



STAINLESS STEEL CASTINGS

NICKEL STEEL ALLOYS

CENTRICAST AND MECHANICAL TUBES

#### **ROLLS FOR HOT DIP AND ELECTROGALVANIZING**

Our Company supplies since 30 years complete rolls for galvanizing applications, either for hot dip process in zinc baths, or for electrogalvanizing processes. These rolls can be supplied in form of separated parts (sand cast lateral cones and central pipe) or in finish machined and assembled arrays.

##### **Hot dip process**

Corrosion environment in molten salts is a real headache for corrosionists, because all electrochemical reactions are difficult to be foreseen and followed. So the only way to prescribe alloys for this applications is to test different materials in real working environments and then to compare their relative performances. Basic alloy are based on modified 316L compositions, where our knowledge in corrosion resistance of austenitic alloys has led to better performing results in terms of roll surface resistance and coated sheet tonnages. We have developed special compositions for such applications, where a careful choice of phase balance between delta ferrite and basic austenite can play an important role. Production capacities range for lateral cones to cast weights up to 7500 Kgs and for central pipes up to 1200mm OD and 4700mm length, so really far outstanding the normal geometries for hot dip galvanizing equipment. In case of roll complete fabrication all welding processes are qualified by Independent Third Parties. Also rolls with high temperature stainless materials can be produced, where high temp. aptitudes are preferred to corrosion resistance. Today their usage tends to be a little bit reduced.



##### **Electrogalvanizing processes**

Metal corrosion is mainly a process, involving electrochemical reactions. By insertion of very high current intensity in the bath, also here the process is difficult to be predicted, because strictly referred to individual plant environment. Due to this feature, rolls in electrogalvanizing plants are commonly named conductor rolls. Particularly here the best solution would be to insert in working environment test racks in different alloys, but in well defined areas, to establish their relative performance. At our knowledge a lot of different alloys are considered as optimal in different lines, ranging from simple 316L type alloys, up to Hastelloys, cobalt (Ultimet) or titanium base alloys. Except titanium alloys all such materials can be produced in our foundry; most of them, like all Hastelloy C type and Ultimet, also under official licence of Haynes Intl., who can support us in terms of corrosion issues. Big rolls in such high alloys are normally produced from welded plated, seamless forgings or, even better and much more competitively in centricast execution. It's a general consideration, the fact that as higher is an alloy, as more competitive can be the centricast technology in relation to other competitive processes. Our high expertise in handling cast high nickel or cobalt base alloys, makes possible the optimization of the final product.



**BIBUS METALS**  
■■■■■ SUPPORTING YOUR SUCCESS

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