

17-4 PH

STAINLESS STEEL BAR

UNS S17400 (GRADE 630)



17-4 ph stainless steel bar is one of the original precipitation hardened grades developed in the 50's. Primarily comprised of 17% chromium, 4% nickel, 4% copper, with the balance being iron. Other characteristics include high strength, toughness, and quality mechanical properties at temperatures up to 600° F. Engineers and designers frequently choose Stainless Steel 17-4 PH due to its high strength and superior corrosion resistance when compared to many other stainless steels.

PRODUCT PROFILE

Products	Size (Diameter)		Tolerance	Length
	mm	Inch		
Bright Round Bars	15 – 150	5/8"- 5-3/4"	h9, h11, K12, K13	upto 27 foot / 8.4 meters
Pump Shaft Quality Bars	15 – 100	5/8" to 4"	h8, h9	upto 27 foot / 8.4 meters

INDUSTRIES THAT USE 17-4 PH INCLUDE :

- Oil & Gas Industry
- Pump and Valves in higher pressure Components
- Chemical Process Equipments
- Measuring and Control techniques
- Food Industry
- Aerospace (Aircraft and Rocket Engineering & Fittings)
- Pulp and Paper Industry
- OffShore (Foils, Helicopter Decks, platform etc)
- Mechanical Components
- Power Generation
- Nuclear Reactor Components

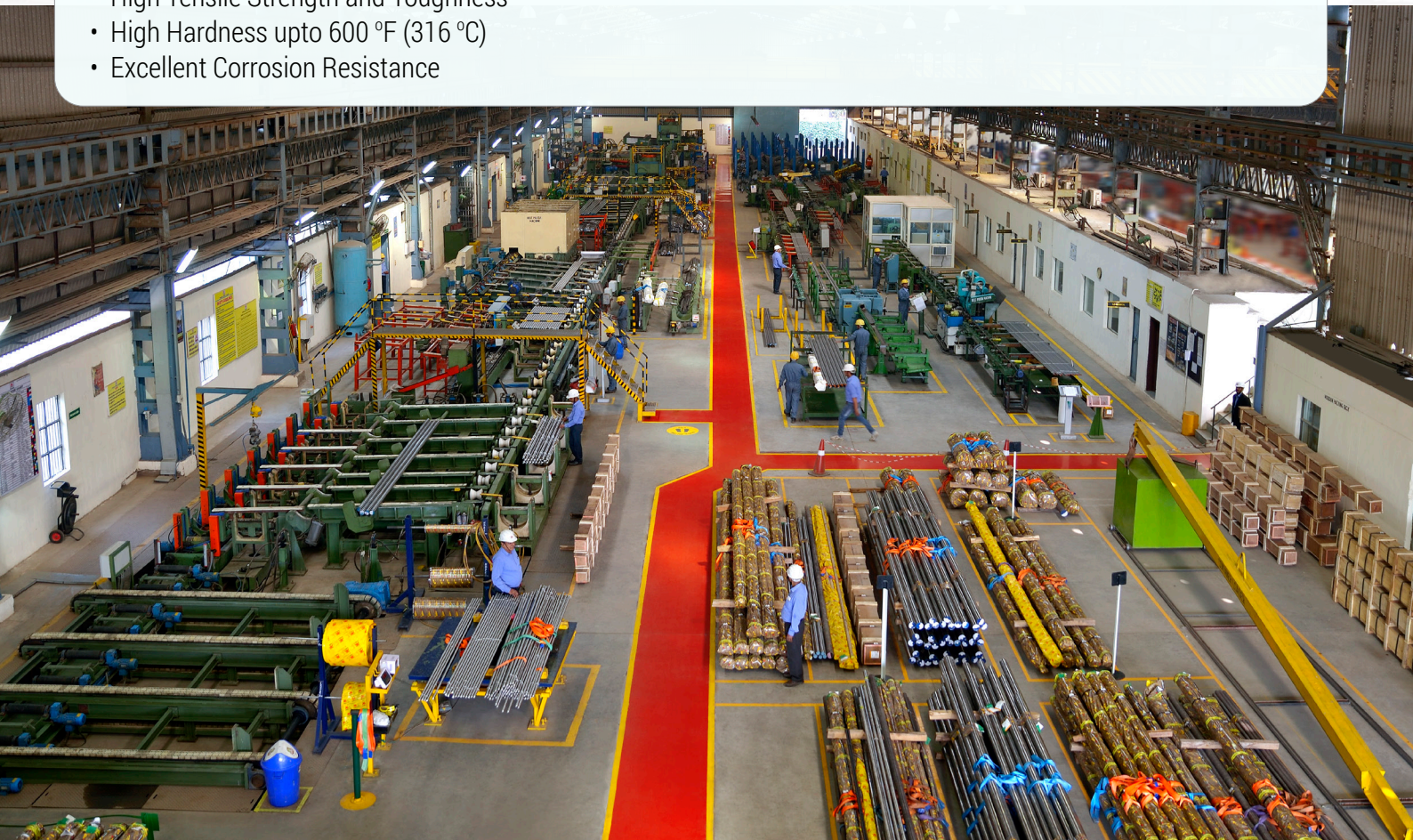
Aamor Inox also specializes in maintaining the close hardness range such as: 29 - 33 HRC

AAMOR-INOX'S PRODUCES 17-4 MATERIALS TO MEET THE FOLLOWING SPECIFICATION:

- AMS 5643R
- DIN/EN 10088-3
- ASTM A564

AAMOR-INOX 17-4 MATERIAL OFFERS FOLLOWING BENEFITS:

- High Tensile Strength and Toughness
- High Hardness upto 600 °F (316 °C)
- Excellent Corrosion Resistance



MECHANICAL PROPERTIES

Type	Standard	Tnsile Strength (min)		Yield Strength (min)		Elonga tion% (Min)	Reduct ion% (min)	Hardness				Impact Charpy-V (min)	
		Ksi	MPA	Ksi	MPA			Rockwell C		Brinell		Foot/Lbs	Joules
								Min	Max	Min	Max		
Condition A	ASTM A564	-	-	-	-	-	-	-	38	363	363	-	-
H900	ASTM A564	190	1310	170	1170	10	40	40	-	388	-	-	-
H925	ASTM A564	170	1170	155	1070	10	44	38	-	375	-	5	6.8
H1025	ASTM A564	155	1070	145	1000	12	45	35	-	331	-	15	20
H1075	ASTM A564	145	1000	125	860	13	45	32	-	311	-	20	27
H1100	ASTM A564	140	965	115	795	14	45	31	-	302	-	25	34
H1150	ASTM A564	135	930	105	725	16	50	28	-	277	-	30	41
H1150M	ASTM A564	115	795	75	520	18	55	24	-	255	-	55	75
H1150D	ASTM A564	125	860	105	725	16	50	24	-	255	311	30	41
Condition AT	EN 10088-3	-	1200 max	-	-	-	-	-	-	-	360	-	-
P800	EN 10088-3	-	800-950	-	520	18	-	-	-	-	-	-	75
P930	EN 10088-3	-	930-1100	-	720	16	-	-	-	-	-	-	40
P960	EN 10088-3	-	960-1160	-	790	12	-	-	-	-	-	-	-
P1070	EN 10088-3	-	1070-1270	-	1000	10	-	-	-	-	-	-	-

CHEMICAL COMPOSITION (AVERAGE %)

Grade	C (Max)	Si (Max)	Mn (Max)	Cr	Ni	Cu	Nb + Ta	S (Max)	Ph (Max)	Mo (Max)
17-4	0.07	1.00	1.00	15.00-17.50	3.00-5.00	3.00-5.00	0.15 to 0.45	0.030 (0.025)	0.040 (0.030)	-
630	0.07	1.00	1.00	15.00-17.50	3.00-5.00	3.00-5.00	0.15 to 0.45	0.030 (0.025)	0.040 (0.030)	-
1.4542	0.07	0.70	1.50	15.00-17.50	3.00-5.00	3.00-5.00	5xC to 0.45	0.030 (0.025)	0.040 (0.030)	0.60
1.4548	0.07	1.00	1.00	15.00-17.50	3.00-5.00	3.00-5.00	0.15 to 0.45	0.025	0.025	0.60

* Ph upto 0.025% max can be achieved and supplied as per ASME 5622. PREN = (%Cr+3.3%Mo+16%N) > 17





CORROSION RESISTANCE

- Material withstands corrosion better than any other standard hardenable stainless steels
- Stress corrosion cracking resistance is developed by age hardening at temperatures of 1025 °F (552 °C) and higher
- Aamor-Inox's 17-4 material has good resistance to sulfide stress cracking at Rockwell C 33 maximum hardness as per NACE MR-01-75

CERTIFICATES & APPROVALS

- ISO 9001:2015
- ISO 14001:2004
- OHSAS 18001:2007
- AS 9100-D (Aerospace)
- AD 2000-Merkblatt W0, W2 & W10
- P.E.D 2014/68/EU
- Norsok M-650 (Oil & Gas Industry)
- ISO/TS 16949 (Automotive Industry)
- C.E. Marking (CPR Regulation (EU))
- Marine & Offshore Certificate

Aamor Inox Limited

info@aamorinox.com | www.aamorinox.com



India : #30, Site 4, UPSIDC Industrial Area, Sahibabad 201010, District Ghaziabad, Uttar Pradesh, India, Tel: +91 120 4564585

Germany : **Mr Jorg Ortner**, Merlostrasse 12, 50668 Köln, Germany,
Tel: + 49 221 1679190 | Mob: +49 172 7456959 | Email: ortner@tranox.de

France : **Mr Nicolas Aublanc**, 14 Route de Saint-Thierry, 51220 Thil, Siret : 834029472 00018 R.C.S. Reims
Tel: +33 6 89 26 49 19 | Email: nicolas@aamorinox.com

Italy : **Mr Paolo Rimondi / Mr Alberto**, Omnia Steel, Via Abetone, 20 – 41012 Carpi (MO), Italy
Tel: +39 335 634 32 98- Paolo, +39 366 591 15 74 – Alberto | Email: aamorinox@omniasteel.com

Spain : **Mr Juan Blanco**, Global Special Steel, Gal.les 13, 08192 Sant Quirze del Valles, Barcelona, Spain
Tel: +34 639355884 | Email: juan@aamorinox.com

Poland : **Mr Maciej Wierzbowski**, Torun, Poland
Tel: +48 515 771 248 | Email: maciej@aamorinox.com

Mexico : **Mr Carlos Flores Casas**, Cerrada del Marador #115, Colonia Country Sur, Monterrey, CP 64969, Nuevo Leon, Mexico
Tel: +52(1) 81 1778 6598 | Email: carlos@aamorinox.com