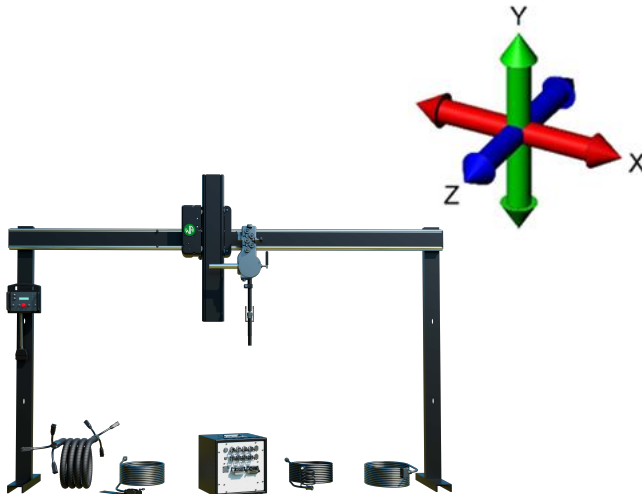


Technical Data Sheet

Portable Welding Automation

WA Machines Workshop Maintenance Kit



DESCRIPTION

The Workshop Maintenance Kit is a cost-effective hardfacing, cladding and joining machine designed especially for the demands in workshops or in-situ. WMK is a flexible cost-effective automated welding machine with a quick return on investment.

FEATURES

Multiple lightweight components

D3 Pendant control system

Combines automated movement in the X and Y axis with manual adjustment in the Z axis and torch position and integrated wire feed system

Multiple axis options

INDUSTRIES

Cement, Steel, Coal, Mining, Marine, Oil and Gas, Recycling

SPECIFICATION (Main Components)

	<u>X Beam</u>	<u>Y Beam</u>	<u>Control cable</u>	<u>Carriage</u>	<u>Wire feeder</u>	<u>Pendant</u>	<u>Control box</u>	<u>Torch</u>
Component weight	21kg	5kg	5kg	15kg	8kg	1.5kg	15kg	2.5kg
Component length	3m	0.7m	12m					
No. per standard kit	1	1	5	1	1	1	1	1

TRAVEL

Motorised X¹ Axis

Motorised Y Axis

Manual Z-Axis

Standard kit

1mm - 2600mm

1mm - 300mm

1mm - 150mm

WIREFEED SPEEDS

0.5 - 10m/min, 1.0 - 20m/min - through a 4 wheel driven wire feed unit with integrated straightener

WIRE SIZES

1.0 mm, 1.2 mm, 1.6 mm, 2.0 mm, 2.4 mm, 2.8 mm, 3.2 mm, 4.0 mm

WELDING PROCESSES AVAILABLE FOR THIS MACHINE

FCAW-S, FCAW-G, GMAW, SAW, GTAW, PAW

CONTROL SYSTEM

D3 Pendant

Incorporating:

Pendant with toggle switches to drive X, Y, Spindle and Wirefeed axis for positioning of welding gun and component.

Also containing Stop/Start function and emergency stop buttons.

All parameters are adjustable during welding (Amps, Volts, WF Speed, Spindle, etc...).



ADDITIONAL OPTIONS

POWER SOURCES

WAP 1000-10-CC/CV	100% Duty Cycle	1000 Amps, 44 Volts DC	100 - 1250 Amps in CC mode	10 - 60 Volts in CV mode
WAP 650-10-CC/CV	100% Duty Cycle	650 Amps, 44 Volts DC	50 - 815 Amps in CC mode	10 - 65 Volts in CV mode
WAP 450-10-Pulsed	100% Duty Cycle	450 Amps, 38 Volts DC		
WAP 700-10-TIG	100% Duty Cycle	700 Amps, 38 Volts DC		

TWIN WIRE

For increased deposition rate:

Via a twin wire feed unit and twin wire integrated torch - can be used with the FCAW-S, FCAW-G and SAW processes with a deposition rate of upto 16kg/hr/head

FAST OSCILLATOR (X² AXIS)

For higher productivity:

Oscillator unit, 150mm travel, fitted on the end of the Y, max. speed 6.0m/min. DC motor with encoder feedback, including control module on the D3 *Touch* system.

GAS SHIELDING SYSTEM

For use with the FCAW-G and GMAW process wires:

Conversion to gas shielded welding including a gas shielded welding gun with a water cooled insulated shroud, 400A, 270 mm long

ARC VIEWING SCREEN

For environmental protection:

To allow visual monitoring of the arc during welding of FCAW and GMAW process with connection to fume extraction system when installed

D3 TOUCH

For full automation and program storage

Robust industrial PC running on Linux operating system and using state of the art communication systems to all peripherals. Programmer allowing the saving and recovery of programs, the number of programs that can be saved is only limited by the size of hard drive.

HOT WIRE TIG SYSTEM

For increased productivity:

Using the WAP 700-10-TIG as the main powersource and the WAP 170-10-HT to resistance heat the filler wire, the process can improve deposition rate, reduce weld pool dilution and provide a smoother bead profile

FUME EXTRACTION SYSTEMS

For environmental protection:

Aluminium ducting with travelling inlet carriage, collecting fume from directly behind welding gun, can be connected to a filter box or fan to customers own fume extraction ducting

AUTOMATIC STICK-OUT ADJUSTER

For use on irregular component geometries:

The ASA system is used to maintain and control the stick-out of wire from the welding tip to the work surface by controlling the movement of the appropriate axis ensuring that welding Amperage is maintained