

# 15-5 STAINLESS STEEL



## WHAT IS IT?

- **15-5 is a precipitation hardened martensitic stainless steel alloy that is a re-melted grade with characteristics that include high strength, corrosion resistance, and increased hardness obtained through low temperature heat treatment.**
- **15-5 Type 1 is also known as AOD+VAR (Argon Oxygen Decarburization + Vacuum Arc Remelting). 15-5 Type 2 is AOD + Electroslag Remelting (ESR).**
- **Less common is the premium melt of VIM VAR. Vacuum Induction Melting (VIM) + Vacuum Arc Remelting (VAR)**

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15-5 is further enhancement of the 17-4 stainless steel family developed for improved toughness. This improved toughness is achieved by controlling the delta ferrite content and limiting inclusion size and shape.

Both alloys have high strength and moderate corrosion resistance. They can withstand temperatures of 600 degrees Fahrenheit. Some applications for 15-5 are aircraft components and high-pressure corrosive fabricated parts such as valves, shafts, fasteners, fittings, and gears.

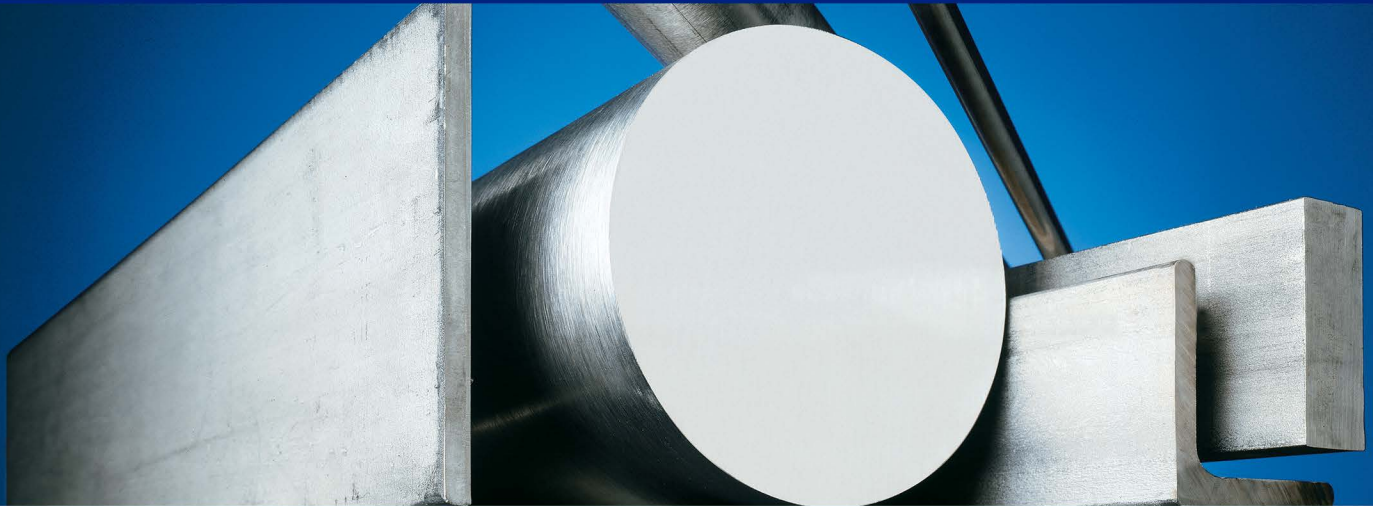
## BACKED BY INDUSTRY STANDARDS

- **UNS S15500**
- **AISI XM-12**
- **ASTM A564 AMS5659**

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**TW** METALS  
AN ONI COMPANY

# 15-5 STAINLESS STEEL



## WHAT WE STOCK

**TW METALS STOCKS A DIVERSE RANGE OF DIAMETERS IN .250 - 10.00". IF YOU WANT TO LEARN MORE ABOUT OUR PRODUCT OFFERINGS OR GET A QUOTE ON 15-5, PLEASE CONTACT US VIA EMAIL, PHONE NUMBER OR VISIT OUR WEBSITE!**

### MINIMUM PROPERTIES

Ultimate Tensile Strength, psi	161,000
Yield Strength, psi	140,000
Elongation	7.6%
Rockwell Hardness	C35

### MECHANICAL PROPERTIES

Condition	Ultimate Tensile Strength (PSI)	0.2% Yield Strength (PSI)	Elongation (% in 2in.)	Reduction of Area (%)	Hardness Brinell	Hardness Rockwell
H900	190,000	170,000	6	15	388	C40
H1025	155,000	125,000	8	27	331	C35
H1075	145,000	125,000	9	28	311	C32
H1150	135,000	105,000	11	30	277	C28

### CHEMISTRY

Iron (Fe)	Carbon (Ce)	Chrome (cr)	Manganese (Mn)	Niobium (Nb) + Tantalum (Ta)	Nickel (Ni)	Phosphorus
71.91-79.85%	0.07% Max	14-15.5%	1% Max	0.15 - 0.45% Max	3.5-5.5%	0.04% Max

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