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total SOLUTION of investment CASTING





THE COMPANY





THE COMPANY

CAPTAIN TECHNOCAST established in 2010 and listed in BSE in 2017 is the Pioneer and Largest manufacturer in the production of Investment Casting (Lost-Wax Process) with a state of the art facility with the production Capacity of 1,800 MT/ annum located strategically at Rajkot in western province of India. The company has built up a good reputation and recognition among domestic as well international customers. We satisfy the high standards of quality in the sector concerning product quality, delivery reliability, process stability and total cost of ownership.

Our Plant is having 4(Four) Crucible of "Inductotherm" Brand having capacity of 500 Kg., 300 Kg, 250 Kg & 150 Kg with 150 tons capacity. Captain Technocast Limited have global presence at Canada, US, Italy, Australia and Asia pacific Region.



LAND & BUILDING

- Total Land Area : 1, 68,000 Sq. Ft.
- Constructed Area : 1, 50,000 Sq. Ft.



VISION

Being Pioneer in High Quality Casting Globally.



MISSION

Being World's Most Valuable Brand by Achieving Best Results in 'Demanding Market of Casting'.



WHY CAPTAIN?

- Excellence Team-work of Well-Educated and Experienced Group.
- Regular Training and Development Programme for technical persons for continuous improvement.
- Best Consistenancy in Qualitative casting.
- On time delivery.
- Long Term Business Relations.
- Ensuring Customer Satisfaction.









STATE OF ART FACILITIES

1. Production facilities

- a. Capacity 1,800 MT /Annum
- b. Job sizes 10 gm to 250 kg Single piece
- c. Geometry sizes 600 X 600 X 600 mm
- d. Metals Ferrous, Super alloys and Non Ferrous
- 2. Quality controls We have a strong internal QC protocol established in line with APQP procedure to ensure zero defect products for all customers. Our facilities are certified NDT (RT, UT, MPI and DP level II) and products are certified PED and IBR. We additionally provide our customers with option to add specific tests as per their requirements.
- 3. Strategic location for exports Our facility is located in close proximity to India's major ports in Mumbai and Mundra for exports





REVERSE ENGINEERING

Duplicating of an existing part by capturing the component's physical dimensions, features, and material properties.

3D MODEL

Preparing the 3D Model from samples and drawings.



PATTERN CREATION

The wax-patterns are typically injection molded into a metal die and are formed as one piece. Cores may be used to form any internal features on the pattern.

WAX ASSEMBLY

Next, the wax patterns are assembled onto runners and into a finished tree which is ready to be dipped into high grade ceramic.





CERAMIC COATING

The assembly is then dipped into high-grade ceramic slurry to build a ceramic shell around the wax tree.

DEWAXING

The wax inside the newly built shell is now removed. Dewaxing is done using a steam-dewaxing autoclave or flash fire furnace.





POURING

Pouring - The mold is preheated in a furnace to approximately 1000°C (1832°F) and the molten metal is poured with approximately 1500°C to 1600°C depends on metal from a ladle into the gating system of the mold, filling the mold cavity.

FETTLING

After cooling of cast shells, ceramics are removed by mechanical vibration and then parts get separated by cut-off machines and then gate grinding by abrasive tools.

HEAT TREATMENT

FINISHING

Various finishing techniques are then employed including Grinding, Shot Blasting, Electro Polishing, Glass Bead Blasting and Coating or Plating as per customer requirement to achieve the final surface needed.



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Metal processing technology which expands the mechanical properties of metal alloys like corrosion resistance, abrasion resistance and hardness by heating, warming and cooling.





MACHINING SHOP

We are providing precision machining solution like HMC, VMC, VTL and CNC according to customer requirements.





FIRE FIGHTING EQUIPMENT PARTS



STRUCTURE & HARDWARE PARTS





MACHINED PARTS



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TOOL INSPECTION



CASTING INSPECTION



RAW MATERIAL TESTING



DRY PENETRATION TESTING



WAX PATTERN INSPECTION



HARDNESS TESTING



RADIATION TESTING



ULTRASONIC TESTING



IMPACT TESTING

MATERIALS HANDLED

CARBON STEEL		AUSTENITIC S	TAINLE
ASTM	DIN / AISI	ASTM	DI
A216 - WCB	1.0619 / 1030/1020	A351 – CF8	1.4
A216 - WCC	1.0619+N / 1020	A351 – CF8M	1.4
A352 – LCC	1.0619+QT, 1.1138	A351 – CF3	1.4
A352 – LCB	1.0619+QT	A351 – CF3M	1.4
		A351 – CF8C	1.4
MARTENSITIC	STEELS	A351 – CF10	1.4
ASTM	DIN / AISI	A351 – CK20	1.4
A743 – CA15	1.4008 / SS 410	A351 – CH20	
A743 - CA40	1.4028 / SS 420	A351 – CN7M	1.4

A743 – CA15	1.4008 / SS 410
A743 – CA40	1.4028 / SS 420
A743 CA-6NM	1.4313

SUPER DUPLEX STAINLESS STEEL

ASTM	DIN / AISI
A890 - GR1A	
A890 - GR2A	
A890 - GR3A	
A890 - GR4A	1.446
A890 - GR5A	
A890 – GR6A	1.4469 / SS 2507

AUSTENITIC FERRITE DUPLEX STEEL		
	ASTM	DIN / AISI
	A351 – CF3MN	1.4435
	A351 – CD4MCu	1.4460 / SS 2205
	A351 – CG6MMN	1.3964

A351 – CK3MCuN

1.4460 / SS 2205	A494 – CX2MW
1.3964	A494 – Cu5MCuC
	A560 - 50Cr50Ni
	A560 - 50Cr50Ni-Nb

COPPER ALLOYS		A560 - 60Cr40Ni	
ASTM	DIN / AISI		
B62 - C83600		ALLUMINUM ALLO	DYS
B62 - C85555		ASTM	DII
B148 - C95800		A413	BS
B584 - C92600	LTB - 2	A356	BS





CHEMICAL TESTING



TENSILE TESTING

ILESS STEEL		
DIN / AISI		
1.4308 / SS 304		
1.4408 / SS 316		
1.4306 / SS 304L		
1.4404 / 1.4409 / SS 316L		
1.4827		
1.4308 / SS 304		
1.4843		
1.4500 / Alloy 20		
1.4431		

NICKLE BASED SUPER ALLOYS		
ASTM	DIN / AISI	
A494 - M-35-1	2.4365 / Monel	
A494 - M-35-2		
A494 - M 30 C		
A494 – N-12MV	Hast Alloy – B	
A494 – N-7M		
A494 - CY40	2.4816	
A494 - CW12MW	2.4686 / Hast alloy C	
A494 – CW6M		
A494 – CW2M	2.461	
A494 - CW6MC	2.4856 / Inconel 625	
A494 – CX2MW	2.4602	
A494 – Cu5MCuC	2.4858 / Inconel 825	
A560 - 50Cr50Ni		
A560 - 50Cr50Ni-Nb	2.4813	

A351 – CG8M

A351 – CG3M

2010	
DIN / AISI	
BS 1490 - LM6	
BS 1490 - LM25	

LOW ALLOYS STE	ELS
ASTM	DIN / AISI
A217 – WC1	1.5419
A217 – WC4	
A217 – WC5	
A217 – WC6	1.7356
A217 – WC9	1.7379
A217 - WC11	
A217 – C5	1.7363
A217 – C12	
A217 – C12A	

PRECIPITATION HARDENED STAINLESS STEEL	
ASTM	DIN / AISI
CB7Cu1	1.4462 / SS 17-4 PH
CB7Cu2	

HEAT RESISTING STEEL	
ASTM	DIN / AISI
A297 – HF	1.4825
A297 – HH	1.4837 / SS 309
A297 – HI	1.4846
A297 – HK	1.4848 / SS 310
	1.4749
A297 – HD	1.4823

COBALT BASED ALLOYS	
ASTM	DIN / AISI
STELLITE 3	
STELLITE 6	
STELLITE 21	
STELLITE 23	
Triballoy T 400	

ACHIEVEMENT & CLIENT FEEDBACK

CERTIFICATE



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CAPTAIN GROUP

CAPTAIN GROUP of Companies with interests in irrigation technologies, solar energy, piping products and polymer trading is a part of \$50 Million with excellence, smart and experienced team. Exporting Network of Captain Group has spread over 30 countries in Europe, North America, Africa and Middle East. India's top industrial awards such as Indira Gandhi Priyadarshini, National Award for Quality and UdhyogPatra Award has





Distance from Rajkot Airport to Captain Technocast: 18.3 km (Via NH27)

Distance from **Ahmedabad Airport** (Sardar Vallabhbhai Patel International Airport) to **Captain Technocast: 242.8 km** (Via NH47)



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