

DRIVEN BY PASSION
STEERED BY VALUES



Aamor Inox is one of India's major manufacturers of stainless steel long products. Since 1970, it has remained a family-owned business and company Aamor Inox Limited was established in 2014.

The company takes pride in being one of the most-technologically-advanced mill in the world, having installed some of the world's best and most automated machines.

Aamor Inox produces and markets long-products in Specialty Stainless Steels for the Automotive, Oil & Gas, Chemical & Petrochemical, Food & Dairy, Nuclear & Aerospace sectors, with very satisfied customers in over 60 countries: OEMs, End-users, Stockists & Distributors etc.

Aamor Inox is one of India's largest privately-held bright-bar producer with a capacity to produce 50,000 tonnes of steel bars per year, while it has kept itself small enough to meet its customer's individual needs & specific demands with utmost care & attention.



# Company's Strengths are

#### Heat Treated Steels

Duplex and special Martensitic & Ferritic stainless steels incl. 17-4ph

#### • Precision Bars in all grades

- Special tolerances: upto h6, +0.000/-0.0005"
- · Surface-finish: Ra 0.2 um, 12 RMS
- Precision Straightness: 0.25mm / meter, 0.0010" per foot T.I.R.

#### • Long Length Bars:

upto 11.50 meters (upto 37.0 feet)

 Custom sizes & lengths in a very short delivery time

# Manufacturing Facilities

Aamor Inox is India's most advanced Stainless Steel mill, employing fully-automatic and ultra-modern machinery. Our stainless steels are Hot Rolled and processed through the German-made Heat treatment furnaces and Cold Finishing machines.

## **Hot Rolling Mills:**

Our hot-rolling mills are flexible, and offer customized solutions supported by an in-depth knowledge of technological process, high-performance control systems, reliable drive systems and a comprehensive understanding of hot rolling technology:

- 360mm 3-High Intermediate mills & 2-High Finishing mill, equipped with semi-automatic Tilters & Manipulator.
- Gas fired heating for blooms (generates lesser scaling and provides better Decarb Control with Good Surface) with Slow Cooling Pits for special grade bars.

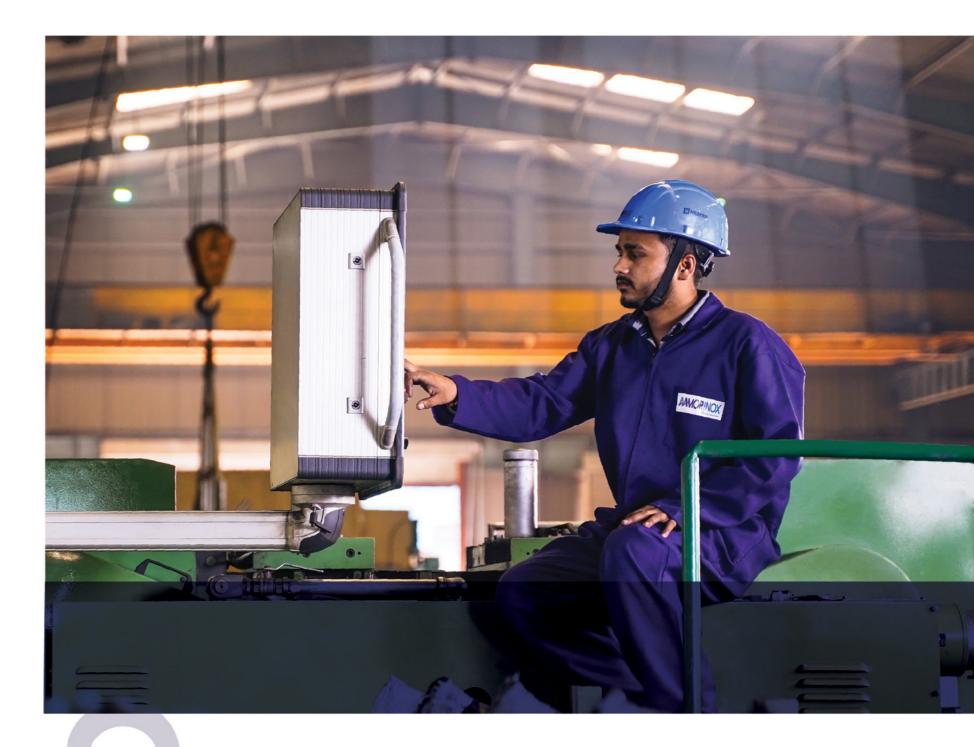
### **Heat Treatment Division:**

The Oil & Water Quenching tanks are equipped with a very strong agitation mechanism which assures controlled cooling curves during Quenching process. This makes Aamor Inox a leader for all heat-treated Stainless steels like 410, 416, 420, 430F, 431, Duplex F51, 17-4ph, 1.4418, 310S etc.

- · Capacity: 30 tons per batch
- Temperature Uniformity: +/- 3 degrees C
- Quench Delay: 30 seconds
- Conforming to: AMS 2750E, NORSOK, API-6A

#### Heat Treatments available with Aamor Inox are -

- QT, Oil Quenching & Tempering: QT 650, QT 700, QT 800, QT 900 etc
- QDT, Oil Quenching & Double Tempering
- HT, Hardening & Tempering (condition T)
- Precipitation Hardening & Aging: HH1150, H1150M, H1050, H900 etc.
- Annealing, Solution Annealing & Spheroidizing Annealing



# **Cold Finishing Plant:**

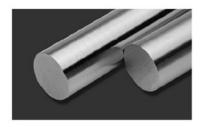
Amor Inox's cold-finishing facility is regarded as one of the most advanced Bars finishing facility in India :

- Fully-Automatic & Fully Integrated: Entire operations in a single line for 18mm upto 150mm finished dia in lengths upto 8.5 meters (28 foot).
- Equipped with a very advanced high-precision cutter heads for achieving desired roundness, ovality and lobing in the peeled bars.
- Equipped with advanced Laser size measurement system from Zumbach & an in-line Fully Automatic Double End Chamfering machine.





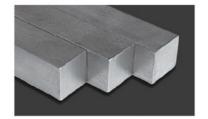
**Bright Bars:** 5 - 150 mm (3/16" - 6" dia) \*\*



High Tensile & High Yield Bars: 6 - 75 mm (1/4" - 3" dia)



Smooth Turned / HR Peeled Bars: 15 - 150 mm (5/8" - 6" dia)



CD Square: 12 - 50 mm (1/2" - 2")



**CD Flats Bars:** 30x8 - 100x30 mm



CD Hexagons: 12 - 50 mm (1/2" - 2")

Size Tolerance:	h9, h10, h11, k12, k13, A-484, EN-10060, DIN-1013 etc.
Lengths:	1.00 meter upto 11.50 meters (3.0 - 38.0 feet) ***
Straightness:	0.50 mm / meter
Surface finish:	Ra 0.2 um, 12 RMS, 240 - 320 Grit Polished
Chamfering:	30, 45 & 60 degree



Aamor Inox is India's largest producer of Shafting bars in grades 416, 410, 17-4ph, 316L, 304L, 303, 1.4462 (F51), 1.4104 (430F), 1.4057 (431), 1.4021 (420), 1.4028 (420B), 1.4034 (420C) etc.

The tight diametrical tolerance achieved through grinding decreases wear and gives a more constant round bars with controlled properties. These bars are also straightened to give minimal vibration throughout the length of the shaft.

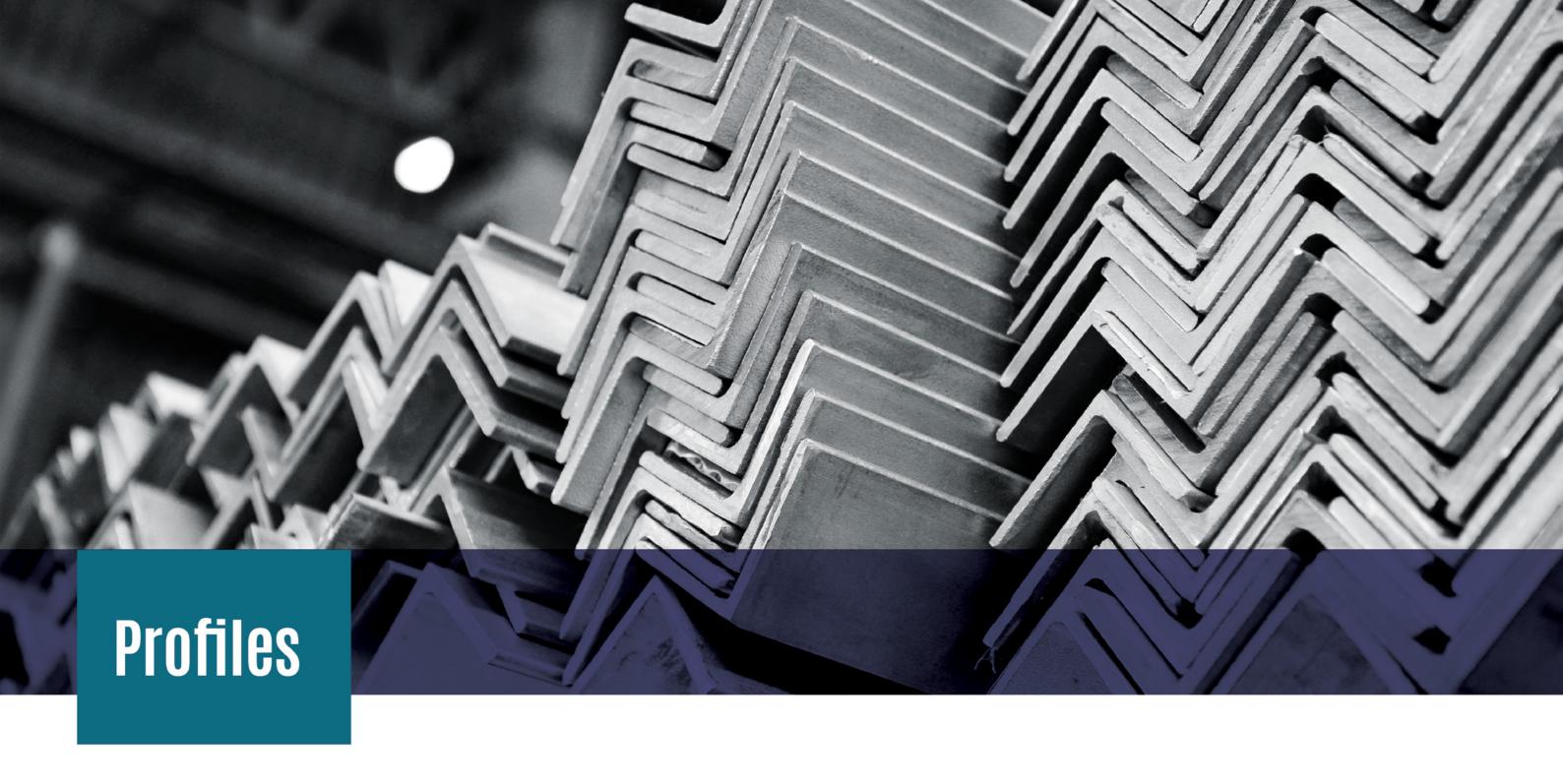
Rotational applications require the highest degree of straightness. This is in order to minimize vibration throughout the length of the bar. Higher straightness also inherently allows for a rounder bar, and tighter diameter tolerances.

Aamor Inox PSQ Bars are more than 8 times straighter than industry standards (ASTM A108), with straightness readings of 0.0015" T.I.R per ft max.

Aamor Inox can supply special-long-length precision bars in lengths upto 11.50 meters (37 feet long), allowing us to meet very specific customer requests for nonstandard PSQ requirements on an expedited basis.

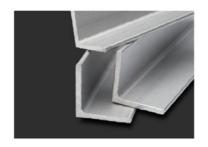


Size Range:	6 - 100 mm (1/4" - 4" dia)
Size Tolerance:	j6, e6, h6, f6, g6, k6, f7, g7, h7, e8, f8, h8, h9, c10, ½ of A484 etc
Ovality:	upto 1/3 of the dia tolerance
Straightness:	upto 0.25 mm / meter TIR (0.0010 inch / feet)
Surface finish:	upto Ra 0.2 um, 12 RMS, 240 - 320 Grit Polished
Lengths:	1.00 meter upto 11.50 meters (3.0 - 38.0 feet) ***
Length Tolerance:	upto -0/+5mm (-0 +0.5 inch)
Chamfering:	30, 45 & 60 degree thru fully automatic both-end chamfering machine
Packaging:	With tight diameter tolerances and precision straightness, these bars are packed into special protective materials & distance rings, and then placed in the strong plywood boxes to ensure safety of material during shipping & handling. Our packaging options include cardboard tubing & wooden boxes.





Flat Bars: 20x10 - 150x30 mm (1x3/16" - 6x1")



**Angles:** 25x25x3 - 100x100x10 mm (1x1x1/8" - 4x4x3/8")



HRAP Square: 15 - 50 mm

Surface finish:	HRAP condition
Lengths:	3.00 meter - 7.50 meters (10 feet - 25 feet)
Size Tolerance:	ASTM A 484, EN 10056, EN 10058, EN 10059

# **Quality Assurance**

A strong commitment to quality lies at the core of Aamor Inox's operations. Aamor Inox has always been proactive in its excellence, and its stainless bars have endured the test of time. The company has a long history of delivering high-quality Stainless Steel Bars at competitive prices and within a timely and efficient manner.

In order to ensure quality at every stage, we have perfectly documented work procedures backed up by third-party accreditations, certificates & approvals and in-house testing facilities with cutting-edge technology. Some of our Certificates & Approvals are:

- · ISO 9001:2015
- AS-9100D / EN-9100D
- IATF 16949:2016
- EMS 2014:2015
- NORSOK M-650

- CE Marking Conformity of the factory production control according to 305/2011/EU
- AD 2000 Merkblatt W0/TRD 100
- Pressure Equipment Directive 2014/68/EU

# **Crack Testing Machines:**

- Fully-automatic Eddy-current testing (Circograph) by Dr Foerster, Germany for detection of surface & subsurface flaws with 0.15 mm min detectability.
- Ultrasonic Testing machines (for internal Quality Inspection) for testing of Internal Soundness.
- MPI machines (for surface Quality Inspection) for detection of surface & subsurface flaws.

# **Other Testing Facilities:**

Other Testing Facilities: XRF Handheld Spectrometers, Radiation Servo Meters for checking of radiation levels, Bar Straightness Testing, Surface Roughness Testing, Bars out-of-roundness testing.

# **Metallurgical Testing Facilities:**

Microstructure with Image Analyser system, Defect Depth, IGC Testing, Delta Ferrite Measurement, Non Metallic Inclusion Rating (as per ASTM E45 & DIN 50602 - K&M method), Grain Size, Decarb & Macrostructure.

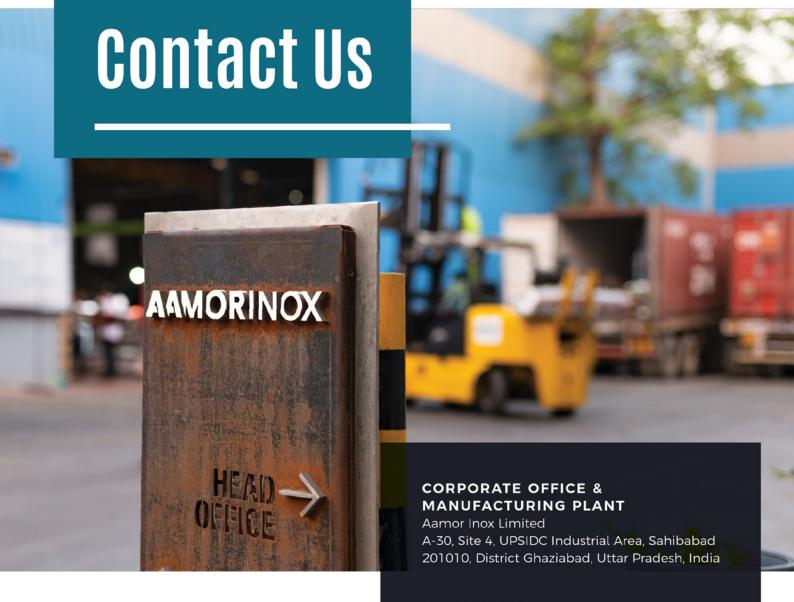
# **Mechanical Testing Facilities:**

Tensile Strength, Hardness (HRC, HRB, BHN), Elongation, Reduction, Proof Strength, Notched Bar Impact Testing.



# **Steel Grades**

Steel Type	DIN Grades	AISI Grades
Austenitic:	1.4305, 1.4570, 1.4307, 1.4567, 1.4948, 1.4311, 1.4828, 1.4845, 1.4841, 1.4404, 1.4571, 1.4919, 1.4406, 1.4435, 1.3952, 1.4438, 1.4541, 1.4878, 1.4550, 1.4539, 1.4372, 1.4373, 1.4597, 1.4310, 1.4319, 1.4301, 1.4306, 1.4312, 1.4840, 1.4432, 1.4436, 1.4460, Nitronic 30 / 32 / 50 / 60	301, 302, 303, 303Cu, 304L, 304Cu, 304H, 304LN, 304N, 305, 309, 310,310S, 314, 316L, 316Ti, 316H, 316LN, 317L, 321, 321H, 329, 347, 347H, 347LNM, 348, 904L, 201, 202, 204Cu, XM-19, XM-28, X2CrNiMoN18-14-3, X15CrNiSi20-12
Martensitic:	1.4006, 1.4005, 1.4021, 1.4028, 1.4034, 1.4057, 1.4313, 1.4913, 1.4923, 1.4122, 1.4123, 1.4718, 1.4418	403, 410, 416, 420, 420B, 420C, 420F, 420Mod, 431, Super 13Cr, F6NM
Ferritic:	1.4104, 1.4105, 1.4511, 1.4509, 1.4521	409Ti, 430F, 430LNB, 441,444
Duplex:	1.4460, 1.4462, 1.4362, 1.4821	F51, 2304, F60
Precipitation Hardening:	1.4542, 1.4594, XM-25	17-4ph / 630



# SALES OFFICES WORLDWIDE

#### **GERMANY OFFICE:**

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

#### **EUROPE OFFICE:**

Fernando Martinez Unter den Linden 32, 41363, Jüchen, Germany Mob: +49 172 2668232 Email: martinez@aamorinox.com

#### **CONTACT US**

PHONE: + 91 120 475 4000 E-MAIL: info@aamorinox.com

#### **FRANCE & SPAIN OFFICE:**

David Del Moral Mathias-Brüggen-Str.76, 50827 Köln Germany Tel: + 49 221 35504011 | Mob: +49 172 7511342 Email: david@aamorinox.com

#### **NORTH AMERICA OFFICE**

Keith Shedd 2537 Cedacrest Rd Suite 305 #210 Acworth, GA 30101 USA | Mob: +1 (404) 271-2667 Email: keith@aamorinox.com