

## GROUND FLAT STOCK

O1 Oil Hardening

A2 Air Hardening

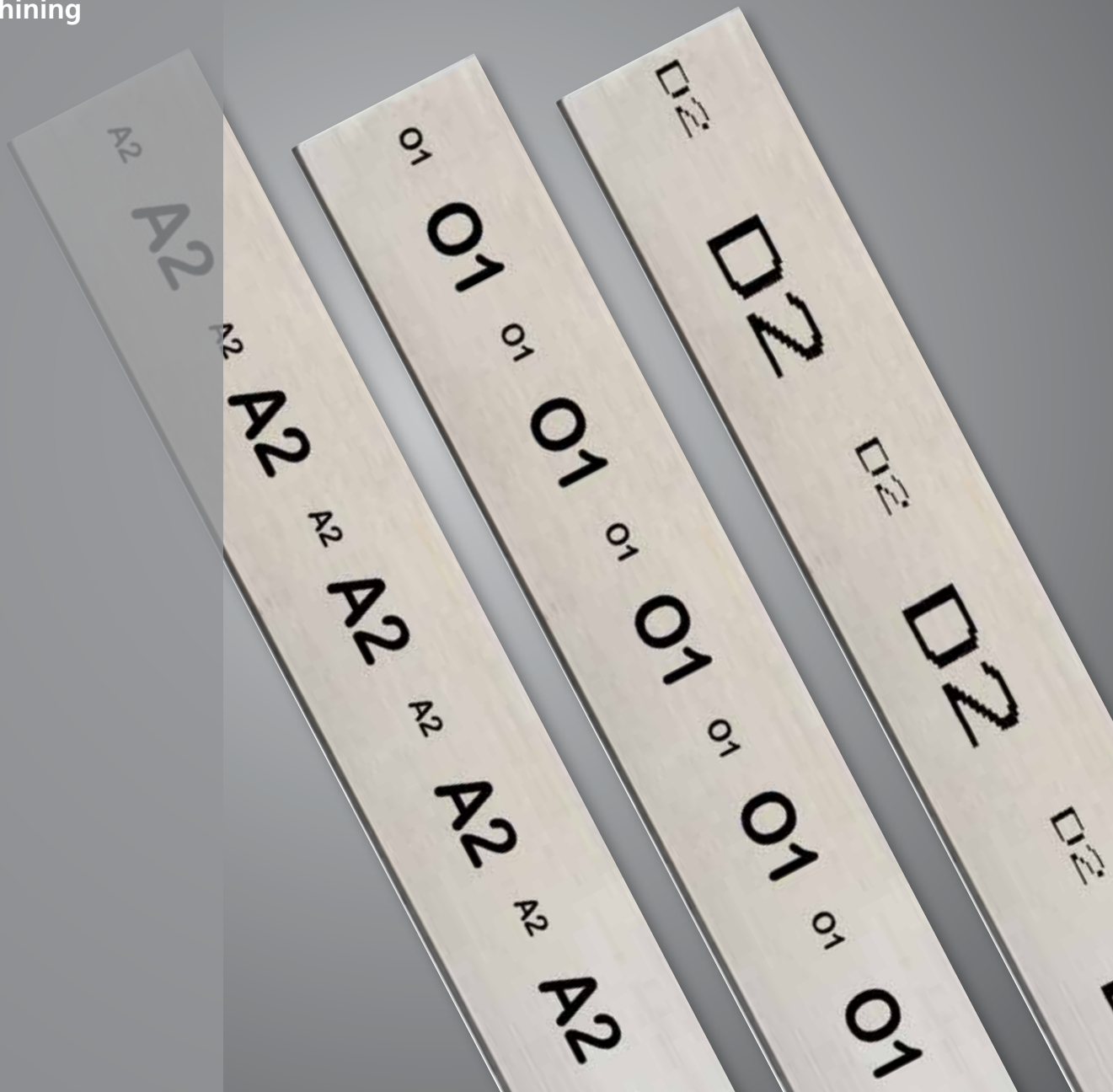
A6 Air Hardening

D2 High Carbon Chromium

LC Free Machining

W1 Carbon

High-quality, precision ground steel minimizes time-consuming initial grinding to size in precision machining projects.



# CUT COSTS AND SAVE TIME WITH GROUND FLAT STOCK

## MAKE PARTS FAST - WHEN YOU NEED THEM

Precision Ground Flat Stock can save you time in your shop... no more time hunting lost stock... no more slow, costly grinding to size. Just lay it out and saw it out and save valuable machinery, downtime and man hours.

Starrett does most of the precision sizing for you and all flat stock surfaces are parallel, with surface finishes down to 35 microinch. The metallurgy is also precise, as are the instructions for hardening, tempering and annealing.

You can rely on the quality - in fact, Starrett uses this same selection of stock for many of its own precision tools.

A full range of sizes are in stock, ready for fast shipping from one of two locations.

### O1 OIL HARDENING

AISI/SAE O1 is a general-purpose tool steel with good wear resistance, toughness and machinability. O1 has deep hardening characteristics and fine grain structure. It is ideal for intricate work and thin sections, due to its minimal danger of cracking.

**Standard O1 Flat Stock: Cat. No. 496 | Oversize O1 Flat Stock: Cat No. 495**

### A2 AIR HARDENING

AISI/SAE A2 is a more highly alloyed tool steel that provides excellent wear resistance and toughness, plus good machinability. A2 produces up to 50% more pieces per sharpening than oil hardening steel. A2 is ideal for punches and dies.

**Standard A2 Flat Stock: Cat. No. 497 | Oversize A2 Flat Stock: Cat No. 499**

### A6 AIR HARDENING

AISI A6 is a medium alloyed air hardening tool steel that provides an excellent balance of machinability, toughness and wear resistance. Its heat treating temperature is low - similar to that of oil hardening steel, resulting in deep hardness and minimum distortion.

**A6 Flat Stock: Cat. No. 344**

### D2 HIGH CARBON CHROMIUM

AISI D2 is a high carbon, high chromium steel used for tooling that requires high wear resistance and moderate toughness.

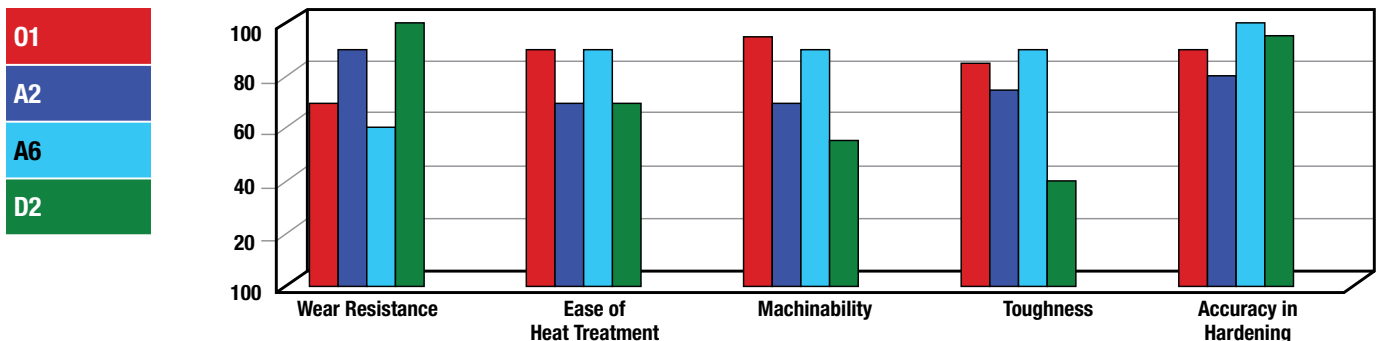
**Standard D2 Flat Stock: Cat. No. 401 | Oversize D2 Flat Stock: Cat. No. 402**

### LC FREE MACHINING

With its high sulfur content, Starrett LC is unique in the ground flat stock industry. The result is exceptional machinability. Low Carbon is a .20 carbon fine-grained, killed steel that can be carburized or case-hardened. It provides longer cutting tool life with lower machining costs, better finish and faster production.

**LC Flat Stock: Cat. No. 498**

## COMPARATIVE MATERIAL PROPERTIES



# TECHNICAL SPECIFICATIONS



Flat Stock is identified by grade over its entire length to be easily identified even after it is cut off.



Starrett Flat Stock is packaged in industry standard brown paper wrap.

Nominal Chemical Analysis						
	O1	A2	A6	D2	LC	W1
Carbon	.90	1.00	.70	1.55	.20	.97
Chromium	.50	5.25	1.00	11.80		
Manganese	1.20	.60	2.00	.40	1.00	.40
Vanadium	.20	.25		.80		
Molybdenum		1.00	1.25			
Tungsten	.50					
Silicon		.40		.30	.25	.17
Sulfur					.05 (max)	

\*Drill rod only

Dimensional Tolerances		
Ground Flat Stock		
Regular	Thickness $\pm .001$ " Width up through 8", $+.000/.005$ " 9" width and over, $+.000/.015$ " Squares, $\pm .001$ "	
Oversize	Thickness, width, squares; $+.010/.015$ "	
Length	Saw cut oversize allowing finish cutting 18", $+1/4$ " 24", $+1/2$ " 36", $+5/8$ "	
Squareness (all edges)	.003 per inch	
Finish	35 Microinch or finer	
Material	Size	Range
O1 (495, 496)	Thickness: 1/64" to 2" Widths: 1/8" to 12"	18" and 36"
A2 (497, 499)	Thickness: 1/64" to 2" Widths: 3/16" to 12"	18" and 36"
A6 (344)	Thickness: 1/16" to 1" Widths: 3/16" to 12"	36"
D2 (401, 402)	Thickness: 1/16" to 1" Widths: 1/2" to 6"	18" and 36"
LC (498)	Thickness: 1/16" to 2-1/2" Widths: 3/16" to 12"	24"

Special sizes and lengths available

## SPECIAL REQUIREMENTS

In addition to the products described here, Starrett also offers non-standard Ground Flat Stock typically available within 5-7 working days. Specials can be produced in powder, metal, cold work, hot work, high speed, carbon steel, 400 Series Stainless and other alloy steels.

Please contact Starrett for a special order quotation on your non-standard flat stock requirements.

# ORDER FULFILLMENT FROM TWO LOCATIONS

- Quality, precision ground steel
- Convenient and cost-effective
- Fast order fulfillment



With Starrett stocking distributor inventories and company stock located in North and Central America, your Starrett Ground Flat Stock will get to you fast.

Call for information and Sales at:

U.S.A.: 800-784-2887 | Mexico: 844-432-46-60

## GROUND FLAT STOCK



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# Starrett®

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