

AN ISO 9001 : 2015 CERTIFIED ORGANISATION

FORGED & MACHINED COMPONENTS

GIVING EXPERT SERVICES SINCE 2009

WHERE STRENGTH MEETS PRECISION



WHO WE ARE !

We are a company founded on solid goals, beliefs and values. As we embark on the journey to becoming the preferred global suppliers of Forgings, we follow a single minded goal of excelling in everything we do. We are engaged in the manufacturing of forging components.

Since the inception of the company, it is remained our proud tradition to give quality-packed products. We believe in an innovative approach, dedicated to achieve the topmost level of efficiency and excellence blending with the quality of the product. To Achieve this we keep eagle's eye-watch; right from 'Procuring of Raw Materials' to the 'Forging Process', 'Heat Treatment', and 'Timely Delivery of Products'.

A sophisticated manufacturing facility, coupled with technological superiority and a skilled workforce ensures that we deliver end-to-end solutions that meet customer satisfaction.

www.vimalsteelforge.com

THE NEXT INSPECTOR IS THE CUSTOMER

MISSION

To get global recognition as a socially responsible corporate entity by *ensuring good service and high business ethics.*

VISION

Uphold the recognition and reputation as a value brand source for world class '*Forged and Machined Components*', both nationally and internationally.

BELIEF

Quality never happens as an accident It is the result of *systematic, dedicated and intelligent efforts.*

INDUSTRIES WE SERVE

- Bearing
- Automotive
- Earth Moving
- Construction Equipment
- Infrastructure & Mining
- Agriculture
- Oil & Gas Industries
- Pole-line Transmission
- Gear Transmission
- General Engineering
- Hydraulic Industries

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PRODUCTION SOLUTION THAT MAKES SENSE

TECHNICAL DETAILS

We can forge components from Ferrous, Non-Ferrous and SS as per customer's specifications. Some of the popular grade, as per categories are as under mentioned:

Low Carbon Steel

SAE1008, SAE1010, SAE1018, SAE1020, En1A, etc..

Medium Carbon steel

En8d, En9, C45, SAE1040, SAE1045, SAE1141, etc..

High Carbon Steel

SAE 52100, En19, etc..

Alloys Steel

16MnCr5, 20MnCr5, SAE8620, SAE4140, En353, etc..

Stainless Steel

SS304, SS316L, SS410 etc..

Other than grade mentioned above we can also forge any Ferrous Metal Compositions as per SAE, IS, DIN, JIS or BS or International Standards

Ring Rolling Forging Size

OD - 50 mm to 450 mm (0.500 Kg to 20 Kg)

Close Die Forging Size

650 # 350 # 250 mm (0.500 Kg to 20 Kg)

Press Forging Size

150 # 150 # 80 (0.100 kg to 2 Kg)



PROCESS

Die Manufacturing & Inspection

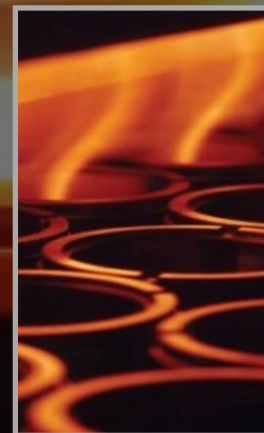
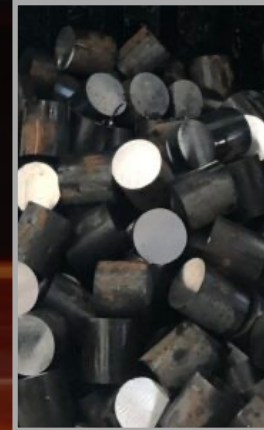
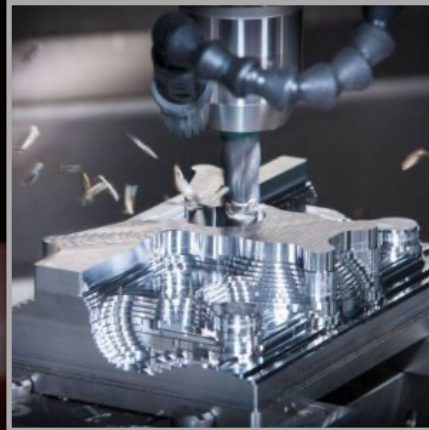
- All types of die like *Trimming Die-Punch, Cup Forming Die-Punch, Die for Forging done at In-house Die Shop*. It includes VMC & Conventional Leth.
- Using die's material DIN-2714 for Closed-Die Forging & H11/H13 for Press Forging and Ring Rolling. (Hardness: 38-42 HRC)
- Finished impression of Die is 100% dimensionally checked by *Layout Inspection* on Plaster of Paris.

Raw Material

- We follow our standard procedure for every material which we procured from steel suppliers. First we do Metallurgical Testing like Chemical Test, UT of Rolled Round Bar procured from suppliers. All testing are held in-house / at NABL approved Laboratory.
- Round Bars are identified by *Color Code* on both ends of the bar. We always purchase material from Oems approved source like ISMT, JSW, Gardau, Bhushan Power & Steel, VSP, Etc...

Blank Cutting

- Cut blanks are done on high productive precise *Circular Saw Machine* with auto loader facility and Band Saw.
- We also have a facility of Hot Shearing Machine which is attached in Long Bar Induction dedicated for SAE52100 material.



QUALITY IS OUR TOP PRIORITY

Heating

- Cut blanks are heated by Induction Billet Heater with Controlled Temperature (with acceptor/rejector) for Hammer Forging, Press Forging and by Continuous type Oil Fire Furnace for Ring Rolling Forging.
- We also have Long Bar Heater for Ring Rolling with additional facility of Billet Heating.

Forging

- Forging operations that are performed with Hammers & Presses include Drawing Down, Upsetting, and Rolling, leading to Finished Product. A Subsequent Trimming Operation is carried out to remove excess material on Power Press. On the other hand, Forging operations that are performed with Presses & Ring Rolling include Upsetting, Cup-Forming, Piercing, Ring Rolling, leading to finished product which is executed in One-Heat Cycle together with finished forging.

In-House Heat Treatment and Shot Blasting

- After Forging is completed, Forging Components undergo required processes of normalising or Spheroidized Annealing as per validated temperature and time cycle. Micro structure testing of component is done as per quality plan.
- After heat treatment, shot blasting operation is carried out.

Machining

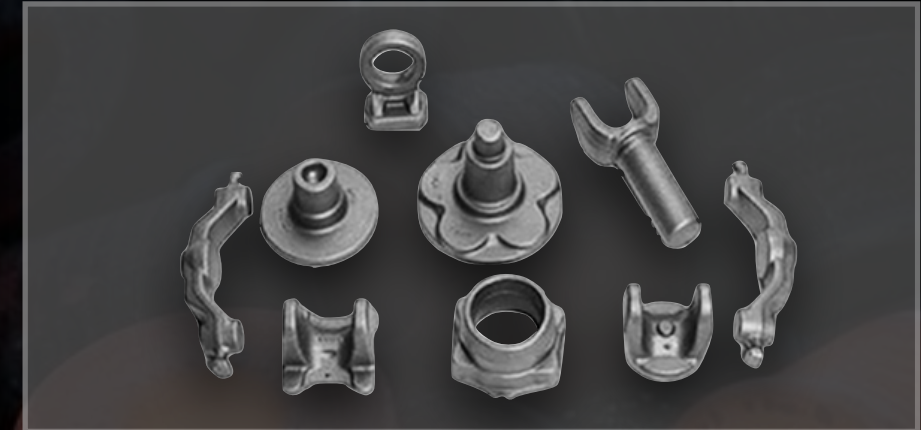
- CNC Machining is done by approved CNC vendor while VMC Machining is done In-house.

PRODUCTS

- Ring Gears, Gear Blanks
- Clutch Components, Clutch Bearing Races
- Case Hardened and Ground Bushes
- Earth Moving Equipments
- Bearing Races, Sleeves, Bearing Spacers
- Lock Nut, Groove Nut
- Seal Rings for Mechanical Seals
- Washers, Thrust Rings
- Upset Forge Components
- Automotive Components
- Spacers
- Hub and Axle Parts
- Farm and Tractor Equipments
- Construction Equipments

We also Forge and Machine any kind of customised Components as per customer's specification.

COLLABORATE AND CREATE



INFRASTRUCTURE

Land and Construction

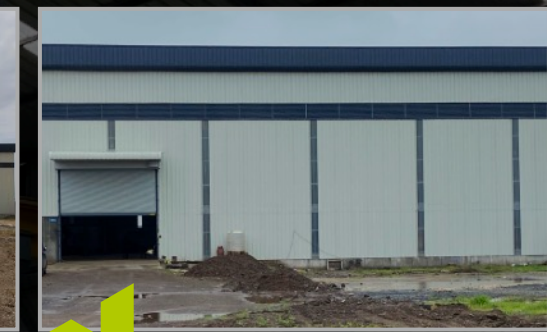
○ Vimal Forge LLP

- *Total Area* - 1,07,600 Sq.ft
- *Total Production Area* - 33,000 Sq.ft
- *Raw Material Storage Area* - 8,000 Sq.ft
- *Future Construction Planned Area for In-house Machining Facility* - 18,000 Sq.ft

○ Vimal Steel Forge

- *Total Area* - 12,000 Sq.ft
- *Total Production Area* - 8,000 Sq.ft
- *Raw Material Storage Area* - 1,000 Sq.ft

THE FOUNDATION FOR GREATNESS



INFRASTRUCTURE

Machine Facility

Cutting

- Circular Saw Machine - 100 DIA / RCS
- Bandsaw Machines

Forging

o Closed Die Forging

- 1.5 MT Belt Drop Hammer Line with 350 KVA Induction Heating Facility
- Dimension Capacity - 650 # 350 # 250
- Weight Capacity - 0.500 Kg to 20 Kg

o Press Forging and Upset Forging

- 500 MT Screw Press Line with 250 KVA Induction Heating Facility
- Dimension Capacity - 150 # 150 # 80
- Weight Capacity - 0.100 kg to 2 Kg

o Ring Rolling Forging

1. 300 MT Power Press Line with 250 KVA Induction Heating Facility at VIMAL FORGE LLP.
 - Dimension Capacity - 50 - 250 MM DIA
 - Weight Capacity - 0.200 Kg to 4.500 Kg
2. 400 MT Power Press Line with Oil Fired Furnace at VIMAL STEEL FORGE
 - Dimension Capacity - 50 - 250 MM DIA
 - Weight Capacity - 0.200 Kg to 4.500 Kg

Annealing or Normalising

- Bell Type Induction Furnace - 3 nos.
- Capacity - 3 MT
- All furnaces are with Itool Software to generate a Graph of Live Cycle.

QUALITY WITHOUT COMPROMISE



Shot Blasting Machine

- Capacity - 1MT / cycle

Magnetic Particle Inspection

- Capacity - up to 400 MM
- Auto De-magnetic Facility

Laboratory

- Spectro with nitrogen detection facility
- Hardness Tester
- Microscope upto 1000X
- Abrasive Cutting Machine and Polishing Machine
- Surface Plate

Die Shop

- 3 Conventional Lath for die making as well as for maintenance activity
- Radial Drill
- VMC - HASS

Machining Facility

o CNC Machine (Vendor Side)

- For Proof M/c - 12 Nos.
- For Finish M/c - 14 Nos.
- Capacity - up to 400 MM DIA

o Vertical Milling Center

- 2 HASS Machines for VMC Operations
- Capacity - 1020 x 600 x 400
- Auto probing facility
- Tool measuring facility

Laser Marking Machine

YOUR ALWAYS RELIABLE PART PROVIDER






VIMAL STEEL FORGE

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B/H Vikas Stove, N/H 27,
Veraval (Shapar) - 360024




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