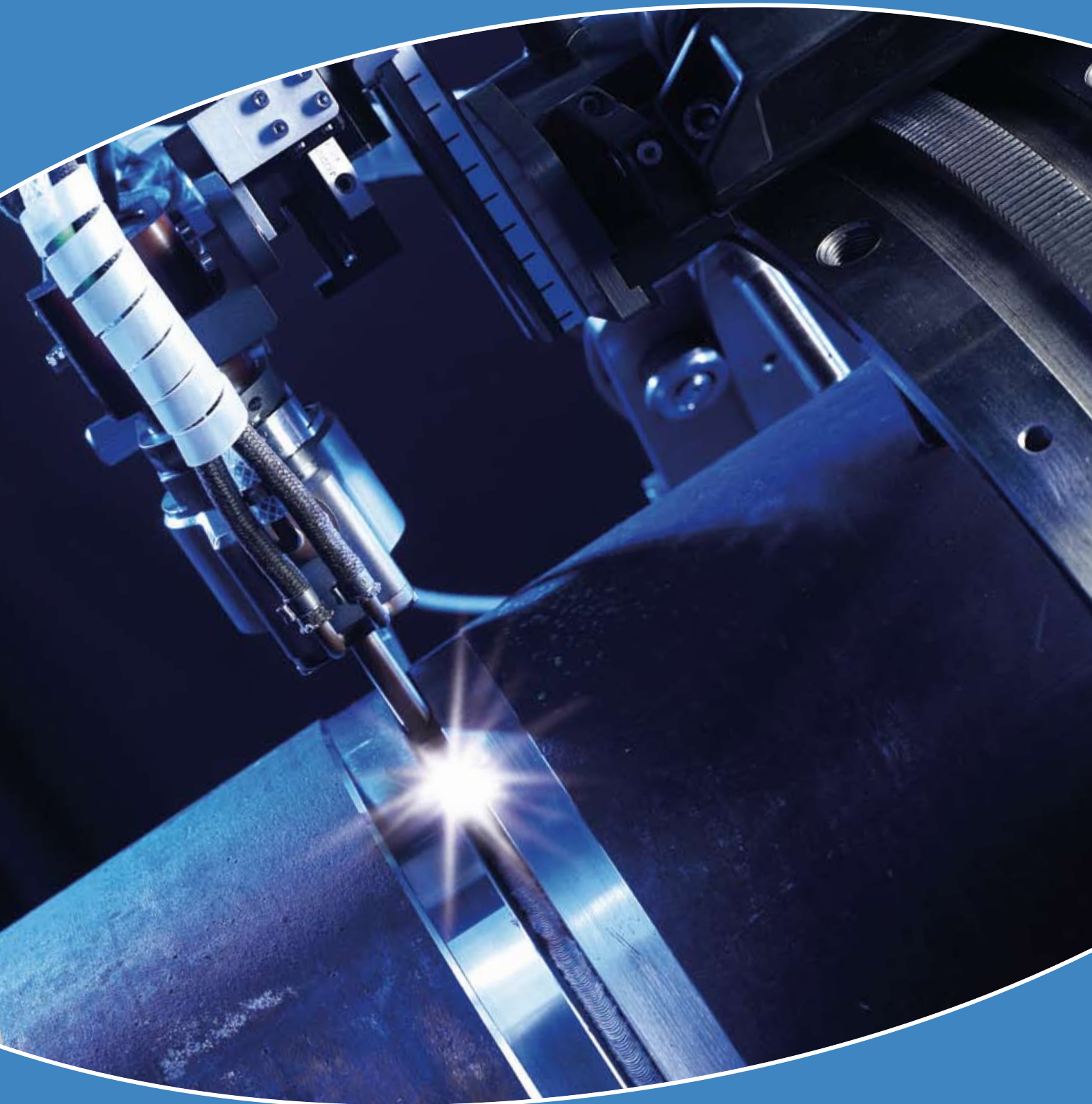




# POLYCAR MP "Multi-Process"

TIG - Cold Wire, Hot Wire, Plasma and MIG/MAG

**Open Type Carriage Welding Head**  
for welding of tube and pipe joints



# POLYCAR MP **Open Type Carriage Welding Head** "Multi-Process" for welding of tube and pipe joints

High flexibility and increased productivity

## Advantages

- ▶ Modular design for orbital TIG Cold Wire, Hot Wire, Plasma and MIG/MAG welding
- ▶ Perfectly adapted to tube and pipe welding of medium-sized and heavy wall thicknesses
- ▶ Reproduces all movements of a manual welder and completes the weld in a series of passes
- ▶ Especially designed for welding under difficult conditions in workshop or on site
- ▶ Narrow Gap Welding for further productivity increase

Resulting from 50 years' experience in mastering welding technologies

## General Characteristics

Motorised Arc Voltage Control (AVC) / stick-out and Torch Oscillation Control (OSC) for multi-pass welding

Particularly designed for high duty cycle applications by means of high temperature resistant materials and closed loop water cooling

Encoder for position based control of the welding program:

- All position orbital 360° weld
- Uphill or downhill 2 x 180° weld with one or two simultaneously operating welding carriages

On-board filler wire module for solid and flux cored wire, 5 kg spool

Motorised or manual longitudinal torch inclination

Guide ring made from stainless steel or duplex for all tube and pipe O.D.s

Water cooled welding torch with quick coupling for the selected process

Modular design for easy maintenance and job configuration

Only one 15 m umbilical between welding carriage and control unit



Torch module "standard TIG"



Torch module "V2 Narrow Gap" for wall thicknesses up to 75 mm



Torch module "Narrow Gap" for wall thicknesses up to 250 mm and more



Torch module "MIG/MAG" with motorised torch inclination



Torch module "Plasma"

## Associated Power Sources



### ▶ P6

300 A, "all applications", programming by PC or touch screen, with Arc Voltage Control (AVC) and Torch Oscillation Control (OSC), three-phase power supply



### ▶ PC Series

300 to 600 A, modular design for perfect adaptation to your application. Interface for mechanised and robotic peripherals, three-phase power supply



### ▶ MIG/MAG Container

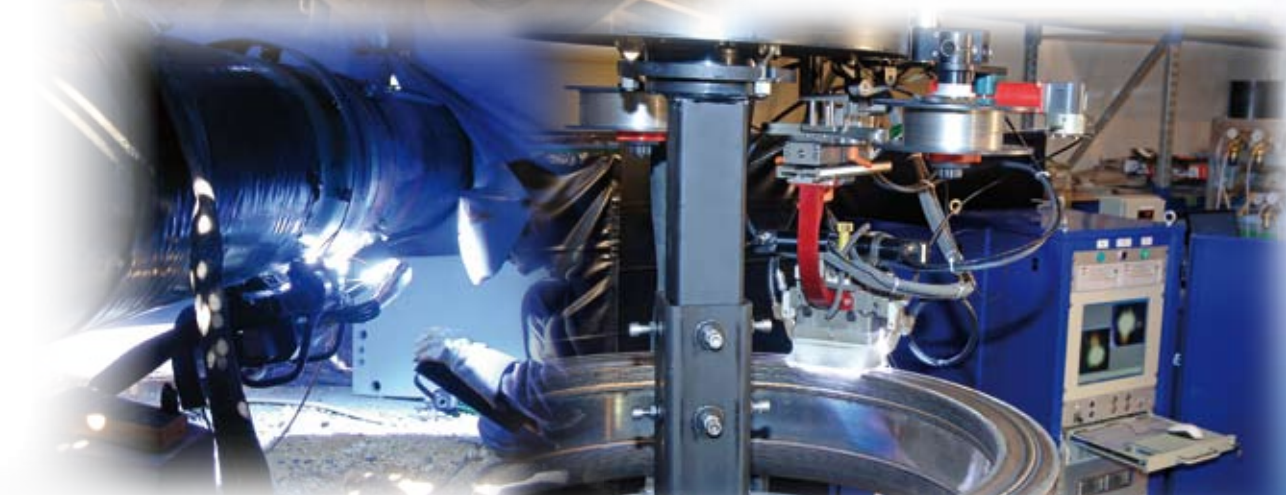
Control unit for Polycar with interface allowing the use with standard power sources or synergic MIG/MAG



Adapting to all your applications!



*"The flexibility of the system allowed us to choose the process most suited to our application."*





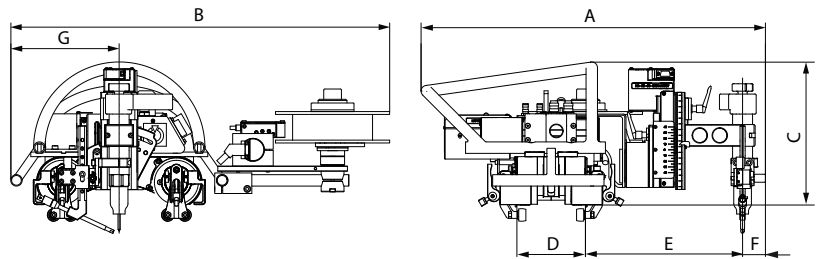
# Technical Specification

General characteristics		
Welding process	TIG Cold Wire, Hot Wire, MIG/MAG	
Tube / pipe O.D.	≥ 168 mm / 6"	
Welding movements	Welding method	360°, 2 x 180° downhill or uphill (with the torch inclination module)
	Welding speed range Prepositioning	30 to 1000 mm/min 2000 mm/min
	Arc Voltage Control (AVC) or stick-out adjustment (stroke; max. speed)	69 mm; 2500 mm/min
	Motorised longitudinal torch inclination (amplitude; speed) Manual longitudinal torch inclination Manual lateral torch inclination	MIG/MAG ± 35°; 100°/min TIG and MIG/MAG ± 20° TIG ± 25°
	Torch Oscillation Control (OSC) (stroke; max. speed)	69 mm; 2500 mm/min
Filler wire	Filler wire type	Solid wire, core wire
	Wire feed speed	TIG Cold Wire 2,0 m/min TIG Hot Wire 7,9 m/min MIG/MAG 7,9 m/min (option 18 m/min)
	Wire diameter (according to application)	TIG 0,8; 0,9; 1,0 mm MIG/MAG 0,8; 1,0; 1,2; 1,4; 1,6 mm
	Spool	Ø 200 mm, 5 kg
Others	Welding carriage weight (excluding cable)	16 kg
	Welding torch duty cycle	TIG 400 A / 100 % Plasma 350 A / 100 % MIG/MAG 465 A / 100 %
	Compatible with series of power sources	PS 406, P6, PC 300, PC 350 for TIG Cold Wire PC 600 for TIG Hot Wire / Plasma PC "weld controller" for MIG/MAG

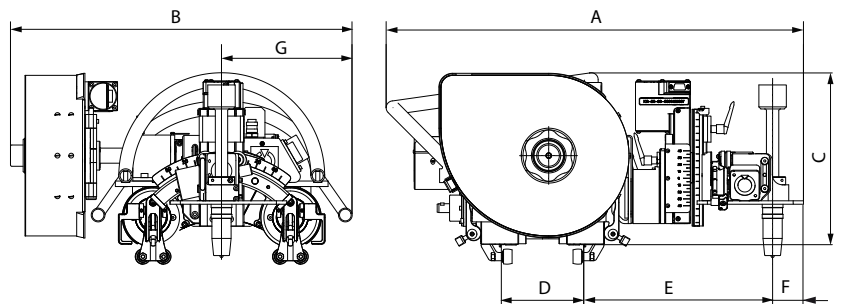
Cable length: 15 m

Dimensions in mm		
	TIG	MIG/MAG
A	600 mm	550 mm
B	450 mm	450 mm
C	290 mm	270 mm
D	120 mm	120 mm
E	275 ± 35 mm	255 mm
F	40 mm	45 mm
G	190 mm	190 mm

## TIG



## MIG/MAG



# Options and Accessories

- Guide ring made from stainless steel or duplex for all tube and pipe O.D.s
- Motorised longitudinal torch inclination module for weld penetration control (pushing or dragging)
- Extension cable (15 m)
- Single macro connector and umbilical for TIG welding
- Compact brief-case for transport and storage

# POLYSOUDE : Related Services

## ► Guidance and technical support

A welding application specialist in your area will advise you on the welding process and appropriate equipment for your application.

## ► Commissioning / Training

A complete training program will enable you to start using the equipment immediately and in the best way possible.

## ► Maintenance / Repair

Maintenance and repair operations can be carried out at the Polysoude plant as well as on site by our service network.

## ► Rental service

Increase the flexibility of your production! A large range of equipment is available for rental from our hire fleet.

## Your partners worldwide

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