

Technical Data : POLYCAR MP WELDING HEAD



Carriage of the MIG-MAG version



Side view showing the macro connector on the right



Front view of the carriage with the dynamic inclination module



Macro connector ()

The most polyvalent orbital welding head on the market

This new welding head is unmatched for polyvalency for the present time. It allows the welding of all kinds of pipes of diameter 168 mm and above, for all wall thicknesses. Without any particular adaptation, the welding head can be used on a straight track as well as on guide rings fitted inside and outside tubes or tanks.

Several versions are available according to the welding process implemented: TIG cold wire, TIG hot wire, MIG-MAG or Plasma welding.

With your needs changing, this head can be easily adapted to work with one or a combination of welding processes.

Thanks to the modular make-up of the welding head, maintenance is very simple: less than 15 minutes are required to change out subcomponents (motorisation, slide, wire feeder...).

On-site applications requiring a high level of mobility will benefit from the new macro-connector which allows a quick disconnection of the welding head from the umbilical. This functionality is also built-in on the power source designed for MAG applications.

A large number of adjustments is available to position the welding torch. This enables all torch angles possible as the welding dexterity of a manual welder can do. This new axis opens new horizons to the MIG-MAG processes.

A very economical guide ring

The new guide ring has a simple and robust design. It can be positioned and removed in less than 5 minutes. For economical reasons, the removable feet can be reused on the whole range of guide rings regardless of the diameter.

Large choice of power sources

- PS 406 for simple applications with TIG cold wire process
- PC 300 for more demanding applications with TIG cold wire process
- PC 600 for TIG hot wire and Plasma applications
- PC MIG-MAG

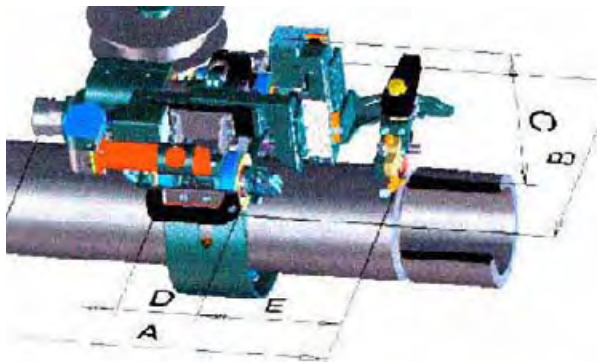
The PC power sources are programmed with a software fully dedicated to welding : POW. The Windows operating software is the result of 20 years experience in automation in orbital welding.

Our orbital welding equipment is recognised world-wide as being modular and sturdy. By choosing Polysoude, you can be confident that you will get an equipment which will comply with all your expectations today and tomorrow. The whole Polysoude team is here to convince you !

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General characteristics	
Welding processes	TIG cold wire, TIG hot wire, MIG-MAG, Plasma
Dimensions of pipes (min. / max.)	Outside welding 6" (168 mm) and over, straight, inside welding (please consult us)
Material	All materials that are weldable with TIG, MIG-MAG, Plasma processes
Filler wire	Solid wire, core wire (MIG-MAG)
Welding positions	All positions
Movements	
Orbital welding direction (according to application and filler wire)	TIG : 360° ; MIG-MAG : 360°, 2 x 180° downhill or uphill (with the dynamic inclination module)
Carriage speed (motorised with brake) (Carriage speed must be compatible with the welding speed)	When welding : 30 to 1000 mm/min Not welding : 30 to 2000 mm/min
Radial torch movement (stroke ; max. speed) (slide with brake and limit stops)	TIG AVC : 69 mm ; 2500 mm/min MIG-MAG : 50mm ; 69mm ; 2500mm/min
Torch inclination Motorised longitudinal torch inclination (amplitude ; speed) Manual longitudinal torch inclination Manual lateral torch inclination	± 35° ; 100 °/min (MIG-MAG) 0 ; -20° (TIG and MIG-MAG) ± 35° (TIG)
Torch oscillation (stroke ; max. speed) (slide with brake and limit stops)	69 mm ; 2500 mm/min
Filler wire	
Max. filler wire speed	TIG : 2.8 m/min TIG hot wire : 7.9 m/min MIG-MAG : 7.9 m/min (future 18 m/min)
Diameter (according to application and filler wire)	TIG : 0.8 ; 0.9 ; 1.0 ; 1.2 () ; MIG-MAG 0.8 ; 1.0 ; 1.2 ; 1.4 ; 1.6 mm
Spool	200 mm ; 5 kg
Others	
Welding carriage weight in the MAG version (without spool and umbilical)	16 kg
Umbilical length Umbilical connections MIG-MAG or TIG version	15 m Possible with or without macro-connector
Torch rating (cooled torches)	TIG 400 A MIG-MAG 465 A
Power sources	PS 406 PC range (TIG, PLASMA, MIG-MAG) () : Please consult us

Dimensions



A	5	50 mm
B	4	50 mm
C	2	70 mm
D	1	20 mm
E	MIG-MAG:	255 mm
	TIG cold/hot wire:	215 mm

Note : For reduced overall dimensions, please consult us.