

# **STAINLESS STEEL BRIGHT BARS**



# Stainless 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 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 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.



## 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:

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
- PSQ
- · Smooth Turned
- QT 800
- QT 900

<sup>\*</sup>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 37.5	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



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 and strapped along with identification labels on each bundle.



## **Applications of Bright Bars:**

- Automobile industry This is the major sector which consumers 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 ware-house 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:









www.viraj.com

For Product Related Enquiries: sales@viraj.com

For Media, PR & Events: corpcomm@viraj.com

## **Corporate Office:**

Viraj Tower, 1st Floor, Western Express Highway, Near Land Mark Building, Andheri (East), Mumbai - 400069. India Tel: +91 22 6276 6200

Fax: +91 22 2683 1313

### **Regd. Marketing Office:**

G-34 MIDC Tarapur Industrial Area, Boisar, Dist. Palghar, Maharashtra - 401 506, India Tel: +91 - (02525) 660 600

Fax: +91(2525) 260 159 / 274 420

### **Regional Office:**

D-7, 2nd Floor, Above Mehrason's Jewellers, Ring Road, South Extension Part II, New Delhi I 10049, India. Tel: +91 - 11 4021 9800