



OVERVIEW & TECHNICAL CAPABILITIES

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Location : <https://goo.gl/maps/WTs2rPmePgM2>

Steel castings Manufacturing unit..

OVERVIEW

- SCF is a leading steel foundry located in the Jeddah, KSA
- A growing annual capacity of 6,000 Tons
- Specialists in engineered-to-order castings for O&G, Energy, Engineering & Mining
- Our wide spectrum of grades include: carbon and low alloy steels, stainless steels, duplex, super duplex steels and high Nickel alloys
- Castings produced from 20 Kg (44 lbs.) to 1250 Kgs (2,750 lbs.) net weight in both rough and fully machined condition
- SCF lead times are short to most parts of the world
- Industry needed accreditations, approvals.
- We respond to changing industry demands by making speedy investments in the latest technologies
- ISO9001:2015; ISO14001:2015 & BS OHAS 18001:2007 certified by TUV-Nord

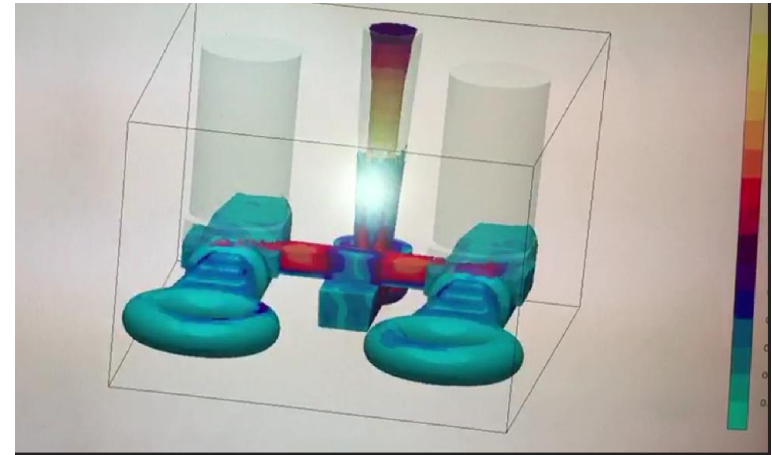


“Commit Right, Deliver Right”



ENGINEERING

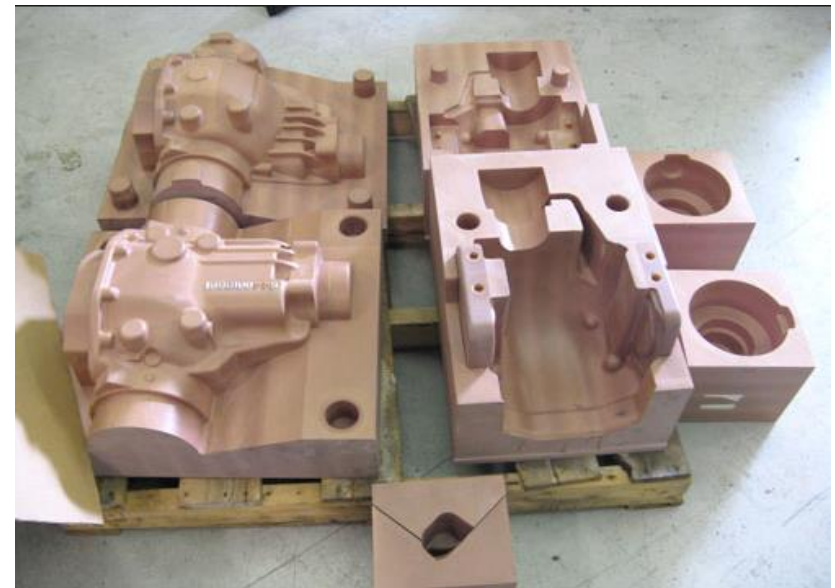
- SCF uses sophisticated computer aided design applications...
 - Pro Engineer
 - Solid Works
- Our seasoned team of Engineers help
 - Predict performance
 - Detect potential defects
- Magma filling & solidification software is used to enhance the quality of castings
- Successfully leveraged our design capabilities to execute critical projects in challenging material grades



Sophisticated casting design capabilities...

PATTERN MAKING & STORAGE

- In-house pattern design manufacturing
- Equipped with 3axis-CNC Flexicam machine
- SCF is enabled with 3D modeling capabilities
- We use high quality plywood for long life & to minimize deformation
- We store customer patterns properly;
- SCF has established a sizeable pattern mounting workforce
- We adapt customer patterns for production at SCF



In house pattern design & manufacturing...

MOULDING

- Mould size 1.8 m (L) x 1.6 m (W) x 1.2 m (H)
- Molding lines are automatic and favors high volume continuous production, 10-12 moulds / hour.
- Plants are equipped with heavy duty cranes for the movement of molten metal
- Alkaline phenolic chemical bonding process used for molding
- Up to 1.2 MT net weight castings
- SCF uses silica sand along with chromite sand at the surface of the mould to:
 - Impart superior quality
 - Better surface finish to the castings
- Equipped with Mechanical sand reclamation unit to boost casting quality and enable cost-efficient production by recycling of sand



High volume continuous production....

MELTING

MELTING CAPABILITIES

- 1 x 2200 kgs Inductotherm coreless induction furnace
- 1 x 1200 kgs Inductotherm coreless induction furnace
- Duplex, Super duplex, high Nickel alloy capabilities & Exotic material capabilities
- Advanced calibration techniques including laser thermometry.
- We develop exotic steel grade materials with requisite chemical compositions for critical applications



Consistent melting expertise...

MELTING – GRADE CAPABILITIES

CARBON STEEL

ASTM A 216	WCB, WCC
ASTM A 352	LCB, LCC
EN SEW 685	1.1138
DIN EN 10213	1.0619, 1.5419, 1.6220

LOW ALLOY STEEL

ASTM A 148	90-60
ASTM A 217	WC1, WC6, WC9, C5, C12, C12A, CA15
ASTM A 352	LC1, LC3, CA6NM
ASTM A 487	1A, 1B, 1C, 4A, 4C, 4D, CA6NM
DIN EN 10213	1.7357, 1.7379, 1.7365, 1.7706

STAINLESS STEEL

ASTM A 351	CF3, CF8, CF8C, CF3M, CF8M, CN7M, CF10, CG3M, CG8M, CN3MN, CK3MCuN, CT15C
ASTM A 743	CF3, CF8, CF8C, CF3M, CF8M
DIN EN 10213	1.4308, 1.4408, 1.4409, 1.4552, 1.4581, 1.4309

DUPLEX / SUPER DUPLEX STAINLESS STEEL

ASTM A 995/ 890	CD4MCuN (1B), CD3MN (4A), CE3MN (5A), CD3MWCuN (6A)
DIN EN 10213	1.4517, 1.4470, 1.4469

NICKEL ALLOYS

ASTM A 494	M35-1, CY 40, CW6MC, CU5MCuC
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Consistent melting expertise...

HEAT TREATMENT

- SCF Heat treatment capabilities includes PLC controlled Electric furnaces for:
 - Normalization
 - Homogenization
 - Annealing
 - Hardening
 - Stress relieving
 - Tempering
 - Quenching
- Furnaces of loading capacity 3 Ton and chamber size 1.2 m x 3.5 m x 1 m height
- Quench tank with a capacity of up to 100 m³ and having water cooling and agitation systems
- SCF specializes in processing of Low Alloy Steel grades



Fully Automatic heat treatment operations...

NDT

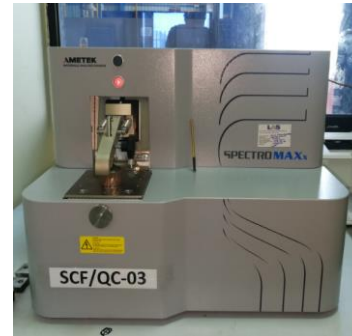
- SCF provides a one stop solution for all NDT services:
 - Magnetic particle inspection (MPI)
 - Dye penetrant testing (DPT)
 - Ultrasonic testing (UT)
 - Radiographic testing (RT)
(Under KA CARE initial approval)
- NDT Examiner with **Level III** in ASNT & EN ISO 9712 Qualification
- NDT Operators qualified to ANSI Level 2 for RT, UT, VT, MPI, & DP
- In house Radiography Certified Officer (RSO)
- Magna flux 6000Amp Magnetic particle Multidirectional HWDC inspection units
 - Wet & dry inspection techniques
- Ultrasonic examination by DAC & DGS methods



Adapting to industry demands...

LAB TESTING

- Complete metallurgical sample preparation & evaluation equipment
- Comprehensive mechanical properties testing.
- Metallurgical examination of microstructures, gas content & impact properties to measure & improve upon mechanical (toughness) and corrosion resistance properties
- SCF is equipped to do all chemical and mechanical testing for most specifications needed in the industry
- Positive Material Identification
- Industry approvals & accreditations
- 3rd party inspection coordination



State of the art lab testing facilities...