# Technical Data Sheet Stationary Welding Automation WA Machines \$000 - Heavy







# DESCRIPTION

Duty

Automatic machine with component rotation via the spindle arm and yoke and manipulation in linear axis X, Y and Z including wirefeed system. Component is supported and attached on the face plate of the Headstock. Fully automated via the integrated control system and motor drives.

## **FEATURES**

Welding of individual components up to 1000kg

Import facility for component geometries

Combines up to 5 axis movement, Importing facility for complex geometries, Constant surface speed, Bore-to-bore software, fully programmable, program storage and retreval

Adaptable for various welding processes

#### **INDUSTRIES**

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

#### SPECIFICATION

Component weight Component length Component diameter (max)

#### TRAVEL

Motorised X<sup>1</sup> Axis Motorised Y Axis Motorised component rotation (Spindle) Motorised Yoke Manual Z-Axis

# Single Station

1000kg 1000mm 800mm

#### **Single Station**

1mm - 1000mm 1mm - 1000mm 0.03 - 4.0 r.p.m. 1° to ±110° 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 Touch

#### Incorporating:

Master, X Axis, Yaxis, Spindle, Yoke and wirefeed control modules.

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.

Auto diameter automatically maintains constant surface speed on varying component diameters

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 tw and SAW processes with a de	vin wire integrated torch - can be used postion rate of upto 16kg/hr/head	with the FCAW-S, FCAW-G		
FAST OSCILLATOR (X <sup>2</sup> 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 <i>Touch</i> system.				
MANUAL SUBMERGED A	RC KIT	For Use with Submerged Are	c wires:			
		Flux hopper, 5 litre capacity, va	alves, hoses and flux shoe and fittings	to attach to Y Axis.		
FULL SUBMERGED ARC SYSTEM		For Use with Submerged Arc wires: Recirculating flux system, 30kg capacity, including hoppers, vacuum pump, filter bags, flux tray, hoses and fittings.				
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	n:			
		To allow visual monitoring of the arc during welding of FCAW and GMAW process with connection to fume extraction system when installed				
PENDANT		For quick set up:				
		Pendant with toggle switches t and component. Also containir	o drive X, Y, Spindle and Wirefeed axi g Stop/Start function and emergency	s for positioning of welding gun stop buttons.		
HOT WIRE TIG SYSTEM		For increased productivity:				
		Using the WAP 700-10-TIG as the filler wire, the process can smoother bead profile	the main powersource and the WAP improve deposition rate, reduce weld p	170-10-HT to resistance heat bool dillution and provide a		
FUME EXTRACTION SYSTEMS		For environmental protection	n:			
		Aluminium ducting with travellin can be connected to a filter bo	ng inlet carriage, collecting fume from x or fan to customers own fume extrac	directly behind welding gun, tion ducting		
AUTOMATIC STICK-OUT ADJUSTER		For use on irregular component geometries:				
		The ASA system is used to ma surface by controlling the move maintained	aintain and control the stick-out of wire ement of the appropriate axis ensuring	from the welding tip to the work that welding Amperage is		
PROGRAMMER		For greater automation and	repeat work:			
		Programmer – Allows the savi saved is only limited by the size the machine would be in the th	ng and recovery of programs, the num e of hard drive. NB. The number progr ousands.	ber of programmes that can be ammes that can be saved on		
DATA LOGGER		For monitoring QA records:				
		The datalogger can record any enter in specific information ab speeds etc if necessary. All da	parameter on the system, all data is t out the weld eg. roll type, serial number ta can be retrieved by USB.	hen stored. The operator can er, Amps, Volts and travel		

# Technical Data Sheet Stationary Welding Automation WA Machines SF1500 - Heavy Duty







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# FEATURES

Welding of individual components up to 1500kg

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programmable, program storage and retreval

Adaptable for various welding processes

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## **SPECIFICATION**

Component weight Component length Component diameter (max)

## TRAVEL

Motorised X<sup>1</sup> Axis Motorised Y Axis Motorised component rotation (Spindle) Motorised Yoke Manual Z-Axis

# Single Station

1500kg 1000mm 1200mm

1mm - 1500mm 1mm - 1000mm 0.03 - 4.0 r.p.m. 1° to ±110° 1mm - 150mm

### WIREFEED SPEEDS

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# <u>Single Station</u> 1mm - 1500mm

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