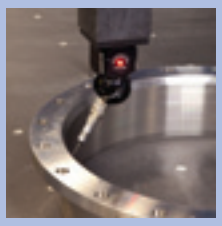
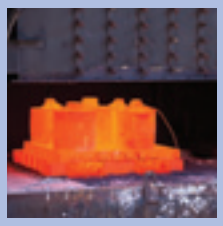
BRAFE ENGINEERING

ENGINEERING THE FUTURE





MANUFACTURING HIGH QUALITY CASTINGS FROM THE FOLLOWING SPECIALIST ALLOY GROUPS:

- IRON
- NICKEL
- COPPER
- TITANIUM
- ZIRCONIUM
- COBALT

INTRODUCTION

Established in 1966, Brafe Engineering is a leading UK manufacturer of high specification special alloy castings and fully machined castings. We focus on the production of precision castings using sand or investment casting (Repliwax) processes.

Our markets are worldwide and include oil and gas, petrochemical, power generation, nuclear power, desalination, food processing, marine, paper and pulp and many more industrial processes.

At Brafe we offer a one-stop-shop, our manufacturing facilities include a foundry, as well as heat treatment, welding, machining and full testing capabilities. We offer a vast array of alloys with exceptional resistance to cracking, pitting and stress corrosion, making them suitable for service in conditions of intense abrasion or attrition and at the extremes of high and low temperature.

QUALITY & ACCREDITATION

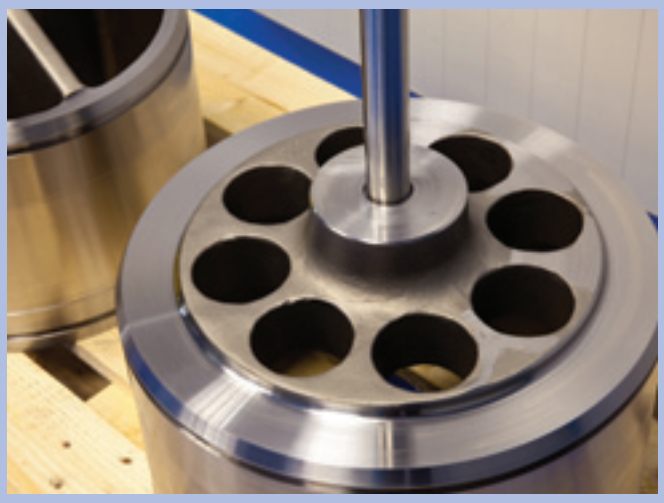
The Company operates a Total Quality Management system, certified to ISO 9001:2008, which embodies three essential elements:

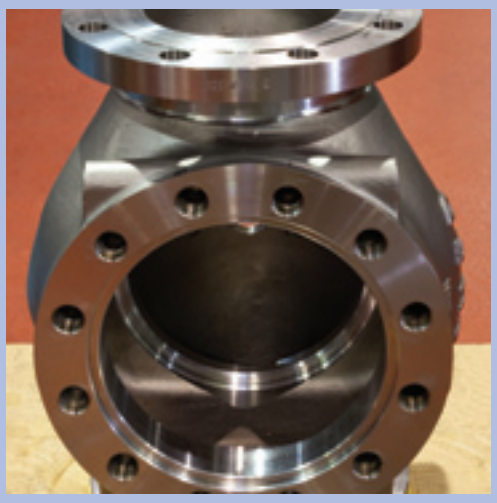
i) Focus on Customer Requirements,
ii) Process Improvement for defect reductions, and
iii) Total Quality Management involving all employees.

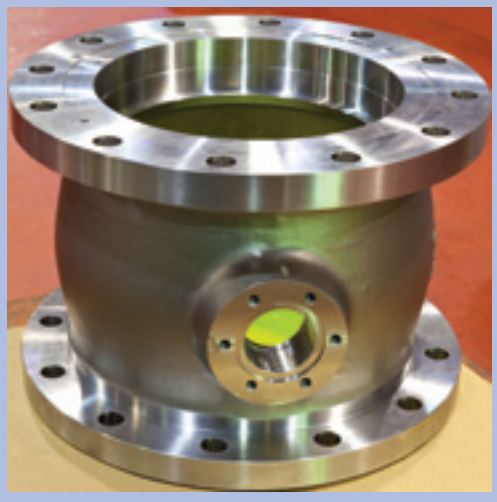
The aim of the Company is to provide total satisfaction and to meet the customer's needs fully. By adopting a process based operation the Company aims for continuous improvement in all existing operations.

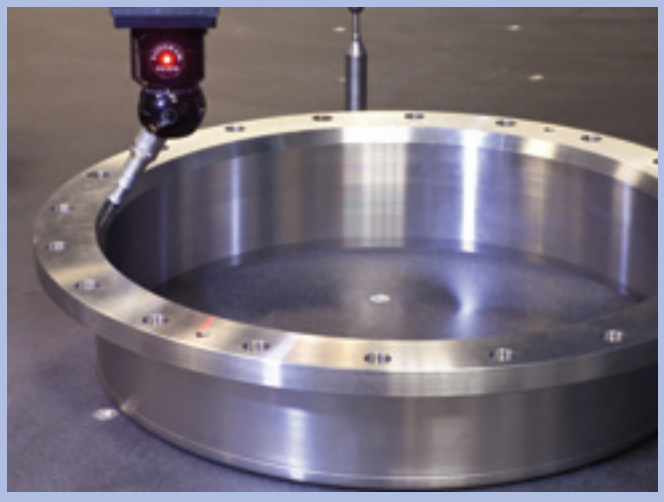
The company has been granted certification by the following organisations:

GL Approval
Lloyds Register
Norsok Iron Based
Norsok CX2MW
Bureau Veritas
ABS Approval
EMDC Duplex QML
Norsok CW6MC
ISO9001-2008
American Bureau of Shipping









PROCESSES

Engineering Design and Simulation - Magma computer simulation and flow analysis, combined with the in depth of knowledge and experience of our engineering personnel, have enabled us to optimise casting methods and our work towards a 'right first time' approach.

Pattern Making and Tooling - Brafe have fully equipped pattern shop including, CNC operated pattern making equipment and CAD/CAM using Key Creator and Edge Cast software. Designs are methodised to determine the most suitable method of manufacture, sand casting or ceramic process.

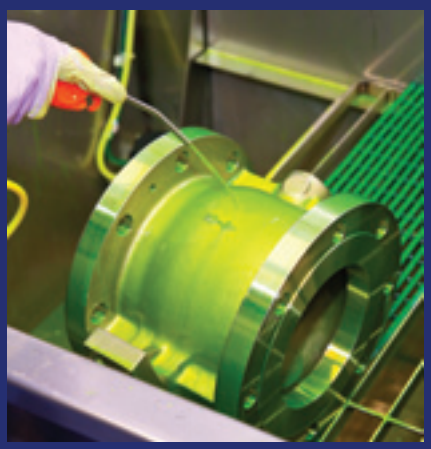
Casting Operations - Our specialised silicate sand foundry with induction melting furnaces has the capacity to cast up to 1500kgs gross weight in over 250 advanced alloy grades. Along with the main casting process, we offer a Repliwax casting option, which incorporates a balance of both traditional sand and the latest ceramic casting technologies.

Metallurgy and Heat Treatment - We can provide full tensile, chemical and metallurgical certification, including metallographic, corrosion, impact testing, ferrite testing, hardness testing and any other type of testing on request. Our purpose-built NORSOK heat treatment facilities, approved and qualified to 1250°C, provide the ideal environment to produce high quality castings in a wide range of materials.

Welding and Standards - Our welders and procedures are qualified in accordance with ASME IX standards, and we have ASME IX approved procedures for all our alloys in continual production. Weld repair of castings often includes liquid penetrant inspection and may also include radiographic testing and post-weld heat treatment.

Machining Capabilities - Our fully equipped machine shop is optimised for the materials in which we specialise. Linked to our advanced computer-aided facilities we can download programs directly to our machine tool controllers allowing them to machine complex forms or produce in-house tooling and patterns.

Inspection and Quality Management - We offer a number of non-destructive and quality testing processes, including a state of the art LPI facility. We have a fully equipped inspection department for both in-process and final inspection and to ensure our high standards are maintained, we have a comprehensive quality management system and material review process, from incoming raw material right through to despatch.



MATERIALS

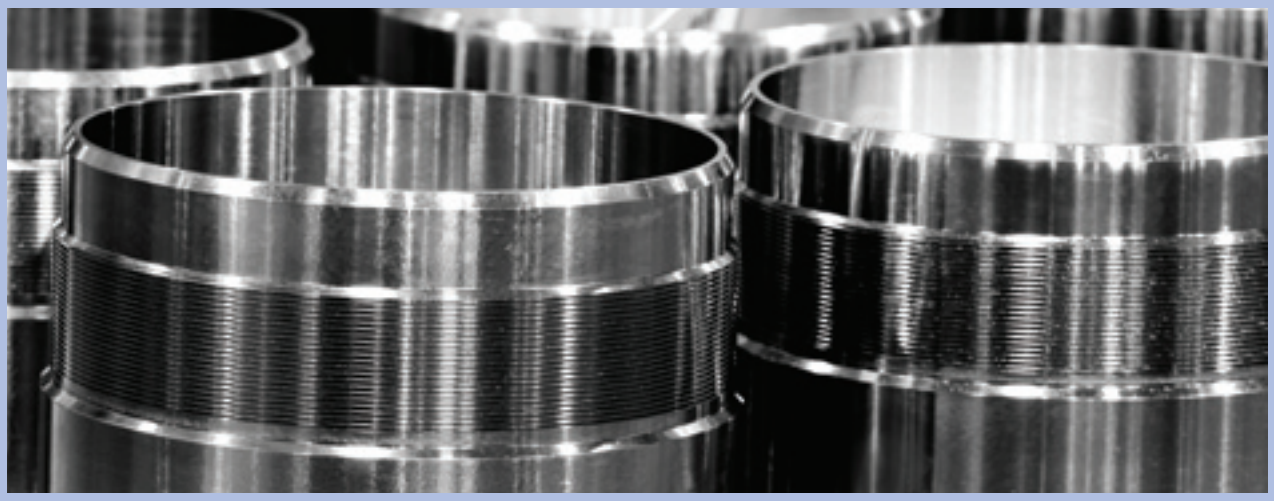
Below is a list of current alloys in continual production other alloys are available on request:

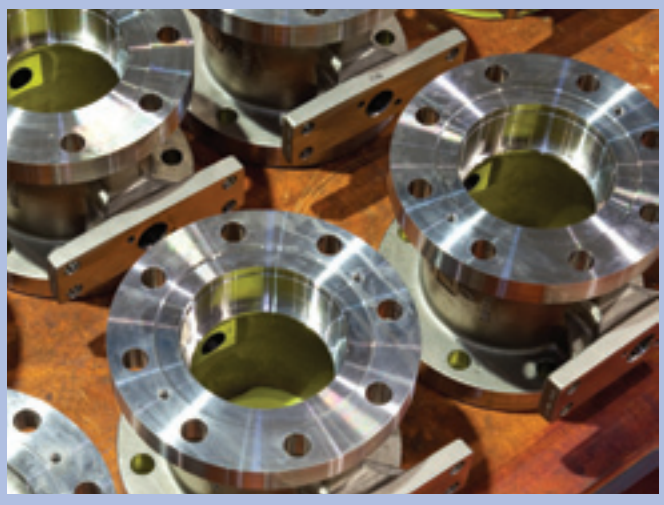
Iron Based Alloys – Carbon Steel, Chrome-Moly Steel, Austenitic Stainless Steel, Super Austenitic Stainless Steel, Martensitic Stainless Steel, Precipitation Hardening Steel, Duplex Stainless Steel, Super Duplex Stainless Steel

Nickel Based Alloys – Nickel Copper Alloy, Nickel-Molybdenum Alloy B, B2, C, C4, C22, 59, Nickel Alloy, Alloy 625, Alloy 600 and Alloy 825.

Copper based Alloys – Aluminium Bronze, Nickel Aluminium Bronze

Other alloys and Specials – Titanium Based Alloys, Zirconium Based Alloys, Cobalt Based Alloys

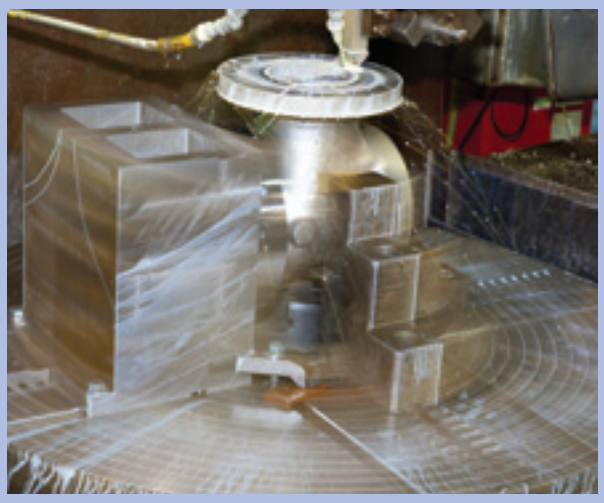


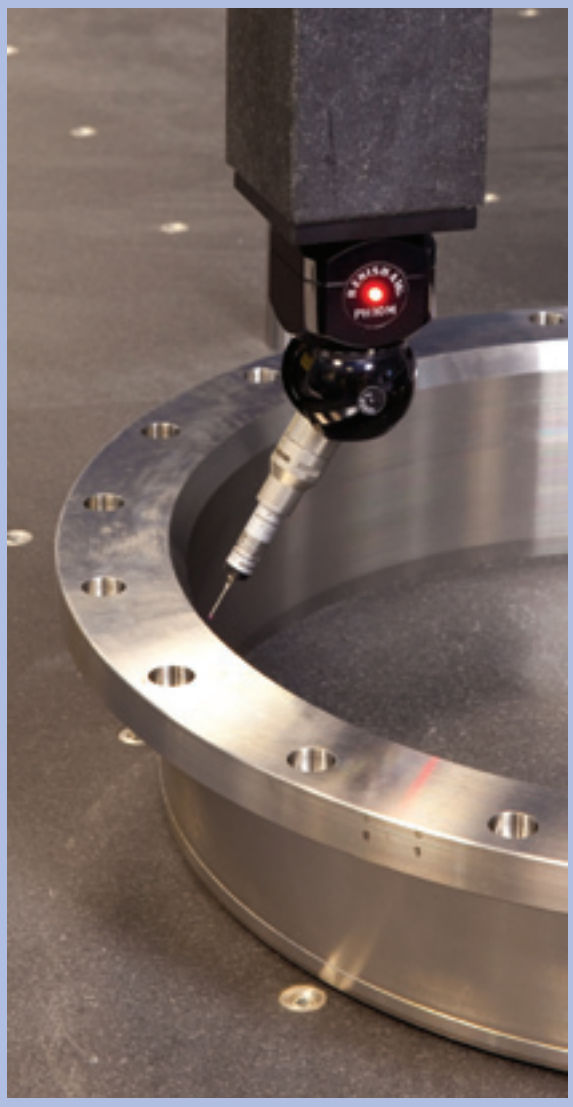


OUR MARKETS

Brafe have been involved in many large scale development projects worldwide. Our project management and development team work closely with our customers to ensure all requirements are fulfilled and delivery dates are achieved. From Carbon Steel to Titanium, these projects have helped Brafe gain the knowledge and experience necessary to continue to meet the ever changing requirements of our customers, across our entire range of materials.

Industries Served - Oil and Gas, Chemical, Petrochemical, Pulp and Paper, Pharmaceutical, Environmental Control, Nuclear, Power Generation, Naval, Submarine and Shipping.





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