

Multi Alloys – casting a wider product footprint

Multi Alloys (Pty) Ltd recently boosted its product offering with the addition of centrifugal castings.

“With effect from 1st October 2017 we are able to offer customers centrifugally cast pipes and similar axial-symmetric items,” says director Ken Perel.

Established in 1997 and operating from Gauteng’s Midrand business hub, Multi Alloys is an ISO 9001 accredited supplier of nickel alloys, duplex and high alloy stainless steel, titanium and other niche products.

“When a customer asked us to assist with a casting-related query, we noticed a gap that has emerged in the local market for the supply of centrifugal cast pipe and hollow bar,” explains Perel.

The addition of centrifugal castings complements the company’s basket of offerings and contact was made with Italian foundry, Fondinox. According to Perel, the timing was perfect as this family-owned business was looking to grow its business in South Africa. “So it is a perfect synergy for both companies and an agreement was duly signed appointing Multi Alloys as an agent.”

Centrifugal casting delivers an extremely competitive product with outstanding integrity and, based on the alloy selected, mechanical strength, creep properties and corrosion resistance behaviour can be optimised for the application. “It is possible to obtain a substantial wall thickness thereby creating pipe suitable for demanding service including mechanical applications such as bushes,” adds Perel.

This method presents a number of advantages over static casting/drilling a hole through solid bar:

- The rapid cooling of liquid material in the metallic mould ensures very fine microstructure which imparts beneficial properties.
- Less manufacture steps may be required when compared with alternative production routes.
- Produces less wastage than machining from solid.
- A total absence of gas shrinkage cavities (when compared with static casting) eliminates the need for UT and RT examination.
- Inclusions separation induced by centrifugal action ensures material cleanliness.
- It is a much simpler and faster process resulting in short lead times.

Centrifugal cast pipe / hollow bars are available in external diameters that range from 80 to 1500mm and internal diameters are from 45mm up. Lengths of up to 5500mm as a single piece may be available (longer lengths can be obtained through weld joints).



Centricast items are suitable for a range of applications across a wide spectrum of industries including oil & gas, chemical and petrochemical, mining, waste treatment, lifting machinery, construction, process industries, etc. Typical applications for tubes centrifugally cast from corrosion resistant alloys include mechanical line pipes in chemical plants and conveyor rolls in pulp and paper industries, dairy, textile, and printing industries. Centrifugal cast high temperature alloy tubes are suited as conveyor rolls for the metallurgical and glass industries, muffles and line pipes and fittings for the petrochemical industry.

Multi Alloys is importing centrifugal castings to customer orders with the stocking of select items under consideration.

With 50 years of experience in the production of steel and nickel-based alloy castings, Fondinox S.p.A. is a leading producer of high value added castings. The company introduced centrifugal casting technology more than 30 years ago. Its manufacturing facilities are compliant with European quality accreditations including ISO 9001 and TÜV.

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