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Spotlight On

The Steloy Foundry Group 25 years and counting

Since its first pour in 1985, Steloy Castings of South Africa has evolved from a relatively small stainless steel foundry with a local focus into an international operation with a strong presence in the petrochemical and chemical industries.



Hallstrom heads up Steloy's North American and European operations in Den-

The Stelov Group. which this year celebrate its 25th anniversary, was founded in response to a need in Southern Africa for a specialist foundry flexible enough to provide high levels of customer service but with the technical expertise to cater for specialist needs. Its ability to fill this niche, leveraging these specialist skills, has resulted in spectacular growth and Steloy is today the leadstainless ing steel foundry operation in Southern Africa. The Group has three foundry complexes with a combined floor space of 20,000m² near Johannesburg.

A passion for quality and customer service, combined with technical innovation, has been central to Steloy's success. In the late 1980s, it was the first South African foundry to regularly cast duplex alloys. Today it often casts valve components in super duplex alloys and petrochemical components in advanced heat resistant high alloys. In 1991, Steloy was the first independent sand foundry in South Africa to be awarded the ISO 9002 listing for quality manage ment. And in 2006, it became the first South African foundry operation to be awarded European Pressure Equipment Directive - PED (97/23/EC) - accreditation, which applies to all three plants.

"Steloy is one of a fairly small number of high-alloy steel foundries able to meet international quality and delivery demands while remaining price competitive," says CEO Danie Slabbert. "South Africa is a developing country with a favourable exchange rate and lower labour and production costs. This, combined with our focus on quality, service and ontime delivery, attracts international customers."

All products and services are tailored to customer specification and Steloy offers a 48-hour turnaround time on quotations and a worldwide supply and delivery service. A marketing office in Denver, Colorado (mark@ steloyusa.com) serves North America and

cal sectors. The Group is on the approved vendor lists of companies such as Foster Wheeler. Selas Linde, ExxonMobil, Petrochem-Heurtey, OnQuest, Born Heaters-Canada, Chevron, Selas Fluid USA and KTI. Components cast by Steloy find their way into refineries and other petrochemical applications across the globe, from Mexico and Hawaii to Singapore.

The Group supplies the refining and downstream industries with static as well as centrifugal cast heat-resistant products. Static components are predominantly tube support elements such as convection tube sheets, radiant hangers, brackets and bends produced in accordance with API 560

destructive testing with high acceptance criteria," says Slabbert. Mechanical testing, spectrographic analysis, radiographic inspection, liquid penetrant testing, magnetic particle inspec-

tegrity

dards, which

requires non-

tion, PMI and pressure testing are applied either in-house or by approved third party inspection authorities. Steloy recently acquired a latest-generation ARL 3460 optical emission spectrometer from Thermo Electron, enabling in-house analysis of an unequalled vari-







Recent contracts, clockwise from top left: Steloy cast 400 x 42" stainless steel cryogenic valve bodies and discs for Middle East oil and gas; supplied 196 sets of reformer tube components to a Hawaiian refinery within four weeks; is supplying chrome steel pump components for two SA coalfired power stations, and cast 30 X 1,230 kg diffuser bowls in super duplex stainless steel for a Middle East desalination plant.

and EN 10295. Centritu-

gal components mainly

comprise tubing for hy-

drogen reforming, cata-

lyst tubes and pyrolysis

coils for the production of

Europe, while Asia and ASTM/A297, ASTM A351 the Middle East are serviced from South Africa.

Petrochemical

During the past decade Steloy has expanded its footprint in the supply of castings to the petrochemical and chemi-

ethylene, cast to API 560 and ASTM A608 as well as supplementary customer requirements. Steloy also produces materials that can be regarded as proprietary alloys such as HP45 Nb (micro-alloyed) 35Cr45Ni (micro-alloyed). For these alloys, creep rupture tests are conducted on a continu-

ous basis and material data updated accordingly. "The main challenges in serving this market are control of the chemical composition of castings and meeting inety of alloys across a wide spectral range.

Pumps and Valves

Steloy also supplies as-cast and machined pressure- and corrosionresistant pump and valve components to the petrochemical chemical industries for applications where severe corrosion, high pressures and high or cryogenic temperatures are prevalent. Chemical applications range from high- and low-density polyethylene manufacturing and fertiliser plants to platinum-group metals extraction. These components are produced in accordance with the relevant ASTM, DIN EN and SEW specifications and conform to

ble NACE standards.

applica-

Generally, pump and valve customers include Sulzer Pumps, KSB, Weir, Spirax Sarco, AZ Armaturen, Flowserve and Tomoe. Steloy recently received back-toback orders from Sulzer Pumps SA - which had been subcontracted by Alstom Power - to supply the cast components for booster and boiler feed pumps for two new coal-fired power stations in South Africa. Additionally, Steloy supplies stainless steel and super-alloyed castings to markets as diverse as the cement, glass, pulp and paper, and rolling stock industries.

In the foundry industry, success is usually measured in terms of the number of patterns held in stock. Steloy currently holds 22,000 sets of patterns for customers, proof indeed of the solid performance of South African this foundry.



Steloy Castings (Pty)

Products: Static and centrifugal cast components

Materials: Stainless steel, super alloys and carbon steel **Industries:**

Petrochemical, chemical, heat treatment, pump & valve, cement, glass, paper, steel, ferro-alloy, aluminium, rolling stock, power generation **Employees:**

I www.steloy.com



Steloy Castings is one of a handful of foundries in the world able to cast process tubes in high-alloy steels.