



Sanmar Foundries Limited

Dear Customer,

This mailer could perhaps be the solution to all your steel casting needs serving a major link in your supply chain. We have been in the foundry business for a decade serving our front end customers ensuring a smooth flow in their manufacturing process. To cut a long story short, **Sanmar Foundries Limited (SFL)** is part of the US \$ 600 million Sanmar Group headquartered in Chennai, India providing reliable service to global companies.

SFL provides a wide gamut of steel castings through its Sand Foundry, Investment Foundry and Machine Shop. The fact that we have been around for a decade stands testimony to our reliability and quality. The various quality certifications, stamp of approvals from oil majors, etc., ensures our continuous commitment to quality.

We have recently increased our capacity in a big way and are ready to take on new business.

Sanmar Foundries offers a distinctive value proposition that differentiates it from others in the industry. Our casting capabilities include:

- ❑ Casting few grams to 5Ton single piece weight
- ❑ Fully machined parts and sub assemblies
- ❑ Wide range of alloys – Carbon steels, Low alloy steels, Stainless Steel and High alloys
- ❑ Complex high mix low volume engineered parts
- ❑ Foundry Engineering –Partner with customers to optimise casting design with the aid of design and flow simulation software like MagmaSoft, Ideas, UG and AutoCAD for applications such as fab to cast
- ❑ Full range of in-house testing facilities available to offer upgrade (Radiography level II) cast parts for severe service applications

We have enclosed complete details of our facilities, capabilities and product range.

At SFL, we believe in long term partnerships with our customers and we look forward to an opportunity to explore new avenues that could prove mutually beneficial. Please do contact us at SFL-mktg@sanmargroup.com

Thanking you

N.S. Raghavan

Chief Executive-Sales and Marketing

Capacity: Current capacity of **10,000 tons per annum** is being expanded to **30,000 tons per annum** at an investment of US\$20M. Expansion is scheduled for completion by Jan 2008.

Moulding Process: Pepset

Fully automated lines (IMF fast loop)

- ❑ 25 Ton Line - mould size -1100 x 1100mm, weight range – 30 to 150kgs
- ❑ 30 Ton Line - mould size - 800 x 800mm, weight range - 5 to 75kgs
- ❑ 60 Ton Line - mould size -1600 x 2400 mm, weight range – 150 to 1000kgs



Manual Lines:

- ❑ Floor Moulding – mould size 3000 x 3000mm, weight range – 1000kgs to 5000kgs
- ❑ Shell line - mould size - 450 x 600mm, weight range – 2kgs to 20kgs

Core making: Pepset, Isocure and Shell

Product Range:

- ❑ **Carbon Steel and Low alloy steel**
ASTM grades
A216 WCB, WCC, LCB, LCC
A27, A148 Low alloy high strength steel
A217 WC6, WC9, C5, C12, A487 4Q
AAR M201
- ❑ **Stainless Steels and High alloys Steels**
A351, CF8M, CF3M, CN7M, CD4MCu, CF8C,
17-4PH CD3Mn, CE3Mn, CK3McuN , CD3MWCuN
and other **Duplex Stainless Steels**
CK20 and CH20 and other heat resistant grades
DIN and EN grades

Other specification as per need.

Certifications and Capabilities:

- ❑ ISO 9001: 2000, ISO 14001: 2004,
- ❑ PED certificate from LRQA, AD 2000 Merkblatt from TUV
- ❑ Class society approval from LRQA, BV, DNV, ABS and KRS
- ❑ Well known foundry approval by Central Boiler Board, India
- ❑ Welder qualified to ASME Sec 9 and EN 287
- ❑ NDE personnel qualified to ASNT –SNTC and EN473
- ❑ Rapid product development – 3D modelling and Magma soft simulation.



Capacity: 1200 tons per annum

Weight range: Few grams to 40kgs single piece weight

Wax injection



Shelling by Robot



- ❑ Semi automatic press- 35T capacity –5nos, 12T capacity –4nos
- ❑ Twin station press-12T capacity –1no
- ❑ Ceramic injection press-12T capacity-1no

Melting:

- ❑ Induction furnace: 250kgs capacity – 4nos, 100kgs –1no
- ❑ Rotary hearth shell sintering furnace – 2nos

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A27, A148 Low alloy high strength steel
A217 WC6, WC9, C5, C12, A487 4Q
AAR M201, B2M1C
- ❑ **Stainless Steels and High alloys Steels**
A351, CF8M, CF3M, CN7M, CD4MCu, CF8C, 17-4PH
CD3Mn, CE3Mn, CK3McuN, CD3MWCuN
and other **Duplex Stainless Steels**
Monel and Hastelloy alloys
DIN and EN grades
CK20 and CH20 and other heat resistant grades



Certifications and Capabilities:

- ❑ ISO 9001: 2000, ISO 14001: 2004,
- ❑ PED certificate from LRQA, AD 2000 Merkblatt from TUV
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- ❑ Well known foundry approval by Central Boiler Board, India

Machine Shop

- ❑ Welder qualified to ASME Sec 9 and EN 287
- ❑ NDE personnel qualified to ASNT –SNTC and EN473
- ❑ Rapid product development – 3D modelling and MagmaSoft simulation.

Sanmar has a long track record of excellence in metal cutting through its JV companies for control valves, regulators, safety relief valves, quarter –turn isolation valves, mechanical seals and solenoid valves .The experience and knowledge in machining these complex parts is now being extended to SFL customers through the SFL Machine Shop.

SFL Machine Shop has been steadily adding machines to support the foundry operations and is open to adding more machines to meet the emerging needs of its customers. SFL machine shop also assembles and supplies products as contract manufacturing to select customers. We are also building our expertise in special surface treatment processes like induction hardening, electro polishing etc

Our machines include..

- ❑ Horizontal Machining Centres (HMC) – 5nos
- ❑ Vertical Machining Centres(VMC) – 2nos
- ❑ Horizontal turning Centres – 6nos
- ❑ Vertical turning lathes – 4nos
- ❑ Wide range of conventional machines



Quality and Testing:

- ❑ Brown and Sharpe Bridge type CMM size 400 x 500 x 400mm with accuracy of 0.005mm and can handle a weight of 50kg.
- ❑ Portable Faro CMM with 0.9m swing radius with temperature compensation facility for inspection upto 40 deg. C room temperature.
- ❑ Calibration equipment : DMS 680 with Micronet 2000 software .
1300 x 400 x 480mm with 0.35micron



Quality

accuracy.

- ❑ 3 point micrometer of range 100-300mm
- ❑ OD/ID measuring multigauge of size 0-600mm with least count of 0.0001" dial .

ISO 9001:2000 by LRQA



ISO: 14001: 2004 by LRQA



PED approval by LRQA



LRQA approval for manufacturing various material grade



AD 2000 Merkblatt WO by TUV



Well Known Foundry approval by Central Boiler Board of India



Class Society approvals:

Bureau Veritas



American Bureau of Shipping



Det Norske Veritas



Korean Register of Shipping



Sanmar Engineering Corporation is a US\$ 250M engineering industry segment of The Sanmar Group. Sanmar Engineering Corporation has JV relationships with world leaders in valve and flow controls like Emerson (Fisher, Asco), Crane (Xomox, Pacific Valves), Tyco, Flowserve, BS&B and Vishay.

Sanmar Engineering's product range includes control valves, regulators, safety relief valves, quarter –turn isolation valves, rupture discs, mechanical seals, solenoid valves and sand and investment steel castings. Sanmar Engineering Corporation provides integrated services to its customers through Sanmar Engineering Services at the front end that provides maintenance services to large installed bases and closing the loop at the back end with Sanmar Foundries. The Group acquired Eisenwerk Erla, an iron foundry in Germany. Sanmar Ferrotech, the iron foundry in India extends the iron foundry base to tap domestic markets thus providing a complete range of iron and steel foundry products.

Solenoid valves	Asco (India) Ltd
Rupture disks	BS&B Safety Systems (India) Ltd
Control valves and regulators	Fisher Sanmar Ltd
Mechanical seals	Flowserve Sanmar Ltd
Safety relief valves	Tyco Sanmar Ltd
Precision load cells	Vishay Sanmar Ltd
Isolation valves and actuators	Xomox Sanmar Ltd
In-plant maintenance solutions	Sanmar Engineering Services Ltd
Castings for Valves, Off-the-road vehicles	Sanmar Foundries Ltd
Large series automobile castings for turbo charger housing, integrated manifolds	Eisenwerk Erla GmbH
Auto- components, construction & Industrial equipment	Sanmar Ferrotech

For Steel Foundry requirements, contact us at:

Sanmar Foundries Ltd

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Website: www.sanmargroup.com

The Sanmar Group

The Sanmar Group is a diverse group of companies with a turnover of about US\$ 600 million, operating in various industry segments like Chemicals, Engineering, Speciality Chemicals and Shipping. The Group enjoys a strong global presence through decades of successful joint ventures and through the acquisition of a chemicals facility in Egypt and an iron foundry unit in Germany. The strength of the Group lies in its strong ethical commitment, good corporate governance, environment-friendly practices and processes and transparent systems. The Group's technological expertise in niche areas and strong respect for intellectual property rights have helped build a strong brand equity as an ethical and reliable conglomerate over the decades.

Registered Office: 9 Cathedral Road, Chennai 600086, India. Tel: +91 44 28128800 Fax: +91 44 28111902

Sanmar Holdings Ltd

Chemicals	Chemplast Sanmar Ltd	Speciality Chemicals	Sanmar Speciality Chemicals Ltd	Engineering	Sanmar Engineering Corporation Ltd
	PVC		ProCitius Research		Asco (India) Ltd
	Chlorochemicals		Bangalore Genei		BS&B Safety Systems (India) Ltd
	Trubore Piping Systems		Performance Chemicals		Fisher Sanmar Ltd
TCI Sanmar Chemicals LLC	Intec Polymers		Flowserve Sanmar Ltd		
Shipping		Cabot Sanmar Ltd	Sanmar Engineering Services Ltd		Sanmar Foundries Ltd
	Sanmar Shipping Ltd		Tyco Sanmar Ltd		Tyco Sanmar Ltd
			Vishay Sanmar Ltd		Vishay Sanmar Ltd
			Xomox Sanmar Ltd		Xomox Sanmar Ltd
					Eisenwerk Erla GmbH
				Sanmar Ferrotech Ltd	