

ONE VISION MANY WORLDS



STAINLESS STEEL BRIGHT BARS



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Viraj is equipped with a state-of-the-art, continuous hardening and tempering furnace for the heat treatment of Ferritic and Martensitic stainless steel this fulfilling the requirements of the most discerning and quality conscious customers.

Apart from Austenitic, Martensitic and Ferritic, we have also developed Duplex, Precipitation Hardening and High Sulphur – super machinability grades.*

On the value addition and quality enhancement front, Viraj is now offering Pump Shaft Quality (PSQ) Bright bars from ½” to 2” diameter and will further increase it up to 150 mm. The PSQ quality will be achieved with precision equipment required for the manufacture of the same.

Forged bars are produced in size ranges from 6 ½” to 23” (160 mm to 600 mm)

Viraj has commissioned an automatic storage and retrieval system for improving the service level to customers.



Grades:

AISI:

201, 202, 301, 303, 304, 304H, 304/304L, 316, 316H, 316/316L, 309, 309S, 310, 310S, 316Ti, 317, 317L, 347, 321, 321H, 410, 416, 420, 430, 430F, 431, 630, 17-4PH, F51, F60

DIN:

WNRI.4301, WNRI.4305, WNRI.4306, WNRI.4307, WNRI.4401, WNRI.4404, WNRI.4571, WNRI.4541, WNRI.4828, WNRI.4841, WNRI.4845, WNRI.4449, WNRI.4438, WNRI.4310, WNRI.4550, WNRI.4541, WNRI.4878, WNRI.4006, WNRI.4005, WNRI.4021, WNRI.4028, WNRI.4016, WNRI.4104, WNRI.4105, WNRI.4057, WNRI.4542, WNRI.4462

Supply Conditions:

- Annealed
- Strain Hardened
- Centre less Ground
- Centre less Ground and Polished
- Cold Drawn
- Smooth Turned
- QT 700
- QT 850
- Forged and Rough Turned
- Buffed (Mirror Finish)
- 100% Ultrasonically Tested
- Chamfered
- Hardened and Tempered
- PSQ
- QT 800
- QT 900

*Special calcium treated and finished with high Sulphur material ideal for improved machinability.



Product	Size Range (mm)	Size Range (inch)	Tolerances
Cold Drawn Bars or Cold Drawn + Polished Bars			
Round	2 to 35	0.08 to 1 1/2	H8, H9, H10, H11
Hexagon	5 to 76.2	0.196 to 3	H11
Square	5 to 76.2	0.196 to 3	H11
Peeled and Polished			
Round	16 to 200	5/8 to 8	H9, H11, K12
Rolled Bar (Rough Peeled)			
Round	100 to 200	4 to 8	DIN 1013, EN 10060
Forged Bar (Rough Peeled)			
Round	160 to 600	6 ¼ to 24	DIN 1013, EN 10060
Centerless Ground			
Round	12 TO 50	½ to 2	H9, H11
Chamfered (Both Side)			
Round	12 to 120	½ to 4.7	H9, H11, K12, K13
Pump Shaft Quality			
Round	12 to 50	½ to 2	H8, H9

Testing Facilities:

- Tensile testing machine
- Impact testing machine
- Hardness testing machine
- Microscope with image analyzer and micro photo facilities
- Ultrasonic testing machine with continuous bar feeding facility
- Precision digital laser micrometer
- Eddy current tester
- Surface roughness tester
- IGC test facilities
- Radiation servo meter



Hexagon Bars	Square Bars	Forged Bars
		

Packing:

Bars are packed in 500 kg to 3000 kg bundles. Each bar is colour coded then wrapped in HDPE cloth and strapped along with identification labels on each bundle.

Applications of Bright Bars:

- Automobile industry – This is the major sector which consumes bright bars in all the engine components. Nuts, bolts and shafts are made out of special grades of bright bars.
- In pumps / electric motor industries.
- In railways for the manufacture of engines as well as coaches.
- In the defense sector for making various arms and ammunitions.
- For various fabrication jobs where accuracy is important.
- For making shafts in conveyors.
- In all other engineering industries such as
 - Auto industry
 - Agricultural equipment
 - Health & sports equipment
 - Textile industry
 - Food processing industry
 - Decorative & furniture
 - Hoses & fittings
 - Tools & Fixtures
 - Bearings, hinges & gears
 - Material handling & storage
 - Oil & petroleum sector
 - Mining



Warehousing System :

FeHR honeycomb warehousing system is completely suitable for large quantities and high access speeds. This system is used for automatic storage and retrieval of Bright Bars and Profiles. FeHR Cassette Rack System makes the best use of the available space and allows swift movement of the material from the packaging area to the storage area and all that is made possible with the touch of a button.

The installed capacity is of around 10,000 MT. This system allows to optimize the warehouse space and our inventory management system. The minimum approach dimensions of the storage and retrieval units also create benefits and provide lot of flexibility in terms of storing and retrieval of the material.

