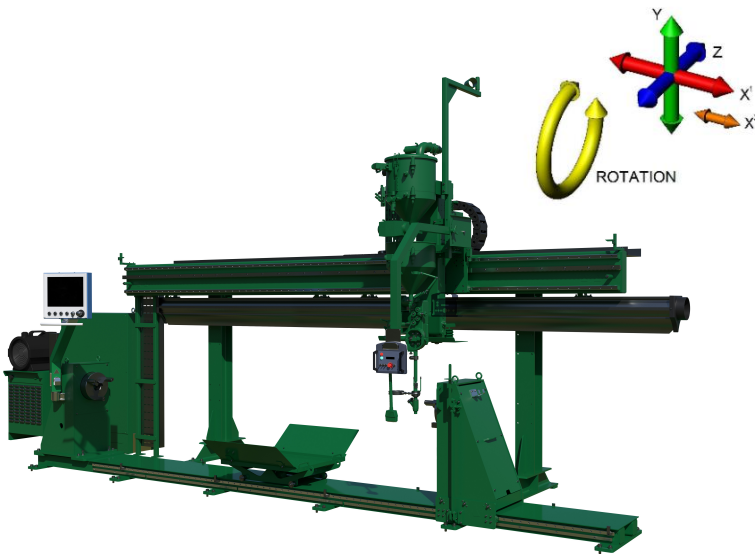


Technical Data Sheet

Stationary Welding Automation

WA Machines R1000 - Heavy Duty



DESCRIPTION

Automatic machine with rotation for one or two components. Headstock and Tailstock mounted on heavy-duty frame and ball rails allowing rapid repositioning to accommodate varying component lengths and secured in place with quick locking system. Thermal expansion device fitted to the Tailstock. Manual positioning of the Welding Gun in the angular and Z-Axis directions.

FEATURES

Welding of individual rolls up to 1 Tonne
Configurable for multiple heads and stations

Welding patterns include stringer, square wave, oscillation and spiral welding beads

Adaptable for various welding processes

INDUSTRIES

Steel, Printing, General Maintenance Workshops.

SPECIFICATION

Component weight
Component length (1 roll)
Component length (2 rolls)
Component diameter (max)

Single Station

1000kg
2000mm
X
400mm

Twin Station

1000kg
3900mm
2000mm
400mm

TRAVEL

Motorised X¹ Axis
Motorised Y Axis
Motorised component rotation (Spindle)
Manual Z-Axis

Single Station

1mm - 2000mm
1mm - 600mm
0.2 - 2.0 r.p.m.
1mm - 150mm

Twin Station

1mm - 5000mm
1mm - 600mm
0.2 - 2.0 r.p.m.
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, PAW

CONTROL SYSTEM

D3 Touch

Incorporating:

Master, X Axis, Y Axis, Spindle 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		

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.

MANUAL SUBMERGED ARC KIT

For Use with Submerged Arc wires:

Flux hopper, 5 litre capacity, valves, 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:

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 to drive X, Y, Spindle and Wirefeed axis for positioning of welding gun and component. Also containing Stop/Start function and emergency stop buttons.

ADDITIONAL WELDING HEADS

For higher productivity:

A complete welding head set up including Y Axis, wirefeeder and X Axis motor set up to match the standard supply.

ADDITIONAL WELDING STATIONS

For higher productivity:

Additional Headstock and Tailstock to allow welding of an additional component independently of the first station. Motorised component rotation (Spindle) 0.2 r.p.m. - 2.0 r.p.m.

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

PROGRAMMER

For greater automation and repeat work:

Programmer – Allows the saving and recovery of programs, the number of programs that can be saved is only limited by the size of hard drive. NB. The number programs that can be saved on the machine would be in the thousands.

DATA LOGGER

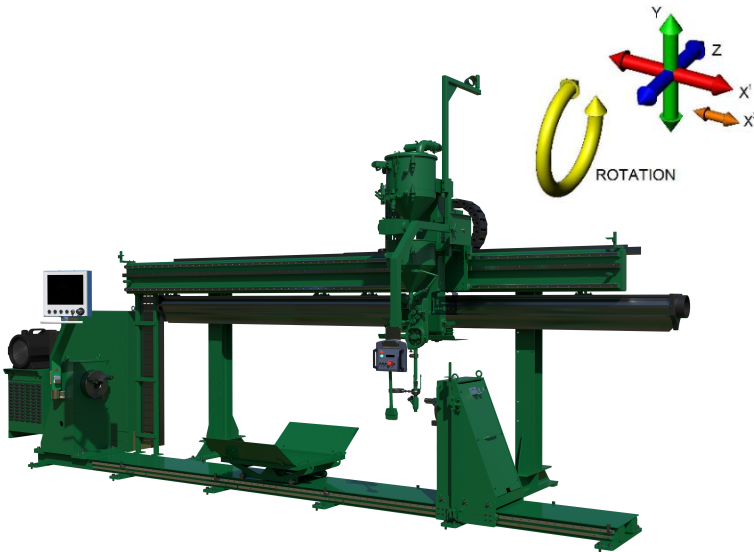
For monitoring QA records:

The datalogger can record any parameter on the system, all data is then stored. The operator can enter in specific information about the weld eg. roll type, serial number, Amps, Volts and travel speeds etc if necessary. All data can be retrieved by USB.

Technical Data Sheet

Stationary Welding Automation

WA Machines R3000 - Heavy Duty



DESCRIPTION

Automatic machine with rotation for one or two components. Headstock and Tailstock mounted on heavy-duty frame and ball rails allowing rapid repositioning to accommodate varying component lengths and secured in place with quick locking system. Thermal expansion device fitted to the Tailstock. Manual positioning of the Welding Gun in the angular and Z-Axis directions.

FEATURES

Welding of individual rolls up to 3 Tonne
Configurable for multiple heads and stations

Welding patterns include stringer, square wave, oscillation and spiral welding beads

Adaptable for various welding processes

INDUSTRIES

Steel, Printing, General Maintenance Workshops.

SPECIFICATION

Component weight
Component length (1 roll)
Component length (2 rolls)
Component diameter (max)

Single Station

3000kg
2300mm
X
600mm

Twin Station

3000kg
4500mm
2300mm
600mm

TRAVEL

Motorised X¹ Axis
Motorised Y Axis
Motorised component rotation (Spindle)
Manual Z-Axis

Single Station

1mm - 2300mm
1mm - 600mm
0.2 - 2.0 r.p.m.
1mm - 150mm

Twin Station

1mm - 5600mm
1mm - 600mm
0.2 - 2.0 r.p.m.
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, PAW

CONTROL SYSTEM

D3 Touch

Incorporating:

Master, X Axis, Y Axis, Spindle 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		

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.

MANUAL SUBMERGED ARC KIT

For Use with Submerged Arc wires:

Flux hopper, 5 litre capacity, valves, 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:

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 to drive X, Y, Spindle and Wirefeed axis for positioning of welding gun and component. Also containing Stop/Start function and emergency stop buttons.

ADDITIONAL WELDING HEADS

For higher productivity:

A complete welding head set up including Y Axis, wirefeeder and X Axis motor set up to match the standard supply.

ADDITIONAL WELDING STATIONS

For higher productivity:

Additional Headstock and Tailstock to allow welding of an additional component independently of the first station. Motorised component rotation (Spindle) 0.2 r.p.m. - 2.0 r.p.m.

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

PROGRAMMER

For greater automation and repeat work:

Programmer – Allows the saving and recovery of programs, the number of programs that can be saved is only limited by the size of hard drive. NB. The number programs that can be saved on the machine would be in the thousands.

DATA LOGGER

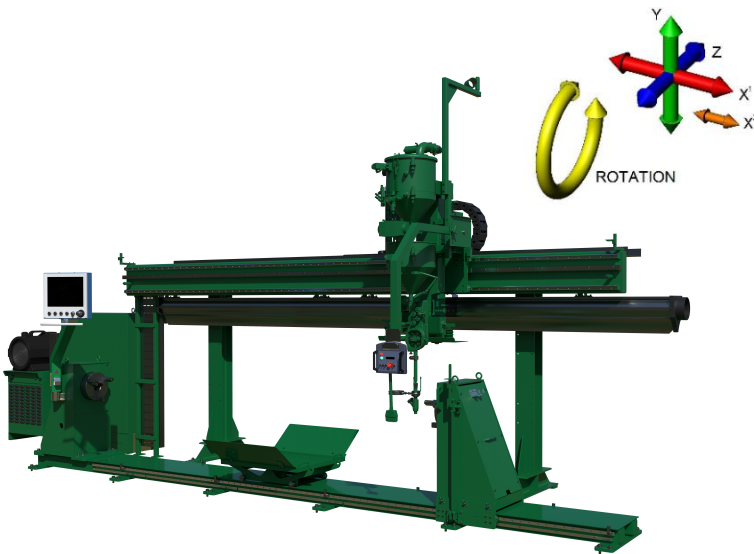
For monitoring QA records:

The datalogger can record any parameter on the system, all data is then stored. The operator can enter in specific information about the weld eg. roll type, serial number, Amps, Volts and travel speeds etc if necessary. All data can be retrieved by USB.

Technical Data Sheet

Stationary Welding Automation

WA Machines R6000 - Heavy Duty



DESCRIPTION

Automatic machine with rotation for one or two components. Headstock and Tailstock mounted on heavy-duty frame and ball rails allowing rapid repositioning to accommodate varying component lengths and secured in place with quick locking system. Thermal expansion device fitted to the Tailstock. Manual positioning of the Welding Gun in the angular and Z-Axis directions.

FEATURES

Welding of individual rolls up to 6 Tonne
Configurable for multiple heads and stations

Welding patterns include stringer, square wave, oscillation and spiral welding beads

Adaptable for various welding processes

INDUSTRIES

Steel, Printing, General Maintenance Workshops.

SPECIFICATION

Component weight
Component length (1 roll)
Component length (2 rolls)
Component diameter (max)

Single Station

6000kg
2500mm
X
900mm

Twin Station

6000kg
4900mm
2500mm
900mm

TRAVEL

Motorised X¹ Axis
Motorised Y Axis
Motorised component rotation (Spindle)
Manual Z-Axis

Single Station

1mm - 2500mm
1mm - 600mm
0.2 - 2.0 r.p.m.
1mm - 150mm

Twin Station

1mm - 6000mm
1mm - 600mm
0.2 - 2.0 r.p.m.
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, PAW

CONTROL SYSTEM

D3 Touch

Incorporating:

Master, X Axis, Y Axis, Spindle 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		

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.

MANUAL SUBMERGED ARC KIT

For Use with Submerged Arc wires:

Flux hopper, 5 litre capacity, valves, hoses and flux shoe and fittings to attach to Y Axis.

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Recirculating flux system, 30kg capacity, including hoppers, vacuum pump, filter bags, flux tray, hoses and fittings.

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ARC VIEWING SCREEN

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For higher productivity:

A complete welding head set up including Y Axis, wirefeeder and X Axis motor set up to match the standard supply.

ADDITIONAL WELDING STATIONS

For higher productivity:

Additional Headstock and Tailstock to allow welding of an additional component independently of the first station. Motorised component rotation (Spindle) 0.2 r.p.m. - 2.0 r.p.m.

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:

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PROGRAMMER

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