



Fast track delivery

Exotic materials

International quality

Corrosion resistant

Efficient supply chain management

**Fittings that  
Fits every need**



**METAL FORGE (INDIA)**





# Company Profile

## Our Pedigree

Started in 1979 by visionary par excellence, Mr. Paras Doshi, Metal Forge India has earned an outstanding reputation as a leading edge supplier of original & cost effective pipe fittings. Our core strength or what makes us stand apart from others are:-

Customer Service: Total customer satisfaction is guaranteed by taking utmost care and devotion in extending maximum service to our customers irrespective of the Quantity & Value of the requirement.



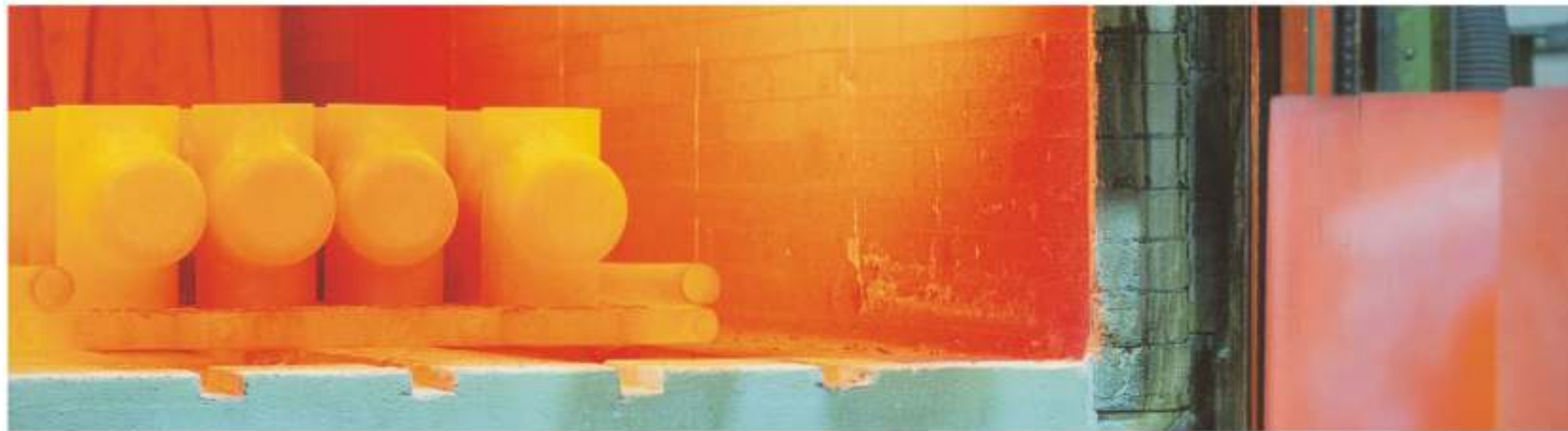
## Sourcing

With our in depth knowledge, purchasing skill & timing, we have excellent buying relationship with most major National & International producers, stockists & continue to search the world for new sources, securing the best value and quality for our customers at all time.

## Customer - Focus

We have focused at large on our customers throught our 25 years of experience and have gained a strong clients database which has increased our presence as the leading manufacturer of pipe fittings & flanges in India.





# Manufacturing of Pipe Fittings

## Manufacturing of Buttweld Fittings, Forged Fittings & Flanges

We have complete in house facilities for manufacturing of Butt-weld Fittings & Long Radius, Piggable Bends. For producing above we have Hot Forging, Cold Forging, Bending, Pressing, Welding, Grinding, Gauging, Handling, Hydraulic Testing, Heat Treatment, Annealing, Shot Blasting, Pickling & Passivation, Anti Rust Coating & Packing Facilities.



Metal Forge India is one of the firm engaged in Manufacturing & Processing large variety of Butt-Welding / Forged Pipe-Fittings, Flanges, Pipes, in Stainless Steel, Carbon Steel, Alloy Steel, Nickel/Super Alloys & many other Ferrous / Non-Ferrous Metals.

Metal Forge India, has been setup to produce all types of Fittings, Flanges & Fabricated Pipes & Seamless as per National/International standards and as per customers special requirements/ specifications/drawings for application in Refineries, Petrochemicals, Chemicals, Oil & Gas, Fertilizers, Pharmaceuticals, Food & Beverages, Sugar, Paper, Power, Shipbuilding, Aerospace, Engineering, Nuclear, Defence, Research Centers etc.

Every manufacturing phase, from forging to welding, machining to testing, is carried out with a vast array of modern equipment and machinery. Each material is controlled through out the manufacturing phases, thanks to rigorous QA & QC procedures and external chemical & mechanical laboratories well equipped to perform both destructive & non-destructive examinations. We provide original Material Test Certificates, Government/Lloyds approved Laboratory Test Certificates, Third Party Inspection Certificates and Guarantee/Warranty Certificates for the supplies.



The mission of Metal Forge India, is to provide the best customer service by supplying materials with the most up-to-date technology, respecting the agreed delivery date, monitoring the progress of the work and satisfying urgent requirements, thanks to our large inventory of raw materials, semi-finished and finished products.

Our customers are end-users, fabricators and distributors around the world. Our mission is to be always able to represent for our customers a reference for reliability, competence and service. We build relationships with our customers, which last and contribute to their success, because we know that their success is our success.



# Our Banquet of Services

## Global Supplier :

Metal Forge India is one of the largest manufacturer having huge stock of pipe fittings and an ideal partner for Global players planning to source products from india. Over a decade of successful growth has prompted us to look into overseas markets with renewed vigour. Today we are exporting to various countries like US, European, African, Far-East etc.

We are regular supplier to many reputed clients from various industries like :- fertilizers, pharmaceuticals, engineering, chemicals, power generation, food processing, paper, sugar, petroleum refineries, cement, dairy plants.

We can also supply all the products with third party inspection by reputed agencies like **LLOYDS, EIL, H&G, TCE, PDIL, MECONS, M.N. DASTUR & Co., Bax council, DNV, Bureau Veritas, DPG**, etc.

## Logistic :

We have pool of people who are completely dedicated in providing our clients with the best Logistics solution by AIR / SEA /ROAD. We have tied up with various shipping lines, Airlines & Road Transporters enabling us to provide with best services, competitive pricing & timely delivery of material to clients destination worldwide. Regarding delivery of product we work as per clients guidelines & put all our resources in it to meet them.



We can ship material around the world through below modes of Transportation.

By Road Common Carriers (Part Load, Full Load, Dedicated Services) By Air Freight Domestic/International By Ocean Freight (FCL, LCL) By Courier (DHL/UPS/TNT)

## Indenting / Imports





# Buttweld & Forged Fittings

## BUTT WELDING FITTINGS

### Material Grades:

Stainless Steel: A403 304/L/H, 310/H, 316/L/H, 316Ti, 321/H, 347/H, 904L  
 Alloy Steel: A234 WP1, WP5, WP9, WP11, WP12, WP22, WP91  
 Carbon Steel: A234 WPB, WPC  
 Low Temperature Steel: A420 WPL3, WPL6  
 High Yield: WPHY42, 52, 60, 65, 70  
 Copper Alloys: Cupro Nickel 910 & 730  
 Nickel Alloys: 200, 400, K500, 600, 625, 800, 825  
 High Alloys: ALLOY 20, ALLOY C, ALLOY C276, ALLOY B2  
 Duplex & Super Duplex: A815 UNS31803, UNS31254, UNS 332750 & S32760

### Size Range Available :

Elbows : 1/2" to 42"  
 Tees : 1/2" to 36"  
 Stub Ends : 1/2" to 36"  
 Caps : 1/2" to 36"  
 Mitre bends - Upto 80"

### Dimension :

Butt Weld, Forged Fittings are manufactured and inspected/tested to the relevant standards including ASTM, ASME.

## FORGED FITTINGS

We are one of the eminent manufacturers, of Forged fittings. Providing smooth flow of liquid, our Forged Fittings are known all over the world for their durability, high functionality & reasonable price.

### Size Range Available:

Size range : 1/8" to 4"  
 Class : 3000# to 9000#

### Types

Elbow, Tee  
 Reinforced Branch fittings  
 Weldolets, Sockolets, Thredolets, Nippolets  
 Size Range: As per standard and requirements.

Product Range



# Flanges

As the mainstay of our business, we are dedicated to providing our customers with all possible options of flanges in a wide variety of steel, chrome, and nickel alloys. We stock many different varieties in order to meet your day-to-day needs, and can also compete extremely competitively on stock deliveries for your warehouse needs.

## Material Grades:

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

Copper Alloy: Cupro Nickel 910 & 730

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

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

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

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

**Sch:** 10 - XXS

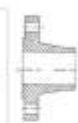
## Blind Flange



The blind flange is so named due to the lack of a bore: it is a solid flange. It is used to close off the ends of piping systems and pressure vessel openings. As such it can be used in an existing operation flow, or for future expansion requirements. It also permits easy access to the interior of a line or vessel once it has been sealed and must be reopened.

Our blind flanges are available with raised or RTJ faces, and we stock high hubs for sale and conversion purposes.

## Weldneck Flange



The welding neck flange derives its name from the neck portion of the flange that is welded to the end of a piping system. It is designed to transfer stress to the pipe, thereby reducing high stress concentrations at the base of the flange. Weldneck flanges are costlier due to their design and engineering, and increased material

Our weldneck flanges are available with raised, flat, or RTJ faces, and are also available in orifice configurations.

## Slip-on



The slip on flange has a low hub and slips onto the pipe prior to welding. Welding is carried out on the inside and outside to provide sufficient strength and prevent leakage. Slip on flanges are all bored slightly larger than the OD of the matching pipe to allow for the welds to hold. They are many times preferred over weldnecks due to their lower cost, though net installation cost is often the same due to the additional welding.

Our slip-on flanges are available with raised, flat, or RTJ faces, and are also available in orifice configurations.



### Socket Weld

The socket weld flange is similar to a slip-on flange, except that it has a bore and a counter bore. These act as a socket, holding the pipe in place before welding, hence the name. The counter bore is slightly larger than the OD of the matching pipe, allowing the pipe to be inserted into the flange, while the diameter of the smaller bore is the same as the ID of the matching pipe. This difference in bore size acts only as a restriction to the depth insertion of the pipe, and therefore eliminates any restriction in flow.



Socket Weld Flange

### DIN Flanges

Though we do not stock DIN spec flanges as a matter of course, our knowledgeable sales team can offer you DIN spec certified flanges from rough B16.5 forgings, at a competitive cost. Our experience in engineering will serve you well in sourcing small quantities of DIN, EN 1024, J55, or other world standard specification flanges. Should you require larger quantity or stock orders, feel free to contact us, and we will assist you with the help of our intricate network of mills and forgers. These flanges are available in all of our stainless steel and chrome-moly grades. We can also source many of your other grade requirements.



### Large Diameter

We stock many large diameter flanges in 304/304L, 316/316L and also A-105 – carbon steel. These range in size from 28" to 36" for stainless and 28" to 36" for carbon. We can also easily solve your purchasing problems when it comes to plate flanges – AWWA C207 – and B16.47 Series A (MSS SP-44) and Series B (API-65), as well as B16.1 specifications. Other large diameter flanges, including larger sizes of those mentioned above, can be sourced to meet any requirement you may have.



### Spectacle Blind

These types of flanges are made from plate, and come in 3 different types. The first and most widely used type are spec blinds – short for spectacle: these are flanges with two equal outside diameter (OD) parts welded together by way of a 'bridge'. One of the parts also contains an inside diameter (ID), while the other is a blank, or blind. A whole is put at the halfway mark of the bridge. These are also called spectacles, figure 8's, and figure 8 blanks, because of their resemblance to reading glasses (spectacles) and figure 8's. These are referred to as 'Line Blanks' in the ASME/ANSI standards.

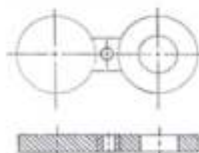


Spectacle Blind

The second and third types are quite similar: both have longer bridges, referred to as 'paddles', which resemble longer handles. One type has only an OD, and so is a blind plate – similar in appearance to a large pizza oven peel. These are referred to as paddle blinds. The other type is exactly the same but comes with an ID as well, enabling flow-through when installed in a piping system. These pieces have holes in the paddle which enables field personnel to determine by sight which piece is installed in a system. These are referred to as paddle spacers, and are often supplied in sets together with the paddle blinds.

All 3 types of these flanges are used in piping systems or pressure vessels where the flow needs to be interrupted from time to time. They are installed between two pipe flanges (as specified above), and by way of a screw inserted into the hole in the bridge or paddle, they are able to rotate or 'swing' into and out of position to interrupt or allow the flow, as the user sees fit.

Our spec blind flanges are available with raised, flat, or RTJ faces. These flanges are available in all of our stainless steel and chrome-moly grades, from ½" to 24" and beyond, class 150 to 2500. We can also source many of your other grade requirements.





## Other Products

### PIPE & TUBES

#### Alloy Steel (Chrome-Moly Steel)

Seamless: ASTM A335, A213, A691

Welded: ASTM A691, A692

Grade: P1, P2, P5, P9, P11, P12, P22, P91, P92  
T1, T2, T5, T9, T11, T12, T22, T23, T91, T92 (Seamless)  
& 1/2CR, ICR, 11/4CR, 3CR, 5CR, 9CR, 91 (Welded)  
Size: 1/2" to 24" (Seamless) & 1" to 48" (Welded)  
Thickness: 1.5mm to 150mm

#### Carbon Steel

Size: 1/2" to 24" (Seamless) & 1" to 48" (Welded)

Seamless: API 5L, ASTM A106, A53, A333, A192, A179

Welded: API 5L, A53, ASTM A671, A672

High Yield Grade: X42, X46, X52, X56, X60, X65, X70, X80 PSL1, PSL2

High Temp Grade: 1, 3, 4, 6, 7, 8, 9, 10, 11 (Seamless) & Ca55,

Cb60, CB65, CB70, CC60, Cc65, Cc70 (Welded)

Thickness: 1.5mm to 150mm

#### Stainless Steel, Duplex, Super Duplex

Seamless: ASTM A312, A213, A269, A790, DIN 14404

Welded: ASTM A312, A358, A249, A790, A928, DIN 14461

Grade: 304, 304L, 304H, 304LN, 316, 316L, 316H, 316TI, 316LN,

317, 317L, 317LN, 309S, 309H, 310S, 310H, 321, 321H, 347, 317H,

317LN, S31254, S31803, S32750, S32760, S32550

Size: 1/8" to 24" (Seamless) & 1" to 48" (Welded)

Thickness: 0.5mm to 75mm

### FASTENERS

Types: Bolts, Nuts, Washers, Anchor Fasteners, Stud Bolts, Eye Bolt, Stud, Threaded Rod, Cotter Pin, Socket Screw.

Stainless Steel: AISI 302, 304, 304L, 316, 316L, 310, 317, 317L, 321, 347, 410, 420, 904L, etc.

Alloy Steel: 4.6, 5.6, 6.6, 8.8, 10.9, & 12.9 / 'R', 'S', 'T' Conditions.

Carbon Steel: Bare Condition, Galvanized, Phosphetised, Cadmium Plated, Hot Deep, Galvanized, Bloodied, Nickel Chrome Plated, etc.

Non Ferrous Metal: Copper, Brass, Aluminium, Titanium, Al. Bronze, Phosphorous Bronze, etc.

### THERMOWELL

Flange size: 1/2" to 4"

Pressure ratings: 150 class, 300 class, 600 class, 900 class, 1500 class  
Material

**WELL FLANGE:** SS 304, 316, 304L, 316L, 310, 321, 446

INCONEL 600\* or Eqvi., INCOLOY 800\* or Eqvi. NICKEL, MONEL\* or Eqvi., TITANIUM, HASTELLOY 'B', 'C'\* or Eqvi., CERAMIC TUBE, Other - Please Specify

**FORGED:** ASTM Gr. A182 in SS 304, 316, 304L, 316L, 310, 321, 446

CARBON STEEL A105, FORGED ASTM A182 Gr. F5, F11, F22, LF1 NICKEL, INCOLOY 600, MONEL, INCOLOY 800 TITANIUM, TANTALUM - Shield Other - Please Specify FLANGE DETAILS

### Fabricated Items :

Hastelloy/Monel/Inconel & other Grades Pipe Spool

Cupro Nickel 90/10- 70/30 Spools





# Global Supply Capability

We have a totally integrated state-of-the-art plant for manufacturing & Supply of S.S. Butt-weld Fittings & Flanges. Today METAL FORGE INDIA is all set to enter into competitive global export market like Europe, America & CIS countries.

METAL FORGE INDIA is already a well known & a leading exporter of all kinds of stainless steel & Industrial Raw Materials to China, Australia, Dubai, Saudi Arabia, Africa, Indonesia, Turkey, Egypt, Bangladesh, Malaysia & Thailand.

METAL FORGE INDIA has also plans to have liasoning offices in middle East & Far East countries in the near future to facilitate better connectivity and personalized service to all our clients worldwide .

Efforts are on the anvil to get the title of government recognized export house.



# Quality Assurance



## Quality Assurance

In recent years pipe system have been exposed to constantly increasing operating safety requirements. To meet this growing volume of requirements Metal Forge has done pioneering work in the field of Development & Manufacture of seamless and welded fittings.

Our advanced technology is supported by the design and construction of our own manufacturing equipment, which enables us to meet not only the requirements of internationally accepted manufacturing standards, but to cope also with the growing demand of special fittings.

Our heat treatment facilities are equipped with high precision temperature control, which permits to achieve an optimal adjustment of material properties.

Our quality assurance system is documented in an approved quality assurance manual and covers all production processes. Severe control of dimensions and of mechanical properties starting from the raw material and following right through all production steps to laboratory tests on the finished product is exercised in order to maintain the high quality-level of Metal Forge products.



TUV CERTIFICATE NO.: 44 100 104090-E3  
An ISO 9001 : 2008 Certified Co.



# Applications Industries



## Oil Gas

### DOWNSTREAM

Refining

Petrochemicals

Proprietary know - how:

Refining Units

Heat Transfer

### UPSTREAM AND NATURAL GAS

Oil & Gas  
Development

Fields  
(Onshore & Offshore)

NG Liquefaction,  
Regasification &  
Storage

Offshore &  
Pipelines

## Power

Combined Cycle

Nuclear

Conventional / Thermal Plants

Renewable Energy

Cogeneration

## Infrastructures & Industries

### INFRASTRUCTURE

Airports &  
Air Transport

Ports &  
Coastal Projects

Proprietary know - how:

Roads & Airways

Architecture &  
Buildings

### INDUSTRIES

Environmental  
Engineering

Hydraulics

Fertilizers & Nitric Acid

Hydrometallurgy



## Products Profile:

Flanges Fittings / Round Bar  
Spools / Buttweld Fittings / Forged Fittings



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