



BARG IMPEX (CASTING DIVISION)

Company Profile

Barg Impex is fully equipped with State of Art facility for pouring castings as per standards ASTM, DIN, EN, IS and other equivalent standards for following grades.

Casting

Casting is a manufacturing process in which a liquid material is usually poured into a mould, which contains a hollow cavity of the desired shape and then allowed to solidify. The solidified part is also known as a casting, which is ejected or broken out of the mould to complete the process. Casting materials are usually metals or various cold setting materials that cure after mixing two or more components together ; examples are epoxy, concrete, plaster and clay. Casting is most often used for making complex shapes that would be otherwise difficult or uneconomical to make by other methods.

Grades of Castings & Forgings

Some of grade being produced EN-353, EN8, EN9, EN14, EN15, 18,19, 24, 25, Die Steel DIN 2714, H-11 However we are capable of producing any grade of casting as all required facilities are available in house.

Plant Facilities and Quality for Castings & Forgings

Sand Testing Lab equipped with Green / Dry Compression/Tensile / Shear Strength Testing, Permeability meter shorter index tester

Non Destructive testing Facilities as Dry penetrant / magnatic particle inspections (gamma ray).

NDT & Inspection

- 1) 8.0.02/1000 mm Height Gauge
- 2) 0-600 mm vernier calliper 10.300 mm vernier calliper
- 3) 11.0 - 1000 mm vernier calliper
- 4) 800 mm depth vernier
- 5) 0-300 mm depth micrometer
- 6) Combination set
- 7) Inside micrometer 0-100 mm
- 8) Various thread checking, dimension checking, radius checking, contour checking

Machinery Details

Sr.No.	Description
1.	Bombay 63 Centre Lathe Indian - 1 No.
2.	Radial Drill Machine 63.5 mm Hungary - 2 Nos.
3.	Radial Drill Machine 40 mm Indian - 1 No.
4.	Radial Drill Machine 63.5 mm WMW Germany - 1 No.
5.	Vertical Boring Machine 3100 Russian - 1 No.
6.	Plano Miller 3650 X 1300 mm England - 1 No.
7.	Lathe Machine 4000 mm CH 1150 mm Indian - 1 No.

Material Grades

DIN – 17245, GR – 17

ASTM – A – 217

ASTM – A – 743

IS - 4522 – 1986 – Heat Resistant

DN – EN – 10213

A – 439/A – 439 – M - 15

ASTM – A – 21 – M

IS – 10602 – 19993

Type of Casting	Material Specification	Typical Components
Low Alloy Creep Castings	DIN – 17245, GR – 17	Guide Blade Carriers
Resistant Castings For high temperature and high pressure services	Cr.Mo4 Ni V511, GS – 22Mo4 ASTMA217. GR, WC-9, WC-6	Outer Casings, Valve Bodies and Bonnets Housing and chambers Inner Casings, Stream Chests Hydro Turbine Castings
High Alloy Castings Resistant to abrasion and Cavitational corrosion	ASTM A 743, Gr.CA6NM, Ca15 and CF8M	Francis Runners, Kaplan Runner Blades, Pelton Wheels, Nozzle, Tip Liners, Impellers for CW Pumps

Re-Heating Furnace

5x4 MT Twin Cell

Re-Heating Furnace

Types of Valve Components We Manufacture

Gate Valve (Body, Bonnet, Wedge)
 Globe Valve (Body, Bonnet, Disc)
 Swing Check Valve (Body, Cover, Disc)
 Control Valve (Body, Bonnet, Plugs, Cages, etc.)
 Knife Edge Gate Valve (Single Piece design, Two piece design)
 Safety Relief Valve (Body, Bonnet, Nozzle)
 Ball Valve (Body, Adapter, Ball)
 Plug Valve (Body, Bonnet, Plug)
 Butterfly Valve Bodies.

Types Of Pump Components We Manufacture

Pump Casing
 Impeller/Rotors (Close Type & Open Type)
 Bearing Housings
 Pump Sleeves
 Wear Rings

Components for Construction and Engineering Industries

Special Flanges in all Special Grades.	Earthmoving Bucket Tooth
Steel Cast Tee	Nozzles
Steel Cast Pipes	Burner Parts
Bends	Pre-Heater Parts
Conveyor Sprockets	Boiler Parts
Reducer	Gas Turbine Parts
Arms, Brackets, Housing etc.	Furnace Parts
Wear Plates, Wear Rings. Liners, Liner Plates, Hammers , Jaws etc.	Any other Steel Parts to Customer Requirements.

We also make Castings & Components for various Mining Earth Moving, Heavy Machinery, Engineering and Process Industries.

Industries We Serve

- 1) Mining
- 2) Earth Moving
- 3) Heavy Machinery PSU
- 4) Navy, Defense
- 5) Oil & Gas
- 6) Engineering
- 7) Process Industry
- 8) Power Plant
- 9) Nuclear & Thermal Plant
- 10) Marine & Automotive Industries

Facilities Available

Manufacturing:

Pattern Shop	In-house Pattern shop and Outsource for manufacturing and Reconditioning of Aluminium & Wooden Patterns.
Moulding Shop	Complete facilities of hand moulding for sodium Silicate-CO ₂ Process and also Chemically bonded sand processes for Core Making.
Melting Shop	1.Pillar Make Medium frequency 125KW Induction furnace with 200kgs, And 350Kgs, Crucibles. Single piece 300 kgs cast weight. 2.Pillar Make Medium frequency 125KW Induction furnace with 200kgs Crucible.
Floor Area	An Organised and Closed Floor Area of 58000 sq. ft. for Melting, Moulding & Fettling shop equipped with 3 Tons EOT Crane.
Fettling Shop	Equipped In-house with, pencil hand grinders to Heavy Swing frame grinders, and facilities for upgradation of castings with air arc Gouging and Shot Blasting, Acid picking, Passivation facilities. Welders are Qualified as per ASME/EN Standards, under third parties like M/s. TUV, CEIL, Velloso, BVIS, etc.
Heat Treatment	Electric furnace Capacity upto 0.5 tons & 3 tons per Charge.
	Maximum operating temperature 1200°C with arrangements for automatic multipoint temperature recording for Various Zones of each furnace. Furnace is calibrated to API-6A Appendix-H under M/s. TUV.
Captive Power Plant	1. 250 KVA Power Generator 2. 125 KVA Power Generator 3. 45 KVA Power Generator
Computer Software	1. Management Information System support software for total process control from incoming order to dispatch stage. 2. Auto CAD version 2008 for studying CAD drawings. 3. Pro/Engineer Release Wildfire 2.0 for checking 3D Models 4. Dekam Software for Die Making & Pattern making

Manufacturing:

Chemical Testing	ARL 3460, Spectrometer (Make : ARL, Switzerland) – 3460 Metals Analyzer Spectrometer – With 25 Analytical Channels of Testing Bases Fe Base-CS, Low Alloy SS, DSS, SDSS. Nickel Base Monel.
Physical Testing	Equipped with 40Tons Approved Universal Testing Machine, Rockwell, Brinell Hardness Tester, Testing Equipments calibrated under M/s.TUV.
Sand Testing	With complete range of sand testing Equipments for testing AFS Number, moisture content, clay content etc.
Non-Destructive Testing	In house facilities for Dye Penetrant Testing & Magnetic Particle Testing available. Ultrasonic Testing & Radiography Testing with Ir.192 and Cobalt -60 are outsourced. Evaluated by Level-II persons certified as per SNT TC IA.
Corrosion Testing	Equipped with Inter Granular Corrosion Testing (IGCT) as per ASTM A262 PRACTICE – A,B,C,& E
Radiation Analyser	Equipped with Radiation checking meter for α , β , γ radiations (Gamma-Scoutt imported from Germany).

List of Specifications Under Regular Production**ASTM STANDARDS:**

CARBON STEEL	:	ASTMA216 Gr. WCB
ALLOY STEEL	:	ASTMA217 Gr. WC6, WC9, C5 etc.
MARTENSITIC STAINLESS STEEL	:	ASTM A217 Gr.CA15 ASTMA743 Gr.CA40 ASTMA487 Gr.CA6NM etc.
STAINLESS STEEL	:	ASTMA351Gr. CF3, CF3M, CF8, CF8M, CF8C, 17 – 4 Ph & CN7M etc.
DUPLEX STEEL	:	ASTMA995 Gr. CD3MWCUN
HEAT RESISTANT STEEL	:	ASTMA297 Gr. HE, HH, HK etc.
NICKEL BASED ALLOYS	:	ASTMA494 Gr. M35-1, ASTMA494 Gr.CX2MW, INCONEL etc.
IS STANDARDS	:	IS1030, IS2707, IS2708, IS3444, IS4771 etc.
OTHERS	:	Ni-Hard, Ni-Resist, Alloy 20 etc.



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