



Vandan Alloys



Manufacturer and Stockiest of Large Dia WNRF, Blind, SORF Flanges

Specializing in High Nickel Alloys Fasteners

Manufacturer and Stockiest of Seamless & Erw Pipe, Plates, Fittings, Flanges

## Company Profile

**Vandan Alloys** manufacturer of special High Nickel alloys fasteners. We are globally recognized as the nickel alloy fasteners experts. We source the raw materials we use from the most trusted suppliers in the USA, Western Europe and Japan such as Carpenter, ATI Specialty Materials, Special Metals Corporation, Deutsche Nickel, ThyssenKrupp VDM, and Valbruna.

We are ISO certified manufacturer and worldwide supplier of standard & custom Hot Forge Fasteners including those manufactured from the following materials: Hastelloy® C-276, Hastelloy® C-22, Hastelloy® B-2, Hastelloy® G-30, Monel® 400, Monel® K-500, Inconel® 600, Inconel® 625, Inconel® 718, Incoloy® A-286, Titanium Grade 2, Titanium Grade 5, Titanium Grade 7, Duplex S31803, Duplex S32205 and Super Duplex S32750 & Stainless steel.

This large inventory of corrosion resistant alloy fasteners includes: Bolts, Nuts, Screws, Flat Washers, Spring Washer, Square Washer, Studs Bolts, Socket Head Screws, Threaded Rods, and U-Bolts. We provide a full range of products: standard & custom, low-volume & high-volume, imperial & metric.

**Vandan Alloys** meet applicable NAS, AN, MS, ANSI, ASTM, ASME, SAE, API, NACE, ISO, DIN, and KS standards.

The markets we serve include: Aerospace, Petrochemical & Refining, Oil & Gas, Chemical Processing, Power Generation, Pharmaceutical, Food & Beverage, Marine, Pulp & Paper, Semiconductor, and Water Treatment.

## Special Hot Forge Nickel Alloys Fasteners & Flanges Export to Various Countries



Australia



Italy



Sri Lanka



Czech Republic



Portugal



U.A.E.



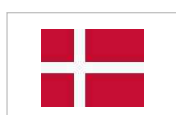
Austria



Norway



Sweden



Denmark



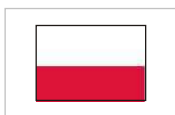
Slovakia



United Kingdom



Brazil



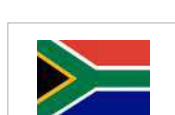
Poland



Turkey



Finland



South Africa



France



Germany



Spain

And Many  
More...



| Material                            | UNS             | DIN EN          |
|-------------------------------------|-----------------|-----------------|
| <b>HASTALLOY</b>                    |                 |                 |
| Hastelloy® C-276                    | N10276          | 2.4819          |
| Hastelloy® C-22                     | N06022          | 2.4602          |
| Hastelloy® B-2                      | N10665          | 2.4617          |
| <b>INCONEL</b>                      |                 |                 |
| Inconel® 600                        | N06600          | 2.4816          |
| Inconel® 625                        | N06625          | 2.4656          |
| Inconel® 718                        | N07718          | 2.4668          |
| <b>MONEL</b>                        |                 |                 |
| Monel® 400                          | N04400          | 2.4360          |
| Monel® K-500                        | N05500          | 2.4375          |
| <b>DUPLEX STAINLESS STEEL</b>       |                 |                 |
| ASTM A182 F51 - Duplex S31803       | S31803          | 1.4462          |
| ASTM A182 F60 - Duplex 2205         | S32205          | 1.4462          |
| ASTM A182 F53 - Super Duplex 2507   | S32750          | 1.4410          |
| ASTM A182 F55 - Super Duplex S32760 | S32760          | 1.4501          |
| <b>STAINLESS STEEL</b>              |                 |                 |
| Incoloy® A-286, A-286 Stainless     | S66286          | 1.4980          |
| Nitronic® 60, N-60 Stainless        | S21800          | -               |
| Stainless Steel 310S                | S31008          | 1.4845          |
| Stainless Steel 317L                | S31703          | 1.4438          |
| Stainless Steel 321                 | S32100          | 1.4541          |
| Stainless Steel 904L                | N08904          | 1.4539          |
| <b>6% Moly</b>                      |                 |                 |
| AL-6xN®                             | N08367          | -               |
| 25-6 Mo, Alloy 926                  | N08926 / N08925 | 1.4529          |
| 254 SMO                             | S31254          | 1.4547          |
| <b>INCOLOY</b>                      |                 |                 |
| Incoloy® 800H & 800HT               | N08810 & N08811 | 1.4958 & 1.4959 |
| Incoloy® 825                        | N08825          | 2.4858          |
| Incoloy® 925                        | N09925          | -               |
| <b>NICKEL</b>                       |                 |                 |
| Nickel 200                          | N02200          | 2.4060, 2.4066  |
| Nickel 201                          | N02201          | 2.4061, 2.4068  |
| <b>ZIRCONIUM</b>                    |                 |                 |
| Zr 702                              | R60702          | -               |
| Zr 705                              | R60705          | -               |
| <b>TITANIUM</b>                     |                 |                 |
| Titanium Grade 2                    | R50400          | 3.7035          |
| Titanium Grade 5 (Ti-6Al-4V)        | R56400          | 3.7164, 3.7165  |
| Titanium Grade 7                    | R52400          | 3.7235          |
| Titanium Grade 23 (Ti-6Al-4V ELI)   | R56401          | -               |

## Hex Bolts & Heavy Hex Bolts, Hex Screw DIN 931 / ISO4014 & DIN 933 / ISO4017

Our Hex Bolts are manufactured by the cold heading and hot forming technologies in nominal diameters ranging from 1/8" - 3" (M3 – M80). We offer fasteners in both USCS/Imperial and metric sizes.

Our manufactured Hex Bolts are especially strong against high temperature and pressure environment. However, many clients also use our hex bolts in non-adverse environment.

Based on the client's Hex Bolt requirements HASM is capable of satisfying following specifications: ASTM, ANSI, ASME, SAE, API, NAS, AN, MS, NACE, ISO, DIN, and KS standards.

**Stainless steel** :- 304 (B8), 316 (B8M), 316 L, 316 Ti, 317 L, 310, 321H (B8T), 347H (B8C), SS 410 (B6), 904 L (UB6), A 453 GR 660 A/B/C & D

**Duplex & Super Duplex Steel** :- UNS S31803 / UNS S32205 ( F 51 ), UNS S32750 ( F 53 ), UNS S32760 ( F 55 ), UNS S31254 (SMO 254)

**High Nickel Alloys** :- Monel 400, Monel K 500, Incoloy 600, Incoloy 625, Incoloy 800H, Incoloy 825, Incoloy 718, Inconel X – 750, Alloy 20 (CB 20), Hastelloy C 276, Hastelloy C 22, Hastelloy C4

**Other Alloys** :- Titanium Gr 2, Titanium Gr 5, , Alluminium Bronze ( AB 2 ), phosphorous Bronze ( PB )

**Dimension range** :- 5/16" (M6) up to 4" (M100) for all grades



## Stud Bolts, Threaded Rods: DIN 975 & DIN 976

Thread Stud Bolts are manufactured in nominal diameters ranging from 5 /16" (M6) up to - 4" ( M100) for all grades

We offer Threaded Rods / Stud Bolts in both USCS/Imperial and metric sizes.

**Stainless steel** :- 304 (B8), 316 (B8M), 316 L, 316 Ti, 317 L, 310, 321H (B8T), 347H (B8C), SS 410 (B6), 904 L (UB6), A 453 GR 660 A/B/C & D

**Duplex & Super Duplex Steel** :- UNS S31803 / UNS S32205 ( F 51 ), UNS S32750 ( F 53 ), UNS S32760 ( F 55 ), UNS S31254 (SMO 254)

**High Nickel Alloys** :- Monel 400, Monel K 500, Incoloy 600, Incoloy 625, Incoloy 800H, Incoloy 825, Incoloy 718, Inconel X – 750, Alloy 20 (CB 20), Hastelloy C 276, Hastelloy C 22, Hastelloy C4

**Other Alloys** :- Titanium Gr 2, Titanium Gr 5, , Alluminium Bronze ( AB 2 ), phosphorous Bronze ( PB )

**Dimension range** :- 5/16" (M6) up to 4" (M100) for all grades



## U-Bolts

We are able to provide extensive range of U-Bolts. The precision engineered range of U-Bolts offered by us are at par with international quality standards and available in various grades, sizes, thicknesses, and dimensions as per the industry related application. Besides, we also offer these U-Bolts with extra long nuts and in full round, half round and square profiles on client's request.

**Stainless steel** :- 304 (B8), 316 (B8M), 316 L, 316 Ti, 317 L, 310, 321H (B8T), 347H (B8C), SS 410 (B6), 904 L (UB6), A 453 GR 660 A/B/C & D

**Duplex & Super Duplex Steel** :- UNS S31803 / UNS S32205 ( F 51 ), UNS S32750 ( F 53 ), UNS S32760 ( F 55 ), UNS S31254 (SMO 254)

**High Nickel Alloys** :- Monel 400, Monel K 500, Incoloy 600, Incoloy 625, Incoloy 800H, Incoloy 825, Incoloy 718, Inconel X – 750, Alloy 20 (CB 20), Hastelloy C 276, Hastelloy C 22, Hastelloy C4

**Other Alloys** :- Titanium Gr 2, Titanium Gr 5, Alluminium Bronze ( AB 2 ), phosphorous Bronze ( PB )

**Dimension range** :- 5/16" (M6) up to 4" (M100) for all grades

### Features :

- Accurate Dimension
- Corrosion Resistance
- High Efficiency
- High tensile Strength Durability

### Application Area :

- Pipe Clamping
- Foundation Support
- Installations and automotive support systems







## Socket Head Cap Screws

**Stainless steel** :- 304 (B8), 316 (B8M), 316 L, 316 Ti, 317 L, 310, 321H (B8T), 347H (B8C), SS 410 (B6), 904 L (UB6), A 453 GR 660 A/B/C & D

**Duplex & Super Duplex Steel** :- UNS S31803 / UNS S32205 (F 51), UNS S32750 (F 53), UNS S32760 (F 55), UNS S31254 (SMO 254)

**High Nickel Alloys** :- Monel 400, Monel K 500, Incoloy 600, Incoloy 625, Incoloy 800H, Incoloy 825, Incoloy 718, Inconel X-750, Alloy 20 (CB 20), Hastelloy C 276, Hastelloy C 22, Hastelloy C4

**Other Alloys** :- Titanium Gr 2, Titanium Gr 5, Aluminium Bronze (AB 2), phosphorous Bronze (PB)

**Dimension range** :- 5/16" (M6) up to 4" (M100) for all grades

## Hex Nuts

Hex Nut, Heavy Hex Nut manufactured by the cold heading and hot forming technologies in nominal diameters ranging from 1/8" - 4" (M3 - M100). We offer fasteners in both USCS/Imperial and metric sizes.

All nuts meet applicable ASTM, ANSI, ASME, SAE, API, NAS, AN, MS, NACE, ISO, DIN, and KS standards.

**Stainless steel** :- 304 (B8), 316 (B8M), 316 L, 316 Ti, 317 L, 310, 321H (B8T), 347H (B8C), SS 410 (B6), 904 L (UB6), A 453 GR 660 A/B/C & D

**Duplex & Super Duplex Steel** :- UNS S31803 / UNS S32205 (F 51), UNS S32750 (F 53), UNS S32760 (F 55), UNS S31254 (SMO 254)

**High Nickel Alloys** :- Monel 400, Monel K 500, Incoloy 600, Incoloy 625, Incoloy 800H, Incoloy 825, Incoloy 718, Inconel X-750, Alloy 20 (CB 20), Hastelloy C 276, Hastelloy C 22, Hastelloy C4

**Other Alloys** :- Titanium Gr 2, Titanium Gr 5, Aluminium Bronze (AB 2), phosphorous Bronze (PB)

**Dimension range** :- 5/16" (M6) up to 4" (M100) for all grades



## Washers

We are a leading Manufacturer of Flat Washer, square washers, Spring Washer, square washer in a complete selection of sizes, shapes and grades, in thicknesses up to 15mm. Washers is known for its Tough, High Durability, No wear and tear, High accuracy, Superb finishing, Handles large pressure and variable temperature, Very long service life, Least maintenance, Optimum strength, Rugged construction.

**Stainless steel** :- 304 (B8), 316 (B8M), 316 L, 316 Ti, 317 L, 310, 321H (B8T), 347H (B8C), SS 410 (B6), 904 L (UB6), A 453 GR 660 A/B/C & D

**Duplex & Super Duplex Steel** :- UNS S31803 / UNS S32205 (F 51), UNS S32750 (F 53), UNS S32760 (F 55), UNS S31254 (SMO 254)

**High Nickel Alloys** :- Monel 400, Monel K 500, Incoloy 600, Incoloy 625, Incoloy 800H, Incoloy 825, Incoloy 718, Inconel X-750, Alloy 20 (CB 20), Hastelloy C 276, Hastelloy C 22, Hastelloy C4

**Other Alloys** :- Titanium Gr 2, Titanium Gr 5, Aluminium Bronze (AB 2), phosphorous Bronze (PB)

**Dimension range** :- 5/16" (M6) up to 4" (M100) for all grades



## Technical Specifications of Stainless Steel Fasteners

### Chemical Compositions :

| Grade    | Material Similar to | C max. | Mn max. | P max. | S max. | Si max. | Cr            | Ni            | Mo          |
|----------|---------------------|--------|---------|--------|--------|---------|---------------|---------------|-------------|
| A2 / B8  | AISI 304            | 0.08   | 2.00    | 0.05   | 0.030  | 1.00    | 17.00 - 20.00 | 8.00 - 13.00  | —           |
| A4 / B8M | AISI 316            | 0.08   | 2.00    | 0.05   | 0.030  | 1.00    | 16.00 - 18.50 | 10.00 - 14.40 | 2.00 - 3.00 |

### Physical Properties :

| Grade   | Standard          | Property Class | Tensile Strength Minimum (N/mm <sup>2</sup> ) | Yield Strength 0.2% Offset Minimum (N/mm <sup>2</sup> ) | Elongation After Fracture AL mm Minimum |
|---------|-------------------|----------------|---|---|---|
| A2 & A4 | ISO 3506          | 70             | 700   | 450   | 0.4d                                    |
|         | (DIN 267 Part 11) | 80             | 800   | 600   | 0.3d                                    |

| Grade         | Standard          | Property Class | Diameter in (Inch) | Tensile Strength Minimum (KSI) | Yield Strength 0.2% Offset Minimum (KSI) | Elongation In 4D Minimum % | Reduction of Area Minimum % | Hardness Rockwell Maximum |
|---------------|-------------------|----------------|--------------------|--------------------------------|--|----------------------------|-----------------------------|---------------------------|
| B8            | ASTM A193 / A193M | Class 1        | All                | 75                             | 30                                       | 30                         | 50                          | B96                       |
|               |                   | Class 2        | To 3/4             | 125                            | 100                                      | 12                         | 35                          | C35                       |
| Over 3/4 to 1 |                   |                | 115                | 80                             | 15                                       | 35                         | C35                         |                           |
| B8M           |                   | Class 1        | All                | 75                             | 30                                       | 30                         | 50                          | B96                       |
|               |                   | Class 2        | To 3/4             | 110                            | 96                                       | 15                         | 45                          | C35                       |
|               |                   |                | Over 3/4 to 1      | 100                            | 80                                       | 20                         | 45                          | C35                       |

### Torsional Strength as per ISO 3506 - 1 :

For Self Tapping Screws

| Thread                    | ST 2.2 | ST 2.6 | ST 2.9 | ST 3.3 | ST 3.5 | ST 3.9 | ST 4.2 | ST 4.8 | ST 5.5 | ST 6.3 | ST 8 |
|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|
| Min Torsional Strength Nm | 0.45   | 0.90   | 1.5    | 2.0    | 2.7    | 3.4    | 4.4    | 6.3    | 10     | 13.6   | 30.5 |

### For Austenitic Bolts and Screws M1.6 to M16 (Coarse Thread)

| Thread                                      |                   | M1.6 | M2   | M2.5 | M3   | M4   | M5   | M6 | M8 | M10 | M12 | M16 |
|---|-------------------|------|------|------|------|------|------|----|----|-----|-----|-----|
| Min. Breaking Torque, M <sub>bmin</sub> -Nm | Property Class 70 | 0.20 | 0.40 | 0.90 | 1.60 | 3.80 | 7.80 | 13 | 32 | 65  | 110 | 290 |
|   | Property Class 80 | 0.24 | 0.48 | 0.96 | 1.80 | 4.30 | 8.80 | 15 | 37 | 74  | 130 | 330 |

## Other Products

### RING JOINT GASKETS

**\* OCTAGONAL RING GASKET AND OVAL RING GASKET**

**Stainless steel** :- 304 , 316 , 316 L , 316 Ti , 317 L , 310 , 321H , 347H , SS 410 , 904 L , A 453 GR 660 A/B/C & D

**Duplex & Super Duplex Steel** :- UNS S31803 / UNS S32205 ( F 51 ) , UNS S32750 ( F 53 ) , UNS S32760 ( F 55 ) , UNS S31254 (SMO 254 )

**High Nickel Alloys** :- Monel 400 , Monel K 500 , Incoloy 600 , Incoloy 625 , Incoloy 800H , Incoloy 825 , Incoloy 718 , Inconel X – 750 , Alloy 20 (CB 20) , Hastelloy C 276 , Hastelloy C 22 , Hastelloy C4 ,

**Other Alloys** :- Titanium Gr 2 , Titanium Gr 5 , , Aluminium Bronze ( AB 2 ) , phosphorous Bronze ( PB )

**Specification** :- ASME B16.5 , ASME N 16.47 SERIES

**CLASS** :- 150 # , 300 # , 600 # , 900 # , 1500 #

**Diameter** :- ½" (R11) TO 24" ( R 79)



### HEX HEAD PLUGS

**IN GRADES** - STAINLESS STEEL 304 L , 316 L , 310 , 321 , 347 . AISI 904 L , MONEL 400 / K - 500 , INCONEL 600 / 625 / 800 / 825 / 925 , HASTELLOY C 22 / C 276 , DUPLEX UNS S 31803 , SUPER DUPLEX UNS 32750 / 32760

**Diameter** :- 1/8" to 4"

### PIPES & TUBES

**Stainless Steel** : ASTM A312 TP 304/ 304L/ 304H/ 316/ 316L/ 317/ 317L/ 321/310/ 347/ 904L etc.

**Carbon Steel** : ASTM A53 GR. B/ A106 GR. B/ API 5L GRADE B/ API 5L

GR.X42/46/52/56/60/65/70/

Low Temperature, Carbon Steel: A333 Gr.3/ Gr.6 etc.

**Alloy Steel** : ASTM A335 GR. P1/ P5/ P9/ P11/ P22/ P91 etc.

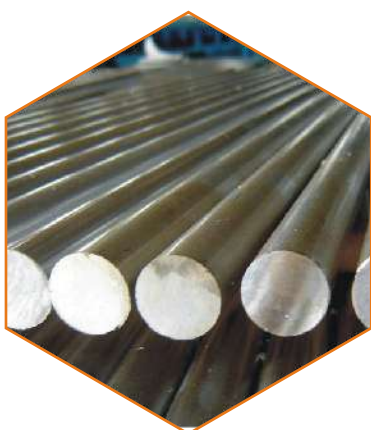
**Nickel Alloys** : Monel, Nickel, Inconel, Hastalloy, Titanium, Tantalum, Bismuth, Aluminium, High Speed Steel,

**Non Ferrous Metal** : Copper, Brass, Bronze, Zinc, Lead etc.

Types: Round , Square, Rectangular.

**Size** : Upto 24" NB. (Seamless & Welded)

**Wall Thickness** : Sch. 5S to Sch. XXS



### ROUND BARS

**Stainless Steel Bars** : as per ASTM A 276, A 314, A 582, A 479 & A 484 Gr. TP 201, 202, 304, 304H, 304LN, 309, 309S, 309H, 310S, 310H, 316, 316L, 316H, 316LN, 316TI, 317, 317L, 321, 321H, 347, 347H, 348, 348H, 409, 410, 420, 430, 440 etc.

**Alloy Steel Bars** : as per ASTM A 182 Gr. F1, F2, F5, F9, F11, F12, F22, F91 etc.

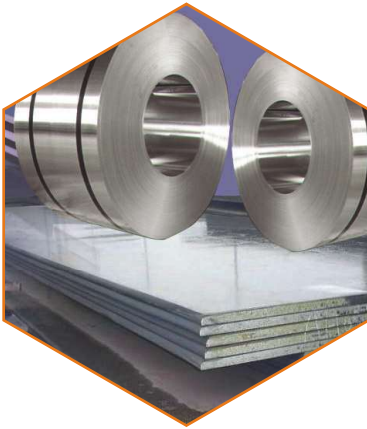
**Carbon Steel Bars** : as per ASTM A 105 & IS 2062 Gr. A & B.

**Nickel Alloy** : Inconel 600/625 Incoloy 800/825, Monel Hastelloy C- 276,C-22, B-2, Alloy - 20, Alloy - 904L, etc.

**Others** : Aluminium, Copper, Brass, Titanium, Tantalum, Beryllium Copper, Cupro Nickel, Phosphor, Bronze, Aluminium Bronze.

**Size** : Available in all Sizes.

## Other Products



### SHEETS, PLATES & COILS :

**Stainless Steel Sheets, Plates & Coils** : as per ASTM A 240 / ASME SA 240 Gr. TP 201, 202, 304, 304L, 304H, 304LN, 309, 309S, 309H, 310S, 310H, 316, 316L, 316H, 316LN, 316TI, 317, 317L, 321, 321H, 347, 347H, 348, 348H, 409, 410, 420, 430 etc.

**Alloy Steel Plates** : as per ASTM A 387 Gr. 2, 5, 9, 11, 12 & 22 in class 1 & 2; ASTM A 204 Gr. A & B, DIN 17175 Gr. 15Mo3 & 16Mo3 with IBR Test Certificate.

**Carbon Steel, Boiler Quality Plates** : as per IS 2062 Gr. A, B & C, SA 516 Gr. 60 & 70, SA 515 Gr. 70.

**Nickel Alloy** : Inconel 600/625 Incoloy 800/825, Monel Hastelloy C- 276,C-22, B-2, Alloy - 20, Alloy - 904L,

**Others** : Aluminium, Copper, Brass, Titanium, Tantalum, Beryllium Copper.

### FLANGES :

**Stainless Steel** : ASTM A182 F304/304L/ 304H/ 316/ 316L/ 317/ 317L/ 321/ 310/ 347/ 904L etc.

**Carbon Steel** : ASTM A105/A694/F42/46/ 52/56/60/65/70/A350 LF3/A350 LF2, etc.

**Alloy Steel** : ASTM A182 F1/ F5/ F9/ F11/ F22/ F91 etc.

**Others** : Monel, Nickel, Inconel, Hastalloy, Copper, Brass, Bronze, Aluminium, etc.

**Types** : Weldneck, Slipon, Blind, Socket Weld, Lap Joint, Spectacles, Ring Joint, Oriface, Long Weldneck, Deck Flange, etc.

**Size** : 1/2" NB TO 48" NB.

**Class** : 150#, 300#, 400#, 600#, 900#, 1500#, 2500#, 3000# & 6000# Class



### BUTT WELD FITTINGS

**Stainless Steel**: ASTM A403 WP 304/ 304L/ 304H/316/ 316L/ 317/ 317L/ 321/ 310/ 347/904L etc.

**Carbon Steel**: ASTM A234 WPB/A420 WPL3/A420 WPL6/ MSS-SP-75 WPHY 42/46/52 / 56/60/65/70

**Alloy Steel**: ASTM A234 WP1/ WP5/ WP9/ WP11/ WP22/ WP91 etc.

**Others**: Monel, Nickel, Inconel, Hastalloy, Copper, Brass, Bronze, Titanium, Tantalum, Bismuth, Aluminium, High Speed Steel, Zinc, Lead, etc.

**Types**: Elbow, Tee, Reducer, Return Bends, Stub-Ends, Cap, Collar, Cross, Insert etc.

**Size**: 1/4" NB TO 32" NB. (Seamless & Welded)

**Wall Thickness**: Sch. 5S To Sch. XXS.

### SPECIAL PRODUCTS

**SPECIAL PRODUCTS** :- WE MANUFACTURE FORGED AND TURNED PART AS PER DRAWING IN STAINLESS STEEL , DUPLEX STEEL AND HIGH NICKEL ALLOYS





## Product Gallery





**Inconel**  
**Hastelloy**  
**Incoloy**  
**A-286**  
**Titanium**  
**Nickel**  
**Monel**  
**AL-6XN**  
**Duplex**  
**Super Duplex**  
**6% Moly**  
**Stainless Steel**



**Vandan Alloys**

**Manufacturer & Supplier of all types of  
high Performance and nickel alloy fasteners**

**Corporate Sale Office**

3/5, Sakar Bhavan, Ground Floor,  
6th Khetwadi Lane, SVP Road,  
Mumbai - 400 004, India.

**Contact**

+91 9892882255

**Email Id**

info@vandanalloys.com

**Web**

<http://www.vandanalloys.com>