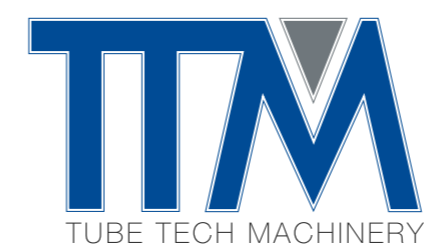




FL600

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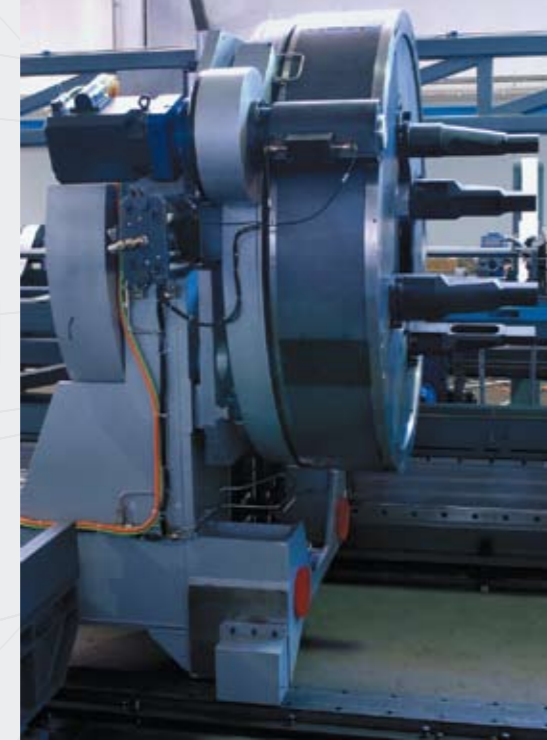


associata UCIMU - SISTEMI PER PRODURRE



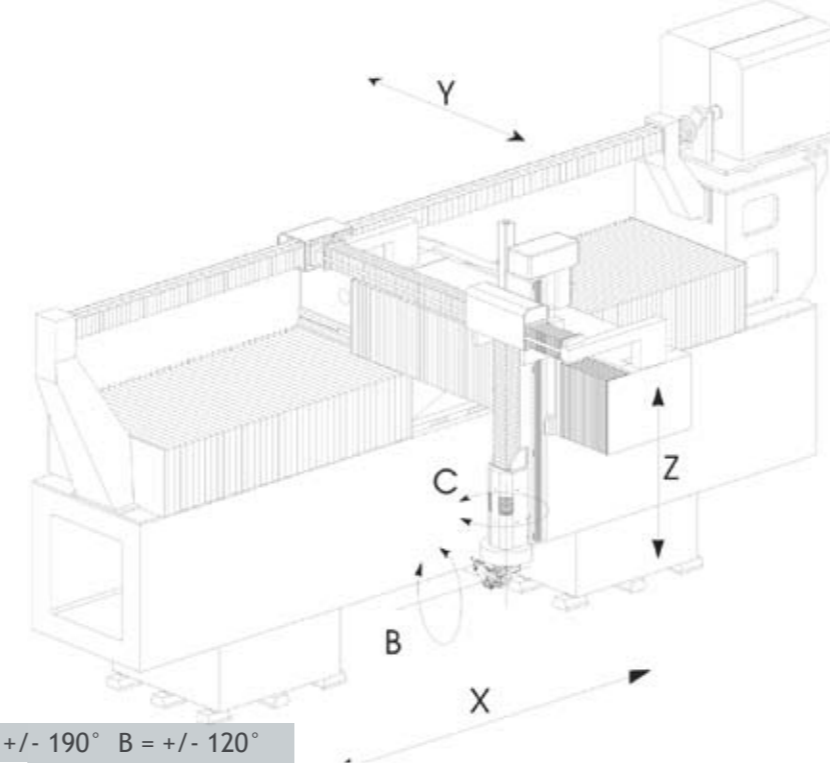
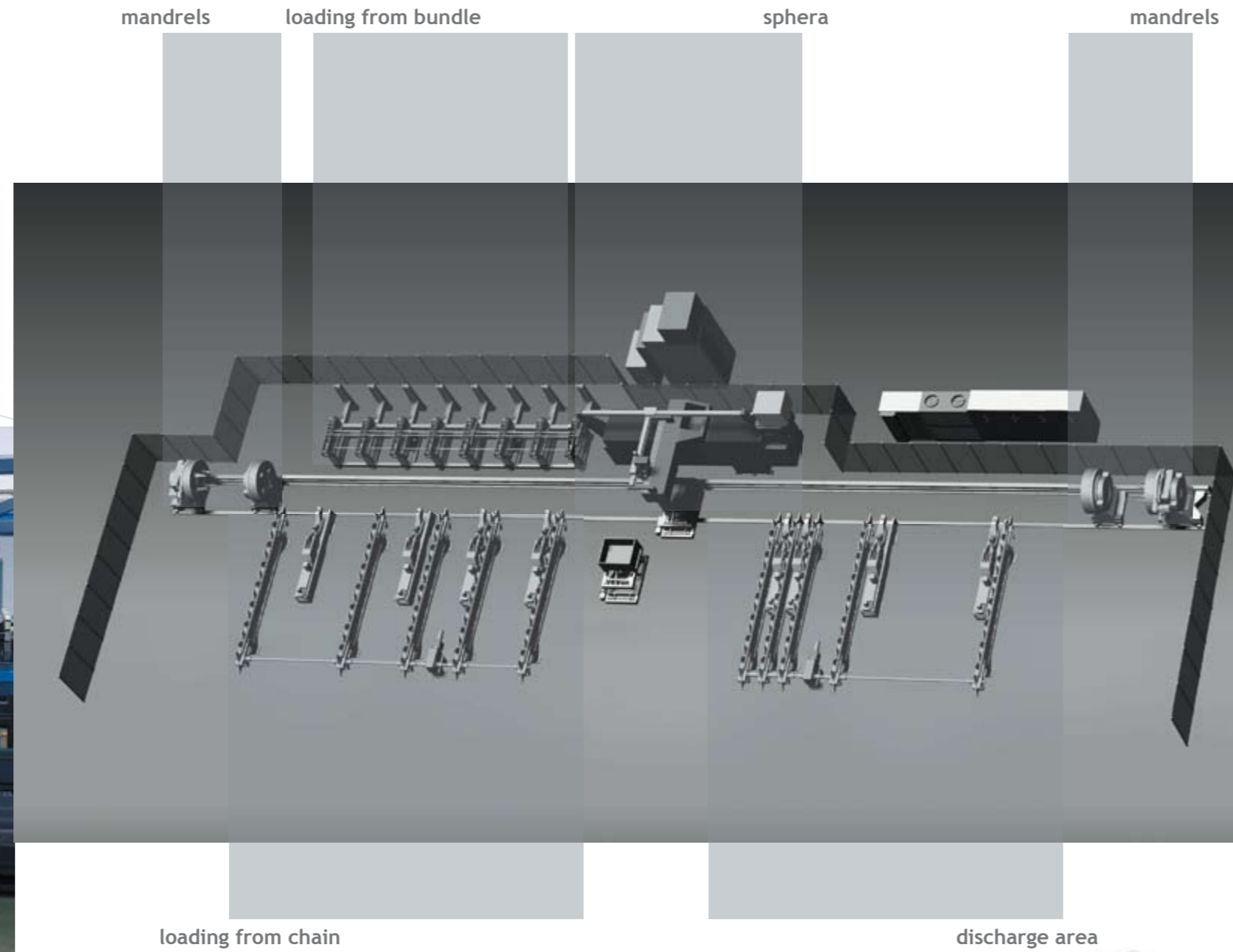
mobile mandrels

the movements of the piece along the working axis are guaranteed by four self-centring mandrels, activated by synchronized hydraulic cylinders. The advancement and the rotation by helicoidal hardened and ground toothing rack are run by brushless motors coupled to helicoidal precision gear reducers. The mandrels are projected to allow the machining of different diameters and sections, with no change of tools _



floating system

an integrated system, allowing to compensate the piece uneven straightness during the machining. An innovation in the laser cutting, it enables precision machining even on particularly irregular tubes, preventing dangerous mechanical stress on the mandrels _

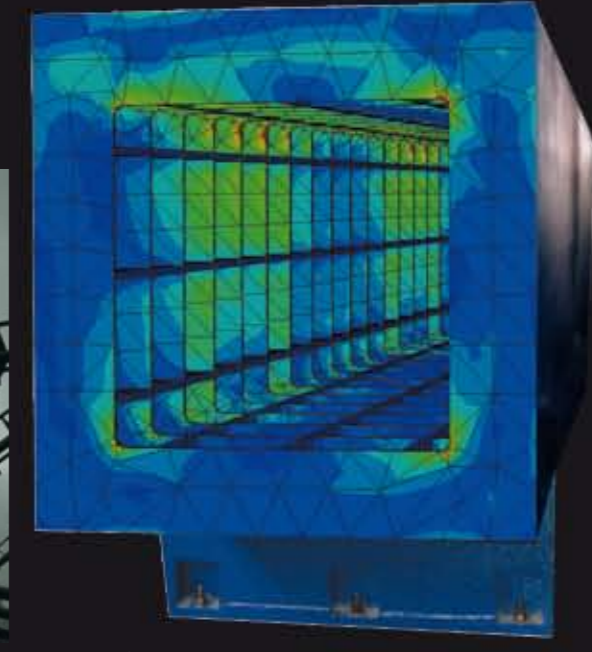


X strokes = 3500 mm Y = 1500 mm Z = 1000 mm C = +/- 190° B = +/- 120°

FL600 *the strength to be unique in the world*

in the course of years men have faced more and more ambitious challenges, and reached new goals: skyscrapers, bridges, airports and other buildings, by structural and architectural requirements all make the employment of iron structure essential.

We too, at Tube Tech Machinery, have accepted the challenge and with our ingeniousness we have implemented such a machinery that helps men in reaching high standards of precision, using different profiles, researching more and more complex couplings. With the FL600 these goals - precision, cutting quality and execution speed - are fully reached _



engineering

the need to reach high standard of performance imposes the most careful and detailed exam of the machine structures, the identification of the most suitable materials, the quality level of the machining and the integration of the existing commercial components.

Today men can rely on sophisticated systems, allowing them to verify efforts, stress and deformation of all the machine components. Tube Tech Machinery has employed them to simulate and take into account all the extreme running conditions right from the beginning of the project_



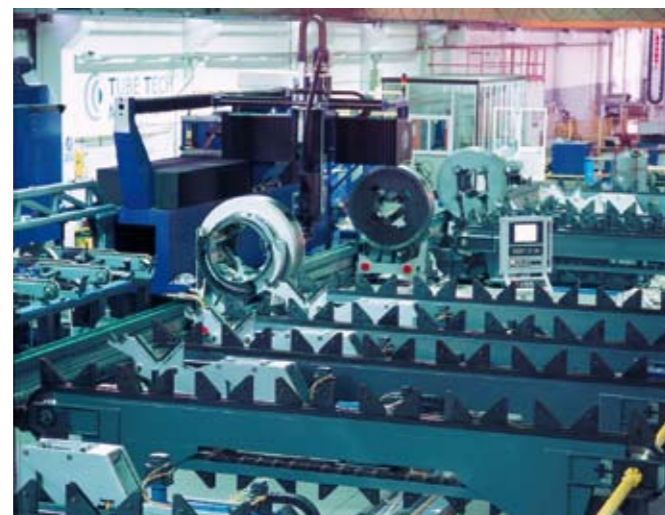
spha

the heart of the plant, a tri-dimensional system allows to operate on any point in sphere space. The movement, along 5 interpolated axis, with precision ball screws and linear motors, ensures high dynamics and excellent performances of the whole plant. The machine is equipped with special devices to sense any error in the piece geometry_



allows the automatic loading of tube with round, square and rectangular section, with maximum diameter of 220 mm. An ample loading capacity (10.000 Kg) enables a considerable autonomy of the machine machining autonomy_

tube loading system from bundle



chain loading system

enables to load also open section profiles . It is composed of V shaped supports: the chains move at variable speed, according to the tube diameter and weight. The chains are made to slide on bearings to prevent noise and wear_

TUBE TECH MACHINERY

FL600



hardware

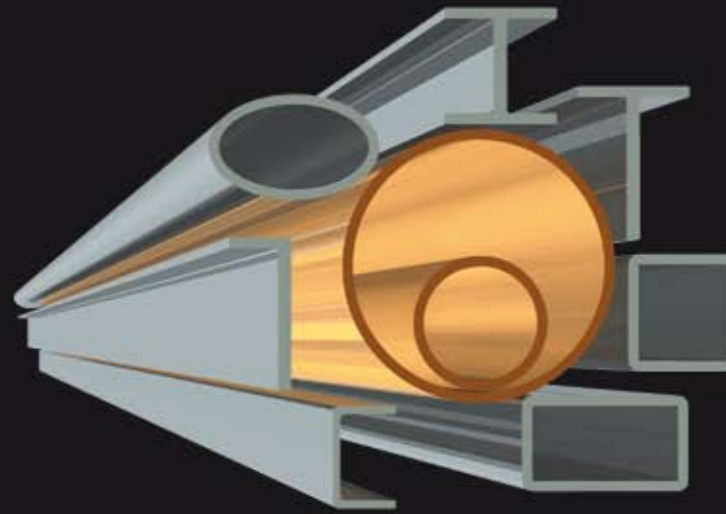
the plant is governed and automatically controlled by 2 CNC controls: one for the handling area and the other for the laser working area (Sphera). A third CNC control manages and supervises the laser source. The three computers are set to interact among themselves, with no need of human operation: they automatically see to the profile loading, the dimensional control, the 3D laser machining, and the discharge of the machined parts_



software

it is very simple and intuitive: working on tri-dimensional CAD systems, the operator is greatly facilitated in drawing the piece. Even non conventional profiles, wording, complex tube and profile intersections can be drawn with utmost ease. The software can be upgraded to include the handling of the List of materials and the stock_

thinking in a big way



FL600

tube length	24.000 mm max
tube length	4.000 mm min.
tube weight	290 kg/m max
tube section	round, square, rectangular, oval
profile section	C, IPE, L, HE
round section size	∅ 610 mm max
square section size	400 x 400 mm max
rectangular section size	500 x 300 mm max
oval section size	500 x 300 mm max
C section size	500 x 300 mm max
L section size	400 x 400 mm max
IPE section size	550 max
HE A section size	400 max
max tube diameter for loading from bundle	∅ 220 mm
min tube cut for chain discharge	800 mm
laser resonator power	up to 4000 W
max mandrel linear speed	45 m/min
controlled axis	31
CNC Siemens 840 D controls	2
mandrel tool replacement	not necessary
handling unit tool replacement	not necessary
installated power	400 kW
plant weight	130.000 Kg