



NESSteel Inc.

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1215 Cold Roll Steel

1215 is a resulphurized and rephosphorized free machining steel, commonly referred to as screw machine stock. 1215 is an improved free machining steel that has replaced the Bessemer B1113 grade years ago. 1215 is especially suited for automatic screw machine operations where the major requirement is exceptional free-machining quality with a smooth, bright finish.

ANALYSIS

Carbon (C)	Manganese (Mn)	Phosphorus (P)	Sulfur (S)
0.09	0.75-1.05	0.04-0.09	0.26-0.35

1215 cold roll conforms to ASTM A29, A108

MECHANICAL PROPERTIES

Condition	Tensile Strength (PSI)	Yield Strength (PSI)	Reduction of Area	Elongation in 2"	Brinell Hardness
1" Rd, cold drawn	87,000	75,000	42	15	187

APPLICATIONS

1215 was developed for manufacturing numerous parts requiring considerable machining, close finish tolerances, and a bright smooth finish, ideal for screw machine stock. Can also be used for bushings, inserts, hydraulic hose fittings, couplings, studs, pins, etc. Beyond ordinary machining it will respond will to roll threading, nibbing and some minor bending without cracking. It is not recommended for forming, ordinary bending, or upsetting, nor for parts subject to severe fatigue stress.

MACHINEABILITY AND WELDABILITY

Machineability is rated at 136% of B1112. Average cutting speed 225 ft/min. Because of 1215s very high sulphur content, weldability is considered poor.

HEAT TREATING

Although this analysis will respond to conventional treatments, 1215 is not considered to be a case hardening steel. Better results are obtained from 1117 ro 1018.

TOLERANCES

Rounds

Up to 1-1/2" incl.	0.003
Over 1-1/2 to 2-1/2", incl.	0.004
Over 2-1/2 to 4", incl.	0.005
Over 4 to 6", incl.	0.006