



## Tube Industry Applications



Applications within the tube industry call for materials with both good wear resistance and good surface properties, so that the quality of the manufactured product is not compromised by contact with the tooling.

Thanks to their hardness and surface quality, Technox® 500 and Silicon Nitride ceramics achieve the highest ratings in tool life and tube quality when applied to tube processing. Both Silicon Nitride and Technox® 500 ceramics play a key role in trouble-free and cost-efficient production in the following tube processes:

### **Tube Welding**

Technox® 500 and Silicon Nitride welding rolls are unaffected by the magnetic fields generated during the high frequency induction welding process used in the longitudinal seam welding of tubes. The use of Silicon Nitride weld rolls significantly reduces wear, minimises downtime, resulting in improved productivity. In forming technology, Silicon Nitride materials are established or under evaluation for many application areas.

### **Bending and Expanding Aluminised Steel Tubes**

Bending and expanding tools made from, Technox® 500, are highly resistant to fracture and have a good resistance to cold welding. The extended tool life helps to reduce set-up and maintenance costs during the shaping process.

### **Expanding Copper Tubes**

Using Technox® 500 mandrels for expanding tubes significantly improves tool life and can lead to a reduction (or even the elimination) of lubricants and enhanced efficiency of the forming process.

### **Customer Support**

Dynamic-Ceramic manufactures custom-made parts to our customers' specifications. For more details of our products and services or to discuss your specific requirements, please contact one of our Sales Engineers.

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