

# Automation Catalogue



**STRENGTH THROUGH COOPERATION**







# Contents

Mechanized and Orbital TIG	<b>5</b>
Controllers and power sources	<b>15</b>
Welding tractors	<b>23</b>
Welding heads	<b>39</b>
Columns and booms	<b>49</b>
Carriers and gantries	<b>59</b>
Accessory components	<b>63</b>
Handling equipment	<b>75</b>
Special applications	<b>93</b>







# **Mechanized & Orbital TIG**





## Aristo® MechTig C2002i

Orbital welding power source

- Mechanized TIG welding increases productivity and reduces the welding costs.
- The Aristo® MechTig C2002i can control two motors; the travelling motor and the wire feed motor.
- Aristo® MechTig C2002i is built on a modular system and have a built-in cooling unit, which gives flexibility when adapting to customer requirements.
- The design of Aristo® C2002i is robust to withstand the wear and tear of many years of daily use in industrial environments.
- User friendly.
- 10" colour monitor.
- Graphical interface.
- Program library and auto generation of programs.



### Ordering information

Aristo® MechTig C2002i 0444 700 880  
Sales Literature XA00131320

### Options & Accessories

Trolley 0301 100 880  
Remote control MechT 1 CAN 0460 181 880

Cable between MechTig C2002i and MechT 1 CAN:

Length 5 m 0459 554 880  
Length 10 m 0459 554 881  
Length 15 m 0459 554 882  
Length 25 m 0459 554 883  
Length 0.25 m 0459 554 884

### Technical data

Mains voltage, V/ph Hz	230/1, 50-60
Fuse, slow, A	16
Mains cable, Ø mm² (in.)	3x2.5 (3x0.1)
<b>Permitted load at (Tig)</b>	
35% duty cycle, A / V	180 / 17
60% duty cycle, A / V	140 / 16
100% duty cycle, A / V	110 / 14
Setting range, TIG, A	5-200
Open circuit voltage, V	92
Dimensions LxWxH, mm (in.)	470x479x472 (18.5x18.9x18.6)
Weight, kg (lbs.)	30 (66)
Enclosure class	IP 23





## Aristo® MechControl 2 and 4

### Orbital welding control boxes

- The Aristo® MechControl 2 can control two motors; for travelling and wire feed.
- The Aristo® MechControl 4 can control four motors; for travelling, wire feed, Arc Voltage Control (AVC) and weaving.
- The design of Aristo® MechControl 2 and 4 is robust to withstand the wear and tear of many years of daily use in industrial environments.
- User friendly.
- 10" colour monitor.
- Graphical interface.
- Program library and auto generation of programs.

### Ordering information

Aristo® MechControl 2	0444 500 880
Aristo® MechControl 4	0444 500 881
Sales Literature	XA00131420

### Options & Accessories

Connection cable 1.7 m	0460 210 880
Connection cable 8.0 m	0460 210 881
Remote control MechT 1 CAN	0460 181 880

Cable between MechControl 2 or 4 and MechT 1 CAN:

Length 5 m	0459 554 880
Length 10 m	0459 554 881
Length 15 m	0459 554 882
Length 25 m	0459 554 883
Length 0.25 m	0459 554 884

Technical data	MechControl 2 and 4
Control voltage, V, Hz	42, 50-60
Dimensions LxWxH, mm (in.)	471x403x364 (18.5x15.9x14.3)
<b>Weight, kg (lbs.)</b>	
MechControl 2	17.4 (38.3)
MechControl 4	18.4 (40.5)
Enclosure class	IP 23





## Aristo® MechTig 3000i and 4000iw

Robust and powerful orbital welding power sources

- The power sources are optimised to operate together with Mech Control 2 and 4.
- The control and communication CAN-bus system means less cables, which in turn increases operational reliability.
- The power sources are compact and sturdy. Aristo® MechTig 3000i have a separate cooling unit and Aristo® MechTig 4000iw have a built-in water cooling unit, both are equipped with ELP.
- The patented ESAB LogicPump ELP automatically starts the cooling water pump in the machine when a water cooled tool is connected to the MechControl. This eliminates the risk of overheating the tool. When a self-cooled tool is used, the pump is automatically shut off giving lower noise and longer lifetime for the cooling pump.
- Connection cables up to 8 metres provide a working range of up to 16 metres to suit all your individual needs.

Aristo® MechTig 4000iw



### Ordering information

Aristo® MechTig 3000i (3x400V, 50 Hz)	0459 745 882
Aristo® MechTig 4000iw (3x400V, 50 Hz)	0458 625 886
Connection cable 1.7 m	0460 210 880
Connection cable 8.0 m	0460 210 881

### Options & Accessories MechTig 3000i

Cool-Midi 1800 MechTig	0459 840 881
Trolley 2-wheel	0459 366 890
Trolley 4-wheel	0460 060 880

### Options & Accessories MechTig 4000iw

Multi Voltage unit. Wide body 3x208/230/400/460/475/575 V, 50/60 Hz	0459 145 880
Handles incl mounting screws for Multi Voltage unit (complete set = 2)	0459 307 881
Trolley	0458 530 880
Guide pin (if no trolley)	0458 731 880

Technical data	MechTig 3000i	MechTig 4000iw
Mains voltage, V, Hz	3x400, 50/60	3x400, 50x60
Fuse, slow, A	10	16
Mains cable, mm <sup>2</sup>	4x2.5	4x4
Setting range, TIG DC, A	4-300	4-400
<b>Permitted load, 40 °C</b>		
at 35% duty cycle, A / V	300 / 22	400 / 26
at 60% duty cycle, A / V	240 / 19.6	320 / 23
at 100% duty cycle, A / V	200 / 18	250 / 20
Open circuit voltage, V	60	60
Energy save mode (400V), W	30	60
Power factor at maximum current	0.89	0.75
Efficiency at maximum current, %	81.5	97.1
Dimensions L x W x H, mm (in.)	652x249x423 without cooling unit	625x394x776 with cooling unit
Enclosure class	IP 23	IP 23
Insulation class (main trafo)	H	H
Operating temperature, °C	-10 to +40	-10 to +40
Weight, kg (lbs.)	30	81
<b>Water cooling unit:</b>	<b>CoolMidi 1800</b>	<b>Built-in cooling unit</b>
Cooling capacity, W, l/min	1600 at 40°C, 1.2	2500 at 40°C, 1.5
Coolant volume, l	4.2	5.5
Max flow, l/min	4.0	2.0



Aristo® MechTig 3000i



## A21 PRB and PRC Tube-to-tube TIG welding tools

Small, flexible and lightweight

- Available in three sizes for tubes with outer diameters of 17 to 170 mm (0.67-6.7 inch)
- The PRB tools are available as water-cooled or air-cooled. They offer benefits in a number of application areas for welding stainless tubes in the food industry, process industry as well as heavy-duty engineering such as the energy and power industries.
- The PRC tools are water-cooled. They are available in two configurations with arc length control or with arc length control and weave control of the arc.
- The PRB tools can be used together with ESAB's power source MechTig C2002i or MechTig 4000iw/MechTig 3000i combined with MechControl 2 or 4.
- The PRC tools can be used together with ESAB's power source MedTig 4000iw/MechTig 3000i combined with MechControl 2 or 4.

### Ordering information

#### PRB water-cooled

A21 PRB, 17-49 mm (0.67-2 inch)	0443 750 882
A21 PRB, 33-90 mm (1-3.5 inch)	0443 760 882
A21 PRB, 60-170 mm (2-6.5 inch)	0443 770 882

#### PRB air-cooled

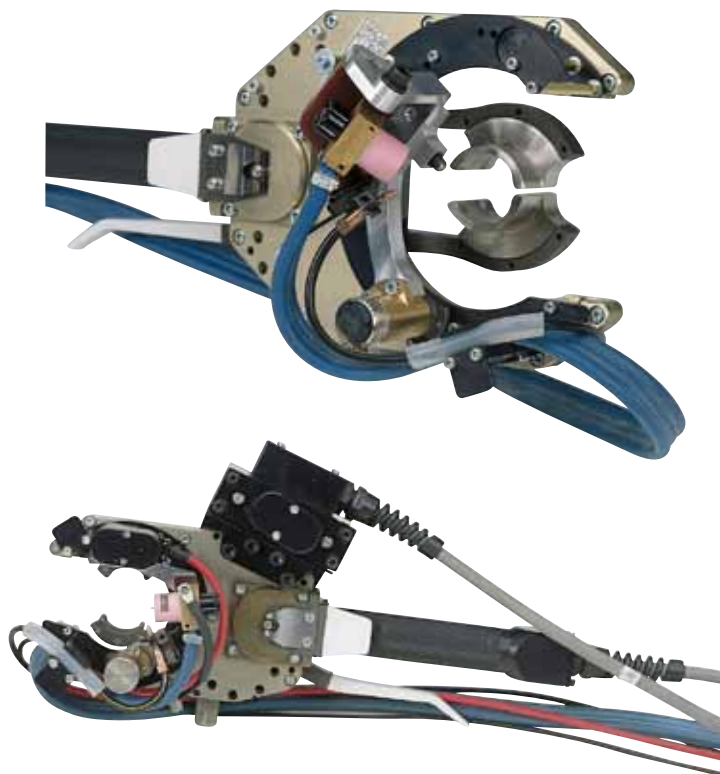
A21 PRB, 17-49 mm (0.67-2 inch)	0443 750 883
A21 PRB, 33-90 mm (1-3.5 inch)	0443 760 883
A21 PRB, 60-170 mm (2-6.5 inch)	0443 770 883

#### PRC with Arc Voltage Control

A21 PRC, 17-49 mm (0.67-2 inch)	0443 751 881
A21 PRC, 33-90 mm (1-3.5 inch)	0443 761 881
A21 PRC, 60-170 mm (2-6.5 inch)	0443 771 881

#### PRC with Arc Voltage Control and weaving

A21 PRC, 17-49 mm (0.67-2 inch)	0443 752 881
A21 PRC, 33-90 mm (1-3.5 inch)	0443 762 881
A21 PRC, 60-170 mm (2-6.5 inch)	0443 772 881



### Options & Accessories

Angular support bracket	0443 875 880
Rebuilding kit for PRB/PRC 17-49 for tubes with OD 8-17 mm (0.3-0.7 inch)	0444 002 880
Rebuilding kit for PRB/PRC 33-90 for tubes with OD 20-33 mm (0.8-1.3 inch)	0443 908 880
Rebuilding kit for PRB/PRC 60-170 for tubes with OD 44-60 mm (1.7-2.4 inch)	0443 909 880
Sales Literature	XA00098520

Technical data	PRB 17-49	PRB 33-90	PRB 60-170	PRC 17-49	PRC 33-90	PRC 60-170
Rate of rotation, rpm	0.1-2.4	0.1-1.6	0.05-0.95	0.1-2.4	0.1-1.6	0.05-0.95
Tube OD, mm (in.)	17-49 (0.67-1.93)	33-90 (1.3-3.54)	60-170 (2.36-6.7)	17-49 (0.67-1.93)	33-90 (1.3-3.54)	60-170 (2.36-6.7)
Tube OD optional, mm (in.)	8-17 (0.31-0.67)	20-33 (0.79-1.30)	44-60 (1.73-2.36)	8-17 (0.31-0.67)	20-33 (0.79-1.30)	44-60 (1.73-2.36)
Max welding current at 100% duty cycle, water-cooled, A 100% duty cycle, air-cooled, A	250 100	250 100	250 100	250 -	250 -	250 -
Electrode diameter, mm (in.)	1.6/2.4 (1/16-3/32)	1.6/2.4 (1/16-3/32)	1.6/2.4 (1/16-3/32)	1.6/2.4 (1/16-3/32)	1.6/2.4 (1/16-3/32)	1.6/2.4 (1/16-3/32)
Weight (less cables), kg (lbs.)	2.8 (6)	3.2 (7)	4.4 (10)	-	-	-
With AVC, kg (lbs.)	-	-	-	3.3 (7)	3.7 (8)	4.9 (11)
With AVC and weaving, kg (lbs.)	-	-	-	5.1 (11)	5.5 (12)	6.7 (15)
Min spacing between two parallel tubes, mm (in.)	D/2+70 *) (D2+2.76) *)	D/2+70 *) (D2+2.76) *)	D/2+70 *) (D2+2.76) *)	D/2+70 *) (D2+2.76) *)	D/2+70 *) (D2+2.76) *)	D/2+70 *) (D2+2.76) *)
Arc adjustment rate, mm/s (ips)	-	-	-	2.5 (0.1)	2.5 (0.1)	2.5 (0.1)

\*) Without fine adjustment wheel for wire. Electrode cap and spacer screw may need to be replaced with the shortest variant supplied with the tool.



## A21 PRH Enclosed Tube TIG welding head

- Designed for welding thin-walled, stainless steel tubes to provide maximum gas shielding around the tube.
- Rotating part and tungsten electrodes are enclosed in a gas chamber formed by the outer casing, which also constitutes the clamping arrangement for the tube-to-tube to be welded.
- Water-cooled and available in three sizes to weld tubes between 3-76.2 mm (0.12-3 inch).
- Equipped with encoder motors for precise positioning of each sector when welding with different sets of parameters.
- Includes 8 m (26 ft.) connection cable.
- For use with ESAB's orbital TIG power source Aristo® MechTig C2002i or Aristo® MechTig 4000i combined with control box Aristo® MechControl 2 or 4.



Cartridge C  
+ Collets C  
for PRH 3-12



Cartridge MF  
for PRH 3-12



### Ordering information

Welding head PRH 3-12	0444 300 880
Welding head PRH 3-38	0444 301 882
Welding head PRH 6-76	0444 302 880
Sales Literature	XA00115920

### Options & Accessories

Cartridges and collets are available for all diameters within the working range of each tool. Article numbers to be found in the product fact sheet XA00115920.

Technical data	PRH 3-12	PRH 3-38	PRH 6-76
Rate of rotation rpm	0.65-12.6	0.5-9.5	0.31-6.15
Tube outer diameter, mm (in.)	3-12.7 (0.12-0.50)	3-38.1 (0.12-1.50)	6-76.2 (0.24-3)
Max cont. welding current at 100% duty cycle, water-cooled, A	15	50	60
Max pulsed welding current, water-cooled, A	40	100	100
Electrode diameter, mm (in.)	1.0 (0.040)	1.6-2.4 (1/16-3/32)	1.6-2.4 (1/16-3/32)
Weight, incl cables, kg (lbs.)	5 (11)	6.5 (14)	7.5 (16.5)

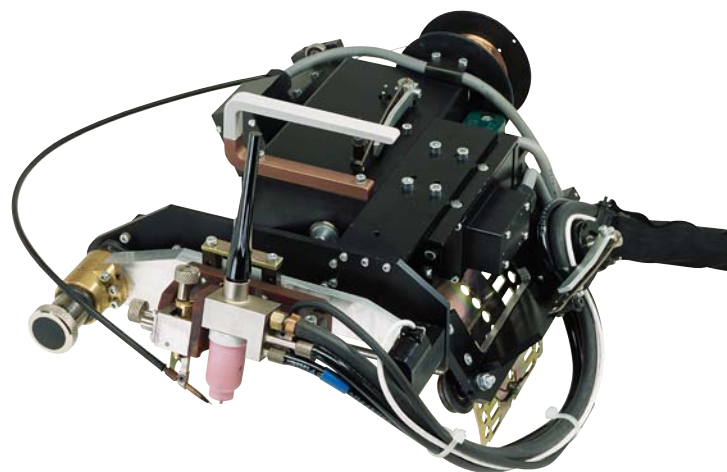


# A21 PRD Orbital Tube and Pipe TIG welding head

The ultimate tube welder

## A21 PRD 160

- Designed for pipes with an outer diameter of 160 mm (6 inch) or more.
- Carriage travels around the pipe on a rack adapted to match the diameter of the pipe.
- Basic model for thin-walled pipes includes one motor for travel.
- Options for thick walled pipes include wire feed, arc voltage control (AVC) and weaving modules.
- For use with ESAB's orbital TIG power source Aristo® Mech Tig C2002i or MechTig 4000iw combined with MechControl 2 or MechControl 4.



## Ordering information

A21 PRD 160 welding head Basic	0444 151 880
<i>for use only when fusion welding with a floating head</i>	
A21 PRD 160 with wire feeder	0444 151 881
A21 PRD 160 with AVC	0444 151 882
A21 PRD 160 with AVC and wire feeder	0444 151 883
A21 PRD 160 w/ AVC, wire feeder, weaving	0444 151 884
Sales Literature PRD 160	XA00106020

## Options & Accessories

Standard racks for A21 PRD 160, please contact ESAB for more information.

Wire feed unit	0444 137 880
Arc voltage control (AVC)	0443 656 881
Weaving unit, complete	0444 140 880

## Technical data

### A21 PRD 160

Max welding current, 100% duty cycle	315A, continuous DC 400A, pulsed DC
Working range, external, mm (in.)	160-1025 (6.3-40.4)
Clearance height, mm (in.)	111-119 (4.4-4.7) for handle + 37 (+1.5)
Min distance to flange, mm (in.)	18 at 0° skew (0.71)
Rotation speed, cm/min (in.)	2-40 (0.8-15.7)
Torch	water-cooled with gas lens
Electrode size, mm (in.)	Ø 1.6-3.2 (1/16-1/8)
Angular adjustment	-30° to +45°
Filler wire; Feed speed, cm/min (ipm)	15-150 (5.9-59)
Nozzle	adjustable in X, Y and Z-axis
Spool, Ø mm (in.)	100 (4)
Weaving; Speed, mm/s (ips)	2-12 (0.08-0.47)
Amplitude, mm (in.)	± 15 (± 0.6)
Rest time at end position, s	0.1-10
AVC; Speed, mm/s (ips)	2.0 (0.8)
Amplitude, mm / (in.)	-
Weight without cables and rack, kg (lbs.)	approx. 8 (17.6)



## A22 POC 12-60 Tube-to-Tube Sheet TIG welding head

### Exact centering

- Precision-built, robust, versatile welding head for all types of tube-to-tube sheet welding.
- Working range of 12-60 mm (0.5-2.4 inch) outer diameter.
- High centering accuracy.
- Patented centering mandrels area available for inner tube diameters from 9.9 mm (0.38 inch)
- Water-cooled and capable of pulsing at 200A, 60% duty cycle.
- For use with Aristo® MechTig C2002i or MechTig 4000iw/ MechTig 3000i combined with MechControl 2 or 4.



### Options & Accessories

Counter-balancing block	0332 330 005
3-point support incl electrode holder for fillet welding up to Ø36 mm (1.4 in.)	0333 897 880
3-point support incl electrode holder for fillet welding Ø36-93 mm (1.4-3.6 in.)	0333 897 883
Additional gas cup	0441 000 880
Internal bore welding torch 9.5-15 mm (0.37-0.59)	0441 131 880
Internal bore welding torch, 15-20 mm (0.59-0.79 in.)	0441 132 880
Internal bore welding torch, 20-30 mm (0.79-1.18 in.)	0441 133 880

For information about Spindles and Centering Mandrels, see fact sheet XA00087220 or contact ESAB.

### Ordering information

A22 POC 12-60 welding head with wire feed	0443 930 880
Sales Literature	XA00087220



### Technical data

#### Working range diameter

Electrode parallel with tube axis, mm (in.)	12-60 (0.5-2.4)
Electrode 30° from tube axis, mm (in.)	12-36 (0.5-1.4)

Rotation, rpm	0.2-4.5
Electrode diameter, mm (in.)	1.6-2.4 (1/16-3/32)
Rating, A	180 at 60% duty cycle
Weight, welding head, kg (lbs.)	4.8 (10.6)
Welding cable length, m (ft.)	8 (26.2)

#### Wire feed unit;

Filler wire diameter, mm (in.)	0.8-0.9 (0.030-0.35)
Filler wire speed, m/min (ipm)	0.15-1.5 (5.9-59)
Wire spool diameter, mm (n.)	100 (4)
Wire reel weight, kg (lbs.)	0.5 (1.1)



## A25 Mechanized TIG Modular Component System

The key to mechanization of your TIG welding

- Modular components can be easily combined to create customized solutions for specific welding requirements.
- TIG Narrow Gap method can be used together with A25 system for extremely small joint angle and subsequent low joint volume.
- Choose between different models with arc voltage control (AVC), weaving slides, manual horizontal and vertical slide, floating slides, circular slides, wire feeder and BTE 250M or BTE 500M torch.
- ESAB's well-proven power source Aristo® MechTig 4000iw/ MechTig 3000i combined with control box MechControl 4 can be used for control of functions like AVC, weaving, wire feed, rotation and other welding parameters.
- The power source Aristo® MechTig 4000iw/MechTig 3000i combined with MechControl 2 are used for control of functions like wire feed, rotation and other welding parameters.



### Ordering information

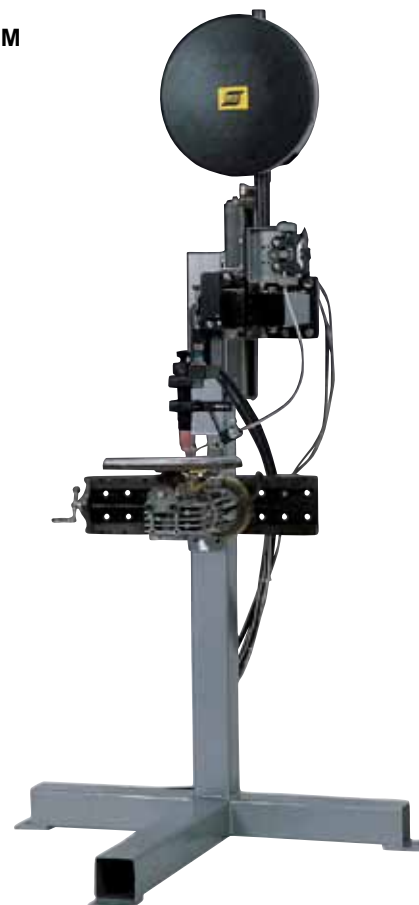
A25 Welding Automat	with BTE 250M	with BTE 500M
With AVC	0443 911 880	0443 911 881
With AVC, weaving slides	0443 911 882	0443 911 883
With AVC, manual horizontal slides	0443 911 884	0443 911 885
With manual vertical and horizontal slides	0443 911 886	0443 911 887
With slides for floating head	0443 912 880	0443 912 881
Complete system with AVC, weaving slides, wire feed unit, VEC motor with turntable, mounted on stand	0443 910 880	0443 910 881
Sales Literature	XA00089520	

### Ordering information - components

For information about Components, see fact sheet XA00089520 or contact ESAB.

### Technical data

AVC slide amplitude, mm (in.)	76 (3)
AVC slide speed, mm/s (ipm)	2.8 (0.1)
Weaving slide amplitude, mm (in.)	76 (3)
Weaving slide speed, mm/s (ipm)	19 (0.75)
Manual slide amplitude, mm (in.)	93 (3.6)
Floating slide amplitude, mm (in.)	76 (3)
Wire diameter, mm (in.)	0.6-1.6 (0.024-0.063)
Wire feed speed, m/min (ipm)	0.1-2.6 (4-102)
VEC motor with encoder speed, rpm	1000
VEC motor with encoder ratio	672:1

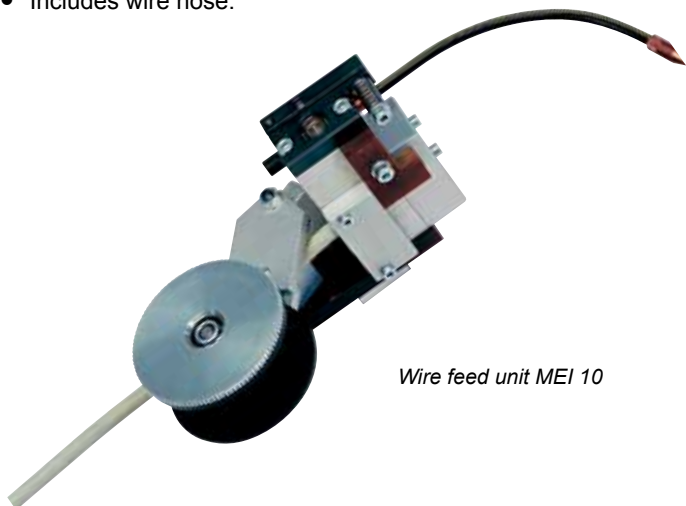




## MEI 10 and MEI 21 Wire Feed Units

### MEI 21 Wire feed unit

- Four wire rollers for orbital TIG welding.
- Eliminates the need for a wire feed unit and wire spool mounted on the welding head.
- Use with 5 kg (11 lbs.) wire spools.
- For wire diameters of 0.6-0.8 mm (0.023-0.031 inch).
- Includes wire hose.



Wire feed unit MEI 10

### MEI 10 Wire feed unit

- Developed for mounting PRB 17-170 tools (PRC 17-49 only with AVC).
- PRB tools with MEI 10 can be used with power source Aristo® MechTig C2002i or MechTig 4000iw combined with MechControl 2 or 4.
- PRC tools with MEI 10 can be used with power source Aristo® MechTig 4000iw combined with MechControl 4.
- Ideal for aluminium welding with short wire feed distance from the reel to the molten pool.
- Also use for mild steel and stainless steel.
- For wire diameters of 0.8-1.0 mm (0.030-0.040 inch) for aluminium, 0.8 mm (0.030 inch) for steel.
- Motor equipped with pulse generator for precise wire feed speed adjustment.



Wire feed unit MEI 21

### Ordering information

MEI 21	0443 830 880
MEI 10 for PRB/PRC 17-49 with AVC	0444 211 880
MEI 10 for PRB/PRC 33-90 with AVC and PRC 33-90 with AVC and weaving	0444 212 880
MEI 10 for PRB/PRC 60-170 with AVC and PRC 60-170 with AVC and weaving	0444 213 880
Sales Literature MEI 21	XA00089020
Sales Literature MEI 10	XA00098620

Technical data	MEI 21	MEI 10
Wire diameter, mm (in.)	0.6-0.8 (0.023-0.031)	0.8 (0.031)
Wire feed, m/min (ipm)	0.1-2.6 (0.004-0.1)	0.1-1.2 (0.004-0.05)
Max. spool dimension/weight, Ø mm/kg (in./lbs.)	200/5 (8/11)	60/0.26 (2.4/0.6)
Hub width, mm (in.)	60 (2.4)	-
Hub hole diameter, mm (in.)	51.5 (2)	-
Wire guide length, m (ft.)	4.2 (14)	0.1 (0.3)
Weight, kg (lbs.)	4 (8.8)	0.5 (1.1)



# **Controllers & Power Sources**





## A2-A6 Process Controller PEK

For use with ESAB CAN-controlled power sources and motors

- For use with ESAB automatic power sources LAF 631/1001/1251/1601 and TAF 801/1251.
- CAN-bus system for data transfer.
- Prepared for submerged arc welding (SAW), gas metal arc welding (GMAW) and arc gouging.
- User-friendly clear text menus.
- Selectable welding process.
- Memory for 255 parameter sets.
- Constant current or constant wire speed.
- Encoder controlled motors for top performance motion control.
- USB port for data back-up and transfer.
- Used welding parameters can be stored directly on a USB memory drive.
- Documentation of used welding parameters on PC or through LAN with WeldPoint™.
- Five Soft Keys can be configured according to operator preferences.



### Ordering information

A2-A6 process controller PEK  
Sales Literature

0460 504 880  
XA00143720

### Options & Accessories

I/O-Module  
Set of connectors  
Cable restraining bracket

0462 080 001  
0462 119 880  
0460 861 880

*Adjustable sun shield for better visibility for outdoor use*



### Technical data

Connection voltage from the power source	42V AC, 50/60 Hz
Connection power	max 900 VA
Motor connection adjusted for ESAB's A2 and A6 motors	connection of 2 motors, motor current 6A cont., max 10A
Speed control	feedback from pulse encoder
Welding speed, m/min (ipm)	0.1-2.0 (4-79) depending on travel carriage
Max. manual travel speed, m/min (ipm)	2.0 (79)
Consumable wire feed speed, m/min (ipm)	0.3-25 (12-984) depending on wire feed unit
Valve output	1 pc, 42 V AC, 0.5A
Inputs	for connection of sensors or limit switches
Connection to power source	Burndy contact 12-poles
Max ambient temperature, °C (°F)	45 (113)
Min ambient temperature, °C (°F)	-15 (59)
Relative humidity (of air)	98%
Dimensions, LxWxH, mm (in.)	246x235x273 (7x9.25x11)
Weight, kg (lbs)	6.6 (14.5)
Enclosure class	IP23
Standards	EN60974-1, EN60974-10



## A2 Process Controller PEI

For use with ESAB power sources and motors

- Control system for A2 tractors and A2 welding heads
- Analogue type that can control most brands of power supplies.
- Suitable for submerged arc welding (SAW) or gas metal arc welding (GMAW)
- Travel speed, voltage and wire feed speed can be adjusted by simply turning the knobs - actual data is shown on digital displays during welding.
- Change welding direction using switch on front panel.
- Choice of scratch start or direct start methods.
- Adjustable burn-back time.



### Ordering information

A2 process controller PEI	0449 330 880
Sales Literature	XA00114320

### Options & Accessories

Control cable, 15 m (49 ft)	0449 500 880
Control cable, 25 m (82 ft.)	0449 500 881
Control cable, 35 m (115 ft.)	0449 500 882
Control cable, 50 m (164 ft.)	0449 500 883
Control cable, 75 m (246 ft.)	0449 500 884
Control cable, 100 m (328 ft.)	0449 500 885

### Technical data

Connection voltage from the power source	42V AC, 50/60 Hz
Connection power	max 700 VA
Motor connection adjusted for ESAB's A2 motors	42V DC, 3.5 A P100%, 4.5A P60%
Speed control	Internal EMK-adjustment
Welding speed, m/min (ipm)	0.1-2.0 (4-79) depending on travel carriage
Max. transport speed, m/min (ipm)	2.0 (79)
Consumable wire feed speed, m/min (ipm)	0.5-16.2 (20-640) depending on wire feed unit
Burnback time, s	0-2.0
Gas pre-flow time, s	0.5
Gas post-flow time, s	1.0
Connection to power source	Burndy contact, 23 poles
Welding voltage control, V DC	0-10
Flow guard	NO Contact / PNP OC
Limit switches	NO Contact / PNP OC
External current shunt, A/mV	1000/60, 1500/60, 600/100, 750/100
Operating temperature, °C (°F)	-10 - +40 (14-104)
Weight, kg (lbs.)	6.2 (14)
Dimensions LxWxH, mm (in.)	197x227x220 (7.8x9.0x8.7)
Enclosure class	IP23
Standards	EN50199, EN60974-1



## Power sources LAF 631, 1001, 1251 and 1601

DC power sources for submerged-arc welding (SAW) or gas metal arc welding (GMAW)

- Three-phase, fan-cooled DC welding power sources designed for high productivity automated submerged-arc welding (SAW) or high productivity gas metal arc welding (GMAW).
- Used in combination with ESAB's A2-A6 equipment range and the A2-A6 Process Controllers (PEK or PEI).
- Good arc stability at both high and low arc voltages.
- Adjust and monitor the welding parameters on the power source from the front panel of the process controller (PEK or PEI).
- Welding current range can be extended by connecting two power sources in parallel for the most demanding applications.
- Power source prepared for communication using most standard protocols like TCP/IP (LAN), CAN or even straight communication with a PLC. Optional communication modules might be needed depending on types of used protocol.
- Ideal for SAW applications such as wind tower components, nuclear power vessels, boilers and in the ship building industry.
- Ideal for GMAW applications such as welding the root pass in heavy pipe production.



### Ordering information

LAF 631	0460 512 880
LAF 1001	0460 513 880
LAF 1251	0460 514 880
LAF 1601	0460 515 880
LAF 1001 M	0460 513 881
LAF 1251 M	0460 514 881
LAF 1601 M	0460 515 881
Sales Literature	XA00143820

### Options & Accessories

#### PEK

Control cable, 15 m (49 ft.)	0460 910 881
Control cable, 25 m (82 ft.)	0460 910 882
Control cable, 35 m (115 ft.)	0460 910 883
Control cable, 50 m (164 ft.)	0460 910 884

#### PEI

Control cable, 15 m (49 ft.)	0449 500 880
Control cable, 25 m (82 ft.)	0449 500 881
Control cable, 35 m (115 ft.)	0449 500 882
Control cable, 50 m (164 ft.)	0449 500 883
Control cable, 75 m (246 ft.)	0449 500 884
Control cable, 100 m (328 ft.)	0449 500 885
Wheel set LAF 631	0457 787 880



*LAF 631 in combination with  
MechTrac and GMH*



## Power sources LAF 631, 1001, 1251 and 1601

Cont.

Technical data	LAF 631	LAF 1001	LAF 1251	LAF 1601
Mains supply, 3 ph 50 Hz, V	400/415	400/415/500	400/415/500	400/415/500
Mains supply, 3 ph 60 Hz, V	440	400/440/550	400/440/550	400/440/550
Current 100%, 50 Hz, A	52	64/64/52	99/99/80	136/136/108
Current 100%, 60 Hz, A	52	64/64/52	99/99/80	136/136/108
Fuse, slow, 50 Hz, A	63	63	100/100/80	160/160/125
Fuse slow, 60 Hz, A	63	63	100/100/80	160/160/125
<b>Maximum load at:</b>				
100% duty cycle, A/V	630/44	800/44	1250/44	1600/44
80% duty cycle, A/V	-	-	-	-
60% duty cycle, A/V	800/44	1000/44	-	-
<b>Setting range, A/V</b>				
GMAW	50/17-630/44	50/17-1000/45	60/17-1250/44	-
SAW	30/21-800/44	40/22-1000/45	40/22-1250/44	40/22-1600/46
Open circuit voltage, V	54	52	51	54
Open circuit power, W	150	145	220	220
Efficiency	0.84	0.84	0.87	0.86
Power factor	0.90	0.95	0.92	0.87
Enclosure class	IP23	IP23	IP23	IP23
Dimensions, LxWxH, mm (in.)	670x490x930 (26x19x37)	646x552x1090 (25x22x43)	774x598x1428 (30.5x23.5x56)	774x598x1428 (30.5x23.5x56)
Weight, kg (lbs.)	260 (573)	330 (727.5)	490 (1080)	585 (1290)
Application class	<span style="border: 1px solid black; padding: 2px;">S</span>	<span style="border: 1px solid black; padding: 2px;">S</span>	<span style="border: 1px solid black; padding: 2px;">S</span>	<span style="border: 1px solid black; padding: 2px;">S</span>

Technical data	LAF 1001 M	LAF 1251 M	LAF 1601 M
Mains supply, 3 ph 50 Hz, V	230/400/415/500	230/400/415/500	230/400/415/500
Mains supply, 3 ph 60 Hz, V	230/400/440/550	230/400/440/550	230/400/440/550
Current 100%, 50 Hz, A	111/64/64/52	171/99/99/80	235/136/136/108
Current 60%, 50 Hz, A	138/80/80/65	-	-
Current 100%, 60 Hz, A	111/64/64/52	171/99/99/80	235/136/136/108
Current 60%, 60 Hz, A	138/80/80/65	-	-
Fuse, slow, 50 Hz, A	125/63/63/63	160/125/125/80	200/160/160/125
Fuse, slow, 60 Hz, A	125/63/63/63	160/100/100/80	200/160/160/125

For all other technical information, see LAF 1001, LAF 1251 and LAF 1601, above.

These welding power sources comply with the requirements of EN 60974-1 and IEC 974-1.

S This symbol indicates that the welding power source may be used in areas with an increased electrical hazard, e.g. areas where the electrical hazard is increased due to damp and/or the proximity to earthed metal objects.



## Power sources TAF 801 and 1251

Square wave AC power sources for submerged arc welding (SAW)

- Square wave AC power sources that convert the secondary voltage from a sinus wave via a thyristor controlled rectifier bridge to a square wave arc voltage with excellent strike characteristics and good welding properties.
- Capacity for continuous welding
- Pre-setting of arc voltage.
- Reliable square wave striking.
- Arc voltage or current feed back.
- Optimized open circuit voltage.
- Compensation of mains supply fluctuation.
- Voltage drop compensation for long welding cables.
- High power factor ensuring low power consumption.
- Designed and built for convenient servicing.
- Safety control voltage 42V.
- Prepared for Scott connection of two power sources.
- Used in combination with ESAB's A2-A6 equipment range and the A2-A6 Process Controllers (PEK or PEI).
- Power source prepared for communication using most standard protocols like TCP/IP (LAN), CAN or even straight communication with a PLC. Optional communication modules might be needed depending on types of used protocol.



### Ordering information

TAF 801	0460 516 880
TAF 1251	0460 517 880
Sales Literature	XA00143920

### Options & Accessories

Control cable, 15 m (49 ft.)	0460 910 881
Control cable, 25 m (82 ft.)	0460 910 882
Control cable, 35 m (115 ft.)	0460 910 883
Control cable, 50 m (164 ft.)	0460 910 884

Technical data	TAF 801	TAF 1251
Mains supply, 1 ph 50 Hz, V	400/415/500	400/415/500
Mains supply, 1 ph 60 Hz, V	400/440/550	400/440/550
<b>Maximum load at:</b> 100% duty cycle, A/V 60% duty cycle, A/V	800/44 1000/44	1250/44 1500/44
Setting range, A/V	300/28-800/44	400/28-1250/44
Open circuit voltage, V	71	72
Open circuit power, W	230	230
Efficiency	0.86	0.86
Power factor	0.75	0.76
Dimensions, LxWxH, mm (in.)	774x598x1428 (30.5x23.5x56)	774x598x1428 (30.5x23.5x56)
Weight, kg (lbs)	495 (1091)	608 (1340)
Enclosure class	IP23	IP23
Application class	<div style="border: 1px solid black; padding: 2px; display: inline-block;">S</div>	<div style="border: 1px solid black; padding: 2px; display: inline-block;">S</div>



## Power source Aristo® 1000 AC/DC SAW

AC/DC inverter power source for efficient submerged arc welding

- Based on unique and patent pending technologies to deliver the best welding performance with the lowest power consumption.
- Designed for use with the digital PEK controller and the robust A2/A6 feeder units.
- A global inverter - connect to a three phase mains supply from 380 to 575 V, 50 or 60 Hz.
- Change between DC and AC "on the fly". Minimize downtime and weld defects by the push of a button with the patent pending "on the fly" function.
- Long welding cables. The patent pending Cable Boost™ technology stores energy and instantly delivers up to 450% additional energy when required. Cable Boost extends the maximum usable weld cable length with more than a factor two, without compromising the weld result.
- Cable Boost™ is also an energy saver. The inductive energy generated in the welding cables is re-used in the welding process instead of being wasted as heat and power losses.
- Designed for uninterrupted welding production. There are no connectors or cables at any exposed positions. All cables are connected behind a door in the front of the machine. Easily accessible for service and well protected against damage.



### Technical data

Mains supply, 3 ph, V, Hz 380-575, 50/60

Mains current (DC load), A / V	86 / 380
	82 / 400
	79 / 415
	74 / 440
	71 / 460
	66 / 500
	59 / 550
	57 / 575

Mains fuse (slow), A / V	100 / 380
	100 / 400
	80 / 415
	80 / 440
	80 / 460
	80 / 500
	63 / 550
	63 / 575

Maximum load at 100% duty cycle, A / V 1000 / 44

Open circuit voltage, V 130

Open circuit power, W 240

Efficiency at max rating 0.88

Power factor 0.93

Dimensions, LxWxH, mm (in.) 865x610x1320  
(34x24x52)

Weight, kg (lbs) 330 (727.5)

Enclosure class IP23

Certification CE-certified

Third party approvals ETL, CCC, Ghost-R

### Ordering information

Aristo® 1000 AC/DC SAW	0462 100 880
Sales literature, fact sheet	XA00153220
Sales literature, process brochure	XA00155520

### Options & Accessories

Control cable, 15 m (49 ft.)	0460 910 881
Control cable, 25 m (82 ft.)	0460 910 882
Control cable, 35 m (115 ft.)	0460 910 883
Control cable, 50 m (164 ft.)	0460 910 884
A2-A6 Process controller PEK	0460 504 880







# **Welding** Tractors





## Railtrac 1000

Multi-purpose system for welding and cutting

- Ideal for a wide variety automated gas metal arc welding (GMAW) applications.
- Made from aluminium and steel parts to withstand harsh environments.
- Ideal for horizontal to horizontal and vertical (up only) welding.
- Can be customized with a wide range of accessories.
- New joint system allows for both stiff and flexible rail applications.
- Straightforward, well designed programming unit with up to 5 different programs.
- Standard software offers programmable interval welding and backfill function.
- Operator can control machine motions with hand held remote without lifting welding visor.
- Remote Control features: start and stop, shift program, weaving width, zero line displacement and many more.
- Adjust the welding current and voltage during welding with the two potentiometers on the remote control (when using ESAB equipment).
- Remote control only available on FW1000 and FWR1000 models.



Technical data	Railtrac F1000 Flexi	Railtrac FR1000 Flexi Return	Railtrac FW1000 Flexi-Weaver	Railtrac FW1000L Flexi-Weaver	Railtrac FWR1000 Flexi-Weaver-Return
Mains supply, V AC/DC	36-46/40-60	36-46/40-60	36-46/40-60	36-46/40-60	36-46/40-60
Max power consumption, W	30	30	80	80	80
Weight, excl rails, Kg (lbs)	6 (13)	6 (13)	7 (15)	7 (15)	7 (15)
Dimensions, LxWxH, mm (in.)	170x400x190 (6.7x15.8x7.5)	170x400x190 (6.7x15.8x7.5)	170x350x190 (6.7x13.8x7.5)	170x350x190 (6.7x13.8x7.5)	170x350x190 (6.7x13.8x7.5)
Flexi rail dimensions, LxW, mm (in.)	60x5 (2.4x0.2)	60x5 (2.4x0.2)	60x5 (2.4x0.2)	60x5 (2.4x0.2)	60x5 (2.4x0.2)
Stiffener bar, LxW, mm (in.)	40x10 (1.6x0.4)	40x10 (1.6x0.4)	40x10 (1.6x0.4)	40x10 (1.6x0.4)	40x10 (1.6x0.4)
Min bend diameter, external, mm (in.)	3000 (118)	3000 (118)	3000 (118)	3000 (118)	3000 (118)
Slide for height adjustment, mm (in.)	±22 (±0.87)	±22 (±0.87)	±22 (±0.87)	-	±22 (±0.87)
Mechanical lateral adjustment, mm (in.)	-	-	±35 (±1.4)	±35 (±1.4)	±35 (±1.4)
Welding speed, cm/min (ipm)	10-150 (3.9-59)	10-150 (3.9-59)	10-150 (3.9-59)	5-99 (1.95-39)	10-150 (3.9-59)
Quick transport, cm/min (ipm)	150 (59)	150 (59)	150 (59)	99 (39)	150 (59)
Preheating time, sec	0.0-9.9	0.0-9.9	0.0-9.9	0.0-9.9	0.0-9.9
Interval welding, cm (in.)	1-99 (0.4-39)	1-99 (0.4-39)	1-99 (0.4-39)	1-99 (0.4-39)	1-99 (0.4-39)
Crater-filling time, sec	0.0-9.9	0.0-9.9	0.0-9.9	0.0-9.9	0.0-9.9
"Backfill", mm (in.)	0-99 (0-3.9)	0-99 (0-3.9)	0-99 (0-3.9)	0-99 (0-3.9)	0-99 (0-3.9)
Weaving speed, mm/s (ips)	-	-	6-60 (0.2-2.4)	6-60 (0.2-2.4)	6-60 (0.2-2.4)
Weaving width, mm (in.)	-	-	1-30 (0.04-1.2)	1-30 (0.04-1.2)	1-30 (0.04-1.2)
Electrical 0-line displacement, mm (in.)	-	-	±12.5 (±0.5)	±12.5 (±0.5)	±12.5 (±0.5)
Pause time at outer edge, sec	-	-	0.0-9.9	0.0-9.9	0.0-9.9
Weaving pattern, No.	-	-	3	3	3
Number of programs	5	5	5	5	5
Temperature machine and magnets, °C	0-70	0-70	0-70	0-70	0-70
Temperature vacuum attachments, °C	0-90	0-90	0-90	0-90	0-90
Enclosure class	IP23	IP23	IP23	IP23	IP23



## Railtrac 1000

### System configuration

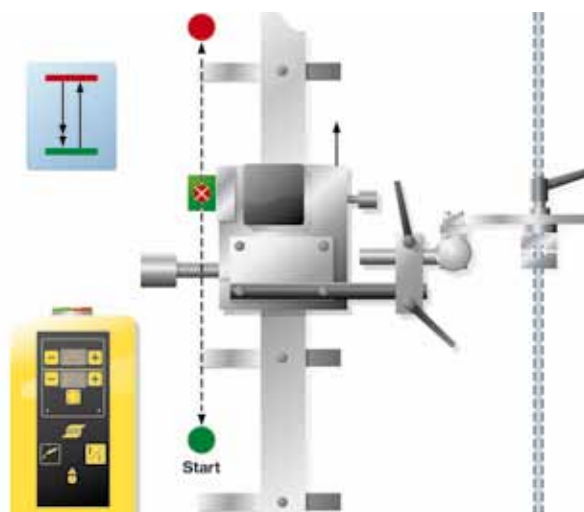
#### Railtrac F1000 Flexi

A mechanised system with a flexible combi-rail, suitable for both inside and outside welding and cutting along sharp curves as well as straight surfaces. This model is also suitable for thermal cutting.



#### Railtrac FR1000 Flexi Return

Railtrac FR1000 has the combi-rail and facilities for movable start and stop for automatic return for any length. This system is ideal for use in fixed installations or where a weld is repeated over and over again.



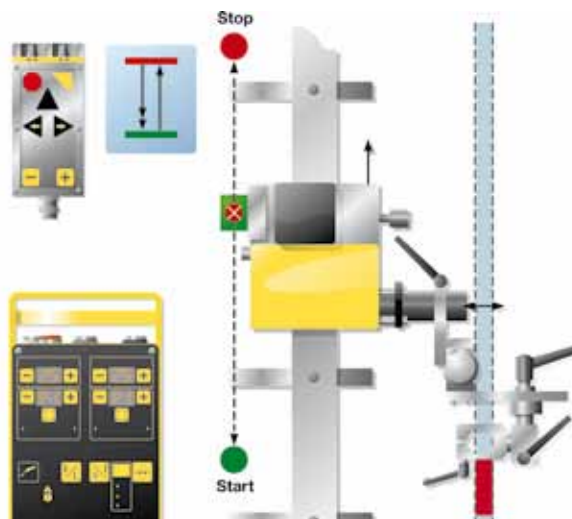
#### Railtrac FW1000 Flexi Weaver

This version has a flexible combi-rail and a weaver for weaving in many different patterns. It is also equipped with a remote-controlled unit with a user-friendly design.



#### Railtrac FWR1000 Flexi Weaver Return

Like the Flexi Weaver, this system has a weaving unit, but it also has adjustable start, stop and return facilities. Equipped with a remote control unit with a unique design, this is a very advanced solution for a number of applications.





## Railtrac 1000

Cont.

### Ordering information

Railtrac F1000 Flexi	0398 146 002
Railtrac FR1000 Flexi Return	0398 146 003
Railtrac FW1000 Flexi Weaver	0398 146 012
Railtrac FW1000L Flexi Weaver ( <i>low speed</i> )	0398 146 014
Railtrac FWR1000 Flexi Weaver Return	0398 146 013
Sales Literature	XA00135520

### Options & Accessories

#### Standard

Weaving unit \*)  
Control unit  
Remote control \*)  
Universal Torch holder with slide  
Automatic start and stop function \*\*)

#### Components

Flexible alu-rail, 2.5 m (8 ft.)	0398 146 115
Flexible alu-rail, 2.5 m (8 ft.), 8 magnets	0398 146 112
Flexible alu-rail, 2.5 m (8 ft.), vacuum attachments	0398 146 113
Stiffener Bar, 2.5 m (8 ft.)	0398 146 116
Magnetic attachment 90°, at least 8/2.5 m (8/8 ft.)	0398 146 100
Vacuum attachment 90°, at least 4/2.5 m (4/8 ft.)	0398 146 104
Vacuum attachment 200°, at least 4/2.5 m (4/8 ft.)	0398 146 105
Screw attachment for stiffened rail	0398 146 114

#### Accessories

Torch holder	0398 145 101
Adapter for stiffened rail attachments	0398 146 106
Universal pivoted torch holder	0398 145 104
Attachment for IMP cutting torch	0398 145 260
Torch angle attachment	0398 145 215
Tilt unit for weaving unit *)	0398 145 200
Turning unit for weaving unit *)	0398 145 201
"Floating" head	0398 145 211
IMP cutting torch	0398 145 250
Transport and storage box	0398 145 199
Control cable, 5 m (16.4 ft.)	0457 360 880
AristoFeed wire feeder adaptor kit	0458 757 881
Universal control cable, 5 m (16.4 ft.)	0457 360 881
Transformer kit	0457 467 880

\*) FW1000, FW1000L, FWR1000 only

\*\*) FR1000 and FWR1000 only





## Railtrac Orbital W

The machine to automate your tube welding

The Railtrac Orbital W is a superb alternative if you wish to automate your tube welding. It is ideal for use with ESAB's semi-automatic power sources and feed units.

The Railtrac Orbital W is a small compact motor powered tractor. A standard ESAB welding torch can be attached quickly. Two motors guarantee an even, stable movement on the rail.

The control box allows you to control the following parameters and store 5 different welding programs:

- Start and stop
- Shift program
- Travel or welding direction
- Travel or welding speed
- Weaving width
- Zero line displacement
- Welding current (wire feed speed)
- Welding voltage
- Backfill function

### Technical data

Control voltage, V AC	36-46
Power, W	90
Connection	Burndy, 12 pins
Welding speed, cm/min (ipm)	5-99 (2-39)
Slide for height adjustment, mm (in.)	±22 (±0.9)
Weaving speed, mm/sec. (ips.)	6-60 (0.2-2.4)
Weaving width, mm (in.)	1-30 (0.04-1.2)
Pause time at outer edge, sec	0.0-9.9
Electrical 0-line displacement, mm (in.)	±12.5 (±0.5)
Number of programs	5
Dimensions (LxWxH), mm (in.)	312x327x181 (12.3x12.9x7.1)
Weight, kg (lbs)	8 (17.6)
Enclosure class	IP 23



### Ordering information

Railtrac Orbital W 0398 146 032

### Options & Accessories

Floating head	0398 145 211
Orbital ring 6"	0449 900 706
Orbital ring 8"	0449 900 708
Orbital ring 10"	0449 900 710
Orbital ring 12"	0449 900 712
Orbital ring 14"	0449 900 714
Orbital ring 16"	0449 900 716
Orbital ring 18"	0449 900 718
Orbital ring 20"	0449 900 720
Orbital ring 22"	0449 900 722
Orbital ring 24"	0449 900 724
Orbital ring 26"	0449 900 726
Sales Literature	XA00133720

*Larger ring sizes available on request*



## Railtrac BV/BVR 1000

Programmable equipment for hardfacing and repair of rail profiles

- Light weight makes it quick and easy to remove the aluminium travel beam from rail or crossing and simple to restore to its original position on the work piece.
- It can be used with a number of different power sources and wire feeder combinations.
- Precise adjustments of the weaving pattern, travel speed and zero line can all be achieved during welding.
- Welding parameters are adjustable from the remote control.
- CE and EMC approved.
- IP 23 enclosure class makes it suitable for use out-doors. Control voltage level of 42V AC is safe for use anywhere.

### Ordering information

Railtrac BV 1000, complete excl welding equipment	0398 145 002
Railtrac BVR 1000, complete excl welding equipment	0398 145 003
Torch holder	0398 145 101
Sales Literature	XA00067820



### Technical data

Connection voltage, V AC / V DC	36-46 / 40-60
Max. output consumption, W	80
Weight excl. rail, kg (lbs.)	7 (15.4)
Weight of rail 2 m, kg (lbs.)	4 (8.8)
Slide for adjusting height of torch, mm (in.)	±22 (±0.9)
Mechanical lateral adjustment, mm (in.)	200 (7.9)
Gun attachment universal, mm (in.)	Ø 12-36 (Ø 0.5-1.4)
Max. effective weld length, mm (in.)	1500 (59)
Welding speed, cm/min (ipm)	10-150 (0.2-59)
Fast transport speed, cm/min (ipm)	150 (59)
Weaving speed, mm/s (ips)	7-50 (0.3-2.0)
Weaving width (W), mm (in.)	1-80 (0.04-3.1)
Zero-line shift, mm (in.)	25 / ±12.5 (1.0 / ±0.5)
Programmable edge length (L), cm (in.)	6-99 (2.4-39)
Number of programs	BV: 4, BVR: 6
Enclosure class	IP23





## Tramtrac™ II

A cost-efficient and flexible solution for the repair of embedded city tramway rails.

Tramtrac™ II is ESAB's latest equipment for the repair of embedded grooved city tramway rails. Using the FCAW process with self-shielded wires, instead of the conventional SAW process, provides a number of advantages in terms of ease of use and cost-efficiency.

- The FCAW process makes Tramtrac™ II a small and ultra light-weight solution.
- Easy to store and move around from site to site.
- The tractor can be hand-carried and is easily installed and removed on and off the rail, allowing trams to pass within a controlled safety situation.

### Ordering information

Tramtrac™ II	0814 721 880
Connection cable 10 m (33 ft.)	0457 360 884
Origo™ MIG 410	0349 302 408
Origo™ MIG 320	0349 303 562
Magnetic earth return cable & clamp	0000 500 415
OK Tubrodur 14.71, 1.6 mm (1/16 in.)	1471 167 730
OK Tubrodur 15.65, 1.6 mm (1/16 in.)	1565 167 730
Sales Literature	XA00133420

### Technical data

Control voltage, V AC	36-46
Power, W	90
Welding speed, mm/min (ipm)	30-100 (1.2-3.9)
Dimensions LxWxH, mm (in.)	600x300x150 (23.6x11.8x5.9)
Weight without consumables, kg (lbs.)	12 (26.5)





## Miggytrac 1001

The perfect complement to your GMAW power source

- Small, compact, motorized tractor.
- Easy to attach to ESAB welding torch.
- The tractor is held in the correct position on the workpiece with a magnet, even if the workpiece is bent or angled.
- Remote controlled travel.
- Start/stop function from the remote control panel.
- Travel speed settings of 150-1200 mm/min (6-47 ipm), wire feed speed and voltage all functions of the remote control.
- Significantly increased welding speed, especially when using cored wire.

### Ordering information

Miggytrac 1001	0457 357 881
Welding screen	0457 463 880
Sales Literature	XA00126320

### Options & Accessories

ESAB Control cable, 5 m (16.4 ft)  
(12 pin male-23 pin male Burndy style)  
Origo™ Feed and Aristo™ Feed feeders

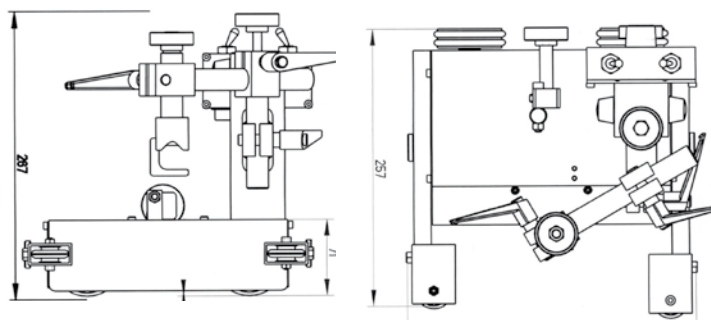
0457 360 880

ESAB AristoFeed adaptor kit  
(required for connection of Miggytrac to  
Aristo™ Feed feeders)

0459 681 880

Universal control cable, 5 m (16.4 ft)  
(12 pin male Burndy style-open end).  
Requires user-supplied plug to connect  
cable to OEM feeders)

0457 360 881



### Technical data

Control voltage, V AC	36-46
Power, W	20
Welding speed, mm/min (ipm)	150-1200 (6-47)
Remote control outlet	Volt and ampere (wire feed speed)
Connection	Burndy, 12 pins
Dimensions, LxWxH, mm (in.)	266x257x267 (10.5x10x10.5)
Weight, kg (lbs.)	7 (15.4)





## Miggytrac 2000

The perfect complement to your GMAW power source

- Ideal for long welds eliminating stressful welding positions for the welder.
- The tractor is held in the correct position on the workpiece with a magnet, even if the workpiece is bent or angled.
- Guide wheels adjust to allow the unit to drive itself against the workpiece.
- Program for intermittent welding.
- Set length of weld and distance between welds from 1-99 cm (0.4-39 in.)
- High-speed travel between welds - 250 cm/min (98 ipm) - for increased efficiency.
- Backfill function for crater filling at the end of the weld.
- Adjust the welding current and voltage during welding with the two potentiometers on the control panel (when using ESAB equipment).



### Ordering information

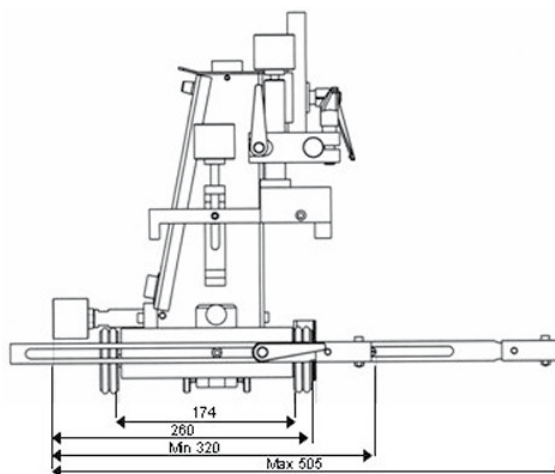
Miggytrac 2000	0457 358 880
Welding screen	0457 463 881
Sales Literature	XA00104720

### Options & Accessories

ESAB Control cable, 5 m (16.4 ft) (12 pin male-23 pin male <i>Burndy</i> style) <i>Origo™</i> Feed and <i>Aristo™</i> Feed feeders	0457 360 880
--	--------------

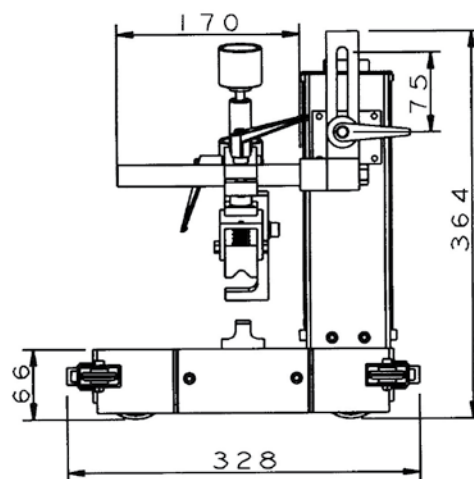
ESAB AristoFeed adaptor kit (required for connection of Miggytrac to <i>Aristo™</i> Feed feeders)	0459 681 880
---	--------------

Universal control cable, 5 m (16.4 ft) (12 pin male <i>Burndy</i> style-open end). Requires user-supplied plug to connect cable to OEM feeders)	0457 360 881
--	--------------



### Technical data

Control voltage, V AC	36-46
Power, W	40
Welding speed, mm/min (ipm)	150-1500 (6-59)
Fast travel speed, cm/min (ipm)	250 (98.4)
Programmable Interval Welding, cm (in.)	1-99 (0.4-37)
Linear slide stroke length (horizontal), mm (in.)	±17 (±0.67)
Remote control outlet	Volt and ampere (wire feed speed)
Connection	<i>Burndy</i> , 12 pins
Crater fill time, s	0-9.9
Backfill, cm (in.)	0-9.9 (0-4)
Dimensions, LxWxH, mm (in.)	330x260x360 (13x10x14)





## Miggytrac 3000

The complete small welding automat for Gas Metal Arc Welding

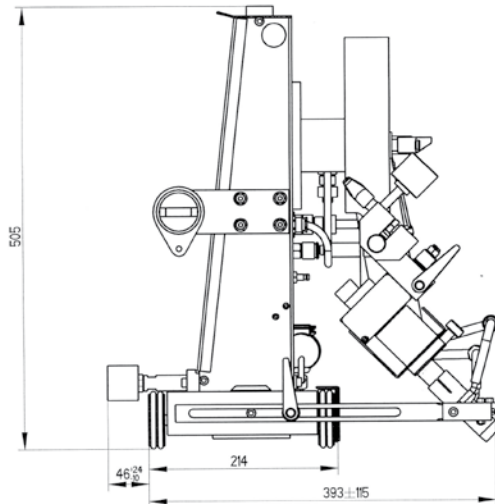
- Small, compact, motorized tractor with integrated wire feed and water-cooled welding torch designed for horizontal mechanized MIG welding of plates and beams
- Four-wheel drive carriage
- Carriage can travel diagonally towards the flange or stiffener to be welded.
- Program for intermittent welding.
- Carriage motion and wire feed controlled separately.
- Set weld length and distance between welds from 1-99 cm (0.4-39 in.)
- Distance between beads run at transport speed of 250 cm/min (98 ipm) for optimal efficiency.
- Program wire feed speed, time for gas pre-flow, gas post-flow and burnback.

### Ordering information

Miggytrac 3000	0457 359 880
<i>With straight, water-cooled swan neck</i>	
<i>Delivered without contact tip</i>	
Sales Literature	XA00123620

### Technical data

<b>Wire dimensions, mm (inch)</b>	
- Unalloyed steel	1.0-1.4 (0.040 - 0.055)
- Stainless steel	1.0-1.4 (0.040 - 0.055)
- Cored wire	1.0-1.4 (0.040 - 0.055)
Control voltage, V AC	36-46
Power, W	80
Welding speed, mm/min (ipm)	150-1500 (6-59)
Transport speed, cm/min (ipm)	250 (98.4)
Lengths at Intermittent welding, cm (in.)	1-99 (0.4-39)
Crater fill time, sec.	0-9.9
Backfill, cm (in.)	0-9.9 (0-4)
Wire feed speed, m/min (ipm)	2-25 (79-984)
Gas pre-flow/post-flow, sec	0-9.9
Burnback, sec.	0-9.9
Filler wire reel, in.	12
Dimensions, LxWxH, mm (in.)	370x400-530x520 (14.5x16-21x20.5)
Linear slide stroke length (horizontal), mm (in.)	±17 (±0.67)
Remote control, max value, Kohm	2.5
Max current over the start relay, A	5
Connection	straight 23-pin Burndy
Enclosure class	IP 23
Weight, excl wire reel, kg (lbs.)	17 (37.5)



### Options & Accessories

<b>Contact Tip M8 x 37 CuCrZr</b>	
- CO <sub>2</sub> 1.0	0468 502 005
- CO <sub>2</sub> 1.2, Mix/Ar 1.0	0468 502 007
- CO <sub>2</sub> 1.4, Mix/Ar 1.2	0468 502 008
<b>Gas nozzle, water-cooled</b>	
Bent swan neck, 15°	0449 903 101
Bent swan neck, 30°	0449 903 115
Wire feed roller for aluminium	0449 903 130
Pressure roller for aluminium	0449 903 031
	0449 903 032

For Connection cables and Adaptor Kit, please see separate leaflet for Miggytrac 3000.



## A2 Multitrac with A2 process controller PEI

The universal welding tractor for better welding economy

- Can be connected to most analogue, DC power supplies.
- Compact and efficient design allows for easy movement between workpieces.
- Self-propelled, four-wheel drive for stable, accurate and constant operation.
- A2 Process Controller PEI allows simple setting of travel speed, voltage and wire feed speed.
- Heavy-duty feed unit ensures an even and stable wire feed, for top quality, homogenous welding.
- Horizontal, vertical and rotary slides allow for quick adjustment of the nozzle into various positions.
- Reliable mechanical components, even under harsh working conditions.
- Easy to use control equipment with different start methods; direct start or scratch start.
- Wide range of accessories available.



### Ordering information

A2 Multitrac SAW, PEI	0449 360 880
A2 Multitrac SAW Twin, PEI	0449 360 881
A2 Multitrac GMAW, PEI	0449 361 880
Sales Literature	XA00114220

### Options & Accessories

Guide wheel bogie	0413 542 880
Idling roller	0333 164 880
Guide bar 3 m (10 ft.)	0154 203 880
V-guide wheel	0333 098 881
V-wheeltrack in steel	0443 682 881
Loop for connection of two tractors	0334 680 881
Pilot lamp, laser diode	0821 440 880

Technical data	Single SAW	Twin SAW	GMAW
<b>Wire diameters, mm (in.)</b>			
- Steel	1.6-4.0 (1/16-5/32)	2x1.2-2.5 (2x(0.45x3/32))	0.8-1.6 (.030-1/16)
- Stainless steel	1.6-4.0 (1/16-5/32)	2x1.2-2.5 (2x(0.45x3/32))	0.8-1.6 (.040-1/16)
- Cored wire	1.6-4.0 (1/16-5/32)	-	1.2-2.4 (.045-3/32)
- Aluminium	-	-	1.2-1.6 (.045-1/16)
Max wire feed speed, m/min (ipm)	9 (354)	9 (354)	16 (630)
Wire reel weight, kg (lbs.)	30 (66)	2x15 (2.2x33)	30 (66)
Flux hopper capacity, l (gal.)	6 (1.4)	6 (1.4)	-
Weight, excl wire and flux, kg (lbs.)	47 (103)	47 (103)	43 (95)
Permissible load 100%, A	800	800	600
Control voltage, V AC	42	42	42
Travel speed, m/min (ipm)	0.1-1.7 (4-67)	0.1-1.7 (4-67)	0.1-1.7 (4-67)
Linear slides stroke length, mm (in.)	90 (3.5)	90 (3.5)	90 (3.5)
Rotary slide setting angle	360°	360°	360°



## A2 Multitrac with A2/A6 process controller PEK

The universal welding tractor for Submerged-arc Welding (SAW) and Gas Metal Arc Welding (GMAW)

- The A2 Multitrac with the A2/A6 process controller PEK is available for both the SAW and the GMAW method.
- If the SAW-version is chosen, the A2 Multitrac is capable of working equally well with either single or twin wire.
- The feed unit secures an even, stable wire-feed speed.
- Four-wheel drive ensures accurate travel speed.
- Digital control panel allows exact pre-set and control of welding parameters.
- The Multitrac is fully mobile and can easily be moved from one welding station to another. It can also be quickly set-up for different workpieces.
- Designed for use with LAF or TAF welding power sources.



### Ordering information

A2 Multitrac A2TF (SAW), PEK	0461 233 880
A2 Multitrac A2TF (SAW Twin), PEK	0461 233 881
A2 Multitrac A2TG (GMAW), PEK	0461 234 880
A2 Multitrac A2TG (4WD, GMAW MTW 600), PEK	0451 234 881
Sales Literature SAW	XA00143220
Sales Literature GMAW	XA00143320

### Options & Accessories

Guide wheel bogie	0413 542 880
Idling roller	0333 164 880
Guide bar 3 m (10 ft.)	0154 203 880
V-guide wheel	0333 098 881
V-wheeltrack in steel	0443 682 881
Loop for connection of two tractors	0334 680 881
Pilot lamp, laser diode	0821 440 880



Technical data	Single SAW	Twin SAW	Single GMAW	GMAW with MTW 600
Wire diameters, mm (in.)				
- Steel	1.6-4.0 (1/16-5/32)	2x1.2-2.5 (2x(0.45x3/32))	0.8-1.6 (.030-1/16)	1.0-1.6 (.039-1/16)
- Stainless steel	1.6-4.0 (1/16-5/32)	2x1.2-2.5 (2x(0.45x3/32))	0.8-1.6 (.040-1/16)	1.0-1.6 (.039-1/16)
- Cored wire	1.6-4.0 (1/16-5/32)	-	1.2-2.4 (.045-3/32)	1.0-2.4 (.039-3/32)
- Aluminium	-	-	1.2-1.6 (.045-1/16)	1.0-2.0 (.039-5/64)
Max wire feed speed, m/min (ipm)	9 (354)	9 (354)	16 (630)	25 (984)
Wire reel weight, kg (lbs.)	30 (66)	2x15 (2.2x33)	30 (66)	30 (66)
Flux hopper capacity, l (gal.)	6 (1.4)	6 (1.4)	-	-
Weight, excl wire and flux, kg (lbs.)	47 (103)	47 (103)	43 (95)	43 (95)
Permissible load 100%, A	800	800	600	600
Control voltage, V AC	42	42	42	42
Travel speed, m/min (ipm)	0.1-1.7 (4-67)	0.1-1.7 (4-67)	0.1-1.7 (4-67)	0.1-1.7 (4-67)
Linear slides stroke length, mm (in.)	90 (3.5)	90 (3.5)	90 (3.5)	90 (3.5)
Rotary slide setting angle	360°	360°	360°	360°



The superb welding tractor for internal circumferential welding

- 

Technical drawing of the Acurto 1000 machine showing dimensions in mm. The drawing includes a side view of the machine with a hopper, a hopper door, and a hopper door handle. Dimensions are indicated with leader lines: 594 (total width), 566 (hopper width), 875 (hopper height), 817 (hopper door height), 513 (hopper door width), and 861 (hopper door depth). A note at the bottom right reads "\*) Acurto 1000".



## A6 Mastertrac A6TF (SAW)

For efficient Submerged-arc Welding

- Self-propelled, four-wheel drive automatic welding machine.
- Easy to move with quick set-up for different workpieces.
- Suitable for heavy production welding with capacity for up to 6 mm (0.24 inch) wire using 1500A direct or alternating current.
- Designed for use with LAF or TAF welding power sources.
- Three different designs:

**Single:** available with standard or high speed motor

**Twin-Arc:** with a simple add-on for the extra wire, you can convert an A6 Single Mastertrac into a highly productive automatic Twin-arc welder for fillet and butt welds without the use of an extra machine or power source.

**Tandem:** the high deposition rate using a multi-electrode system increases productivity substantially. By selecting different combinations of direct and alternating currents, the A6 Tandem Mastertrac can handle any type of welding work resulting in increased profitability.

- Weld mild steel and aluminium solid or cored wire by modifying an A6 Single Mastertrac with an easy conversion kit for Gas metal arc welding (GMAW).
- Pre-set and control of welding parameters with the A2-A6 Process Controller PEK - a digital control system with display menus; 255 different weld sets can be stored.

### Ordering information

A6 Mastertrac A6TF (SAW)	0461 235 880
A6 Mastertrac A6TF (SAW Twin)	0461 235 881
A6 Mastertrac A6TF (SAW, high speed)	0461 235 890
A6 Mastertrac A6TF (SAW, Twin, high-speed)	0461 235 891
A6 Mastertrac Tandem A6TF (SAW, AC/DC 1500)	0461 232 882
Sales Literature	XA00143420



A6 Mastertrac Tandem

### Options & Accessories

Contact equipment heavy Twin Arc, compl.	0334 291 889
Wire reel, plastic 30 kg (66 lbs.)	0153 872 880
Wire reel, steel 30 kg (66 lbs.)	0416 492 880
Wire reel, steel, flexible width	0449 125 880
Brake hub extra	0146 967 880
Rebuilding kit GMAW	0334 299 890
Strip cladding kit	0155 972 880
Flux hopper holder for strip cladding	0148 107 003
Wire reel, steel for strip cladding	
30-100 mm (1.2-4.0 in.)	0671 161 880
Flux recovery nozzle, strip cladding	0156 025 001
Flux funnel	0254 900 880
Insert, extended	0254 900 301
Angular slide	0671 171 580
Pilot lamp, laser diode	0821 440 880
Flux recovery unit OPC	0148 140 880
Bracket suction	0332 947 880
Idler rollers (2 per automat)	0333 164 880
Guide wheel, fillet	0671 125 780
Magnet guide rail, 3 m (10 ft.)	0154 203 880

### Carbon arc gouging

Rebuilding kit	
(use with carbon electrodes Ø 8.9-12.7)	0153 592 880

Technical data	Single SAW	Single GMAW	Twin SAW	Tandem SAW
Permissible load 100%, A	1500	600	1500	2x1500
Wire diameter, mm (in.)	3.0-6.0 (1/8-1/4)	1.0-3.2 (0.045-1/8)	2x2.0-3.0 (2x3/32-1/8)	2x3.0-6.0 (2x1/8-1/4)
Wire feed speed, m/min (ipm)	0.2-4.0 (8-157.5)	0.8-16.6 (31.5-653.5)	0.2-4.0 (8-157.5)	0.2-4.0 (8-157.5)
Wire feed speed high, m/min (ipm)	0.4-8.0 (16-315)	-	0.4-8.0 (16-315)	-
Travel speed, m/min (ipm)	0.1-2.0 (4-79)	0.1-2.0 (4-79)	0.1-2.0 (4-79)	0.1-2.0 (4-79)
Control voltage, V AC	42	42	42	42
Wire reel weight, kg (lbs.)	30 (66)	30 (66)	2x30 (2x66)	2x30 (2x66)
Flux hopper capacity, l (gal.)	10 (2.6)	-	10 (2.6)	10 (2.6)
Weight excl wire and flux, kg (lbs.)	110 (242.5)	100 (220.5)	110 (242.5)	158 (348)



## A6-DK

### The portal welding machine

- Works with a single wire on each head.
- Each weld head is controlled by the A2-A6 PEK process controller and LAF (DC) or TAF (AC) power source.
- Ideal for simultaneous horizontal-vertical welding on both sides of a web or through panel.
- Straddles workpieces up to 800 mm (31 inch) tall and symmetrical profile widths of 400 mm (16 inch).
- Travels directly on a workpiece guided by a joint.
- Travel speed adjustable from 0.15-2.0 m/min (6-79 ipm).
- Store up to 10 l (2.6 gal.) of flux in the hopper.
- Each weld head is equipped with OPC flux recovery system.



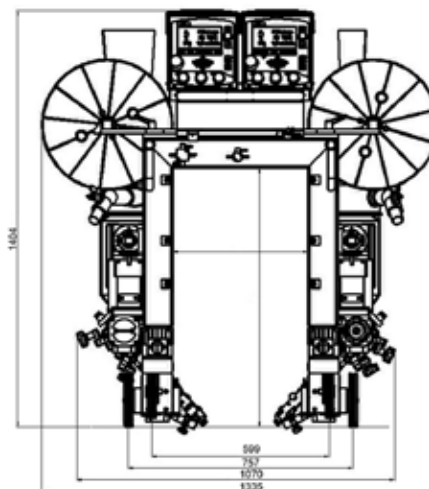
### Ordering information

A6-DK SAW, single wire  
excl. wire reel, feed rollers and contact jaws \*) 0461 237 901  
Sales Literature XA00143620

\*) when contact equipment is excluded, feed rollers and contact jaws have to be ordered separately.

### Options & Accessories

Wire reel, plastic, 30 kg (66 lbs.) 0153 872 880  
Wire reel, steel, 30 kg (66 lbs.) 0416 492 880

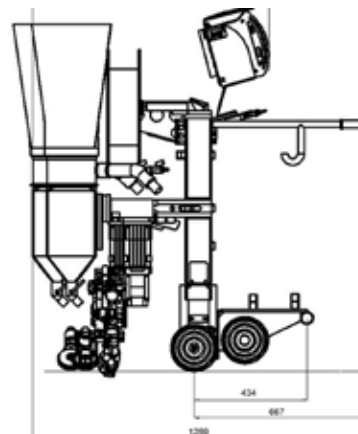


### Technical data

Permissible load 100%, A	1500
Travel speed, m/min (ipm)	0.15-2.0 (6-79)
Wire feed speed, m/min (ipm)	0.2-4.0 (8-157.5)
Wire reel weight, kg (lbs.)	2x30 (2x66)
Wire diameter SAW, mm (in.)	3.0-6.0 (1/8-1/4)
Flux hopper capacity (each weld head), l (gal.)	10 (2.6)
Weight, excl wire and flux, kg (lbs.)	150 (331)

#### Straddle opening:

Vertical space limitation, mm (in.)	800 (31)
Longitudinal. symmetrical extension, mm (in.)	400 (16)









# **Welding** Heads





## A2S Mini Master

A multi-purpose automatic welding system

- Versatile welding system for single wire SAW, twin wire SAW or GMAW.
- Light-weight, compact design allows for greater flexibility.
- Modular design allows user to expand, integrate or modify the system quickly and easily.
- Uses A2-A6 PEK or A2 PEI process controller.
- Accurate, easy joint-tracking with manual or motorized slide system and manual PAV or automatic GMH joint tracking.
- The system attaches to any beam travelling carriage or Column & Boom system.



### Ordering information

#### A2S Mini Master SAW Systems

*Incl A2-A6 Process controller PEK and wire equipment*

With manual slides 90x90 mm	0449 170 900
With motorized slides 180x180 mm and PAV	0449 170 901
With motorized slides 180x180 mm and GMH	0449 170 902

*Incl A2 Process controller PEI and wire equipment*

With manual slides 90x90 mm	0449 370 880
With motorized slides 180x180 mm and PAV	0449 370 881
With motorized slides 180x180 mm and GMH	0449 370 882

#### A2S Mini Master GMAW MTW (4WD) Systems

*Incl A2-A6 Process controller PEK and wire equipment*

With manual slides 90x90 mm	0449 181 900
With motorized slides 180x180 mm and PAV	0449 181 901
With motorized slides 180x180 mm and GMH	0449 181 902

*Incl A2 Process controller PEI and wire equipment*

With manual slides 90x90 mm	0449 380 880
With motorized slides 180x180 mm and PAV	0449 380 881
With motorized slides 180x180 mm and GMH	0449 380 882
Sales Literature	XA00088820

### Options & Accessories

Pilot lamp, laser diode (for PEK), 2 m cable	0821 440 880
Pilot lamp, laser diode (for PEK), 5 m cable	0821 440 882
Pilot lamp, laser diode (for PEK), 7 m cable	0821 440 883
Thin wire straightener, single wire	0332 565 880

#### Gas handling equipment, GMAW only:

Cooling unit OCE 2H, 220V AC 50/60 Hz	0414 191 881
Gas hose	0190 270 101
Water-cooling hose	0190 315 104
Arc shield	0334 689 880

#### Optional equipment SAW:

Flux recovery unit OPC	0148 140 880
Flux container, silumin alloy	0413 315 881
Concentric flux funnel	0145 221 881
Contact tube, bent	0413 511 001
Wire reel, plastic, 30 kg (66 lbs.)	0153 872 880
Wire reel, steel, 30 kg (66 lbs.)	0416 492 880
Wire reel, steel, flexible width	0449 125 880
Wire reel, steel, Ø 220 mm (8.7 inch)	0671 164 080

#### For PEK:

Conversion kit, SAW to GMAW A2 (2WD)	0461 247 880
Conversion kit, SAW to GMAW MTW (4WD)	0461 248 880

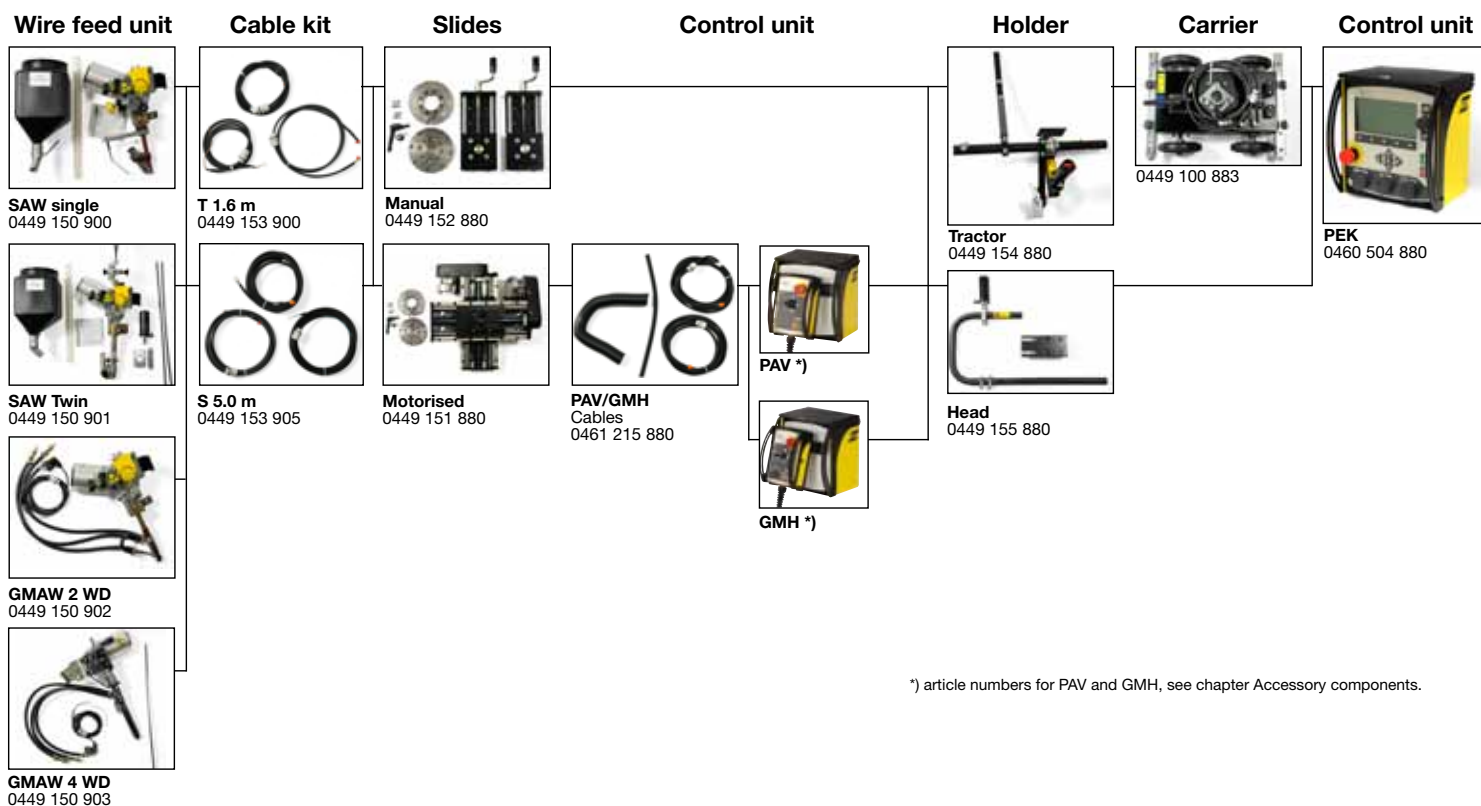
#### For PEI:

Conversion kit, SAW to GMAW	0413 526 881
-----------------------------	--------------

Technical data		Single wire SAW	Twin wire SAW	GMAW	GMAW MTW 600w
Wire diameter, mm (in.)	Steel	1.6-4.0 (1/16-5/32)	2x1.2-2.5 (2x.045-3/32)	0.8-1.6 (.030-1/16)	1.0-1.6 (.040-1/16)
	Stainless Steel	1.6-4.0 (1/16-5/32)	-	0.8-1.6 (.030-1/16)	1.0-1.6 (.040-1/16)
	Cored wire	1.6-4.0 (1/16-5/32)	-	1.2-2.4 (.045-3/32)	1.0-2.4 (.040-3/32)
	Aluminium	-	-	1.2-1.6 (.045-1/16)	1.0-2.0 (.040-5/64)
Max. wire feed speed, m/min (ipm)		9 (354)	9 (354)	16 (630)	25 (984)
Flux hopper capacity, l (gal.)		6 (1.4)	6 (1.4)	-	-
Max. permissible load 100%, A		800	800	600	600
Control voltage, V AC		42	42	42	42
Linear slide stroke length, mm (in.)		90 (3.5)	90 (3.5)	90 (3.5)	90 (3.5)
Rotary slide setting range		360°	360°	360°	360°

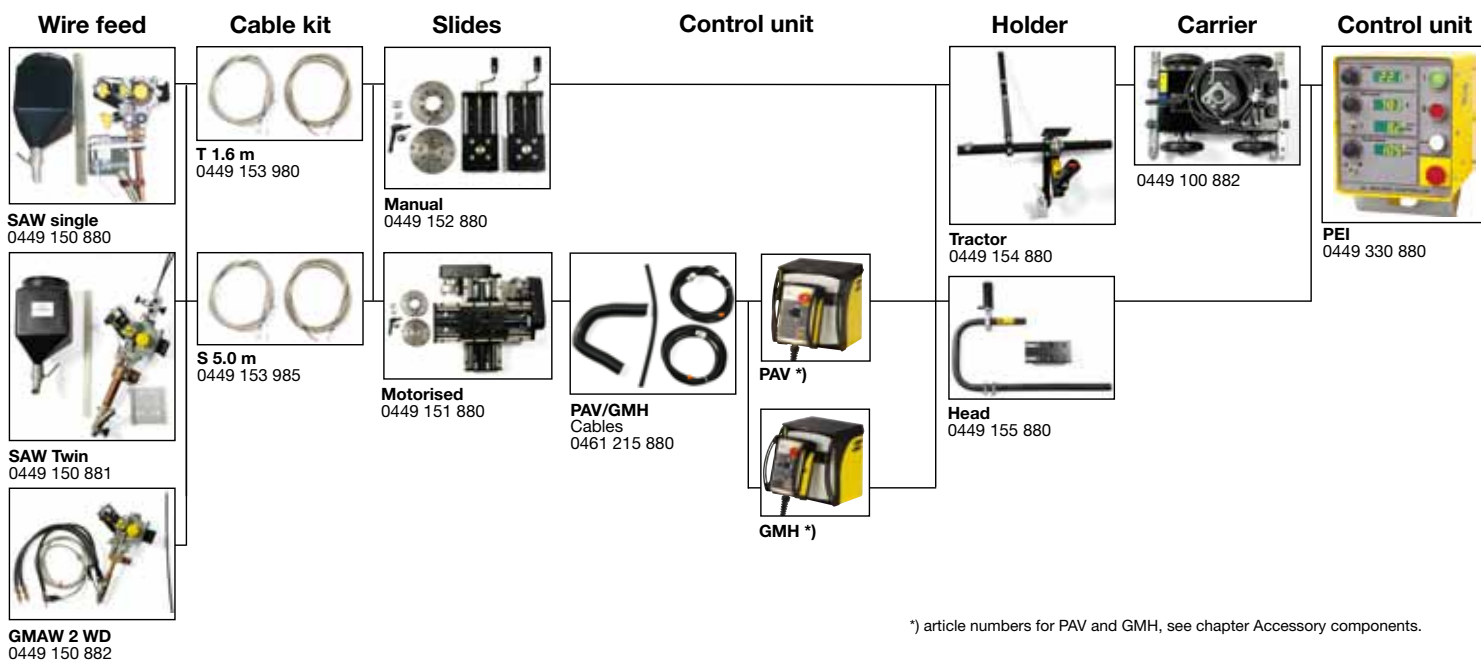


## A2 Component system Modularization - PEK



\*) article numbers for PAV and GMH, see chapter Accessory components.

## A2 Component system Modularization - PEI



\*) article numbers for PAV and GMH, see chapter Accessory components.



## A6S Arc Master

### Flexibility as standard

- Flexibility, reliability and superior performance capability
- Comprehensive component and module system make process customization easy.
- A6 VEC motor for reliable and consistent wire feed.
- Accurate, easy manual PAV or automatic GMH joint tracking with manual slides or joystick-controlled motor-operated cross slides.
- Capable of heavy-duty gas metal arc welding (GMAW), single/twin wire submerged arc welding (SAW), as well as strip cladding and Synergic Cold Wire (SCW) welding with optional accessories.
- Uses A2-A6 PEK process controller for fast, accurate pre-setting of all parameters before welding starts.
- Feedback system ensures high and consistent welding quality - saves time and material.
- The welding heads can be equipped with a standard wire feed unit (gear ratio 156:1) or with a high-speed wire feed unit (gear ratio 74:1).



### Ordering information

#### Single wire SAW systems

*standard wire feed unit (gear ratio 156:1)*

With manual slides 210x210 mm	0449 270 900
With motorized slides 300x300 mm and PAV	0449 270 901
With motorized slides 300x300 mm and GMH	0449 270 902

*high-speed wire feed unit (gear ratio 74:1)*

With manual slides 210x210 mm	0449 270 910
With motorized slides 300x300 mm and PAV	0449 270 911
With motorized slides 300x300 mm and GMH	0449 270 912

#### Twin-wire SAW system

*high-speed wire feed unit (gear ratio 74:1)*

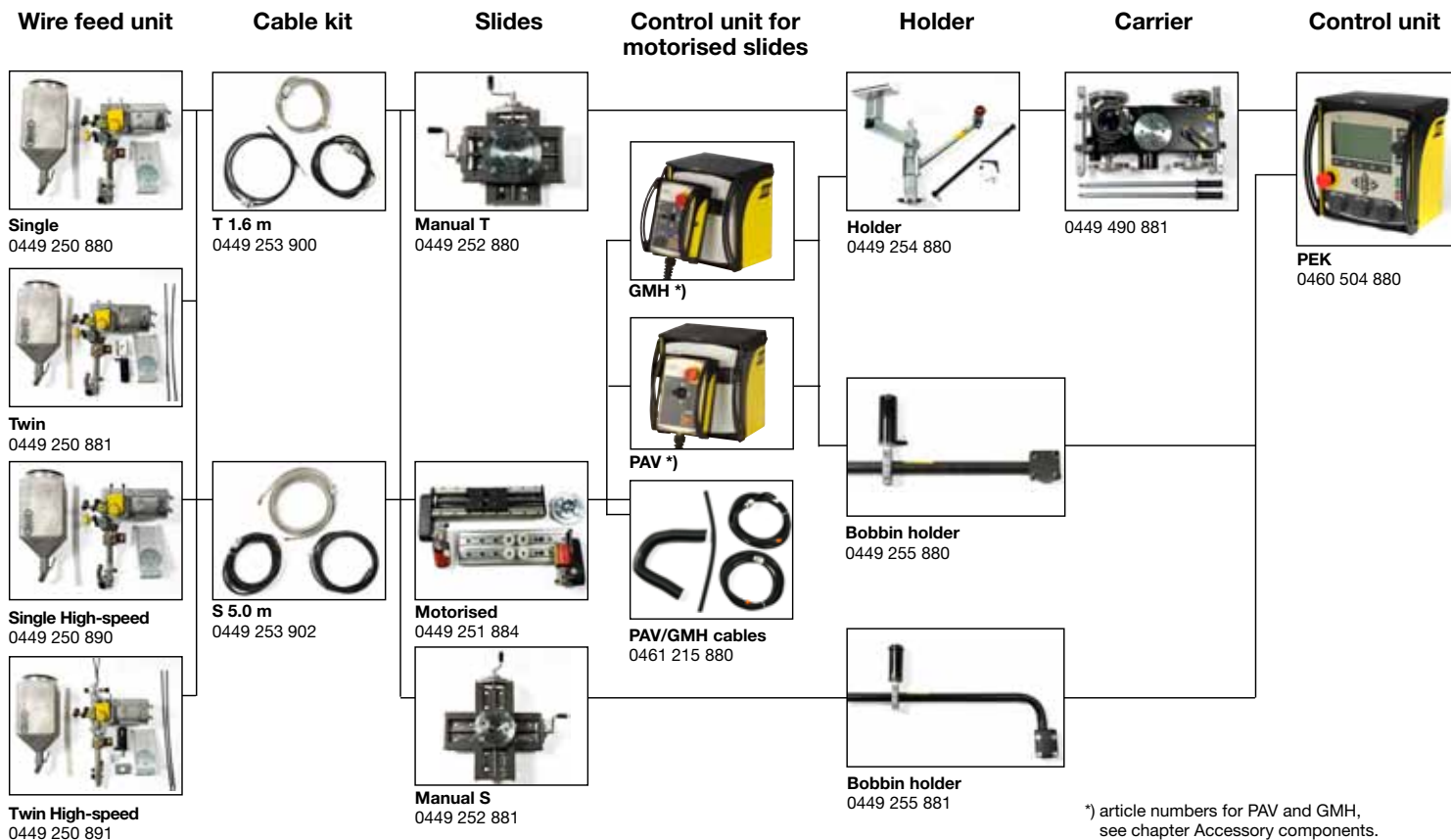
With manual slides 210x210 mm	0449 271 910
With motorized slides 300x300 mm and PAV	0449 271 911
With motorized slides 300x300 mm and GMH	0449 271 912
Sales Literature	XA00088920



Technical data	Ratio 156:1	Ratio 74:1
Max. wire feed speed, m/min (ipm)	0.2-4.0 (8-157)	0.4-8.0 (16-315)
Wire diameter, single, mm (in.)	3.0-6.0 (0.118-0.236)	1.6-4.0 (0.063-0.157)
Wire diameter, twin, mm (in.)	2x2.0-2x3.0 (2x0.079-2x0.118)	2x1.6-2x2.5 (2x0.063-2x0.098)
Tubular wire single, mm (in.)	3.0-4.0 (0.118-0.157)	1.6-4.0 (0.063-0.157)
Linear slide stroke length, mm (in.)	90 (3.5)	90 (3.5)
<b>Rotary slide setting range</b>		
Circular slide, crank operated	± 180°	± 180°
Straightener	± 45°	± 45°
Max. permissible load, 100%, A	1500	1500



## A6 Component system Modularization





## A6S and A6DS Tandem welding heads

For optimum productivity

- Suitable for heavy construction welding.
- Capable of welding DC/DC, DC/AC or AC/AC.
- Uses A2-A6 Process Controller PEK for quick and accurate programming of welding parameters for each torch.
- Feedback system gives high and consistent welding quality from start to finish, saving time and money.
- Versatile positioning through easy to use, complete slide assembly for welding torch position, distance stick-out and angle on both leading and trailing torches.
- Enhance productivity by adding optional equipment such as Twin Wire and Synergic Cold Wire systems.
- Available in two basic versions, A6S Tandem Master and A6DS Tandem Master with several configurations to match specific safety, quality and productivity requirements.
- Welding heads can be equipped with a standard wire feed unit (gear ratio 156:1) or with a high-speed wire feed unit (gear ratio 74:1).



### Ordering information

A6S Tandem Master, standard (156:1)	0818 971 880
A6S Tandem Master, high-speed (74:1)	0818 971 881
A6DS Tandem Master, standard (156:1)	0818 970 880
A6DS Master, high-speed (74:1)	0818 970 881
Sales Literature	XA00119120

### Options & Accessories

Twinkit (one per torch)	0809 934 882
GMH, joint tracking with remote, complete	0460 884 880
GMH, joint tracking with control panel, compl	0460 884 881
GMH, slide motor cables, 5.0 m (16 ft.)	0461 215 880
Laser lamp, 5 m cable (16 ft.)	0821 440 882
Laser lamp, 7 m cable (23 ft.)	0821 440 883
Bracket (straight) for wire	0334 318 880
Brake hub, for wire reel	0146 967 880
Wire reel, plastic, 30 kg (66 lbs.)	0153 872 880
Wire reel, steel, fixed width, 30 kg (66 lbs.)	0416 492 880
Wire reel, steel, flexible width, 30 kg (66 lbs.)	0449 125 880

Technical data (Basic components)	A6S Tandem Master	A6DS Tandem Master
A6 feed unit HD type for wire 3-6 mm (1/8-1/4 in.)	2 pcs	2 pcs
Horizontal motorized slide with double runners L=355 mm (14 in.)	1 pc	1 pc
Vertical motorized slide with double runners L=595 mm (23.4 in.)	1 pc	1 pc
PEK, process controller	2 pcs	2 pcs
Flux hopper, 10 l (2.3 gal.) incl bracket	1 pc	1 pc
Cable holder	1 pc	1 pc
Main bracket with mounting flange for cross slide assembly	1 pc (0810 786 880)	-
Swivel bracket for rotating head 90°	1 pc (0334 549 880)	1 pc (0809 873 880)
Welding head	2 pcs	2 pcs
<b>Each welding head has:</b>		
A6 manual slide L=90 mm	1 pc (0154 465 880)	1 pc (0154 465 880)
A6 circular slide	1 pc (0671 171 580)	1 pc (0671 171 580)
Insulators	4 pcs (0278 300 180)	4 pcs (0278 300 180)
Total weight (excl PEK, wire and flux) approx. kg (lbs)	215 (474)	190 (419)

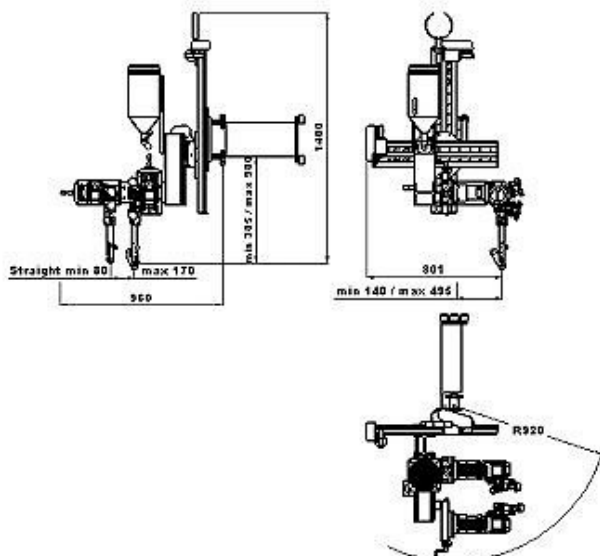
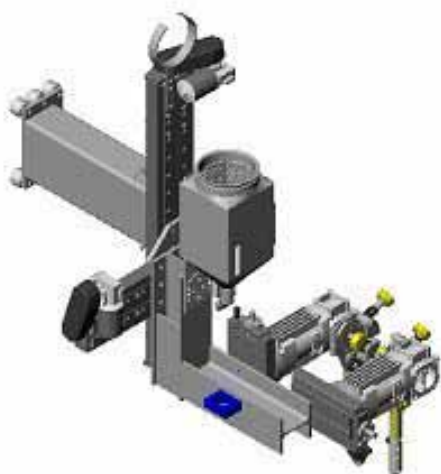


## A6S and A6DS Tandem welding heads

cont.

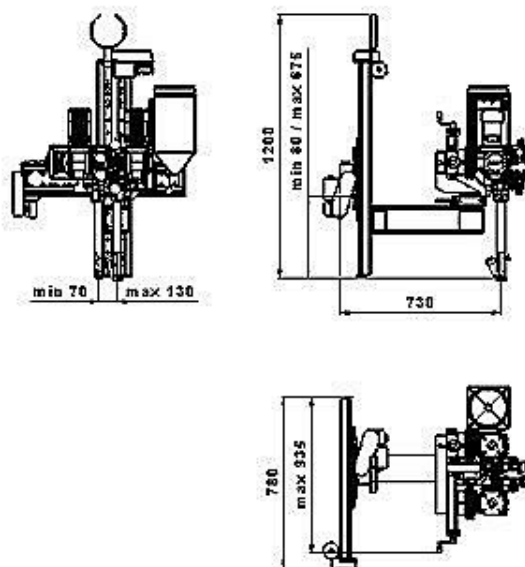
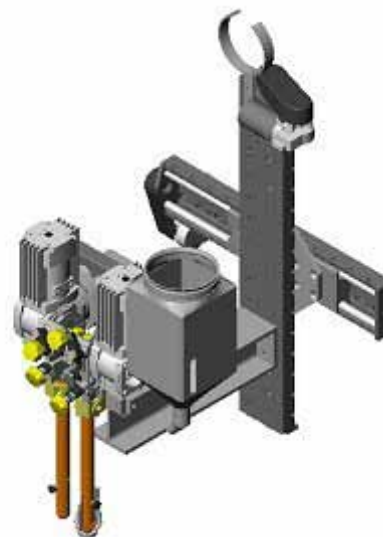
### A6S Tandem Master

- Optimized for welding across multiple perpendicular axes and is key in the welding of cylindrical objects where both longitudinal and circumferential welding is required.
- Adjustable  $+90^\circ$  interval turning bracket and cross slide.
- Automatic joint tracking keeps in track no matter which direction welding occurs.



### A6DS Tandem Master

- Optimized for welding in multiple directions and is key in the automated welding of long weld joints such as beams and girders.
- Adjustable  $\pm 90^\circ$  interval turning bracket and fixed cross slide.
- Automatic joint tracking in any direction when integrated to ESAB column and boom M-model systems; simply rotate the head  $180^\circ$  and weld in the reverse direction.





## A6S Compact welding heads for internal welding

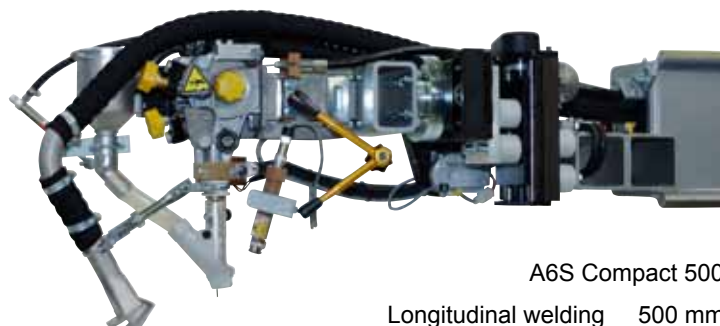
For excellent welding results

- For welding longitudinal and circumferential butt joints inside tubes.
- Three versions available:  
A6S Compact 300 for internal welding of tubes down to 300 mm (12 inch) inside diameter.  
A6S Compact 500 for internal welding of tubes down to 500 mm (20 inch) inside diameter.  
A6S Compact 700 for internal welding of tubes down to 700 mm (27.5 inch) inside diameter.
- Equipped with reliable, VEC feed motor for superior weld performance.
- Supervise and adjust the head position via TV monitoring system - Optional.
- Use standard mini-cross slide assembly and PAV manual tracking system or GMH automatic joint tracking system to easily follow the joint - Optional.
- Add either the FFRS Basic/Super or FFRS 1200/3000 Flux Feed & Recovery System to optimize the welding process.



A6S Compact 300

Longitudinal welding 300 mm  
Min ID circ. welding 500 mm



A6S Compact 500

Longitudinal welding 500 mm  
Min ID circ. welding 550 mm

### Ordering information

A6S Compact 300 Welding head, standard	0809 280 880
A6S Compact 300 Welding head, high-speed	0809 280 881
A6S Compact 500 Welding head, standard	0416 967 880
A6S Compact 500 Welding head, high-speed	0416 967 882
A6S Compact 700 Welding head, standard	0811 054 880
A6S Compact 700 Welding head, high-speed	0811 054 881
Sales Literature	XA00124620

Technical data	Compact 300
<b>Wire diameters, mm (in.)</b>	
- Steel	3.0-4.0 (1/8-5/32)
- Stainless steel	3.2 (1/8)
Permissible load 100%, A	800
Control voltage, V AC	42
Travel speed, m/min (ipm)	0.1-1.7 (4-67)
Linear slides stroke range, mm (in.)	50 (2)
Rotary slide setting range	360°
Wire feed speed, standard, m/min (ipm)	0.2-4.0 (8-157)
Wire feed speed, high.speed, m/min (ipm)	0.4-8.0 (15.7-315)

For technical data for Compact 500 and 700, please contact your local ESAB representative.



A6S Compact 700

Longitudinal welding 700 mm  
Min ID circ. welding 750 mm

### Options & Accessories - Compact 300

Flux valve control kit, including solenoid valve and 5 m (16.4 ft.) air hose	0813 620 880
TV monitoring equipment	0811 176 880
Laser pointer	0811 177 880

#### Contact tips, wire size

M12, 3.0 mm (7/64 in.)	0154 623 005
M12, 3.2 mm (1/8 in.)	0154 623 004
M12, 4.0 mm (5/32 in.)	0154 623 003

#### Feed rollers, wire size

3.0-3.2 mm (1/8 in.)	0218 510 298
4.0 mm (5/32 in.)	0218 510 286



## A6S SAW strip cladding head

For surfacing with high alloyed materials

- Used in combination with standard A6S Arc Master welding head.
- Provides an economical solution for surfacing with high alloyed materials such as stainless steel or nickel-based alloys.
- Choose a wider variety of parent materials and consumables.
- Stainless steel cladding is widely used in production of components where additional strength or corrosion resistance is required.
- Welding head can be fitted with electrode strips as wide as 30-100 mm (1.2-4.0 inch) and as thick as 0.5 mm (0.02 inch).

### Ordering information

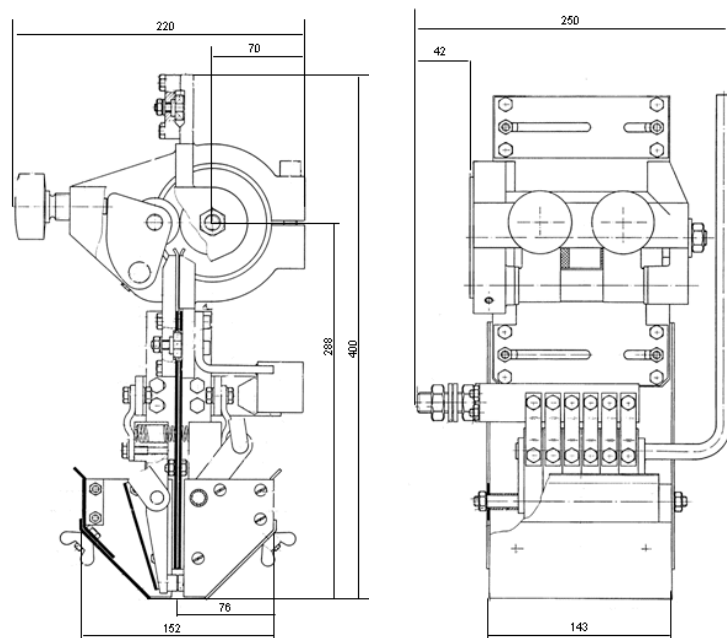
Strip cladding kit  
(for use with A6T SAW Tractor or  
A6S Arc Master HD)  
Sales Literature

0155 972 880  
XA00101020

### Options & Accessories

Reel holder (not to be used with  
motor-operated cross slide)  
Wire reel, steel  
Suction nozzle, flux

0417 636 880  
0416 492 880  
0156 025 001



**ESW - Electroslag welding** - is a method of strip cladding, but differs from SAW strip cladding in that the arc is created between the electrode and the workpiece.

The welding flux that is put into the joint melts and a slag pool is produced, which then increases in depth.

When the temperature of the slag and its conductive capacity thereby increases, the arc is extinguished and the welding current is conducted via the molten slag where the necessary welding energy is produced through resistance.

This method can be used for joining thicknesses of 25 mm (1 in.) and above.

**Contact ESAB** for Options & Accessories and Technical Data for the ESW Welding Head.

### Technical data

Max. welding current at 100% duty cycle, A	1500
Feed roller diameter, mm (in.)	50 (2.0)
Strip width, mm (in.)	30-100 (1.2-4.0)
Strip thickness, mm (in.)	0.5 (0.02)
Strip feed speed	see sales literature for A6 Mastertrac, (XA00109420) or A6S Arc Master (XA00088920)







# Column & Booms





## CaB Systems

Cost efficient and flexible weld mechanization

- Modular design concept allows total customization using standard components.
- Large selection of available components to integrate for a custom solution:
- Any A2 or A6 weld head
- A2-A6 Process Controller PEK with ESAB DC or AC power sources
  - ESAB turning rolls and positioners
  - ESAB flux feeding and recovery systems
  - Monitoring systems and cameras
  - Four basic station configurations, suitable for most standard applications.
- Three different sizes; 300, 460 and 600 (number refers to boom profile height (mm) which determines working range and load capability).
- Choose from stationary or mobile, rail-travelling carriage systems.
- Versatile to respond to any automated welding demand.



### Standard CaB sizes

The three different sizes 300, 460 and 600 are the beam height dimensions of the boom in millimeters. Each boom size has a corresponding column. The different sizes are not only limited in where it can fit, but also how far the boom can extend and how much load that can be put on.

### CaB 300S / 460S

#### Standard format - exceptional economy

- Conventional column and boom with a movable boom and the welding head mounted at the end of the boom.
- Standard mechanical performance, with cable support.
- Options like camera system, pulse encoder-regulated speed and flux control.
- The CaB 300S have a working range of 3 to 5 m (10 to 16.5 ft.) both vertically and horizontally.
- The CaB 460S have a working range of 5 to 7 m (16.5 to 23 ft.) both vertically and horizontally.



#### Basic Station 1 - Standard format

Conventional Column and boom, with a movable boom and welding head at boom end. Welding equipment can be positioned along four axes.



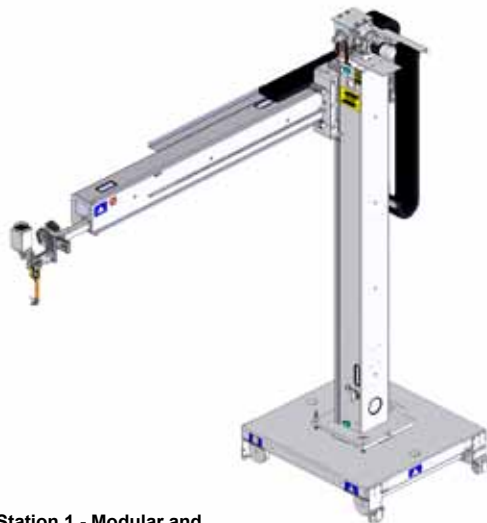
## CaB Systems

Cont.

### CaB 300M / 460M / 600M

#### Modular format - extended functionality

- A modular range of column and booms, available in three load sizes.
- Standard mechanical performance, including cable chains for the boom motions.
- The welding head is mounted at the front end of the boom.
- More than 20 options fully integrated, such as tandem welding, shift function, transport speed etc.
- Due to modularity and the fixed configuration possibilities the lead times for delivery can be kept at a minimum.



**Basic Station 1 - Modular and Custom format**

*Conventional Column and boom, with a movable boom and welding head at boom end. Welding equipment can be positioned along four axes. Cable chains are included.*

### CaB 300C / 460C / 600C

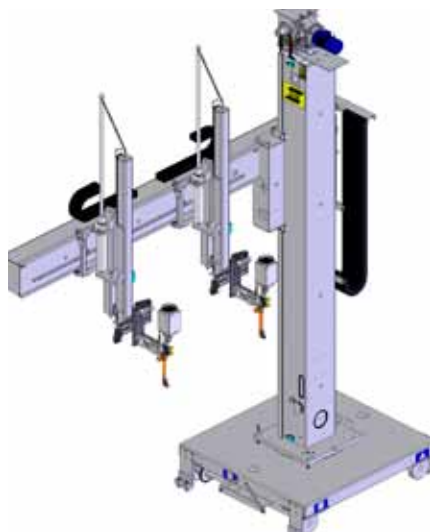
#### Custom format - special capabilities

- A customized range of welding column and booms for different customer requirements and applications.
- Loading capacities and working strokes for utmost accessibility to the welding joints.
- Based on the modular CaB range, solutions to meet the most demanding request can be achieved.
- Welding methods as TIG, MIG and SAW cladding as well as Nar row Gap can be chosen on customized stations.



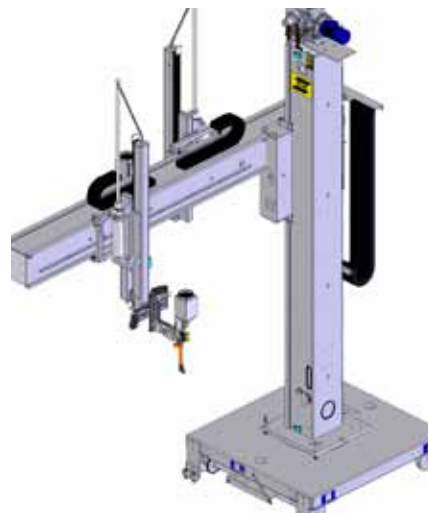
**Basic Station 2 - Custom format**

*Conventional Column and boom, with a movable boom and welding head at boom end combined with a boom-carriage-mounted welding head (not CaB 300).*



**Basic Station 3 - Custom format**

*Side-boom manipulator with horizontally fixed boom, supporting one or two welding heads. This welding station, which offers flexible movement, is the basic unit for welding girders and profiles and for joining plates and sections.*



**Basic Station 4 - Custom format**

*Side-boom manipulator with double-track boom. Welding heads mounted on either side of the boom. The boom carriages can be individually controlled by the joint tracking systems, on separate tracks. Ideal for transversal double-fillet welding of stiffeners.*



## CaB Systems

Technical data CaB 300S and CaB 300M

### Technical data - Column

CaB 300S / 300M

Effective working range, m (ft.)	3 (10)	4 (13)	5 (16.5)
Max. boom height <b>A</b> , mm (ft.) using movable carriage, min mm (ft.)	4070 (13) 930 (3)	5070 (16.5) 930 (3)	6070 (20) 930 (3)
Max. boom height <b>B</b> , mm (ft.) using concrete stand, min mm (ft.)	3955 (15.6) 815 (2.67)	4955 (19.5) 815 (2.67)	5955 (23.5) 815 (2.67)
Max. boom height <b>C</b> , mm (ft.) using stationary foot plate, min mm (ft.)	3750 (14.7) 610 (2.4)	4750 (18.7) 610 (2.4)	5750 (22.6) 610 (2.4)
Total height <b>D</b> using movable carriage, mm (ft.)	5170 (17)	6170 (20)	7170 (23.5)
Total height <b>E</b> using concrete stand, mm (ft.)	5055 (16.5)	6055 (20)	7055 (23)
Total height <b>F</b> using stationary foot plate, mm (ft.)	4850 (16)	5850 (19)	6850 (22.5)
Lifting speed, m/min (ipm)	0.7 (27.5)	0.7 (27.5)	0.7 (27.5)
Max total load on column platform, kg (lbs)	600 (1320)	600 (1320)	600 (1320)

### Technical data - Boom

Extension <b>G</b> , max mm (ft.) min mm (ft.)	3580 (11.75) 540 (1.77)	4580 (15) 540 (1.77)	5580 (18) 540 (1.77)
Permissible loads: total, max kg (lbs.) one end, max kg (lbs.)	300 (660) 240 (530)	220 (485) 150 (330)	150 (330) 75 (165)
Cross-sectional diameter <b>H</b> , mm (ft.)	325 (13)	325 (13)	325 (13)
Welding speed, m/min (ipm)	0.1-2.0 (4-79)	0.1-2.0 (4-79)	0.1-2.0 (4-79)
Transport speed, m/min (ipm)	2.0 (79)	2.0 (79)	2.0 (79)

### Technical data - Rail carriage

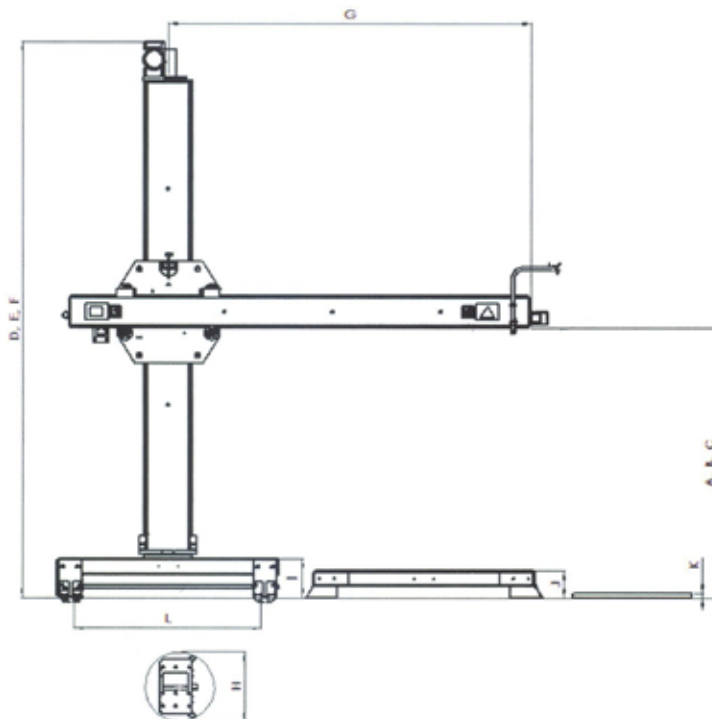
Track width <b>L</b> , inside to inside, mm (in.)	1730 (68.11)
Width x length, mm (in.)	2060x2330 (81.1x91.7)
Height <b>I</b> , mm (in.)	365 (14.37)
Welding speed, m/min (ipm)	0.1-2.0 (4-79)
Transport speed, m/min (ipm)	2.0 (79)
Total weight, kg (lbs.)	1670 (3681)

### Technical data - Concrete stand

Width x length, mm (in.)	2060x2100 (81.1x82.7)
Height <b>J</b> , mm (in.)	250 (9.84)
Total weight, kg (lbs.)	1550 (3417)

### Technical data - Foot plate

Width x length, mm (in.)	1100x1100 (43.3x43.3)
Height <b>K</b> , mm (in.)	40 (1.57)
Total weight, kg (lbs.)	350 (772)





## CaB Systems

Technical data CaB 460S and CaB 460M

Technical data - Column	CaB 460M only	CaB 460S CaB 460M	CaB 460S CaB 460M	CaB 460S CaB 460M
Effective working range, m (ft.)	4 (13)	5 (16.5)	6 (20)	7 (23)
Max. boom height <b>A</b> , mm (ft.) using movable carriage, min mm (ft.)	4950 (16) 950 (3.12)	5950 (19.5) 950 (3.12)	6950 (23) 950 (3.12)	7950 (26.08) 950 (3.12)
Max. boom height <b>B</b> , mm (ft.) using concrete stand, min mm (ft.)	4845 (16) 845 (2.77)	5845 (19) 845 (2.77)	6845 (22.5) 845 (2.77)	7845 (25.74) 845 (2.77)
Max. boom height <b>C</b> , mm (ft.) using stationary foot plate, min mm (ft.)	4510 (15) 510 (1.6)	5510 (18) 510 (1.6)	6510 (21.5) 510 (1.6)	7510 (24.64) 510 (1.6)
Total height <b>D</b> using movable carriage, mm (ft.)	6275 (20.5)	7275 (24)	8275 (27)	9275 (30.43)
Total height <b>E</b> using concrete stand, mm (ft.)	6170 (21)	7170 (23.5)	8170 (27)	9170 (30)
Total height <b>F</b> using stationary foot plate, mm (ft.)	5835 (20)	6835 (22.5)	7835 (25.5)	8835 (29)
Lifting speed, m/min (ipm)	2.0 (79)	2.0 (79)	2.0 (79)	2.0 (79)
Max total load on column platform, kg (lbs)	1500 (3300)	1500 (3300)	1500 (3300)	1500 (3300)

## Technical data - Boom

Extension <b>G</b> , max mm (ft.) min mm (ft.)	4715 (15.47) 715 (2.35)	5715 (18.75) 715 (2.35)	6715 (22.03) 715 (2.35)	7715 (25.31) 715 (2.35)
Permissible loads: total, max kg (lbs.) one end, max kg (lbs.)	1100 (2423) 550 (1211)	1050 (2313) 450 (1211)	1000 (2203) 350 (1211)	950 (2094) 150 (331)
Cross-sectional diameter <b>H</b> , mm (ft.)	630 (25)	630 (25)	630 (25)	630 (25)
Welding speed, m/min (ipm)	0.1-2.0 (4-79)	0.1-2.0 (4-79)	0.1-2.0 (4-79)	0.1-2.0 (4-79)
Transport speed, m/min (ipm)	2.0 (79)	2.0 (79)	2.0 (79)	2.0 (79)

## Technical data - Rail carriage

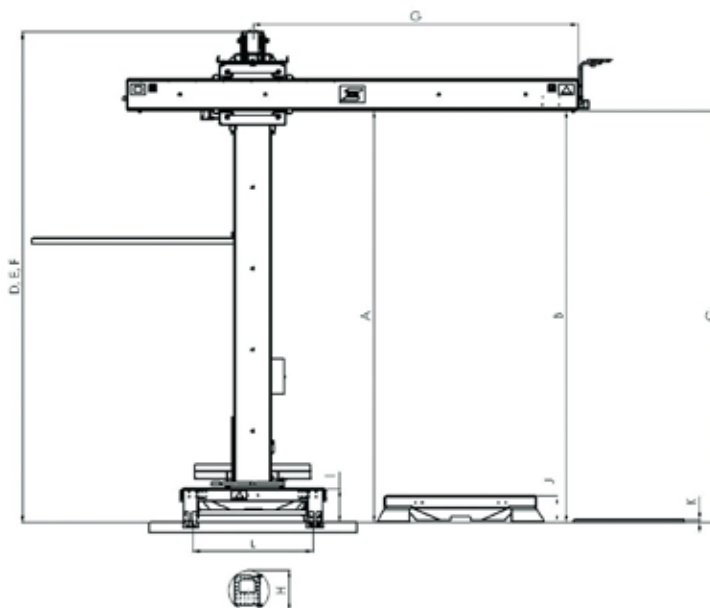
Track width <b>L</b> , inside to inside, mm (in.)	1730 (68.11)
Width x length, mm (in.)	2100x2380 (82.7x93.7)
Height <b>I</b> , mm (in.)	485 (19.1)
Welding speed, m/min (ipm)	0.1-2.0 (4-79)
Transport speed, m/min (ipm)	2.0 (79)
Total weight, kg (lbs.)	2860 (6305)

## Technical data - Concrete stand

Width x length, mm (in.)	2100x2410 (82.7x94.9)
Height <b>J</b> , mm (in.)	380 (14.96)
Total weight, kg (lbs.)	2900 (6393)

## Technical data - Foot plate

Width x length, mm (in.)	1600x1600 (63x63)
Height <b>K</b> , mm (in.)	40 (1.57)
Total weight, kg (lbs.)	505 (1113)





## CaB Systems

Technical data CaB 600M

### Technical data - Column

#### CaB 600M

Effective working range, m (ft.)	6 (20)	7 (23)	8 (26)	9 (29.5)	10 (33)
Max. boom height <b>A</b> , mm (ft.)	7025 (276.6)	8025 (316)	9025 (355.3)	10025 (395)	11025 (434)
using movable carriage, min mm (ft.)	1075 (42.3)	1075 (42.3)	1075 (42.3)	1075 (42.3)	1075 (42.3)
Max. boom height <b>B</b> , mm (ft.)	6950 (22.8)	7950 (26.1)	8950 (29.4)	9950 (32.6)	10950 (35.9)
using concrete stand, min mm (ft.)	1000 (3.3)	1000 (3.3)	1000 (3.3)	1000 (3.3)	1000 (3.3)
Max. boom height <b>C</b> , mm (ft.)	8585 (28.2)	9585 (31.4)	10585 (34.7)	11585 (38)	12585 (41.3)
using stationary foot plate, min mm (ft.)					
Total height <b>D</b>	8510 (27.9)	9510 (31.2)	10510 (34.5)	11510 (37.8)	12510 (41)
using movable carriage, mm (ft.)					
Lifting speed, m/min (ipm)	2.0 (79)	2.0 (79)	2.0 (79)	2.0 (79)	2.0 (79)

Max total load on column platform, kg (lbs)

### Technical data - Boom

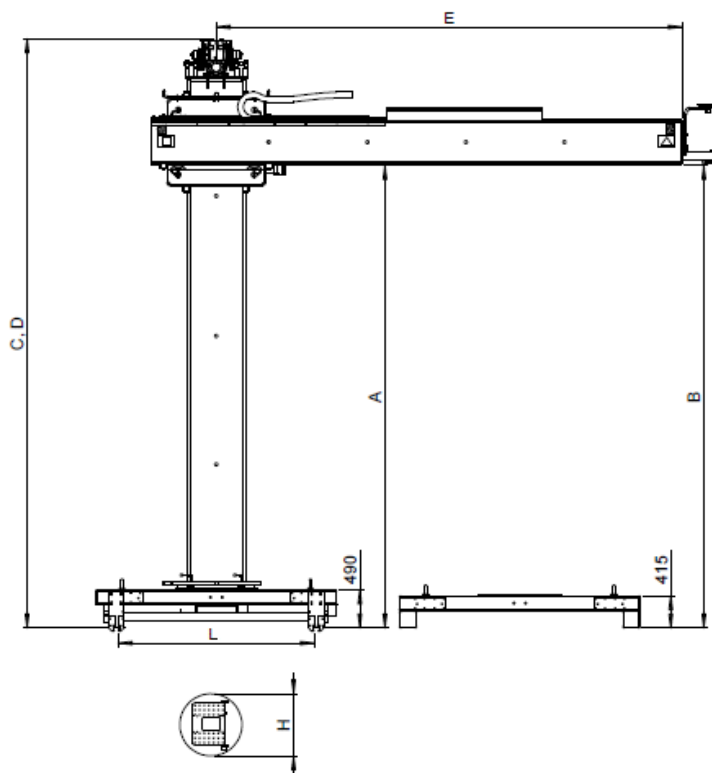
Extension E, max mm (ft.)	7000 (23)	8000 (26)	9000 (29.5)
min mm (ft.)	1000 (3.3)	1000 (3.3)	1000 (3.3)
Permissible loads:			
total, max kg (lbs.)	1940 (4277)	1830 (4034)	1700 (3748)
one end, max kg (lbs.)	550 (1213)	400 (882)	250 (551)
Cross-sectional diameter <b>H</b> , mm (ft.)	1000 (3.3)	1000 (3.3)	1000 (3.3)
Welding speed, m/min (ipm)	0.1-2.0 (4-79)	0.1-2.0 (4-79)	0.1-2.0 (4-79)
Transport speed, m/min (ipm)			
Total weight incl cables, kg (lbs.)	1050 (2315)	1165 (2568)	1280 (2822)

### Technical data - Rail carriage 4WD

Track width <b>L</b> , inside to inside, mm (in.)	2500 (98.4)
Width x length, mm (in.)	3100x2600 (122x102)
Height <b>I</b> , mm (in.)	490 (19.3)
Welding speed, m/min (ipm)	0.1-2.0 (4-79)
Transport speed, m/min (ipm)	2.0 (79)
Total weight, kg (lbs.)	4800 (10582)

### Technical data - Concrete stand

Width x length, mm (in.)	3100x2680 (122x105.5)
Height <b>J</b> , mm (in.)	415 (16.3)
Total weight, kg (lbs.)	4250 (9370)





## Cab 2200

For small and medium sized objects

- Designed for light duty.
- Smooth 360° lockable rotation.
- Linear guidings for smooth movement which makes it ideal for the gas metal arc welding (GMAW), gas tungsten arc welding (GTAW) and submerged arc welding (SAW) processes.
- Cable chain on column and boom.
- Movable carriage or fixed stand.
- IP 55 pendant control station using low voltage on the generous 10 m (33 ft.) cable.
- Anti-fall device and limit switches for all motions.
- Pay load of 70 kg (154 lbs.)



## Ordering information

CaB 2200, manual carriage  
CaB 2200, fixed stand  
Sales Literature

0370 250 600  
0370 250 605  
XA00144220

## Technical data

Mains supply, V	230/380/400/440
Frequency, Hz	50/60, 3-phase
Vertical speed, mm/min (ipm)	600 (23.6)
Boom speed, mm/min (ipm)	0-2050 (0-80.7)
Rotation	Manual
Electrical panel	IP55
Boom height max (a), mm (in.)	2500 (98.4)
Boom height min (a), mm (in.)	450 (17.7)
Boom height max (b), mm (in.)	2700 (106.3)
Boom extension max (c), mm (in.)	2500 (98.4)
Boom extension min (c), mm (in.)	490 (19.3)
Boom extension max (d), mm (in.)	2500 (98.4)
Boom extension min (d), mm (in.)	490 (19.3)
Wheel centre distance (e), mm (in.)	1600 (63)
Axle centre distance (f), mm (in.)	1500 (59)
Height of column (g), mm (in.)	3200 (126)



## CaB 44, 55, 66 and 77

- Designed and robustly build to withstand rugged work environments.
- Smooth 360° lockable rotation.
- All vertical and horizontal guidings are precisely machined for smooth movement.
- Solid state inverter for variable speed of horizontal travel and travel carriage.
- Work gearbox for vertical travel via AC motor, complete with brake for added safety.
- High tensile roller chain used for vertical travel with the addition of a counter balance system with the column that provides smooth, effortless travel.
- IP 55 pendant control station using low voltage on the generous 10 m (33 ft.) cable.
- Anti-fall device and limit switches for all motions.
- Pay load of 420 kg (924 lbs.)



### Ordering information

CaB 44, motorized carriage	0370 250 601
CaB 55, motorized carriage	0370 250 602
CaB 66, motorized carriage	0370 250 603
CaB 77, motorized carriage	0370 250 604
CaB 44, fixed stand	0370 250 606
CaB 55, fixed stand	0370 250 607
CaB 66, fixed stand	0370 250 608
CaB 77, fixed stand	0370 250 609
Sales Literature	XA00144120

### Options & Accessories

Camera system	0370 250 616
Spools at rear end of the boom	0370 250 617
Motorized rotation	0370 250 618
Tandem platform	0370 250 619
0.5 m boom section	0370 250 621
0.5 m column section	0370 250 622

### Technical data

Control voltage, V DC	42
Max ambient temperature	80°C (176°F)
Axial play, runner, mm (in.)	0.1 (0.004)
Max. torque-free load, kg (lbs.)	150 (330)





## Telbo™ 6500 and Telbo™ 9500

### Telescopic boom

- Save valuable workshop space with the unique 3-section telescope-like retraction of the boom, securing operator safety.
- Outstanding reach-out with heavy loading capacity to ensure superior productivity and weld quality.
- Ideal for internal/external circumferential welding of windtower applications.
- Flexible production, no matter if mixed sizes and plate thicknesses are to be welded - productive results are obvious.
- Loaded with 1000 kg (2204 lbs.) Flux BigBag and 1000 kg Wire EcoCoils, welding is continuously performed and costly dwell times are minimized.



### Ordering information

For ordering information, please contact nearest ESAB representative.

### Features

- PLC control system for synchronized boom motion
- Automatic "Wind Back" of wire during boom retraction
- Telescopic wire guides
- Remote controlled flux nozzle (option)
- Remote controlled height adjustm. of joint tracking sensor (option)
- Saving in factory-floor foot print
- Increased workshop safety
- Enables flexible production
- "Big Pack" handling concepts (option)
- Camera supervision system (option)

### Applications

- Power generation, especially wind tower manufacturing lines.
- Pipeline, pipe mill contactors.
- General fabrication (small workshops with limited space).

Technical data	Telbo™ 6500	Telbo™ 9500
Effective work range, m (ft.)	6.5 (21.33)	9.5 (31.17)
Max extension, m (ft.) *)	8.0 (26.25)	12.5 (41)
Max load at boom end, kg (lbs.)	300 (661.4)	500 (1102)
Welding process	SAW / GMAW	SAW
Welding heads	A6	A6 SAW, Single/Tandem and Tandem/Twin
Control system	PLC / GMH	PLC / GMH
Operator seat	No	Yes

\*) Measured from column centre.







# **Carriers & Gantry**





## Mechtrac 1730/2100/2500/3000

For mechanized gantry automation

- Fast and flexible way to increase productivity.
- Equipped with A2-A6 PEK process controller and A2 welding equipment for mechanized submerged arc welding (SAW) or gas metal arc welding (GMAW).
- Weld various profiles such as I-, T- or L-beams, straight columns or tapered columns.
- Available in four versions (width of gantry): 1730 mm (68 in.), 2100 mm (83 in.), 2500 mm (94 in.) or 3000 mm (118 in.).
- All versions have standard gantry leg height of 1500 mm (59 in.).
- Floor mounted rail delivered in standard lengths of 3 m (118 in.) - can be easily extended.
- Dual-drive motors are standard.
- Gantry can support a maximum weight of 220 kg (485 lbs.) - up to two A2 welding heads, complete with GMH joint tracking and OPC flux recovery systems.



*Mechtrac equipped with A2 welding heads, process controller PEK and power sources LAF 631*

### Ordering information

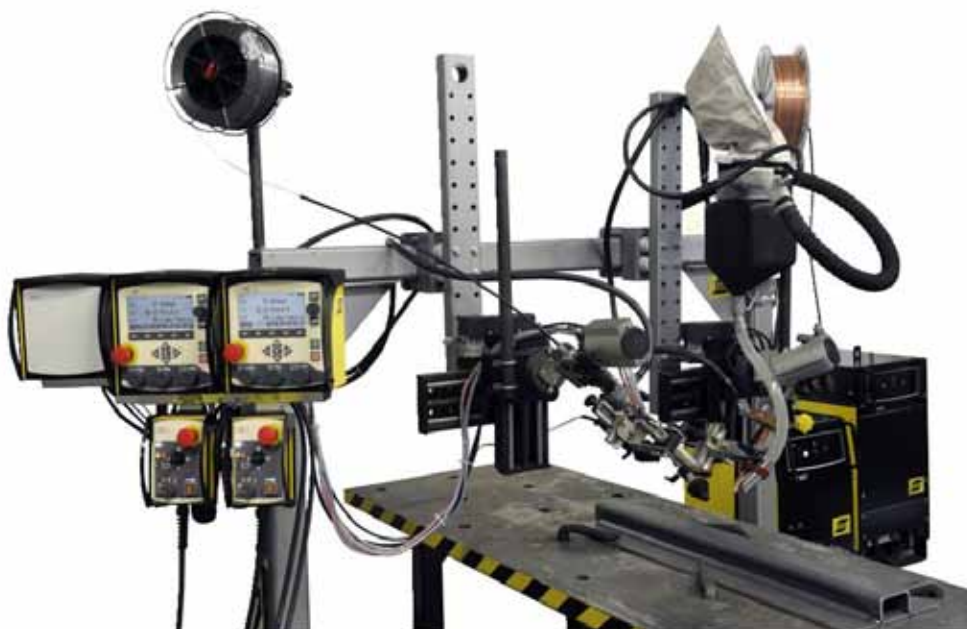
Mechtrac 1730, dual drive	0809 670 881
Mechtrac 2100, dual drive	0809 670 882
Mechtrac 2500, dual drive	0809 670 883
Mechtrac 3000, dual drive	0809 670 884
Sales Literature	XA00101220

### Technical data

Travel speed, m/min (ipm)	0.2-1.9 (8-75)
Maximum load, kg (lbs.)	220 (485)
Standard rail length, m (ft.)	3 (9.8)
Gantry width, mm (in.)	1730-3000 (68-118)

### Options & Accessories

Travelling rail, 3 m (9.8 ft.)	0806 707 880
Travelling rail, extension, 3 m (9.8 ft.)	0806 707 881





## Gantrac

Highly stabilized manipulation of welding torches with optimized welding results

- Rigid legs supported by encoder-controlled DC-driven bogie carriages as well as a cross beam to ensure uniform, stable welding speed.
- The gantry beam is equipped with guides and a rack on one or both sides for motorized welding carriages.
- The well-proven A6 welding heads are mounted on heavy duty slides with comprehensive working strokes to obtain good access to the workpieces.
- Incorporates the A2-A6 Process Controller PEK, equipped with GMH automatic joint tracking to control the vertical and horizontal axes.
- Submerged arc welding is the ideal method for the applications intended for this station.
- The flux handling equipment can be operated conveniently, without time-wasting interruptions. At the same time as flux consumption is reduced, the workplace is kept clean and free from flux spillage.
- The welding heads can be turned  $\pm 180$  degrees for welding in both X-directions as well as 90 degrees for welding in Y-direction across the beam.
- A large number of positioning axes permit flexible welding production.



### Ordering information

For ordering information, please contact your nearest ESAB representative.

## Walltrac

Minimal floor working area thanks to the single rail/wall support

- For production of various beam structures, such as I/H and box beams of tapered and non-symmetrical design, stiffener sections and the joining of plates and sections.
- Longitudinal and transverse welding procedures.
- Uses A6 welding heads and A2-A6 Process Controller PEK.
- Automatic joint tracking GMH controls the vertical and horizontal axes, i.e. the slides and the carriages, to safeguard the superior weld quality.
- A large number of positioning axes permit flexible welding production.









# **Accessory** Components





## Beam Travelling Carriage

To be used with ESAB A2 and A6 welding heads

- Ideal solution for submerged arc welding (SAW) or gas metal arc welding (GMAW) applications requiring beam mounted carriage.
- Can be fitted with any A2 or A6 welding head.
- For longitudinal welding or welding of circumferential workpieces.
- Place the carriage on either a standard I-beam IPE 300 or specially machined I-beam (contact ESAB for details).
- Fast and easy pre-programming of travel motion and welding parameters using the A2-A6 process controller PEK.

### Ordering information

Beam travelling carriage	0457 897 881
Sales Literature	XA00091920

### Options & Accessories

Mounting bracket for Tandem head	0458 026 001
Track in lengths of 3000 mm (9.8 ft.)	0145 282 880
Required number of floor columns: 2	
Track in lengths of 4500 mm (14.8 ft.)	0145 282 881
Required number of floor columns: 3	
Track in lengths of 6000 mm (19.7 ft.)	0145 282 882
Required number of floor columns: 3	
Track in lengths of 8000 mm (26 ft.)	0145 282 883
Required number of floor columns: 4	



### Technical data

Travel speed beam carriage, cm/min (ipm)	6-200 (2-79)
Weight carriage, kg (lbs.)	60 (132)

## MBVA 330 and 550

Beam welding carriage

- Heavy side beam carriage, suitable for multiple submerged-arc welding heads and most options available on column and booms.
- Cross beams available up to 1.2 m (4 ft.), capacity up to 1.4 ton.
- VEC motor with gear, rack and pinion, for powerful, consistent carriage travel.
- Different travel units for speeds to match process.



### Ordering information

MBVA 330 carriage	0150 765 880
MBVA 550 carriage	0150 901 880
Sales Literature	XA00105120

### Options & Accessories

Cable, length 1.5-50 m (5-164 ft.)	contact ESAB
Travel unit, speed range 3-80 cm/min (1.2-32 ipm)	0150 943 880
Travel unit, speed range 11-125 cm/min (4-49 ipm)	0150 943 881
Travel unit, speed range 14-250 cm/min (5.5-98 ipm)	0150 943 882
Travel unit, speed range 37-1500 cm/min (14.5-590 ipm)	0150 943 883
Travel unit, speed range 27-530 cm/min (11-208 ipm)	0150 943 884
Beam 330, 300 cm (118 in.), 240 kg (529 lbs.)	0803 348 880
Beam 330, 450 cm (177 in.), 480 kg (1058 lbs.)	0803 348 881
Beam 330, 600 cm (236 in.), 720 kg (1587 lbs.)	0803 348 882
Beam 330, 750 cm (295 in.), 960 kg (2116 lbs.)	0803 348 883
Beam 330, 900 cm (354 in.), 1000 kg (2204 lbs.)	0803 348 884
Beam 330, 1050 cm (413 in.), 1200 kg (2645.5 lbs.)	0803 348 885
Beam 330, 1200 cm (472 in.), 1420 kg (3130.5 lbs.)	0803 348 886
Beam 550, 300 cm (118 in.)	0321 527 880
Beam 550, 450 cm (177 in.)	0321 527 881
Beam 550, 600 cm (236 in.)	0321 527 882
Beam 550, 800 cm (315 in.)	0321 527 883
Beam 550, 1200 cm (472 in.)	0321 527 884

### Technical data

	MBVA 330	MBVA 550
Rated load, N (kp)	10000 (1000)	20000 (2000)
Rated moment, Nm (kpm)	3300 (330)	10000 (1000)
Weight, kg (lbs.)	95 (209)	275 (606)



## Servo Slide

Motorized slide for linear motion

- Heavy duty capacity with high precision slide for accurate and rapid joint tracking and positioning.
- Can be installed in vertical or horizontal positions - setting lengths up to 1030 mm (41 in.) with a central point of attachment.
- Operates jointly with A2 or A6 components.
- Slides available from 60 mm (2.4 in.) to 1030 mm (41 in.) working range.
- Permissible load of 1500 N (337 lbf/ft.) in any mounting position.
- Maximum torque for vertical unit is 400 Nm (3540 lbf/in.); maximum torque for horizontal unit is 280 Nm (2480 lbf/in.).



### Ordering information

Servo slide, 60 mm (2 in.)	0334 333 880
Servo slide, 120 mm (5 in.)	0334 333 881
Servo slide, 180 mm (7 in.)	0334 333 882
Servo slide, 240 mm (9 in.)	0334 333 883
Servo slide, 300 mm (12 in.)	0334 333 884
Servo slide, 420 mm (17 in.)	0334 333 885
Servo slide, 540 mm (21 in.)	0334 333 886
Servo slide, 730 mm (29 in.)	0334 333 887
Servo slide, 1030 mm (41 in.)	0334 333 888
Servo slide, 358 mm (14 in.), heavy duty	0416 190 880
Servo slide, 598 mm (23.5 in.), heavy duty	0416 190 884
Sales Literature	XA00032720

### Options & Accessories

Connecting cable, 2 m (6.5 ft.)	0460 745 880
Connecting cable, 5 m (16.4 ft.)	0460 745 881
Connecting cable, 10 m (32.8 ft.)	0460 745 882

### Technical data

Control voltage, V DC	42
Max ambient temperature	80°C (176°F)
Axial play, runner, mm (in.)	0.1 (0.004)
Max. torque-free load, kg (lbs.)	150 (330)

Technical data	Slide 60 mm (2 in.)	Slide 120 mm (5 in.)	Slide 180 mm (7 in.)	Slide 240 mm (9 in.)	Slide 300 mm (12 in.)	Slide 420 mm (17 in.)	Slide 540 mm (21 in.)	Slide 730 mm (29 in.)	Slide 1030 mm (41 in.)
Total length, mm (in.)	305 (12)	365 (14)	425 (17)	485 (19)	545 (21.5)	665 (26)	785 (31)	1025 (40)	1385 (54.5)
Number of 60 mm indexings	3	4	5	6	7	9	11	14	21
Weight, kg (lbs.)	11.5 (25)	13.2 (29)	15 (33)	16.7 (37)	18.5 (41)	21.9 (48)	25.4 (56)	30.9 (68)	38.8 (85.5)



## PAV and GMH

### Joint Positioning and Tracking systems

- Simple and easy to use.
- Adapt for use with almost any type of welding joint.
- The PAV system is for manual joint tracking and the GMH system is for automatic joint tracking.
- The PAV and GMH work equally well with ESAB A2 or A6 welding systems.
- Motorized servo slides guarantee a reliable and accurate joint tracking.
- Both the PAV and GMH systems are available in three versions; with control panel on the front, with remote control or without control panel suitable for integration into customized solutions.
- The GMH automatic joint tracking system is designed for use in fillet and butt joints using sensor fingers.
- GMH compensates for irregularities in weld joint, tracks simple geometric shapes and avoids parallax problems.



*Adjustable sun shield for better visibility for outdoor use*

### Ordering information

PAV without control panel	0460 502 880
PAV with control panel	0460 502 881
PAV with remote control	0460 697 880
GMH without control panel	0460 503 880
GMH with control panel	0460 503 881
GMH with remote control	0460 698 880
GMH system compl with <b>remote control</b> , sensor, sensor cable and mini cross saddle	0460 884 880
GMH system compl with <b>control panel</b> , sensor, sensor cable and mini cross saddle	0460 884 881
Sales Literature PAV	XA00139420
Sales Literature GMH	XA00139320

### Technical data

Control voltage, V AC, Hz	42, 50-60
Fuse, A	10
Max. welding current at 100% duty cycle, A	6
Armature voltage, V DC	40
Field voltage, V DC	60
Current limit, A	15
Dimensions, mm (inch)	246x235x273 (9.7x9.3x10.7)
Weight, kg (lbs.)	6 (13)
Enclosure class	IP23



*GMH with and without remote control*



*PAV with and without remote control*

### Options & Accessories

Cable restraining bracket	0460 861 880
Motor cable, 5 m (16.4 ft.)	0460 745 881
Motor cable, 10 m (32.8 ft.)	0460 745 882
Motor cable, 19 m (62.3 ft.)	0460 745 884
Servo slides	0334 333 xxx
(see former page)	

#### For GMH only:

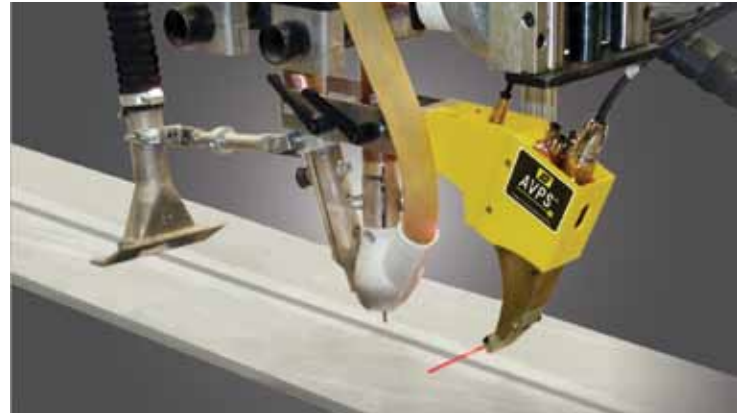
Sensor cable, 5 m (16.4 ft.)	0416 749 888
Sensor cable, 9 m (29.5 ft.)	0416 749 889
Sensor cable, 19 m (62.3 ft.)	0416 749 880
Sensor with finger	0416 688 880
Mini cross saddle + sensor support	0416 739 880
Remote control	0460 570 880
Protective rubber boot for sensor	0412 013 001
Standard finger	0146 586 001
Finger with ball	0416 719 001
Finger for heat exchange plates	0443 328 880
Finger for beam welding	0443 187 880
Intermediate transformer	0148 636 002



## AVPS

### Automatic Laser Tracking Unit

- The AVPS (Active Vision Process Supervision) laser tracking system provides precise seam tracking to significantly increase productivity and minimize weld defects.
- The AVPS provides a very simple, operator friendly and affordable system, while retaining the precision and flexibility available with an advanced laser vision system.
- It is especially suited for 3D hard automation applications, such as subarc.
- The AVPS is operating using standard ESAB pendant and joystick control.
- Minimal operator training is required. The operator simply selects the pre-programmed joint profile (groove, fillet etc.), brings the head into position and starts tracking.
- The cost of an AVPS upgrade can easily be justified by defect elimination and higher speeds.
- The AVPS can be installed on any new or retrofit GMD or GMH standard system. It can run in automatic, semi automatic and manual modes.
- Robust design fit for SAW environment.
- Easy retrofit on existing GMD/GMH installations.
- No mechanical adjustments needed.
- Easy to learn and operate.
- Vertical and horizontal seam tracking for V- and butt grooves as well as many other joint types.
- Joint type selection via control pendant.
- The delivery includes Laser vision camera, control unit, Weldcom HMI software, replacement protective camera lenses (10 pcs), cable kit complete for GMD/GMH including ESAB probe cable (3 m), laser camera cable (30 m), control unit to GMD/GMH (3 m).



### Ordering information

AVPS for GMD	0822 113 880
AVPS for GMH	0822 113 881
AVPS for GMH and CaB with FAA	0822 113 882
Sales Literature	XA00155820

Technical data	Laser vision camera
Standoff distance, mm (in.)	5.1 (0.2)
Field of view depth, mm (in.)	140 (5.5)
Field of view width, mm (in.)	27-76 (1.1-3)
Average depth resolution, mm (in.)	0.11 (0.0043)
Average lateral resolution, mm (in.)	0.05 (0.00197)
Laser class	IIIb
Operating temperature, °C (°F)	5-40° (41-104°)
Dimension, LxWxH, mm (in.)	33.3x58x94 (1.3x2.3x3.7)
Weight, kg (lbs.)	0.5 (1.1)

Technical data	Control unit
Input power, V DC	24
Operating temperature, °C (°F)	5-40° (41-104°)
Dimension, LxWxH, mm (inch)	300x300x150 (11.8x11.8x5.9)
Weight, kg (lbs.)	3.5 (7.7)



## OPC Basic & Super

Sturdy compact flux recovery systems

- Robust and compact design.
- Easy to operate and practically maintenance-free.
- Integrated system for maximum productivity - lower investment and service costs.
- Adapts to any A2 or A6 welding system - tractor or stationary.
- Uses only compressed air - safe and inexpensive.
- Can be integrated into complete FFRS flux feeding and recovery system.
- Three filter types; filter bag for A2 applications, cyclone filter with filter bag for most A6 applications and Tedak filter for heavy-duty applications.
- OPC system includes; ejector, cyclone, filter with attachment hardware, securing strap, suction hose and four suction nozzles (for butt welds, normal and large; fillet welds, left and right).

### OPC Basic Flux Recovery System

- Works on ejector principle using compressed air
- Cyclone separator, on top of flux hopper, efficiently separates dust from recovered flux.
- Slag is separated and flux is returned to hopper.

### Ordering information

OPC Basic, with standard filter bag	0148 140 880
OPC Basic, with cyclone filter	0802 415 882
OPC Basic, with Tedak filter	0802 415 883
OPC Super *)	0339 719 880
OPC Super complete, with cyclone filter	0802 415 892
OPC Super complete, with Tedak filter	0802 415 893
Sales Literature	XA00105020
Sales Literature Wear parts OPC	XA00126420

\*) excl. hose, nozzles and filter

Technical data	OPC Basic	OPC Super
<b>Airflow capacity</b>		
at working pressure 0.4 MPa, l/min	175	420
at working pressure 0.5 MPa, l/min	225	500
at working pressure 0.6 MPa, l/min	250	580
Max working pressure, MPa	0.6	0.6
<b>Max suction height</b>		
at working pressure 0.4 MPa, m *)	0.8	1.0
at working pressure 0.5 MPa, m *)	0.8	1.2
at working pressure 0.6 MPa, m *)	0.8	1.4
Sound level at work, dB	70	72
Max working temperature, °C	130	150
Short term temperature, °C **)	170	190

\*) Suction height with normal flux bead and a welding speed of 100 cm/min

\*\*) Tested with preheated flux to temp. max 220°C and weld object temp. max 350°C.



### OPC Super Flux Recovery System

- Similar to Basic System but with stronger ejector and cyclone - provides better suction.
- Can also be used with pre-heated flux.

### Options & Accessories

Air pressure hose 3/8 in.	0190 343 104
Air pressure hose 1/2 in.	0190 343 106
Air pressure tube Ø 63 mm, 2.5 in.	0193 125 003
Air central	0417 714 880
Plastic bag	0190 665 004
Filter bag, paper	0155 966 001
Filter bag, cotton	0332 448 001
Cyclone filter	0379 538 880
Tedak filter	0453 708 881





## FFRS Flux Feed and Recovery Systems

Efficient flux handling for cost-effective welding

- Ideal for continuous and high capacity welding
- Minimum manual flux handling.
- Reduced flux consumption for better welding economy.
- Fewer weld stops for increased efficiency.
- Efficient filtration of used air.
- Flux feeds from a 75 l (20 gal.) capacity TPC-75 pressurized flux tank to the ESAB flux hopper of your choice; 6 l or 10 l (1.6 gal. or 2.6 gal.)
- Flux feed inlet options; straight or bent.

### FFRS Super

- Built on OPC Super modules
- **Super** - for increased flux and heat conditions.
- Based on ejector vacuum principle.

### FFRS 1200 & 3000

- Based upon an electrical suction unit creating vacuum.
- For use when extra high recovery force is required and for compact welding heads.
- Flux dust separated automatically in a pre-separator.

### Options & Accessories

Air central	0417 714 880
Flux hopper 10 l (2.6 gal.)	0147 649 881
Flux hopper 6 l (1.6 gal.)	0413 315 881
Holder for hopper	0148 487 880
Level indicator for TPC	0452 048 880
Pneumatic flux valve	0802 540 880
Flux valve control unit	0813 620 880
Sales Literature FFRS Super	XA00104820
Sales Literature FFRS 1200 & 3000	XA00104920



FFRS 3000

### Ordering information

FFRS Super with cyclone filter	0809 914 881
FFRS Super with heaters in TPC	0809 914 882
FFRS Super with Tedak dust filter	0809 914 883
FFRS Super with heaters and Tedak filter	0809 914 884

*FFRS Super systems include 25 m 1/2" air pressure hose, 25 m flux feed hose from TPC to hopper (20 m for heated systems) 2 m flux suction hose, 6 m dust hose from hopper to filter (10 m for systems with Tedak), bent inlet for flux hopper and flux recovery nozzles.*

FFRS 1200	0809 914 885
FFRS 1200 with heaters	0809 914 886
FFRS 3000	0809 914 887
FFRS 3000 with heaters	0809 914 888

*FFRS 1200/3000 systems include 25 m 1/2" air pressure hose, 25 m flux feed hose from TPC to hopper (20 m for heated systems) 16 m flux suction hose, suction hose between the primary separator and the vacuum unit (1200 = 2 m, 3000 = 5 m), bent inlet for flux hopper and flux recovery nozzles.*

Technical data	FFRS 1200	FFRS 3000
Weight without flux, kg (lbs.)	230 (507)	400 (882)
Dimensions, LxWxH, mm (in.)	1053x450x2210 (41x18x87)	750x450x2210 (30x18x87)
<b>Primary separator</b>		
Volume, l (gal.)	50 (13)	50 (13)
Dimensions, LxW, mm (in.)	450x700 (18x28)	450x900 (18x35)
<b>Suction unit</b>		
Type	P160	E-PAK 150
Power, W	1200	3000
Mains supply, V/Hz	110-230 / 50-60	400 / 3-50
Fuse, A	10	16
Max. vacuum, kPa	-21	-25
Max. air flow capacity, m <sup>3</sup> /h	156	270
Sound level, dB	74	63
Filter area, m <sup>2</sup>	0.6	3
Life-span of filter, work hours	99.95	99.95
Weight, kg (lbs.)	5-6000	4000-6000
Dimensions, LxWxH, mm (in.)	19 (42)	194 (428)
	480x400x1160 (19x16x46)	1200x690x2000 (47x27x79)



## CRE 30 & CRE 60 Air Drying Units

For use with ESAB flux handling systems

- Designed for use with any flux handling system.
- The system is based on the absorption principle - reduces the risk of hydrogen cracking in weld metal by ensuring flux remains dry.
- Built-in monitor - warns if the programmed humidity limit is exceeded.
- Reduces condensation - less corrosion and malfunctions.
- Simple system monitoring - manometer on pressurized dryer bottles with easy-to read dew point indicator.



### Ordering information

CRE 30 air drying unit	0443 570 880
CRE 60 air drying unit	0443 570 881
Sales Literature	XA00101920

### Options & Accessories

Desiccant, type 512	
(package per 25 kg (55 lbs.))	0443 570 017
Oil filter	0443 570 018
Dust filter	0443 570 019

Technical data	CRE 30	CRE 60
Mains supply, V AC, Hz	230, 50/60	230, 50/60
Max. power rating, W	40	50
Net air flow capacity at 6 bar, m <sup>3</sup> /h (ft <sup>3</sup> /hr at 87 psi)	30 Normal (1060)	60 Normal (2120)
Regenerating flow at 6 bar (87 psi), %	14	14
Max. dew point under nominal working conditions, °C (°F)	-26 (-14)	-26 (-14)
<b>Desiccant Type 512</b>		
Sodium-Aluminium-Silicate, kg (lbs.)	10 (22)	16 (35)
Normal pore size, Ångström	4	4
Particle size, mm (in.)	2.5-5.0 (0.01-0.20)	2.5-5.0 (0.01-0.20)
Density, kg/m <sup>3</sup> (lbs/in. <sup>3</sup> )	720 (0.023)	720 (0.026)
Cycle time per container	5	5
Max. permissible air flow for oil separation filter, m <sup>3</sup> /hr	60 Normal	60 Normal
Manifold thread size	R12	R12
Max. working pressure, bar (psi)	6 (87)	6 (87)
Max. air pressure at testing, bar (psi)	10 (145)	10 (145)
Max. inlet air temperature under nominal conditions, °C (°F)	30 (86)	30 (86)

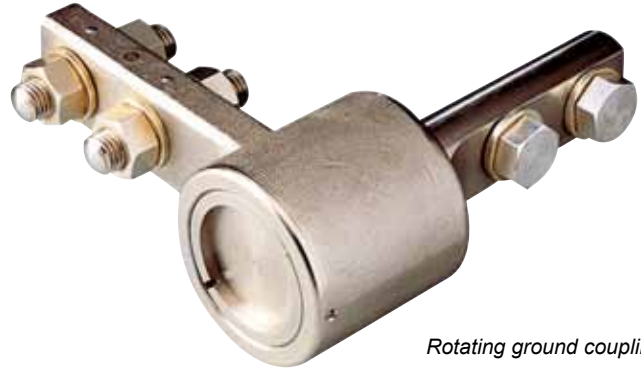


## Rotating Ground Couplings

- For a good connection to the workpiece to obtain optimal welding performance.
- For rotating workpieces, a ground connection with a rotatable coupling is the safest choice.
- To attach the coupling to the workpiece, special clamps are available, see "Ground Clamps" below.

### Ordering information

NKK 600, max. 600A, 2.2 kg (4.8 lbs.)	0700 004 007
NKK 800, max. 800A, 2.7 kg (5.9 lbs.)	0700 004 001
NKK 1200, max 1200A, 4.0 kg (8.8 lbs.)	0700 004 002
NKK 2000, max 2000A, 7.3 kg (16 lbs.)	0700 004 003



*Rotating ground coupling NKK*

## Ground Clamps for Rotating Workpieces

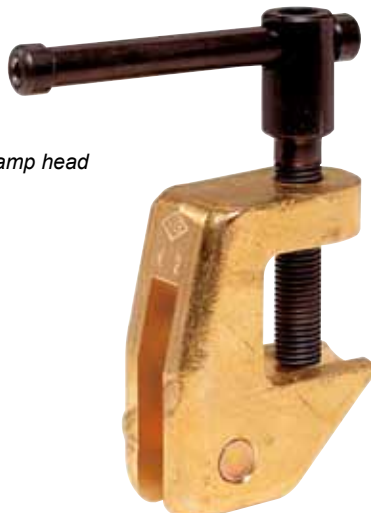
- K2 or PZ3 ground clamps can be mounted directly onto the rotatable ground coupling to create good contact between the workpiece and the return cable.
- Return clamps can also be used together with the GA 800 handle connection to form a complete ground clamp to handle high current welding on non-rotating workpieces.

### Ordering information

K2 Clamp head for NKK 800/1200	0700 004 004
GA 800 Handle connection for K2	0700 004 005
PZ3 Pole clamp for NKK 2000	0700 004 006



*Handle connection GA 800*



*K2 clamp head*



*Pole clamp PZ3*



## Camera Systems

for submerged arc welding (SAW) and open arc welding

- Together with a laser or pilot lamp, control the welding process from a convenient location.
- The system consists of a purposeful designed camera with built-in crosshair generator to provide a continuous and distinct joint scanning.
- In combination with the 15 inch flat screen, it becomes a unit for excellent control and joint supervision.
- Upon welding, the GMAW camera switches over to viewing the weld pool, facilitating the supervision of the process.
- Optional overview camera will reproduce a picture of the welded joint to get an immediate inspection of the welding quality.



### Ordering information

**Camera systems** including camera, camera housing, monitor, crosshair generator, camera mounting bracket, work light, work light bracket, necessary cables:

A2/A6 SAW camera with cooling unit	0811 412 880
A2/A6 SAW camera without cooling unit	0811 412 881
SAW compact camera with cooling unit	0811 413 900
SAW compact camera without cooling unit	0811 413 901
SAW compact Basic/Overview camera	0811 413 880
GMAW camera with cooling unit	0811 414 880
GMAW camera without cooling unit	0811 414 881
Sales Literature	XA00124520

### Ordering information - components

SAW camera	0810 092 880
GMAW camera	0811 380 880
GMAW camera (prep for cooling)	0811 380 881
SAW compact camera	0811 381 880
SAW compact camera (prep for cooling)	0811 381 881
SAW compact Basic/Overview	0810 517 880
Monitor incl crosshair generator	0811 383 880

*Housing is included in cameras and monitor*

### Technical data

#### Monitor

Panel type	LCD 15" with protective glass
------------	----------------------------------

#### Temperature range

Operating	-5 - +35°C
-----------	------------

### Technical data

#### SAW Camera

#### GMAW Camera/ SAW Compact camera

#### SAW Compact camera Basic/Overview

TV standard	PAL/NTSC	PAL/NTSC	PAL/NTSC
<b>Temperature range</b>			
Operating	-5 - +50°C	-10 - +50°C (14-122°F)	-
Cooled version (water cooling is required)	-	approx. 300°C	-
Dimensions, mm (in.)	60x60x105 (2.4x2.4x4.1)	145x24x24 (5.7x0.9x0.9)	25x25x126 (1x1x5) + lens
Weight, kg (lbs.)	approx 0.46 (1)	approx 0.46 (1)	approx. 0.16 (0.35)



## OCE-2H Cooling unit

Compact and efficient

- Can be used for gas metal arc welding (GMAW) as well as for tungsten arc welding (GTAW).
- Both for manual and automatic welding.
- Flow guard as option.
- Designed for use together with water-cooled welding equipment, manual or automatic.
- The water tank and pump are manufactured of corrosion resistant material. A flow guard is available as optional equipment for control of the water flow down to about 1 l/min (0.26 gal.)

### Ordering information

Cooling unit OCE-2H	0414 191 881
Flow guard for OCE-2H	0414 231 880
Sales Literature	XA00043120



### Technical data Pump with motor

Max power consumption, W	250
Mains supply, V, Hz	230, 50/60, 1-phase
<b>Mains water pressure at</b>	
50 Hz 300 kPa, bar	3
60 Hz 410 kPa, bar	4.1

### Technical data Cooler

<b>Cooling power</b>	
40° overtemp and 2.0 l/min, kW	1.1
60° overtemp and 2.0 l/min, kW	1.7 kW
Water pressure at 2.0 l/min, kPa	220
Total water consumption, l (gal.)	8 (2.11)
Dimensions, LxWxH, mm (in.)	236x316x398 (9.3x12.4x15.7)







# Handling Equipment





## CD 5-120 and CI 5-120

### Conventional Roller Beds

- Robust design with durable rollers.
- Gritblasted steelwork with polyurethane finished coating to endure the abrasive environment of offshore and marine industries.
- Oversized bearings.
- Specially formulated high-load polyurethane tire design for high wear resistance.
- Cast steel gearbox with double worm gear arrangement for smooth operation and minimum backlash.
- Solid state inverter for precise speed control.
- Motorized and idler rail bogie versions.

Ideal for:

- Wind tower fabrication
- Offshore and shipyards
- Pressure vessels
- Pipelines



### Ordering information

#### Drive unit

Roller bed CD-5	0370 250 000
Roller bed CD-10	0370 250 002
Roller bed CD-15	0370 250 004
Roller bed CD-30	0370 250 006
Roller bed CD-60	0370 250 008
Roller bed CD-100	0370 250 010
Roller bed CD-120	0370 250 012

#### Idler unit

Roller bed CI-5	0370 250 001
Roller bed CI-10	0370 250 003
Roller bed CI-15	0370 250 005
Roller bed CI-30	0370 250 007
Roller bed CI-60	0270 250 009
Roller bed CI-100	0370 250 011
Roller bed CI-120	0370 250 013

Sales Literature XA00144320

### Options & Accessories

Foot pedal	0370 250 301
Synchronise kit	0370 250 302
PEH/PEK & E-stop connection (without I/O-board)	0370 251 514
Pendant with digital display	0370 250 431

Technical data		CD/CI-5	CD/CI-10	CD/CI-15	CD/CI-30	CD/CI-60	CD/CI-100	CD/CI-120
Max loading capacity, ton/section	Drive unit	2.5	5	7.5	15	30	50	60
	Idler unit	2.5	5	7.5	15	30	50	60
Turning capacity, ton	Drive unit	7	15	25	45	100	150	250
Turning speed, min-max, mm/min (ipm)		62-618 (2.4-24.3)	102-1020 (4-40)	114-1137 (4.5-45)	130-1300 (5-51)	130-1300 (5-51)	130-1300 (5-51)	130-1300 (5-51)
Workpiece diameter, mm (in.) min 90°, max 30°		165-6430 (6.5-253)	165-6430 (6.5-253)	222-7580 (8.7-298)	466-8366 (18.3-329)	466-8366 (18.3-329)	466-8366 (18.3-329)	466-8366 (18.3-329)
Mains supply, V	50Hz, 3ph	380/400/415	380/400/415	380/400/415	380/400/415	380/400/415	380/400/415	380/400/415
	60Hz, 3ph	440/460/480	440/460/480	440/460/480	440/460/480	440/460/480	440/460/480	440/460/480
Fuse, A		16	16	16	16	16	32	50
Control voltage, V AC		24	24	24	24	24	24	24
Weight, kg (lbs.)	Drive unit	401 (884)	506 (1115)	665 (1466)	1222 (2694)	2002 (4413)	2688 (5926)	3323 (7326)
	Idler unit	221 (487)	270 (595)	348 (767)	668 (1473)	1237 (2727)	1555 (3428)	2019 (4451)
Dimensions LxHxW, mm (in.)	Drive unit	2090x540x534 (82x21x21)	2090x540x564 (82x21x22)	2465x620x562 (97x24.5x22)	2790x765x765 (110x30x35)	2790x765x933 (110x30x37)	3400x765x1177 (134x30x46)	3400x765x1284 (134x30x50.5)
	Idler unit	2090x540x386 (82x21x15)	2090x540x450 (82x21x17.7)	2465x620x500 (97x24.5x19.6)	2790x765x700 (110x30x35)	2790x765x888 (110x30x35)	2790x765x1080 (110x30x42.5)	2900x765x1110 (110x30x43.7)
Cable, control box, m (in.)		10 (394)	10 (394)	10 (394)	10 (394)	10 (394)	10 (394)	10 (394)



## CD-30/60/100/120-DB and CI-30/60/100/120-DB

### Conventional Roller Beds with rail bogie

- Robust design with durable rollers.
- Gritblasted steelwork with polyurethane finished coating to endure the abrasive environment of offshore and marine industries.
- Oversized bearings.
- Specially formulated high-load polyurethane tire design for high wear resistance.
- Cast steel gearbox with double worm gear arrangement for smooth operation and minimum backlash.
- Solid state inverter for precise speed control.
- Motorized and idler rail bogie variants.

Ideal for:

- Wind tower fabrication
- Offshore and shipyards
- Pressure vessels
- Pipelines



### Ordering information

CD-30-DB with Motorized Rail Bogie, 50 Hz	0370 250 014
CD-60-DB with Motorized Rail Bogie, 50 Hz	0370 250 016
CD-100-DB with Motorized Rail Bogie, 50 Hz	0370 250 018
CD-120-DB with Motorized Rail Bogie, 50 Hz	0370 250 020

CD-30-DB with Motorized Rail Bogie, 60 Hz	0370 250 022
CD-60-DB with Motorized Rail Bogie, 60 Hz	0370 250 024
CD-100-DB with Motorized Rail Bogie, 60 Hz	0370 250 026
CD-120-DB with Motorized Rail Bogie, 60 Hz	0370 250 028

CI-30-IB with Idler Rail Bogie	0370 250 015
CI-60-IB with Idler Rail Bogie	0370 250 017
CI-100-IB with Idler Rail Bogie	0370 250 019
CI-120-IB with Idler Rail Bogie	0370 250 021

Sales Literature	XA00144420
------------------	------------

### Options & Accessories

Foot pedal	0370 250 301
Synchronise kit	0370 250 302
Pendant with digital display	0370 250 431

Technical data		CD-30-DB / CI-30-IB	CD-60-DB / CI-60-IB	CD-100-DB / CI-100-IB	CD-120-DB / CI-120-IB
Max loading capacity, ton/section	Drive unit	15	30	50	60
	Idler unit	15	30	50	60
Turning capacity, ton	Drive unit	45	100	150	250
Turning speed, min-max, mm/min (ipm)		130-1300 (5-51)	130-1300 (5-51)	130-1300 (5-51)	130-1300 (5-51)
Travel speed rail bogie, mm/min (ipm)		292-2920 (11.5-115)	292-2920 (11.5-115)	292-2920 (11.5-115)	292-2920 (11.5-115)
Workpiece diameter, mm (in.) min 90°, max 30°		466-8366 (18.3-329.4)	466-8366 (18.3-329.4)	466-8366 (18.3-329.4)	466-8366 (18.3-329.4)
Mains supply, V	50Hz, 3ph	380/400/415	380/400/415	380/400/415	380/400/415
	60Hz, 3ph	440/460/480	440/460/480	440/460/480	440/460/480
Fuse, A		16	16	32	50
Control voltage, V AC		24	24	24	24
Weight, kg (lbs.)	Drive unit	1739 (3834)	2550 (5622)	3275 (7220)	3938 (8682)
	Idler unit	1082 (2385.5)	1560 (3439)	1901 (4191)	2391 (5271)
Dimensions LxHxW, mm (in.)	Drive unit	2790x955x1382 (110x37.5x54.5)	2790x955x1592 (110x37.5x63)	3400x970x1782 (134x38x70)	3400x1040x1992 (134x41x78.5)
	Idler unit	2790x955x1082 (110x37.5x42.5)	2790x955x1450 (110x37.5x57)	2790x955x1482 (110x37.5x58)	2900x955x1692 (114x37.5x67)
Cable, control box, m (in.)		10 (394)	10 (394)	10 (394)	10 (394)



## FIR 35, 75 and 100

Heavy duty Roller Beds for growing line production

- Designed and robustly built to withstand rugged work environments.
- This unit is part of a growing line, ideal for wind tower production.
- FIR has four independently adjustable rollers to align the workpieces (cans) with each other and two cross rollers to lift up the section for conveying out the workpiece.

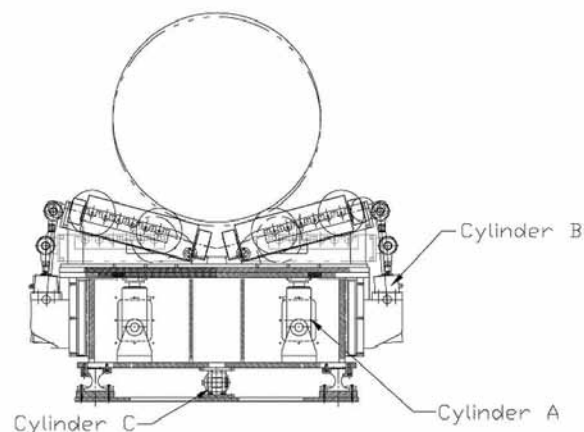
Ideal for:

- Wind tower fabrication
- Vessels
- Pipemills

### Ordering information

Roller bed FIR 35	0370 250 934
Roller bed FIR 75	0370 250 935
Roller bed FIR 100	0370 250 936

Sales Literature	XA00144520
------------------	------------



Technical data	FIR 35	FIR 75	FIR 100
Max loading capacity, ton	35	75	100
Workpiece diameter, mm (in.)	2200-5000 (86.6-197)	900-6000 (35.4-236)	900-6000 (35.4-236)
Tire type, steel, Ø mm (in.)	300 (11.8)	300 (11.8)	300 (11.8)
Control voltage, V AC	24	24	24
Mains supply, 50Hz-3ph, V	480	480	480
IP classification (electrical)	IP43	IP43	IP43
Power pack rating, kW	3	5.5	5.5
Pump, cc	3.2	5.5	5.5
Tank capacity, l (gal.)	60 (15.9)	90 (23.8)	90 (23.8)
Stroke length cylinder A, mm (in.)	Ø125x160x2 (4.9x6.3x0.08)	Ø150x85x160x2 (5.9x3.3x6.3x0.08)	Ø180x160x2 (7.1x6.3x0.08)
Stroke length cylinder B, mm (in.)	Ø100x210x4 (3.9x8.3x0.16)	Ø150x85x350x4 (5.9x3.3x13.8x0.16)	Ø180x400x4 (7.1x15.8x0.16)
Stroke length cylinder C, mm (in.)	Ø150x300 (5.9x11.8)	Ø150x85x300 (5.9x3.3x11.8)	Ø180x300 (7.1x11.8)
Net weight, kg (lbs.)	4850 (10692)	8400 (18519)	9000 (19842)
Cable length control pendant, m (in.)	10 (394)	10 (394)	10 (394)



# FIT 30, 60 and 100

Conventional idler Roller Beds with built-in hydraulic height adjustment

- Designed and robustly built to withstand rugged work environments.
- This unit can be used in one for aligning several cans or used as part of a growing line, ideal for wind tower production.
- Two independently adjusted rollers to align the workpieces (cans) with each other.
- Delivered with or without rail bogie.

Ideal for:

- Wind tower fabrication
- Vessels
- Pipemills



## Ordering information

Roller bed FIT 30	0370 250 937
Roller bed FIT 30IB	0370 250 938
Roller bed FIT 60	0370 250 939
Roller bed FIT 60IB	0370 250 940
Roller bed FIT 100	0370 250 941
Roller bed FIT 100IB	0370 250 942

Sales Literature XA00144620

Technical data	FIT 30	FIT 60	FIT 100
Max. loading capacity, ton	15	30	50
Max. lifting capacity, ton	15	30	50
Workpiece diameter, mm (in.)	1500-6500 (59x256)	1500-6500 (59x256)	1524-5486 (60x216)
Fuse, A	16	16	16
Control voltage, V AC	24	24	24
Mains supply, 50/60Hz-3ph, V	400	400	400
IP classification (motor)	IP55	IP55	IP55
IP classification (electrical)	IP43	IP43	IP43
Power pack rating, kW	1.1	2.2	4
Weight, kg (lbs.)	1800 (3968)	1900 (4189)	2295 (5060)
Dimension with travel car, LxWxH, mm (in.)	3730x900x1590 (147x35.4x62.6)	3730x1130x1590 (147x44.5x62.6)	3730x1330x1590 (147x52.4x62.6)
Dimension without travel car, LxWxH, mm (in.)	3730x540x945 (147x21.3x37.2)	3730x770x945 (147x30.3x37.2)	3730x1070x945 (147x42.1x37.2)
Cable length control box, m (in.)	6 (236)	6 (236)	6 (236)



## SD 5-120 and SI 5-120

### Self-aligning Roller Beds

- Robust design with durable rollers.
- Gritblasted steelwork with polyurethane finished coating to endure the abrasive environment of offshore and marine industries.
- Oversized bearings.
- Specially formulated high-load polyurethane tire design for high wear resistance.
- Cast steel gearbox with double worm gear arrangement for smooth operation and minimum backlash.
- Solid state inverter for precise speed control.
- Motorized and idler rail bogie versions.
- Electrical clutch

Ideal for:

- Wind tower fabrication
- Offshore and shipyards
- Pressure vessels
- Thinwall vessels / Pipes

### Options & Accessories

Foot pedal	0370 250 301
Pendant with digital display	0370 250 431



### Ordering information

#### Drive unit

Roller bed SD-5	0370 250 050
Roller bed SD-10	0370 250 052
Roller bed SD-20	0370 250 054
Roller bed SD-40	0370 250 056
Roller bed SD-60	0370 250 058
Roller bed SD-80	0370 250 060
Roller bed SD-100	0370 250 062
Roller bed SD-120	0370 250 095

#### Idler unit

Roller bed SI-5	0370 250 051
Roller bed SI-10	0370 250 053
Roller bed SI-20	0370 250 055
Roller bed SI-40	0370 250 057
Roller bed SI-60	0270 250 059
Roller bed SI-80	0370 250 061
Roller bed SI-100	0370 250 063
Roller bed SI-120	0370 250 096

Sales Literature

XA00145020

Technical data		SD/SI-5	SD/SI-10	SD/SI-20	SD/SI-40	SD/SI-60	SD/SI-80	SD/SI-100	SD/SI-120
Max loading capacity, ton/section	Drive unit	2.5	5	10	20	30	40	50	60
	Idler unit	2.5	5	10	20	30	40	50	60
Turning capacity, ton	Drive unit	7.5	15	30	60	100	120	150	180
Turning speed, mm/min (ipm)		130-1300 (5-51)	130-1300 (5-51)	130-1300 (5-51)	124-1240 (4.9-49)	125.5-1255 (4.94-49.4)	140-1400 (5.5-55)	140-1400 (5.5-55)	100-1000 (4-40)
Workpiece diameter, mm (in.)		200-6500 (8-256)	200-6500 (8-256)	200-6500 (8-256)	500-6500 (20-256)	500-6500 (20-256)	500-6500 (20-256)	500-6500 (20-256)	500-6500 (20-256)
Mains supply, V	50Hz, 3ph	380/400/415	380/400/415	380/400/415	380/400/415	380/400/415	380/400/415	380/400/415	380/400/415
	60Hz, 3ph	440/460/480	440/460/480	440/460/480	440/460/480	440/460/480	440/460/480	440/460/480	440/460/480
Fuse, A		16	16	16	16	32	32	32	32
Control voltage, V AC		24	24	24	24	24	24	24	24
Weight, kg (lbs.)	Drive unit	880 (1940)	950 (2094)	1138 (2509)	2720 (5997)	3295 (7264)	3420 (7540)	-	-
	Idler unit	580 (1279)	660 (1455)	758 (1671)	1960 (4321)	2255 (4971)	2385 (5258)	-	-
Dimensions LxHxW, mm (in.)	Drive unit	3100x930x480 (122x37x19)	3080x930x500 (121x37x20)	3600x930x550 (142x37x21.7)	3780x1400x632 (149x55x24.9)	3780x1400x632 (149x55x24.9)	4250x1386x990 (167x55x39)	4250x1386x1090 (167x55x43)	4100x1400x830 (161x55x33)
	Idler unit	3100x930x420 (122x37x17)	3080x930x440 (121x37x17.3)	3600x930x480 (142x37x18.9)	3300x1400x632 (130x55x24.9)	3300x1400x632 (130x55x24.9)	3240x1386x890 (128x55x35)	3240x1386x990 (128x55x39)	3600x1400x790 (142x55x31)
Cable, control box, m (in.)		10 (394)	10 (394)	10 (394)	10 (394)	10 (394)	10 (394)	10 (394)	10 (394)



# SD 5-100 DB and SI 5-100 IB

## Self-aligning Roller Beds with rail bogie

- Robust design with durable rollers.
- Gritblasted steelwork with polyurethane finished coating to endure the abrasive environment of offshore and marine industries.
- Oversized bearings.
- Specially formulated high-load polyurethane tire design for high wear resistance.
- Cast steel gearbox with double worm gear arrangement for smooth operation and minimum backlash.
- Solid state inverter for precise speed control.
- Motorized and idler rail bogie versions.

### Ideal for:

- Wind tower fabrication
- Offshore and shipyards
- Pressure vessels
- Pipelines

## Options & Accessories

Foot pedal	0370 250 301
Pendant with digital display	0370 250 431
Sales Literature	XA00145120



## Ordering information

### Drive unit

Roller bed SD-5-DB	0370 250 064
Roller bed SD-10-DB	0370 250 066
Roller bed SD-20-DB	0370 250 068
Roller bed SD-40-DB	0370 250 070
Roller bed SD-60-DB	0370 250 072
Roller bed SD-80-DB	0370 250 074
Roller bed SD-100-DB	0370 250 076
Roller bed SD-120-DB	0370 250 097

### Idler unit

Roller bed SI-5-IB	0370 250 065
Roller bed SI-10-IB	0370 250 067
Roller bed SI-20-IB	0370 250 069
Roller bed SI-40-IB	0370 250 071
Roller bed SI-60-IB	0270 250 073
Roller bed SI-80-IB	0370 250 075
Roller bed SI-100-IB	0370 250 077
Roller bed SI-120-IB	0370 250 098

Technical data		SD-5-DB SI-5-IB	SD-10-DB SI-10-IB	SD-20-DB SI-20-IB	SD-40-DB SI-40-IB	SD-60-DB SI-60-IB	SD-80-DB SI-80-IB	SD-100-DB SI-100-IB	SD-120-DB SI-120-IB
Max loading capacity, ton/section	Drive unit	2.5	5	10	20	30	40	50	60
	Idler unit	2.5	5	10	20	30	40	50	60
Turning capacity, ton	Drive unit	7.5	10	20	60	100	120	150	150
Turning speed, mm/min (ipm)		130-1300 (5-51)	130-1300 (5-51)	130-1300 (5-51)	130-1300 (5-51)	130-1300 (5-51)	130-1300 (5-51)	130-1300 (5-51)	130-1300 (5-51)
Travel speed, mm/min (ipm)		300-3000 (11.8-118)	300-3000 (11.8-118)	300-3000 (11.8-118)	300-3000 (11.8-118)	300-3000 (11.8-118)	300-3000 (11.8-118)	300-3000 (11.8-118)	300-3000 (11.8-118)
Workpiece diameter, mm (in.)		300-6500 (11.8-256)	300-6500 (11.8-256)	300-6500 (11.8-256)	300-6500 (11.8-256)	500-6500 (20-256)	500-6500 (20-256)	500-6500 (20-256)	500-6500 (20-256)
Power supply, V	50Hz, 3ph	380/400/415	380/400/415	380/400/415	380/400/415	380/400/415	380/400/415	380/400/415	380/400/415
	60Hz, 3ph	440/460/480	440/460/480	440/460/480	440/460/480	440/460/480	440/460/480	440/460/480	440/460/480
Fuse, A		16	16	16	16	32	32	32	32
Control voltage, V AC		24	24	24	24	24	24	24	24
Weight, kg (lbs.)		1180 (2601)	1400 (3086)	1620 (3571)	-	4000 (8818)	4305 (9490)	-	-
		880 (1940)	920 (2028)	1090 (2403)	-	2700 (5952)	3140 (6923)	-	-
Dimensions LxHxW, mm (in.)	Drive unit	3100x1200x1210 (122x47x47.6)	3080x1200x1210 (121x47x47.6)	3600x1200x1210 (142x47x47.6)	3780x1600x1855 (149x63x73)	3780x1600x1855 (149x63x73)	4250x1538x1710 (167x61x67)	4250x1538x1850 (167x61x73)	4100x1600x2055 (161x63x81)
	Idler unit	3100x1200x1050 (122x47x41.3)	3080x1200x1050 (121x47x41.3)	3600x1200x1050 (142x47x41.3)	3300x1600x1475 (87.5x50x51.5)	3300x1600x1475 (87.5x50x51.5)	3240x1538x1560 (128x61x61.4)	3240x1538x1700 (128x61x67)	3600x1600x1675 (142x50x66)
Cable, control box, m (in.)		10 (394)	10 (394)	10 (394)	10 (394)	10 (394)	10 (394)	10 (394)	10 (394)



## FUB 30 and FUB 60

### Fit-up beds

- Designed and robustly built to withstand rugged work environments
- Fastest system to assemble 1 + 1 sections.
- One FUB set consists of one power and one idler roller bed 30T, four independently adjustable rollers to align the two sections with each other.
- The roller bed and rollers are all mounted on one main frame.
- Tires of type Polyurethane 20.5 x 7 inch.



#### Ideal for:

- Wind tower fabrication
- Vessels
- Pipemills



### Ordering information

FUB 30 0370 250 931  
FUB 60 0370 250 932

Sales Literature XA00144720

Technical data	FUB 30	FUB 60
Max. loading capacity, ton	30	60
Min. workpiece diameter, mm (in.) at 90° included angle	610 (24)	610 (24)
Max. workpiece diameter, mm (in.) at 30° included angle	6435 (253.3)	6435 (253.3)
Roller speed, mm/min (ipm)	130-1295 (5-51)	130-1295 (5-51)
Control voltage, V DC	24	24
Mains supply, 50 Hz, 3-phase, V 60 Hz, 3-phase, V	380/400/415 400/460/480	380/400/415
Travel car bogie	yes	yes
Travel car speed, mm/min (ipm)	238-2380 (9.4-94)	240-2400 (9.5-95)
Travel car drive, AC kW	1.1	2.2
Power pack rating, kW	1.5	1.5
IP classification (motor)	IP55	IP55
IP classification (electrical)	IP43	IP43
Pump, cc	2.1	2.1
Tank capacity, l	16 (4.23)	16 (4.23)
Weight, kg (lbs.)	5250 (11575)	7360 (16226)



# RT3 - RT35

Two-axis Positioner for rotating and tilting workpieces

- Continuously (stepless) adjustable speed.
- Low voltage (24) remote control unit for all functions.
- 2-axis: tilting and rotation.
- Inverter-controlled rotation speed.
- All drives are equipped with AC motors which require less maintenance, no carbon-brush to change.
- Mechanically and electrically designed for easier maintenance with few spare parts.

Ideal for:

- Pipe shops
- Vessels
- Cladding of dish ends
- Fuel tanks



## Ordering information

Positioner RT3	0370 250 851
Positioner RT5	0370 250 852
Positioner RT10	0370 250 853
Positioner RT15	0370 250 854
Positioner RT20	0370 250 855
Positioner RT35	0370 250 856

Sales Literature XA00144820

## Options & Accessories

Foot pedal	0370 250 298
Pendant with digital display	0370 250 431

Technical data	RT3	RT5	RT10	RT15	RT20	RT35
Max. loading capacity, ton	3	5	10	15	20	35
Rotation motor, kW	1.5	2.2	4	5.5	9.2	11
Rotation cont AC inverter, kW	1.5	2.2	4	5.5	11	11
Rotation speed, rpm	0.1-1.0	0.08-0.82	0.048-0.48	0.1-1.0	0.048-0.48	0.029-0.29
Tilting range table plate, °	0-135	0-135	0-135	0-135	0-135	0-90
Tilting speed, sec.	80	113	177	120	177	105
Tilting motor c/w brake	1.5	2.2	4	7.5	9.2	7.5
Power supply, 50 Hz, 3-ph, V 60 Hz, 3-ph, V	380/400/415 440/460/480	380/400/415 440/460/480	380/400/415 440/460/480	380/400/415 440/460/480	380/400/415 440/460/480	380/400/415 440/460/480
Fuse, A	16	18	25	40	60	60
Control voltage, V AC	24	24	24	24	24	24
Table plate diameter, mm (in.)	1200 (47)	1500 (59)	1800 (71)	1800 (71)	2200 (87)	2800 (110)
Max. welding current, A	800	1000	1000	1000	1000	1000
IP classification	IP55	IP55	IP55	IP55	IP55	IP55
Weight, kg (lbs.)	1570 (3461)	2720 (5996.5)	4530 (9987)	7100 (15653)	10000 (22046)	17000 (37479)
Dimensions LxWxH, mm (in.)	1625x1070x1057 (64x42x41)	1720x1590x1227 (68x62.5x48)	2453x2070x1586 (96.5x81.5x62.4)	2800x2190x1840 (110x86x72.5)	3050x2400x1850 (120x94.5x73)	1940x2950x2600 (76x116x102)
Cable length, control box, m (in.)	6 (236)	6 (236)	6 (236)	10 (394)	10 (394)	10 (394)



## TAP 1T-STD / TAP 3T-STD and TAP 1T-HD / TAP 3T-HD

Three-axis Positioner for small objects

- Height, angle and speed are continuously (stepless)adjustable.
- Low voltage (24V) remote control unit for all functions.
- 3-axis: height, tilting angle and rotation.
- Inverter-controlled rotation speed.
- All drives are equipped with AC motors which require less maintenance, no carbon-brush to change.
- The hydraulics for height and tilt adjustment are equipped with built-in safety valves preventing hose failure.
- Mechanically and electrically designed to be more compact and with fewer components for easier maintenance and fewer spare parts.
- Compared with TAP-STD, the TAP-HD have higher rotation torque, smaller backlash on table top and are more stable on front back swaying.



Ideal for:

- Pipe shops
- Vessels
- Cladding of dish ends
- Fuel tanks

### Ordering information

Positioner TAP 1T-STD	0370 250 750
Positioner TAP 3T-STD	0370 250 751
Positioner TAP 1T-HD	0370 250 753
Positioner TAP 3T-HD	0370 250 754

Sales Literature XA00144920

### Options & Accessories

Foot pedal	0370 250 298
Pendant with digital display	0370 250 431

Technical data	TAP 1T-STD	TAP 1T-HD	TAP 3T-STD	TAP 3T-HD
Max. loading capacity, ton	1	1	3	3
Max. rotational torque, Nm	750	2730	1250	4860
Tilting torque, Nm	4070	4070	9980	9980
Rotation speed, rpm	0.1-1.5	0.1-1.5	0.06-0.6	0.06-0.6
Tilting range table plate, degree	0-135	0-135	0-135	0-135
Tilting range arm, degree	0-45	0-45	0-45	0-45
Mains supply 50/60 Hz, 3ph, V	400	400	400	400
Fuse, A	16	16	16	16
Control voltage, V AC	24	24	24	24
Table plate diameter, mm (in.)	900 (35.4)	900 (35.4)	1000 (39)	1000 (39)
Max. welding current, A	800	800	800	800
Weight, kg (lbs.)	782 (1724)	782 (1724)	1500 (3307)	1500 (3307)
Dimensions, LxWxH, mm (in.)	1875x1023x751 (73.8x40.3x29.6)	1620x1124x773 (63.8x44.3x30.4)	2040x1268x1019 (80.3x49.9x40.1)	2282x1280x1045 (89.8x50.4x41.1)
Cable, control box, m (in.)	6 (236)	6 (236)	6 (236)	6 (236)



# MTS1 and MTS3

## Pipe rotator

- MTS1 and MTS3 are used for supporting workpieces with different diameter and length.
- Positioning of the workpiece with headstock and positioner.

## Ordering information

Pipe rotator MTS1	0370 251 057
Pipe rotator MTS3	0370 251 058
Sales Literature	XA00153920



Technical data	MTS1	MTS3
Max loading capacity, ton	1	3
Vessel size, Ø mm (in.)	100-610 (3.94-24.02)	150-914 (5.9-36)
Roller type	PU Black	PU Black
Roller size, mm (in.)	150 (5.9)	200 (7.87)
Weight, kg (lbs.)	198 (436.5)	335 (738.5)
Dimensions, LxWxH, mm (in.)	635x1020x500 (25x40.2x19.7)	800x1310x550 (31.5x51.6x21.7)

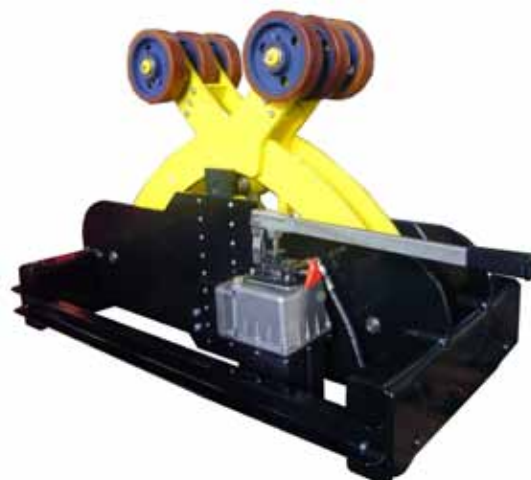
# HPS-3T

## Pipe rotator

- The HPS pipe rotator is used for supporting tubes with diameter from 100 to 1000 mm (3.9 to 39 inch).
- A manually operated hydraulic system will set the rollers for the diameter requested.

## Ordering information

Pipe rotator HTS-3T	0370 251 044
Sales Literature	XA00153820



Technical data	MTS3
Max loading capacity, ton	3
Workpiece size, Ø mm (in.)	100-1000
Roller size, mm (in.)	200 (7.87)
Weight, kg (lbs.)	345 (761)
Dimensions, LxWxH, mm (in.)	1500x1100x710 (59x43.3x28)



## PR7/10 and IR7

### Pipe Spool Rotator & Idler

- PR7/10 is used in Pipe Spool applications.
- The PR7/10 has robust design, gritblasted steelwork with Polyurethane finished coating to endure the abrasive environment.
- Working area Ø 50-920 mm (1.97-36.2 inch)
- Rotation speed 75-750 mm (2.95-29.5 inch)

Ideal for:

- Welding of pipes
- Prefabrication/welding of pipe systems
- Welding of curved pipes, angle tees

### Ordering information

Pipe Spool Rotator PR7/10 0370 251 056  
 Idler IR7 0370 251 060

Sales Literature XA00154220

### Options & Accessories

Pendant with digital display 0370 250 431



Technical data	PR7/10	IR7
Max loading capacity, ton	3.5	3.5
Turning capacity, kg (lbs).	10 (22)	-
Roller speed, mm/min (ipm)	75-750 (2.95-29.5)	-
Workpiece diameter, min-max mm (in.)	100-970 (3.94-38.2)	165-970 (6.5-38.2)
Power supply, 50 Hz, 3-ph, V 60 Hz, 3-ph, V	380/400/415 440/460/480	-
Polyurethane Tire, Ø mm (in.) Width mm (in.)	254 (10) 80 (3.15)	254 (10) 80 (3.15)
Fuses, A	16	-
Control voltage, V AC	24	-
Motor, kW	1.1	-
IP classification (Motor)	IP 55	-
IP classification (Electrical)	IP 43	-
AC inverter, kW	1.1	-
Weight, kg (lbs.)	1210 (2668)	772 (1702)
Dimensions, LxWxH, mm (in.)	1500x3150x500 (59x124x19.7)	1200x850x715 (47.2x33.5x715)
Cable, control box, m (in.)	10 (394)	-



## LLR-500P / LLR-500I and LLR-3000P / LLR-3000I

Conventional roller beds for small workpieces

- Ideal handling equipment for lightweight workpieces.
- Stepless adjustable speed.
- Supplied with a low-voltage foot pedal with Start/Stop function.
- Mechanically and electrically the roller beds have been designed for easier maintenance and a small number of spare parts.

Ideal for:

- Manufacturing of cylindrical objects
- Pipe shops



LLR 500P and LLR 500I

### Ordering information

LLR-500P, drive unit 0370 250 190  
LLR-500I, idler unit 0370 250 191

LLR-3000P, drive unit 0370 250 196  
LLR-3000P, idler unit 0370 250 197

Sales Literature LLR-500P / LLR-500I XA00154820  
Sales Literature LLR-3000 / LLR-3000I XA00155120



LLR 3000P and LLR 3000I

Technical data		LLR-500	LLR-3000P
Max loading capacity, kg (lbs.)	Drive unit	250 (551)	1500 (3307)
	Idler unit	250 (551)	1500 (3307)
Turning capacity, kg (lbs.)	Drive unit	750 (1653)	4500 (9921)
Turning speed, mm/min (ipm)		0-4420 (174)	0-4000 (157.5)
Workpiece diameter, mm (in.) min (150°), max (60°)		50-1000 (1.97-39.4)	286-1006 (11.3-39.6)
Power supply, 50Hz 1ph, V		220	220
Motor, W		100	100
Control voltage, V AC		24	24
Weight, kg (lbs.)	Drive unit	60 (132)	109 (240)
	Idler unit	45 (99)	71 (157)
Dimensions LxHxW, mm (in.)	Drive unit	1120x322x300 (44.1x12.7x11.8)	1260x413x405 (49.6x16.3x15.9)
	Idler unit	960x322x200 (37.8x12.7x7.9)	950x413x340 (37.4x16.3x13.4)
Cable, foot pedal, m (in.)		3 (118)	3 (118)



## LLP-200, LLP-500, LLP-750 and LLP-1000

### Two axes positioner

- Ideal handling equipment for lightweight workpieces.
- Stepless adjustable speed.
- Supplied with a low-voltage foot pedal with Start/Stop function.
- The LLP positioners have 2 axes.
- The LLP-200 has manual tilting adjustment while the LLP-500, LLP-750 and LLP-1000 have motorized tilting.
- The 2-axes operation guarantees the ideal ergonomic position.
- Mechanically and electrically the roller beds have been designed for easier maintenance and a small number of spare parts.



Ideal for:

- Pipe shops
- Repair

### Ordering information

Positioner LLP-200	0370 250 202
Positioner LLP-500	0370 250 203
Positioner LLP-750	0370 250 204
Positioner LLP-1000	0370 250 205

Sales Literature	XA00154520
------------------	------------

Technical data	LLP-200	LLP-500	LLP-750	LLP-1000
Max loading capacity, turning, kg	200 (441)	500 (1102)	750 (1653)	1000 (2205)
Max loading capacity, tilting, kg	200 (441)	500 (1102)	750 (1653)	1000 (2205)
Rotation speed, rpm	0.6-6	0.2-2	0.09-0.9	0.09-0.9
Tilt range, degree	0 - 90	-45 - 90	-45 - 90	-45 - 90
Incoming supply (50Hz/1-phase), V	220	220	-	-
Incoming supply (50Hz/3-phase), V	-	-	380	380
Control voltage, V AC	24	24	24	24
Rotation drive motor, W	0.065	150	550	750
Earthing, A	300	300	600	600
Table plate diameter, mm	400 (15.7)	620 (24.4)	900 (35.4)	900
Dimensions, LxWxH, mm	400x550x540 (15.7x21.7x21.3)	620x680x817 (24.4x26.8x32.2)	900x1100x1230 (35.4x43.3x48.4)	900x1140x1390 (35.4x44.9x54.7)
Cable length foot pedal, m (in.)	3 (118)	3 (118)	3 (118)	3 (118)



## LLP-50H and LLP-150H

Two axes positioner with center hole

- Ideal rotating and tilting lightweight workpieces.
- Stepless adjustable speed.
- Supplied with a low-voltage foot pedal with Start/Stop function.
- The LLP-H positioners have 2 axes, motorised rotation and manual tilting.
- The center hole is 120 mm.
- The 2-axes operation guarantees the ideal ergonomic position.
- Mechanically and electrically the roller beds have been designed for easier maintenance and a small number of spare parts.

Ideal for:

- Pipe shops
- Repair



### Ordering information

Positioner LLP-50H	0370 250 200
Positioner LLP-150H	0370 250 201
Sales Literature	XA00154620

Technical data	LLP-50H	LLP-150H
Max loading capacity, turning, kg (lbs.)	50 (110)	150 (330)
Max loading capacity, tilting, kg (lbs.)	50 (110)	150 (330)
Rotation speed, rpm	0 - 4.5	0 - 4.5
Tilt range, degree	± 90	± 90
Incoming supply (50Hz/1-phase), V	220	220
Control voltage, V AC	24	24
Rotation drive motor, W	60	65
Earthing, A	200	200
Table plate diameter, mm (in.)	450 (17.7)	450 (17.7)
Table hole diameter, mm (in.)	120 (4.7)	120 (4.7)
Dimensions, LxWxH, mm (in.)	530x486x500 (20.9x19.1x19.7)	600x486x560 (23.6x19.1x22)
Cable length foot pedal, m (in.)	3 (118)	3 (118)



## LLT-250 and LLT-750

### Turntable

- Ideal for rotating lightweight workpieces.
- Assures easy access for welding and assembly.
- Stepless adjustable speed.
- Supplied with a low-voltage foot pedal with Start/Stop function.
- For improved productivity and quality.

### Ordering information

Turntable LLT-250	0370 250 210
Turntable LLT-750	0370 250 211
Sales Literature	XA00154720



Technical data	LLT-250	LLT-750
Max loading capacity, kg (lbs.)	250 (551)	750 (1653)
Rotation speed, rpm	0 - 4.5	0.08 - 0.8
Incoming supply (50Hz/1-phase), V	220	220
Control voltage, V AC	24	24
Rotation drive	DC 100W	AC 0.75 kW
Table plate diameter, mm (in.)	500 (19.7)	620 (24.4)
Dimensions, LxWxH, mm (in.)	600x500x310 (23.6x19.7x12.2)	716x810x537 (28.2x31.9x21.1)
Cable length foot pedal, m (in.)	3 (118)	3 (118)

## Chuck LLC

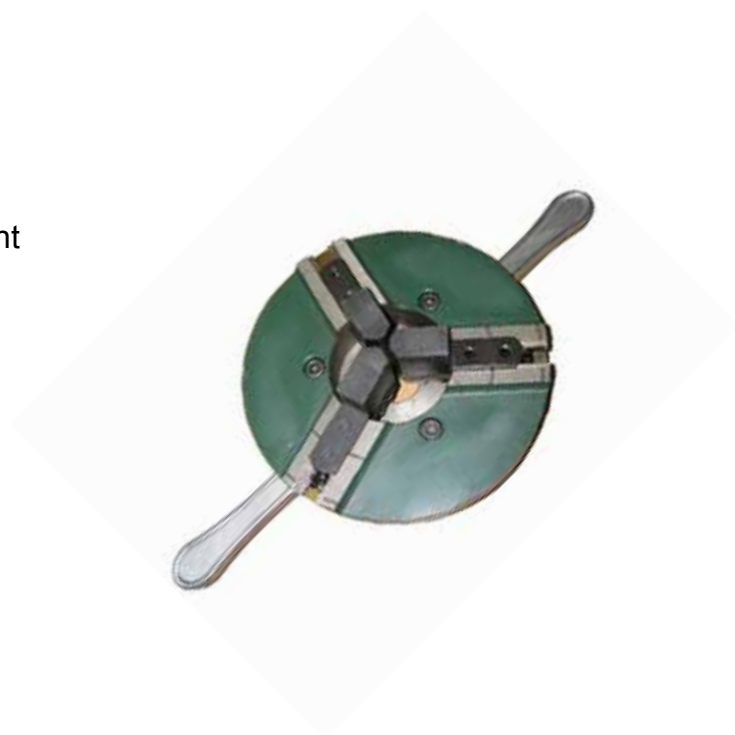
### 3-claw chuck for ESAB Low Load Positioning Equipment

- Used as a support in combination with ESAB low load positioning equipment for lightweight workpieces.
- Designed for easy maintenance and assembly.

### Ordering information

Chuck LLC, 3-claw chuck	0370 250 209
Sales Literature	XA00154920

Technical data	Chuck-125
External diameter, Ø mm	83 (3.3)
External height, mm	200 (7.9)
Clamping range (alt 1), Ø mm	10 - 230 (0.39-9)
Clamping range (alt 2), Ø mm	10 - 250 (0.39-9.8)
Weight, kg (lbs.)	7.5 (16.5)





# Tank welder AGW1 and AGW2

## Single-side and double-side

- A series of self-propelled 3 o'clock welding equipment, primarily developed for on-site erection of large storage tanks, silos, blast furnaces and similar cylindrical objects.
- Available as a single-side version and a double-side version.
- Designed to travel on the top edge of the tank shell.
- As there are different ways of building tanks, one machine in the series is designed to travel on a rail which is temporarily fixed to the shell or on a stand-alone ring outside the shell.
- The operator of each machine (if a double-side version) rides in a cabin, where he supervises and controls the welding process with the control panel within easy reach.
- The cabin, whose floor level under the carriage is variable to suit the height of the plate, is built as a cage to give the operator(s) maximum safety and comfort.
- For weather protection the cage can be covered by curtains.
- The cabin of a double-side machine is equipped with step ladders and a joining bridge at the top to facilitate for the operators to climb onboard. The bridge also has guard rails for the safety of the operators.



## Ordering information

Tank welder single-side, AGW1 0370 250 700  
 Tank welder double-side, AGW2 0370 250 702

Sales Literature XA00145220

## Options & Accessories

Transportable stand AGW1 0370 250 703  
 Transportable stand AGW2 0370 250 704  
 Set of cables, 95 mm<sup>2</sup> (75 & 25 m) 0370 250 705  
 Cabine light 0370 250 706

Technical data	AGW1	AGW2
Carry load, kg (lbs.)	300 (661)	300 (661)
Shell height, mm (in.)	1800-3500 (70.8-137.8)	1800-3500 (70.8-137.8)
Height increment, mm (in.)	100 (3.9)	100 (3.9)
Max. shell thickness, mm (in.)	50 (1.96)	50 (1.96)
Min. side clearance, mm (in.)	1450 (57)	1450 (57)
Travel speed, mm (in.)	244-2440 (9.6-96.06)	278-2780 (10.9-109.4)
AC motor travel, kW	1x0.55	2x0.55
AC inverter travel, kW	1x1.1	1x1.1
IP classification (motor)	IP55	IP55
IP classification (electrical)	IP43	IP43
Max. flux hoist, kg (lbs.)	70 (154.3)	70 (154.3)
Electrical panel	yes	yes
Dimensions, LxWxH, mm (in.)	1440x5836x2102 (56.7x229.8x82.8)	2210x5836x2120 (87x229.8x83.5)
Weight, kg (lbs.)	1300 (2866)	1460 (3219)







# **Special** Applications

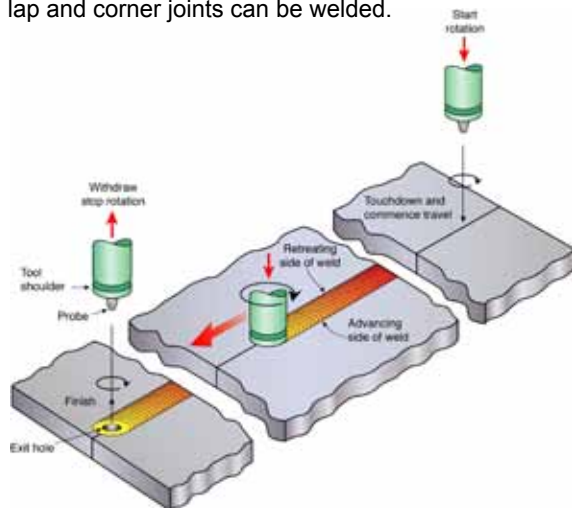




## Friction Stir Welding

Quality in depth

- The Friction Stir Welding (FSW) method is based on the principle of obtaining a sufficiently high temperature and pressure to join two components together by using a rotating tool, which under high pressure, moves along the joint and thereby creates a weld.
- FSW is ideal for joining straight profiles and flat plates from 1.2 to 130 mm (0.045 - 1.18 inch) with full penetration.
- Butt, lap and corner joints can be welded.



### Suitable application areas

- Shipbuilding / Offshore platforms
- Aerospace industry
- Railway wagons, trams, underground train carriages
- Automotive industry
- Production of electric motors
- Defence industry
- Cooling elements
- Basically all aluminium, copper and magnesium alloys can be Friction Stir welded with high quality and speed.



### Key benefits

- Minimal distortion and shrinkage
- No joint preparation - degreasing only
- No grinding, polishing or straightening
- No repair welding
- Reduced weight (40% less than GMAW)
- High joint-gap tolerance
- Consistent weld quality
- Increased tensile strength
- Outstanding fatigue properties
- No fumes, sparks or spatter
- Low noise level
- Simple operation (HMI)
- Improved repeatability

### SuperStir™ Friction Stir Welding System

The ESAB SuperStir™ range is purpose-built for high-volume production of large aluminium panels, girders and trusses. The large custom-designed units offer a safe, clean and simple welding process that can be fully automated, dramatically reducing production costs.

ESAB SuperStir™ FSW technology is applied across the entire industrial spectrum, from shipping, offshore, construction and transportation to defence and aerospace.

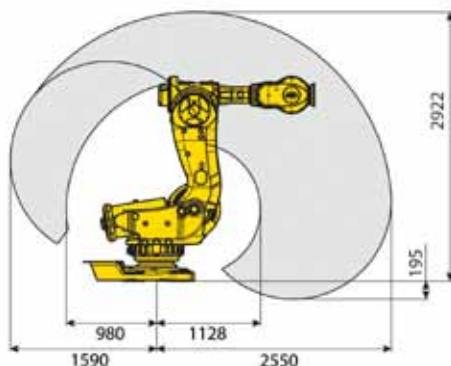


## Friction Stir Welding

Cont.

### LEGIO™ Friction Stir Welding System

- The modular system makes it possible to assemble welding stations to suit the most varied Friction Stir welding applications.
- The LEGIO™ system consists of 5 basic designs in a series of seven sizes, covering a welding depth of 1.2 to 65 mm (0.045 to 2.4 in.)
- These basic types can be supplemented with different types of equipment to suit the most varied production needs with maximum flexibility to any production line.
- The larger S- and the U-models are designed to be easily integrated with larger fixtures, rotary units and exchangeable clamping systems.
- For the production of smaller workpieces, the UT- and the ST-model are the most suitable. They have tables prepared with a hole pattern, where fixtures can be attached.



### Rosio™ Friction Stir Welding Robot

- Designed for complex joints.
- The latest IRC5 control system, featuring embedded force control, ensures high accuracy in-contact motion.
- The upgraded motion software permits linear welding in arbitrary patterns, as well as circular and square paths.
- Additional functionalities to support customized path programming and spindle operation, permit advanced welding, even with limited programming skills.
- A user-friendly HMI extends the IRC5 interface, providing full operator feedback via a Flex Pendant.

#### Technical data

#### Rosio™

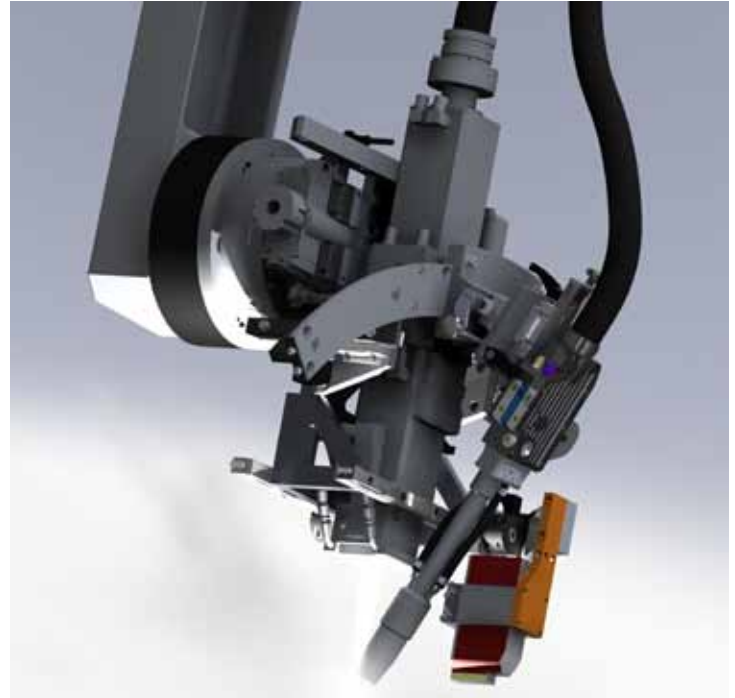
Aluminium series 6000, mm (in.)	1-7 (0.04-0.28)
series 5000, mm (in.)	1-6 (0.04-0.24)
series 2000, mm (in.)	1-5 (0.04-0.20)
series 7000, mm (in.)	1-5 (0.04-0.20)
Welding speed, mm/min (ipm)	>1000 (39.4)
Max.spindle rotation, rpm	3000
Max down force, kN	13
Robot reach, mm (inch)	2550 (100.4)
Robot base dimension, mm (in.)	1206.5 x 1200 (47.4 x 47.2)
Robot weight, kg (lbs.)	2500 (5511.55)
Cabinet dimension, mm (in.)	2160x725x710 (85.04x28.54x27.95)
Cabinet weight, kg (lbs.)	250 (551.16)
Mains, V/HZ	400/50



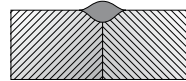
## Hybrio™ - Hybrid Laser Welding

Lighting the way

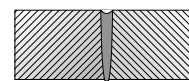
- ESAB's Hybrio™ hybrid laser welding technology combines the deep weld penetration and low heat input associated with laser welding with the excellent weld properties and superior gap tolerance of gas metal arc welding (GMAW).
- A radically new welding alternative, it produces extremely narrow and deep welds at very high travel speeds. In a single pass, the Hybrio™ process can often achieve what might require multiple weld passes using a conventional fusion welding process.
- Heat input to the part is reduced, as is the associated weld shrinkage and distortion that can make post-welding geometry unpredictable - and costly to repair.
- Using GMAW in combination with a laser, the Hybrio™ process solves laser-only welding's limitations, concerning its ability to produce acceptable welds in joints with less than perfect fit-up between parts. This enables a widened, more robust process envelope by a factor of three compared to a conventional laser-only process.
- GMAW also allows users to add filler metal to adjust the weld's metallurgical properties and create beads and fillets, while the slower cooling rate reduces hardness. These features are especially beneficial when joining high performance carbon and stainless steels.
- ESAB's exclusive adaptive closed-loop control system detects joint fit-up conditions and changes the process parameters in real-time to achieve a constant weld profile. This broadens the process window by a further 5 times over non-adaptive control.



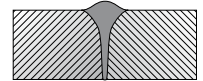
GMAW (MIG/MAG)



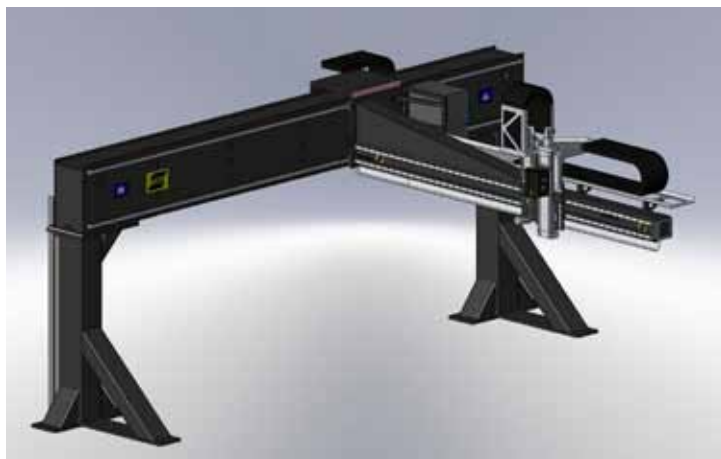
Autogenous Laser (laser only)



Hybrid Laser Welding



Graphic illustrating differences between GMAW, Laser and Hybrid Laser Welding weld profiles



### Ordering information

For more information, please contact your nearest ESAB representative.

Sales Literature

XA00153320

### The Hybrio™ Value Proposition:

- Operating costs reduced by 50-80%.
- Productivity improved by 300-1000%.
- Heat input and distortion reduced by 80-90%.
- Reduced weld repair rates.
- Reduced labour content through fully automated operation.
- Reduced operator skill requirement due to easy, PC-machine controller.
- Lower downstream assembly, welding and finishing costs, through reduced part distortion.
- Higher overall plant throughput and revenue generation.
- Feasibility of new, lighter, stiffer and simpler product design and construction methods.
- Full backing and support of ESAB's process experts and service professionals, with extended warranty and service agreements.



## Hybrio™ - Hybrid Laser Welding

Cont.

### Hybrio™ Flex

The Hybrio™ Flex flexible hybrid laser welding cell is based upon a modular, six-axis motion system platform that can be scaled to cover a large range of working envelopes up to 4m x 20 m and longer. Additionally, this system can be configured to cover a range of Z-axis depths from 1 m to 3 m (3 to 10 ft.). This gives the user the flexibility to use the Hybrio™ Flex system for large variety of product geometries and weld joint configurations.

### Hybrio™ Beam

The Hybrio™ Beam hybrid laser beam welding system is based upon ESAB's robust submerged-arc beam welding systems that can be found in plants around the world. These systems come in horizontal and vertical configurations and are designed to center and feed web and flange parts through a fixed welding station. Components are aligned and pressed together ensuring excellent joint conditions at the point of welding. Equipped with the Hybrio™ process, these systems can out-produce traditional beam welding equipment by a factor of three to ten times depending upon the web thickness.

### Hybrio™ Seam

Hybrio™ Seam hybrid laser seam welding systems cover a range of raw sheet and plate thicknesses and sizes from small sheet and coil joining systems to large panel line plate welding machines. These systems are designed to press and clamp sheet or plate joints into position as the Hybrio™ process moves along the joint, performing the weld. These systems can achieve single-side, full-penetration butt welds up to 12.5 mm (1/2 in.) in thickness in a single pass and thicker with subsequent passes.

### Hybrio™ Tube

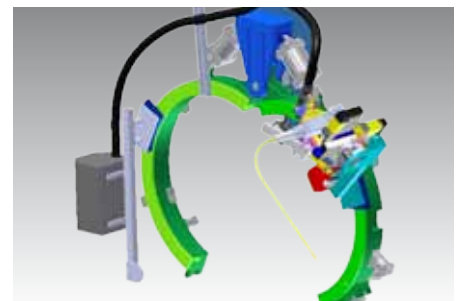
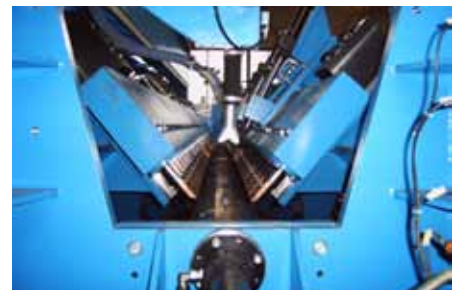
Hybrio™ Tube hybrid laser tube and pipe systems are longitudinal seam welding systems designed to press the material together at the weld joint to achieve the fit up needed for HLAW welding. The part is then drawn through the machine to perform the weld. These systems can produce straight or tapered tubes and pipes up to 1 m (3 ft.) in diameter and with wall thicknesses up to 12.5 mm (1/2 in.).

### Hybrio™ Orbit

The Hybrio™ Orbit hybrid laser pipe girth welding system is specially designed for welding full pipe girths as well as for rapidly producing high-quality root passes for subsequent processing with traditional high-deposition processes. These are fully orbital welding systems, capable of 360 degree continuous welds around cylindrical products with very low clearances. The Hybrio™ Orbit system was specifically developed for the oil and gas industry, but has applications in many other industry segments.

### Hybrio™ Process Package for Integrators

ESAB's Hybrio™ hybrid laser arc welding process technology leads the industry in ease of use and process robustness. ESAB has developed a fifth-generation welding system that is capable of sensing its environment, the joint location and fit-up and then adapting the process in real-time to maintain high weld quality over a wide range of fit-up conditions. ESAB has built this technology into a complete process package that is available not only as part of our turnkey hybrid welding systems but also to machine tool OEM and system integrators. ESAB provides the hybrid welding expertise along with the support of our Laser Process Centers in North America and Europe, to minimize the technical risk to our OEM and integration partners worldwide.





## HNG Multi

### Narrow Gap Welding System

- Designed for both Single (AC or DC) and tandem (DC/AC or AC/AC) wire welding in parallel or almost parallel joints, ranging in width from 18 mm (0.71 in.) and in depth down to 350 mm (13.8 in.).
- Continuous double-sided joint tracking gives a high reliability at shift overlap.
- Continuous measuring of joint width
- Short-circuit protected, welding head - workpiece.
- Automatic positioning.
- Possible to weld up to 50 mm (1.97 in.) joint width
- Air-cooled torch
- Reliable and uniform high weld quality
- High productivity.
- Minimum of supplementary work.

#### Technical data

Weld joint type	Butt
Wire dimension, mm (in.)	3-4 (0.12-0.16)
Wire feed motor	A6 VEC 156:1, 4000 rpm
Max. wire feed speed, m/min (ipm.)	4 (157)
Max welding current DC, A	800
Max welding current AC, A	800
Beads in each layer	2-4
Deposition rate, kg/h (lbs./h)	approx. 7/16 (15.4/35.3) (Single/Tandem)
Tilting angle of weld nozzle	± 3.5°
Max. joint depth, mm (in.)	350 (13.8)
Joint width, mm (in.)	18-50 (0.71-1.97)
Wire angle between wires	15°
Distance between wires, mm (in.)	15 (0.59) (valid for 30 mm (1.18) stick-out)
Accuracy of joint tracking, mm (in.)	± 0.15
Max heat resistance, workpiece, °C (°F)	300 (572)
Min weld diameter, mm (in.)	500/1200 (19.7/47.2) Single/Tandem
Flux hopper unit	OPC Super
Flux hopper capacity, l (gal.)	approx. 10 (2.64)
<b>Min clearance internal weld</b>	
- Longitudinal, Ø mm (in.)	1500 (59.06)
- Circumferential, Ø mm (in.)	1500 (59.06)
Weight, kg (lbs.)	140/165 (309/364) (Single/Tandem)



#### Ordering information

For more information, please contact your nearest ESAB representative.

Sales Literature

XA00141620



Double-sided joint tracking

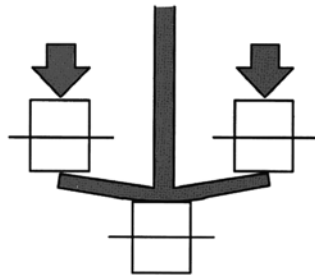


## Beam Welding - Pull Through Welders

For welding of beams and profiles

- ESAB offers a complete and effective way of welding beams and profiles. Whether you weld I-, T- or L-beams, wide flange beams, columns, tapered beams or non-symmetrical beams, ESAB has the expertise and welding equipment to match your efficiency, quality, precision, versatility, productivity, and overall welding economy requirements.
- Two types of machines: IT-machines where the beams are welded with the web unit in the vertical position, and I-machines, where the beams are produced in horizontal position.
- High production capacity and perfect weld quality.
- The welding operation takes place when the flange and the web are pressed together under pressure in order completely to eliminate the gap between the surfaces.

*Straightening principle:*



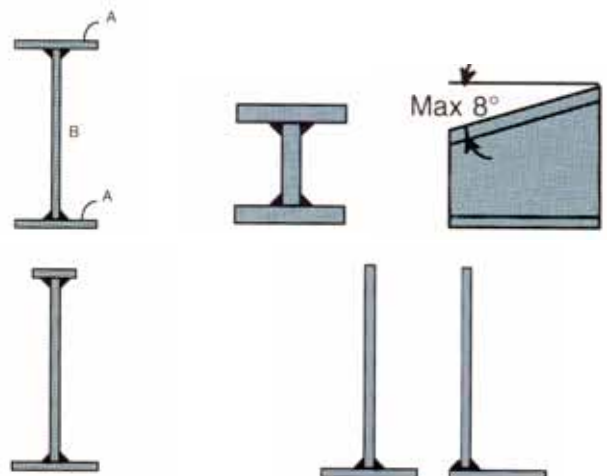
Beam welder IT-258



**Total range of beam sizes that can be welded:**

Machine type	Web	Flange
IT-258	200-2500 mm	100-800 mm
IT-158	200-1500 mm	100-800 mm

**Examples of beams than can be welded:**





## Welding solutions for Pipemills

Our experience and knowledge - your benefit!

### Flexible, reliable welding equipment

A wide range of products developed in-house for various multi-wire SAW applications which are particularly suitable for pipe welding.

### Precise, high-speed longitudinal welding

Our concept for longitudinal submerged-arc welding is suitable for pipes in a normal diameter range of 20-64", a normal wall thickness of 6-40 mm (0.24-1.57 in.) and a length of up to 18 m (708.66 in.).

### Internal and external welding

For internal welding we have designed pre-stressed booms as well as welding heads for up to four wires.

The external welding station is based on a column and boom solution with a very stable cross-slide to adapt to different pipe diameters.

### Return current systems (grounding)

High current circuits have to be closed back to the power source by efficient systems at constantly moving pipes. Flexible steel brushes in two rows in front and behind the welding process are pressed with defined force from outside to the pipe to catch the current with a minimum of voltage loss and to surely avoid any arc blow effect, which would disturb the weld process.

### Problem-free flux and wire feed systems

Smooth feeding of wire in different diameters and equally straight-forward supply of new and re-used flux.

The correct combination of compressed air, flux feeding, easy replenishment of new flux via the Big/Bag system, a vacuum unit, a reliable magnetic separator and continuous recovery helps to create welding stations with less downtime, high-quality welds and a cleaner working environment.

### Spiral pipe welding

Internal and external welding is performed at one and the same station. Internal welding starts first and, after half a turn, external welding then begins - internally with two or in some cases three wires and externally with one or three wires in the welding process, depending on the diameter and wall thickness of the pipe.

## Ordering information

For more information, please contact your nearest ESAB representative.

Sales Literature

XA00136520



Internal welding



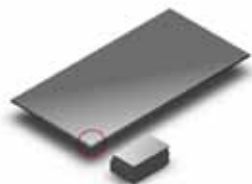
External welding



## Windmill Tower Manufacturing

Dedicated solutions for dedicated manufacturers

- The key to efficient production of wind towers is smooth component flow in the workshop. The benefit of a high deposition welding process is completely lost if the set-up or handling of components in any area of the process fails or takes an unacceptable amount of time.
- ESAB can assist with the welding and cutting process in wind tower production and deliver finely tuned solutions for each step in the production process.
- With a complete package from ESAB, you only need to work with one supplier for product, service and support. This results in a large project being organized efficiently, with a fixed cost and agreed time schedule. Smooth production flow is part of the complete delivery.



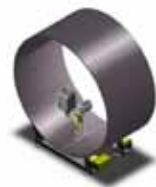
*Oxy-fuel or plasma cutting of plate and seam preparation*



*Rolling, forming and tack welding of the shell*



*External longitudinal submerged-arc welding using a column and boom*



*Internal longitudinal submerged-arc welding using a column and boom*



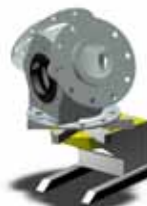
*Submerged-arc welding of flanges and supports*



*Joining of shell sections using roller beds with hydraulic fit-up system. Internal and external submerged-arc welding performed by a column and boom station.*



*Automatic welding of the door frame.*



*Production of sub-components using an ESAB positioner and manual welding equipment*



## ESAB Retrofit

### Modernization and upgrading

- ESAB's service group can upgrade any brand of existing equipment to virtually new condition, with the latest process equipment and accessories.
- Accessories include seam trackers, flux recovery systems, wire handling equipment, strip cladding equipment - all can be added to existing equipment.
- Material quality, thickness and required properties will decide the most suitable welding process. Over a time these conditions will change which might lead to a change of process. ESAB can offer a variety of different welding heads for different processes to be fitted on any carrier.
- ESAB Retrofit is an ideal alternative to investment in new equipment. Not least when it comes to the added values that frequently accompany this kind of upgrade.
- In addition to increased availability, a conversion of this kind frequently also leads to a substantial rise in productivity and quality, not to mention improvements to the working environment.
- ESAB works with many OEM's for equipment - specify the ESAB process system and accessories and get the advantage of ESAB performance from your existing supplier of machinery.



### Why Retrofit?

- It is difficult to find parts for your old equipment
- The productivity is too low with your present equipment
- The quality of the process is unacceptable
- The process is not ideal for the present production

### Time to Retrofit?

#### What kind of carrier can be retrofitted?

- ESAB can retrofit manipulators, gantries, seamers, shipyard panel lines etc. We even retrofit flash butt welding machines to a new life.
- Integration of welding equipment to new carriers or production lines produced by integrators of automation equipment for example pipemills, panel lines etc.
- We do small retrofits by just replacing the existing equipment and we do large integrated solutions.







# World leader in welding and cutting technology and systems



ESAB operates at the forefront of welding and cutting technology. Over one hundred years of continuous improvement in products and processes enables us to meet the challenges of technological advance in every sector in which ESAB operates.

## Quality and environment standards

Quality, the environment and safety are three key areas of focus. ESAB is one of few international companies to have obtained the ISO 14001 and OHSAS 18001 standards in

Environmental, Health & Safety Management Systems across all our global manufacturing facilities.

At ESAB, quality is an ongoing process that is at the heart of all our production processes and facilities worldwide. Multinational manufacturing, local representation and an international network of independent distributors brings the benefits of ESAB quality and unrivalled expertise in materials and processes within reach of all our customers, wherever they are located.

*ESAB Sales and Support offices worldwide*



*\* Includes manufacturing facilities of ESAB North America.  
A wholly owned subsidiary of Anderson Group Inc.*



**ESAB AB**  
SE-695 81 LAXÅ, Sweden  
Phone: +46 584-81000  
[www.esab.com](http://www.esab.com)

