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**THE journal for the
stainless steel specialist**

From single components to complete lines

The full range of tube mills is available from Olimpia 80

Especially for stainless steel, Olimpia 80 is able to design and produce single components or complete tube lines for TIG, laser and high frequency welding, covering a size range from 5mm to 609mm OD. The product range at Olimpia 80 covers complete TIG lines for austenitic, ferritic and duplex stainless steel tubes; special alloy tubes; copper, titanium and aluminium tubes, as well as for other fer-

Olimpia 80 is an Italian company which has specialised for over 40 years in the engineering and manufacturing of a wide range of tube mills for stainless steel, titanium, non-ferrous materials, and carbon steel, for the production of round, square, rectangular and special profiles. The company can also supply "turnkey" systems, find custom-made solutions, offer suggestions to upgrade older systems, and provide a complete after-sales technical and personnel training service.



In addition to standard lines, Olimpia 80 manufactures a range of special stainless steel tube production lines. These include mills for the production of flexible welded tubes with parallel weld corrugation (for tubes from 10mm up to 76mm OD, with wall

for thin wall tube production, for tubes 80-250mm OD, and 0.5-1.5mm wall thickness; mills for the production of tubes for optic fibres and coaxial cables; and mills for the production of spiral flexible tubes. All rolls and tools used on Olimpia 80 mills are designed and manufactured in-house. They include rolls for the production of round, square and rectangular tubes, as well as for other profiles. All standard tube mills supplied by the company can be completed by a cassette system allowing quick tooling change. Olimpia 80 offers a full range of tube mill components, including mill entry section equipment; strip

Tube mill for stainless steel with laser welding system

rous and non-ferrous metals.

Olimpia 80's laser welding lines are suitable for the production of austenitic, ferritic and duplex stainless steel tubes, special alloy tubes, and aluminium tubes. The company also offers the option of installing, on the same line, a combination of TIG and laser welding.

Olimpia 80 provides in-line bright annealing machines which are suitable for low speed or for the higher production speeds of laser tube mills.

The complete annealing system also includes the tube washing unit and the

pinch roll for tube feeding, electronically synchronized to the sizing group.

High frequency welded tube lines from Olimpia 80 are suitable for the production of tubes in austenitic and ferritic stainless steel, low and high resistance carbon steel, and aluminium. They are available for the size range from 10 to 609mm OD. The welding station guarantees absolute control of the tube edges allowing high production speeds and optimal welding quality.

Tube mill for stainless steel with laser welding system

thickness from 0.15 to 0.35mm); lines for the production of round tubes with very thin wall thickness, from 0.12mm, covering the size range up to 120mm OD and thickness of 0.5mm; "roll-less" mills





accumulation systems; equipment for outside weld bead removal, and for inside weld bead control, such as bead grinders, bead scarfing units and bead rollers.

The company's tube mill component range is rounded off by anti-twist units; in-line monitoring and control equipment; cut-off equipment; planetary brushing machines for round tubes; in line brushing machines for square and rectangular tubes; tool deburring machines; and brush deburring machines. Olimpia 80 tube mills can be found all over the world.

New technology

Olimpia 80 also offers its innovative and patented technology known as linear cage forming, in two different versions:

- linear cage forming for round tubes
- linear cage forming for square and rectangular tubes

The linear cage forming system is the result of many years of experience and knowledge in the tube field. This method brings undisputed advantages in terms of flexibility, production capability and production cost reduction.

The innovation lies in the ability to produce any tube in any size included in the mill range, without roll change and in just a few minutes leading to a sharp reduction in set up time. Compared to the traditional production process, this method is completely automatic and set up operations are easy, accurate and fast.

This tube forming system, developed and realized by Olimpia 80, makes use of the latest technologies which allow the diameters of the tubes to be produced to be varied without

Tube mill for stainless steel with linear cage forming for round tube

Tube mill for stainless steel with HF welding system

any changing of the rolls. It is a unique and compact system consisting of 11 sequential stations, 8 of which operating as "break-downs" and 3 operating as "finpasses".

This combination permits a final and complete closure of the tube prior to welding. The 86 independent axles, operated by computerized servomotors and thanks to an easy use of the operating interface system, help the optimal position for correct tube forming to be reached in a quick and simple manner. Strip feeding is assured by a system of independent pinch-rolls, which are installed on the first 6 stands.

The main advantages are:

- huge adjustment flexibility
- automatic change of tube OD and gauge
- significant change-over time savings. Only a few minutes required!!

- Huge tool cost reduction for round tubes!!
- Labour cost reduction
- Easier and faster maintenance

The linear cage forming system for square and rectangular tubes, developed and patented by Olimpia 80, can carry out the forming change operation in a very short time and without any replacement of rolls.

This equipment constitutes a great innovation compared to the past because the linear cage forming system is applied to any part of the production line: forming - welding - sizing - straightening.

The line set up is, as a result, totally automatic. Moreover, the square or rectangular shaping is directly carried out before the tube welding, with important advantages in terms of power and material cost reduction.

Olimpia 80 has put tube mills with this technology into operation in Germany, Turkey, Italy and the USA.

