

Hi500PIPE, Orbital Carriage

Hyundai PNS
Welding System R&D Dept

ORBITAL AUTOMATION EQUIPMENT

Premium welding machine specialized for PIPE automation line



[HI500PIPE]

- Built-in functions and processes of GMAW + GTAW(HF)
- Built-in welding technique for all processes of pipe work: from ROOT to CAPPING
- Built-in SAC ROOT (mild steel and suspension), low heat input cladding/hard facing function
- Intelligent orbital carriage (HiP-Orbital i) interlocking
- Built-in touch sensing and arc sensing functions
- Passive polarity switching (MIG/MAG ↔ TIG)
- Lift Start and HF Start modes are available when using TIG mode.
- Fast TIG pulse current response speed of 1 msec or less
- Outstanding durability to withstand high ambient temperatures

Product	Rated power	Input	Range	Efficiency	No load Voltage	Duty cycle	Weight	Dimension (W*D*H, mm)
HI500PIPE	22.5kVA	2P/3P 380V,440V 50/60Hz	5 ~ 500A/10V ~ 38V	90%	Less 80V	3P, 380V: 80% 2P, 380V: 60% (40°C)	50kg	320*600*591

ORBITAL AUTOMATION EQUIPMENT

'Maximum efficiency with minimum operation' PIPE automation carriage



[HiP Orbital i]

- Welding conditions can be set up to 9PASS for lamination welding
- Left and right time setting during weaving, weaving width, weaving speed can be set
- After welding, after automatic return to origin, start with the next pass
- Construction of welding condition database according to pipe specifications
- Provides a smooth user interface with simple operation
- Maximize work efficiency with simultaneous operation of 2 sets
- Easy to attach and detach to the base material with the operation remote control magnet
- Provides various welding performance with 4 types of weaving

Product	Input power	Travel speed	Operation angle	PIPE diameter	Pass	Weight	Dimension (W*D*H, mm)
HiP Orbital i	24VDC	50~500mm/min	0~360°	최소 300mm 이상	9PASS	Carriage : 7.5kg Control panel : 1.5kg	452*177*268

ORBITAL AUTOMATION EQUIPMENT

◎ Root welding mode

- Super-layer welding technique when welding CO₂ gas / MAG gas Function: SAC Root
- Carbon steel, SUS applicable

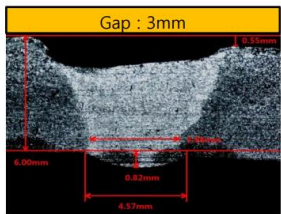
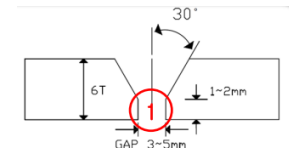


carbon steel 1.2mm, CO₂ 100%

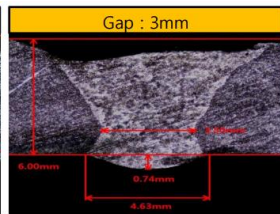
stainless steel 1.2mm, Ar95% + CO₂

◎ Root Gap Test

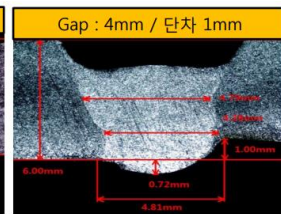
- SM70 1.2mm CO₂ 100%



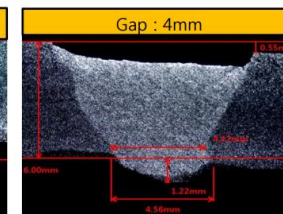
1G, 90A / 17V



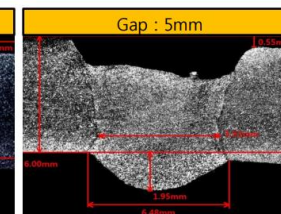
3G, 90A / 17V



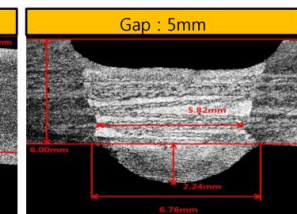
1G, 90A / 17V



1G, 90A / 17V



3G, 70A / 15V



1G, 70A / 15V

ORBITAL AUTOMATION EQUIPMENT

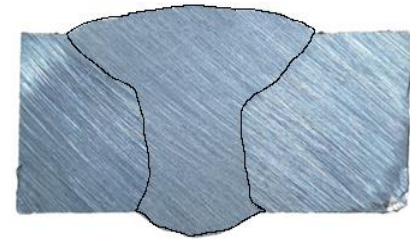
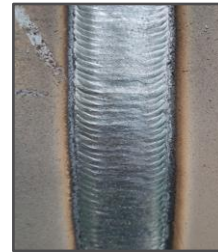
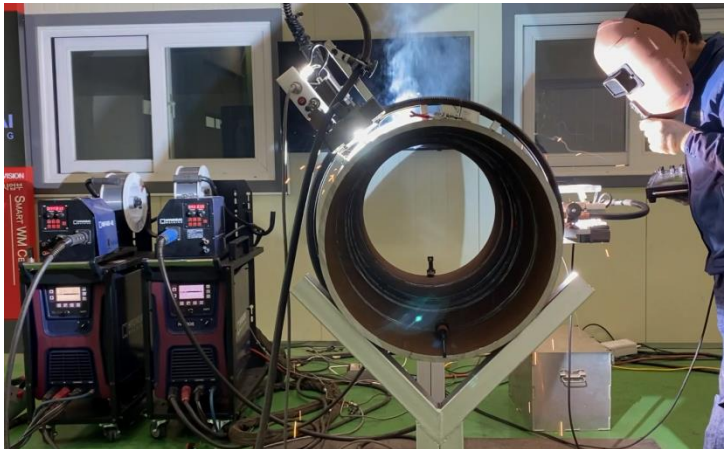
© Easy user operation



[HiP Orbital I DISPLAY]

- Welding condition 9PASS setting
- Weaving width and time setting according to weaving type
- UP SLOPE, DOWN SLOPE settings
- Construction of welding condition data

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- 360 degree automatic welding operation in a short time by driving 2 sets of welding equipment
- Excellent welding performance according to the stored welding conditions