- INVESTMENT CASTINGS
- LOST WAX CASTINGS
- FEINGUSS
- MICROFUSIONES

SIDDHI

CAST PVT. LTD.

Manufacture & Exporter of
INVESTMENT CASTING

E - info@siddhicast.com
W - www. siddhicast.com

LEADING MANUFACTURERS OF FERROUS, SUPER DUPLEX,
SUPER ALLOYS INVESTMENT CASTING

"Synonymous to Quality"

ABOUT SIDDHICAST

Siddhi Cast Pvt. Ltd established in the year 1995 have been manufacturers of precision investment castings (lost Wax) for more than 20 years and is one of the most experienced foundries offering this specialized process. The company produces castings in a wide range of ferrous alloys like carbon steels, alloy steels, stainless steels, super alloy steels, duplex, super duplex & custom built metals and caters to international customers in the whole spectrum of markets in India and overseas in a product weight range starting from few grams to 80 kg apiece – single piece weight, caters both in raw casting as well as fully machined/fully finished condition. The process allows the production of components of complex/intricate shape, accuracy of design, integrity of cast, reliability and integrity with wide range of metals and alloys, versatility of production & low cost repeat runs. [Latest ERP systems have resulted into increased & unmatched operating efficiency within our foundry]

ENGINEERING EXPERTISE :

At Siddhi Cast, you would find expertise in engineering with excellent quality as there is appropriate human and machine power applied for every process.

ETHICS & HONESTY :

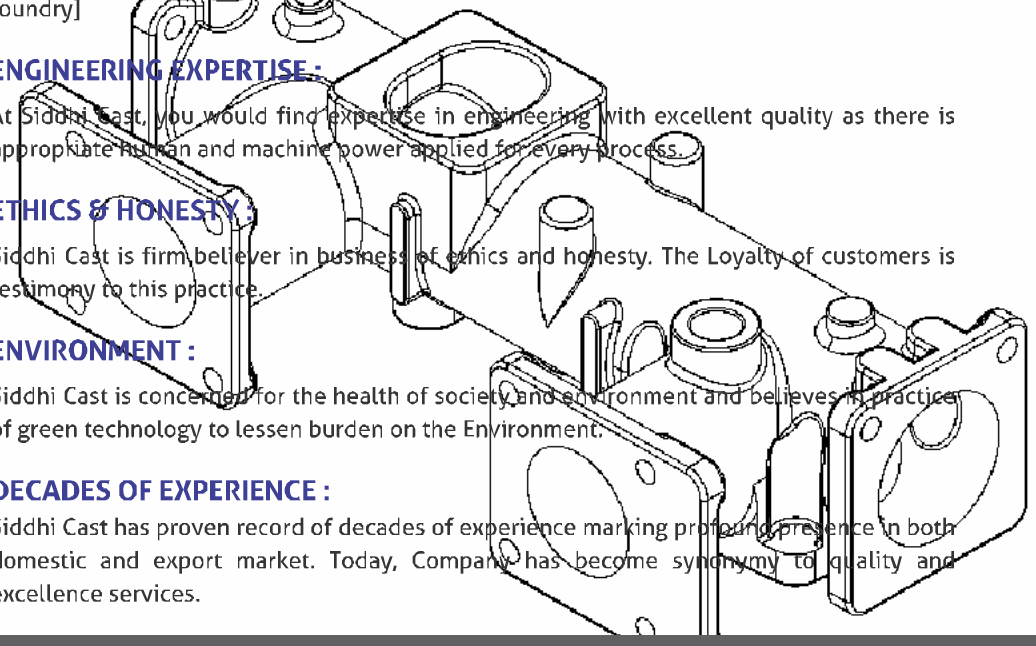
Siddhi Cast is firm believer in business of ethics and honesty. The Loyalty of customers is testimony to this practice.

ENVIRONMENT :

Siddhi Cast is concerned for the health of society and environment and believes in practices of green technology to lessen burden on the Environment.

DECADES OF EXPERIENCE :

Siddhi Cast has proven record of decades of experience marking profound presence in both domestic and export market. Today, Company has become synonymy to quality and excellence services.



COMPANY PROFILE

Siddhi Cast Pvt. Ltd has earned reputation built up from supplying a wide spectrum of industries over the past 20 years, founder himself is well experienced in this filed since the year 1984. The company is well managed by technically & financially sound promoters, well supported by experienced engineers, technocrats & skilled committed work force.

We supply raw castings as well fully finished castings to the nationally recognized blue chip businesses & OEMs of domestic and international customers of repute in various industrial market segments such as Automobiles, Tractors, Diesel Engines, Locomotives, Fluid Control Valves, Pumps, Dairy, Switchgears, Compressors, Railways, Defense, Medical, Aero-space, Pipe-Fittings, Kitchenware, Air-Conditioning & Refrigeration, General Engineering, Hardware and other emerging fields where investment casting is inevitable for quality & price advantage. We are proud to announce that we have whole range of satisfied customers both in domestic & foreign market.

Siddhi Cast prefers to engage with their customer's design team & engineers to optimize the casting process & produce best cost effective casting to save on machining and secondary operations where possible. We have the experience in taking up integration of complex assemblies and fabrications redesigning them into commercially & technically viable One Piece Casting with minimum machining requirements. The material selection can also be advised on our extensive knowledge & appreciation of component applications.

HISTORY OF INVESTMENT CASTING

The investment casting process, also known as Lost Wax casting, can be traced back to nearly 5000 years ago which allows the creation of solid objects from moulds. Ancient societies used bees wax to cast everything from small pieces of jewellery to large statues. During the 20th Century the bees wax has been replaced with more modern polymer containing waxes that maintain good surface finishes and excellent dimensional stability.

Whilst the process itself is more expensive per unit than other manufacturing processes, it is capable of producing parts in alloys that cannot be produced by any other methods. It can also produce complicated shapes that would be very difficult or impossible to achieve with other conventional manufacturing processes yet, unlike other processes, it requires little surface finishing and only minor machining.

ADVANTAGES OF INVESTMENT CASTING

- It allows un-machinable parts to be cast near net shape
- It is ideal for low volume production
- It provides excellent dimensional accuracy
- It can be used to cast intricate forms with undercuts
- It achieves a smooth surface with no parting lines
- The low tooling set up time facilitates pre-production runs for high volume Investment Casting orders.
- It is possible to produce even small batch of 100 kg / 200 kg castings for special metals/customer specific metals.

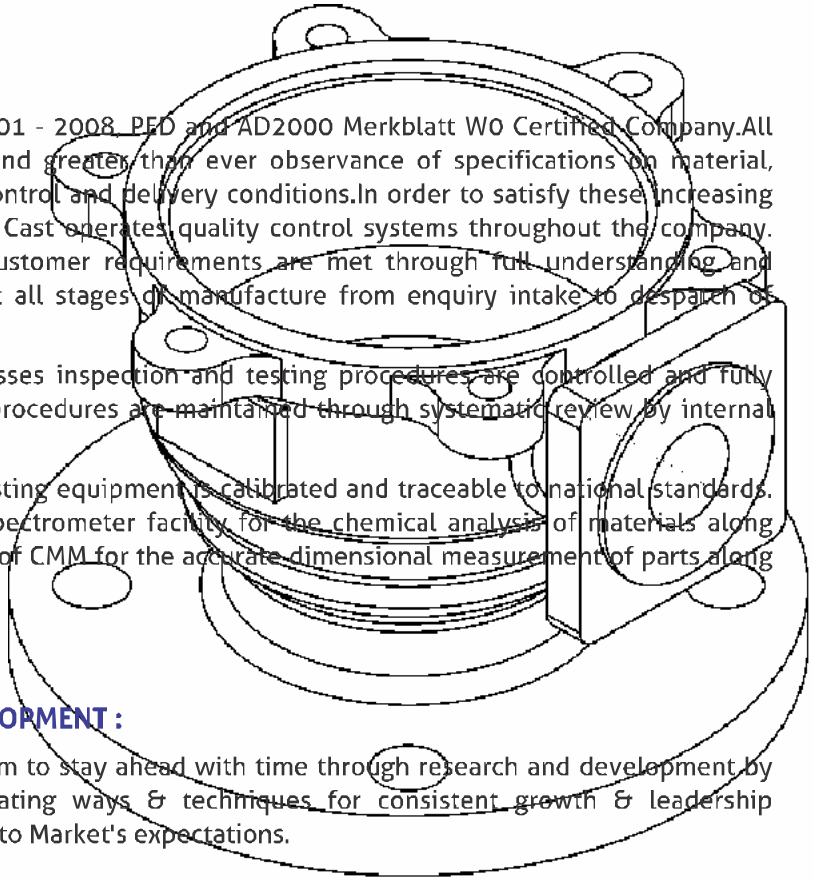
CERTIFICATIONS & APPROVALS
ISO 9001 - 2008,
PED & AD-2000 Merkblatt W0

QUALITY :

Siddhi Cast is ISO 9001 - 2008, PED and AD2000 Merkblatt W0 Certified Company.All industries now demand greater than ever observance of specifications on material, processing, quality control and delivery conditions.In order to satisfy these increasing requirements, Siddhi Cast operates quality control systems throughout the company. These ensure that customer requirements are met through full understanding and attention to detail at all stages of manufacture from enquiry intake to despatch of completed parts.

All production processes inspection and testing procedures are controlled and fully documented. These procedures are maintained through systematic review by internal quality audits.

All inspection and testing equipment is calibrated and traceable to national standards. We also operate a spectrometer facility for the chemical analysis of materials along with outside support of CMM for the accurate dimensional measurement of parts along with shadow graph



RESEARCH & DEVELOPMENT :

Siddhi Cast always aim to stay ahead with time through research and development by adopting new innovating ways & techniques for consistent growth & leadership position with respect to Market's expectations.

HUMAN SAFETY :

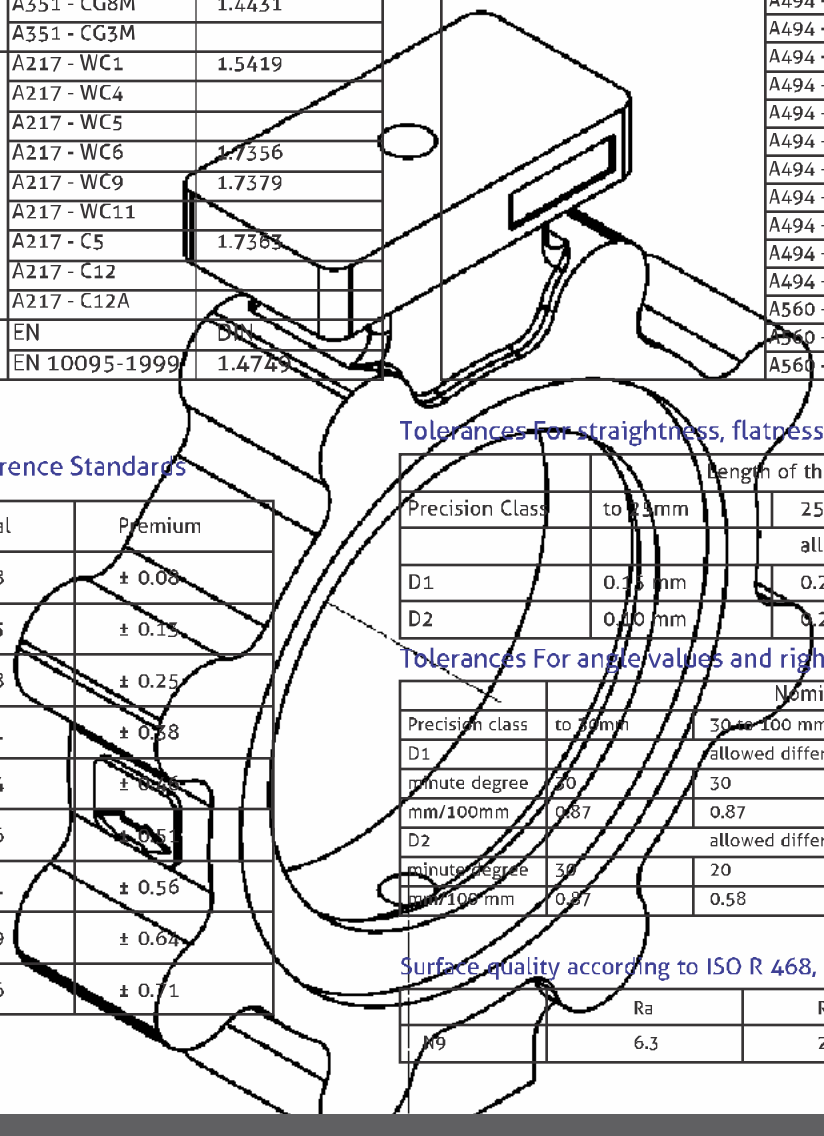
Siddhi Cast comply regulation relevant to the industry and also work with waste management to regulate all harmful materials/effluents. Also comply with working condition and safety norms to safeguard health and safety of the work force and mankind as a whole.

TECHNICAL CAPABILITY

Casting Dimension Range : 500 x 500 x 500 (mm)
Weight Range : Few Grams to 80 Kgs. / piece.
MATERIALS POURED / Casted at SCPL

	ASTM	DIN
Carbon Steel	A216 - WCB	1.0619
	A216 - WCC	
	A352 - LCC	1.1138
	A352 - LCB	
Heat Resisting Steel	A297 – HF	1.4825
	A297 - HH	1.4837
	A297 - HI	1.4846
	A297 - HK	1.4848
	A297 - HD	1.4823
Austenitic Stainless Steel	A351 - CF8	1.4308
	A351 - CF8M	1.4408
	A351 - CF3	1.4306
	A351 - CF3M	1.4404 / 1.4409
	A351 - CF8C	1.4827
	A351 - CF10	1.4308
	A351 - CK20	1.4843
	A351 - CH20	
	A351 - CN7M	1.4500
	A351 - CG8M	1.4431
	A351 - CG3M	
Low Alloys Steels	A217 - WC1	1.5419
	A217 - WC4	
	A217 - WC5	
	A217 - WC6	1.7356
	A217 - WC9	1.7379
	A217 - WC11	
	A217 - C5	1.7383
	A217 - C12	
	A217 - C12A	
Heat Resisting Steel	EN	DIN
	EN 10095-1999	1.4749

	ASTM	DIN
Super Duplex Stainless Steel	A890 - GR1A	
	A890 - GR2A	
	A890 - GR3A	
	A890 - GR4A	
	A890 - GR5A	
	A890 - GR6A	
Cobalt Based Alloys	STELLITE 3	
	STELLITE 6	
	STELLITE 21	
	STELLITE 23	
	Triballoy T 400	
Martensitic Steels	A743 - CA15	1.4008
	A743 - CA40	1.4028
	A743 CA-6NM	1.4313
Austenitic Ferrite Duplex Steels	A351 - CF3MN	1.4435
	A351 - CD4MCu	
	A351 - CG6MMN	1.3964
	A351 - CK3MCuN	
Nickle Based Super Alloys	A494 - M-35-1	2.4365
	A494 - M-35-2	
	A494 - M 30 C	
	A494 - N-12MV	
	A494 - N-7M	
	A494 - CY40	2.4816
	A494 - CW12MW	2.4686
	A494 - CW6M	
	A494 - CW2M	2.4610
	A494 - CW6MC	2.4856
	A494 - CX2MW	2.4602
	A494 - Cu5MCuC	2.4858
	A560 - 50Cr50Ni	
	A560 - 50Cr50Ni-Nb	2.4813
	A560 - 60Cr40Ni	



TOLERANCES :

Tolerances VDG P690 Reference Standards

Dimension	Normal	Premium
up to 12.7	± 0.18	± 0.08
12.7 to 25.4	± 0.25	± 0.13
25.4 to 50.8	± 0.38	± 0.25
50.8 to 76.2	± 0.51	± 0.38
76.2 to 101.6	± 0.64	± 0.46
101.6 to 127.0	± 0.76	± 0.51
127.0 to 152.4	± 0.81	± 0.56
152.4 to 177.8	± 0.89	± 0.64
177.8 to 203.2	± 0.96	± 0.71

Tolerances For straightness, flatness, parallelity, shape

	Length of the tolerated element		
Precision Class	to 25mm	25 to 50mm	upto 50mm
	allowed differences		
D1	0.15 mm	0.25 mm	0.6%
D2	0.10 mm	0.20 mm	0.4%

Tolerances For angle values and right angles

	Nominal dimensions			
Precision class	to 30mm	30 to 100 mm	100 to 200 mm	upto 200mm
D1	allowed difference			
minute degree	30	30	30	20
mm/100mm	0.87	0.87	0.87	0.58
D2	allowed difference			
minute degree	30	20	15	15
mm/100 mm	0.87	0.58	0.44	0.44

Surface quality according to ISO R 468, DIN 4769 and VSM 10321

	Ra	Rz	Rt
N9	6.3	23-32	25-38

SIDDHI CAST HAS THE FOLLOWING CERTIFICATIONS :

- ISO 9001:2008 by TUVSUD
- PED 97/23/EC by TUVSUD
- AD2000 Merkblatt W0 by TUVSUD

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD South Asia

CERTIFICATE

The Certification Body
of TÜV SÜD South Asia Private Limited
certifies that

Siddhi Cast Pvt. Ltd.
At: Hadamtala, Survey No. 53, Opp. Vandeshwar Temple,
N. H. No. 8 – B, Dist. Rajkot – 360 311, Gujarat, INDIA

has implemented a Quality Management System
in accordance with **ISO 9001:2008**
For Scope of

Manufacturing and Supply of
Stainless Steel, Carbon Steel and Alloy Steel Investment Casting

The certificate is valid From **2015-10-15** until **2017-11-24**
Subject to successful completion of follow up audit before **2016-10-12**
The present status of this Certificate can be obtained on www.tuv-sud.in
Further clarifications regarding the scope of this certificate may be obtained by contacting the certification body

Certificate Registration No. **99 100 12983**
Date of Initial certification : **2011-11-25**

Certification Body
of TÜV SÜD South Asia Private Limited, Member
Member of TÜV SÜD Group

TÜV SÜD South Asia Pvt. Ltd. • TÜV SÜD House • Soki Naka • Andheri (East) • Mumbai – 400072 • Maharashtra • India

TÜV®

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Industrie Service

CERTIFICATE

The Certification Body - 0036 -
of TÜV SÜD Industrie Service GmbH
certifies that

Siddhi Cast Pvt. Ltd.
At Hadamtala, Near Vandeshwar Temple
Tal. Kotda Sangani P. B. No. 32
Dist: Rajkot - 360 311, India

has implemented, operates and maintains a

Quality Assurance System in accordance with the
Pressure Equipment Directive 97/23/EC, Annex I, Section 4.3,
AD 2000-Merkblatt W 0 as well as EN 764-5, Para. 4.2

as a material manufacturer for the scope of

Investment casting in ferritic and austenitic steels

The scope of the approval is described in the annex to this certificate.
Further details are mentioned in report no. 7153155044.

The manufacturer is therefore authorized to issue certificates of specific product control within the scope of the assessed quality system and in accordance with the Pressure Equipment Directive 97/23/EC. Possible additional requirements - specific to applied technical specifications to meet PED Annex I - are not affected.

This certificate is valid through February 2019.

In order to adhere the validity an annual surveillance audit is required.

The validity of this certificate is connected to a valid certification in accordance with ISO 9001:2008.

Certificate No.: DGR-0036-QS-W 578/2013/MUC
Munich, April 19th, 2016

Notified Body, No. 0036

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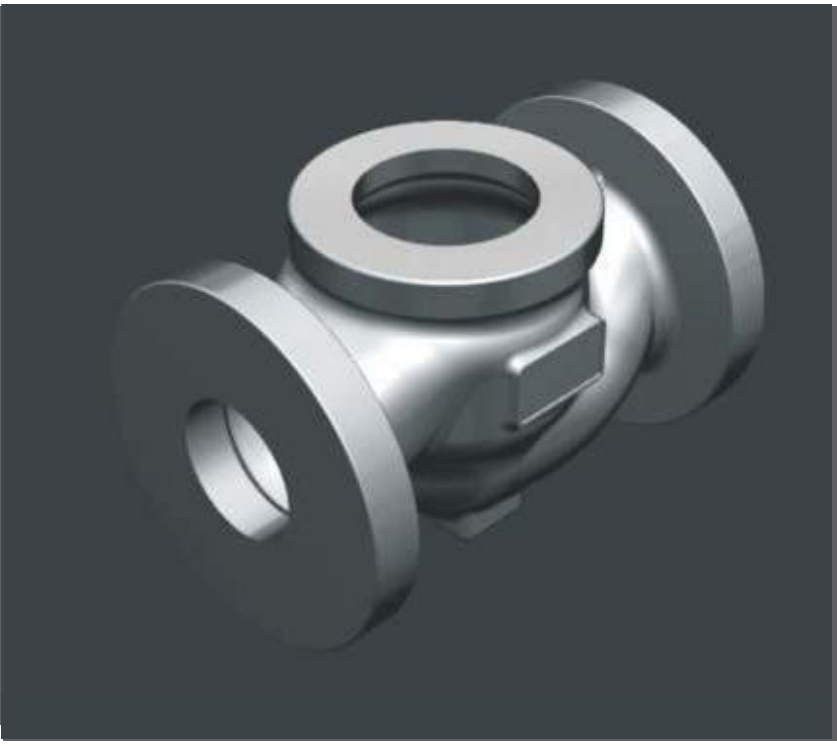
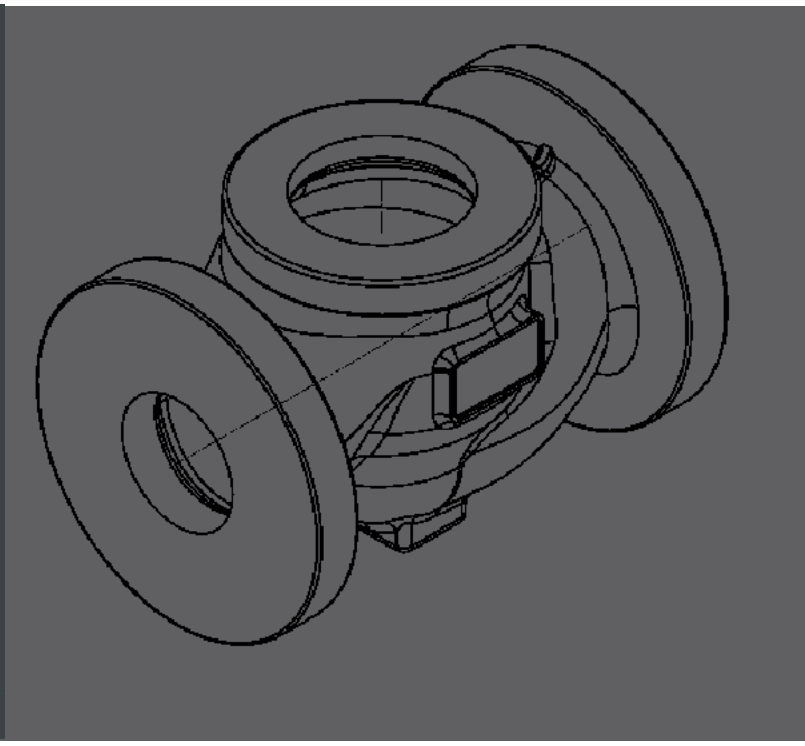
(M. Strobel)
Certification Body
Material and Welding Technology

EQ2660169

TÜV SÜD Industrie Service GmbH, Westendstr. 199, 80686 Munich, Germany

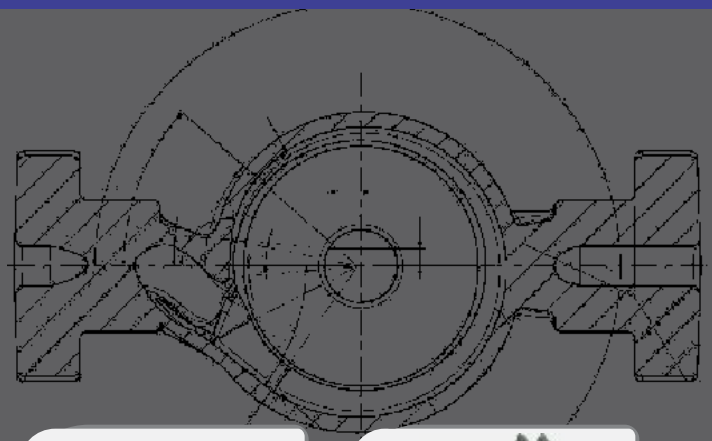
TÜV®





CHEMICAL ANALYSIS :

- In house spectrometer with 32 channels capable of testing Fe, Ni, Co, Al based materials and also Nitrogen content.
- All heats poured are tested on-line on Spectrometer.
- All the scrap used are also tested before using.
- Specimens are stored for particular period.



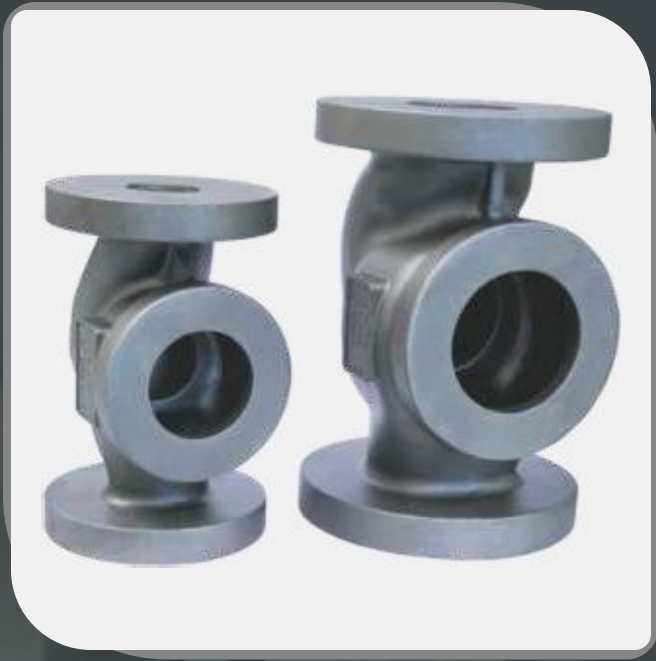
PHYSICAL TESTING :

- In house Universal Testing Machine.
- In house Hardness Testing Machine.
- In house Impact test Machine.
- In house metallurgical microscope.

TEST PROVIDED :

- Chemical Analysis, Tensile Test, Impact Test, Radiography (X-Ray), Dye Penetrate, Corrosion Test, MPT Test, Microstructure.
- Castings can also be supplied under third party inspections such as LLOYDS, BUREAU VERITAS and DNV etc.

EN 10204 3.1 & 3.2 Certificate are Provided with delivery of Casting



PROCESS :

A brief summary of the investment casting process:

1. Tool Making Process: A CAD designer creates 3D model of the tool from CAD data.

2. Wax Patten Making Process: The tool is used to create a wax pattern, using theromo setting wax injection moulding machines.

3. Wax Pattern Assembly Process (Tree): The resulting wax 'pattern' is attached to a 'tree' (essentially a central wax form)

4. Ceramic Shelling Process: The Wax Assembly is coated in liquid ceramic slurry(silica sol), then a dry ceramic granular layer(stucco) is attached and dried in environmentally controlled conditions, a process that is repeated until the investment reaches the requisite thickness.

5. Dewaxing process: The ceramic shell is finally dried then steam dewaxed to remove the wax.

6. Casting Process: The shell is filled with molten metal (a range of ferrous metals like carbon steels, alloy steels, stainless steels, nickel based super alloys, hastelloys duplex, super duplex, inconel, monel etc used in the process) using various techniques.

7. Knock Out (Shell Removal) : Once cooled, the ceramic shell is mechanically removed to reveal the cast metal mould beneath.

8. Finishing Process: Metal Castings are removed from the assembly by various cutting techniques. Once removed, the individual cast parts are worked individually for fatling & subsequent process.

9. Inspection process: Once finished, the casting is inspected using various spectrographic analysis equipment and metallurgical techniques to establish conformance to drawing limits and specifications.

At Siddhi Cast, we provide a complete solution to your casting needs whether raw or machined /fully finished.

HEAT TREATMENT :

Heat Treatment is an essential part of the complete service that we provide. Whether Ferrous or Non Ferrous alloys, Heat Treatment is a critical stage of the process that enhances the mechanical properties of the material.

Our facility is operated by experienced Engineers and overseen by our team of on site Metallurgists.

We at Siddhi Cast employ a range of Heat Treatment processes, either undertaken in house or via approved sub-contractors, these processes include normalizing, annealing/solution annealing, hardening and tempering.

NORMALIZING AND ANNEALING :

This heat treatment process conditions the steel so that it achieves a more homogenous structure & improves machinability and removes internal stresses that can build up during the casting and post casting stages of production.

HARDENING AND TEMPERING :

This heat treatment process is used to improve the mechanical properties of steels, fatigue life, wear resistance and provide anti corrosion properties.

MACHINING :

Siddhi Cast is well supported by well equipped machine shop and provides machining solutions for suitable components involving machining operations like CNC & VMC.

INDUSTRIAL VALVE

PUMPS

DAIRY VALVE

MARINE

AIROSPACE

RAILWAY

AUTOMOBILES

DEFENSE

CLIENTELE / MARKET SEGMENTS :

- INDUSTRIAL VALVES
- PUMPS
- DAIRY EQUIPMENTS & MACHINERY
- GENERAL ENGINEERING
- MINING MACHINERY
- EARTH MOVING MACHINERY
- STEEL & POWER PLANT
- AIR CONDITIONING & REFRIGERATION
- COMPRESSORS & GENERATORS
- ARCHITECTURAL HARDWARE
- ORTHOPEDIC IMPLANT / MEDICAL EQUIPMENTS
- AERO SPACE
- RAILWAYS & DEFENSE
- PHARMA & FOOD PROCESS MACHINERY
- PAPER & PULP MACHINERY

PRODUCT GALLERY















- NEAREST AIRPORTS :
  - Rajkot : 40 Km
  - Ahmedabad : 270 Km
  - Mumbai : 770 km
- NEAREST PORTS :
  - Pipavav Port : 150 Km
  - Kandala Port : 200 Km
  - Mundra Port : 250 Km

SIDDHI CAST PVT. LTD.

Manufacture & Exporter of : INVESTMENT CASTING

FACTORY :
Survey No. 53, Opp. Vandheshwar Temple, N. H. No. 27, **At. HADAMTALA**,
Tal. Kotda Sangani. P.O. Box No. 32, Gondal-360 311. **Dist.** : Rajkot. (Gujarat) India.
Phone : +91 2827 270486 / 270487 / 270470 **Cell :** +91 97129 87870 (MKTG)

REG. OFF. :
Shyam Arcade, Opp. Shyam Wadi, 17/2, Station Plot, P. O. Box No. 32,
Gondal-360 311. Dist. : Rajkot. (Gujarat) India. **Ph. :** +91 2825 230110

Web : www. siddhicast.com

Enjoying joy of blending "Green Technology" with Casting...