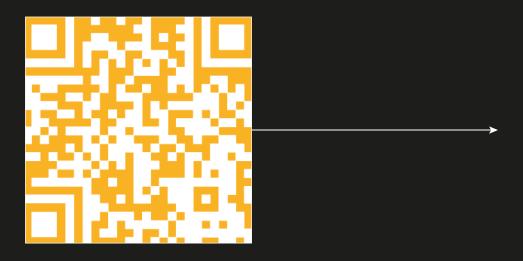
1045

2990 mod.

420 ESR

420 LC

420FM





Toolox 33

Toolox 44

W1

1018 / A36

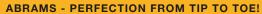
1045

2990 mod.

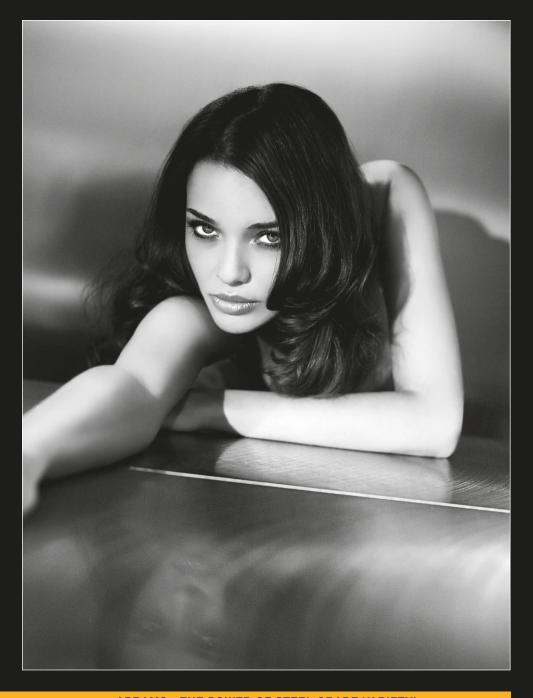
420 ESR

420 LC

420FM







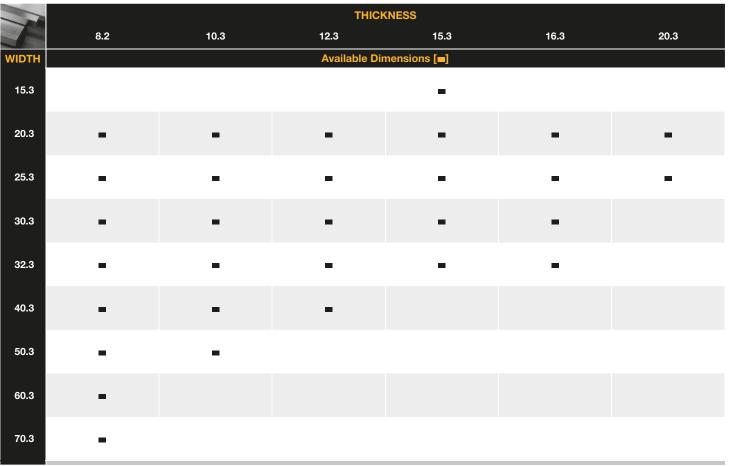
ABRAMS - THE POWER OF STEEL GRADE VARIETY!



PREMIUM 5120 - PRECISION GROUND FLAT STOCK METRIC, OVERSIZE

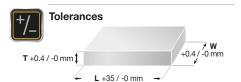
TOOL STEEL

Length: 1,000 mm METRIC DIMENSIONS in mm





[GFSM O/S]: Surface Condition Thickness: ground or fine milled Width: ground or fine milled Length: milled or saw cut





Standard values

Delivery condition: maximum 217 BHN Chemical composition:

С	Si	Mn	Р	S	Cr
0.18	0.15	1.1	0	0	1.0
0.24	0.35	1.4	0.03	0.03	1.3



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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Technical Properties

Cold work steel and plastic mold steel. High surface hardness with high core toughness. Exellent machinability, good cold hobbing and polishing properties. The even component strength is a result of the combination of hardened surface and high core toughness.

Surface working hardness: 58-60 HRC.



Applications

Mechanical engineering, jig construction, plant engineering, apparatus engineering, plastic processing, plastic molds, synthetic resin mold tools, base plates, bending bars, guide columns, gear parts, joint parts, shafts, gears, rods, bevel gears, crown wheels, piston pins, camshafts, bolts, pins, universal joints.



AISI 5120 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/5120

via smartphone/tablet:



5120

PREMIUM 5120 - \$mart FLAT STOCK

TOOL STEEL

Length: 12"

IMPERIAL DIMENSIONS in inch

6/							THICH	KNESS						
	3/32"	1/8"	3/16"	7/32"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1-1/4"	1-1/2"	2"
WIDTH						Av	ailable Dir	nensions	[=]					
1"	-			_		-			_	-				
1-1/4"	-	-	-	-	-	-	-		_	-	-	-		
1-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-	
2"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	_	-
3"	-		-	-		-		-	-	-	_		-	-
3-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4"	-	-	_	-	-	_		-				-		-
4-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5"	-	_	-	_	-	_	-	_	_	_	_	_	_	_
5-1/2"	-	-	-	-	-	-	-	-	-	-		-	-	-
6"	_	-	-	-	_	-	-	-	-	_	_	_	-	-
6-1/2" 7"	-	-	-	-	-	-	-	-	-	-		-	-	-
7-1/2"	-	-	-	-	-	-	-	-		-		-	-	-
8"	_	_	_	_	_	_	_	_	_	_			_	_
8-1/2"	_	_	_	_	_	-	_	_	_	_	_	_	_	_
9"	-	_	_	-	_	_	_		_	_		_		_
9-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12"	-		-	-	-	-		-	-	-	-		-	-



[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut



← L +0.500"/-0.000" →



Standard values

Delivery condition: maximum 217 BHN Chemical composition:

С	Si	Mn	Р	S	Cr
			0		
0.24	0.35	1.4	0.03	0.03	1.3



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Technical Properties

Cold work steel and plastic mold steel. High surface hardness with high core toughness. Exellent machinability, good cold hobbing and polishing properties. The even component strength is a result of the combination of hardened surface and high core toughness.

Surface working hardness: 58-60 HRC.



Applications

Mechanical engineering, jig construction, plant engineering, apparatus engineering, plastic processing, plastic molds, synthetic resin mold tools, base plates, bending bars, guide columns, gear parts, joint parts, shafts, gears, rods, bevel gears, crown wheels, piston pins, camshafts, bolts, pins, universal joints.



AISI 5120 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/5120

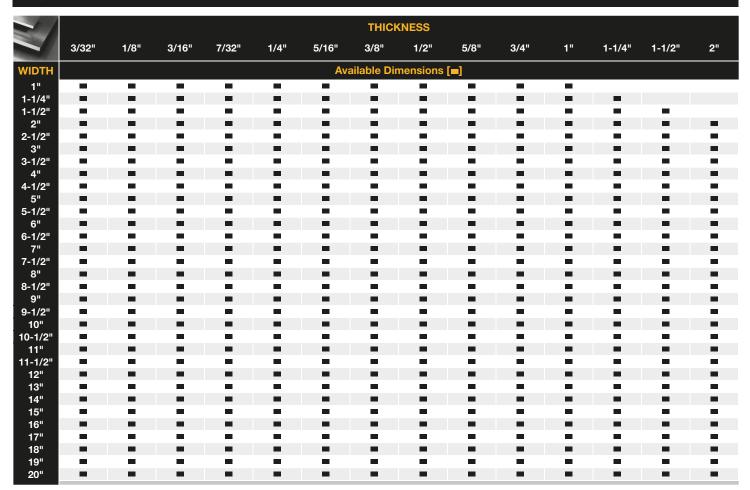


PREMIUM 5120 - \$mart FLAT STOCK

TOOL STEEL

Length: 24"

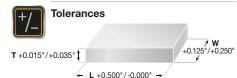
IMPERIAL DIMENSIONS in inch





[\$mart]: Surface Condition
Thickness: ground or fine milled
Width: saw cut

Length: saw cut





Standard values

Delivery condition: maximum 217 BHN Chemical composition:

С	Si	Mn	Р	S	Cr
0.18	0.15	1.1	0	0	1.0
0.24	0.35	1.4	0.03	0.03	1.3



Don't see your exact dimension(s)?

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Technical Properties

Cold work steel and plastic mold steel. High surface hardness with high core toughness. Exellent machinability, good cold hobbing and polishing properties. The even component strength is a result of the combination of hardened surface and high core toughness.

Surface working hardness: 58-60 HRC.



Applications

Mechanical engineering, jig construction, plant engineering, apparatus engineering, plastic processing, plastic molds, synthetic resin mold tools, base plates, bending bars, guide columns, gear parts, joint parts, shafts, gears, rods, bevel gears, crown wheels, piston pins, camshafts, bolts, pins, universal joints.



AISI 5120 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/5120

via smartphone/tablet:



5120

PREMIUM 5120 - \$mart FLAT STOCK METRIC

TOOL STEEL

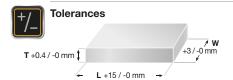
METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 3.3 4.3 5.3 6.3 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 **NIDTH** Available Dimensions [=] 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283 303



[\$martM]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 217 BHN Chemical composition:

С	Si	Mn	Р	S	Cr
			0		
0.24	0.35	1.4	0.03	0.03	1.3



Don't see your exact dimension(s)?

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AISI 5120 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/5120

via smartphone/tablet:



Technical Properties

Cold work steel and plastic mold steel. High surface hardness with high core toughness. Exellent machinability, good cold hobbing and polishing properties. The even component strength is a result of the combination of hardened surface and high core toughness.

Surface working hardness: 58-60 HRC.



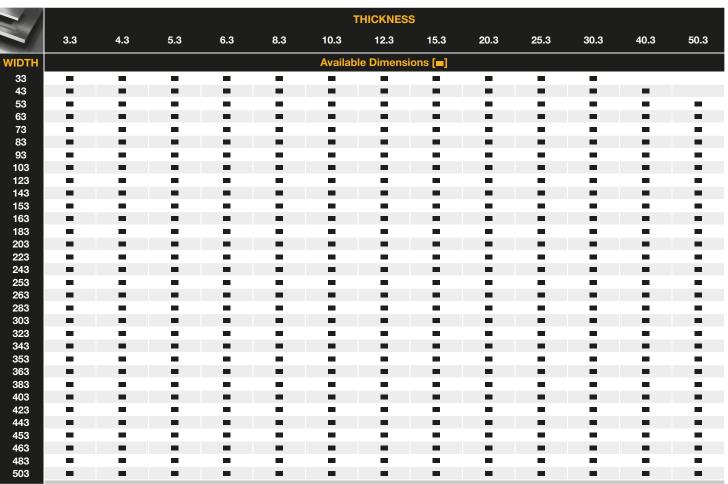
Applications

Mechanical engineering, jig construction, plant engineering, apparatus engineering, plastic processing, plastic molds, synthetic resin mold tools, base plates, bending bars, guide columns, gear parts, joint parts, shafts, gears, rods, bevel gears, crown wheels, piston pins, camshafts, bolts, pins, universal joints.

PREMIUM 5120 - \$mart FLAT STOCK METRIC

TOOL STEEL

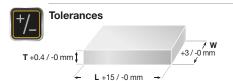
Length: 600 mm METRIC DIMENSIONS in mm





[\$martM]: Surface Condition
Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 217 BHN Chemical composition:

С	Si	Mn	Р	S	Cr
0.18	0.15	1.1	0	0	1.0
0.24	0.35	1.4	0.03	0.03	1.3



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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AISI 5120 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/5120

via smartphone/tablet:



5120

Technical Properties

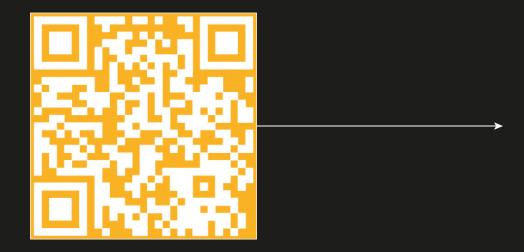
Cold work steel and plastic mold steel. High surface hardness with high core toughness. Exellent machinability, good cold hobbing and polishing properties. The even component strength is a result of the combination of hardened surface and high core toughness.

Surface working hardness: 58-60 HRC.



Applications 1

Mechanical engineering, jig construction, plant engineering, apparatus engineering, plastic processing, plastic molds, synthetic resin mold tools, base plates, bending bars, guide columns, gear parts, joint parts, shafts, gears, rods, bevel gears, crown wheels, piston pins, camshafts, bolts, pins, universal joints.





Toolox 33

Toolox 44

W1

A36

420 ESR

420 LC

420FM

5120

ON REQUEST - SAW CUT - MILLED - GROUND!



PREMIUM 52100 / L1 - \$mart FLAT STOCK

TOOL STEEL

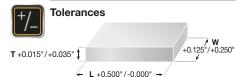
Length: 12" **IMPERIAL DIMENSIONS** in inch **THICKNESS** 5/16" 3/8" 1/2" 5/8" 3/4" 1" 1-1/4" 1-1/2" 2-1/2" 3-1/2" 4-1/2" 5" 5-1/2" WIDTH Available Dimensions [=] 1" 1-1/4" 1-1/2" 2" 2-1/2" 3" 3-1/2" 4" 4-1/2" 5" 5-1/2" 6" 6-1/2" 7" 7-1/2" 8" 8-1/2" 9" 9-1/2" 10"



[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 223 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni
0.95	0.15	0.2	0	0	1.4	0	0
1.1	0.35	0.4	0.025	0.025	1.6	0.1	0.4



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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abrams-steel.com/52100-L1-10



10-1/2" 11"

11-1/2"

12"

Technical Properties

An all-purpose medium alloyed cold work tool steel with high hardenability, but low depth of hardening, good wear resistance and toughness. This steel grade belongs to the group of AISI L1 (roller bearing and ball bearing steel).

Working hardness: 60-64 HRC.



Applications

Drills, threading tools, center lathes, milling cutters, reamers, small die plates, pressure rollers, cold rollings, measuring tools, cold pilger rollings, cold pilger jaws, gauges, mandrels, woodworking tools, cold extrusion tools, flanging rollers, shear knives, roller bearings, ball bearings (medium to large size).



AISI 52100 / L1 - all at a glance!

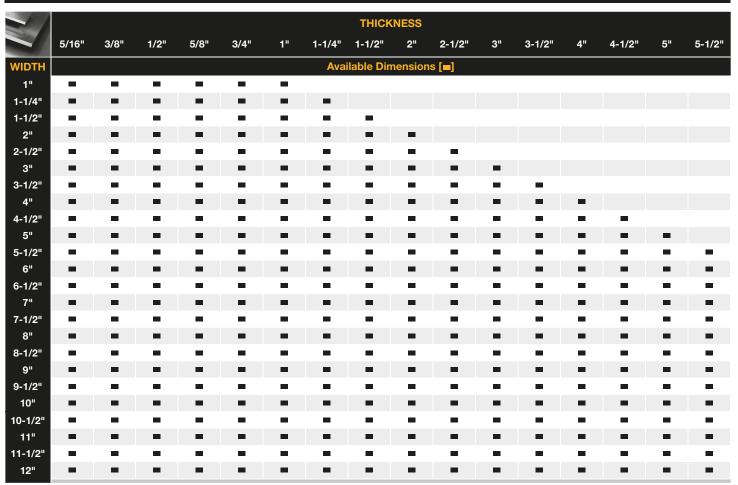
Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/52100-L1



PREMIUM 52100 / L1 - \$mart FLAT STOCK

TOOL STEEL

Length: 24" **IMPERIAL DIMENSIONS** in inch





[\$mart]: Surface Condition Thickness: ground or fine milled Width: saw cut

Toolox 33

Toolox 44

W1

1018 /

A36

1045

2990 mod.

420 ESR

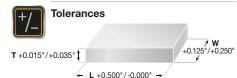
420FM

5120

L1

52100 /

Length: saw cut





Standard values

Delivery condition: maximum 223 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni
0.95	0.15	0.2	0	0	1.4	0	0
1.1	0.35	0.4	0.025	0.025	1.6	0.1	0.4



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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abrams-steel.com/52100-L1-11



Technical Properties

An all-purpose medium alloyed cold work tool steel with high hardenability, but low depth of hardening, good wear resistance and toughness. This steel grade belongs to the group of AISI L1 (roller bearing and ball bearing steel). Working hardness: 60-64 HRC.



Applications

Drills, threading tools, center lathes, milling cutters, reamers, small die plates, pressure rollers, cold rollings, measuring tools, cold pilger rollings, cold pilger jaws, gauges, mandrels, woodworking tools, cold extrusion tools, flanging rollers, shear knives, roller bearings, ball bearings (medium to large size).



AISI 52100 / L1 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/52100-L1



PREMIUM 52100 / L1 - \$mart FLAT STOCK METRIC

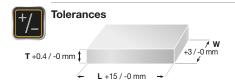
TOOL STEEL

METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 Available Dimensions [=] WIDTH 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283



[\$martM]: Surface Condition

Thickness: ground or fine milled Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 223 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni
0.95	0.15	0.2	0	0	1.4	0	0
- 1.1	0.35	0.4	0.025	0.025	1.6	0.1	0.4



Don't see your exact dimension(s)?

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abrams-steel.com/52100-L1-12



AISI 52100 / L1 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/52100-L1

via smartphone/tablet:



Technical Properties

303

An all-purpose medium alloyed cold work tool steel with high hardenability, but low depth of hardening, good wear resistance and toughness. This steel grade belongs to the group of AISI L1 (roller bearing and ball bearing steel).

Working hardness: 60-64 HRC.



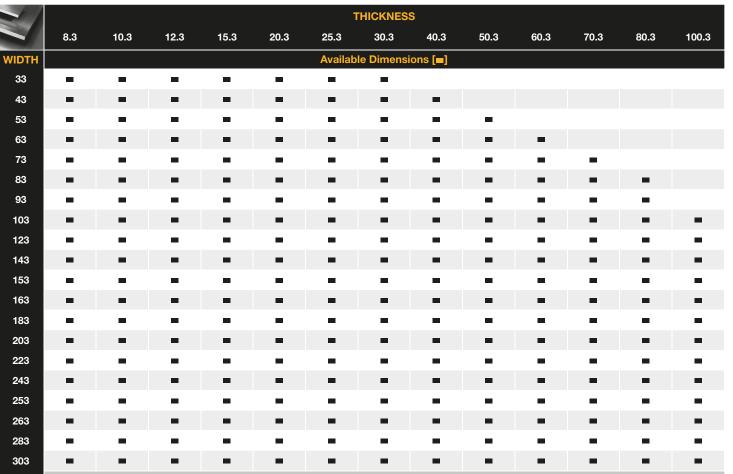
Applications

Drills, threading tools, center lathes, milling cutters, reamers, small die plates, pressure rollers, cold rollings, measuring tools, cold pilger rollings, cold pilger jaws, gauges, mandrels, woodworking tools, cold extrusion tools, flanging rollers, shear knives, roller bearings, ball bearings (medium to large size).

PREMIUM 52100 / L1 - \$mart FLAT STOCK METRIC

TOOL STEEL

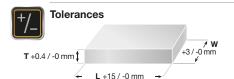
Length: 600 mm THICKNESS METRIC DIMENSIONS in mm





[\$martM]: Surface Condition
Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 223 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni
			0				
1.1	0.35	0.4	0.025	0.025	1.6	0.1	0.4



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



Contact us

+1 (331) 234-9900 sales@abrams-industries.com



Direct access to our online shop

abrams-steel.com/52100-L1-13



Technical Properties

An all-purpose medium alloyed cold work tool steel with high hardenability, but low depth of hardening, good wear resistance and toughness. This steel grade belongs to the group of AISI L1 (roller bearing and ball bearing steel).

Working hardness: 60-64 HRC.



Applications

Drills, threading tools, center lathes, milling cutters, reamers, small die plates, pressure rollers, cold rollings, measuring tools, cold pilger rollings, cold pilger jaws, gauges, mandrels, woodworking tools, cold extrusion tools, flanging rollers, shear knives, roller bearings, ball bearings (medium to large size).



AISI 52100 / L1 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/52100-L1

via smartphone/tablet:



Toolox 44

Toolox 33

W1

1018 / A36

1045

2990 mod.

420 ESR

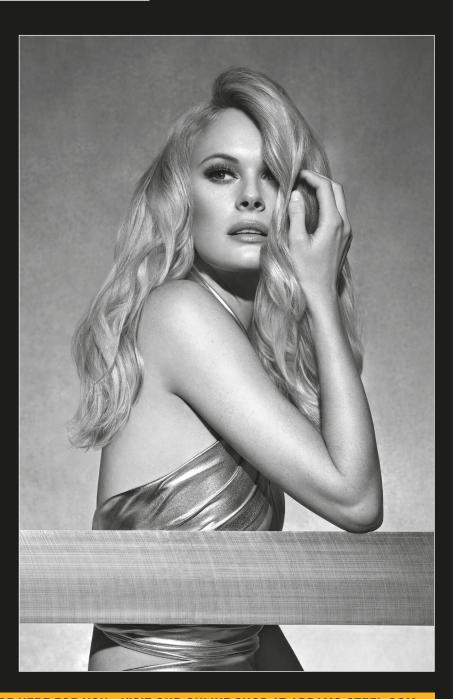
420 LC

420FM

5120

52100 / L1





Toolox 33

Toolox 44

W1

1018 / A36

1045

2990 mod.

420 ESR

420 LC

420FM

5120

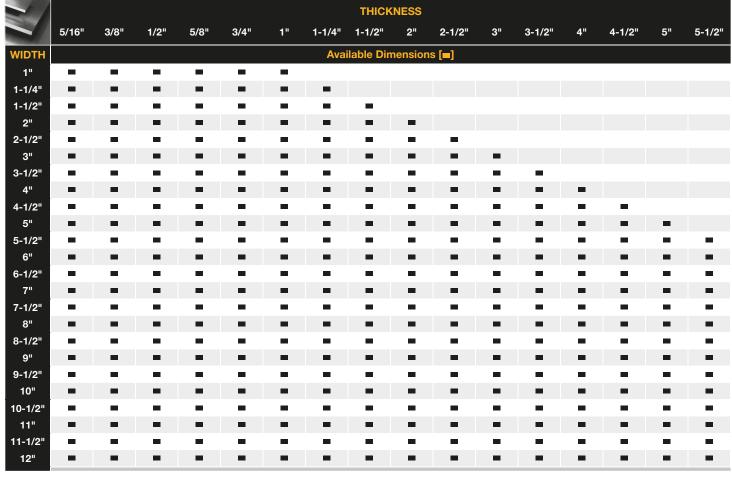
52100 / L1



PREMIUM 6F7 ESR - \$mart FLAT STOCK

TOOL STEEL

Length: 12" **IMPERIAL DIMENSIONS** in inch

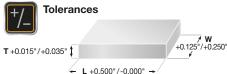




[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 260 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni
0.4	0.1	0.2	0	0	1.2	0.15	3.8
0.5	0.4	0.5	0.03	0.03	1.5	0.35	4.3



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Direct access to our online shop

abrams-steel.com/6F7ESR-10





AISI 6F7 ESR - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/6F7ESR

via smartphone/tablet:



Technical Properties

Steel grade with focus on cold work, high toughness (nickel content), good through-hardenability (even for large cross sections), as well as high impact strength and pressure resistance. Polishable, etchable and erodible. For very special purity and homogeneity we recommend AISI 6F7 ESR. Working hardness: 50-54 HRC.



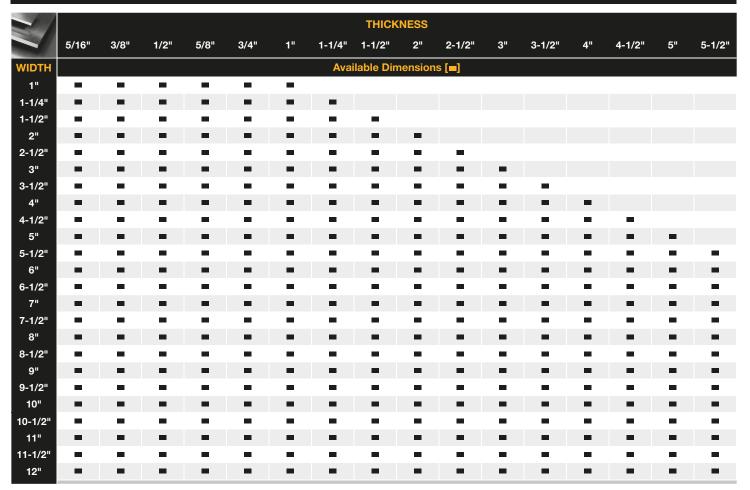
Applications

Cutting tools, cutlery punches, embossing tools, bending tools, cold hobbing tools, pressure bars, billet shear knives, cold shear knives, plastic molds, hot press tools, light metal processing, heavy metal processing, drawing jaws, reinforcements.

PREMIUM 6F7 ESR - \$mart FLAT STOCK

TOOL STEEL

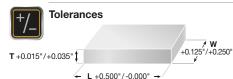
Length: 24" **IMPERIAL DIMENSIONS** in inch





[\$mart]: Surface Condition Thickness: ground or fine milled Width: saw cut

Length: saw cut





Standard values

Delivery condition: maximum 260 BHN Chemical composition:

_			-	_		Мо	
0.4	0.1	0.2	0	0	1.2	0.15	3.8
0.5	0.4	0.5	0.03	0.03	1.5	0.35	4.3



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abrams-steel.com/6F7ESR-11



AISI 6F7 ESR – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/6F7ESR

via smartphone/tablet:





Technical Properties

Steel grade with focus on cold work, high toughness (nickel content), good through-hardenability (even for large cross sections), as well as high impact strength and pressure resistance. Polishable, etchable and erodible. For very special purity and homogeneity we recommend AISI 6F7 ESR. Working hardness: 50-54 HRC



Applications

Cutting tools, cutlery punches, embossing tools, bending tools, cold hobbing tools, pressure bars, billet shear knives, cold shear knives, plastic molds, hot press tools, light metal processing, heavy metal processing, drawing jaws, reinforcements.

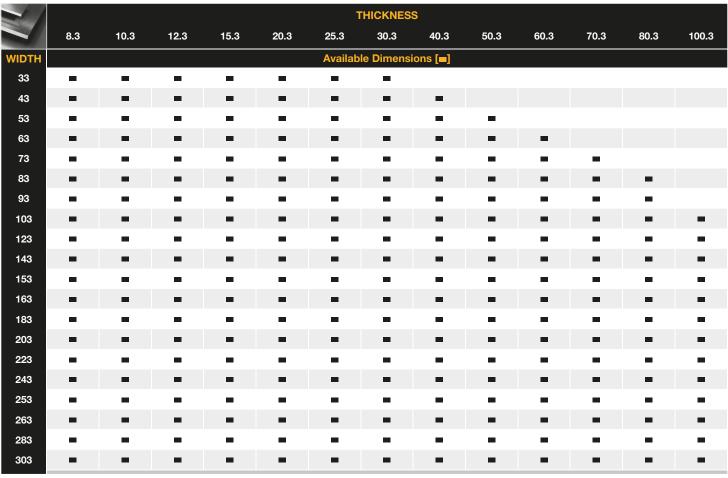
6F7 ESR

PREMIUM 6F7 ESR - \$mart FLAT STOCK METRIC

TOOL STEEL

Length: 300 mm

METRIC DIMENSIONS in mm

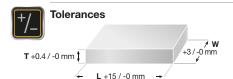




[\$martM]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 260 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni
0.4	0.1	0.2	0	0	1.2	0.15	3.8
0.5	0.4	0.5	0.03	0.03	1.5	0.35	4.3



Don't see your exact dimension(s)?

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abrams-steel.com/6F7ESR-12



AISI 6F7 ESR - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/6F7ESR

via smartphone/tablet:



Technical Properties

Steel grade with focus on cold work, high toughness (nickel content), good through-hardenability (even for large cross sections), as well as high impact strength and pressure resistance. Polishable, etchable and erodible. For very special purity and homogeneity we recommend AISI 6F7 ESR. Working hardness: 50-54 HRC.



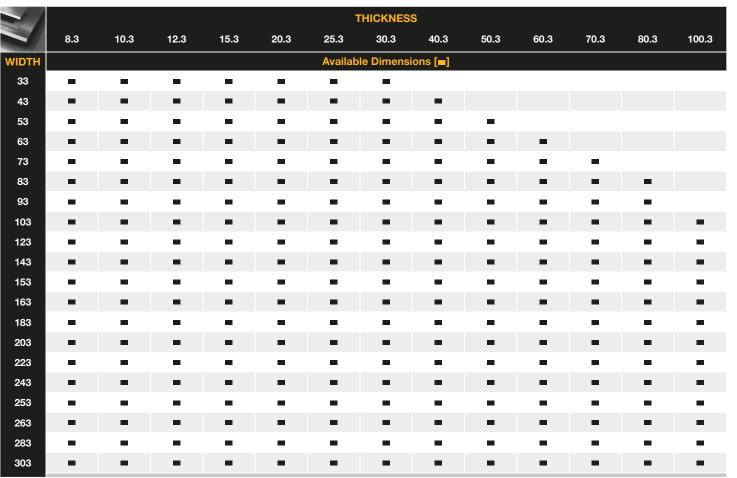
Applications

Cutting tools, cutlery punches, embossing tools, bending tools, cold hobbing tools, pressure bars, billet shear knives, cold shear knives, plastic molds, hot press tools, light metal processing, heavy metal processing, drawing jaws, reinforcements.

PREMIUM 6F7 ESR - \$mart FLAT STOCK METRIC

TOOL STEEL

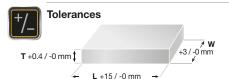
METRIC DIMENSIONS in mm Length: 600 mm





[\$martM]: Surface Condition Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 260 BHN Chemical composition:

						Мо	
0.4	0.1	0.2	0	0	1.2	0.15	3.8
0.5	0.4	0.5	0.03	0.03	1.5	0.15 - 0.35	4.3



Don't see your exact dimension(s)?

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Direct access to our online shop

abrams-steel.com/6F7ESR-13



AISI 6F7 ESR – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/6F7ESR

via smartphone/tablet:





Technical Properties

Steel grade with focus on cold work, high toughness (nickel content), good through-hardenability (even for large cross sections), as well as high impact strength and pressure resistance. Polishable, etchable and erodible. For very special purity and homogeneity we recommend AISI 6F7 ESR. Working hardness: 50-54 HRC.

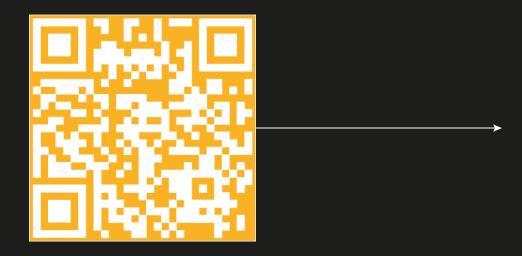


Applications

Cutting tools, cutlery punches, embossing tools, bending tools, cold hobbing tools, pressure bars, billet shear knives, cold shear knives, plastic molds, hot press tools, light metal processing, heavy metal processing, drawing jaws, reinforcements.



6F7 ESR







FLATS!

Below are our flats in different categories in imperial as well as metric sizes. Every item is available in different **thickness**, **width** and **length**. On request – specific to your needs!

IMPERIAL

1

Precision Ground Flat Stock, regular [GFS reg]

For example: 3/4" x 4" x 36" reg

- Thickness ground, tol. +/-0.001"
- Width ground or fine milled, tol. +0.005" / -0.000"
- Length milled or saw cut, tol. +0.125" / +0.500"

METRIC



Precision Ground Flat Stock Metric, regular [GFSM reg] acc. to DIN* 59350

For example: 20.0 x 100.0 x 1,000 mm

- Thickness ground or fine milled, tol. +0.05 / -0 mm
- Width ground or fine milled, tol. +0.2 / -0 mm
- Length milled or saw cut, tol. +35 / -0 mm

Exception: AISI 1045: **T** +0.25 / -0 mm; **W** +0.4 / -0 mm



Precision Ground Flat Stock, oversize [GFS O/S]

For example: 3/4" x 4" x 36" O/S

- Thickness ground, tol. +0.010" / +0.015"
- Width ground or fine milled, tol. +0.010" / +0.015"
- Length milled or saw cut, tol. +0.125" / +0.500"



Precision Ground Flat Stock Metric, oversize [GFSM O/S]

For example: 20.3 x 100.3 x 1,000 mm

- Thickness ground or fine milled, tol. +0.4 / -0 mm
- Width ground or fine milled, tol. +0.4 / -0 mm
- Length milled or saw cut, tol. +35 / -0 mm



\$mart Flat Stock [\$mart]

Standardized Precision Blanks

For example: 3/4" x 4" x 24"

- Thickness ground or fine milled, tol. +0.015" / +0.035"
- Width saw cut. tol. +0.125" / +0.250"
- Length saw cut, tol. +0.500" / -0.000"



\$mart Flat Stock Metric [\$martM]

Standardized Precision Blanks Metric

For example: 20.3 x 103 x 600 mm

- Thickness ground or fine milled, tol. +0.4 / -0 mm
- Width saw cut. tol. +3 / -0 mm
- Length saw cut, tol. +15 / -0 mm



EDM Block hardened [EDM]

For example: 1/2" x 4" x 4"

- Thickness ground or fine milled, tol. +0.010" / -0.000"
- Square dimension ground or fine milled, tol. min. +0.0125"
- Grain structure is perpendicular in relation to top & bottom.



Hard Flat Metric [HardM]

Hardened Standardized Blanks Metric

For example: 10.2 x 250 x 500 mm

- Thickness ground or fine milled, tol. +0.2 / -0 mm
- Width saw cut or sheared, tol. +10 / -0 mm
- Length saw cut or sheared, tol. +10 / -0 mm

Flatness tolerance: +0.2 / -0 mm across the item (aimed for)

*DIN: DEUTSCHE INDUSTRIE NORM (GERMAN INDUSTRY STANDARD)!

Precision ground flat stock is a bar with a sharp-edged, rectangular or square cross-section made of tool steel with finely machined, decarburization-free longitudinal surfaces. In Germany, it is standardized in DIN 59350. Precision ground flat stock is used primarily as a semi-finished product in machine, tool, fixture and mold construction.



For more details on our shapes see: us.abrams-industries.com/product-overview



ROUNDS

Below are our rounds in different categories in imperial as well as metric sizes. Any item is available in different diameters and / or length. On request – specific to your needs!

IMPERIAL



Drill Rod [DR] **Precision Round Bars**

For example: DR 3/4" x 36" Turned, ground & polished (TGP)

- Tol. Dia. < 1/8": +/-0.0003", L +0.125" / -0.000"
- Tol. Dia. 1/8" to < 1/2": +/-0.0005", L +0.125" / -0.000"
- Tol. Dia. 1/2" to 2": +/-0.001", L +0.125" / -0.000"

METRIC



Drill Rod Metric [DRM] **Precision Round Bars Metric**

For example: DRM 10.0 mm x 914 mm (36")

Turned, ground & polished (TGP) - ISO h9

- Tol. Dia. \leq 10.0 mm: +0 / -0.036 mm, L +tol.
- Tol. Dia. > 10.0 mm to 18.0 mm: +0 / -0.043 mm, L +tol.
- Tol. Dia. > 18.0 mm to 25.0 mm; +0 / -0.052 mm, L +tol.

These are maximum tolerances. For more exact tolerances call our sales team.



Cold Finished Rounds [CF] Precision Round Bars

For example: CF 3/4" x 36"

Drawn, smooth turned, ground, or ground and polished

- Tol. Dia. < 1/2": +/-0.0015", L +tol. / -0.400"
- Tol. Dia. 1/2" to < 1-1/2": +/-0.0025", L +tol. / -0.400"
- Tol. Dia. 1-1/2" to 4": +/-0.004", L +tol. / -0.400"

These are maximum tolerances. For more exact tolerances call our sales team.



Cold Finished Rounds Metric [CFM] Precision Round Bars Metric

For example: CFM 10.0 mm x 914 mm (36")

Drawn, smooth turned, ground, or ground and polished (ISO h9)

- Tol. Dia. ≤ 10.0 mm: +0 / -0.036 mm, L +tol.
- Tol. Dia. > 10.0 mm to 18.0 mm; +0 / -0.043 mm, L +tol.
- Tol. Dia. > 18.0 mm to 25.0 mm: +0 / -0.052 mm, L +tol.

These are maximum tolerances. For more exact tolerances call our sales team.



Decarb Free Rounds [DCF]

For example: DCF 3/4" x 36"

Peeled or rough-turned

- Tol. Dia. min. +0.010", L +tol. / -0.400"
- Exception: 4XX Series stainless steel, tol. Dia. +tol. / -0.000", L +tol. / -0.400"

These steel rounds are oversized to finish to nominal diameter.



STEEL CATEGORIES!

Steel grades are classified by their technical properties and/or by their intended use.

For example: Cold work steel, hot work steel, plastic mold steel, high speed steel, corrosion resistant steel or case hardening steel. Steel grades are often assigned to several classification groups.

For more details on our shapes see: us.abrams-industries.com/product-overview





Shapes

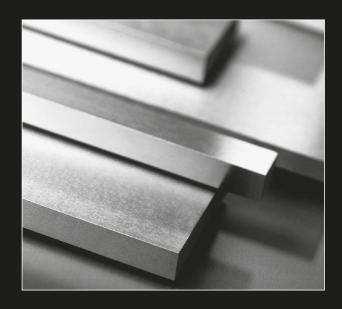


WATCH THE MAKING OF THE CATWALK MOTIF FOR CALENDAR 2011 / 2013

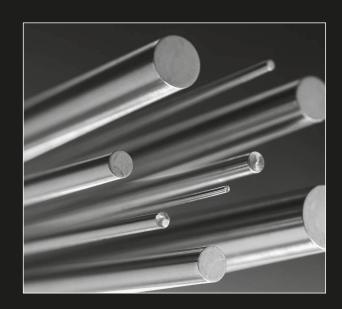




ABRAMS	TOOL STEEL I	TOOL STEEL II	HIGH SPEED STEEL	
HIGH SPEEI	D STEEL	r staren senten senten ser	ret starte karasa karas	SE ST. HELDE ST. LEE S
STEEL GRADE - AI	SI REPUBLIE OF THE PROPERTY OF	the state of the s	timeter the st. temperature of the state of	Wat, Charles Denker der Green and Start Court, where the Market of the Market of the Start of th
PREMIUM HSS M2		✓ ✓	✓ 2	270 133.4 65 🗸 🗸 🗸
PREMIUM HSS PM N	14 HC	✓ ✓	2	270 133.4 65 🗸 🗸 🗸







IMPERIAL

Precision Ground Flat Stock, regular [GFS reg] Precision Ground Flat Stock, oversize [GFS O/S] \$mart Flat Stock [\$mart] - Standardized Precision Blanks EDM Block hardened [EDM] Drill Rod [DR] - Precision Round Bars Cold Finished Rounds [CF] - Precision Round Bars Decarb Free Rounds [DCF] - Oversize Round Bars

METRIC

Precision Ground Flat Stock Metric, regular [GFSM reg] - acc. to DIN* 59350 Precision Ground Flat Stock Metric, oversize [GFSM O/S] \$mart Flat Stock Metric [\$martM] - Standardized Precision Blanks Metric Hard Flat Metric [HardM] - Hardened Standardized Blanks Metric Drill Rod Metric [DRM] - Precision Round Bars Metric Cold Finished Rounds Metric [CFM] - Precision Round Bars Metric *DIN: Deutsche Industrie Norm (German Industry Standard)



PREMIUM HSS M2 - \$mart FLAT STOCK

HIGH SPEED STEEL

Length: 12"

IMPERIAL DIMENSIONS in inch

							THICH	KNESS						
	3/32"	1/8"	3/16"	7/32"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1-1/4"	1-1/2"	2"
WIDTH						Av	ailable Dir	mensions	[=]					
1"	-					-								
1-1/4"	-	-	-	-	-	-		-	-	-	-			
1-1/2"	-		-	-		-	-	-	-	-			-	
2"	-		-	-	-	-		-	-	-	-			-
2-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4"	-		-	_	-	-		-	_					-
4-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5"		-	-	_	-	-		-						
5-1/2"	-	-	-	_	-	-	-	-	-	-	-	-	-	-
6"	_	-	-	_	-	_	_	_	_	_	_	_	_	_
6-1/2" 7"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7 7-1/2"	-			-	-	-		-	-		-	-	-	-
7-1/2" 8"	-	-	-				-	-	-				-	
8-1/2"	_	_	-	_	_	_	-	_	_	_	_	_	_	_
9"	_	_	_	_	_	_	_	_	_	_	_	_	_	_
9-1/2"	_	_	_			_	_	_		_				_
10"	-	_	-	-	-	-	-	-	-	-	_		-	-
10-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11"	-	-	-	-	-	-	-	-	-	-	-		-	-
11-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12"	-	-	-	-	-	-	-	-	-	-		-	-	-



[\$mart]: Surface Condition

Thickness: ground or fine milled

← L +0.500"/-0.000" →

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 270 BHN Chemical composition:

/ W +0.125"/+0.250"

С	Si	Mn	Р	S	Cr	Мо	V	W
0.86	0	0	0	0	3.8	4.7	1.7	5.9
0.94	0.45	0.4	0.03	0.03	4.5	5.2	2.1	6.7



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



Contact us

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Direct access to our online shop

abrams-steel.com/M2-10



Technical Properties

This high speed steel is the most frequently used among the high speed steels. Its composition allows it to be used for a wide range of applications. High impact toughness, good compression strength, excellent wear resistance.

Working hardness: 62-65 HRC.



Applications

Machining tools, milling cutters, twist drills, screw taps, reamers, broaching tools, rotary knives, planer knives, gear shaper cutters, circular saw segments, metal saws, woodworking tools, screw dies, countersinks, chasers, cold extrusion punches, precision cutting tools, dies, punches, plastic molds with high wear resistance.



AISI M2 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/M2

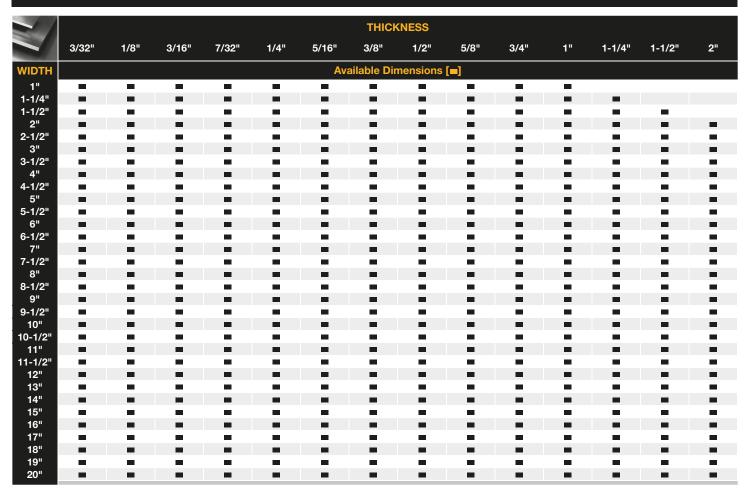


PREMIUM HSS M2 - \$mart FLAT STOCK

HIGH SPEED STEEL

Length: 24"

IMPERIAL DIMENSIONS in inch

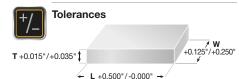




[\$mart]: Surface Condition
Thickness: ground or fine milled
Width: saw cut

HSS M2

Length: saw cut





Standard values

Delivery condition: maximum 270 BHN Chemical composition:

_			-	_		Мо	-	
0.86	0	0	0	0	3.8	4.7	1.7	5.9
0.94	0.45	0.4	0.03	0.03	4.5	5.2	2.1	6.7



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Technical Properties

This high speed steel is the most frequently used among the high speed steels. Its composition allows it to be used for a wide range of applications. High impact toughness, good compression strength, excellent wear resistance.

Working hardness: 62-65 HRC.



Applications

Machining tools, milling cutters, twist drills, screw taps, reamers, broaching tools, rotary knives, planer knives, gear shaper cutters, circular saw segments, metal saws, woodworking tools, screw dies, countersinks, chasers, cold extrusion punches, precision cutting tools, dies, punches, plastic molds with high wear resistance.



AISI M2 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/M2



PREMIUM HSS M2 - \$mart FLAT STOCK METRIC

HIGH SPEED STEEL

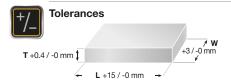
METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 3.3 4.3 5.3 6.3 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 WIDTH Available Dimensions [=] 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283 303



[\$martM]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 270 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V	W
0.86	0	0	0	0	3.8	4.7	1.7	5.9
0.94	0.45	0.4	0.03	0.03	4.5	5.2	2.1	6.7



Don't see your exact dimension(s)?

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- according to your requirements!



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Direct access to our online shop

abrams-steel.com/M2-12



AISI M2 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/M2

via smartphone/tablet:



Technical Properties

This high speed steel is the most frequently used among the high speed steels. Its composition allows it to be used for a wide range of applications. High impact toughness, good compression strength, excellent wear resistance. Working hardness: 62-65 HRC.



Applications

Machining tools, milling cutters, twist drills, screw taps, reamers,

broaching tools, rotary knives, planer knives, gear shaper cutters, circular saw segments, metal saws, woodworking tools, screw dies, countersinks, chasers, cold extrusion punches, precision cutting tools, dies, punches, plastic molds with high wear resistance.

PREMIUM HSS M2 - \$mart FLAT STOCK METRIC

HIGH SPEED STEEL

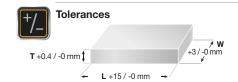
METRIC DIMENSIONS in mm Length: 600 mm **THICKNESS** 3.3 4.3 5.3 6.3 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 Available Dimensions [=] VIDTH 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283 303 323 343 353 363 383 403 423 443 453 463



[\$martM]: Surface Condition
Thickness: ground or fine milled

HSS M2

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 270 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V	W
0.86	0	0	0	0	3.8	4.7	1.7	5.9
0.94	0.45	0.4	0.03	0.03	4.5	5.2	2.1	6.7



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



Contact us

+1 (331) 234-9900 sales@abrams-industries.com



Direct access to our online shop

abrams-steel.com/M2-13



483 503

Technical Properties

This high speed steel is the most frequently used among the high speed steels. Its composition allows it to be used for a wide range of applications. High impact toughness, good compression strength, excellent wear resistance.

Working hardness: 62-65 HRC.



Applications

Machining tools, milling cutters, twist drills, screw taps, reamers, broaching tools, rotary knives, planer knives, gear shaper cutters, circular saw segments, metal saws, woodworking tools, screw dies, countersinks, chasers, cold extrusion punches, precision cutting tools, dies, punches, plastic molds with high wear resistance.



AISI M2 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/M2

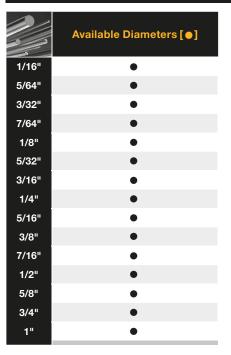






PREMIUM HSS M2 - DRILL ROD

Length: 36"

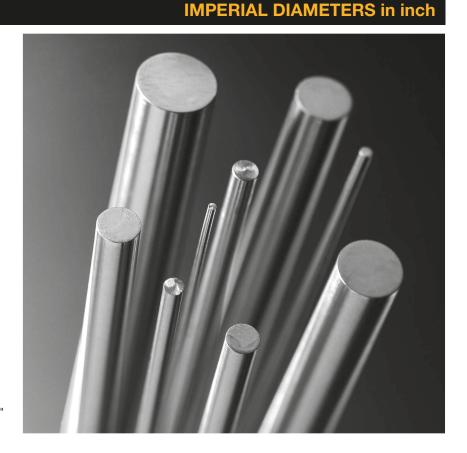


Tol. Dia.

< 1/8": +/-0.0003"

1/8" to < 1/2": +/-0.0005"

1/2" to 2": +/-0.001"

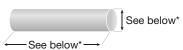


[DR]: Surface Condition Turned, ground & polished (TGP)

HIGH SPEED STEEL

HSS M2







Standard values

Delivery condition: maximum 270 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	٧	W
						4.7		
-	- 1	-	-	-	-	- 1	-	-
0.94	0.45	0.4	0.03	0.03	4.5	5.2	2.1	6.7



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks).
Custom orders on request

- according to your requirements.



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Direct access to our online shop

abrams-steel.com/M2-17



Technical Properties

← Tol. L +0.125" / -0.000" →

This high speed steel is the most frequently used among the high speed steels. Its composition allows it to be used for a wide range of applications. High impact toughness, good compression strength, excellent wear resistance.

Working hardness: 62-65 HRC.



Applications

Machining tools, milling cutters, twist drills, screw taps, reamers, broaching tools, rotary knives, planer knives, gear shaper cutters, circular saw segments, metal saws, woodworking tools, screw dies, countersinks, chasers, cold extrusion punches, precision cutting tools, dies, punches, plastic molds with high wear resistance.



AISI M2 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/M2

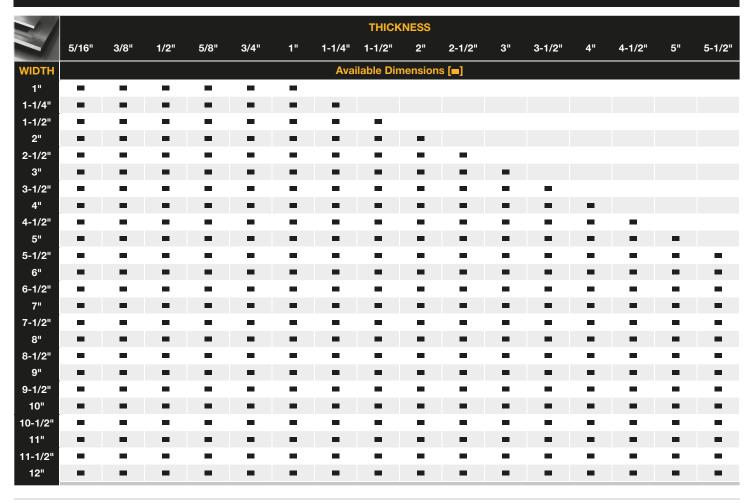


PREMIUM HSS PM M4 HC - \$mart FLAT STOCK

HIGH SPEED STEEL

Length: 12"

IMPERIAL DIMENSIONS in inch





[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut



Tolerances

T+0.015"/+0.035" \$\\
\tau_{\text{+0.500"/-0.000"}}\text{+0.125"/+0.250"}



Standard values

Delivery condition: maximum 270 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	٧	W
1.25	0	0	0	0	3.8	4.2	3.7	5.2
- 1 1	- 0.45	- 1	- 02	- 02	- 1 E	-	4.0	-
1.4	0.45	0.4	0.03	0.03	4.5	5.0	4.2	6.0



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



Contact us

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Direct access to our online shop

abrams-steel.com/PMM4HC-10



Technical Properties

High speed steel based on powder metallurgy with better wear and pressure resistance than AISI M2, due to a very clean and homogeneous microstructure with evenly spread carbides optimizing wear resistance. Working hardness: 62-65 HRC.



Applications

Stamping tools, precision cutting tools, machining tools, broaching tools, rotary knives, woodworking tools, gear shaper cutters, circular saw segments, metal saws, screw dies, countersinks, chasers, cold extrusion punches, deep drawing dies, plastic molds with high wear resistance.



AISI PM M4 HC - all at a glance!

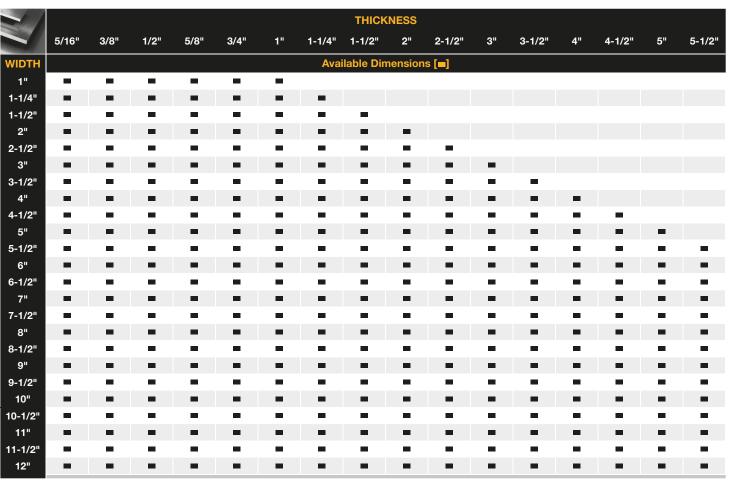
Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/PMM4HC



PREMIUM HSS PM M4 HC - \$mart FLAT STOCK

HIGH SPEED STEEL

Length: 24" **IMPERIAL DIMENSIONS** in inch



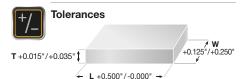


[\$mart]: Surface Condition Thickness: ground or fine milled Width: saw cut

HSS PM

M4 HC

Length: saw cut





Standard values

Delivery condition: maximum 270 BHN Chemical composition:

_			-	_		Мо	_	
1.25	0	0	0	0	3.8	4.2	3.7	5.2
1.4	0.45	0.4	0.03	0.03	4.5	5.0	4.2	6.0



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Direct access to our online shop



abrams-steel.com/PMM4HC-11



AISI PM M4 HC - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/PMM4HC

via smartphone/tablet:





Technical Properties

High speed steel based on powder metallurgy with better wear and pressure resistance than AISI M2, due to a very clean and homogeneous microstructure with evenly spread carbides optimizing wear resistance. Working hardness: 62-65 HRC.



Applications

Stamping tools, precision cutting tools, machining tools, broaching tools, rotary knives, woodworking tools, gear shaper cutters, circular saw segments, metal saws, screw dies, countersinks, chasers, cold extrusion punches, deep drawing dies, plastic molds with high wear resistance.

PREMIUM HSS PM M4 HC - \$mart FLAT STOCK METRIC

HIGH SPEED STEEL

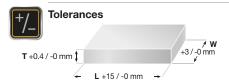
METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 WIDTH Available Dimensions [=] 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283



[\$martM]: Surface Condition

Thickness: ground or fine milled Width: saw cut

Length: saw cut





Standard values

Delivery condition: maximum 270 BHN Chemical composition:

C	Si	Mr	ı P	S	Cr	Мо	V	W
1.2	5 0	0	0	0	3.8	4.2	3.7	5.2
1.4	1 0.4	5 0.4	0.03	0.03	4.5	5.0	4.2	6.0



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



Contact us

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Direct access to our online shop

abrams-steel.com/PMM4HC-12





AISI PM M4 HC - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/PMM4HC

via smartphone/tablet:



Technical Properties

303

High speed steel based on powder metallurgy with better wear and pressure resistance than AISI M2, due to a very clean and homogeneous microstructure with evenly spread carbides optimizing wear resistance.





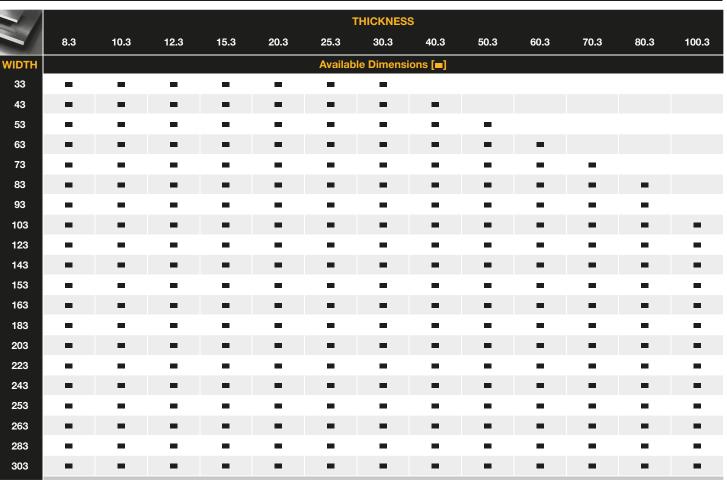
Applications

Stamping tools, precision cutting tools, machining tools, broaching tools, rotary knives, woodworking tools, gear shaper cutters, circular saw segments, metal saws, screw dies, countersinks, chasers, cold extrusion punches, deep drawing dies, plastic molds with high wear resistance.

PREMIUM HSS PM M4 HC - \$mart FLAT STOCK METRIC

HIGH SPEED STEEL

METRIC DIMENSIONS in mm Length: 600 mm



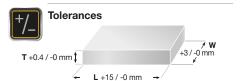


[\$martM]: Surface Condition Thickness: ground or fine milled

HSS PM

M4 HC

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 270 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V	W
1.25	0	0	0	0	3.8	4.2	3.7	5.2
-	-	-	-	-	-	5.0	-	-
1.4	0.45	0.4	0.03	0.03	4.5	5.0	4.2	6.0



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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abrams-steel.com/PMM4HC-13



AISI PM M4 HC - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/PMM4HC

via smartphone/tablet:





Technical Properties

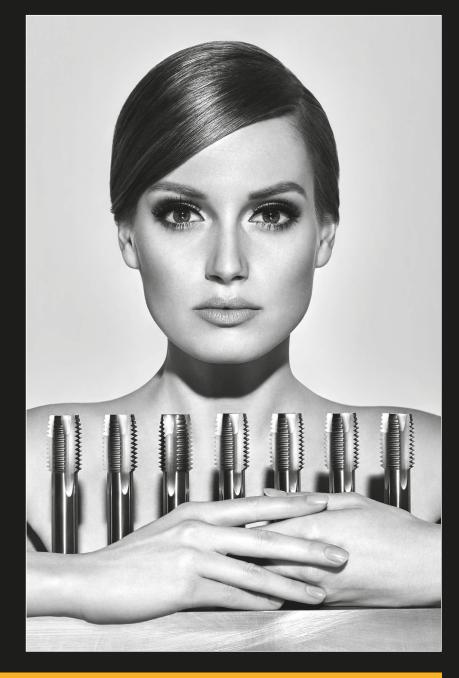
High speed steel based on powder metallurgy with better wear and pressure resistance than AISI M2, due to a very clean and homogeneous microstructure with evenly spread carbides optimizing wear resistance. Working hardness: 62-65 HRC.



Applications

Stamping tools, precision cutting tools, machining tools, broaching tools, rotary knives, woodworking tools, gear shaper cutters, circular saw segments, metal saws, screw dies, countersinks, chasers, cold extrusion punches, deep drawing dies, plastic molds with high wear resistance.







FLATS !

Below are our flats in different categories in imperial as well as metric sizes. Every item is available in different **thickness**, **width** and **length**. On request – specific to your needs!

IMPERIAL

1

Precision Ground Flat Stock, regular [GFS reg]

For example: 3/4" x 4" x 36" reg

- Thickness ground, tol. +/-0.001"
- Width ground or fine milled, tol. +0.005" / -0.000"
- Length milled or saw cut, tol. +0.125" / +0.500"

METRIC



Precision Ground Flat Stock Metric, regular [GFSM reg] acc. to DIN* 59350

For example: 20.0 x 100.0 x 1,000 mm

- Thickness ground or fine milled, tol. +0.05 / -0 mm
- Width ground or fine milled, tol. +0.2 / -0 mm
- Length milled or saw cut, tol. +35 / -0 mm

Exception: AISI 1045: **T** +0.25 / -0 mm; **W** +0.4 / -0 mm



Precision Ground Flat Stock, oversize [GFS O/S]

For example: 3/4" x 4" x 36" O/S

- Thickness ground, tol. +0.010" / +0.015"
- Width ground or fine milled, tol. +0.010" / +0.015"
- Length milled or saw cut, tol. +0.125" / +0.500"



Precision Ground Flat Stock Metric, oversize [GFSM O/S]

For example: 20.3 x 100.3 x 1,000 mm

- **Thickness** ground or fine milled, tol. +0.4 / -0 mm
- Width ground or fine milled, tol. +0.4 / -0 mm
- Length milled or saw cut, tol. +35 / -0 mm



\$mart Flat Stock [\$mart]

Standardized Precision Blanks

For example: 3/4" x 4" x 24"

- Thickness ground or fine milled, tol. +0.015" / +0.035"
- Width saw cut. tol. +0.125" / +0.250"
- Length saw cut, tol. +0.500" / -0.000"



\$mart Flat Stock Metric [\$martM]

Standardized Precision Blanks Metric

For example: 20.3 x 103 x 600 mm

- Thickness ground or fine milled, tol. +0.4 / -0 mm
- Width saw cut. tol. +3 / -0 mm
- Length saw cut, tol. +15 / -0 mm



EDM Block hardened [EDM]

For example: 1/2" x 4" x 4"

- Thickness ground or fine milled, tol. +0.010" / -0.000"
- Square dimension ground or fine milled, tol. min. +0.0125"
- Grain structure is perpendicular in relation to top & bottom.



Hard Flat Metric [HardM]

Hardened Standardized Blanks Metric

For example: 10.2 x 250 x 500 mm

- **Thickness** ground or fine milled, tol. +0.2 / -0 mm
- Width saw cut or sheared, tol. +10 / -0 mm
- Length saw cut or sheared, tol. +10 / -0 mm

Flatness tolerance: +0.2 / -0 mm across the item (aimed for)

*DIN: DEUTSCHE INDUSTRIE NORM (GERMAN INDUSTRY STANDARD)!

Precision ground flat stock is a bar with a sharp-edged, rectangular or square cross-section made of tool steel with finely machined, decarburization-free longitudinal surfaces. In Germany, it is standardized in DIN 59350. Precision ground flat stock is used primarily as a semi-finished product in machine, tool, fixture and mold construction.



For more details on our shapes see: us.abrams-industries.com/product-overview



Below are our rounds in different categories in imperial as well as metric sizes.

Any item is available in different diameters and / or length. On request – specific to your needs!

IMPERIAL



Drill Rod [DR] **Precision Round Bars**

For example: DR 3/4" x 36"

Turned, ground & polished (TGP)

- Tol. Dia. < 1/8": +/-0.0003", L +0.125" / -0.000"
- Tol. Dia. 1/8" to < 1/2": +/-0.0005", L +0.125" / -0.000"
- Tol. Dia. 1/2" to 2": +/-0.001", L +0.125" / -0.000"

METRIC



Drill Rod Metric [DRM] **Precision Round Bars Metric**

For example: DRM 10.0 mm x 914 mm (36")

Turned, ground & polished (TGP) - ISO h9

- Tol. Dia. \leq 10.0 mm: +0 / -0.036 mm, L +tol.
- Tol. Dia. > 10.0 mm to 18.0 mm: +0 / -0.043 mm, L +tol.
- Tol. Dia. > 18.0 mm to 25.0 mm; +0 / -0.052 mm, L +tol.

These are maximum tolerances. For more exact tolerances call our sales team.



Cold Finished Rounds [CF] Precision Round Bars

For example: CF 3/4" x 36"

Drawn, smooth turned, ground, or ground and polished

- Tol. Dia. < 1/2": +/-0.0015", L +tol. / -0.400"
- Tol. Dia. 1/2" to < 1-1/2": +/-0.0025", L +tol. / -0.400"
- Tol. Dia. 1-1/2" to 4": +/-0.004", L +tol. / -0.400"

These are maximum tolerances. For more exact tolerances call



Cold Finished Rounds Metric [CFM] Precision Round Bars Metric

For example: CFM 10.0 mm x 914 mm (36")

Drawn, smooth turned, ground, or ground and polished (ISO h9)

- Tol. Dia. \leq 10.0 mm: +0 / -0.036 mm, L +tol.
- Tol. Dia. > 10.0 mm to 18.0 mm; +0 / -0.043 mm, L +tol.
- Tol. Dia. > 18.0 mm to 25.0 mm: +0 / -0.052 mm, L +tol.

These are maximum tolerances. For more exact tolerances call our sales team.



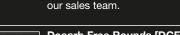
Decarb Free Rounds [DCF] Oversize Round Bars

For example: DCF 3/4" x 36"

Peeled or rough-turned

- Tol. Dia. min. +0.010", L +tol. / -0.400"
- Exception: 4XX Series stainless steel, tol. Dia. +tol. / -0.000", L +tol. / -0.400"

These steel rounds are oversized to finish to nominal diameter.



STEEL CATEGORIES!

Steel grades are classified by their technical properties and/or by their intended use.

For example: Cold work steel, hot work steel, plastic mold steel, high speed steel, corrosion resistant steel or case hardening steel. Steel grades are often assigned to several classification groups.

For more details on our shapes see: us.abrams-industries.com/product-overview





Shapes



WATCH THE MAKING OF THE 9TH MOTIF FOR CALENDAR 2019 / 2022



ABRAMS PREMIUM STEEL

STAINLESS STEEL,		,				, deta	fun 1 des	, telen	on ref	n ann							lened Birth	.theci	grot. Keil	, ags III	aci /				nsiar	resistant	
corrosion resist acid resistant STEEL GRADE - AISI	tant	ted let s	ole Jan S	Sted St.	SM reg 500	in of sur	nari 2r 3	A Tracket 300 t	ten so th	in starten	18 18 18 18 18 18 18 18 18 18 18 18 18 1	Mara rem	k k k k	M SIA FIFT	\$61 \ Mat. 81	Hery harding has her had being her	nathes aprior	strength at	apport.	nardine stee	MON Steel	stic Mold Steel	peed steel	ges steel	ticerte He	dar Treatable steel	Stering Steel
PREMIUM 303						✓	✓					✓	✓		250		116.0	20					✓	✓			
PREMIUM 304						✓	✓					✓	✓		215		100.0	<20				,	✓	✓			
PREMIUM 314						✓	✓								223		109.5	<20				,	✓	✓			
PREMIUM 316L / 316						✓	✓					✓	✓		215		100.0	<20				,	✓	✓			
PREMIUM 316Ti						✓	✓						✓		215		100.0	<20				,	✓	✓			
PREMIUM 410						✓	✓					✓		✓	252		123.2	31		~			✓	✓			
PREMIUM 420					✓	✓	✓	✓					✓	✓	241	50	118.2	55			✓		✓	✓			
PREMIUM 420 mod.						✓	✓						✓		252		123.2	47		~			✓	✓			
PREMIUM 420RM						✓	✓								325		159.5	48			✓		✓	✓			
PREMIUM 430F						✓	✓								270		124.7	26					✓	✓			
PREMIUM 431						✓	✓					✓		✓	331		152.2	47	✓	✓			✓	✓			
PREMIUM 440B					✓	✓	✓	✓					✓		265	53	134.1	58	✓		✓		✓	✓			
PREMIUM 440C						✓	✓					✓		✓	285		139.9	60	✓				✓	✓			

STAINLESS STEEL corrosion resistant / acid resistant

IMPERIAL

Precision Ground Flat Stock, regular [GFS reg]
Precision Ground Flat Stock, oversize [GFS O/S]
\$mart Flat Stock [\$mart] - Standardized Precision Blanks
EDM Block hardened [EDM]
Drill Rod [DR] - Precision Round Bars
Cold Finished Rounds [CF] - Precision Round Bars
Decarb Free Rounds [DCF] - Oversize Round Bars

METRIC

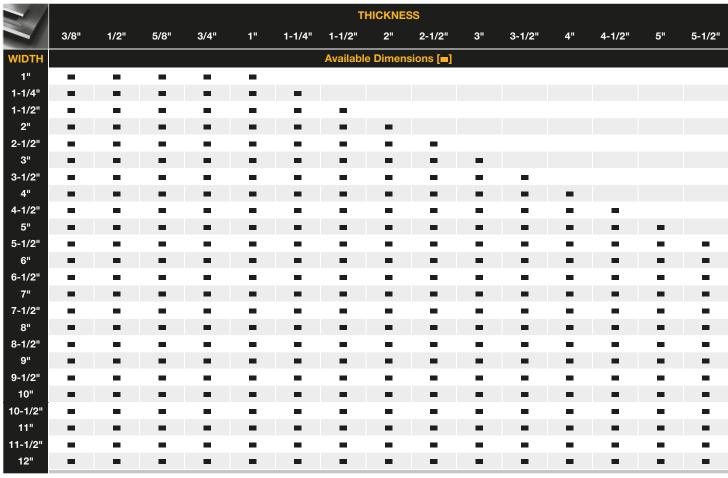
Precision Ground Flat Stock Metric, regular [GFSM reg] - acc. to DIN* 59350
Precision Ground Flat Stock Metric, oversize [GFSM O/S]
\$mart Flat Stock Metric [\$martM] - Standardized Precision Blanks Metric
Hard Flat Metric [HardM] - Hardened Standardized Blanks Metric
Drill Rod Metric [DRM] - Precision Round Bars Metric
Cold Finished Rounds Metric [CFM] - Precision Round Bars Metric
*DIN: Deutsche Industrie Norm (German Industry Standard)



PREMIUM 303 - \$mart FLAT STOCK

STAINLESS STEEL

Length: 12" IMPERIAL DIMENSIONS in inch THICKNESS





Technical Properties

Corrosion resistant austenitic stainless chrome-nickel-steel with additional sulphur content that allows excellent milling, however, not forgeable, non-weldable (cracking), limited polishing properties. Average mechanical properties, non-magnetizable and conditionally acid resistant.

Working hardness: 215-250 BHN (delivery condition).

Appl

Applications

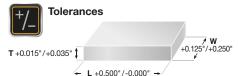
Food industry, photographic industry, paint industry, oil industry, soap industry, paper industry, textile industry, mechanical engineering, turned parts, kitchen equipment, decoration, construction fittings.



[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 250 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Ni	Cu	Ν
			0					
0.1	1.0	2.0	0.045	0.35	19.0	10.0	1.0	- 0.11



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



Contact us

+1 (331) 234-9900 sales@abrams-industries.com



Direct access to our online shop

abrams-steel.com/303-10



AISI 303 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/303

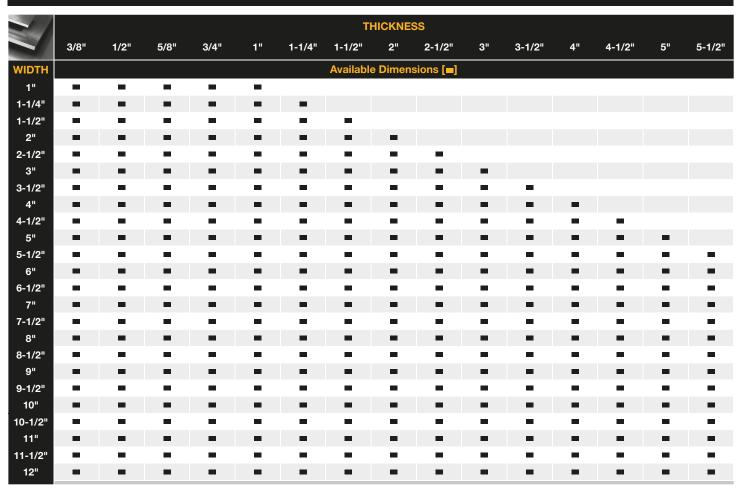


Length: 24"

PREMIUM 303 - \$mart FLAT STOCK

STAINLESS STEEL

IMPERIAL DIMENSIONS in inch

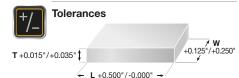




[\$mart]: Surface Condition Thickness: ground or fine milled Width: saw cut

303

Length: saw cut





Standard values

Delivery condition: maximum 250 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Ni	Cu	N
			0					
- 01	10	20	0.045	n 35	- 10 N	10 O	1.0	n 11
0.1	1.0	2.0	0.043	0.00	19.0	10.0	1.0	0.11



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request - according to your requirements!



Contact us

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Direct access to our online shop

abrams-steel.com/303-11



Technical Properties

Corrosion resistant austenitic stainless chrome-nickel-steel with additional sulphur content that allows excellent milling, however, not forgeable, non-weldable (cracking), limited polishing properties. Average mechanical properties, non-magnetizable and conditionally acid resistant.

Working hardness: 215-250 BHN (delivery condition).



Applications

Food industry, photographic industry, paint industry, oil industry, soap industry, paper industry, textile industry, mechanical engineering, turned parts, kitchen equipment, decoration, construction fittings.



AISI 303 – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/303



PREMIUM 303 - \$mart FLAT STOCK METRIC

STAINLESS STEEL

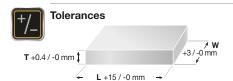
METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 Available Dimensions [=] WIDTH 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283 303



[\$martM]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 250 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Ni	Cu	Ν
0	0	0	0	0.15	17.0	8.0	0	0
0.1	1.0	2.0	0.045	0.35	- 19.0	10.0	1.0	0.11
0.1	1.0	2.0	0.045	0.15	19.0	10.0	1	.0



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



Contact us

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Direct access to our online shop

abrams-steel.com/303-12



AISI 303 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/303

via smartphone/tablet:



Technical Properties

Corrosion resistant austenitic stainless chrome-nickel-steel with additional sulphur content that allows excellent milling, however, not forgeable, non-weldable (cracking), limited polishing properties. Average mechanical properties, non-magnetizable and conditionally acid resistant.

Working hardness: 215-250 BHN (delivery condition).



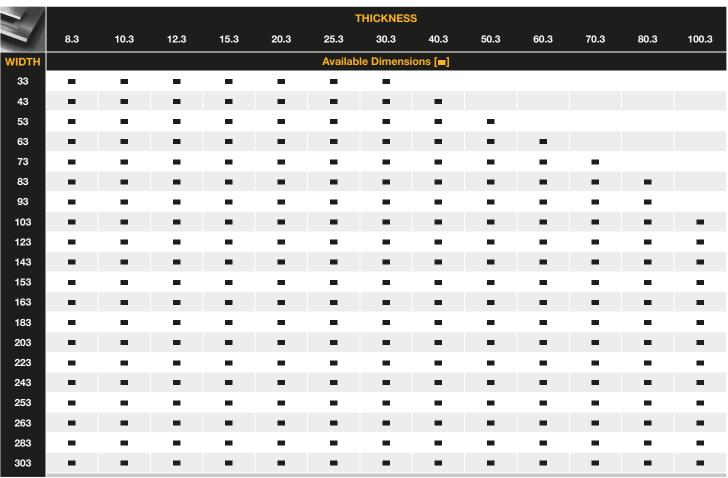
Applications

Food industry, photographic industry, paint industry, oil industry, soap industry, paper industry, textile industry, mechanical engineering, turned parts, kitchen equipment, decoration, construction fittings.

PREMIUM 303 - \$mart FLAT STOCK METRIC

STAINLESS STEEL

METRIC DIMENSIONS in mm Length: 600 mm

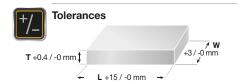




[\$martM]: Surface Condition Thickness: ground or fine milled

303

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 250 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Ni	Cu	N
			0					
0.1	1.0	2.0	0.045	0.35	- 19.0	10.0	1.0	0.11



Don't see your exact dimension(s)?

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AISI 303 – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/303

via smartphone/tablet:



Technical Properties

Corrosion resistant austenitic stainless chrome-nickel-steel with additional sulphur content that allows excellent milling, however, not forgeable, non-weldable (cracking), limited polishing properties. Average mechanical properties, non-magnetizable and conditionally acid resistant.

Working hardness: 215-250 BHN (delivery condition).



Applications

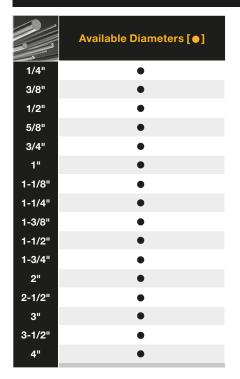
Food industry, photographic industry, paint industry, oil industry, soap industry, paper industry, textile industry, mechanical engineering, turned parts, kitchen equipment, decoration, construction fittings.

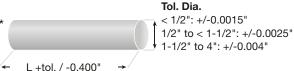
PREMIUM 303 - COLD FINISHED ROUNDS

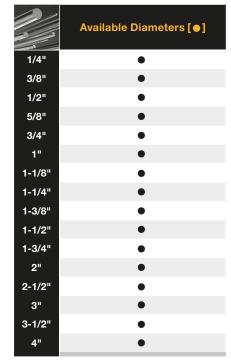
STAINLESS STEEL

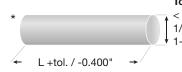
Length: 18"

IMPERIAL DIAMETERS in inch Length: 36"









Tol. Dia. < 1/2": +/-0.0015" 1/2" to < 1-1/2": +/-0.0025" 1-1/2" to 4": +/-0.004"

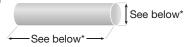


[CF]: Surface Condition

Drawn, smooth turned, ground, or ground and polished



Tolerances





Standard values

Delivery condition: maximum 250 BHN Chemical composition:

			Р					
0	0	0	0	0.15	17.0	8.0	0	0
0.1	1.0	2.0	0 0.045	0.35	- 19.0	10.0	1.0	0.11



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks). Custom orders on request

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[18"] - abrams-steel.com/303-19

[36"] - abrams-steel.com/303-20



AISI 303 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/303

via smartphone/tablet:



Technical Properties

Corrosion resistant austenitic stainless chrome-nickel-steel with additional sulphur content that allows excellent milling, however, not forgeable, non-weldable (cracking), limited polishing properties. Average mechanical properties, non-magnetizable and conditionally acid resistant.

Working hardness: 215-250 BHN (delivery condition).



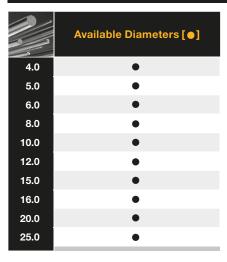
Applications

Food industry, photographic industry, paint industry, oil industry, soap industry, paper industry, textile industry, mechanical engineering, turned parts, kitchen equipment, decoration, construction fittings.

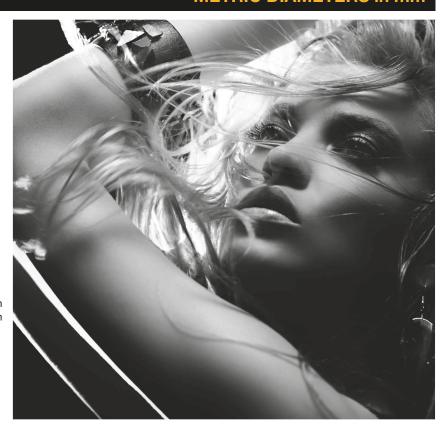
PREMIUM 303 - COLD FINISHED ROUNDS METRIC

METRIC DIAMETERS in mm

Length: 914 mm (36")



Tol. Dia. \leq 10.0 mm: +0 / -0.036 mm > 10.0 mm to 18.0 mm: +0 / -0.043 mm > 18.0 mm to 25.0 mm: +0 / -0.052 mm L +tol. →



STAINLESS STEEL



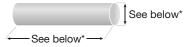
[CFM]: Surface Condition

Drawn, smooth turned, ground, or ground and polished (ISO h9)

303



Tolerances





Standard values

Delivery condition: maximum 250 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Ni	Cu	N
			0					
-	-	- 1	-	-	-	- 1	-	-
0.1	1.0	2.0	0.045	0.35	19.0	10.0	1.0	0.11



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks). Custom orders on request

- according to your requirements.



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Technical Properties

Corrosion resistant austenitic stainless chrome-nickel-steel with additional sulphur content that allows excellent milling, however, not forgeable, non-weldable (cracking), limited polishing properties. Average mechanical properties, non-magnetizable and conditionally acid resistant.

Working hardness: 215-250 BHN (delivery condition).



Applications

Food industry, photographic industry, paint industry, oil industry, soap industry, paper industry, textile industry, mechanical engineering, turned parts, kitchen equipment, decoration, construction fittings.

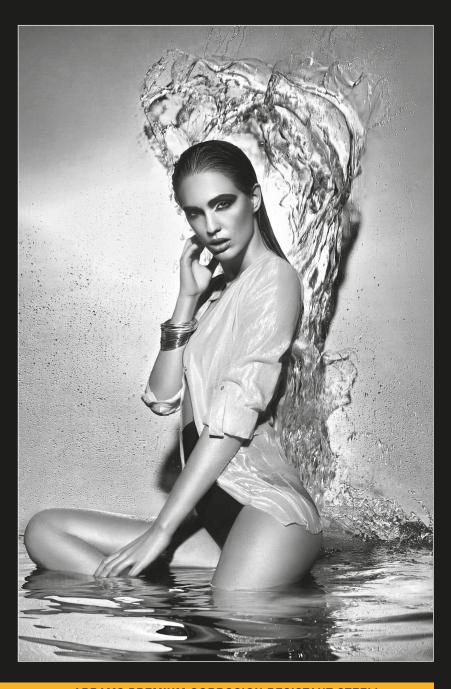


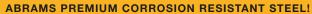
AISI 303 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/303







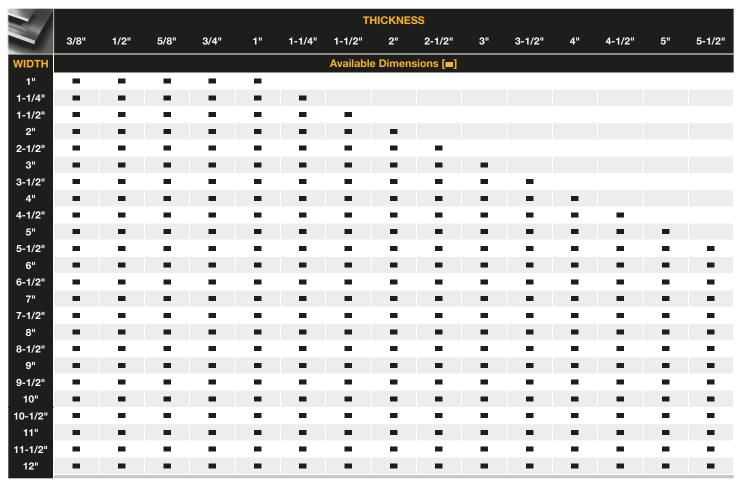




PREMIUM 304 - \$mart FLAT STOCK

STAINLESS STEEL

Length: 12" IMPERIAL DIMENSIONS in inch





Technical Properties

Corrosion resistant austenitic stainless chrome-nickel-steel with good processability and attractive appearance (ground-high-gloss polished). It has excellent deep drawing properties, is weldable and wear resistant but non-magnetizable and limited machining properties. Average mechanical properties, and conditionally acid resistant.

Working hardness: 195-215 BHN (delivery condition).

Applications

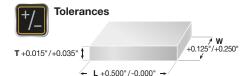
Food industry, photographic industry, paint industry, oil industry, soap industry, paper industry, textile industry, mechanical engineering, turned parts, kitchen equipment, decoration, construction fittings.



[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 215 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Ni	Ν
0	0	0	0	0	17.5	8.0	0
0.07	1.0	2.0	0.045	0.015	- 19.5	10.5	0.11



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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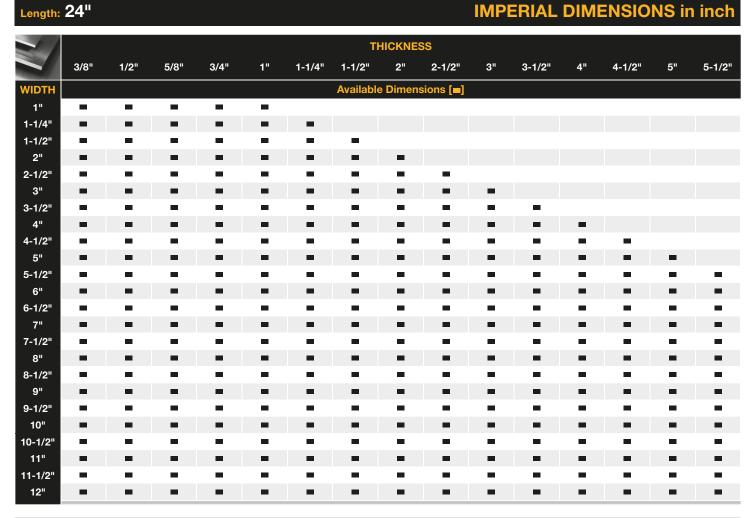
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STAINLESS STEEL

IMPERIAL DIMENSIONS in inch

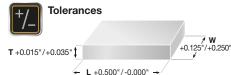




[\$mart]: Surface Condition Thickness: ground or fine milled Width: saw cut

304

Length: saw cut





Standard values

Delivery condition: maximum 215 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Ni	Ν
0	0	0	0	0	17.5	8.0	0
- 0.7	10	- 0	0.045	0.015	10.5	10.5	- 11
0.07	1.0	2.0	0.045	0.015	19.5	10.5	0.11



Don't see your exact dimension(s)?

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Technical Properties

Corrosion resistant austenitic stainless chrome-nickel-steel with good processability and attractive appearance (ground-highgloss polished). It has excellent deep drawing properties, is weldable and wear resistant but non-magnetizable and limited machining properties. Average mechanical properties, and conditionally acid resistant.

Working hardness: 195-215 BHN (delivery condition).



Applications

Food industry, photographic industry, paint industry, oil industry, soap industry, paper industry, textile industry, mechanical engineering, turned parts, kitchen equipment, decoration, construction fittings.



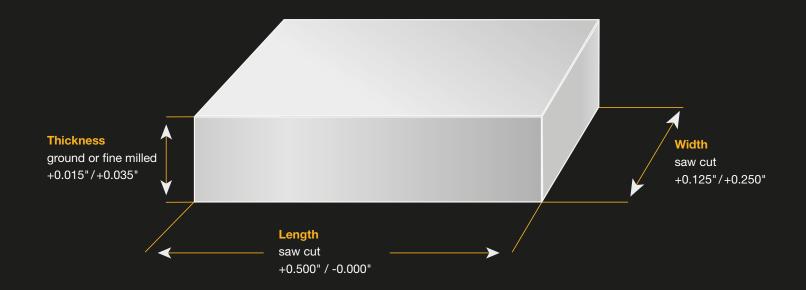
AISI 304 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/304



\$mart Flat Stock: \$AVES YOU TIME - \$AVES YOU MONEY

Always close to your final dimensions.



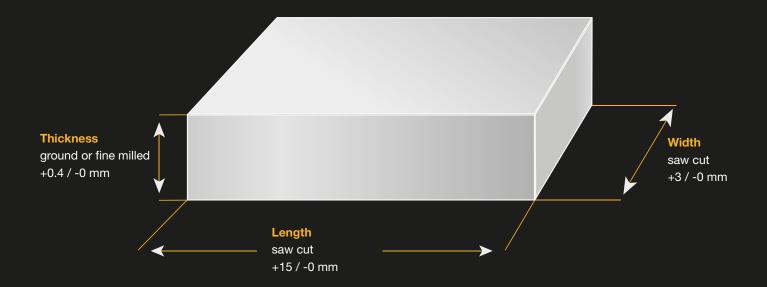
NEW TO THE MEXICAN MARKET!

METRIC

304

\$mart Flat Stock: \$AVES YOU TIME - \$AVES YOU MONEY

Always close to your final dimensions.





PREMIUM 304 - \$mart FLAT STOCK METRIC

STAINLESS STEEL

METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 WIDTH Available Dimensions [=] 33

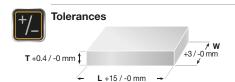
43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253



[\$martM]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 215 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Ni	Ν
0	0	0	0	0	17.5	8.0	0
0.07	1.0	2.0	0 0.045	0.015	19.5	10.5	0.11
0.0.			0.0.0	0.0.0			•



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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AISI 304 - all at a glance!

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via smartphone/tablet:



Technical Properties

263

283

303

Corrosion resistant austenitic stainless chrome-nickel-steel with good processability and attractive appearance (ground-highgloss polished). It has excellent deep drawing properties, is weldable and wear resistant but non-magnetizable and limited machining properties. Average mechanical properties, and conditionally acid resistant.

Working hardness: 195-215 BHN (delivery condition).



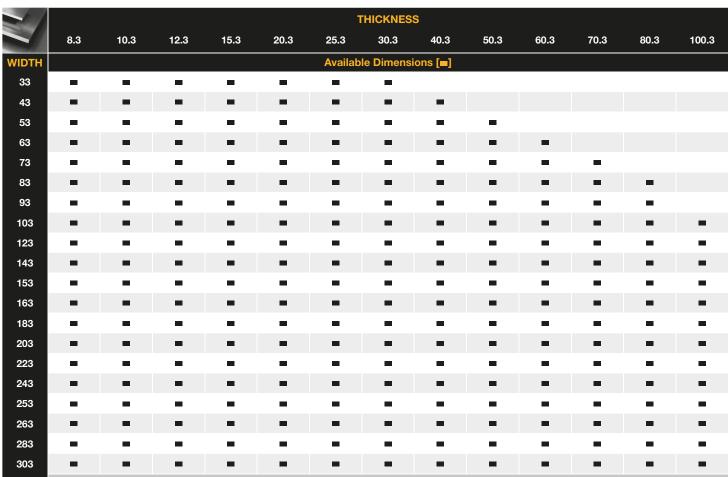
Applications

Food industry, photographic industry, paint industry, oil industry, soap industry, paper industry, textile industry, mechanical engineering, turned parts, kitchen equipment, decoration, construction fittings.

PREMIUM 304 - \$mart FLAT STOCK METRIC

STAINLESS STEEL

METRIC DIMENSIONS in mm Length: 600 mm

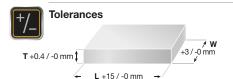




[\$martM]: Surface Condition Thickness: ground or fine milled

304

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 215 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Ni	N
0	0	0	0	0	17.5	8.0	0
-	-	-	-	-	-	-	-
0.07	1.0	2.0	0.045	0.015	19.5	10.5	0.11



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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Technical Properties

Corrosion resistant austenitic stainless chrome-nickel-steel with good processability and attractive appearance (ground-highgloss polished). It has excellent deep drawing properties, is weldable and wear resistant but non-magnetizable and limited machining properties. Average mechanical properties, and conditionally acid resistant.

Working hardness: 195-215 BHN (delivery condition).



Applications

Food industry, photographic industry, paint industry, oil industry, soap industry, paper industry, textile industry, mechanical engineering, turned parts, kitchen equipment, decoration, construction fittings.



AISI 304 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/304

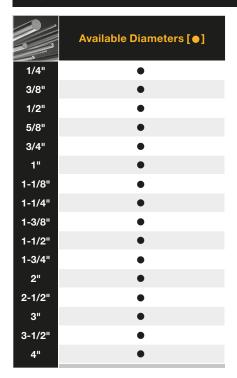


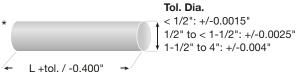
PREMIUM 304 - COLD FINISHED ROUNDS

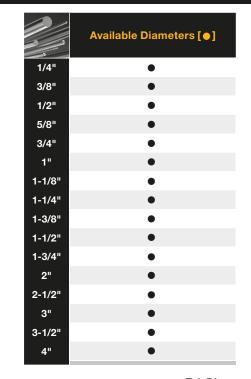
STAINLESS STEEL

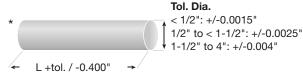
Length: 18"

IMPERIAL DIAMETERS in inch Length: 36"









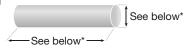


[CF]: Surface Condition

Drawn, smooth turned, ground, or ground and polished



Tolerances





Standard values

Delivery condition: maximum 215 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Ni	Ν
0	0	0	0	0	17.5	8.0	0
0.07	1.0	2.0	0 0.045	0.015	19.5	10.5	0.11



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks). Custom orders on request

- according to your requirements.



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[18"] - abrams-steel.com/304-19

[36"] - abrams-steel.com/304-20



AISI 304 - all at a glance!

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via smartphone/tablet:



Technical Properties

Corrosion resistant austenitic stainless chrome-nickel-steel with good processability and attractive appearance (ground-highgloss polished). It has excellent deep drawing properties, is weldable and wear resistant but non-magnetizable and limited machining properties. Average mechanical properties, and conditionally acid resistant.

Working hardness: 195-215 BHN (delivery condition).



Applications

Food industry, photographic industry, paint industry, oil industry, soap industry, paper industry, textile industry, mechanical engineering, turned parts, kitchen equipment, decoration, construction fittings.

PREMIUM 304 - COLD FINISHED ROUNDS METRIC

Length: 914 mm (36")

Available Diameters [●] 3.0 5.0 6.0 8.0 10.0 12.0 15.0 16.0 20.0 25.0

Tol. Dia. \leq 10.0 mm: +0 / -0.036 mm > 10.0 mm to 18.0 mm: +0 / -0.043 mm > 18.0 mm to 25.0 mm: +0 / -0.052 mm



METRIC DIAMETERS in mm



[CFM]: Surface Condition

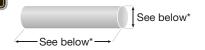
Drawn, smooth turned, ground, or ground and polished (ISO h9)

303

304



Tolerances





Standard values

Delivery condition: maximum 215 BHN Chemical composition:

			Р				
0	0	0	0	0	17.5	8.0	0
0.07	1.0	2.0	0.045	0.015	- 19.5	10.5	0.11



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks). Custom orders on request

- according to your requirements.



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L +tol. →

Technical Properties

Corrosion resistant austenitic stainless chrome-nickel-steel with good processability and attractive appearance (ground-highgloss polished). It has excellent deep drawing properties, is weldable and wear resistant but non-magnetizable and limited machining properties. Average mechanical properties, and conditionally acid resistant.

Working hardness: 195-215 BHN (delivery condition).



Applications

Food industry, photographic industry, paint industry, oil industry, soap industry, paper industry, textile industry, mechanical engineering, turned parts, kitchen equipment, decoration, construction fittings.



AISI 304 - all at a glance!

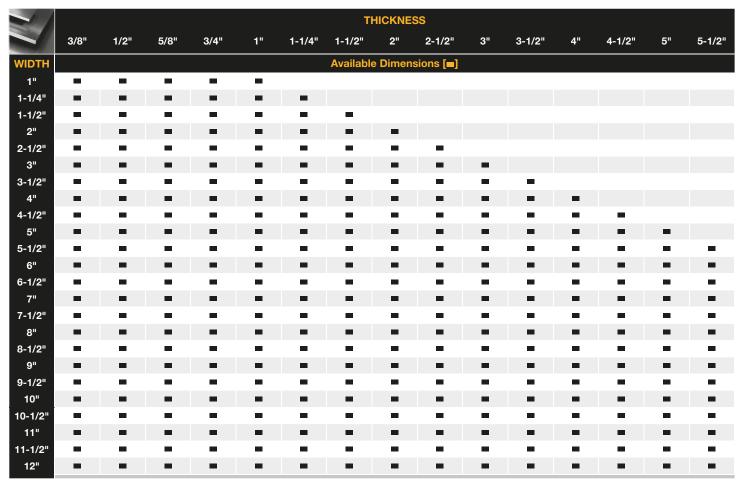
Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/304



PREMIUM 314 - \$mart FLAT STOCK

STAINLESS STEEL

Length: 12" **IMPERIAL DIMENSIONS** in inch





Technical Properties

Heat-resistant, austenitic chromium-nickel steel, that provides good resistance to oxidation at high temperatures. Good resistance properties as well as excellent chemical resistance at high temperatures up to 2012°F. Very good corrosion resistance. Working hardness: approx. 223 BHN (delivery condition).

Applications

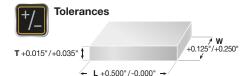
Apparatus engineering for high temperature application, automotive industry, chemical industry, oil industry, chains for the cement and concrete industry, mechanical engineering, furnace construction, enamel grates, fire pits, heat conductors.



[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 223 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Ni	Ν
0	1.5	0	0	0	24.0	19.0	0
0.2	2.5	2.0	0.045	0.015	26.0	22.0	0.11



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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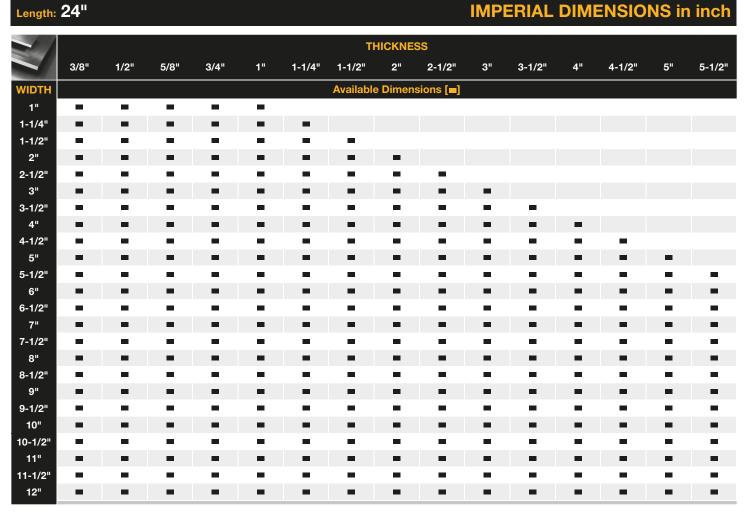
AISI 314 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/314



STAINLESS STEEL

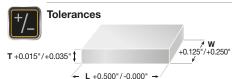
IMPERIAL DIMENSIONS in inch





[\$mart]: Surface Condition Thickness: ground or fine milled Width: saw cut

Length: saw cut





Standard values

Delivery condition: maximum 223 BHN Chemical composition:

314

С	Si	Mn	Р	S	Cr Ni		N
0	1.5	0	0	0	24.0	19.0	0
-	-	-	-	-	-	-	-
0.2	2.5	2.0	0.045	0.015	26.0	22.0	0.11



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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Technical Properties

Heat-resistant, austenitic chromium-nickel steel, that provides good resistance to oxidation at high temperatures. Good resistance properties as well as excellent chemical resistance at high temperatures up to 2012°F. Very good corrosion resistance. Working hardness: approx. 223 BHN (delivery condition).



Applications

Apparatus engineering for high temperature application, automotive industry, chemical industry, oil industry, chains for the cement and concrete industry, mechanical engineering, furnace construction, enamel grates, fire pits, heat conductors.



AISI 314 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/314



PREMIUM 314 - \$mart FLAT STOCK METRIC

STAINLESS STEEL

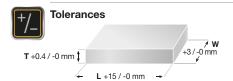
METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 Available Dimensions [=] WIDTH 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283 303



[\$martM]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 223 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Ni	Ν
0	1.5	0	0	0	24.0	19.0	0
0.2	2.5	2.0	0.045	0.015	26.0	22.0	0.11



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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abrams-steel.com/314-12



Technical Properties

Heat-resistant, austenitic chromium-nickel steel, that provides good resistance to oxidation at high temperatures. Good resistance properties as well as excellent chemical resistance at high temperatures up to 2012°F. Very good corrosion resistance. Working hardness: approx. 223 BHN (delivery condition).



Applications

Apparatus engineering for high temperature application, automotive industry, chemical industry, oil industry, chains for the cement and concrete industry, mechanical engineering, furnace construction, enamel grates, fire pits, heat conductors.



AISI 314 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/314



Length: 600 mm

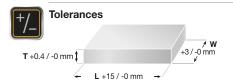
METRIC DIMENSIONS in mm

61						1	THICKNES	s					
	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3	60.3	70.3	80.3	100.3
WIDTH						Availab	le Dimensi	ions [=]					
33	-	-	-		-	-							
43	-	-	-		-	-	-	-					
53	-	-	-	-	-	-	-	-	-				
63	-	-	-		-	-	-	-	-	-			
73	-	-	-	-	-	-	-	-	-	-	-		
83	-	-	-		-	-	-	-	-	-	-	-	
93	-	-	-	-	-	-	-	-	-	-	-	-	
103	-	-	-		-	-	-	-	-	-	-	-	-
123	-	-	-	-	-	-	-	-	-	-	-	-	-
143	-	-	-		-	-	-	-	-	-	-	-	-
153	-	-	-	-	-	-	-	-	-	-	-	-	-
163	-				-	-		-	-	-		-	-
183	-	-	-	-	-	-	-	-	-	-	-	-	-
203	-	-	-		-	-	-	-	-	-	-	-	-
223	-	-	-	-	-	-	-	-	-	-	-	-	-
243	-	-	-		-	-	-	-	-	-	-	-	-
253	-	-	-	-	-	-	-	-	-	-	-	-	-
263	-	_	_	_	_	_	_	_	_	_	_	_	_
283	-	-	-	-	-	-	-	_	_		_	_	-
303	-	-	-	-	-	-	-	-	-	-	-	-	-



[\$martM]: Surface Condition
Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 223 BHN Chemical composition:

314

С	Si	Mn	Р	S	Cr	Ni	N
0	1.5	0	0	0	24.0	19.0	0
			0.045	l . . . l	
0.2	2.5	2.0	0.045	0.015	26.0	22.0	0.11



Don't see your exact dimension(s)?

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- according to your requirements!



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AISI 314 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/314

via smartphone/tablet:





Technical Properties

Heat-resistant, austenitic chromium-nickel steel, that provides good resistance to oxidation at high temperatures. Good resistance properties as well as excellent chemical resistance at high temperatures up to 2012°F. Very good corrosion resistance. Working hardness: approx. 223 BHN (delivery condition).



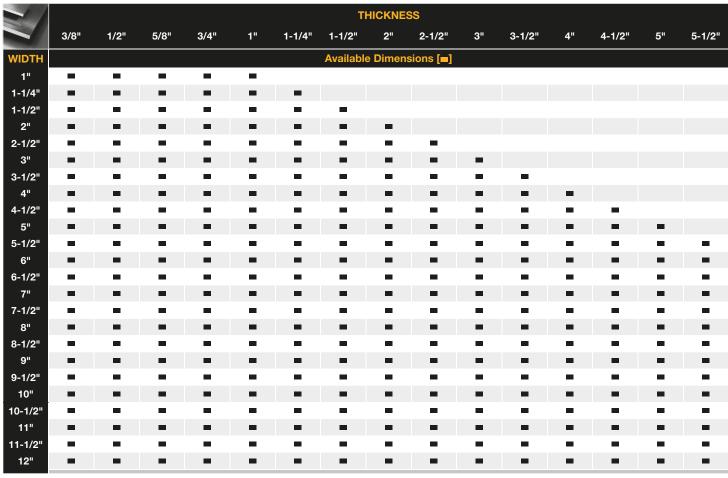
Applications

Apparatus engineering for high temperature application, automotive industry, chemical industry, oil industry, chains for the cement and concrete industry, mechanical engineering, furnace construction, enamel grates, fire pits, heat conductors.

PREMIUM 316L / 316 - \$mart FLAT STOCK

STAINLESS STEEL

Length: 12" IMPERIAL DIMENSIONS in inch





Technical Properties

Stainless, austenitic chromium-nickel-molybdenum steel. Polishable, suitable for low temperatures, high resistance with regards to non-oxidizing acids e.g. nitric acid, sulphuric acid and formic acid, easy to process and good weldability. Can also be used at high temperatures of up to 932°F, non-magnetizable. Working hardness: approx. 215 BHN (delivery condition).

Applications

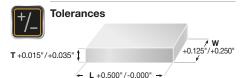
Chemical industry, pharmaceutical industry, food industry, valve and plant construction, building industry, automotive industry, aviation industry, mechanical engineering, offshore, petrochemical industry, electrical equipment, decorative uses and kitchen equipment.



¶ [\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 215 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni	Ν
0	0	0	0	0.015	16.5	2.0	10.0	0
0.03	1.0	2.0	0.04	- 0	10.5	2.5	12.0	_ 0 1
0.03	1.0	2.0	0.04	0.03	10.5	2.5	13.0	0.1



Don't see your exact dimension(s)?

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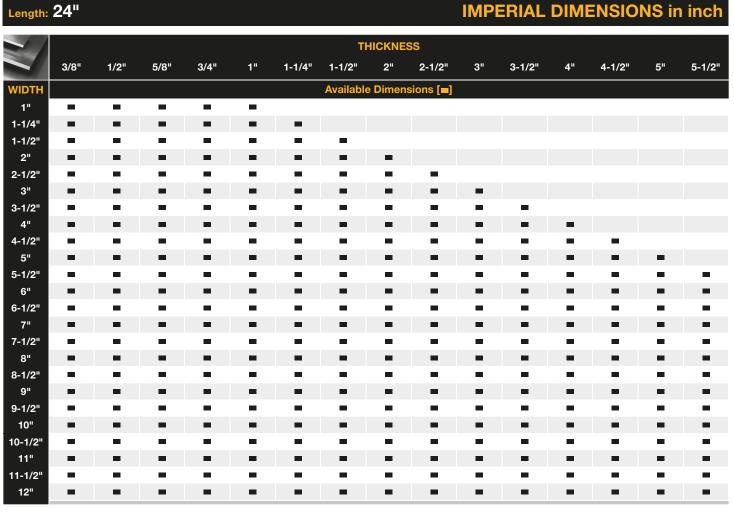


AISI 316L / 316 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/316L-316



IMPERIAL DIMENSIONS in inch





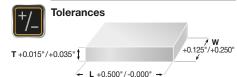
[\$mart]: Surface Condition Thickness: ground or fine milled Width: saw cut

304

314

316L / 316

Length: saw cut





Standard values

Delivery condition: maximum 215 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni	Ν
							10.0	
0.03	1.0	2.0	0.04	0.03	18.5	2.5	13.0	0.1



Don't see your exact dimension(s)?

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- according to your requirements!



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Technical Properties

Stainless, austenitic chromium-nickel-molybdenum steel. Polishable, suitable for low temperatures, high resistance with regards to non-oxidizing acids e.g. nitric acid, sulphuric acid and formic acid, easy to process and good weldability. Can also be used at high temperatures of up to 932°F, non-magnetizable. Working hardness: approx. 215 BHN (delivery condition).



Applications

Chemical industry, pharmaceutical industry, food industry, valve and plant construction, building industry, automotive industry, aviation industry, mechanical engineering, offshore, petrochemical industry, electrical equipment, decorative uses and kitchen equipment.



AISI 316L / 316 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/316L-316



PREMIUM 316L / 316 - \$mart FLAT STOCK METRIC

STAINLESS STEEL

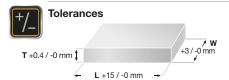
METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 **NIDTH** Available Dimensions [=] 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283 303



[\$martM]: Surface Condition

Thickness: ground or fine milled Width: saw cut

Length: saw cut





Standard values

Delivery condition: maximum 215 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni	Ν
							10.0	
0.03	1.0	2.0	0.04	0.03	- 18.5	2.5	13.0	0.1



Don't see your exact dimension(s)?

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AISI 316L / 316 - all at a glance!

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via smartphone/tablet:



Technical Properties

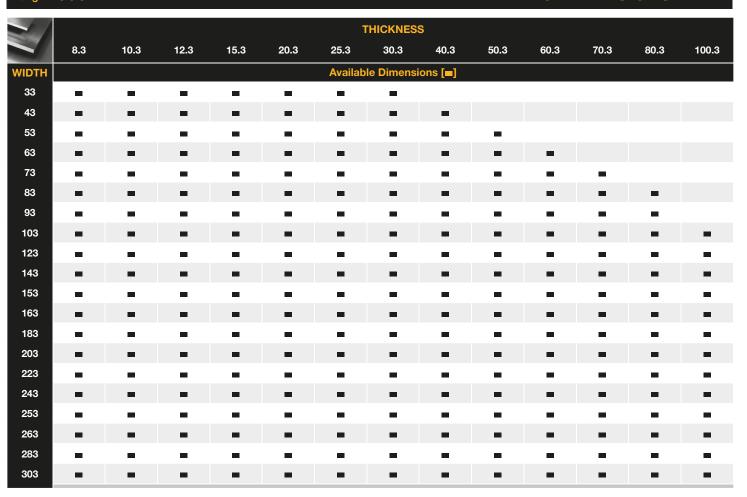
Stainless, austenitic chromium-nickel-molybdenum steel. Polishable, suitable for low temperatures, high resistance with regards to non-oxidizing acids e.g. nitric acid, sulphuric acid and formic acid, easy to process and good weldability. Can also be used at high temperatures of up to 932°F, non-magnetizable. Working hardness: approx. 215 BHN (delivery condition).



Applications

Chemical industry, pharmaceutical industry, food industry, valve and plant construction, building industry, automotive industry, aviation industry, mechanical engineering, offshore, petrochemical industry, electrical equipment, decorative uses and kitchen equipment.

METRIC DIMENSIONS in mm Length: 600 mm





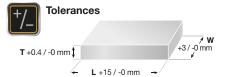
[\$martM]: Surface Condition Thickness: ground or fine milled

304

314

316L / 316

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 215 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni	N
							10.0	
0.03	1.0	2.0	0.04	0.03	- 18.5	2.5	- 13.0	0.1



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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AISI 316L / 316 - all at a glance!

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via smartphone/tablet:



Technical Properties

Stainless, austenitic chromium-nickel-molybdenum steel. Polishable, suitable for low temperatures, high resistance with regards to non-oxidizing acids e.g. nitric acid, sulphuric acid and formic acid, easy to process and good weldability. Can also be used at high temperatures of up to 932°F, non-magnetizable. Working hardness: approx. 215 BHN (delivery condition).



Applications

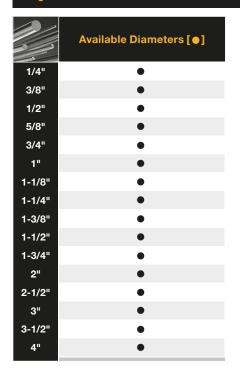
Chemical industry, pharmaceutical industry, food industry, valve and plant construction, building industry, automotive industry, aviation industry, mechanical engineering, offshore, petrochemical industry, electrical equipment, decorative uses and kitchen equipment.

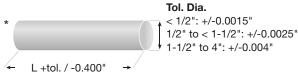
PREMIUM 316L / 316 - COLD FINISHED ROUNDS

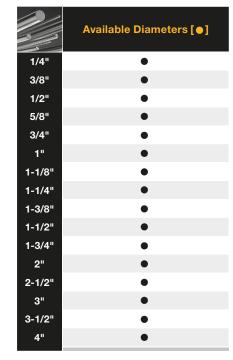
STAINLESS STEEL

Length: 18"

IMPERIAL DIAMETERS in inch Length: 36"









Tol. Dia. < 1/2": +/-0.0015" 1/2" to < 1-1/2": +/-0.0025" 1-1/2" to 4": +/-0.004"

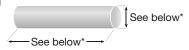


[CF]: Surface Condition

Drawn, smooth turned, ground, or ground and polished



Tolerances





Standard values

Delivery condition: maximum 215 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni	Ν
							10.0	
0 03	1.0	20	n n4	0.03	18.5	2.5	13.0	- 0 1
0.00	1.0	2.0	0.01	0.00	10.0	2.0	10.0	0.1



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks). Custom orders on request

- according to your requirements.



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[18"] - abrams-steel.com/316L-316-19

[36"] - abrams-steel.com/316L-316-20



AISI 316L / 316 - all at a glance!

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via smartphone/tablet:



Technical Properties

Stainless, austenitic chromium-nickel-molybdenum steel. Polishable, suitable for low temperatures, high resistance with regards to non-oxidizing acids e.g. nitric acid, sulphuric acid and formic acid, easy to process and good weldability. Can also be used at high temperatures of up to 932°F, non-magnetizable. Working hardness: approx. 215 BHN (delivery condition).



Applications

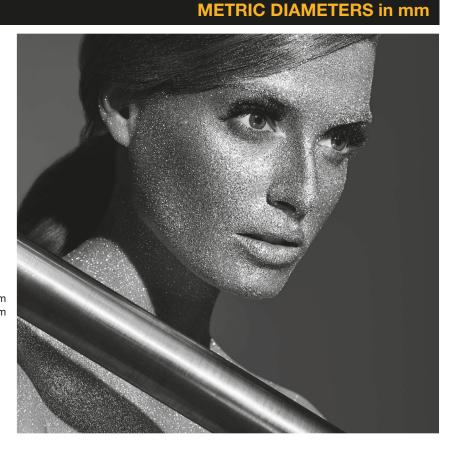
Chemical industry, pharmaceutical industry, food industry, valve and plant construction, building industry, automotive industry, aviation industry, mechanical engineering, offshore, petrochemical industry, electrical equipment, decorative uses and kitchen equipment.

PREMIUM 316L / 316 - COLD FINISHED ROUNDS METRIC

Available Diameters [●] 5.0 6.0 8.0 10.0 12.0 15.0 16.0 20.0 25.0

Length: 914 mm (36")

Tol. Dia. \leq 10.0 mm: +0 / -0.036 mm > 10.0 mm to 18.0 mm: +0 / -0.043 mm > 18.0 mm to 25.0 mm: +0 / -0.052 mm



STAINLESS STEEL



[CFM]: Surface Condition

Drawn, smooth turned, ground, or ground and polished (ISO h9)

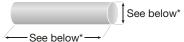
304

314

316L / 316



Tolerances





Standard values

Delivery condition: maximum 215 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni	Ν	
							10.0		
0.03	1.0	2.0	0.04	0.03	18.5	2.5	- 13.0	0.1	



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks). Custom orders on request

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L +tol. →

Technical Properties

Stainless, austenitic chromium-nickel-molybdenum steel. Polishable, suitable for low temperatures, high resistance with regards to non-oxidizing acids e.g. nitric acid, sulphuric acid and formic acid, easy to process and good weldability. Can also be used at high temperatures of up to 932°F, non-magnetizable. Working hardness: approx. 215 BHN (delivery condition).



Applications

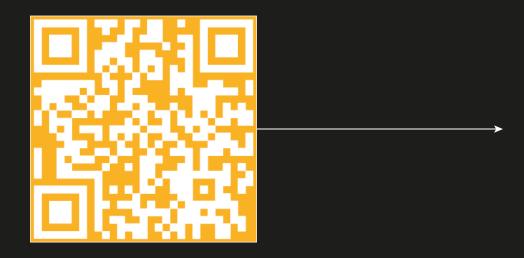
Chemical industry, pharmaceutical industry, food industry, valve and plant construction, building industry, automotive industry, aviation industry, mechanical engineering, offshore, petrochemical industry, electrical equipment, decorative uses and kitchen equipment.



AISI 316L / 316 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/316L-316





ABRAMS PREMIUM CORROSION RESISTANT STEEL!



304

314

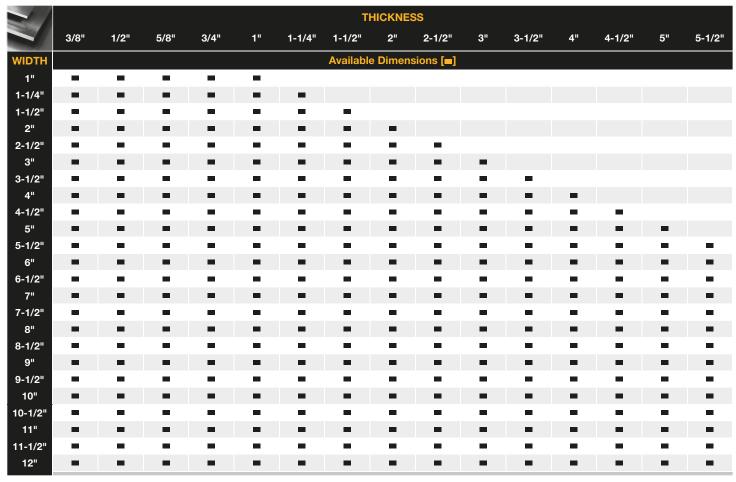
316L / 316



PREMIUM 316Ti - \$mart FLAT STOCK

STAINLESS STEEL

Length: 12" IMPERIAL DIMENSIONS in inch





Technical Properties

Stainless steel, austenitic chromium-nickel-molybdenum steel, stabilized with titanium. Resistant to seawater, diluted sulphuric and hydrochloric acids, and to intergranular corrosion following welding processes. Has excellent cold working properties, very good weldability and temperature resistance up to 1112°F, non-magnetizable.

Working hardness: approx. 215 BHN (delivery condition).

Ap

Applications

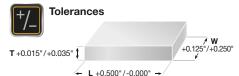
Chemical industry, textile industry, oil industry, building industry, food industry, soap industry, paper industry, photographic industry, paint industry, rubber industry, mechanical engineering, apparatus engineering, pump construction, compressor construction, pipeline construction, shipbuilding, medical technology, pharmaceutical industry, nuclear engineering.



[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 215 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni	Ti
0	0	0	0	0	16.5	2.0	10.5	0
0.08	1.0	2.0	0.045	0.015	- 18.5	2.5	13.5	0.7



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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AISI 316Ti – all at a glance!

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Length: 24"

IMPERIAL DIMENSIONS in inch

61							TH	HICKNE	SS						
	3/8"	1/2"	5/8"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"	4-1/2"	5"	5-1/2"
WIDTH							Available	Dimen	sions [=]						
1"															
1-1/4"	-	-	-	-		-									
1-1/2"	-	-	-	-	•	-									
2"	-		-	-	-	-	-	-							
2-1/2"	-	-	-	-	-	-	-	-	-						
3"	-	_	-	_	-	-	_	-	_	-					
3-1/2" 4"	-	-	-	-	-		-	-	-	-	-	_			
4-1/2"		_		-	-	-	-	-	-	-	-	_	-		
5"	_	_	_	_	_	_	_	_	_	_	_	_	_	-	
5-1/2"	-	-	_	-	_	-	-	-	-	-	-	-	-	-	-
6"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8"	-		-	-	-		-	-	-	-	-	-	-	-	-
8-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9"	-		-	-			-		-	-	-	-		-	
9-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10"	-	_	-	-	-	-	-	-	-	-	-	-	-	-	-
10-1/2" 11"	-	-	-	-	-		-	-	-	-	-	-		-	
11-1/2"				-		-	-		-	-		_	-	-	
12"	_	_	_	_		_	_	_	-	_	_	_	_	_	_



[\$mart]: Surface Condition Thickness: ground or fine milled Width: saw cut

303

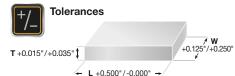
304

314

316

316Ti

Length: saw cut





Standard values

Delivery condition: maximum 215 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni	Ti
0	0	0	0	0	16.5	2.0	10.5	0
-	-	-	-	-	-	-	-	-
0.08	1.0	2.0	0.045	0.015	18.5	2.5	13.5	0.7



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Technical Properties

Stainless steel, austenitic chromium-nickel-molybdenum steel, stabilized with titanium. Resistant to seawater, diluted sulphuric and hydrochloric acids, and to intergranular corrosion following welding processes. Has excellent cold working properties, very good weldability and temperature resistance up to 1112°F, non-magnetizable.

Working hardness: approx. 215 BHN (delivery condition).



Applications

Chemical industry, textile industry, oil industry, building industry, food industry, soap industry, paper industry, photographic industry, paint industry, rubber industry, mechanical engineering, apparatus engineering, pump construction, compressor construction, pipeline construction, shipbuilding, medical technology, pharmaceutical industry, nuclear engineering.



AISI 316Ti - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/316Ti



PREMIUM 316Ti - \$mart FLAT STOCK METRIC

STAINLESS STEEL

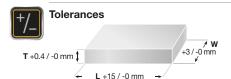
METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 **NIDTH** Available Dimensions [=] 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283 303



[\$martM]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 215 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni	Ti
0	0	0	0	0	16.5	2.0	10.5	0
0.08	1.0	2.0	0.045	0.015	- 18.5	2.5	13.5	0.7



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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Technical Properties

Stainless steel, austenitic chromium-nickel-molybdenum steel, stabilized with titanium. Resistant to seawater, diluted sulphuric and hydrochloric acids, and to intergranular corrosion following welding processes. Has excellent cold working properties, very good weldability and temperature resistance up to 1112°F, non-magnetizable.

Working hardness: approx. 215 BHN (delivery condition).



Applications

Chemical industry, textile industry, oil industry, building industry, food industry, soap industry, paper industry, photographic industry, paint industry, rubber industry, mechanical engineering, apparatus engineering, pump construction, compressor construction, pipeline construction, shipbuilding, medical technology, pharmaceutical industry, nuclear engineering.



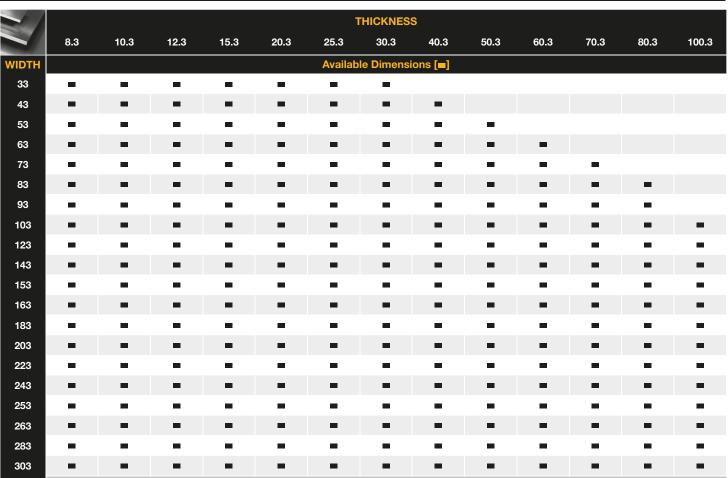
AISI 316Ti – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/316Ti



STAINLESS STEEL

METRIC DIMENSIONS in mm Length: 600 mm





[\$martM]: Surface Condition Thickness: ground or fine milled

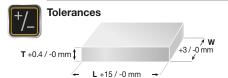
304

314

316

316Ti

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 215 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni	Ti
0	0	0	0	0	16.5	2.0	10.5	0
-	-	-	-	-	-	-	- 1	-
0.08	1.0	2.0	0.045	0.015	18.5	2.5	13.5	0.7



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Technical Properties

Stainless steel, austenitic chromium-nickel-molybdenum steel, stabilized with titanium. Resistant to seawater, diluted sulphuric and hydrochloric acids, and to intergranular corrosion following welding processes. Has excellent cold working properties, very good weldability and temperature resistance up to 1112°F, non-magnetizable.

Working hardness: approx. 215 BHN (delivery condition).



Applications

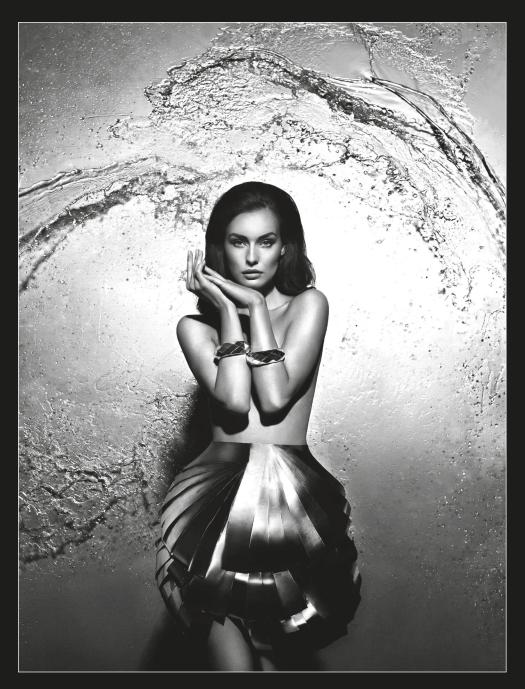
Chemical industry, textile industry, oil industry, building industry, food industry, soap industry, paper industry, photographic industry, paint industry, rubber industry, mechanical engineering, apparatus engineering, pump construction, compressor construction, pipeline construction, shipbuilding, medical technology, pharmaceutical industry, nuclear engineering.



AISI 316Ti - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/316Ti





WATCH THE MAKING OF THE 4TH MOTIF FOR CALENDAR 2013 / 2016



ABRAMS PREMIUM STEEL

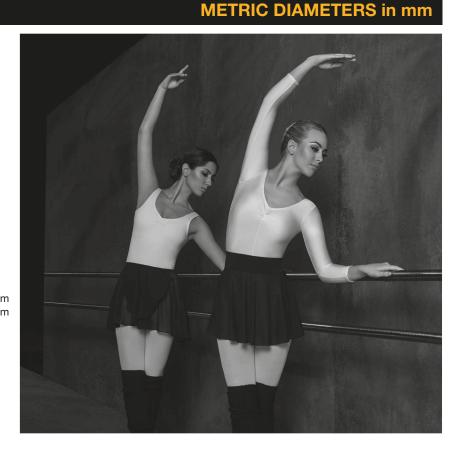
PREMIUM 316Ti - COLD FINISHED ROUNDS METRIC

Length: 914 mm (36")



Tol. Dia.

 \leq 10.0 mm: +0 / -0.036 mm > 10.0 mm to 18.0 mm: +0 / -0.043 mm > 18.0 mm to 25.0 mm: +0 / -0.052 mm



STAINLESS STEEL



[CFM]: Surface Condition

Drawn, smooth turned, ground, or ground and polished (ISO h9)

304

314

316

316Ti



Tolerances





Standard values

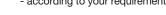
Delivery condition: maximum 215 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni	Ti
0	0	0	0	0	16.5	2.0	10.5	0
-	-	-	-	-	-	-	-	-
0.08	1.0	2.0	0.045	0.015	18.5	2.5	13.5	0.7



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks). Custom orders on request - according to your requirements.





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abrams-steel.com/316Ti-21



← L +tol. →

Technical Properties

Stainless steel, austenitic chromium-nickel-molybdenum steel, stabilized with titanium. Resistant to seawater, diluted sulphuric and hydrochloric acids, and to intergranular corrosion following welding processes. Has excellent cold working properties, very good weldability and temperature resistance up to 1112°F, non-magnetizable.

Working hardness: approx. 215 BHN (delivery condition).



Applications

Chemical industry, textile industry, oil industry, building industry, food industry, soap industry, paper industry, photographic industry, paint industry, rubber industry, mechanical engineering, apparatus engineering, pump construction, compressor construction, pipeline construction, shipbuilding, medical technology, pharmaceutical industry, nuclear engineering.



AISI 316Ti - all at a glance!

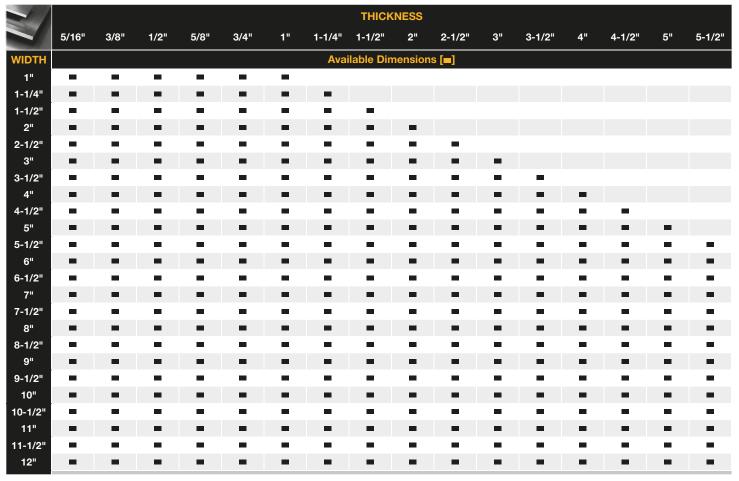
Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/316Ti



PREMIUM 410 - \$mart FLAT STOCK

STAINLESS STEEL

Length: 12" IMPERIAL DIMENSIONS in inch





Technical Properties

Corrosion resistant, martensitic steel (tempered condition), which shows good mechanical and good corrosion resistance in moderately aggressive substances. It has a low susceptibility to embrittlement, is polishable to a high gloss and can be used at temperatures up to 752°F.

Working hardness: approx. 25 HRC (delivery condition) up to 31 HRC.

Applications

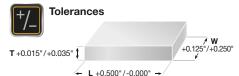
Hydraulic engineering, mechanical engineering, pump industry, oil industry, petrochemical industry, decorative uses, kitchen equipment, food industry, environmental technology, energy technology (hydroelectric power).



[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 252 BHN Chemical composition:

C	21	MIN	Р	S	Cr	Nı
0.08	0	0	0	0	11.5	0
- 0.15	1.0	1.5	0.04	0.03	13.5	0.75



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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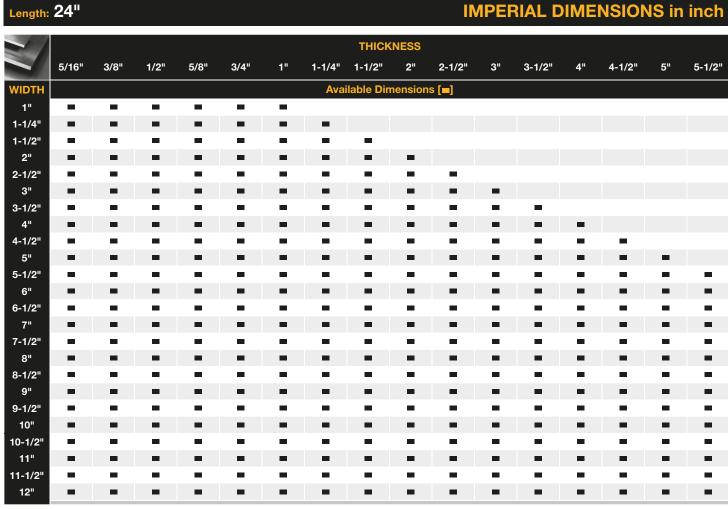
AISI 410 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/410



STAINLESS STEEL

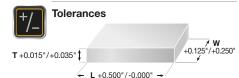
IMPERIAL DIMENSIONS in inch





[\$mart]: Surface Condition Thickness: ground or fine milled Width: saw cut

Length: saw cut





Standard values

Delivery condition: maximum 252 BHN Chemical composition:

410

С	Si	Mn	Р	S	Cr	Ni
0.08	0	0	0	0	11.5	0
0.15	1.0	1.5	0.04	0.03	13.5	0.75



Don't see your exact dimension(s)?

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Technical Properties

Corrosion resistant, martensitic steel (tempered condition), which shows good mechanical and good corrosion resistance in moderately aggressive substances. It has a low susceptibility to embrittlement, is polishable to a high gloss and can be used at temperatures up to 752°F.

Working hardness: approx. 25 HRC (delivery condition) up to 31 HRC.



Applications

Hydraulic engineering, mechanical engineering, pump industry, oil industry, petrochemical industry, decorative uses, kitchen equipment, food industry, environmental technology, energy technology (hydroelectric power).



AISI 410 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/410



PREMIUM 410 - \$mart FLAT STOCK METRIC

STAINLESS STEEL

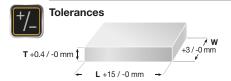
METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 Available Dimensions [=] WIDTH 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283



[\$martM]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 252 BHN Chemical composition:

			Р			
0.08	0	0	0	0	11.5	0
0.15	1.0	1.5	0 - 0.04	0.03	13.5	0.75



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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AISI 410 - all at a glance!

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via smartphone/tablet:



Technical Properties

303

Corrosion resistant, martensitic steel (tempered condition), which shows good mechanical and good corrosion resistance in moderately aggressive substances. It has a low susceptibility to embrittlement, is polishable to a high gloss and can be used at temperatures up to 752°F.

Working hardness: approx. 25 HRC (delivery condition) up to 31 HRC.

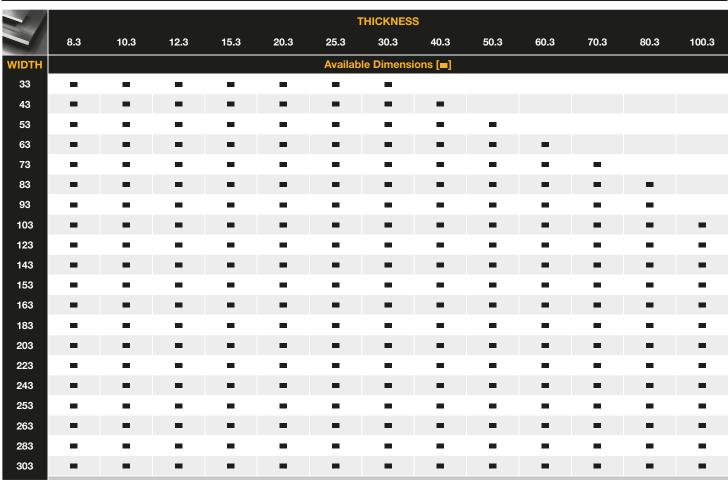


Applications

Hydraulic engineering, mechanical engineering, pump industry, oil industry, petrochemical industry, decorative uses, kitchen equipment, food industry, environmental technology, energy technology (hydroelectric power).

STAINLESS STEEL

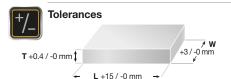
METRIC DIMENSIONS in mm Length: 600 mm





[\$martM]: Surface Condition Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 252 BHN Chemical composition:

410

_			Р	_		
0.08	0	0	0	0	11.5	0
0.15	1.0	1.5	0.04	0.03	13.5	0.75



Don't see your exact dimension(s)?

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- according to your requirements!



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Technical Properties

Corrosion resistant, martensitic steel (tempered condition), which shows good mechanical and good corrosion resistance in moderately aggressive substances. It has a low susceptibility to embrittlement, is polishable to a high gloss and can be used at temperatures up to 752°F.

Working hardness: approx. 25 HRC (delivery condition) up to 31 HRC.



Applications

Hydraulic engineering, mechanical engineering, pump industry, oil industry, petrochemical industry, decorative uses, kitchen equipment, food industry, environmental technology, energy technology (hydroelectric power).



AISI 410 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/410

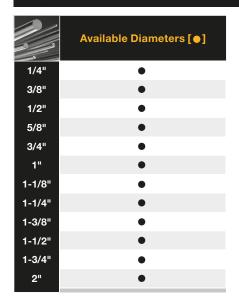


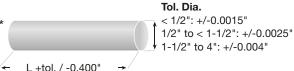
PREMIUM 410 - COLD FINISHED ROUNDS

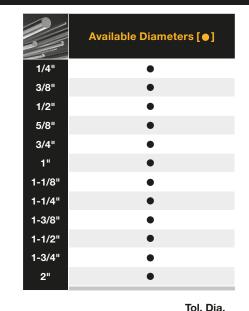
STAINLESS STEEL

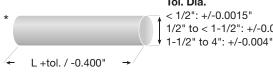
Length: 18"

IMPERIAL DIAMETERS in inch Length: 36"









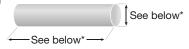


[CF]: Surface Condition

Drawn, smooth turned, ground, or ground and polished



Tolerances





Standard values

Delivery condition: maximum 252 BHN Chemical composition:

			Р			
0.08	0	0	0	0	11.5	0
0.15	1.0	1.5	0.04	0.03	13.5	0.75



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks). Custom orders on request

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[18"] - abrams-steel.com/410-19

[36"] - abrams-steel.com/410-20



AISI 410 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/410

via smartphone/tablet:



Technical Properties

Corrosion resistant, martensitic steel (tempered condition), which shows good mechanical and good corrosion resistance in moderately aggressive substances. It has a low susceptibility to embrittlement, is polishable to a high gloss and can be used at temperatures up to 752°F.

Working hardness: approx. 25 HRC (delivery condition) up to 31 HRC.



Applications

Hydraulic engineering, mechanical engineering, pump industry, oil industry, petrochemical industry, decorative uses, kitchen equipment, food industry, environmental technology, energy technology (hydroelectric power).

< 1/2": +/-0.0015"

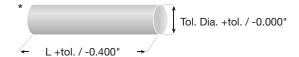
1/2" to < 1-1/2": +/-0.0025"

PREMIUM 410 - DECARB FREE ROUNDS

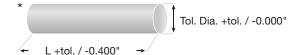
STAINLESS STEEL

Length: 18" Length: 36" **IMPERIAL DIAMETERS** in inch

	Available Diameters [●]
2-1/2"	•
3"	•
3-1/2"	•
4"	•





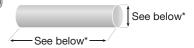




[DCF]: Surface Condition Peeled or rough-turned



Tolerances



314

410



Standard values

Delivery condition: maximum 252 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Ni
0.08	0	0	0	0	11.5	0
0.15	1.0	1.5	0.04	0.03	13.5	0.75



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks). Custom orders on request

- according to your requirements.



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[18"] - abrams-steel.com/410-22

[36"] - abrams-steel.com/410-23



AISI 410 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/410

via smartphone/tablet:





Technical Properties

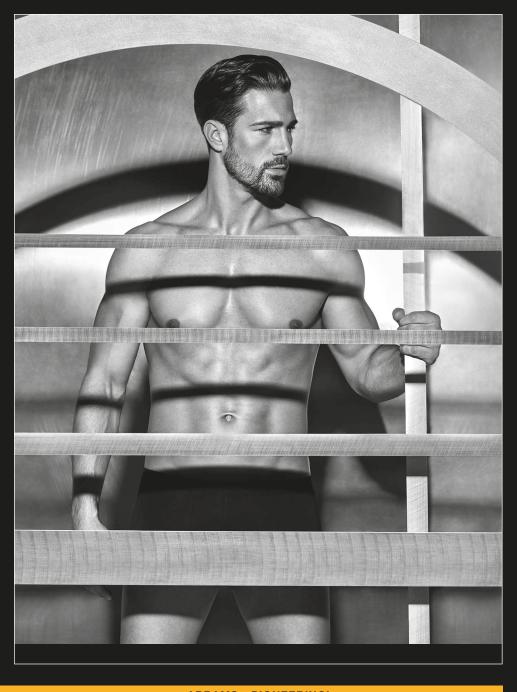
Corrosion resistant, martensitic steel (tempered condition), which shows good mechanical and good corrosion resistance in moderately aggressive substances. It has a low susceptibility to embrittlement, is polishable to a high gloss and can be used at temperatures up to 752°F.

Working hardness: approx. 25 HRC (delivery condition) up to 31 HRC.



Applications

Hydraulic engineering, mechanical engineering, pump industry, oil industry, petrochemical industry, decorative uses, kitchen equipment, food industry, environmental technology, energy technology (hydroelectric power).





ABRAMS - PIONEERING!

Length: 1,000 mm

METRIC DIMENSIONS in mm

	THICKNESS							
	8.2	10.3	12.3	15.3	16.3	20.3		
WIDTH			Available Dim	nensions [=]				
15.3				-				
20.3	-	-	-	-	-	-		
25.3	-	-	-	-	-	-		
30.3	-	-	-	-	•			
32.3		-		-	-			
40.3	-	-	-					
50.3	-	-						
60.3	-							
70.3	-							



[GFSM O/S]: Surface Condition Thickness: ground or fine milled Width: ground or fine milled Length: milled or saw cut

303

304

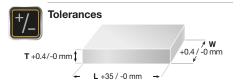
314

316

316Ti

410

420





Standard values

Delivery condition: maximum 241 BHN Chemical composition:

С	Si	Mn	Р	S	Cr
0.43	0	0	0	0	12.5
0.5	1.0	1.0	0.04	0.015	14.5



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Technical Properties

Corrosion resistant cold work and plastic mold steel with good machining properties, hardenable and polishable. Low distortion through-hardening steel with full hardenability and high wear resistance, conditionally acid resistant.

Working hardness: 50-55 HRC.



Applications

Mechanical engineering, medical technology, plastic molds, synthetic resin mold tools, die casting tools, light metal die casting, cutting tools, machine knives, kitchen knives, razors, shears, scraper blades, surgical instruments, measuring tools, roller bearings, ball bearings, ice-skates, pump parts, valves.



AISI 420 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/420

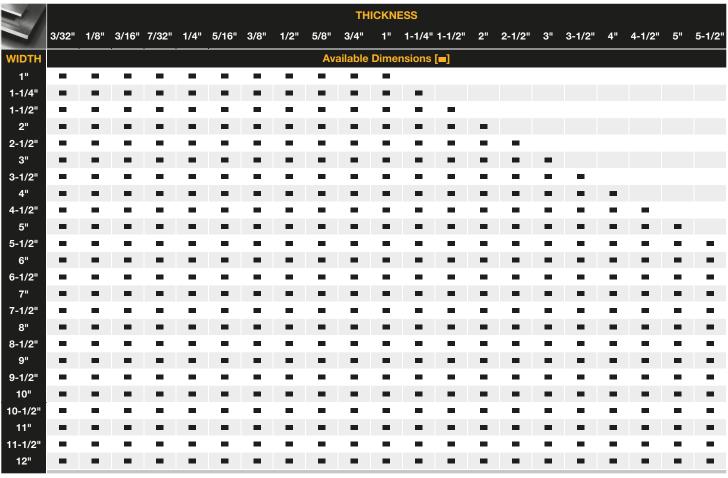


PREMIUM 420 - \$mart FLAT STOCK

STAINLESS STEEL

Length: 12"

IMPERIAL DIMENSIONS in inch





[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut



Tolerances

/ W +0.125"/+0.250" T+0.015"/+0.035" 1 ← L +0.500"/-0.000" →



Standard values

Delivery condition: maximum 241 BHN Chemical composition:

С	Si	Mn	Р	S	Cr
0.43	0	0	0	0	12.5
0.5	1.0	1.0	0.04	0.015	14.5



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Corrosion resistant cold work and plastic mold steel with good machining properties, hardenable and polishable. Low distortion through-hardening steel with full hardenability and high wear resistance, conditionally acid resistant. Working hardness: 50-55 HRC.

Technical Properties



Applications

Mechanical engineering, medical technology, plastic molds, synthet-

ic resin mold tools, die casting tools, light metal die casting, cutting tools, machine knives, kitchen knives, razors, shears, scraper blades, surgical instruments, measuring tools, roller bearings, ball bearings, ice-skates, pump parts, valves.

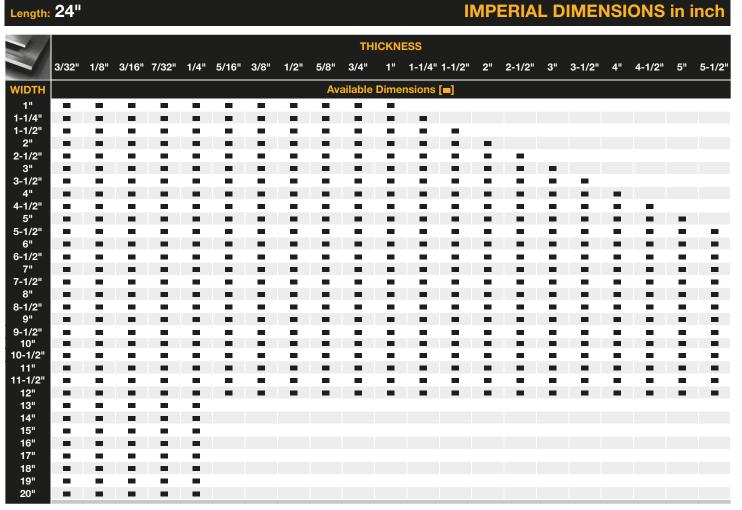


AISI 420 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/420



IMPERIAL DIMENSIONS in inch





[\$mart]: Surface Condition Thickness: ground or fine milled Width: saw cut

304

314

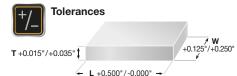
316

316Ti

410

420

Length: saw cut





Standard values

Delivery condition: maximum 241 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	
0.43	0	0	0	0	12.5	
0.5	1.0	1.0	0.04	0.015	14.5	



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Technical Properties

Corrosion resistant cold work and plastic mold steel with good machining properties, hardenable and polishable. Low distortion through-hardening steel with full hardenability and high wear resistance, conditionally acid resistant. Working hardness: 50-55 HRC.



Applications

Mechanical engineering, medical technology, plastic molds, synthetic resin mold tools, die casting tools, light metal die casting, cutting tools, machine knives, kitchen knives, razors, shears, scraper blades, surgical instruments, measuring tools, roller bearings, ball bearings, ice-skates, pump parts, valves.



AISI 420 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/420



PREMIUM 420 - \$mart FLAT STOCK METRIC

STAINLESS STEEL

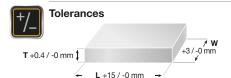
METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 2.3 3.3 4.3 5.3 6.3 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 WIDTH Available Dimensions [=] 33 43 53 63 73 83 93 103 123 143 163 183 203 223 243 253 263 283 303



[\$martM]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 241 BHN Chemical composition:

С	Si	Mn	Р	S	Cr
0.43	0	0	0	0	12.5
0.5	1.0	1.0	0.04	0.015	14.5



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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AISI 420 - all at a glance!

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via smartphone/tablet:



Technical Properties

Corrosion resistant cold work and plastic mold steel with good machining properties, hardenable and polishable. Low distortion through-hardening steel with full hardenability and high wear resistance, conditionally acid resistant.

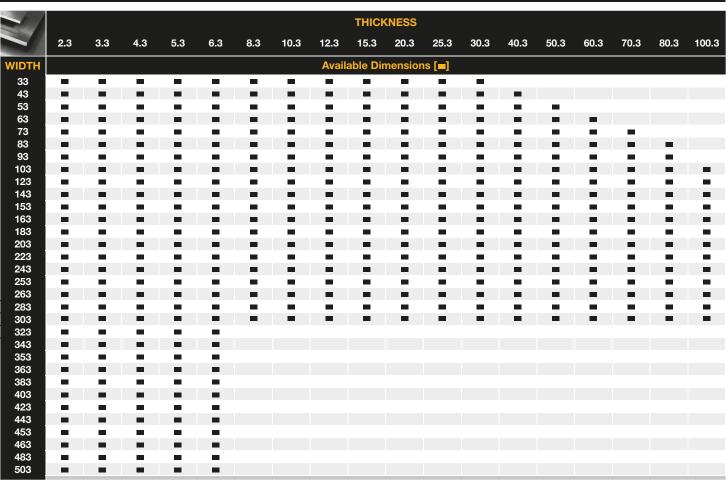
Working hardness: 50-55 HRC.



Applications

Mechanical engineering, medical technology, plastic molds, synthetic resin mold tools, die casting tools, light metal die casting, cutting tools, machine knives, kitchen knives, razors, shears, scraper blades, surgical instruments, measuring tools, roller bearings, ball bearings, ice-skates, pump parts, valves.

Length: 600 mm METRIC DIMENSIONS in mm





[\$martM]: Surface Condition
Thickness: ground or fine milled

304

314

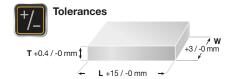
316

316Ti

410

420

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 241 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	
0.43	0	0	0	0	12.5	
0.5	1.0	1.0	0.04	0.015	14.5	



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Technical Properties

Corrosion resistant cold work and plastic mold steel with good machining properties, hardenable and polishable. Low distortion through-hardening steel with full hardenability and high wear resistance, conditionally acid resistant.

Working hardness: 50-55 HRC.



Applications

Mechanical engineering, medical technology, plastic molds, synthetic resin mold tools, die casting tools, light metal die casting, cutting tools, machine knives, kitchen knives, razors, shears, scraper blades, surgical instruments, measuring tools, roller bearings, ball bearings, ice-skates, pump parts, valves.



AISI 420 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/420





WATCH THE MAKING OF THE 7TH MOTIF FOR CALENDAR 2019 / 2022





250

STAINLESS STEEL

Length: 250 mm **METRIC DIMENSIONS in mm THICKNESS** 4.7 2.2 2.7 3.2 3.7 4.2 5.2 6.2 7.2 8.2 9.2 VIDTH Available Dimensions [=]



Length: 500 mm **METRIC DIMENSIONS in mm**

	THICKNESS								
	2.2	2.7	3.2	3.7	4.2				
WIDTH			Available Dimensions [=]						
250	-	-	-	-	•				

Hardened dimensions are delivered with approx. 50 HRC, at least double tempered.



Technical Properties

Corrosion resistant cold work and plastic mold steel with good machining properties, hardenable and polishable. Low distortion through-hardening steel with full hardenability and high wear resistance, conditionally acid resistant. Working hardness: 50-55 HRC.



Applications

Mechanical engineering, medical technology, plastic molds, synthetic resin mold tools, die casting tools, light metal die casting, cutting tools, machine knives, kitchen knives, razors, shears, scraper blades, surgical instruments, measuring tools, roller bearings, ball bearings, ice-skates, pump parts, valves.



[HardM]: Surface Condition Thickness: ground or fine milled Width: saw cut or sheared

303

304

314

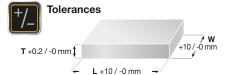
316

316Ti

410

420

Length: saw cut or sheared





Standard values

Delivery condition: maximum 241 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	
0.43	0	0	0	0	12.5	
0.5	1.0	1.0	0.04	0.015	14.5	



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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[250 mm] - abrams-steel.com/420-14

[500 mm] - abrams-steel.com/420-15



AISI 420 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/420



PREMIUM 420 - COLD FINISHED ROUNDS METRIC

STAINLESS STEEL

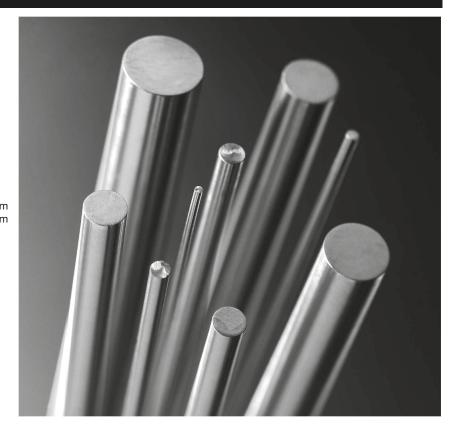
Length: 914 mm (36")

METRIC DIAMETERS in mm



Tol. Dia.

 $\leq 10.0 \text{ mm}: +0 / -0.036 \text{ mm}$ > 10.0 mm to 18.0 mm: +0 / -0.043 mm > 18.0 mm to 25.0 mm: +0 / -0.052 mm

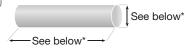


[CFM]: Surface Condition

Drawn, smooth turned, ground, or ground and polished (ISO h9)



Tolerances





Standard values

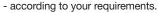
Delivery condition: maximum 241 BHN Chemical composition:

С	Si	Mn	Р	S	Cr
0.43	0	0	0	0	12.5
0.5	1.0	1.0	0.04	0.015	14.5



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks). Custom orders on request





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← I +tol. →

Technical Properties

Corrosion resistant cold work and plastic mold steel with good machining properties, hardenable and polishable. Low distortion through-hardening steel with full hardenability and high wear resistance, conditionally acid resistant. Working hardness: 50-55 HRC.



Applications

Mechanical engineering, medical technology, plastic molds, synthetic resin mold tools, die casting tools, light metal die casting, cutting tools, machine knives, kitchen knives, razors, shears, scraper blades, surgical instruments, measuring tools, roller bearings, ball bearings, ice-skates, pump parts, valves.



AISI 420 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/420



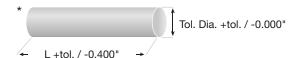
IMPERIAL DIAMETERS in inch

PREMIUM 420 - DECARB FREE ROUNDS

STAINLESS STEEL

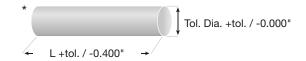
Length: 18"

	Available Diameters [●]
1/4"	•
3/8"	•
1/2"	•
5/8"	•
3/4"	•
1"	•
1-1/8"	•
1-1/4"	•
1-3/8"	•
1-1/2"	•
1-3/4"	•
2"	•
2-1/2"	•
3"	•
3-1/2"	•
4"	•



Available Diameters [•] 1/4" 3/8" 1/2" 5/8" 3/4" 1" 1-1/8" 1-1/4" 1-3/8" 1-1/2" 1-3/4" 2" 2-1/2" 3" 3-1/2"

Length: 36"





Technical Properties

Corrosion resistant cold work and plastic mold steel with good machining properties, hardenable and polishable. Low distortion through-hardening steel with full hardenability and high wear resistance, conditionally acid resistant. Working hardness: 50-55 HRC.



Applications

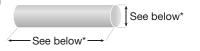
Mechanical engineering, medical technology, plastic molds, synthetic resin mold tools, die casting tools, light metal die casting, cutting tools, machine knives, kitchen knives, razors, shears, scraper blades, surgical instruments, measuring tools, roller bearings, ball bearings, ice-skates, pump parts, valves.



[DCF]: Surface Condition Peeled or rough-turned



Tolerances



303

304

314

316

316Ti

410

420



Standard values

Delivery condition: maximum 241 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	
0.43	0	0	0	0	12.5	
0.5	1.0	1.0	0.04	0.015	14.5	



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks). Custom orders on request

- according to your requirements.



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[18"] - abrams-steel.com/420-22

[36"] - abrams-steel.com/420-23



AISI 420 - all at a glance!

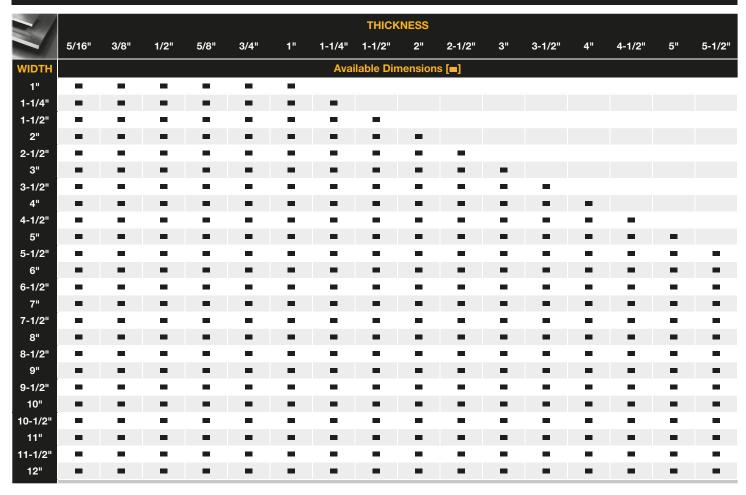
Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/420



PREMIUM 420 mod. - \$mart FLAT STOCK

STAINLESS STEEL

Length: 12" IMPERIAL DIMENSIONS in inch





Technical Properties

Martensitic chromium steel with good mechanical properties (tempered condition). With the ability to polish this material to a high gloss finish it is ideally suited as knife steel. Good forgeability, medium weldability and is conditionally acid resistant. Working hardness: approx. 25 HRC (delivery condition) up to 47 HRC.

Applications

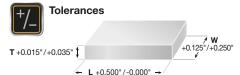
Automotive industry, power engineering, turbine and power plant construction, medical technology, mechanical engineering, petrochemical industry, cutting tool industry, knives, fasteners, architecture and decoration.



[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 252 BHN Chemical composition:

С	Si	Mn	Р	S	Cr
0.16	0	0	0	0	12.0
0.25	1.0	1.5	0.04	0.015	14.0



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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AISI 420 mod. - all at a glance!

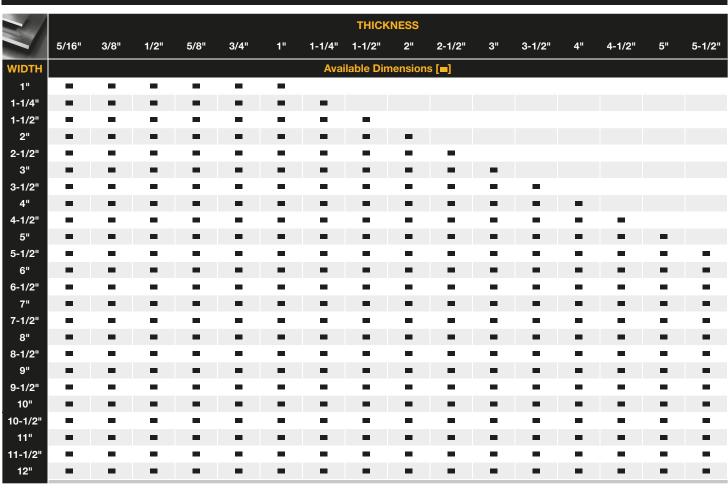
Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/420mod



Length: 24"

STAINLESS STEEL

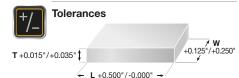
IMPERIAL DIMENSIONS in inch





[\$mart]: Surface Condition
Thickness: ground or fine milled
Width: saw cut

Length: saw cut





Standard values

Delivery condition: maximum 252 BHN Chemical composition:

С	Si	Mn	Р	S	Cr
0.16	0	0	0	0	12.0
0.25	1.0	1.5	0.04	0.015	14.0

420 mod.



Don't see your exact dimension(s)?

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- according to your requirements!



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Technical Properties

Martensitic chromium steel with good mechanical properties (tempered condition). With the ability to polish this material to a high gloss finish it is ideally suited as knife steel. Good forgeability, medium weldability and is conditionally acid resistant. Working hardness: approx. 25 HRC (delivery condition) up to 47 HRC.



Applications

Automotive industry, power engineering, turbine and power plant construction, medical technology, mechanical engineering, petrochemical industry, cutting tool industry, knives, fasteners, architecture and decoration.



AISI 420 mod. - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/420mod



PREMIUM 420 mod. - \$mart FLAT STOCK METRIC

STAINLESS STEEL

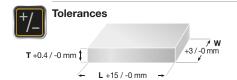
METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 Available Dimensions [=] WIDTH 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283 303



[\$martM]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 252 BHN Chemical composition:

С	Si	Mn	Р	S	Cr
0.16	0	0	0	0	12.0
0.25	1.0	1.5	0.04	0.015	14.0



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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AISI 420 mod. - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/420mod

via smartphone/tablet:



Technical Properties

Martensitic chromium steel with good mechanical properties (tempered condition). With the ability to polish this material to a high gloss finish it is ideally suited as knife steel. Good forgeability, medium weldability and is conditionally acid resistant. Working hardness: approx. 25 HRC (delivery condition) up to 47 HRC.



Applications

Automotive industry, power engineering, turbine and power plant construction, medical technology, mechanical engineering, petrochemical industry, cutting tool industry, knives, fasteners, architecture and decoration.

PREMIUM 420 mod. - \$mart FLAT STOCK METRIC

STAINLESS STEEL

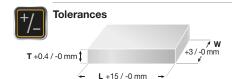
Length: 600 mm METRIC DIMENSIONS in mm

61						1	THICKNES	S					
	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3	60.3	70.3	80.3	100.3
WIDTH						Availab	le Dimensi	ions [=]					
33		-	-	-	-	-	-						
43	-	-	-	-	-	-	-	-					
53	-	-	-	-	-	-	-	-	-				
63	-	-	-	-	-	-	-	-	-	-			
73	-	-	-	-	-	-	-	-	-	-	-		
83	-				-	-	-		-	-	-		
93	-	-	-	-	-	-	-	-	-	-	-	-	
103	-	-	-		-	-	-	-	-	-	-	-	-
123 143	-	-	-	-	-	-	-	-	_	-	-	-	
153	-	-	-	-	-	-	-	-	-	-	-	-	
163	-	_	_	_	_	_	_	_	_	_	_	_	_
183	_				_	-	_	_	-	_	_	_	_
203	-	_	_		-	-	-	_	-	_	_	_	-
223	-	-	-	-	-	-	-	-	-	-	-	-	-
243	-	-	-	-	-	-	-	-	-	-	-	-	-
253	-	-	-	-	-	-	-	-	-	-	-	-	-
263	-	-	-	-	-	-	-	-	-	-	-	-	-
283	-	-	-	-	-	-	-	-	-	-	-	-	-
303	-	-	-	-	-	-	-	-	-	-	-	-	-



[\$martM]: Surface Condition
Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 252 BHN Chemical composition:

314

420 mod.

С	Si	Mn	Р	S	Cr
				0	
0.25	1.0	1.5	0.04	0.015	14.0



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Technical Properties

Martensitic chromium steel with good mechanical properties (tempered condition). With the ability to polish this material to a high gloss finish it is ideally suited as knife steel. Good forgeability, medium weldability and is conditionally acid resistant. Working hardness: approx. 25 HRC (delivery condition) up to 47 HRC.



Applications

Automotive industry, power engineering, turbine and power plant construction, medical technology, mechanical engineering, petrochemical industry, cutting tool industry, knives, fasteners, architecture and decoration.



AISI 420 mod. - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/420mod







METRIC DIAMETERS in mm

STAINLESS STEEL

Length: 914 mm (36")

8.0 • 10.0 • 12.0 • 15.0 • 20.0 • 25.0 • •

Tol. Dia.

≤ 10.0 mm: +0 / -0.036 mm > 10.0 mm to 18.0 mm: +0 / -0.043 mm > 18.0 mm to 25.0 mm: +0 / -0.052 mm

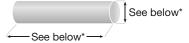


[CFM]: Surface Condition

Drawn, smooth turned, ground, or ground and polished (ISO h9)



Tolerances



314

420 mod.



Standard values

Delivery condition: maximum 252 BHN Chemical composition:

С	Si	Mn	Р	S	Cr
				0	
0.25	1.0	1.5	0.04	0.015	14.0



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks).
Custom orders on request

- according to your requirements.



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← L +tol. →

Technical Properties

Martensitic chromium steel with good mechanical properties (tempered condition). With the ability to polish this material to a high gloss finish it is ideally suited as knife steel. Good forgeability, medium weldability and is conditionally acid resistant. Working hardness: approx. 25 HRC (delivery condition) up to 47 HRC.



Applications

Automotive industry, power engineering, turbine and power plant construction, medical technology, mechanical engineering, petrochemical industry, cutting tool industry, knives, fasteners, architecture and decoration.



AISI 420 mod. – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/420mod



PREMIUM 420RM - \$mart FLAT STOCK

STAINLESS STEEL

Length: 12"

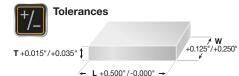
THICKNESS 5/16" 3/8" 1/2" 5/8" 3/4" 1" 1-1/4" 1-1/2" 2-1/2" 3-1/2" 4-1/2" 5" 5-1/2" WIDTH Available Dimensions [=] 1" 1-1/4" 1-1/2" 2" 2-1/2" 3" 3-1/2" 4" 4-1/2" 5" 5-1/2" 6-1/2" 7" 7-1/2" 8" 8-1/2" 9" 9-1/2" 10" 10-1/2 11" 11-1/2" 12"



[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 325 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni
0.33	0	0	0	0	15.5	0.8	0
0.45	1.0	1.5	0.045	0.03	- 17.5	1.3	1.0



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Pre-hardened corrosion resistant chrome-steel with good polishing properties, heat resistance and wear resistance. Often used for processing chemically aggressive plastic materials (e.g. PVC). The material is conditionally acid resistant. Working hardness: approx. 30 HRC (delivery condition) up to 48 HRC.

Technical Properties



Applications

Mechanical engineering, marine engineering, apparatus engineering, plastic processing, plastic molds, extrusion tools, press molds, fitting tools, shafts, spindles, bolts, pistons, valves, steam valves, water valves, beater bars, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical Instruments.

IMPERIAL DIMENSIONS in inch



AISI 420RM - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/420RM



Length: 24"

IMPERIAL DIMENSIONS in inch

6 1								THIOK	NECC							
								THICK								
	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"	4-1/2"	5"	5-1/2"
WIDTH							Avai	ilable Dim	nension	s [=]						
1"	_	-	-	-	-	-										
1-1/4"	-		-	-			-									
1-1/2"	-	-	-	-	-	-	-	-								
2"	-		_				-									
2-1/2"	_	-	-	-	-	•	-	-	-	_						
3"	-		-				-		-		-					
3-1/2"	-	-	-	-	-	-	-	-	-	-	-	-				
4"	_	_	-		_		_	_	_	_	_	-	_			
4-1/2"	-	-	-	_	-	_	-	-	-	-	-	-	-	-	_	
5" 5-1/2"	-	-	-	-	-	-	-	-		-	-		-	-	-	
5-1/2" 6"			-	-	_		-	-		_	-			-	_	-
6-1/2"	_		-			_	_	_		_	_		_	_	_	_
7"	_	_	_	_	_		_	_	_	_	_	_	_	_	_	_
7-1/2"	_	_	_	_	-		-	-	-	-	-	-	-	_	_	-
8"	-		-	-			-		-	-	_	-		-		-
8-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9"	-		-				-			-	-	-		-		-
9-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10"	-	-	-	-			-	-	-	-	-	-	-	-	-	-
10-1/2"	_	-	_	_		-	-	-	-	-	-	-	-	-	-	-
11"	-	-	-	-			-		-	-	-	-	-	-	-	-
11-1/2"	-	-	-	-	-		-	-		-		-		-		-
12"	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-



[\$mart]: Surface Condition Thickness: ground or fine milled Width: saw cut

303

304

314

316

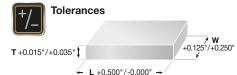
316Ti

410

420

420RM

Length: saw cut





Standard values

Delivery condition: maximum 325 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni
0.33	0	0	0	0	15.5	0.8	0
0.45	1.0	1.5	- 0.045	0.03	17.5	1.3	10
0.40	1.0	1.0	0.040	0.00	17.0	1.0	1.0



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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Technical Properties

Pre-hardened corrosion resistant chrome-steel with good polishing properties, heat resistance and wear resistance. Often used for processing chemically aggressive plastic materials (e.g. PVC). The material is conditionally acid resistant. Working hardness: approx. 30 HRC (delivery condition) up to 48 HRC.



Applications

Mechanical engineering, marine engineering, apparatus engineering, plastic processing, plastic molds, extrusion tools, press molds, fitting tools, shafts, spindles, bolts, pistons, valves, steam valves, water valves, beater bars, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical Instruments.



AISI 420RM - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/420RM



PREMIUM 420RM - \$mart FLAT STOCK METRIC

STAINLESS STEEL

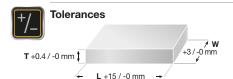
METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 **NIDTH** Available Dimensions [=] 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263



[\$martM]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 325 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	Ni
0.33	0	0	0	0	15.5	0.8	0
0.45	1.0	1.5	- 0.045	0.03	- 17.5	1.3	1.0



Don't see your exact dimension(s)?

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AISI 420RM - all at a glance!

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via smartphone/tablet:



Technical Properties

283

303

Pre-hardened corrosion resistant chrome-steel with good polishing properties, heat resistance and wear resistance. Often used for processing chemically aggressive plastic materials (e.g. PVC). The material is conditionally acid resistant. Working hardness: approx. 30 HRC (delivery condition) up to 48 HRC.



Applications

Mechanical engineering, marine engineering, apparatus engineering, plastic processing, plastic molds, extrusion tools, press molds, fitting tools, shafts, spindles, bolts, pistons, valves, steam valves, water valves, beater bars, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical Instruments.

PREMIUM 420RM - \$mart FLAT STOCK METRIC

METRIC DIMENSIONS in mm Length: 600 mm **THICKNESS** 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 VIDTH Available Dimensions [=] 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283 303



[\$martM]: Surface Condition Thickness: ground or fine milled

304

314

316

316Ti

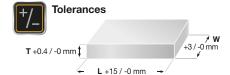
410

420

420RM

Width: saw cut Length: saw cut

STAINLESS STEEL





Standard values

Delivery condition: maximum 325 BHN Chemical composition:

						Ni
0.33	0 0	0	0	15.5	0.8	0
0.33	.0 1.	5 0.04	5 0.03	17.5	1.3	1.0



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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abrams-steel.com/420RM-13



Technical Properties

Pre-hardened corrosion resistant chrome-steel with good polishing properties, heat resistance and wear resistance. Often used for processing chemically aggressive plastic materials (e.g. PVC). The material is conditionally acid resistant. Working hardness: approx. 30 HRC (delivery condition) up to 48 HRC.



Applications

Mechanical engineering, marine engineering, apparatus engineering, plastic processing, plastic molds, extrusion tools, press molds, fitting tools, shafts, spindles, bolts, pistons, valves, steam valves, water valves, beater bars, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical Instruments.



AISI 420RM - all at a glance!

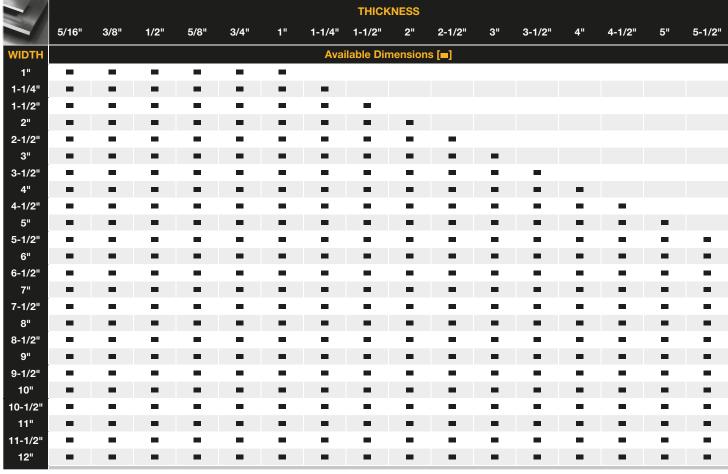
Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/420RM



PREMIUM 430F - \$mart FLAT STOCK

STAINLESS STEEL

Length: 12" **IMPERIAL DIMENSIONS** in inch





Technical Properties

Martensitic chromium steel with good mechanical properties (tempered condition). The addition of sulphur makes it ideal for machining. It can also be polished very well and is conditionally acid resistant, but difficult to weld.

Working hardness: approx. 26 HRC (approx. on delivery).

Applications

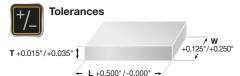
Automotive industry, electronic equipment, power engineering, mechanical engineering, connecting elements, architecture and decoration, construction parts for automatic machining in water and steam such as screws, spindles, axes, etc.



[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 270 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо
0.1	0	0	0	0.15	15.5	0.2
0.17	1.0	1.5	0.04	0.35	- 17.5	0.3



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Direct access to our online shop

abrams-steel.com/430F-10

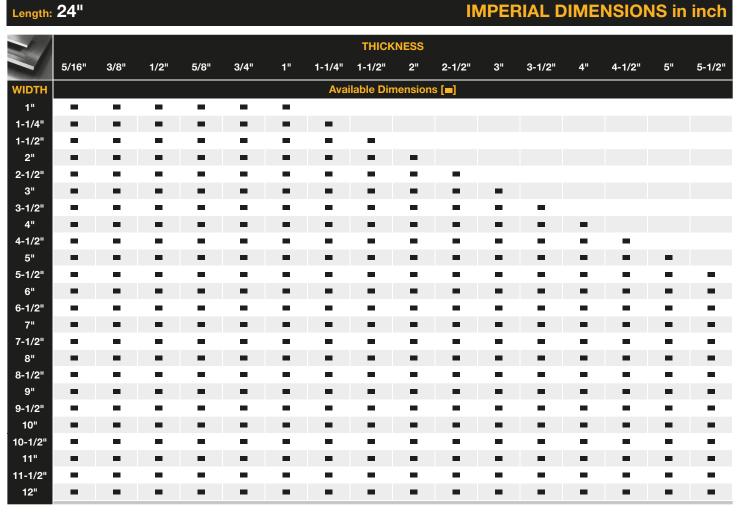


AISI 430F - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/430F



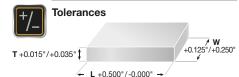
IMPERIAL DIMENSIONS in inch





[\$mart]: Surface Condition Thickness: ground or fine milled Width: saw cut

Length: saw cut





Standard values

Delivery condition: maximum 270 BHN Chemical composition:

()	Si	Mn	Р	S	Cr	Мо
				0			
0.	- 17	1.0	1.5	0.04	0.35	17.5	0.3



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Technical Properties

Martensitic chromium steel with good mechanical properties (tempered condition). The addition of sulphur makes it ideal for machining. It can also be polished very well and is conditionally acid resistant, but difficult to weld.

Working hardness: approx. 26 HRC (approx. on delivery).



Applications

Automotive industry, electronic equipment, power engineering, mechanical engineering, connecting elements, architecture and decoration, construction parts for automatic machining in water and steam such as screws, spindles, axes, bushings, etc.



AISI 430F - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/430F

via smartphone/tablet:



430F

PREMIUM 430F - \$mart FLAT STOCK METRIC

STAINLESS STEEL

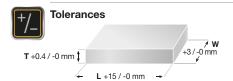
METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 Available Dimensions [=] WIDTH 33 43 53 63 73 83 93 103 123 143 163 183 203 223 243 253 263 283 303



[\$martM]: Surface Condition

Thickness: ground or fine milled Width: saw cut

Length: saw cut





Standard values

Delivery condition: maximum 270 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо
0.1	0	0	0	0.15	15.5	0.2
0.17	1.0	1.5	0.04	0.35	17.5	0.3



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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AISI 430F - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/430F

via smartphone/tablet:



Technical Properties

Martensitic chromium steel with good mechanical properties (tempered condition). The addition of sulphur makes it ideal for machining. It can also be polished very well and is conditionally acid resistant, but difficult to weld.

Working hardness: approx. 26 HRC (approx. on delivery).

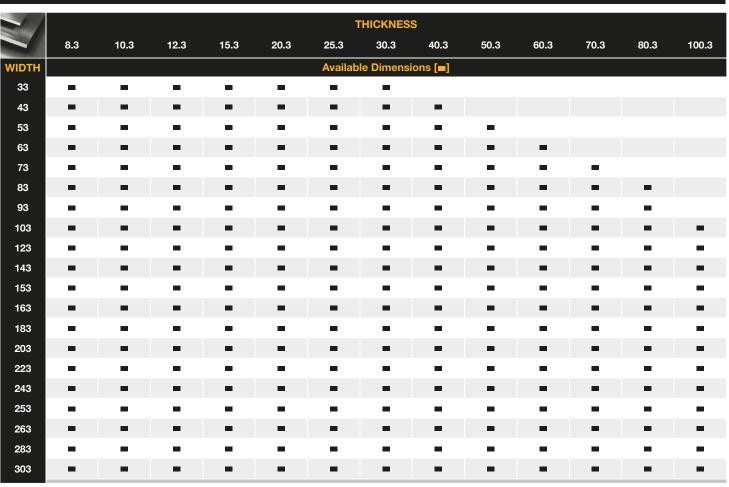


Applications

Automotive industry, electronic equipment, power engineering, mechanical engineering, connecting elements, architecture and decoration, construction parts for automatic machining in water and steam such as screws, spindles, axes, bushings, etc.

Length: 600 mm

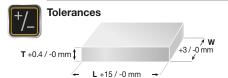
METRIC DIMENSIONS in mm





[\$martM]: Surface Condition
Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 270 BHN Chemical composition:

			Р			
0.1	0	0	0	0.15	15.5	0.2
0.17	1.0	1.5	0.04	0.35	17.5	0.3



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Martensitic chromium steel with good mechanical properties (tempered condition). The addition of sulphur makes it ideal for machining. It can also be polished very well and is conditionally acid resistant, but difficult to weld.

Working hardness: approx. 26 HRC (approx. on delivery).



Applications

Automotive industry, electronic equipment, power engineering, mechanical engineering, connecting elements, architecture and decoration, construction parts for automatic machining in water and steam such as screws, spindles, axes, bushings, etc.



AISI 430F – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/430F

via smartphone/tablet:



430F



Technical Properties



ABRAMS - SAME DAY SHIPPING (SUBJECT TO AVAILABILITY)!



304

314

316L / 316

16Ti

410

420

420 mod.

420RM

.....

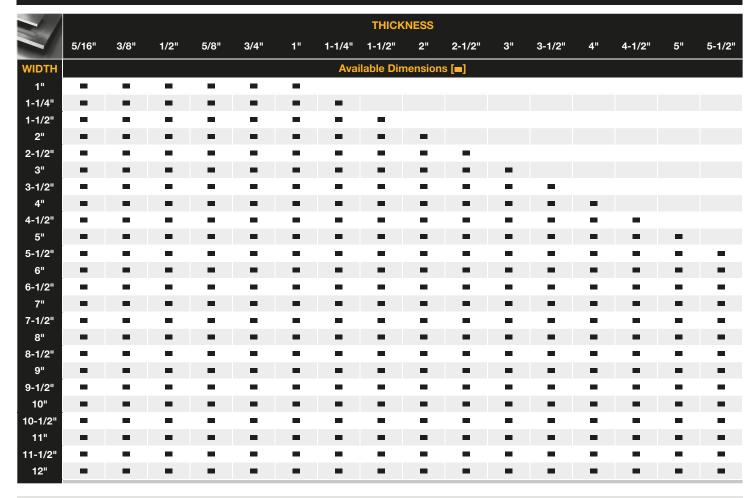
430F



PREMIUM 431 - \$mart FLAT STOCK

STAINLESS STEEL

Length: 12" IMPERIAL DIMENSIONS in inch





Technical Properties

Martensitic chromium steel with high strength (tempered condition) and good corrosion resistance (added nickel). It is easy to weld and is conditionally acid resistant. The material has poor forgeability.

Working hardness: approx. 32 HRC (approx. on delivery) to 47 HRC.

Applications

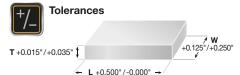
Mechanical engineering, automotive industry, oil and petrochemical industry, aviation, food industry, soap industry, acetic acid industry, shafts, pump parts, perforated plates, spindles, piston rods, valve cones, turbine blades.



[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 331 BHN Chemical composition:

			Р			
0.12	0	0	0	0	15.0	1.5
0.22	1.0	1.5	0.04	0.03	17.0	2.5



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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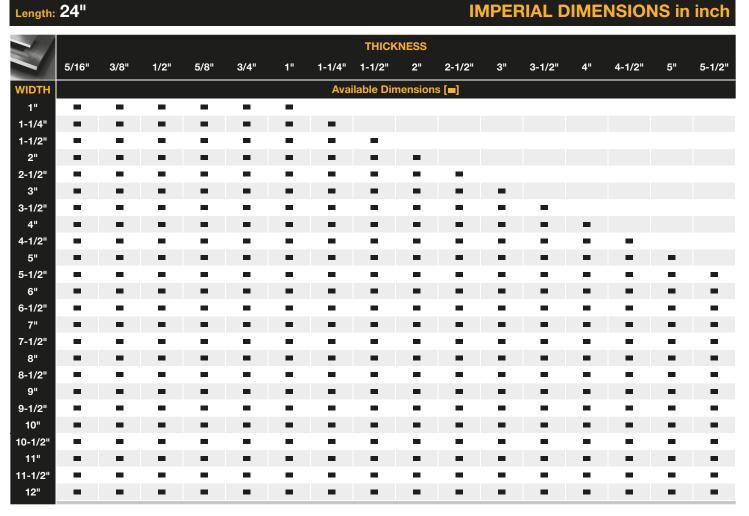


AISI 431 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/431



IMPERIAL DIMENSIONS in inch





[\$mart]: Surface Condition Thickness: ground or fine milled Width: saw cut

304

314

316

316Ti

410

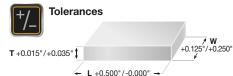
420

420RM

430F

431

Length: saw cut





Standard values

Delivery condition: maximum 331 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Ni
0.12	0	0	0	0	15.0	1.5
0.22	1.0	1.5	0.04	0.03	17.0	2.5



Don't see your exact dimension(s)?

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Technical Properties

Martensitic chromium steel with high strength (tempered condition) and good corrosion resistance (added nickel). It is easy to weld and is conditionally acid resistant. The material has poor

Working hardness: approx. 32 HRC (approx. on delivery) to 47 HRC.



Applications

Mechanical engineering, automotive industry, oil and petrochemical industry, aviation, food industry, soap industry, acetic acid industry, shafts, pump parts, perforated plates, spindles, piston rods, valve cones, turbine blades.



AISI 431 – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/431



PREMIUM 431 - \$mart FLAT STOCK METRIC

STAINLESS STEEL

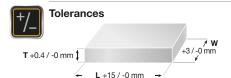
METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 Available Dimensions [=] WIDTH 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283



[\$martM]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 331 BHN Chemical composition:

			Р			
0.12	0	0	0	0	15.0	1.5
0.22	1.0	1.5	0.04	0.03	17.0	2.5



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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abrams-steel.com/431-12



303

Technical Properties

Martensitic chromium steel with high strength (tempered condition) and good corrosion resistance (added nickel). It is easy to weld and is conditionally acid resistant. The material has poor

Working hardness: approx. 32 HRC (approx. on delivery) to 47 HRC.



Applications

Mechanical engineering, automotive industry, oil and petrochemical industry, aviation, food industry, soap industry, acetic acid industry, shafts, pump parts, perforated plates, spindles, piston rods, valve cones, turbine blades.

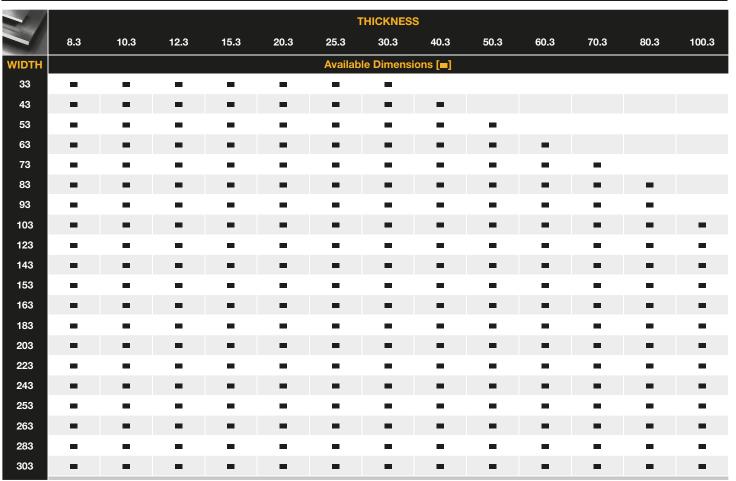


AISI 431 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/431



Length: 600 mm METRIC DIMENSIONS in mm





[\$martM]: Surface Condition
Thickness: ground or fine milled

304

314

316

316Ti

410

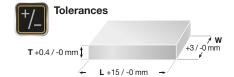
420

420RM

430F

431

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 331 BHN Chemical composition:

			Р			
0.12	0	0	0	0	15.0	1.5
0.22	1.0	1.5	0.04	0.03	17.0	2.5



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Technical Properties

Martensitic chromium steel with high strength (tempered condition) and good corrosion resistance (added nickel). It is easy to weld and is conditionally acid resistant. The material has poor forgeability.

Working hardness: approx. 32 HRC (approx. on delivery) to 47 HRC.



Applications

Mechanical engineering, automotive industry, oil and petrochemical industry, aviation, food industry, soap industry, acetic acid industry, shafts, pump parts, perforated plates, spindles, piston rods, valve cones, turbine blades.



AISI 431 – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/431

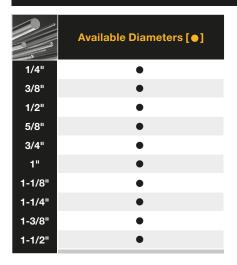


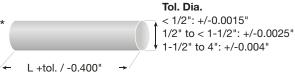
PREMIUM 431 - COLD FINISHED ROUNDS

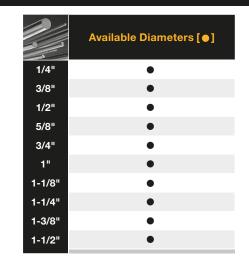
STAINLESS STEEL

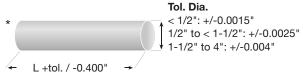
Length: 18"

IMPERIAL DIAMETERS in inch Length: 36"









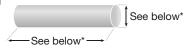


[CF]: Surface Condition

Drawn, smooth turned, ground, or ground and polished



Tolerances





Standard values

Delivery condition: maximum 331 BHN Chemical composition:

			Р			
0.12	0	0	0	0	15.0	1.5
0.22	1.0	1.5	0.04	0.03	17.0	2.5



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks). Custom orders on request

- according to your requirements.



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Direct access to our online shop

[18"] - abrams-steel.com/431-19

[36"] - abrams-steel.com/431-20



AISI 431 – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/431

via smartphone/tablet:



Technical Properties

Martensitic chromium steel with high strength (tempered condition) and good corrosion resistance (added nickel). It is easy to weld and is conditionally acid resistant. The material has poor

Working hardness: approx. 32 HRC (approx. on delivery) to 47 HRC.



Applications

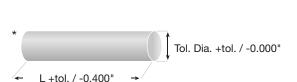
Mechanical engineering, automotive industry, oil and petrochemical industry, aviation, food industry, soap industry, acetic acid industry, shafts, pump parts, perforated plates, spindles, piston rods, valve cones, turbine blades.

Length: 18"

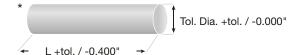
PREMIUM 431 - DECARB FREE ROUNDS

Length: 36" **IMPERIAL DIAMETERS** in inch

Available Diameters [•] 1-3/4" 2" 2-1/2" 3" 3-1/2" 4"





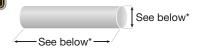


STAINLESS STEEL



[DCF]: Surface Condition Peeled or rough-turned

Tolerances



303

304

314

316

316Ti

410

420

430F

431



Standard values

Delivery condition: maximum 331 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Ni
0.12	0	0	0	0	15.0	1.5
0.22	1.0	1.5	0.04	0.03	17.0	2.5



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks). Custom orders on request

- according to your requirements.



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[18"] - abrams-steel.com/431-22

[36"] - abrams-steel.com/431-23



Technical Properties

Martensitic chromium steel with high strength (tempered condition) and good corrosion resistance (added nickel). It is easy to weld and is conditionally acid resistant. The material has poor

Working hardness: approx. 32 HRC (approx. on delivery) to 47 HRC.



Applications

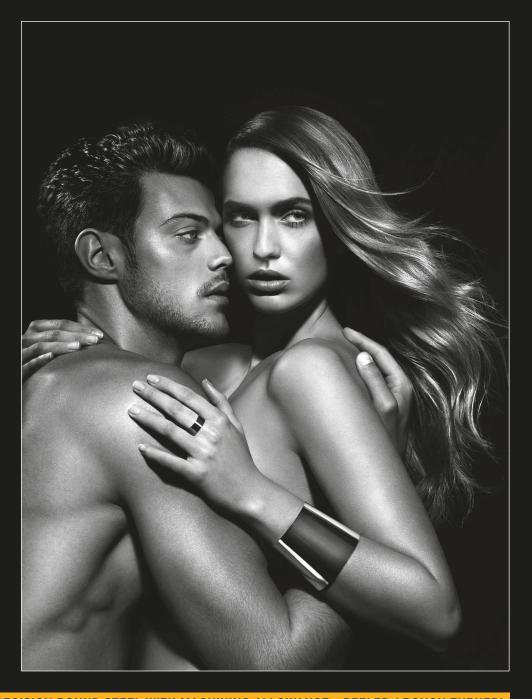
Mechanical engineering, automotive industry, oil and petrochemical industry, aviation, food industry, soap industry, acetic acid industry, shafts, pump parts, perforated plates, spindles, piston rods, valve cones, turbine blades.



AISI 431 – all at a glance!

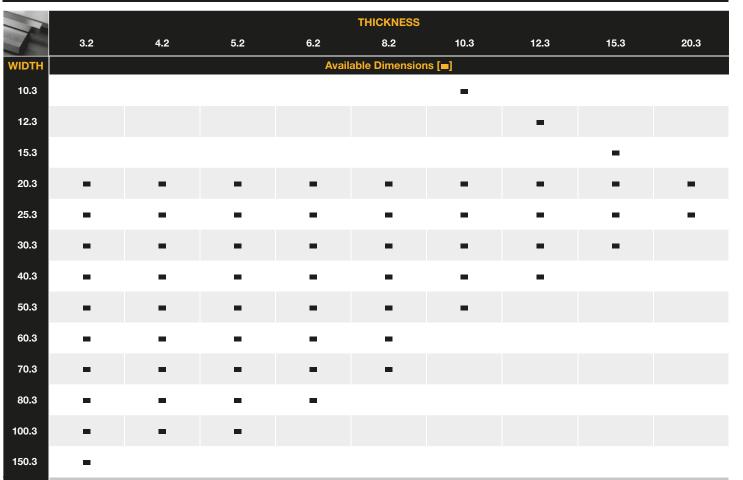
Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/431





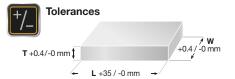


METRIC DIMENSIONS in mm Length: 1,000 mm





[GFSM O/S]: Surface Condition Thickness: ground or fine milled Width: ground or fine milled Length: milled or saw cut





Standard values

Delivery condition: maximum 265 BHN Chemical composition:

314

440B

_	•		•	S	•		-
				0			
0.95	1.0	1.0	0.04	0.015	19.0	1.3	0.12



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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AISI 440B - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/440B

via smartphone/tablet:





Technical Properties

Corrosion resistant martensitic chrome-steel (approx. 18% Cr) for cold work. Reaches an unusually high hardness and high wear resistance after heat treatment. Polishable to high gloss and conditionally acid resistant. Working hardness: 53-58 HRC.



Applications

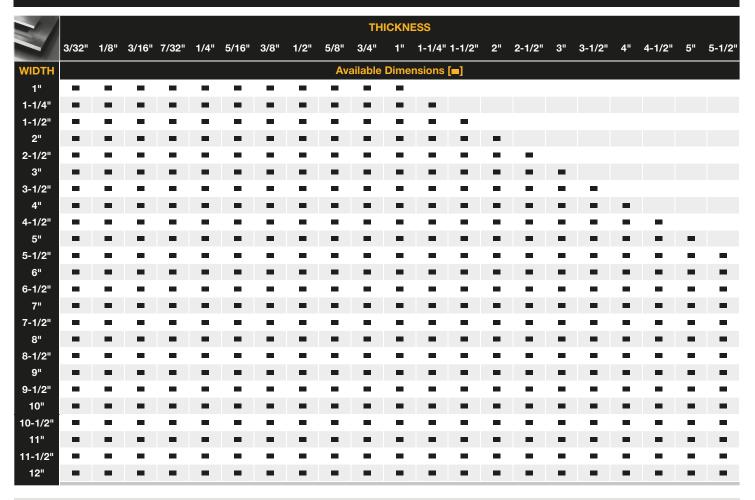
Cutting tools, knives, knife blades, cutlery, guide rails, wear parts, perforated discs, screw elements, pump shafts, scale pans, horizontal cutting, surgical instruments, plastic molds, injection nozzles, roller bearings, ball bearings, mechanical engineering, food industry, building industry.

PREMIUM 440B - \$mart FLAT STOCK

STAINLESS STEEL

Length: 12"

IMPERIAL DIMENSIONS in inch





¶ [\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut



Tolerances



Standard values

Delivery condition: maximum 265 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V
				0			
0.95	1.0	1.0	0.04	0.015	19.0	1.3	0.12



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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abrams-steel.com/440B-10



Technical Properties

Corrosion resistant martensitic chrome-steel (approx. 18% Cr) for cold work. Reaches an unusually high hardness and high wear resistance after heat treatment. Polishable to high gloss and conditionally acid resistant.

Working hardness: 53-58 HRC.



Applications

Cutting tools, knives, knife blades, cutlery, guide rails, wear parts, perforated discs, screw elements, pump shafts, scale pans, horizontal cutting, surgical instruments, plastic molds, injection nozzles, roller bearings, ball bearings, mechanical engineering, food industry, building industry.



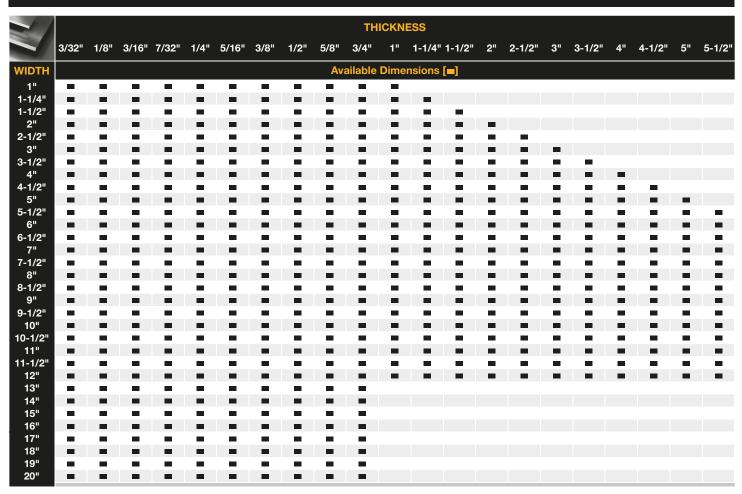
AISI 440B - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/440B



Length: 24"

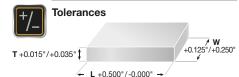
IMPERIAL DIMENSIONS in inch





[\$mart]: Surface Condition
Thickness: ground or fine milled
Width: saw cut

Length: saw cut





Standard values

Delivery condition: maximum 265 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V
				0			
0.95	1.0	1.0	0.04	0.015	19.0	1.3	0.12



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Technical Properties

Corrosion resistant martensitic chrome-steel (approx. 18% Cr) for cold work. Reaches an unusually high hardness and high wear resistance after heat treatment. Polishable to high gloss and conditionally acid resistant.

Working hardness: 53-58 HRC.



Applications

Cutting tools, knives, knife blades, cutlery, guide rails, wear parts, perforated discs, screw elements, pump shafts, scale pans, horizontal cutting, surgical instruments, plastic molds, injection nozzles, roller bearings, ball bearings, mechanical engineering, food industry, building industry.



AISI 440B - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/440B

via smartphone/tablet:



440B

PREMIUM 440B - \$mart FLAT STOCK METRIC

STAINLESS STEEL

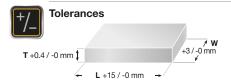
METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 2.3 3.3 4.3 5.3 6.3 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 WIDTH Available Dimensions [33 43 53 63 73 83 93 103 123 143 163 183 203 223 243 253 263 283 303



[\$martM]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 265 BHN Chemical composition:

				S			
0.85	0	0	0	0	17.0	0.9	0.07
0.95	1.0	1.0	0.04	0 0.015	19.0	1.3	0.12



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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AISI 440B - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/440B

via smartphone/tablet:



Technical Properties

Corrosion resistant martensitic chrome-steel (approx. 18% Cr) for cold work. Reaches an unusually high hardness and high wear resistance after heat treatment. Polishable to high gloss and conditionally acid resistant.

Working hardness: 53-58 HRC.

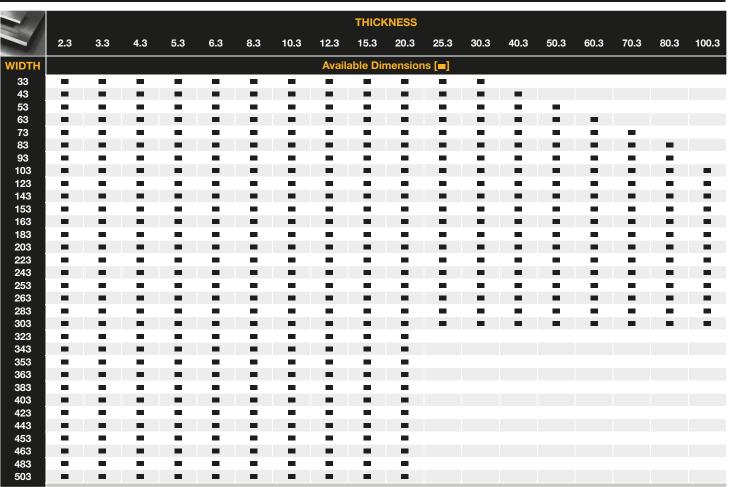


Cutting tools, knives, knife blades, cutlery, guide rails, wear parts, perforated discs, screw elements, pump shafts, scale pans, horizontal cutting, surgical instruments, plastic molds, injection nozzles, roller bearings, ball bearings, mechanical engineering, food

industry, building industry.

Applications

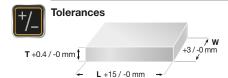
Length: 600 mm METRIC DIMENSIONS in mm





[\$martM]: Surface Condition
Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 265 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V
				0			
0.95	1.0	1.0	0.04	0.015	19.0	1.3	0.12



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



Contact us

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Direct access to our online shop

abrams-steel.com/440B-13



Technical Properties

Corrosion resistant martensitic chrome-steel (approx. 18% Cr) for cold work. Reaches an unusually high hardness and high wear resistance after heat treatment. Polishable to high gloss and conditionally acid resistant.

Working hardness: 53-58 HRC.



Applications

Cutting tools, knives, knife blades, cutlery, guide rails, wear parts, perforated discs, screw elements, pump shafts, scale pans, horizontal cutting, surgical instruments, plastic molds, injection nozzles, roller bearings, ball bearings, mechanical engineering, food industry, building industry.



AISI 440B – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/440B

via smartphone/tablet:



440B

PREMIUM 440B - HARD FLAT METRIC

STAINLESS STEEL

Length: 250 mm **METRIC DIMENSIONS in mm THICKNESS** 4.7 9.2 2.2 2.7 3.2 3.7 4.2 5.2 6.2 7.2 8.2 **NIDTH** Available Dimensions [=] 250



THICKNESS 2.2 2.7 Available Dimensions [=]

Hardened dimensions are delivered with approx. 53 HRC, at least double tempered.



Technical Properties

Corrosion resistant martensitic chrome-steel (approx. 18% Cr) for cold work. Reaches an unusually high hardness and high wear resistance after heat treatment. Polishable to high gloss and conditionally acid resistant.

Working hardness: 53-58 HRC.



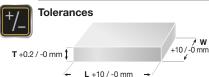
Applications

Cutting tools, knives, knife blades, cutlery, guide rails, wear parts, perforated discs, screw elements, pump shafts, scale pans, horizontal cutting, surgical instruments, plastic molds, injection nozzles, roller bearings, ball bearings, mechanical engineering, food industry, building industry.



[HardM]: Surface Condition

Thickness: ground or fine milled
Width: saw cut or sheared
Length: saw cut or sheared





Standard values

Delivery condition: maximum 265 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V
0.85	0	0	0	0	17.0	0.9	0.07
0.95	1.0	1.0	0.04	0.015	19.0	1.3	0.12



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



Contact us

+1 (331) 234-9900 sales@abrams-industries.com



Direct access to our online shop

[250 mm] - abrams-steel.com/440B-14

[500 mm] - abrams-steel.com/440B-15



AISI 440B - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/440B



STAINLESS STEEL

Length: 914 mm (36")

Available Diameters [●] 10.0 12.0 14.0 15.0 16.0 20.0 25.0

Tol. Dia.

≤ 10.0 mm: +0 / -0.036 mm > 10.0 mm to 18.0 mm: +0 / -0.043 mm > 18.0 mm to 25.0 mm: +0 / -0.052 mm L +tol. →



METRIC DIAMETERS in mm

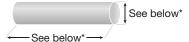


[CFM]: Surface Condition

Drawn, smooth turned, ground, or ground and polished (ISO h9)



Tolerances



314

440B



Standard values

Delivery condition: maximum 265 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо	V
0.85	0	0	0	0	17.0	0.9	0.07
0.95	1.0	1.0	0.04	0.015	19.0	1.3	0.12



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks). Custom orders on request

- according to your requirements.



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abrams-steel.com/440B-21



Technical Properties

Corrosion resistant martensitic chrome-steel (approx. 18% Cr) for cold work. Reaches an unusually high hardness and high wear resistance after heat treatment. Polishable to high gloss and conditionally acid resistant. Working hardness: 53-58 HRC.



Applications

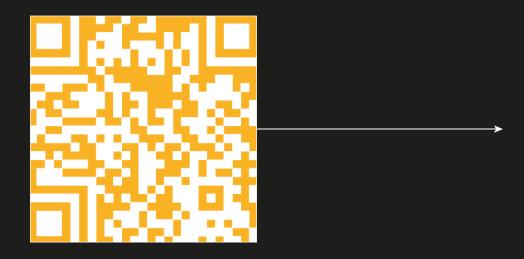
Cutting tools, knives, knife blades, cutlery, guide rails, wear parts, perforated discs, screw elements, pump shafts, scale pans, horizontal cutting, surgical instruments, plastic molds, injection nozzles, roller bearings, ball bearings, mechanical engineering, food industry, building industry.



AISI 440B - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/440B







ABRAMS - SIMPLY PERFECTION!



314

316

410

420

420RM

430F

431

440B

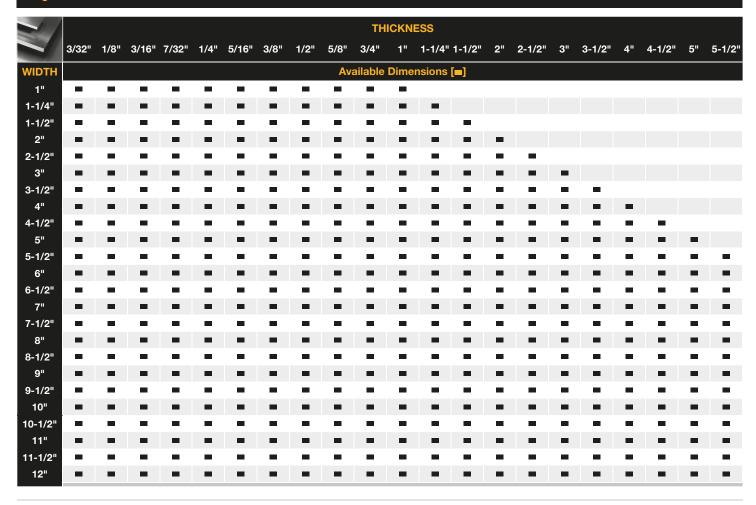


PREMIUM 440C - \$mart FLAT STOCK

STAINLESS STEEL

Length: 12"

IMPERIAL DIMENSIONS in inch





[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut



Tolerances

T+0.015"/+0.035" \$\\
\tau_{\text{+0.500"/-0.000"}}\text{+0.125"/+0.250"}



Standard values

Delivery condition: maximum 285 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо
0.95	0	0	0	0	16.0	0.4
1.2	1.0	1.0	0.04	0.015	18.0	0.8



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Direct access to our online shop

abrams-steel.com/440C-10



AISI 440C – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/440C

via smartphone/tablet:



Technical Properties

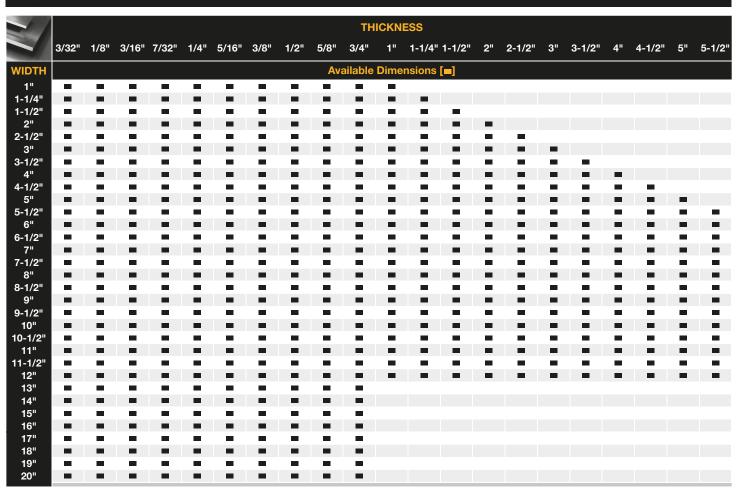
Stainless, martensitic steel with high hardness and high wear resistance and good cutting power due to the higher carbon content. Compared to the AISI 440B this steel has a slightly higher hardenability at the expense of the corrosion resistance. The material is conditionally acid resistant. Working hardness: 57-60 HRC.



Applications

Length: 24"

IMPERIAL DIMENSIONS in inch





[\$mart]: Surface Condition Thickness: ground or fine milled Width: saw cut

304

314

316

316Ti

410

420

420RM

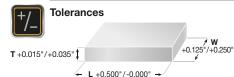
430F

431

440B

440C

Length: saw cut





Standard values

Delivery condition: maximum 285 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо
0.95	0	0	0	0	16.0	0.4
1.2	1.0	1.0	0.04	0.015	18.0	0.8



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Direct access to our online shop

abrams-steel.com/440C-11



AISI 440C - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/440C

via smartphone/tablet:



Technical Properties

Stainless, martensitic steel with high hardness and high wear resistance and good cutting power due to the higher carbon content. Compared to the AISI 440B this steel has a slightly higher hardenability at the expense of the corrosion resistance. The material is conditionally acid resistant. Working hardness: 57-60 HRC.



Applications

PREMIUM 440C - \$mart FLAT STOCK METRIC

STAINLESS STEEL

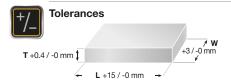
METRIC DIMENSIONS in mm THICKNESS 2.3 3.3 4.3 5.3 6.3 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 60.3 70.3 80.3 100.3 WIDTH Available Dimensions [33 43 53 63 73 83 93 103 123 143 163 183 203 223 243 253 263 283 303



[\$martM]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 285 BHN Chemical composition:

0.95 0 0 0 0	16.0 0.4	ļ
1.2 1.0 1.0 0.04 0.015	18.0 0.8	3



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Direct access to our online shop

abrams-steel.com/440C-12



AISI 440C - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/440C

via smartphone/tablet:



Technical Properties

Length: 300 mm

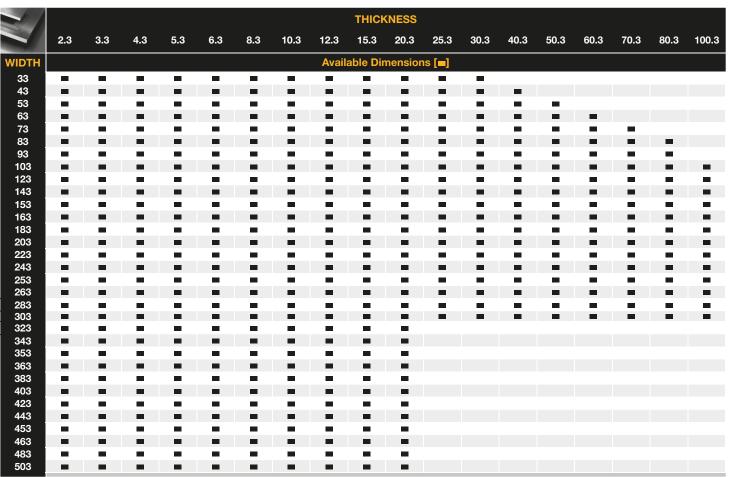
Stainless, martensitic steel with high hardness and high wear resistance and good cutting power due to the higher carbon content. Compared to the AISI 440B this steel has a slightly higher hardenability at the expense of the corrosion resistance. The material is conditionally acid resistant. Working hardness: 57-60 HRC.



Applications

STAINLESS STEEL

METRIC DIMENSIONS in mm Length: 600 mm





[\$martM]: Surface Condition Thickness: ground or fine milled

304

314

316

316Ti

410

420

420RM

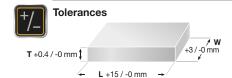
430F

431

440B

440C

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 285 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо
0.95	0	0	0	0	16.0	0.4
1.2	1.0	1.0	0.04	0.015	18.0	0.8



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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abrams-steel.com/440C-13



AISI 440C - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/440C

via smartphone/tablet:



Technical Properties

Stainless, martensitic steel with high hardness and high wear resistance and good cutting power due to the higher carbon content. Compared to the AISI 440B this steel has a slightly higher hardenability at the expense of the corrosion resistance. The material is conditionally acid resistant. Working hardness: 57-60 HRC



Applications

PREMIUM 440C - COLD FINISHED ROUNDS

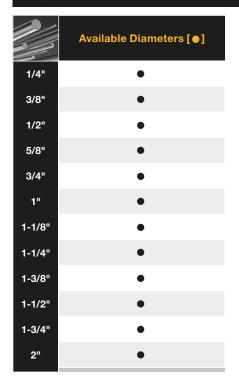
STAINLESS STEEL

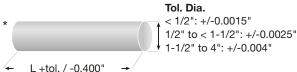
[CF]: Surface Condition Drawn, smooth turned, ground, or

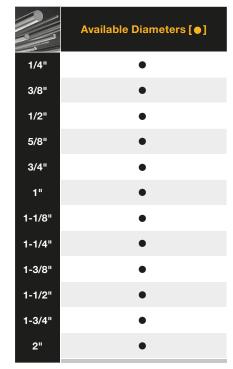
ground and polished

Length: 18"

IMPERIAL DIAMETERS in inch Length: 36"









Tol. Dia. < 1/2": +/-0.0015" 1/2" to < 1-1/2": +/-0.0025" ∮ 1-1/2" to 4": +/-0.004"



-See below*-

Tolerances

Standard values Delivery condition: maximum 285 BHN Chemical composition:

See below*

				S		
0.95	0	0	0	0	16.0	0.4
1.2	1.0	1.0	0.04	0 - 0.015	18.0	0.8



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks). Custom orders on request

- according to your requirements.



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[18"] - abrams-steel.com/440C-19

[36"] - abrams-steel.com/440C-20



AISI 440C - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/440C

via smartphone/tablet:



Technical Properties

Stainless, martensitic steel with high hardness and high wear resistance and good cutting power due to the higher carbon content. Compared to the AISI 440B this steel has a slightly higher hardenability at the expense of the corrosion resistance. The material is conditionally acid resistant. Working hardness: 57-60 HRC.

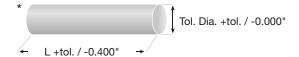


Applications

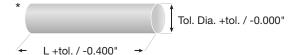
PREMIUM 440C - DECARB FREE ROUNDS

Length: 36" **IMPERIAL DIAMETERS** in inch





	Available Diameters [●]
2-1/2"	•
3"	•
3-1/2"	•
4"	•

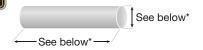




[DCF]: Surface Condition Peeled or rough-turned

Tolerances

STAINLESS STEEL



303

304

314

316

316Ti

410

420

430F

431

440B

440C



Standard values

Delivery condition: maximum 285 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо
0.95	0	0	0	0	16.0	0.4
1.2	1.0	1.0	0.04	0.015	18.0	0.8



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks). Custom orders on request

- according to your requirements.



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Direct access to our online shop

[18"] - abrams-steel.com/440C-22

[36"] - abrams-steel.com/440C-23



AISI 440C - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/440C

via smartphone/tablet:





Technical Properties

Stainless, martensitic steel with high hardness and high wear resistance and good cutting power due to the higher carbon content. Compared to the AISI 440B this steel has a slightly higher hardenability at the expense of the corrosion resistance. The material is conditionally acid resistant. Working hardness: 57-60 HRC.



Applications

FLATS !

Below are our flats in different categories in imperial as well as metric sizes. Every item is available in different **thickness**, **width** and **length**. On request – specific to your needs!

IMPERIAL

1

Precision Ground Flat Stock, regular [GFS reg]

For example: 3/4" x 4" x 36" reg

- Thickness ground, tol. +/-0.001"
- Width ground or fine milled, tol. +0.005" / -0.000"
- Length milled or saw cut, tol. +0.125" / +0.500"

METRIC



Precision Ground Flat Stock Metric, regular [GFSM reg] acc. to DIN* 59350

For example: 20.0 x 100.0 x 1,000 mm

- Thickness ground or fine milled, tol. +0.05 / -0 mm
- Width ground or fine milled, tol. +0.2 / -0 mm
- Length milled or saw cut, tol. +35 / -0 mm

Exception: AISI 1045: **T** +0.25 / -0 mm; **W** +0.4 / -0 mm



Precision Ground Flat Stock, oversize [GFS O/S]

For example: 3/4" x 4" x 36" O/S

- Thickness ground, tol. +0.010" / +0.015"
- Width ground or fine milled, tol. +0.010" / +0.015"
- Length milled or saw cut, tol. +0.125" / +0.500"



Precision Ground Flat Stock Metric, oversize [GFSM O/S]

For example: 20.3 x 100.3 x 1,000 mm

- Thickness ground or fine milled, tol. +0.4 / -0 mm
- Width ground or fine milled, tol. +0.4 / -0 mm
- Length milled or saw cut, tol. +35 / -0 mm



\$mart Flat Stock [\$mart]

Standardized Precision Blanks

For example: 3/4" x 4" x 24"

- Thickness ground or fine milled, tol. +0.015" / +0.035"
- Width saw cut. tol. +0.125" / +0.250"
- Length saw cut, tol. +0.500" / -0.000"



\$mart Flat Stock Metric [\$martM]

Standardized Precision Blanks Metric

For example: 20.3 x 103 x 600 mm

- Thickness ground or fine milled, tol. +0.4 / -0 mm
- Width saw cut. tol. +3 / -0 mm
- Length saw cut, tol. +15 / -0 mm



EDM Block hardened [EDM]

For example: 1/2" x 4" x 4"

- Thickness ground or fine milled, tol. +0.010" / -0.000"
- Square dimension ground or fine milled, tol. min. +0.0125"
- Grain structure is perpendicular in relation to top & bottom.



Hard Flat Metric [HardM]

Hardened Standardized Blanks Metric

For example: 10.2 x 250 x 500 mm

- Thickness ground or fine milled, tol. +0.2 / -0 mm
- Width saw cut or sheared, tol. +10 / -0 mm
- Length saw cut or sheared, tol. +10 / -0 mm

Flatness tolerance: +0.2 / -0 mm across the item (aimed for)

*DIN: DEUTSCHE INDUSTRIE NORM (GERMAN INDUSTRY STANDARD)!

Precision ground flat stock is a bar with a sharp-edged, rectangular or square cross-section made of tool steel with finely machined, decarburization-free longitudinal surfaces. In Germany, it is standardized in DIN 59350. Precision ground flat stock is used primarily as a semi-finished product in machine, tool, fixture and mold construction.



For more details on our shapes see: us.abrams-industries.com/product-overview



ROUNDS

Below are our rounds in different categories in imperial as well as metric sizes. Any item is available in different diameters and / or length. On request – specific to your needs!

IMPERIAL



Drill Rod [DR] **Precision Round Bars**

For example: DR 3/4" x 36" Turned, ground & polished (TGP)

- Tol. Dia. < 1/8": +/-0.0003", L +0.125" / -0.000"
- Tol. Dia. 1/8" to < 1/2": +/-0.0005", L +0.125" / -0.000"
- Tol. Dia. 1/2" to 2": +/-0.001", L +0.125" / -0.000"

METRIC



Drill Rod Metric [DRM] **Precision Round Bars Metric**

For example: DRM 10.0 mm x 914 mm (36")

Turned, ground & polished (TGP) - ISO h9

- Tol. Dia. \leq 10.0 mm: +0 / -0.036 mm, L +tol.
- Tol. Dia. > 10.0 mm to 18.0 mm: +0 / -0.043 mm, L +tol.
- Tol. Dia. > 18.0 mm to 25.0 mm; +0 / -0.052 mm, L +tol.

These are maximum tolerances. For more exact tolerances call our sales team.



Cold Finished Rounds [CF] Precision Round Bars

For example: CF 3/4" x 36"

Drawn, smooth turned, ground, or ground and polished

- Tol. Dia. < 1/2": +/-0.0015", L +tol. / -0.400"
- Tol. Dia. 1/2" to < 1-1/2": +/-0.0025", L +tol. / -0.400"
- Tol. Dia. 1-1/2" to 4": +/-0.004", L +tol. / -0.400"

These are maximum tolerances. For more exact tolerances call our sales team.



Cold Finished Rounds Metric [CFM] Precision Round Bars Metric

For example: CFM 10.0 mm x 914 mm (36")

Drawn, smooth turned, ground, or ground and polished (ISO h9)

- Tol. Dia. \leq 10.0 mm: +0 / -0.036 mm, L +tol.
- Tol. Dia. > 10.0 mm to 18.0 mm; +0 / -0.043 mm, L +tol.
- Tol. Dia. > 18.0 mm to 25.0 mm: +0 / -0.052 mm, L +tol.

These are maximum tolerances. For more exact tolerances call our sales team.



Decarb Free Rounds [DCF] Oversize Round Bars

For example: DCF 3/4" x 36"

Peeled or rough-turned

- Exception: 4XX Series stainless steel, tol. Dia. +tol. / -0.000", L +tol. / -0.400"

These steel rounds are oversized to finish to nominal diameter.



• Tol. Dia. min. +0.010", L +tol. / -0.400"

STEEL CATEGORIES!

Steel grades are classified by their technical properties and/or by their intended use.

For example: Cold work steel, hot work steel, plastic mold steel, high speed steel, corrosion resistant steel or case hardening steel. Steel grades are often assigned to several classification groups.

For more details on our shapes see: us.abrams-industries.com/product-overview





Shapes

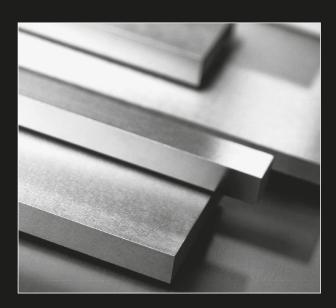


WATCH THE MAKING OF THE COVER MOTIF FOR CALENDAR 2016 / 2019

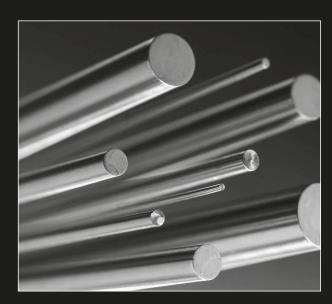




HEAT-TREATABLE S' CASE HARDENING S STEEL GRADE - AISI		 age of the contract of the con	şi tengui	E SIN TER SE	A THE SERVICE	Martir de	STATE OF STA	ren da re	in States	RAM STA FIRM	We we will be the second of th	ith stand	ite mate	inery hardress.	A REAL TOPE IN	teresting.	aggraf. HES	A hardness	HERCI NOW SEE	astic mod	steel steel	geed steed	corresion , corresion , corresion , the	esistid kajstedi Listid kajstedis Steel Listid Coses hardenini	Steel
PREMIUM 4140 / 4142					✓	✓							217		104.4	48	✓						✓		
PREMIUM 4140 PH / 4142 PH	✓				✓	✓			✓			✓	380		188.5	48	✓						✓		
PREMIUM 5115				✓	✓	✓							217		104.4	60	✓		~					✓	







IMPERIAL

Precision Ground Flat Stock, regular [GFS reg]
Precision Ground Flat Stock, oversize [GFS O/S]
\$mart Flat Stock [\$mart] - Standardized Precision Blanks
EDM Block hardened [EDM]
Drill Rod [DR] - Precision Round Bars
Cold Finished Rounds [CF] - Precision Round Bars
Decarb Free Rounds [DCF] - Oversize Round Bars

METRIC

Precision Ground Flat Stock Metric, regular [GFSM reg] - acc. to DIN* 59350
Precision Ground Flat Stock Metric, oversize [GFSM O/S]
\$mart Flat Stock Metric [\$martM] - Standardized Precision Blanks Metric
Hard Flat Metric [HardM] - Hardened Standardized Blanks Metric
Drill Rod Metric [DRM] - Precision Round Bars Metric
Cold Finished Rounds Metric [CFM] - Precision Round Bars Metric
*DIN: Deutsche Industrie Norm (German Industry Standard)



PREMIUM 4140 / 4142 - \$mart FLAT STOCK

HEAT-TREATABLE STEEL

Length: 12"

IMPERIAL DIMENSIONS in inch

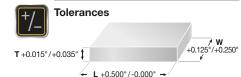
10/							THICH	KNESS						
	3/32"	1/8"	3/16"	7/32"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1-1/4"	1-1/2"	2"
WIDTH						Av	ailable Diı	mensions	[=]					
1"		-		-		-				-	_			
1-1/4"	-	-	-	-	-	-	-	-	-	-	-	-		
1-1/2"	-		-	-		-	-	-	-	-	-	-	-	
2"	-		-	-				-		-	-	-		-
2-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4"			-			_			_		_	-		-
4-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5"			-	-		-	-	-	-		-		-	-
5-1/2"	-	-	_	-	-	-	-	-	-	-	-	-	-	-
6"	-	-		-	-	-			-		-		-	-
6-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7"	-	-	-	-		-	-	-	-	-	-	-	-	
7-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-	_
8"			-			-	-		-		-			
8-1/2" 9"	-	-	-			-	-	-	-	-				
9-1/2"			-			-	-	-	-	-		-	-	
10"	-			-			_	-	_	-			-	
10-1/2"		-	-	-	-	-	-	-	-	-	-	-	-	-
11"					_	_	_	_	_	_			_	
11-1/2"	_	_	-	_	_	_	-	-	_	_	-	_	_	_
12"	_			_	_	_	_	_	_	_	_	_	_	_
- 12	_	_		_	_									



[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 217 BHN Chemical composition:

_			Р	_		
0.38	0	0.6	0	0	0.9	0.15
0 45	0.4	0.9	0.035	0 035	12	0.3
0	٠	0.0	0.000	0.000		0.0



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Direct access to our online shop

abrams-steel.com/4140-10



Technical Properties

Heat-treatable steel (annealed condition) that can be used for a wide range of applications with a high degree of strength and toughness. Often used for demanding applications in automotive engineering. In quenched and tempered condition it is used in machine construction.

Working hardness: 27-48 HRC.



Applications

Mechanical engineering, machine parts, axes, knuckles, connecting rods, crankshafts, gear shafts, pinions, gears, bandages, base plates, assembly parts.



AISI 4140 / 4142 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/4140

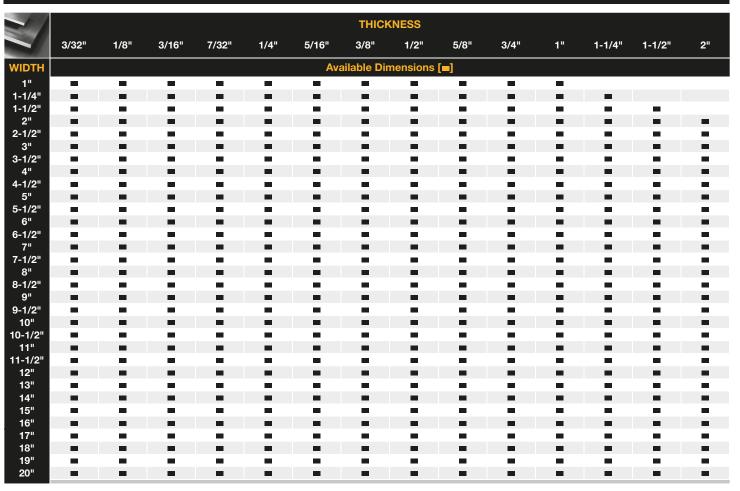


ABRAMS TOOL STEEL I TOOL STEEL II HIGH SPEED STEEL STAINLESS STEEL CORROSION resistant / acid resistant / acid resistant / CASE HARDENING STEEL

PREMIUM 4140 / 4142 - \$mart FLAT STOCK

HEAT-TREATABLE STEEL

Length: 24" IMPERIAL DIMENSIONS in inch



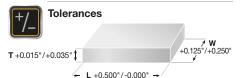


[\$mart]: Surface Condition
Thickness: ground or fine milled
Width: saw cut

4140 /

4142

Length: saw cut





Standard values

Delivery condition: maximum 217 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо
0.38	0	0.6	0	0	0.9	0.15
-	-	-	-	- 1	-	-
0.45	0.4	0.9	0.035	0.035	1.2	0.3



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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abrams-steel.com/4140-11



Technical Properties

Heat-treatable steel (annealed condition) that can be used for a wide range of applications with a high degree of strength and toughness. Often used for demanding applications in automotive engineering. In quenched and tempered condition it is used in machine construction.

Working hardness: 27-48 HRC.



Applications

Mechanical engineering, machine parts, axes, knuckles, connecting rods, crankshafts, gear shafts, pinions, gears, bandages, base plates, assembly parts.



AISI 4140 / 4142 – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/4140



PREMIUM 4140 / 4142 - \$mart FLAT STOCK METRIC

HEAT-TREATABLE STEEL

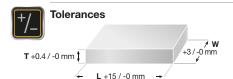
METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 2.3 3.3 4.3 5.3 6.3 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 Available Dimensions [=] WIDTH 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283 303



[\$martM]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 217 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо
0.38	0	0.6	0	0	0.9	0.15
0.45	0.4	0.9	0.035	0.035	1.2	0.3



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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abrams-steel.com/4140-12



AISI 4140 / 4142 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/4140

via smartphone/tablet:



Technical Properties

Heat-treatable steel (annealed condition) that can be used for a wide range of applications with a high degree of strength and toughness. Often used for demanding applications in automotive engineering. In quenched and tempered condition it is used in machine construction.

Working hardness: 27-48 HRC.



Applications

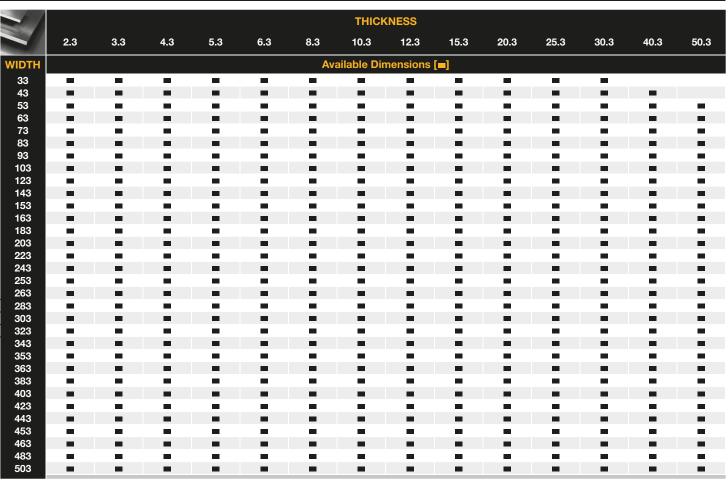
Mechanical engineering, machine parts, axes, knuckles, connecting rods, crankshafts, gear shafts, pinions, gears, bandages, base plates, assembly parts.

ABRAMS TOOL STEEL I TOOL STEEL II HIGH SPEED STEEL STAINLESS STEEL COMMON TOOL STEEL II HEAT-TREATABLE- & CASE HARDENING STEEL

PREMIUM 4140 / 4142 - \$mart FLAT STOCK METRIC

HEAT-TREATABLE STEEL

Length: 600 mm METRIC DIMENSIONS in mm





[\$martM]: Surface Condition
Thickness: ground or fine milled

4140 /

4142

Width: saw cut Length: saw cut

T+0.4/-0 mm + L+15/-0 mm +



Standard values

Delivery condition: maximum 217 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо
0.38	0	0.6	0	0	0.9	0.15
-	-	-	-	- 1	-	-
0.45	0.4	0.9	0.035	0.035	1.2	0.3



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Technical Properties

Heat-treatable steel (annealed condition) that can be used for a wide range of applications with a high degree of strength and toughness. Often used for demanding applications in automotive engineering. In quenched and tempered condition it is used in machine construction.

Working hardness: 27-48 HRC.



Applications

Mechanical engineering, machine parts, axes, knuckles, connecting rods, crankshafts, gear shafts, pinions, gears, bandages, base plates, assembly parts.



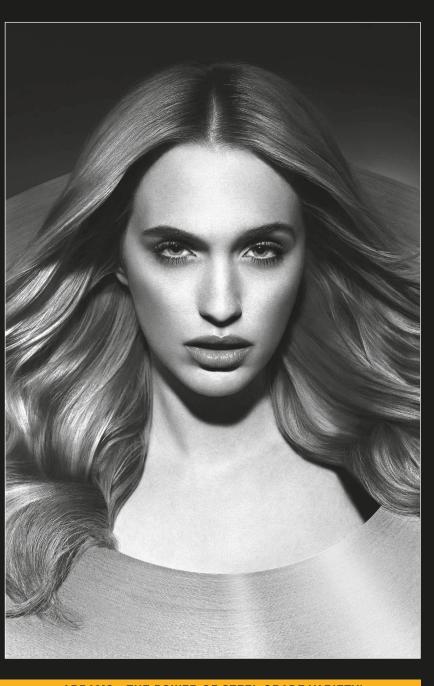
AISI 4140 / 4142 – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/4140





ABRAMS





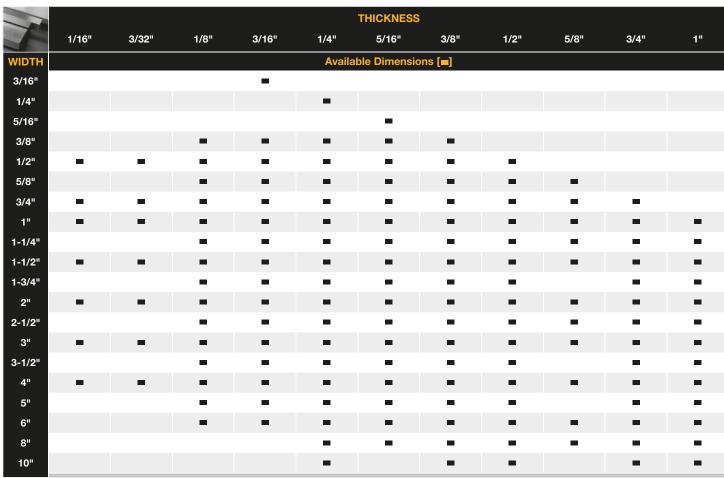


PREMIUM 4140 PH / 4142 PH - PRECISION GROUND FLAT STOCK, REGULAR

HEAT-TREATABLE STEEL

Length: 18"

IMPERIAL DIMENSIONS in inch





Technical Properties

Heat-treatable steel (tempered condition) that can be used for a wide range of applications with a high degree of strength and toughness. Often used for demanding applications in automotive engineering. In quenched and tempered condition it is used in machine construction.

Working hardness: 27 (min. hardness/delivery condition) - 48 HRC.



Applications

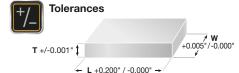
Mechanical engineering, machine parts, axes, knuckles, connecting rods, crankshafts, gear shafts, pinions, gears, bandages, base plates, assembly parts.



[GFS reg]: Surface Condition

Thickness: ground

Width: ground or fine milled Length: milled or saw cut





Standard values

Delivery condition: maximum 380 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо
0.38	0	0.6	0	0	0.9	0.15
0.45	0.4	0.9	0.035	0.035	1.2	0.3



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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AISI 4140 PH / 4142 PH

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/4140PH

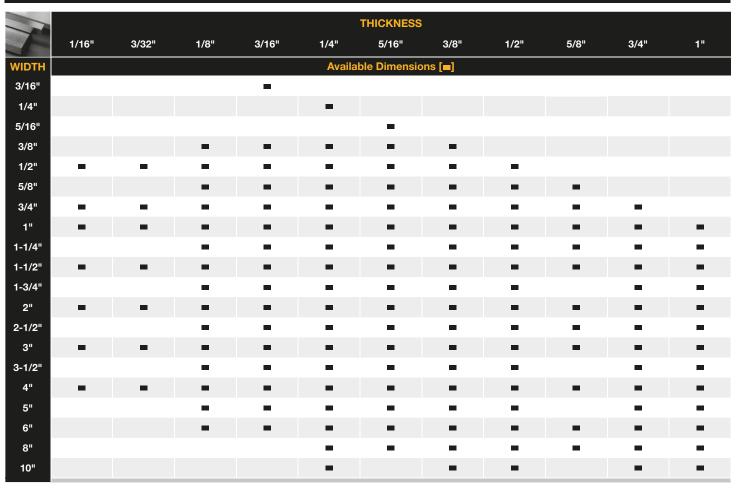


ABRAMS TOOL STEEL I TOOL STEEL II HIGH SPEED STEEL STAINLESS STEEL CORROSION resistant / acid resistant / acid resistant / CASE HARDENING STEEL

PREMIUM 4140 PH / 4142 PH - PRECISION GROUND FLAT STOCK, REGULAR

HEAT-TREATABLE STEEL

Length: 36" IMPERIAL DIMENSIONS in inch





[GFS reg]: Surface Condition Thickness: ground Width: ground or fine milled Length: milled or saw cut

4140 PH /

4142 PH



Standard values

Delivery condition: maximum 380 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо
0.38	0	0.6	0	0	0.9	0.15
0.45	0.4	0.9	0.035	0.035	1.2	0.3



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Direct access to our online shop abrams-steel.com/4140PH-2



Technical Properties

Heat-treatable steel (tempered condition) that can be used for a wide range of applications with a high degree of strength and toughness. Often used for demanding applications in automotive engineering. In quenched and tempered condition it is used in machine construction.

Working hardness: 27 (min. hardness/delivery condition) - 48 HRC.



Applications

Mechanical engineering, machine parts, axes, knuckles, connecting rods, crankshafts, gear shafts, pinions, gears, bandages, base plates, assembly parts.



AISI 4140 PH / 4142 PH

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/4140PH



PREMIUM 4140 PH / 4142 PH - \$mart FLAT STOCK

HEAT-TREATABLE STEEL

Length: 12"

IMPERIAL DIMENSIONS in inch

61	THICKNESS												
	1/8"	3/16"	7/32"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1-1/4"	1-1/2"	2"
WIDTH						Availab	le Dimensi	ions [=]					
1"			-										
1-1/4"	-	-	-	-	-	-	-	-	-	-	-		
1-1/2"	-	-	-	-	-	-	-	-	-		-	-	
2"	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1/2"		-	-		-		-	-	-		-	-	-
3"	-	-	-	-	-			-	-	-			-
3-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-
4"	-	-	-	-	-			-	-	-			
4-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-
5"		-	-		-				-				-
5-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-
6"	-	-	-	-	-				-	-			-
6-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-
7"	-	-	-		-				-				-
7-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	_
8"	-	_	_	-	_	_	_	_	_	_	_	-	_
8-1/2" 9"	-	-	-	-	-	-	-	-	-		-	-	-
9-1/2"	-	-	-	-	-				-	-	-		
9-1/2"	-	-	-	-	-	-	-		-	-	-	-	-
10-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-
10-1/2				-			-			-	-		
11-1/2"	_	-	-	-	_	_	-	-	-		-	-	_
12"	_	_	_	-	_	_	_	_	_		_	_	-
	_		_	_	_	_	_	_	_	_	_	_	



Technical Properties

Heat-treatable steel (tempered condition) that can be used for a wide range of applications with a high degree of strength and toughness. Often used for demanding applications in automotive engineering. In quenched and tempered condition it is used in machine construction.

Working hardness: 27 (min. hardness/delivery condition) - 48 HRC.



Applications

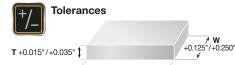
Mechanical engineering, machine parts, axes, knuckles, connecting rods, crankshafts, gear shafts, pinions, gears, bandages, base plates, assembly parts.



[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut



← L +0.500"/-0.000" →



Standard values

Delivery condition: maximum 380 BHN Chemical composition:

_			Р	_		
0.38	0	0.6	0	0	0.9	0.15
0 45	0.4	0.9	0.035	0 035	12	0.3
0	٠	0.0	0.000	0.000		0.0



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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abrams-steel.com/4140PH-10



AISI 4140 PH / 4142 PH

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/4140PH

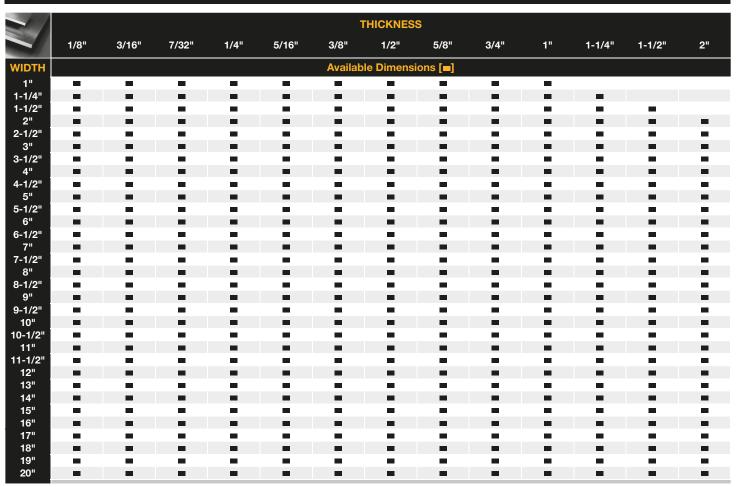


ABRAMS TOOL STEEL I TOOL STEEL II HIGH SPEED STEEL STAINLESS STEEL CORROSION resistant / acid resistant / acid resistant / CASE HARDENING STEEL

PREMIUM 4140 PH / 4142 PH - \$mart FLAT STOCK

HEAT-TREATABLE STEEL

Length: 24" IMPERIAL DIMENSIONS in inch



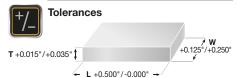


[\$mart]: Surface Condition
Thickness: ground or fine milled
Width: saw cut

4140 PH /

4142 PH

Length: saw cut





Standard values

Delivery condition: maximum 380 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо
			0			
0.45	0.4	0.9	0.035	0.035	1.2	0.3



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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Technical Properties

Heat-treatable steel (tempered condition) that can be used for a wide range of applications with a high degree of strength and toughness. Often used for demanding applications in automotive engineering. In quenched and tempered condition it is used in machine construction.

Working hardness: 27 (min. hardness/delivery condition) - 48 HRC.



Applications

Mechanical engineering, machine parts, axes, knuckles, connecting rods, crankshafts, gear shafts, pinions, gears, bandages, base plates, assembly parts.



AISI 4140 PH / 4142 PH

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/4140PH



PREMIUM 4140 PH / 4142 PH - \$mart FLAT STOCK METRIC

HEAT-TREATABLE STEEL

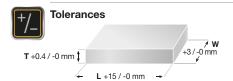
METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 3.3 4.3 5.3 6.3 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 **NIDTH** Available Dimensions [=] 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283



[\$martM]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 380 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо
0.38	0	0.6	0	0	0.9	0.15
0.45	0.4	0.9	0.035	0.035	1.2	0.3



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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303

Technical Properties

Heat-treatable steel (tempered condition) that can be used for a wide range of applications with a high degree of strength and toughness. Often used for demanding applications in automotive engineering. In quenched and tempered condition it is used in machine construction.

Working hardness: 27 (min. hardness/delivery condition) - 48 HRC.



Applications

Mechanical engineering, machine parts, axes, knuckles, connecting rods, crankshafts, gear shafts, pinions, gears, bandages, base plates, assembly parts.



AISI 4140 PH / 4142 PH

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/4140PH



ABRAMS TOOL STEEL I TOOL STEEL II HIGH SPEED STEEL STAINLESS STEEL CORROSION resistant / acid resistant / acid resistant / CASE HARDENING STEEL

METRIC DIMENSIONS in mm

PREMIUM 4140 PH / 4142 PH - \$mart FLAT STOCK METRIC

HEAT-TREATABLE STEEL

THICKNESS 3.3 4.3 5.3 6.3 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 Available Dimensions [=] VIDTH 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283 303 323 343 353 363 383

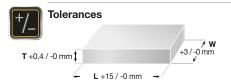


[\$martM]: Surface Condition
Thickness: ground or fine milled

4140 PH /

4142 PH

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 380 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо
0.38	0	0.6	0	0	0.9	0.15
-	-	-	-	- 1	-	-
0.45	0.4	0.9	0.035	0.035	1.2	0.3



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

- according to your requirements!



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abrams-steel.com/4140PH-13



403

423

443 453

463 483

503

Technical Properties

Length: 600 mm

Heat-treatable steel (tempered condition) that can be used for a wide range of applications with a high degree of strength and toughness. Often used for demanding applications in automotive engineering. In quenched and tempered condition it is used in machine construction.

Working hardness: 27 (min. hardness/delivery condition) - 48 HRC.



Applications

Mechanical engineering, machine parts, axes, knuckles, connecting rods, crankshafts, gear shafts, pinions, gears, bandages, base plates, assembly parts.



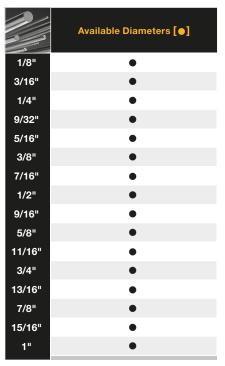
AISI 4140 PH / 4142 PH

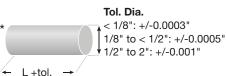
Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/4140PH



Length: 36"

IMPERIAL DIAMETERS in inch





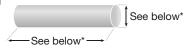




[DR]: Surface Condition Turned, ground & polished (TGP)



Tolerances





Standard values

Delivery condition: maximum 380 BHN Chemical composition:

			Р			
0.38	0	0.6	0	0	0.9	0.15
0.45	0.4	0.9	0.035	0.035	1.2	0.3



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks). Custom orders on request

- according to your requirements.



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abrams-steel.com/4140PH-17



Technical Properties

Heat-treatable steel (tempered condition) that can be used for a wide range of applications with a high degree of strength and toughness. Often used for demanding applications in automotive engineering. In quenched and tempered condition it is used in machine construction.

Working hardness: 27 (min. hardness/delivery condition) - 48 HRC.



Applications

Mechanical engineering, machine parts, axes, knuckles, connecting rods, crankshafts, gear shafts, pinions, gears, bandages, base plates, assembly parts.



AISI 4140 PH / 4142 PH

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/4140PH

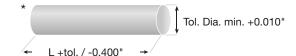


PREMIUM 4140 PH / 4142 PH - DECARB FREE ROUNDS

HEAT-TREATABLE STEEL

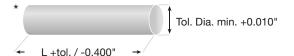
Length: 18"

Available Diameters [•] 1" 1-1/4" 1-1/2" 1-3/4" 2" 2-1/2" 3" 3-1/2" 4"



Length: 36" IMPERIAL DIAMETERS in inch

	Available Diameters [●]
1"	•
1-1/4"	•
1-1/2"	•
1-3/4"	•
2"	•
2-1/2"	•
3"	•
3-1/2"	•
4"	•



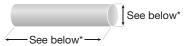


[DCF]: Surface Condition
Peeled or rough-turned

4140 PH / 4142 PH



Tolerances





Standard values

Delivery condition: maximum 380 BHN Chemical composition:

С	Si	Mn	Р	S	Cr	Мо
0.38	0	0.6	0	0	0.9	0.15
0 45	- 04	- n 9	0.035	0.035	12	0.3
0.10	0.1	0.0	0.000	0.000	1.2	0.0



Don't see your exact dimension(s)?

Any diameter is available in different lengths (e.g. round blanks).
Custom orders on request

- according to your requirements.



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[18"] - abrams-steel.com/4140PH-22

[36"] - abrams-steel.com/4140PH-23



AISI 4140 PH / 4142 PH

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/4140PH

via smartphone/tablet:



Technical Properties

Heat-treatable steel (tempered condition) that can be used for a wide range of applications with a high degree of strength and toughness. Often used for demanding applications in automotive engineering. In quenched and tempered condition it is used in machine construction.

Working hardness: 27 (min. hardness/delivery condition) - 48 HRC.



Applications

Mechanical engineering, machine parts, axes, knuckles, connecting rods, crankshafts, gear shafts, pinions, gears, bandages, base plates, assembly parts.



WATCH THE MAKING OF THE 5TH MOTIF FOR CALENDAR 2019 / 2022





HEAT-TREATABLE- & ABRAMS HIGH SPEED STEEL CASE HARDENING STEEL

PREMIUM 5115 - PRECISION GROUND FLAT STOCK METRIC, OVERSIZE

CASE HARDENING STEEL

Length: 1,000 mm **METRIC DIMENSIONS in mm THICKNESS** 8.2 15.3 10.3 12.3 16.3 20.3 Available Dimensions [■] **VIDTH** 15.3 20.3 25.3 30.3 32.3 40.3 50.3 60.3 70.3



[GFSM O/S]: Surface Condition Thickness: ground or fine milled Width: ground or fine milled Length: milled or saw cut

4140 /

4140 PH /

4142 PH

4142

5115

Tolerances +0.4 / -0 mm T+0.4/-0 mm 1 L +35 / -0 mm →



Standard values

Delivery condition: maximum 217 BHN Chemical composition:

С	Si	Mn	Р	S	Cr
0.14	0	1.0	0	0	0.8
0.19	0.4	1.3	0.025	0.035	1.1



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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AISI 5115 - all at a glance!

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via smartphone/tablet:



Technical Properties

Cold work and plastic mold steel (group of case hardening steel) with the objective of high surface hardness with core toughness. Excellent machinability, good cold hobbing and polishing properties. The tensile strength is a result of the combination of hardened surface and tough core. Working hardness (surface): 58-60 HRC.



Applications

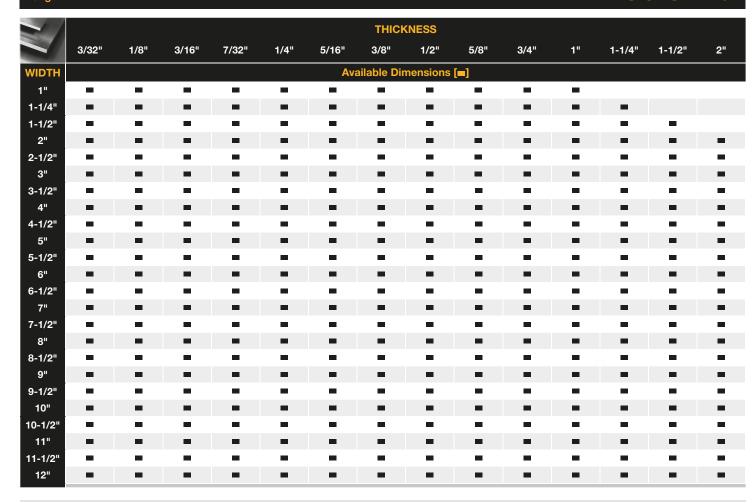
Mechanical engineering, jig construction, plant engineering, apparatus engineering, plastic processing, plastic molds, synthetic resin molds, base plates, bending bars, guide columns, gear parts, joint parts, shafts, gears, rods, bevel gears, crown wheels, piston pins, camshafts, bolts, pins, universal joints.

PREMIUM 5115 - \$mart FLAT STOCK

CASE HARDENING STEEL

Length: 12"

IMPERIAL DIMENSIONS in inch

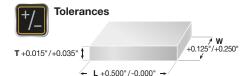




[\$mart]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 217 BHN Chemical composition:

С	Si	Mn	Р	S	Cr
0.14	0	1.0	0	0	0.8
0.19	0.4	1.3	0.025	0.035	1.1



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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Cold work and plastic mold steel (group of case hardening steel) with the objective of high surface hardness with core toughness. Excellent machinability, good cold hobbing and polishing properties. The tensile strength is a result of the combination of hardened surface and tough core. Working hardness (surface): 58-60 HRC.

Technical Properties



Applications

Mechanical engineering, jig construction, plant engineering, apparatus engineering, plastic processing, plastic molds, synthetic resin molds, base plates, bending bars, guide columns, gear parts, joint parts, shafts, gears, rods, bevel gears, crown wheels, piston pins, camshafts, bolts, pins, universal joints.



AISI 5115 - all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE for alternatives: abrams-steel.com/5115

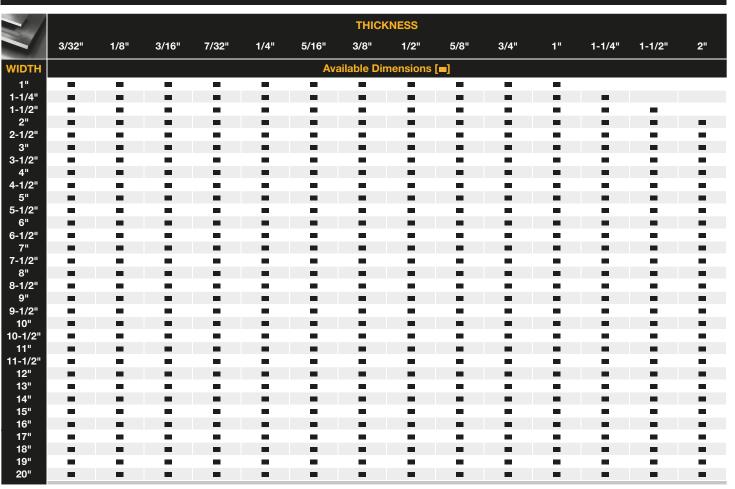


ABRAMS TOOL STEEL I TOOL STEEL II HIGH SPEED STEEL STAINLESS STEEL CORROSION resistant / acid resistant / CASE HARDENING STEEL

PREMIUM 5115 - \$mart FLAT STOCK

CASE HARDENING STEEL

IMPERIAL DIMENSIONS in inch





[\$mart]: Surface Condition
Thickness: ground or fine milled
Width: saw cut

4140 /

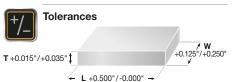
4140 PH /

4142 PH

4142

5115

Length: saw cut





Standard values

Delivery condition: maximum 217 BHN Chemical composition:

С	Si	Mn	Р	S	Cr
0.14	0	1.0	0	0	0.8
0.19	0.4	1.3	0.025	0.035	1.1



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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Length: 24"

Technical Properties

Cold work and plastic mold steel (group of case hardening steel) with the objective of high surface hardness with core toughness. Excellent machinability, good cold hobbing and polishing properties. The tensile strength is a result of the combination of hardened surface and tough core. Working hardness (surface): 58-60 HRC.



Applications

Mechanical engineering, jig construction, plant engineering, apparatus engineering, plastic processing, plastic molds, synthetic resin molds, base plates, bending bars, guide columns, gear parts, joint parts, shafts, gears, rods, bevel gears, crown wheels, piston pins, camshafts, bolts, pins, universal joints.



AISI 5115 - all at a glance!

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PREMIUM 5115 - \$mart FLAT STOCK METRIC

CASE HARDENING STEEL

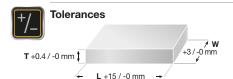
METRIC DIMENSIONS in mm Length: 300 mm **THICKNESS** 3.3 4.3 5.3 6.3 8.3 10.3 12.3 15.3 20.3 25.3 30.3 40.3 50.3 **NIDTH** Available Dimensions [=] 33 43 53 63 73 83 93 103 123 143 153 163 183 203 223 243 253 263 283 303



[\$martM]: Surface Condition

Thickness: ground or fine milled

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 217 BHN Chemical composition:

С	Si	Mn	Р	S	Cr
0.14	0	1.0	0	0	0.8
0.19	0.4	1.3	0.025	0.035	1.1



Don't see your exact dimension(s)?

Any size is available in different thicknesses, widths and/or lengths. Custom orders on request

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Technical Properties

Cold work and plastic mold steel (group of case hardening steel) with the objective of high surface hardness with core toughness. Excellent machinability, good cold hobbing and polishing properties. The tensile strength is a result of the combination of hardened surface and tough core. Working hardness (surface): 58-60 HRC.



Applications

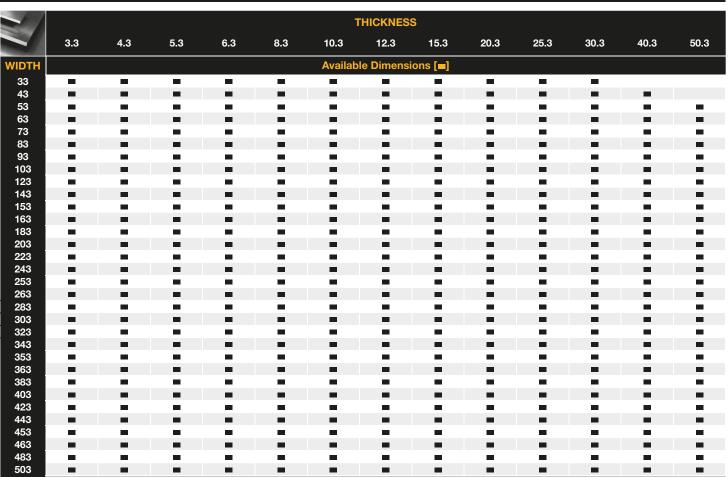
Mechanical engineering, jig construction, plant engineering, apparatus engineering, plastic processing, plastic molds, synthetic resin molds, base plates, bending bars, guide columns, gear parts, joint parts, shafts, gears, rods, bevel gears, crown wheels, piston pins, camshafts, bolts, pins, universal joints.

ABRAMS TOOL STEEL I TOOL STEEL II HIGH SPEED STEEL STAINLESS STEEL CORROSION resistant / acid resistant / acid resistant / CASE HARDENING STEEL

PREMIUM 5115 - \$mart FLAT STOCK METRIC

CASE HARDENING STEEL

Length: 600 mm METRIC DIMENSIONS in mm





[\$martM]: Surface Condition
Thickness: ground or fine milled

4140 /

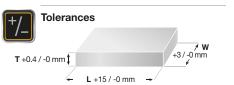
4140 PH /

4142 PH

4142

5115

Width: saw cut Length: saw cut





Standard values

Delivery condition: maximum 217 BHN Chemical composition:

С	Si	Mn	Р	S	Cr
0.14	0	1.0	0	0	0.8
0.19	0.4	1.3	0.025	0.035	1.1



Don't see your exact dimension(s)?

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Technical Properties

Cold work and plastic mold steel (group of case hardening steel) with the objective of high surface hardness with core toughness. Excellent machinability, good cold hobbing and polishing properties. The tensile strength is a result of the combination of hardened surface and tough core. Working hardness (surface): 58-60 HRC.



Applications

Mechanical engineering, jig construction, plant engineering, apparatus engineering, plastic processing, plastic molds, synthetic resin molds, base plates, bending bars, guide columns, gear parts, joint parts, shafts, gears, rods, bevel gears, crown wheels, piston pins, camshafts, bolts, pins, universal joints.



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PERFECTION!

ABRAMS TOOL STEEL I TOOL STEEL II HIGH SPEED STEEL STAINLESS STEEL HEAT-TREATABLE- & INFORMATION CASE HARDENING STEEL

TRANSPARENCY IN ALL DETAILS !

Information Regarding Our Product Catalog

ABRAMS Industries Inc. serves all of Mexico.

This product catalog provides all the available size grade combinations of our 44 different PREMIUM steel grades, as well as an overview of their technical properties and possible applications to guide you to the most appropriate grade for your usage.

Pricing

For current pricing, please check out our Online Shop or call our Sales Team at +1 (331) 234-9900 or email us at sales@abrams-industries.com. Please provide your reseller license if sales tax should not be collected.

Product Availability

Unless otherwise noted on your order confirmation, all items are shipped from stock in 1-2 days after receipt of order - subject to availability.

NO Minimum Order Value (\$)

No matter how small your order - you only pay for the product, we never add extra charges to meet a minimum order value.

NO Minimum Order Quantity (# or pieces)

No matter how small the weight or number of pieces - you only pay for the product and do not have to add additional weight or pieces to meet a minimium order quantity.

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All products are carefully packed, free of charge.

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All shipping is FOB origin, prepay and add.

All prepay and add charges are straight pass throughs with no premiums or additional charges. These are always disclosed transparently in all offers and order confirmations.

However, if you prefer, we are happy to use your own carrier and account.

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ABRAMS offers three payment conditions:

- Save 2%, if payment is posted within 5 days from invoice date.
- Save 1%, if payment is posted within 10 days from invoice date.
- Net 30 days from invoice date.

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ABRAMS offers three payment options:

- Pay by credit card with a surcharge of 4%.
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- + MORE THAN 53,000 ITEMS
- + As Flats and Rounds
- + In Imperial and Metric sizes
 - + Precision Ground Flat Stock, regular / oversize
 - + \$mart Flat Stock Standardized Precision Blanks
 - + Hard Flat Metric Hardened Standardized Blanks
 - + EDM Block hardened
 - + Drill Rod Precision Round Bars
 - + Cold Finished Rounds Precision Round Bars
 - + Decarb Free Rounds Oversize Round Bars
- + NO MINIMUM ORDER VALUE
- + NO MINIMUM ORDER QUANTITY
- + SPECIALS ON REQUEST
- + SAME DAY SHIPPING (SUBJECT TO AVAILABILITY)
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