



STAINLESS STEEL CASTINGS  
NICKEL STEEL ALLOYS  
CENTRICAST AND MECHANICAL TUBES

#### TECHNICAL NOTE

#### SUBSEA APPLICATIONS FOR STAINLESS CAST AND CENTRICAST COMPONENTS

Presence since more than 40 years in the oil and gas market has led to development of a relevant number of cases, in which optimized cast and centricast stainless alloys are successfully used in subsea applications. A superficial examination of the matter tends to prefer in subsea specifications the use of forgings, than cast materials. This is a traditional approach, not based on a deep evaluation of material properties and on the geometrical flexibility of cast items, which leads many times to relevant cost reductions for an equivalent performance.

Among them we are proud to remember, that we have current subsea uses of our products for:

- High rating valve and pump bodies (up to 10000psi)
- Centrifugally cast balls up to 32" nominal size and relative seats for ball valves
- Internal centricast cages for high pressure control valves
- Containers of submerged (high depths up to 3000/4000mts) electronical components, which should be protected from external hydrostatic pressure. This application is wide and can be applied to optical fibers retransmission power units, or flowmeters devices for multiphase fluids



#### **Main features:**

- All stainless alloys, that is martensitic, ferritic, austenitic, duplex, superduplex, superaustenitic and nickel base corrosion resistant alloys ( for details and properties please check in our web [www.fondinox.com](http://www.fondinox.com))
- Full technical service on alloy properties through our metallurgists
- A relevant list of alloys produced under original Trade Name and licence form wellknown producers of hot finished metals, like Sandvik Steels, Outokumpu, Haynes Intl. (check on our web [www.fondinox.com](http://www.fondinox.com))

- The most complete list of individual alloy Norsok qualifications, certified in Statoil TR2000 document (Approved Materials Manufacturers)
- Presence in vendor lists of all major oil and gas world International Companies after decades of successful supplies
- Components weights up to 7000 Kgs for sand cast items, and 5000 Kgs for centricast ones, coupled to a wide dimensional range (90 to 1200mm for pipes, 300 to 1400 for vertical centricast, 3000x3000 for sand castings).
- All type of destructive and volumetric NDE for prompt use on wall thicknesses up to 500/600mm through a set of three different linear accelerators
- All type of premachining and finish machining operations available through a net of qualified subsuppliers, specialized in such field, which is continuously strengthened. All these machining shops are located not far away from our foundry and we grant the necessary expediting activity, to include machining in our full production process
- In few words the whole production process for the metallic component is 100% controlled and followed.



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