

CENTRIFUGAL CASTING DIVISION

S|C Super Bent

**EXTREME 3-D-BENT
CENTRIFUGAL CASTING**





Extreme 3-D-Bent Centrifugal Casting as Fittings in Steamcrackers

Bending of centrispun tubes was limited to rather wide radius and was used for special designs only. Elbows and return bends were still produced as static casting, i.e. heavy, rough internal surface, brittle because of the large grains, and a number of additional welds in particular with complex 3-dimensional coil designs. This has come to an end: From today on, you can enjoy the advantages of centrispun tubes also in elbows and return bends - with our new SuperBent products!



WHAT'S NEW?

SuperBent is different from the usual wide bent centrispun tubes. The bending radius is significantly smaller - the ratio of bending radius to tube diameter can be as small as 1.2 - this cannot be matched by any bending technique used up to now. In addition to that: The length between 2 bends can be as small as 600 mm - which allows complex 3-dimensional bends to be done from one single tube without having any weld.



YOUR ADVANTAGES AND BENEFITS

Your advantages and benefits are manifold:

- Less welds - this means reduction in potential structural weaknesses
- Less weight - this means lower creep rates of the tubes fabricated on top and less complex hanger systems



- No patterns required - this means higher flexibility in production and shorter leadtime
- Smoother internal surface and thus less coking - centrispun tubes are internally machined to an Ra of 3.2 μm vs. $> 10 \mu\text{m}$ of static castings
- Better heat transfer - through lower wall thickness than in statically cast components
- Higher flexibility in coil design and construction - the extended length of centrispun tubes allows the positioning of the welds where it is most convenient for the furnace construction and for maintenance



- Easier maintenance and repair - by the well-known superior material properties of centrifugal vs. static casting, welding and repair of aged material is much easier
- Longer lifetime and less maintenance - the bending radius is smoother than in a static cast fitting which causes less erosion; the

wall thickness is lower, more homogeneous, and has the superior centrifugal casting structure, thus minimizing tensions and thermal fatigue cracking

- And: SuperBent tubes are available in all of our well known materials

You save money and trouble – by reduced material costs, reduced maintenance problems and improved performance

Contact us and ask for our quote!



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