



SHREE HANS ALLOYS LIMITED

Since 1984

An ISO 9001:2008 Certified Company

CASTING THE FUTURE®



Steel and Stainless Steel Foundry

Leader in manufacturing critical cast & machined components

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Company Profile

Shree Hans Alloys Ltd., located in Dholka, Gujarat (INDIA) founded in 1984, is an innovative and efficient Stainless Steel Foundry, offers a wide range of products for various industries such as Pumps, Valves, Oil & Gas, Thermal & Nuclear Power Generation, Hydro Turbines, Mining, Cement, Marine & Dredging and General Engineering Sectors.

We foster a team-based approach to create an Outstanding company where continuous satisfaction of customer, workforce and external collaborators nurtures positive results which develop growth, leading to the generation of wealth and new jobs in a cooperative framework of communication and active participation.

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Research & Development

Developing new metallurgy within stipulated delivery period is our strongest forte.

Organization is headed by our **Managing Director (Mr. Dinesh B. Daga)** who is well-qualified Chemical engineer having 28 years of foundry experience. Our manufacturing Team having experience in developing special Steels and stainless Steels particularly for pump & valves industries. R & D production and Q.C. departments are manned by qualified and experienced engineers.

- Extra low carbon stainless steels
- Duplex stainless steels
- Marine service corrosion Resistant castings
- Hastelloy B & C
- Nickel based super alloys
- Martensitic & Ferritic Steels
- Cryogenic Application
- High Temperature Service Pressure Parts

- Pouring around 100+ various alloys
- Reliability - Prompt Delivery - Consistent Quality - Reasonable Rates
- Special Alloy Castings Grades Can Be Developed As Per the Specific Requirement of Customer.

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Infrastructure

Our factory has a well-developed infrastructure with an in-house laboratory equipped with all modern testing instruments such as Optical Emission Spectrometer, Ultrasonic Testing Machine and Magnetic Particle Testing Device etc. We are in a strong position to offer our clients the widest range of cast and machined components.

Capabilities

Capacity	: 400 MT/Month
Weight Range	: 25 kgs. - 3400 kgs. single piece wt.
Maximum Size	: 2500mm x 2000mm
Area under Crane	: 12,500 Sq.m (Total area: 20,400 Sq.m)
EOT Cranes	: 16 Nos.(Ranging from 1MT to 15MT)
Max. Lifting Capacity	: 15 MT
Stand by power	: 250 KVA Greaves DG Set
Weigh Scales	: Weighing scales of capacity 0.5 MT, 1MT, 5MT & 60 MT (Weight bridge) are available.
Compressor Capacity	: KAESAR make compressor is available with capacity to supply the operating pressure 6-7 bars for pneumatic conveying / other applications.

Melting capacity

Induction Furnace	: 2000 Kgs., 1500 Kgs. (750kw medium frequency)
	750 Kgs., 500 Kgs., 200 Kgs. (350kw medium frequency)

Methoding

We have AutoCAST-X simulation software programme for checking feeding and solidification of casting.

Pattern Making

Manual process	: Well equipped pattern shop for wooden/metallic patterns.
Storage capacity	: Sufficient space of storage for more than 5000 patterns.

Moulding Process controlled by our Sand Laboratory

Our Mold and Core Shop sand laboratory conducts a variety of tests for resin bonded sand such as tensile test, LOI and grain size (AFS no.) to ensure quality.

Moulding

Continuous Sand Mixer	: 30 MT / Hr. - 1 No.
Continuous Sand Mixer	: 10 MT / Hr. - 1 No.
Sand Reclamation Unit	: 8 MT / Hr. - 1 No.
Sand Systems	: Alkaline Phenolic (2 Part)
Dust Collectors	: 4 Dust Collectors from DISA make for pollution risk free in the foundry.



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Product Range

The company manufactures and machines large complex steel castings for application across several industries including Pumps & Valves, Cement, Chemical, Marine, Mining, Power and General Engineering. This will lead to a remarkable consistency in quality, increase in efficiency, shorter lead times and less wastage.

PUMP & VALVES

Production of stainless steel and nickel-based alloy castings for pump and valve industries up to 2700 KGS / Piece.

MINING

Cast components for Ash handling spares like Inner casing, Wear Plate, Impellers and Back Plate etc. upto 3000 kgs. single piece weight.

GENERAL ENGINEERING

Marine, pumps, valves, mining which also extends to power transmission, compressors & near all machinery & engineering applications.

PUMP CASTINGS



- Pump Casing
- Pump Impeller
- Stuffing Box
- Double Volute High Pressure
- Multistage Pump Parts

VALVE CASTINGS



- Valve Body
- Bonnet
- Wedge

HYDRO TURBINE CASTINGS



- Francis Runner
- Runner Blade
- Pelton Runner
- Propeller Blade
- Francis Blade

MIN. STEEL CASTINGS



- Crushing Segment
- Bowl Mill
- Mantle Liner
- Jaw Plate
- Crusher Hammers

CHEMICAL CASTINGS



- Split Casing
- Pump Impeller

GENERAL CASTINGS



- Rolling Mill Casting - Chock
- Mineral Processing Mill Castings - Adjusting Ring
- Cement Mill Castings
- Sugar Mill Castings

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Metallurgies served

METALLURGIES SERVED	ASTM	DIN	CAST COMPONENTS
Carbon Steel	A216 - WCB A216 - WCC A352 - LCC A352 - LCB	1.0619 1.1138	Gear Box Housings, Mill Heads, Trunions, Covers etc.
Low Alloy Steels	A217 - WC1 A217 - WC4 A217 - WC5 A217 - WC6 A217 - WC9 A217 - WC11 A217 - C5 A217 - C12 A217 - C12A	1.5419 1.7356 1.7379 1.7363	Steam Turbine Castings, Guide Blade Carriers, Outer Casings, Valve Bodies And Bonnets, Housings And Chambers, Inner Casings.
Martensitic Steels	A743 - CA15 A743 - CA40 A743 CA-6NM	1.4008 1.4028 1.4313	Hydro Turbine Castings, Francis Runners, Guide Vanes, Pelton Wheels.
Heat Resisting Steel	A297 - HF A297 - HH A297 - HI A297 - HK A297 - HD	1.4825 1.4837 1.4846 1.4848 1.4749 1.4823	Kiln Burner Tip, Cooler Plate, Converter Mouth Liners, Condenser Beams.
Austenitic Stainless Steel	A351 - CF8 A351 - CF8M A351 - CF3 A351 - CF3M A351 - CF8C A351 - CF10 A351 - CK20 A351 - CH20 A351 - CN7M A351 - CG8M A351 - CG3M	1.4308 1.4408 1.4306 1.4404 / 1.4409 1.4827 1.4308 1.4843 1.4500 1.4431	Valve Bodies Pump Casings Impellers Stage Casing Split Casing Diffusers etc.
Austenitic Ferrite Duplex Steels	A351 - CF3MN A351 - CD4MCu A351 - CG6MMN	1.4435 1.3964	
Super Duplex Stainless Steel	A890 - GR1A A890 - GR2A A890 - GR3A A890 - GR4A A890 - GR5A A890 - GR6A		
Inconel Grades	600, 625, 800, 825		
Nickel Based Super Alloys	A494 - CY40 A494 - CW12MW A494 - CW6M A494 - CW2M A494 - CW6MC A494 - CX2MW A494 - Cu5MCuC	2.4816 2.4686 2.4610 2.4856 2.4602 2.4858	Crusher Hammers, Jaw Crusher Liners Cone & Gyratory Crusher Liners, Dipper Teeth, Shovel Buckets, Ring Hammers, Sheaves etc.
Austenitic Manganese Steel Castings Hadfield Steel	A128 (IS-276)		
Ni- Hard / Hi - Chrome	ASTM A 532 / IS: 4771/BS:4844		Pump Casing, Impeller, Side Plate, Wear Plate, Feed Chute, Feed Pipe etc.

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In house testing facilities

We have all the facilities needed to manufacture finished components, which are the basis for the high added value offered by SHAL to its customers. We can adapt to specific needs as required by the clients, having a wide experience of more than twenty seven years offering solutions.

- Spark Emission Spectrometer Model **OES - 5500 II** of **SHIMADZU, Japan** with **27 channels** with Fe, Ni, Cu based testing of C, Si, Mn, Cr, Ni, Mo, Cu, Bo, Ti, V, W, S, P, Zn, Al, Pb, **Nitrogen channel** for duplex & super duplex stainless steel testing & **Niobium** for Nickel based super alloys other related elements are checked up to three decimals accuracy.
- Fully equipped Sand Testing Laboratory for checking its various parameters.
- Well-equipped mechanical testing laboratory with machines like Rockwell Hardness Tester, Digital Micro Hardness Tester, Bend Test Machine & 40 MT capacity Universal testing machine, Duly calibrated for checking physical properties like UTS, YS, Elongation with Extensometer.
- Hydro testing facilities for pressure tight castings.
- Dimensional inspection with templates, jigs & fixtures.

6.1 In-house heat treatment

- (a) Equipped with 8' x 5' x 5' - 5 MT, 6' x 5' x 4' - 2.5 MT electrical & 10' x 8' x 6' - 10MT oil fired Heat Treatment Furnace.
- (b) Annealing, Air, Water & Oil Quenching, Tempering Heat treatment Facilities are available.
- (c) Equipped with "ATHENA" Make microprocessor based Digital Temperature indicator & recorder & controller for 5MT & 2.5MT electrical heat treatment furnace.

Machining

Available for PROOF/FINAL MACHINING with arrangement for various machine tools like horizontal boring, Vertical lathe, conventional lathes, radial drill, gear hobbing, milling, shaping, grinding, planning & various other machines.

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Q.C. Measures followed

Internal Quality Control Personnel are highly-qualified to carry out Non-Destructive Examinations, such as:

1. Dye (Liquid) Penetrate Test – ASNT Level II
2. Magnetic Particles Testing – ASNT Level II
3. Ultrasonic test - outsourced
4. Radiography test - outsourced
5. Pickling
6. PAMI (Positive Alloy Material Identification)
7. Hydro Test
8. Image analyser for microstructure analysis
9. Qualified NDT Personnel (Level II)



➤ Some of the tests include are as follows:

1. Raw material like scrap, Ferro alloys, sand etc.
2. Chemistry of all heats
3. Dimensional inspection of casting right from pattern stage through first sample to final stage inspection before despatch.

3.2 Certificates according to third parties.

We, the manufacturer of ferrous castings, especially Steel, Stainless Steel & Nickel Based Alloys, are committed to enhance customer satisfaction by complying to the requirement of QMS and Continually improve it, meeting the International Standard.

Material can be despatched only after acceptance of our chief of quality control with respect to above quality plan.

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Approvals

Certified with:

- DIN EN ISO 9001:2008
- PED 97/23/EC
- AD 2000 Merkblatt W0
- IBR Approved Foundry

TPI Agencies:

Lloyds, BVQI, SGS, INTERTEK, IRS, NPC, NTPC, TPL, BHEL etc.

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Final Application

- Natural Gas Processing
- Oil & Petroleum Refining
- Petrochemical
- Chemical
- Power Plants
- Mining
- Food Industry

SHREE HANS ALLOYS LIMITED

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