

ROBO NEXT

**N.C. PTA EQUIPMENT
FOR PLUNGERS AND COOLERS
FOR THE GLASS INDUSTRY**

ROBO NEXT is an equipment managed by Numerical Control suitable to make welding deposits with P.T.A. Plasma Transferred Arc technology with powder on plungers and coolers for the glass Industry

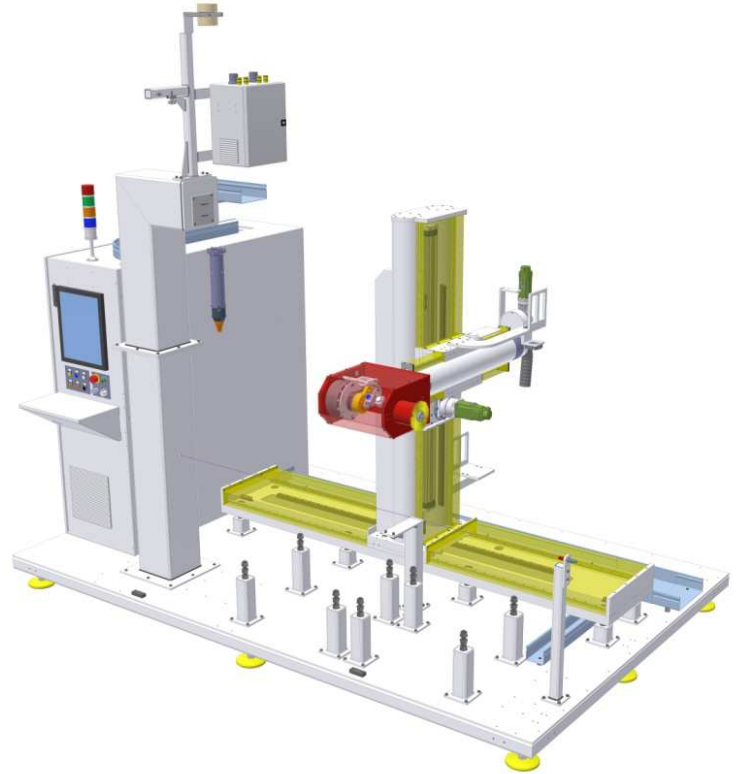
The equipment is built on a main steel frame where are assembled :

- the welding section with the motion system.
- the stock for the collection
- the N.C Mitsubishi 800 and the operating console
- the automatic cleaning system of the torch.

PTA WELDING

The electric panel is comprising of an inverter welding machine produced by Commersald Impianti under the same basis as the standard type PTA200i. The system is complete of cooled welding torch and powder feeder. The welding machine grants an output current of 200A at 100% and it allows to make single pass **welding of thickness from 1 to 2,5 mm and a deposition rate till 2 kg/h** respecting severe metallurgical parameters.

In this particular application the execution of the welded deposit is done with non-oscillated spiral trajectory, following with constant stick-out the profile geometry of the plunger.



MOTION

The system is composed by five axis: three cartesian, two rotating for the piece moving. Thanks to its planning and construction features, this motion grants:

- **smooth exit of the powder**, because it is possible to place the powder feeder closed and perpendicular to the torch;
- **high precision in positioning**, even after years of working;
- **quick displacements** thanks to the strong and powerful system;
- **nearness of the operator** to the welding point, and consequent good visibility of the arc, even with closed barriers.

NUMERICAL CONTROL

The programming is done by means of a Mitsubishi numerical control developed especially for Commersald, with program language ISO implemented and integrated with the welding and heating parameters. The whole cycle is managed by the CNC, automating the production cycle until the completion of all the pieces in the stock.

TECHNICAL FEATURES ROBO NEXT			
FEATURES OF THE MOTION			
Structure	Stroke Z axis	mm	700
	Stroke X axis	mm	1900
	Stroke Y axis	mm	350
	Stroke B axis		endless
Rotating table	Axis C (Tilting)	degrees	-90° + 140°
Work-piece	NNPB / Blow blow Plungers and coolers max weight 3 kg.		
FEATURES OF THE WELDING MACHINE			
Pilot arc generator	Output current	A	70 al 100%
Transferred arc generator	Output current	A	200 al 100%
Powder feeder	Delivery	kg/h	0,5 - 3,5
	Capacity	kg	7
Deposition rate		kg/h	0,5 - 2,0
GENERAL FEATURES OF THE INSTALLATION			
Overall size	dimensions (lpxh)	mm	3500x2200x2500
	weight	kg	2500
Installed power		kVA	22
Tension	400V 50/60 Hz (3F+N+T)		
Compressed air		bar	5
Cooler	Given power (water at 20°C)	W	9.000
Gas (two available input)		bar	7



Commersald Impianti srl has the right to modify, while completing the operative planning, the technical details of the offer. In case the changes, done to improve the installation as much as possible, are quite important, Commersald Impianti srl will inform the buyer in due time for approval.