

Cincinnati Tool Steel Company

Phone #: (815) 226-8800 (800) 435-0717 Fax #: (815) 226-4388

Precision Ground Flat Stock

(PGFS)

All grades available in 18" and 36" lengths.
Low Carbon available in 24" lengths only.

O1 Oil Hardening

Typical Analysis

Carbon	0.90	Chromium	1.20
Manganese	1.20	Vanadium	0.20
Silicon	0.30		

The most widely used grade of precision ground flat stock. It is a general purpose tool steel, outstanding for its reliability in hardening, good wear resistance, and excellent toughness.

A2 Air Hardening

Typical Analysis

Carbon	1.00	Chromium	5.25
Molybdenum	1.10	Vanadium	0.25
Manganese	0.60		

A2 is recommended rather than O1 when increased wear resistance, safer hardening, and less distortion are required.

S7 Air Hardening Super Shock

Typical Analysis

Carbon	0.50	Chromium	3.25
Silicon	0.25	Molybdenum	1.40
Manganese	0.70		

A new outstanding air-hardening precision ground flat stock - the toughest, strongest precision ground flat stock for so many jobs that require maximum strength and impact.

D2 High Carbon - High Chrome

Typical Analysis

Carbon	1.50	Molybdenum	0.75
Chromium	12.00	Vanadium	0.25 to 0.80

An air-hardening type steel known for its maximum wear resistance qualities. It is ideal for use in tools, dies, etc., used in long production runs.

M2 Moly-Tungsten-High Speed

Typical Analysis

Carbon	0.83	Chromium	4.15
Molybdenum	5.00	Vanadium	1.90
Tungsten	6.35		

The most widely used type of high-speed steel and, in general, can be used for the same applications as T-1 high speed. Its higher carbon content and balanced analysis produce properties applicable to all general-purpose high-speed uses.

Low Carbon

Typical Analysis

Carbon	.15 - .20	Phosphorus	.04 max.
Manganese	.60 - .90	Sulfur	.05 max.

Tolerances

	<u>Regular</u>	<u>Oversize</u>
Thickness	+/- .001"	+ .010/.015"
Width	+ .000/.005"	+ .010/.015"
Squares	+/- .001"	+ .010/.015"
Length 18"	+ .125/.250"	+ .125/.250"
Length 36"	+ .250/.500"	+ .250/.500"
Length 24"	+ .1875/.375"	+ .1875/.375"
Squareness Edge	.003" per inch	.003" per inch
Squareness End	.004" per inch	.004" per inch

Data shown are typical, and should not be construed as maximum or minimum values for specification or for final design.
Data on any particular piece of material may vary from those herein.