





STAIN ESS STEEL BRIGHT BARS

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 helps to fulfill 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 $\frac{1}{2}$ " to 23" (160 mm to 600 mm)

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

Grade:

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:

WNR1.4301, WNR1.4305, WNR1.4306, WNR1.4307, WNR1.4401, WNR1.4404, WNR1.4571, WNR1.4541, WNR1.4828, WNR1.4841, WNR1.4845, WNR1.4449, WNR1.4438, WNR1.4310, WNR1.4550, WNR1.4541, WNR1.4878, WNR1.4006, WNR1.4005, WNR1.4021, WNR1.4028, WNR1.4016, WNR1.4104, WNR1.4105, WNR1.4057, WNR1.4542, WNR1.4462

Supply Conditions:

- Annealed
- Strain Hardened
- · Centre less Ground
- Centre less Ground and Polished
- Cold Drawn Polished
- Peeled Bars
- Peeled and Polished Bars
- QT 700
- QT 850

- Forged and Rough Turned
- Buffed (Mirror Finish)
- 100% Ultrasonically Tested
- Chamfered
- Hardened and Tempered
- PSO
- Smooth Turned
- OT 800
- QT 900

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



Product	Size Range (mm)	Size Range (inch)	Tolerances
Round Bars			
Round	2 to 35	0.08 to 1.37	h9, h10, h11
Cold Drawn	2 to 9	0.08 to 0.35	h9, h10, h11
Cold Drawn Polished	10 to 3	7.5 0.39 to 1.40	h9, h10, h11
Peeled and Polished	38 to 200	1.49 to 7.87	h9, h10, h11,
			K12,K13, EN 10060
Forged and Rough Peeled	160 to 600		EN 10060
Hexagon	5 to 80	0.19 to 3.14	h11
Square	5 to 80	0.19 to 3.14	h11
Centerless Ground			
Round	12 TO 55	0.47 to 2.16	h8, h9, h11
Chamfered (Both Side)			
Round	12 to 55	0.47 to 2.16	h9, h11, K12, K13
Pump Shaft Quality			
Round	12 to 76.2	0.47 to 3	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 feeling facility
- ✓ Precision digital laser micrometer
- ✓ Eddy current tester
- ✓ Surface roughness tester
- ✓ IGC test facilities
- ✓ Radiation servo meter











Packing:

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

Applications of Bright Bars:

- Automobile industry This is a major sector as it consists of consumers using bright bars in all 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

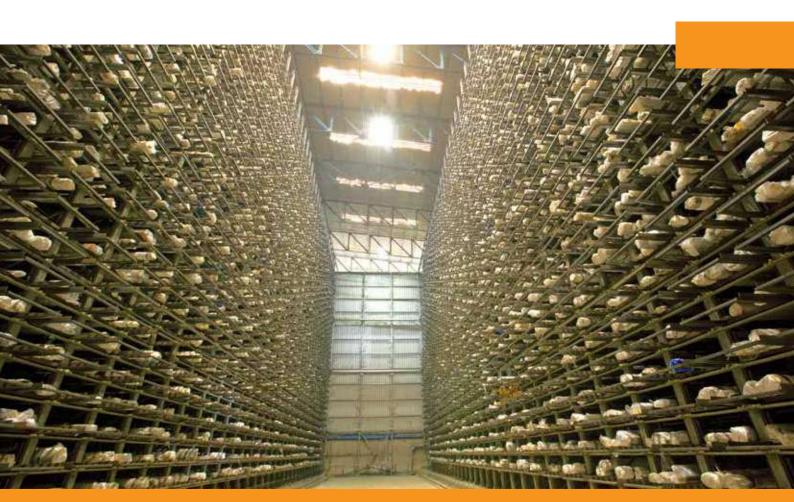
Warehousing System:

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 available space and allows swift movement of 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 10,000MT. 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.



Automatic Packaging:









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