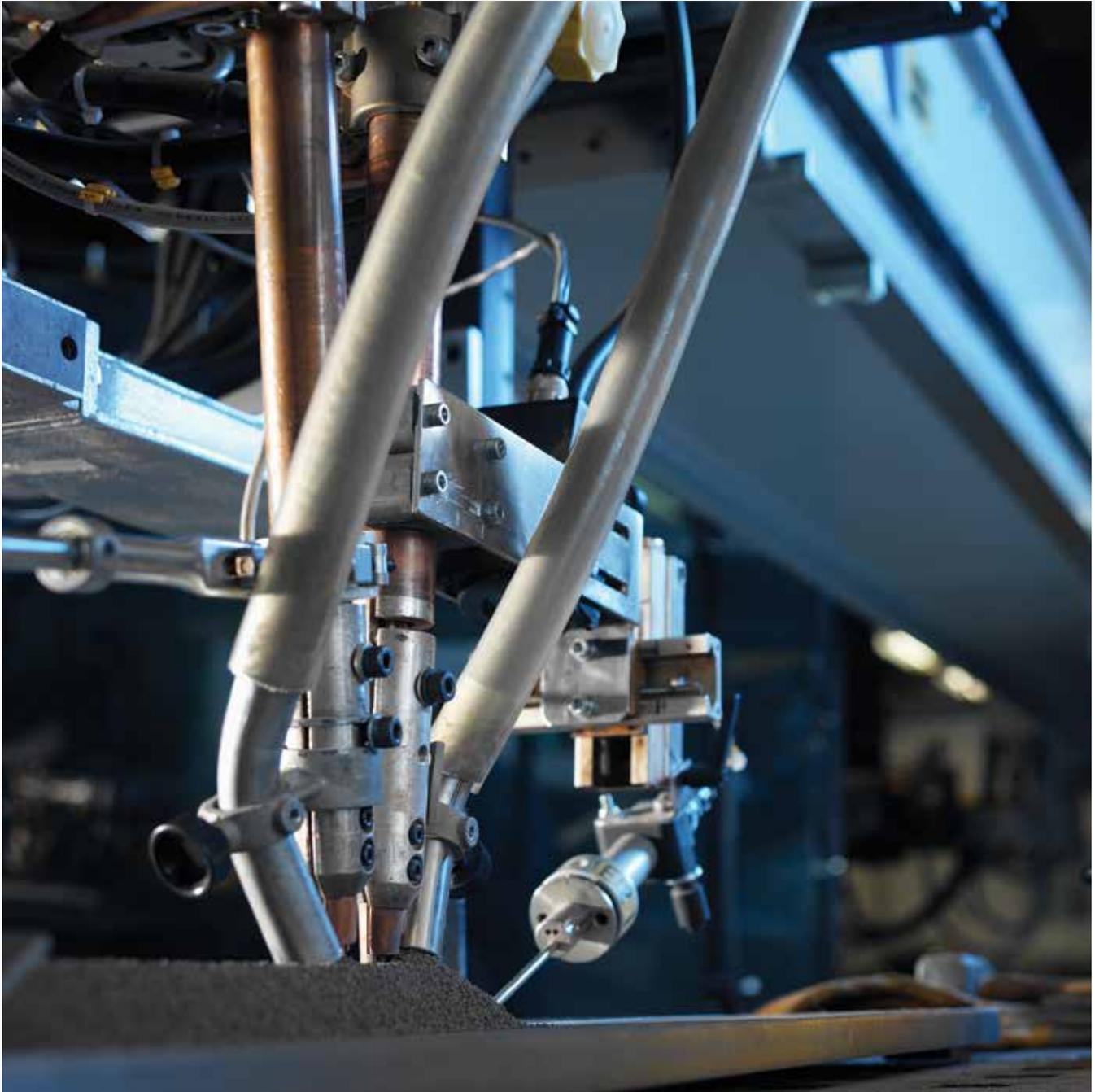




Welding Automation solutions from **ESAB**



A full line of welding automation equipment for every application, industry and environment.

Welding Automation Solutions

Table of Contents



Welding Tractors

| | |
|---------------------------|----|
| Railtrac 1000..... | 4 |
| Railtrac Orbital W..... | 7 |
| Railtrac BV/BVR 1000..... | 8 |
| Tramtrac II..... | 9 |
| Miggytrac 2000..... | 10 |
| A2 Multitrac PEI..... | 11 |
| A2 Multitrac PEK..... | 12 |
| A2 Tripletrac..... | 13 |
| A6 Tandem Mastertrac..... | 15 |
| A6-DK..... | 16 |
| A2 Wear Parts..... | 17 |
| A6 Wear Parts..... | 21 |

Controllers & Power Sources

| | |
|--|----|
| A2-A6 PEK Process Controller..... | 28 |
| A2 PEI Process Controller..... | 29 |
| LAF 631, 1001, 1251 & 1601..... | 30 |
| TAF 801 & 1251..... | 32 |
| ARISTO 1000 AC/DC SAW Inverter Power Source..... | 33 |

Welding Heads

| | |
|---|----|
| A2S Mini Master..... | 38 |
| A2 Component System Modularization..... | 39 |
| A6S Arc Master..... | 40 |
| A6 Component System Modularization..... | 41 |
| A6S and A6DS Tandem Welding Heads..... | 42 |
| A6S Compact Welding Heads..... | 43 |
| A6S SAW Strip Cladding Head..... | 44 |
| ICE - Integrated Cold Electrode..... | 45 |

Accessory Components

| | |
|--|----|
| Beam Travelling Carriage..... | 48 |
| MBVA 330 & 550..... | 49 |
| Servo Slide..... | 50 |
| PAV..... | 51 |
| GMH..... | 52 |
| AVPS Laser Seam Tracking System..... | 53 |
| OPC Basic & Super..... | 54 |
| OPC Flux Recovery System Wear Parts..... | 55 |
| FFRS Flux Feed and Recovery Systems..... | 56 |
| CRE 30 and CRE 60 Air Drying Units..... | 57 |
| Rotating Ground Couplings..... | 58 |
| Ground Clamps for Rotating Workpieces..... | 58 |
| Camera Systems..... | 59 |
| OCE-2H Cooling unit..... | 60 |

Handling Equipment

| | |
|-------------------------------------|----|
| CD/CI 5-120 Rollerbeds..... | 64 |
| SD/SI 5-120 Rollerbeds..... | 65 |
| Rail Bogie DB/IB 5-120..... | 66 |
| FIR 35, 75, and 100 Rollerbeds..... | 67 |
| FIT 30, 60, and 100 Rollerbeds..... | 68 |
| FUB 30 and 60 Fit-Up Beds..... | 69 |
| RT3 - RT35 2-Axis Positioners..... | 70 |
| TAP 1-HD, 3-HD and 6-HD..... | 71 |
| MTS1 and MTS3..... | 72 |

Special Applications

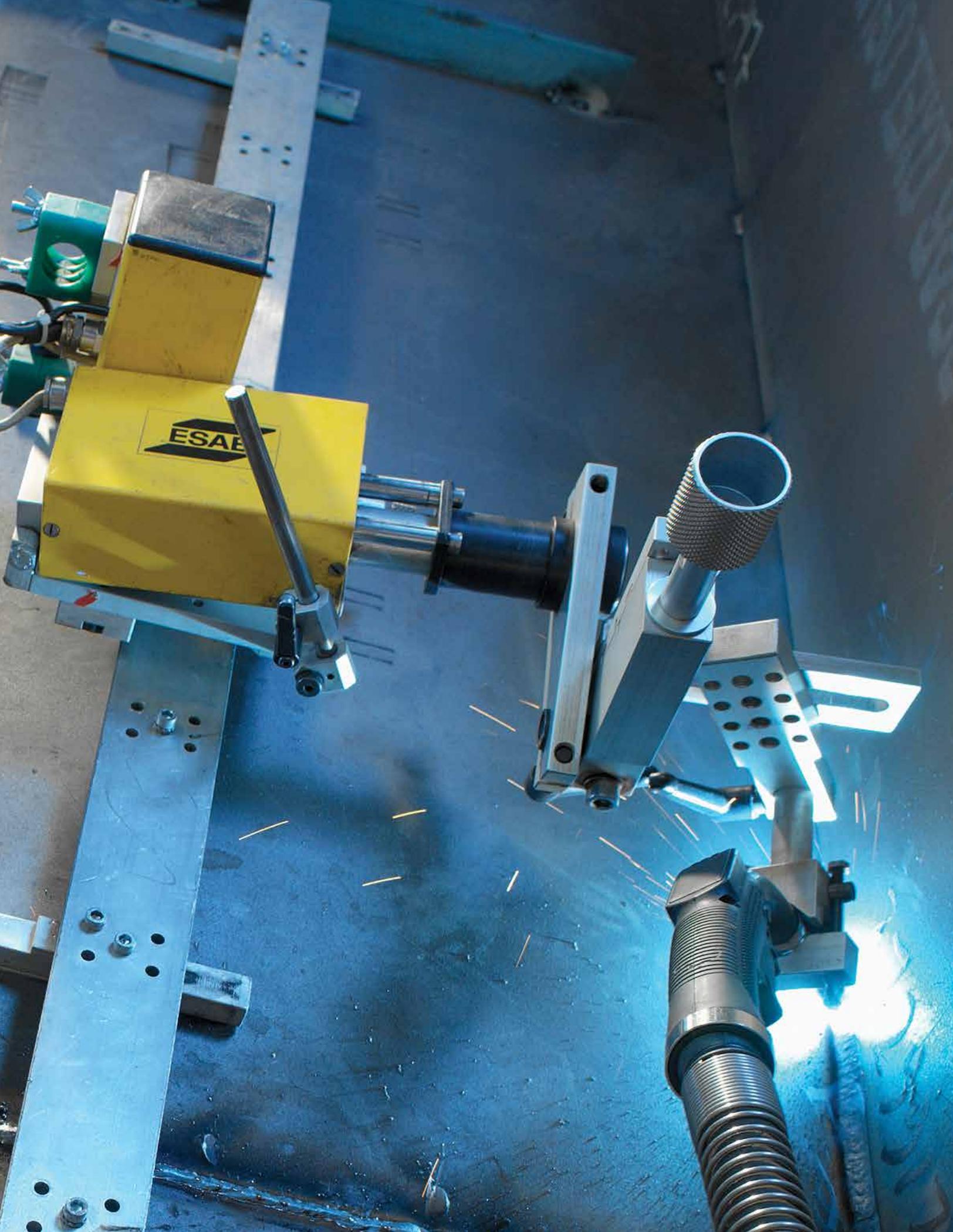
| | |
|--|----|
| Swift Arc Transfer..... | 76 |
| Friction Stir Welding..... | 77 |
| Legio Friction Stir Welding..... | 78 |
| Rosio Friction Stir Welding Robot..... | 79 |
| Hybrio - Hybrid Laser Welding..... | 80 |
| HNG Multi..... | 82 |
| AGW1 and AGW2..... | 83 |
| Beam Welding - Pull-Through Welders..... | 84 |
| Welding Solutions for Pipemills..... | 85 |
| Windtower Manufacturing..... | 86 |
| ESAB Retrofit..... | 87 |
| Swift Arc Robotic Systems..... | 88 |

Applied Automation

| | |
|--|-----|
| Mechtrac 1730, 2100, 2500, and 3000..... | 92 |
| Gantrac..... | 93 |
| Walltrac..... | 93 |
| Column and Boom (CaB) Systems..... | 94 |
| CaB Systems - CaB 300S/CaB 300M..... | 96 |
| CaB Systems - CaB 460S/CaB 460M..... | 97 |
| CaB Systems - CaB 600M..... | 98 |
| CaB 22 VLS..... | 99 |
| CaB 44, 55, 66, and 77..... | 100 |
| Telbo 6500 and 9500..... | 101 |

Welding Consumables

| | |
|------------------------------------|-----|
| Gas Metal Arc Welding (GMAW)..... | 104 |
| Flux Cored Arc Welding (FCAW)..... | 105 |
| Submerged Arc Welding (SAW)..... | 106 |
| Strip Cladding..... | 107 |



Welding Tractors

Railtrac 1000

Multi-Purpose System for Welding and Cutting

- Ideal for automated gas metal arc welding (GMAW)
- Made from aluminum 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 available on FW1000/FWR1000 with start/stop, shift program, weaving width, zero line displacement, and many more features
- Adjust welding current and voltage during welding with the two potentiometers on the remote control



Specifications

| | Railtrac F1000 Flexi | Railtrac FR1000 Flexi Return | Railtrac FW1000 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 |
| Max power consumption, W | 30 | 30 | 80 | 80 |
| Weight, excl rails, lbs. (kg) | 13 (6) | 13 (6) | 15 (7) | 15 (7) |
| Dimensions, LxWxH, in. (mm) | 6.7x15.8x7.5 (170x400x190) | 6.7x15.8x7.5 (170x400x190) | 6.7x13.8x7.5 (170x350x190) | 6.7x13.8x7.5 (170x350x190) |
| Flexi rail dimensions, LxW, in. (mm) | 2.4x0.2 (60x5) | 2.4x0.2 (60x5) | 2.4x0.2 (60x5) | 2.4x0.2 (60x5) |
| Stiffener bar, LxW, in. (mm) | 1.6x0.4 (40x10) | 1.6x0.4 (40x10) | 1.6x0.4 (40x10) | 1.6x0.4 (40x10) |
| Min bend diameter, external, in. (mm) | 118 (3000) | 118 (3000) | 118 (3000) | 118 (3000) |
| Slide for height adjustment, in. (mm) | ±0.87 (±22) | ±0.87 (±22) | ±0.87 (±22) | ±0.87 (±22) |
| Mechanical lateral adjustment, in. (mm) | - | - | ±1.4 (±35) | ±1.4 (±35) |
| Welding speed, ipm (cm/min) | 3.9-59 (10-150) | 3.9-59 (10-150) | 3.9-59 (10-150) | 3.9-59 (10-150) |
| Quick transport, ipm (cm/min) | 59 (150) | 59 (150) | 59 (150) | 59 (150) |
| Preheating time, sec | 0.0-9.9 | 0.0-9.9 | 0.0-9.9 | 0.0-9.9 |
| Interval welding, in. (cm) | 0.4-39 (1-99) | 0.4-39 (1-99) | 0.4-39 (1-99) | 0.4-39 (1-99) |
| Crater-filling time, sec | 0.0-9.9 | 0.0-9.9 | 0.0-9.9 | 0.0-9.9 |
| Backfill, in. (mm) | 0-3.9 (0-99) | 0-3.9 (0-99) | 0-3.9 (0-99) | 0-3.9 (0-99) |
| Weaving speed, ips (mm/s) | - | - | 0.2-2.4 (6-60) | 0.2-2.4 (6-60) |
| Weaving width, in. (mm) | - | - | 0.04-1.2 (1-30) | 0.04-1.2 (1-30) |
| Electrical 0-line displacement, in. (mm) | - | - | ±0.5 (±12.5) | ±0.5 (±12.5) |
| Pause time at outer edge, s | - | - | 0.0-9.9 | 0.0-9.9 |
| Weaving pattern, No. | - | - | 3 | 3 |
| Number of programs | 5 | 5 | 5 | 5 |
| Temperature, °F (°C): Machine and magnets Vacuum attachments | 32-158 (0-70) 32-194 (0-90) | 32-158 (0-70) 32-194 (0-90) | 32-158 (0-70) 32-194 (0-90) | 32-158 (0-70) 32-194 (0-90) |
| Enclosure class | IP 23 | IP 23 | IP 23 | IP 23 |

Railtrac 1000

System Configuration

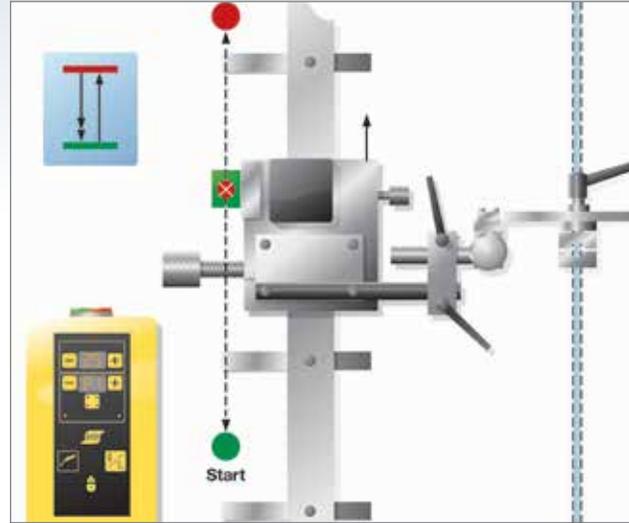
Railtrac F1000 Flexi

A mechanized 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.



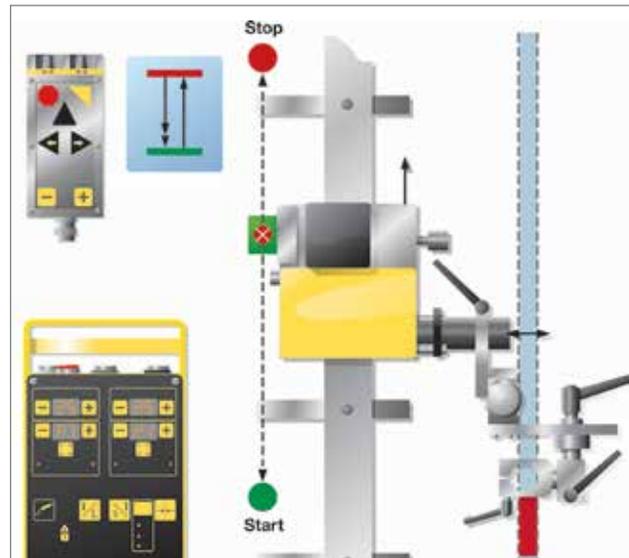
Railtrac FW1000 Flexi Weaver

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 variety of applications.



Railtrac 1000

Ordering Information

| | |
|--|------------|
| Railtrac F1000 Flexi | 0398146002 |
| Railtrac FR1000 Flexi Return | 0398146003 |
| Railtrac FW1000 Flexi Weaver | 0398146012 |
| Railtrac FWR1000 Flexi Weaver Return | 0398146013 |

Options & Accessories

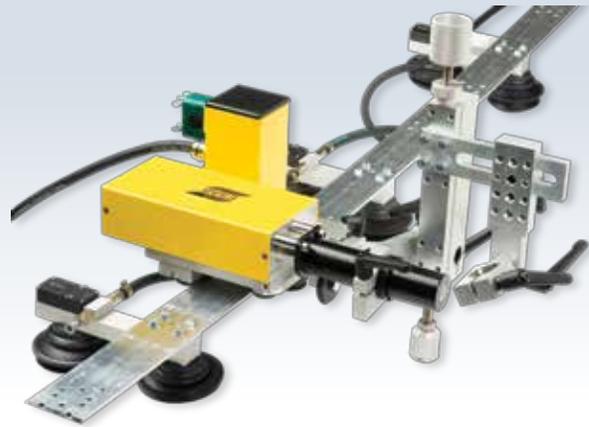
The following accessories are included:

- Weaving unit¹
- Control unit
- Remote control¹
- Universal torch holder with slide
- Automatic start and stop function²

¹FW1000/FWR1000 only.
²FR1000/FWR1000 only.

Components

| | |
|--|------------|
| Flexible alu-rail, 8 ft. (2.5 m) | 0398146115 |
| Flexible alu-rail, 8 ft. (2.5 m), 8 magnets | 0398146112 |
| Flexible alu-rail, 8 ft. (2.5 m), vacuum attachments. | 0398146113 |
| Stiffener Bar, 8 ft. (2.5 m) | 0398146116 |
| Magnetic attachment 90°, min. 8/8 ft. (8/2.5 m).. | 0398146100 |
| Vacuum attachment 90°, min. 4/8 ft. (4/2.5 m).. | 0398146104 |
| Vacuum attachment 200°, min. 4/8 ft. (4/2.5 m) .. | 0398146105 |
| Screw attachment for stiffened rail | 0398146114 |
| Transformer kit, 115-42V | 359C304 |



Accessories

| | |
|--|------------|
| Torch holder | 0398145101 |
| Universal pivoted torch holder | 0398145104 |
| Attachment for IMP cutting torch | 0398145260 |
| Torch angle attachment | 0398145215 |
| Tilt unit for weaving unit ¹ | 0398145200 |
| Turning unit for weaving unit ¹ | 0398145201 |
| Floating head | 0398145211 |
| IMP cutting torch | 0398145250 |
| Transport and storage box..... | 0398145199 |
| Control cable, 16.4 ft. (5 m) | 0457360880 |
| Aristo® Feed wire feeder adaptor kit | 0458757881 |

¹FW1000/FWR1000 only.



Railtrac Orbital W

For Automated 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



Options & Accessories

| | |
|-------------------------------------|------------|
| Floating head | 0398145211 |
| Orbital ring 6 in. (15.2 cm) | 0449900706 |
| Orbital ring 8 in. (20.3 cm) | 0449900708 |
| Orbital ring 10 in. (25.4 cm) | 0449900710 |
| Orbital ring 12 in. (30.5 cm) | 0449900712 |
| Orbital ring 14 in. (35.5 cm) | 0449900714 |
| Orbital ring 16 in. (40.6 cm) | 0449900716 |
| Orbital ring 18 in. (45.7 cm) | 0449900718 |
| Orbital ring 20 in. (50.8 cm) | 0449900720 |
| Orbital ring 22 in. (55.8 cm) | 0449900722 |
| Orbital ring 24 in. (60.9 cm) | 0449900724 |
| Orbital ring 26 in. (66.4 cm) | 0449900726 |
| Transformer kit, 115-42 V..... | 359C304 |

Larger ring sizes available on request.

Ordering Information

Railtrac Orbital W 0398146032

Specifications

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

Railtrac BV/BVR 1000

For Hardfacing and Repair of Rail Profiles

- **Lightweight** makes it quick and easy to remove the aluminum travel beam from rail or crossing and simple to restore to its original position on the workpiece
- **Use with a number of different power sources and wire feeder combinations**
- **Precise adjustments of the weaving pattern, travel speed, and zero line displacement can all be achieved during welding**
- **Welding parameters are adjustable from the remote control**
- **IP 23 enclosure class makes it suitable for use outdoors**
- **Control voltage level of 42V AC is safe for use anywhere**



Ordering Information

Railtrac BV 1000 0398145002
 Railtrac BVR 1000..... 0398145003

Complete, excluding welding equipment.

Options & Accessories

Torch holder 0398145101
 Transformer kit, 115-42 V.....359C304

Specifications

| Railtrac BV/BVR 1000 | |
|---|-------------------------|
| Control voltage, V AC / V DC | 36-46 / 40-60 |
| Max. output consumption, W | 80 |
| Weight excl. rail, lbs. (kg) | 15.4 (7) |
| Weight of rail 2 m (6.5 ft.), lbs. (kg) | 8.8 (4) |
| Slide for adjusting height of torch, in. (mm) | ±0.9 (±22) |
| Mechanical lateral adjustment, in. (mm) | 7.9 (200) |
| Gun attachment universal, in. (mm) | Ø 0.5-1.4 (Ø 12-36) |
| Max. effective weld length, in. (mm) | 59 (1500) |
| Welding speed, ipm (cm/min) | 0.2-59 (10-150) |
| Fast transport speed, ipm (cm/min) | 59 (150) |
| Weaving speed, ips (mm/s) | 0.3-2.0 (7-50) |
| Weaving width (W), in. (mm) | 0.04-3.1 (1-80) |
| Zero-line shift, in. (mm) | 1.0 / ±0.5 (25 / ±12.5) |
| Programmable edge length, in. (cm) | 2.4-39 (6-99) |
| Number of programs | BV: 4, BVR: 6 |
| Enclosure class | IP23 |

Tramtrac™ II

For Repair of Embedded City Streetcar Rails

- Tramtrac II is designed for the repair of embedded grooved city streetcar rails
- Using the flux cored arc welding (FCAW) process with self-shielded wires provides a number of advantages in terms of ease of use and cost-efficiency compared with submerged arc welding (SAW)
- The FCAW process makes Tramtrac II a small and ultra lightweight 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 streetcars to pass within a controlled safety environment



Welding Tractors



Ordering Information

Tramtrac II..... 0814721880

Options & Accessories

Connection cable, 33 ft. (10 m) 0457360884
 Origo™ MIG 410 0558101329
 Origo™ MIG 320 0558101327
 Magnetic return cable & clamp 0000500415
 OK Tubrodur 14.71, 1/16 in. (1.6 mm)..... 1471167730
 OK Tubrodur 15.65, 1/16 in. (1.6 mm)..... 1565167730

Specifications

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

Miggytrac 2000

For Use with GMAW Power Sources

Welding Tractors

- 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 0.4-39 in. (1-99 cm)
- High-speed travel between welds - 98 ipm (250 cm/min) - 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..... 0457358880

Options & Accessories

Control cable, 16.4 ft. (5 m)..... 0457360880
 Aristo® Feed adaptor kit..... 0459681880
 Welding screen 0457463881
 Transformer kit, 115-42V359C304

Specifications

| Miggytrac 2000 | |
|---|-----------------------------------|
| Control voltage, V AC | 36-46 |
| Power, W | 40 |
| Welding speed, ipm (mm/min) | 6-59 (150-1500) |
| Fast travel speed, ipm (cm/min) | 98.4 (250) |
| Programmable interval welding, in. (cm) | 0.4-37 (1-99) |
| Linear slide stroke length (horizontal), in. (mm) | ±0.67 (±17) |
| Remote control outlet | Volt and ampere (wire feed speed) |
| Connection | Burndy, 12 pins |
| Crater fill time, s | 0-9.9 |
| Backfill, in. (cm) | 0-4 (0-9.9) |
| Dimensions, LxWxH, in. (mm) | 13x10x14 (330x260x360) |
| Weight, lbs. (kg) | 21 (9.5) |

A2 Multitrac PEI

Universal Welding Tractor for SAW and GMAW

Welding Tractors

- Can be connected to most analog, 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 PEI process controller 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 or scratch start.
- Wide range of accessories available
- Units available for gas metal arc welding (GMAW) and submerged arc welding (SAW)



Ordering Information

| | |
|---------------------------------|------------|
| A2 Multitrac PEI, SAW..... | 0449360880 |
| A2 Multitrac PEI, SAW Twin..... | 0449360881 |
| A2 Multitrac PEI, GMAW | 0449361880 |

Options & Accessories

| | |
|---|------------|
| Guide wheel bogie | 0413542880 |
| Guide bearing (2 per tractor) | 0333164880 |
| Magnetic guide bar, 10 ft. (3 m) | 0154203880 |
| V-guide wheel (teflon), 2 required | 0333098881 |
| V-guide wheel (steel), 4 required | 0443682881 |
| Loop for connection of two tractors | 0334680881 |
| Laser lamp kit | 0821440880 |
| Lincoln Electric interface..... | 34351L |
| Miller interface | 34351M |

Please contact ESAB for special A2 Multitrac ordering information for Lincoln or Miller.

Specifications

| A2 Multitrac PEI | Single SAW | Twin SAW | GMAW |
|---------------------------------------|---------------------|--------------------------|---------------------|
| Wire diameters, in. (mm): | | | |
| Steel | 1/16-5/32 (1.6-4.0) | 2x 0.45x3/32 (2x1.2-2.5) | .030-1/16 (0.8-1.6) |
| Stainless steel | 1/16-5/32 (1.6-4.0) | 2x 0.45x3/32 (2x1.2-2.5) | .030-1/16 (0.8-1.6) |
| Cored wire | 1/16-5/32 (1.6-4.0) | - | .045-3/32 (1.2-2.4) |
| Aluminum | - | - | .045-1/16 (1.2-1.6) |
| Max wire feed speed, ipm (m/min) | 354 (9) | 354 (9) | 630 (16) |
| Wire reel weight, lbs. (kg) | 66 (30) | 2.2x33 (2x15) | 66 (30) |
| Flux hopper capacity, gal. (L) | 1.4 (6) | 1.4 (6) | - |
| Permissible load 100%, A | 800 | 800 | 600 |
| Control voltage, V AC | 42 | 42 | 42 |
| Travel speed, ipm (m/min) | 4-67 (0.1-1.7) | 4-67 (0.1-1.7) | 4-67 (0.1-1.7) |
| Linear slides stroke length, in. (mm) | 3.5 (90) | 3.5 (90) | 3.5 (90) |
| Rotary slide setting angle | 360° | 360° | 360° |
| Weight, excl wire and flux, lbs. (kg) | 104 (47) | 104 (47) | 95 (43) |

A2 Multitrac PEK

Universal Welding Tractor for SAW and GMAW

- The A2 Multitrac, with A2-A6 PEK process controller, is available for both submerged arc welding (SAW) and gas metal arc welding (GMAW)
- Choose single or twin wire for submerged arc welding (SAW)
- 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
- A2 Multitrac is fully mobile and can easily be moved from one welding station to another
- Can be quickly set-up for different workpieces
- Designed for use with ESAB LAF (DC), TAF (AC), and ARISTO® 1000 AC/DC welding power sources
- Units available for gas metal arc welding (GMAW) and submerged arc welding (SAW)



Ordering Information

| | |
|--|------------|
| A2 Multitrac PEK, SAW | 0461233880 |
| A2 Multitrac PEK, SAW Twin | 0461233881 |
| A2 Multitrac PEK, GMAW..... | 0461234880 |
| A2 Multitrac PEK, GMAW 4WD, MTW 600..... | 0461234881 |

Options & Accessories

| | |
|--|------------|
| Guide bearing (2 per tractor) | 0333164880 |
| Magnetic guide bar, 10 ft. (3 m) | 0154203880 |
| V-guide wheel (teflon), 2 required..... | 0333098881 |
| V-guide wheel (steel), 4 required | 0443682881 |
| Loop for connection of two tractors..... | 0334680881 |
| Laser lamp kit | 0821440880 |

Specifications

| A2 Multitrac PEK | Single SAW | Twin SAW | Single GMAW | GMAW w/ MTW 600 |
|---------------------------------------|---------------------|-------------------------|---------------------|---------------------|
| Wire diameters, in. (mm) | | | | |
| Steel | 1/16-5/32 (1.6-4.0) | 2x0.45x3/32 (2x1.2-2.5) | .030-1/16 (0.8-1.6) | .040-1/16 (1.0-1.6) |
| Stainless steel | 1/16-5/32 (1.6-4.0) | 2x0.45x3/32 (2x1.2-2.5) | .030-1/16 (0.8-1.6) | .040-1/16 (1.0-1.6) |
| Cored wire | 1/16-5/32 (1.6-4.0) | - | .045-3/32 (1.2-2.4) | .040-3/32 (1.0-2.4) |
| Aluminum | - | - | .045-1/16 (1.2-1.6) | .040-5/64 (1.0-2.0) |
| Max wire feed speed, ipm (m/min) | 354 (9) | 354 (9) | 630 (16) | 984 (25) |
| Wire reel weight, lbs. (kg) | | 2x33 (2x15) | 66 (30) | 66 (30) |
| Flux hopper capacity, gal. (L) | 1.4 (6) | 1.4 (6) | - | - |
| Permissible load 100%, A | 800 | 800 | 600 | 600 |
| Control voltage, V AC | 42 | 42 | 42 | 42 |
| Travel speed, ipm (m/min) | 4-67 (0.1-1.7) | 4-67 (0.1-1.7) | 4-67 (0.1-1.7) | 4-67 (0.1-1.7) |
| Linear slides stroke length, in. (mm) | 3.5 (90) | 3.5 (90) | 3.5 (90) | 3.5 (90) |
| Rotary slide setting angle | 360° | 360° | 360° | 360° |
| Weight, excl wire and flux, lbs. (kg) | 104 (47) | 104 (47) | 95 (43) | 95 (43) |

A2 Tripletrac

For Internal Circumferential Welding

Welding Tractors

- For increased productivity and quality
- Ideal for internal circumferential welding of large cylindrical objects that are rotating on a turning roll system
- Heavy-duty feed unit secures even and stable wire feed for top quality, homogenous welds
- Delivered with either the digital A2-A6 PEK or the analog A2 PEI process controller
- Unique steering system allows operator to simultaneously adjust the wheel and torch position for accurate and effortless seam tracking
- Control equipment is easy to use and requires minimal training
- Choose between start methods, burnback times, and other settings



Ordering Information

A2 Tripletrac PEK 0461236880
 A2 Tripletrac PEI 0449430881

Options & Accessories

Laser lamp kit 0821440880
 Flux recovery unit OPC 0148140880
 Bracket suction..... 0332947880
 Flux hopper of silumin alloy, 1.4 gal (6 L) 0413315881
 Concentric flux feeding funnel (included) 0145221881
 Contact tube, bent..... 0413511001
 Wire reel, plastic, 66 lbs. (30 kg) 0153872880
 Wire reel, steel, fixed width, 66 lbs. (30 kg)..... 0416492880
 Wire reel, steel, flexible width, 66 lbs. (30 kg) .. 0449125880
 Wire reel, steel, Ø 8.6 in. (220 mm) 0671164080

Specifications

| A2 Tripletrac | |
|--|---------------------|
| Wire diameters, in. (mm): | |
| Steel | 1/16-5/32 (1.6-4.0) |
| Stainless steel | 1/16-5/32 (1.6-4.0) |
| Cored wire | 1/16-5/32 (1.6-4.0) |
| Max wire feed speed, ipm (m/min) | 354 (9) |
| Wire reel weight, lbs. (kg) | 66 (30) |
| Flux hopper capacity, gal (L) | 1.4 (6) |
| Permissible load 100%, A | 800 |
| Control voltage, V AC | 42 |
| Travel speed, ipm (m/min) | 4-67 (0.1-1.7) |
| Linear slides stroke length, in. (mm) | 3.5 (90) |
| Rotary slide setting angle | 360° |
| Max inclination for the tractor | 5° |
| Weight, excl. wire and flux, lbs. (kg) | 104 (47) |

A6 Mastertrac

Self-Propelled, 4WD, Automatic Tractor

- Self-propelled, 4WD, automatic welding machine
- Quick set-up for different workpieces
- Suitable for heavy production welding with capacity for up to 0.24 in. (6 mm) wire using 1500A direct or alternating current
- Designed for use with LAF (DC), TAF (AC), and ARISTO® 1000 AC/DC welding power sources
- Available for single or twin arc welding:
 - Single: with standard or high speed motor
 - Twin: convert an A6 Single Mastertrac into a highly productive automatic twin arc welder for fillet and butt welds with a simple add-on for the extra wire and without the use of an extra machine or power source
- Weld mild steel and aluminum 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 PEK process controller - a digital control system with display menus; 255 different weld sets can be stored



Ordering Information

- A6 Mastertrac SAW, Single 0461235880
- A6 Mastertrac SAW, Single, High Speed..... 0461235890
- A6 Mastertrac SAW, Twin 0461235881
- A6 Mastertrac SAW, Twin, High Speed 0461235891

Options & Accessories

- Heavy-duty twin arc conversion kit 0334291889
- Wire reel, plastic, 66 lbs. (30 kg) 0153872880
- Wire reel, steel, 66 lbs. (30 kg) 0416492880
- Wire reel, steel, flexible width, 66 lbs. (30 kg) .. 0449125880
- Wire reel, steel, strip cladding 0671161880

Specifications

| A6 Mastertrac | Single SAW | Single GMAW | Twin SAW |
|--------------------------------------|-------------------|-----------------------|------------------------|
| Permissible load 100%, A | 1500 | 600 | 1500 |
| Wire diameter, in. (mm) | 1/8-1/4 (3.0-6.0) | 1.0-3.2 (0.045-1/8) | 2x3/32-1/8 (2x2.0-3.0) |
| Wire feed speed, ipm (m/min) | 8-157.5 (0.2-4.0) | 31.5-653.5 (0.8-16.6) | 8-157.5 (0.2-4.0) |
| Wire feed speed high, ipm (m/min) | 16-315 (0.4-8.0) | - | 16-315 (0.4-8.0) |
| Travel speed, ipm (m/min) | 4-79 (0.1-2.0) | 4-79 (0.1-2.0) | 4-79 (0.1-2.0) |
| Control voltage, V AC | 42 | 42 | 42 |
| Wire reel weight, lbs. (kg) | 66 (30) | 66 (30) | 2x66 (2x30) |
| Flux hopper capacity, gal. (L) | 2.6 (10) | - | 2.6 (10) |
| Weight excl wire and flux, lbs. (kg) | 242.5 (110) | 220.5 (100) | 242.5 (110) |

Options & Accessories continued

- Heavy-duty brake hub 0146967880
- SAW-GMAW conversion kit 0334299910
- Strip cladding kit 0155972880
- Flux hopper holder for strip cladding 0148107003
- Flux recovery nozzle, strip cladding 0156025001
- Flux funnel 0254900880
- Flux insert 0254900301
- Angular slide 0671171580
- Laser lamp kit 0821440880
- Flux recovery unit OPC 0148140880
- Bracket suction 0332947880
- Guide bearing (2 per tractor) 0333164880
- Guide wheel assembly 0671125780
- Magnet guide rail, 10 ft. (3 m) 0154203880
- Carbon arc rebuilding kit 0153592880
- VEC-motor, 312:1 0145063905

A6 Tandem Mastertrac

For High Deposition Submerged Arc Welding

Welding Tractors

- Self-propelled, 4WD, automatic welding machine
- Quick set-up for different workpieces
- Suitable for heavy production welding with capacity for up to 6 mm (0.24 in.) wire using 1500A direct or alternating current
- Designed for use with LAF (DC), TAF (AC), and Aristo® 1000 AC/DC welding power sources
- The high deposition rate using a multi-electrode system substantially increases productivity
- Choose different combinations of direct and alternating currents to handle any type of welding work resulting in increased profitability
- Pre-set and control of welding parameters with the A2-A6 PEK process controller - a digital control system with display menus; 255 different weld sets can be stored



Ordering Information

A6 Tandem Mastertrac..... 0461232882

Options & Accessories

Heavy-duty twin arc conversion kit 0334291889
 Wire reel, plastic, 66 lbs. (30 kg) 0153872880
 Wire reel, steel, 66 lbs. (30 kg) 0416492880
 Wire reel, steel, flexible width, 66 lbs. (30 kg) .. 0449125880
 Wire reel, steel, strip cladding 0671161880
 Heavy-duty brake hub 0146967880
 Strip cladding kit 0155972880
 Flux hopper holder for strip cladding 0148107003
 Flux recovery nozzle, strip cladding 0156025001
 Flux funnel 0254900880

Flux insert 0254900301
 Angular slide 0671171580
 Laser lamp kit 0821440880
 Flux recovery unit OPC 0148140880
 Bracket suction 0332947880
 Idler rollers (2 per tractor) 0333164880
 Guide wheel assembly 0671125780
 Magnet guide rail, 10 ft. (3 m) 0154203880
 Arc air gouging attachment 0153592880
 VEC-motor, 312:1 0145063905

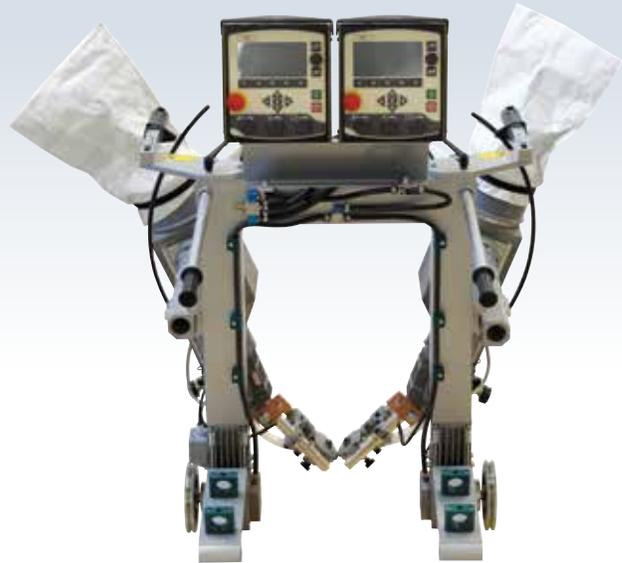
Specifications

| A6 Tandem Mastertrac | |
|--------------------------------------|-----------------------|
| Permissible load 100%, A | 2x1500 |
| Wire diameter, in. (mm) | 2x1/8-1/4 (2x3.0-6.0) |
| Wire feed speed, ipm (m/min) | 8-157.5 (0.2-4.0) |
| Travel speed, ipm (m/min) | 4-79 (0.1-2.0) |
| Control voltage, V AC | 42 |
| Wire reel weight, lbs. (kg) | 2x66 (2x30) |
| Flux hopper capacity, gal (L) | 2.6 (10) |
| Weight excl wire and flux, lbs. (kg) | 348 (158) |

A6-DK

The Portable Welding Machine

- Dual welding heads with a single wire on each head
- Each weld head is controlled by the A2-A6 PEK process controller and LAF (DC), TAF (AC), or Aristo® 1000 AC/DC power source
- Ideal for simultaneous horizontal welding on both sides of a web or through panel
- Straddles workpieces up to 31 in. (800 mm) tall and symmetrical profile widths of 16 in. (400 mm)
- Travels directly on a workpiece guided by a joint
- Travel speed adjustable from 6-79 ipm (0.15-2.0 m/min)
- Store up to 2.6 gal (10 L) of flux in the hopper
- Each weld head is equipped with OPC flux recovery system



Ordering Information

A6-DK..... 0461237901

Order wire reel, feed rollers and contact jaws separately.

Options & Accessories

Wire reel, plastic, 66 lbs. (30 kg)..... 0153872880

Wire reel, steel, 66 lbs. (30 kg)..... 0416492880

Specifications

| A6-DK | |
|--|-------------------|
| Permissible load 100%, A | 1500 |
| Travel speed, ipm (m/min) | 6-79 (0.15-2.0) |
| Wire feed speed, ipm (m/min) | 8-157.5 (0.2-4.0) |
| Wire reel weight, lbs. (kg) | 2x66 (2x30) |
| Wire diameter SAW, in. (mm) | 1/8-1/4 (3.0-6.0) |
| Flux hopper capacity (each weld head), gal (L) | 2.6 (10) |
| Weight, excl wire and flux, lbs. (kg) | 331 (150) |
| Straddle opening: | |
| Vertical space limitation, in. (mm) | 31 (800) |
| Longitudinal, symmetrical extension, in. (mm) | 16 (400) |

A2 Wear Parts



Welding Tractors

Wear Part Kits

| Contents | Wire Diameter, mm (in.) | Part Number | |
|--|--|--|--|
| Wear part kit A2 SAW 15 pcs contact nozzles 2 pcs feed rollers 2 pces pressure rollers 1 pc contact tube | 2.5 (3/32) 3.0 (0.12) 3.2 (1/8) 4.0 (5/32) | 0810123880 0810123881 0810123882 0810123883 | |
| Wear part kit A2 GMAW 10 pcs contact nozzles 1 pc feed roller 1 pc pressure roller 1 pc contact tube 1 pc gas nozzle 2 pcs insulating sleeve 1 pc plug 1 pc tip adaptor 1 set of O-rings | 1.0 (.035) 1.2 (.045) 1.6 (1/16) 2.0 (5/64) | 0810125880 0810125881 0810125882 0810125883 | |
| Wear part kit A2 SAW Twin 20 pcs contact nozzles 1 pc feed roller 1 pc pressure roller 1 pc nozzle holder | 1.2 (.045) 1.6 (1/16) 2.0 (5/64) | 0810124880 0810124881 0810124882 | |

Feed Roller Single Wire

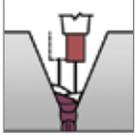
| Wire Dimension mm (in.) | Part Number | SAW Single | GMAW (2WD) | |
|-------------------------|-------------|------------|------------|--|
| 0.8 (.030) | 0145538881 | | • | |
| 1.0 (.035) | 0145538882 | | • | |
| 1.2 (.045) | 0145538883 | | • | |
| 1.6 (1/16) | 0218510281 | • | • | |
| 2.0 (5/64) | 0218510282 | • | • | |
| 2.4-2.5 (3/32) | 0218510283 | • | • | |
| 3.0-3.2 (.012-1/8) | 0218510298 | • | • | |
| 4.0 (5/32) | 0218510286 | • | • | |
| Pressure roller | 0153148880 | • | • | |

Feed Roller Twin Wire

| Wire Dimension mm (in.) | Part Number | SAW Twin | |
|-------------------------|-------------|----------|--|
| 2 x 1.2 (.045) | 0218522486 | • | |
| 2 x 1.6 (1/16) | 0218522488 | • | |
| 2 x 2.0 (5/64) | 0218522484 | • | |
| 2 x 2.4-2.5 (3/32) | 0218522480 | • | |
| Pressure roller | 0218524580 | • | |

A2 Wear Parts

Contact Nozzles

| Wire Dimension mm (in.) | Part Number | SAW Single | GMAW (2WD) | SAW Twin | |
|---|--|----------------------------|----------------------------|------------------|---|
| M12 1.6 (1/16) 2.0 (5/64) 2.5 (3/32) 3.0 (0.12) 3.2 (1/8) 4.0 (5/32) | 0154623008 0154623007 0154623006 0154623005 0154623004 0154623003 | • • • • • • | | |   |
| M6 0.8 (.030) 1.0 (.035) 1.2 (.045) 1.6 (1/16) 2.0 (5/64) 2.4-2.5 (3/32) Tip adaptor M10 to M6 | 0153501002' 0153501004' 0153501005' 0153501007' 0153501009 0153501010 0147333001 | | • • • • • • | • • • • |  |
| M10 0.8 (.030) 1.0 (.035) 1.2 (.045) 1.6 (1/16) 2.0 (5/64) 2.4 (3/32) 3.0 (.012) 3.2 (1/8) 4.0 (5/32) | 0258000914 0258000913 0258000908 0258000909 0258000910 0258000911 0258000918 0258000915 0258000919 | | • • • • • • | |  |

'Use in conjunction with tip adaptor M10 to M6 for GMAW applications.

Feed Roller Grooved and Knurled

| Wire Dimension Cored Wire, mm (in.) | Part Number | SAW Single | GMAW (2WD) | |
|--|--------------------------|------------|------------|---|
| 0.8-1.6 (.030-1/16) 2.0-4.0 (5/64-5/32) | 0146025880 0146024881 | • • | • • |  |

Pressure Roller Grooved and Rolled

| Wire Dimension Cored Wire, mm (in.) | Part Number | SAW Single | GMAW (2WD) | |
|--|--|-------------|-------------|---|
| 0.8-1.6 (.030-1/16) 2.0-4.0 (5/64-5/32) Shaft for pressure roller | 0146025880' 0146024881' 0212901101 | • • • | • • • |   |

'Use with shaft for pressure roller #0212901101.

Contact Tube D20 Single Wire

| Length, mm (in.) | Part Number | SAW Single | |
|---|--|------------|-----------------------|
| 100 (4) 190 (7.5) 260 (10.2) 500 (19.7) 260 (10.2) bent | 0413510003 0413510002 0413510001 0413510004 0413511001 | | • • • • • |



A2 Wear Parts



Welding Tractors

Contact Device D20 Complete GMAW (2WD)

0030465389, 90 mm (3.5 in.)

0030465388, 140 mm (5.5 in.)

| Description | Part Number | GMAW | |
|----------------------|-----------------|------|--|
| 1. Gas nozzle | 0145227882 | • | |
| 2. Insulating sleeve | 0145226001 | • | |
| 3. Contact tube | 0145534882 | • | |
| 4. Plug | 0146099001 | • | |
| 5. Extension | 00409798-03/-04 | • | |
| 6. Guide tube | 0415032001 | • | |
| 7. O-ring, 22.2x3 | 0190680405 | • | |
| 8. O-ring, 15.3x2.4 | 0190680313 | • | |
| 9. O-ring, 5.3x2.4 | 0190680303 | • | |

¹158 mm (6.2 in.) and 108 mm (4.3 in.) lengths.

Contact Device D35 Complete Twin Wire

0333852880, 220 mm (8.7 in.)

0333852881, 275 mm (10.8 in.)

| Description | Part Number | SAW Twin | |
|-----------------------------|-------------|----------|--|
| 1. Nozzle holder | 0333772001 | • | |
| 2. Guide tube | 0415032001 | • | |
| 3. Spiral wire guide insert | 0334279001 | • | |

MTW-600 (4WD) GMAW Feed Roller, Single Wire

| Wire Dimension mm (in.) | Part Number | | GMAW (4WD) | |
|-------------------------------|-------------|------------|------------|--|
| | Fe, SS | Al | | |
| 0.6-0.8 (.023-.030) | 0369557001 | - | • | |
| 0.8-0.9 (.030-.035) | - | 0369557011 | • | |
| 0.8-1.0 (.030-.040) | 0369557002 | - | • | |
| 1.0-1.2 (.040-.045) | 0369557003 | 0369557006 | • | |
| 1.2-1.6 (.045-1/16) | 0369557007 | - | • | |
| 1.4-1.6 (.052-1/16) | 0369557013 | - | • | |
| 1.6 (1/16) | - | 0369557008 | • | |
| 2.0 (5/64) | - | 0369557009 | • | |
| 2x1.22 x (.045) | 0369557010 | - | • | |
| Pressure roller (flat roller) | 0369728001 | 0369728001 | • | |

MTW-600 (4WD) GMAW Feed Roller, Single Wire, Knurled

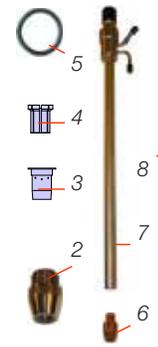
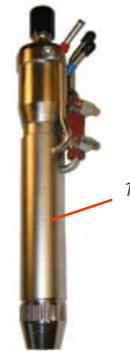
| Wire Dimension mm (in.) | Part Number Cored Wire | GMAW (4WD) | |
|----------------------------------|---------------------------|------------|--|
| 1.0-1.2 (.040-.045) | 0369557004 | • | |
| 1.4-1.6 (.052-1/16) | 0369557005 | • | |
| Pressure roller (knurled roller) | 0466262001 | • | |

A2 Wear Parts

MTW-600 (4WD) GMAW Torch, 600A

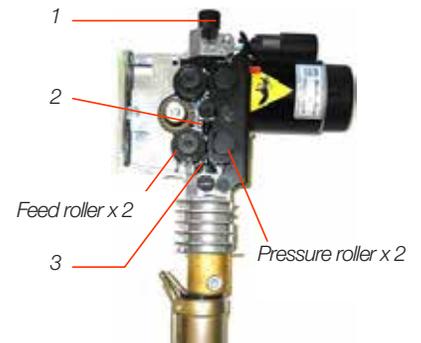
Welding Tractors

| Description | Part Number | |
|--|-------------|------------|
| 1.1 MTW-600, 8 in. (200 mm) | 0457460880 | |
| 1.2 MTW-600, 10 in. (250 mm) | 0457460881 | |
| 1.3 MTW-600, 12 in. (300 mm) | 0457460882 | |
| 1.4 MTW-600, 16 in. (400 mm) | 0457460883 | |
| 2. Gas nozzle | 0457451001 | |
| 3. Splatter protection | 0457452001 | |
| 4. Centering sleeve | 0457453001 | |
| 5. O-ring | 0457458001 | |
| 6. Nozzle adaptor | 0808311001 | |
| 7.1. Contact tube, 8 in. (200 mm) | 0457455005 | |
| 7.2. Contact tube, 10 in. (250 mm) | 0457455006 | |
| 7.3. Contact tube, 12 in. (300 mm) | 0457455007 | |
| 7.4. Contact tube, 16 in. (400 mm) | 0457455008 | |
| Guide Inserts, in. (mm) | Part Number | |
| 8.1. Steel | | |
| .040-1/16 (1.0-1.6), L = 8.3 (210) | 0457454001 | |
| .040-1/16 (1.0-1.6), L = 10.2 (260) | 0457454002 | |
| .040-1/16 (1.0-1.6), L = 12.2 (310) | 0457454003 | |
| .040-1/16 (1.0-1.6), L = 14 (360) | 0457454004 | |
| .040-1/16 (1.0-1.6), L = 16 (410) | 0457454005 | |
| 8.2. Brass | | |
| 5/64-3/32 (2.0-2.4), L = 8.2 (208) | 0457620001 | |
| 5/64-3/32 (2.0-2.4), L = 10.1 (258) | 0457620002 | |
| 5/64-3/32 (2.0-2.4), L = 12.1 (308) | 0457620003 | |
| 5/64-3/32 (2.0-2.4), L = 16.1 (408) | 0457620004 | |
| 8.3. Plastic PTFE | | |
| .040-1/16 (1.0-1.6), L = 16 (400) ¹ | 0457619001 | |
| 5/64-3/32 (2.0-2.4), L = 16 (400) ¹ | 0457619002 | |
| Contact Nozzle M8, in. (mm) | Fe, SS, CW | Al |
| .040 (1.0) | 0457625005 | 0457625005 |
| .045 (1.2) | 0457625006 | 0457625007 |
| .052 (1.4) | 0457625008 | - |
| 1/16 (1.6) | 0457625009 | 0457625009 |
| 5/64 (2.0) | - | 0457625001 |
| 3/32 (2.4) | 0457625012 | 0457625012 |



MTW-600 (4WD) Wire Feeder

| Description | Part Number |
|------------------------|-------------|
| 1. Nipple wire conduit | 0455049001 |
| 2. Intermediate nozzle | 0455072001 |
| 3.1 Outlet nozzle, Fe | 0469837880 |
| 3.2 Outlet nozzle, Al | 0469837881 |



Feed Roller SAW Single Wire

| Wire Dimension, mm (in.) | Part Number | |
|--------------------------|-------------|--|
| 1/16 (1.6) | 0218510281 | <p>Idling pressure roller</p> <p>Driving feed roller with groove</p> |
| 2.0 (5/64) | 0218510282 | |
| 2.4-2.5 (3/32) | 0218510283 | |
| 3.0-3.2 (.012-1/8) | 0218510298 | |
| 4.0 (5/32) | 0218510286 | |
| 5.0 (3/16) | 0218510287 | |
| 6.0 (1/4) | 0218510288 | |
| Pressure roller | 0153148880 | |

Feed Roller SAW Single Wire, Knurled V-Groove

| Wire Dimension, mm (in.) | Part Number | |
|--|--------------------------|--|
| 3.0-5.0 (.012-3/16) Pressure roller | 0218510299 0153148880 | <p>Idling pressure roller</p> <p>Driving feed roller with knurled groove</p> |

Feed Roller SAW Single Wire with 2-Roller Drive, Knurled U-Groove

| Wire Dimension, mm (in.) | Part Number | |
|---|--|--|
| Feed Roller 0.8-1.6 (.030-1/16) 2.0-4.0 (5/64-5/32) | 0146024880 0146024881 | <p>Geared driving feed and pressure roller with knurled groove, eg/ soft, tubular wire</p> |
| Pressure Roller 0.8-1.6 (.030-1/16) 2.0-4.0 (5/64-5/32) Shaft for pressure roller | 0146028880' 0146025881' 0212901101 | |

'Use with shaft for pressure roller #0212901101.

Feed Roller SAW Twin Wire

| Wire Dimension, mm (in.) | Part Number | |
|---|--|---|
| 2 x 1.2 (.045) 2 x 1.6 (1/16) 2 x 2.0 (5/64) 2 x 2.4-2.5 (3/32) 2x 3.0-3.2 (.012-1/8) | 0218522486 0218522488 0218522484 0218522480 0218522481 | <p>Spherical idling pressure roller for equally distributed pressure on the two wires</p> <p>Driving feed with grooves for twin wire system</p> |

Feed Roller SAW Twin Wire, Knurled U-Groove

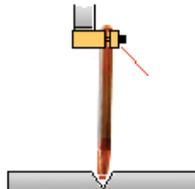
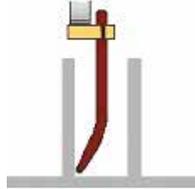
| Wire Dimension, mm (in.) | Part Number |
|--|--------------------------|
| 2 x 2.0-3.2 (5/64-1/8) Pressure roller' | 0148772880 0218524580 |

'Spherical type with shaft

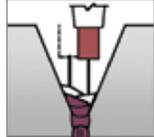
A6 Wear Parts

Welding Tractors

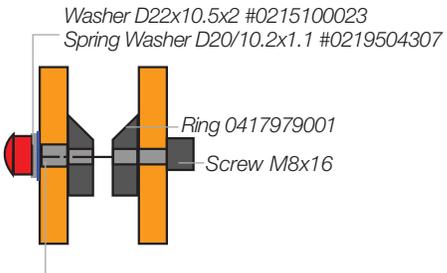
D20 Light-Duty System with Access to Narrow Spaces

| Length, mm (in.) | Part Number | |
|--|--|---|
| D20 Straight Contact Tube | | |
| 100 (4) 190 (7.5) 260 (10.2) 500 (19.7) | 0413510003 0413510002 0413510001 0413510004 |  |
| D20 Bent Contact Tube, 30° | | |
| 260 (10.2) D20 contact clamp | 0413511001 0334571880 |  |

SAW Contact Nozzles for Light-Duty System

| Wire Dimension, mm (in.) | Part Number | |
|---|--|--|
| SAW Contact Nozzle M12 for Single Wire | | |
| 1.6 (1/16) 2.0 (5/64) 2.4-2.5 (3/32) 3.0 (0.12) 3.2 (1/8) 4.0 (5/32) | 0154623008 0154623007 0154623006 0154623005 0154623004 0154623003 |  <p>M12</p> <p><i>D20 - Slim design for improved access into narrow V-joints</i></p>  |
| SAW Contact Nozzle M6 for Twin Wire | | |
| 2 x 1.2 (.045) 2 x 1.6 (1/16) 2 x 2.0 (5/64) 2 x 2.4-2.5 (3/32) | 0153501005 0153501007 0153501009 0153501010 |  <p>M6</p> <p>Guide tube, 358 mm (14 in.) 0415032001 Guide tube, 750 mm (29.5 in.) 0415032002 Spiral insert, 366 mm (14.5 in.) 0334279001 Nozzle holder 0333772001</p>  |

D35 Heavy-Duty System

| Length, mm (in.) | Part Number | |
|---|--|--|
| D35 Straight Contact Tube | | |
| 220 (8.7) 275 (10.8) 400 (15.7) 500 (19.7) 700 (27.5) Clamp half | 0417959880 0417959881 0417959882 0417959883 0417959884 0809342880 |  <p>Washer D22x10.5x2 #0215100023 Spring Washer D20/10.2x1.1 #0219504307</p> <p>Ring 0417979001 Screw M8x16</p>  |

Contact Jaws for Heavy-Duty System

| Wire Dimension, mm (in.) | Part Number | |
|--|-------------|--|
| Single Wire, Length 65/58 mm (2.5/2.3 in.) | | <p>65 mm (2.5 in.) 58 mm (2.3 in.)</p> <p>120 mm (4.7 in.)</p> <p>Long contact jaws 120 mm (4.7 in.) for improved access to deep joints</p> |
| 2.0 (5/64) | 0332581880 | |
| 2.4-2.5 (3/32) | 0332581881 | |
| 3.0 (0.12) | 0265900880 | |
| 3.2 (1/8) | 0265900881 | |
| 4.0 (5/32) | 0265900882 | |
| 5.0 (3/16) | 0265900883 | |
| 6.0 (1/4) | 0265900884 | |
| Single Wire, Length 120 mm (4.7 in.) | | |
| 3.0 (0.12) | 0000237320 | |
| 4.0 (5/32) | 0000237321 | |
| Single Wire, Length 75 mm (3 in.) | | |
| 1.6-3.0 (1/16-.012) | 0265901480 | <p>75 mm (3 in.)</p> |
| Twin Wire, Length 73 mm (2.9 in.) | | |
| 2 x 1.6 (1/16) | 0265902882 | |
| 2 x 2.0 (5/64) | 0265902881 | |
| 2 x 2.4-2.5 (3/32) | 0265902884 | |
| 2 x 2.5-3.0 (3/32-.012) | 0265902880 | |
| Twin Wire, Length 73 mm (2.9 in.) with Guide Tube Connection | | |
| 2 x 1.6 (1/16) | 0808650882 | |
| 2 x 2.0 (5/64) | 0808650881 | |
| 2 x 2.5-3.0 (3/32-.012) | 0808650880 | |
| Twin Wire, Length 120 mm (4.7 in.) with Guide Tube Connection | | |
| 2 x 1.6 (1/16) | 0816019882 | |
| 2 x 2.0 (5/64) | 0816019881 | |
| 2 x 2.4-2.5 (3/32) | 0816019883 | |
| 2 x 2.5-3.0 (3/32-.012) | 0816019880 | |

SAW Contact Jaws for ICE™

| Description | Part Number | |
|--|-------------|--|
| Contact jaw, 2.5 mm (3/32 in.) | 0819882880 | |
| Ceramic sleeve | 0819883001 | |
| Wire guide | 0824038001 | |
| ICE Wear Kit 3 pcs contact jaw 3 pcs ceramic sleeve 1 pc feed roller | 0824376880 | |

A6 Wear Parts

Insulated Contact Nozzle with Nozzle Cap for Narrow V-Joints

| Description | Part Number | |
|------------------|-------------|--|
| Nozzle holder | 0000237415 | |
| Nozzle with cap: | | |
| 2.0 (5/64) | 0000237329 | |
| 2.5 (3/32) | 0000237328 | |
| 3.0 (0.12) | 0000237330 | |
| 3.2 (1/8) | 0000237332 | |
| 4.0 (5/32) | 0000237327 | |
| Nozzle cap | 0000237331 | |

Guide Tubes

| Length, mm (in.) | Part Number | |
|---|--|--|
| Single/Twin Wire, max 3.2 mm (1/8 in.) | | |
| 358 (14), D6/4 750 (29.5), D6/4 Clamp | 0415032001 ¹ 0415032002 ² 0218514001 | |

¹Twin Wire: eg/ 2 x 358 mm (14 in.) for 275 mm (10.8 in.) contact tube. ²Guide tube 750 mm (29.5 in.) to be cut to suit the length of the contact tube.

Flux Nozzle

| Description | Part Number | Description | Part Number |
|---|--|-------------|---|
| D20 Contact Tube | | | |
| 1. Tube 2. Clamp 5. Flux hose 0.5 m (1.6 ft.) 5.1. Flux hose free length/m (ft.) | 0332948001 0333094880 0443383002 0443383001 | | 2. Flux funnel complete 2.1 Insulated sleeve 5. Flux hose 0.5 m (1.6 ft.) 5.1. Flux hose free length/m (ft.) |
| | | | 0145221881 0333667001 0443383002 0443383001 |
| | | | |
| D35 Contact Tube | | | |
| 3. Flux nozzle complete 3.1. Tube bent 3.2. Tube holder 5. Flux hose 0.5 m (1.6 ft.) 5.1. Flux hose free length/m (ft.) | 0153299880 0153296001 0153290002 0443383002 0443383001 | | 4. Flux funnel complete 4.1. Insert, 36 mm (1.4 in.) 4.2. Insert, 24 mm (0.9 in.) 5. Flux hose 0.5 m (1.6 ft.) 5.1. Flux hose free length/m (ft.) |
| | | | 0254900880 0254900301 0254900302 0443383002 0443383001 |
| | | | |
| A2 Flux Gate with Shut-Off Valve | | | |
| 1. A2 flux gate w/shut-off valve 2. Flux gate nozzle (18 mm) | 0903787 0708876 | | |

Contact Jaws for A6 SAW Cladding Head Assembly

| Description | Part Number | |
|---|-------------|--|
| Contact jaws 12 pcs required for complete assembly | 0148325001 | |





Controllers & Power Sources

A2-A6 PEK Process Controller

For Use with ESAB Power Sources and Motors

- For use with ESAB automatic DC power sources LAF 631/1001/1251/1601, AC power sources TAF 801/1251, and Aristo® 1000 AC/DC power source
- 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



Adjustable sun shield for better visibility for outdoor use



Ordering Information

A2-A6 PEK process controller 0460504880

Options & Accessories

I/O-Module 0462080001
 Set of connectors 0462119880
 Cable restraining bracket..... 0460861880
 Grommet for cables 0194269002

Specifications

| A2-A6 PEK Process Controller | |
|---|---|
| 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, ipm (m/min) | 4-79 (0.1-2.0) depending on travel carriage |
| Max. manual travel speed, ipm (m/min) | 79 (2.0) |
| Consumable wire feed speed, ipm (m/min) | 12-984 (0.3-25) 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, °F (°C) | 113 (45) |
| Min ambient temperature, °F (°C) | 5 (-15) |
| Relative humidity (of air) | 98% |
| Dimensions, LxWxH, in. (mm) | 7x9.25x11 (246x235x273) |
| Weight, lbs. (kg) | 14.5 (6.6) |
| Enclosure class | IP 23 |

A2 PEI Process Controller

For Use with ESAB Power Sources and Motors

- Control system for A2 tractors and welding heads
- Analog 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 burnback time



Controllers & Power Sources

Ordering Information

A2 PEI process controller..... 0449330880

Options & Accessories

Control cable, 15 m (49 ft.) 0449500880
 Control cable, 25 m (82 ft.) 0449500881
 Control cable, 35 m (115 ft.) 0449500882

Control cable, 50 m (164 ft.) 0449500883
 Control cable, 75 m (246 ft.) 0449500884
 Control cable, 100 m (328 ft.) 0449500885

Specifications

| A2 PEI Process Controller | |
|--|---|
| 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, ipm (m/min) | 4-79 (0.1-2.0) depending on travel carriage |
| Max. transport speed, ipm (m/min) | 2.0 (79) |
| Consumable wire feed speed, ipm (m/min) | 20-640 (0.5-16.2) 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, °F (°C) | 14-104 (-10 - +40) |
| Weight, lbs. (kg) | 14 (6.2) |
| Dimensions LxWxH, in. (mm) | 7.8x9.0x8.7 (197x227x220) |
| Enclosure class | IP 23 |

LAF 631, 1001, 1251 & 1601

DC power sources for SAW and GMAW

Controllers &
Power Sources

- Three-phase, fan-cooled DC welding power sources for high productivity automated submerged arc welding (SAW) or gas metal arc welding (GMAW)
- Used with ESAB's A2-A6 equipment range and A2-A6 PEK or A2 PEI process controllers
- 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 PEK or PEI process controller
- Extended welding current by connecting two power sources in parallel for 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 the type of protocol used
- Ideal for SAW applications such as windtower components, nuclear power vessels, boilers, and shipbuilding applications
- Ideal for GMAW applications such as welding the root pass in heavy pipe production



Ordering Information

| | |
|----------------|------------|
| LAF 631 | 0460512880 |
| LAF 1001 | 0460513880 |
| LAF 1251 | 0460514880 |
| LAF 1601 | 0460515880 |

Options & Accessories

A2-A6 PEK Process Controller

| | |
|-------------------------------------|------------|
| Control cable, 49 ft. (15 m) | 0460910881 |
| Control cable, 82 ft. (25 m) | 0460910882 |
| Control cable, 115 ft. (35 m) | 0460910883 |
| Control cable, 164 ft. (50 m) | 0460910884 |

A2 PEI Process Controller

| | |
|--------------------------------------|------------|
| Control cable, 49 ft. (15 m) | 0449500880 |
| Control cable, 82 ft. (25 m) | 0449500881 |
| Control cable, 115 ft. (35 m) | 0449500882 |
| Control cable, 164 ft. (50 m) | 0449500883 |
| Control cable, 246 ft. (75 m) | 0449500884 |
| Control cable, 328 ft. (100 m) | 0449500885 |

| | |
|-------------------------|------------|
| Wheel set LAF 631 | 0457787880 |
|-------------------------|------------|



LAF 631, 1001, 1251 & 1601

DC Power Sources for SAW & GMAW

Specifications

| | LAF 631 | LAF 1001 | LAF 1251 | LAF 1601 |
|--|------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Mains supply: 3 ph, 50 Hz, V 3 ph, 60 Hz, V | 400/415 440 | 400/415/500 400/440/550 | 400/415/500 400/440/550 | 400/415/500 400/440/550 |
| Current 100%, 50/60 Hz, A | 52 | 64/64/52 | 99/99/80 | 136/136/108 |
| Fuse, slow, 50/60 Hz, A | 63 | 63 | 100/100/80 | 160/160/125 |
| Maximum load at: 100% duty cycle, A/V 80% duty cycle, A/V 60% duty cycle, A/V | 630/44 - 800/44 | 800/44 - 1000/44 | 1250/44 - - | 1600/44 - - |
| Setting range, A/V: GMAW SAW | 50/17-630/44 30/21-800/44 | 50/17-1000/45 40/22-1000/45 | 60/17-1250/44 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, in. (mm) | 26x19x37 (670x490x930) | 25x22x43 (646x552x1090) | 30.5x23.5x56 (774x598x1428) | 30.5x23.5x56 (774x598x1428) |
| Weight, lbs. (kg) | 573 (260) | 727.5 (330) | 1080 (490) | 1290 (585) |
| Application class | S | S | S | S |

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 the proximity to earthed metal objects and/or dampness.

Controllers & Power Sources

TAF 801 & 1251

Square Wave AC Power Sources for 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 welding properties
- Capacity for continuous welding
- Arc voltage pre-set
- Reliable square wave striking
- Arc voltage or current feedback
- Optimized open circuit voltage
- Compensation of mains supply fluctuation
- Voltage drop compensation for long welding cables
- High power factor ensuring low power consumption
- 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 PEK or A2 PEI process controllers
- Power source prepared for communication using most standard protocols like TCP/IP (LAN), Anybus, Profibus, CAN or even straight communication with a PLC



Ordering Information

| | |
|----------------|------------|
| TAF 801 | 0460516880 |
| TAF 1251 | 0460517880 |

Options & Accessories

| | |
|-------------------------------------|------------|
| Control cable, 49 ft. (15 m) | 0460910881 |
| Control cable, 82 ft. (25 m) | 0460910882 |
| Control cable, 115 ft. (35 m) | 0460910883 |
| Control cable, 164 ft. (50 m) | 0460910884 |

Specifications

| | TAF 801 | TAF 1251 |
|---|-----------------------------|-----------------------------|
| Mains supply: 1ph, 50Hz, V 1ph, 60Hz, V | 400/415/500 400/440/550 | 400/415/500 400/440/550 |
| Maximum load at: 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, in. (mm) | 30.5x23.5x56 (774x598x1428) | 30.5x23.5x56 (774x598x1428) |
| Weight, lbs. (kg) | 1091 (495) | 1340 (608) |
| Enclosure class | IP 23 | IP 23 |
| Application class | S | S |

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 the proximity to earthed metal objects and/or dampness.

ARISTO® 1000 AC/DC SAW

AC/DC Inverter Power Source for SAW

- The ARISTO 1000 AC/DC power source is designed to deliver the best submerged arc welding (SAW) performance with the lowest power consumption resulting in more welding per kilowatt hour
- Designed for use with the A2-A6 PEK process controller and the robust A2/A6 feeder units
- A global inverter - connect to a three phase mains supply from 380V to 575V, 50 or 60Hz
- AC settings - Bead Profile Modelling™
- Full control of the settings for AC welding - by controlling the AC frequency, balance and offset, you can optimize the penetration profile, heat input, deposition rate, arc stability, and stirring effect to suit your individual needs
- Change between DC and AC “on the fly” - minimize downtime and weld defects with the push of a button with the patent pending “on the fly” function
- More output - two ARISTO 1000 AC/DC power sources can easily be connected in synchronized parallel mode to deliver more welding current if required
- Designed for heavy-duty industrial environments
- Long welding cables - patent pending Cable Boost™ technology stores energy and instantly delivers up to 450% additional energy when required extending the maximum usable weld cable length by more than a factor of two without compromising the weld result
- Remote-controlled on/off function save energy - multiple power sources in a remote location can be controlled by a remote function and can easily be switched off to save energy
- Power efficiency and less current consumption to reduce your installation and running costs and help to reduce your carbon footprint
- All cables are connected in a cabinet in the front of the machine, easily accessible for service and well protected from damage for uninterrupted welding production
- Ideal for these applications:
 - Windtower structures, nuclear components
 - Beams, bridge components
 - Trailer beams, excavator components
 - Panel lines, sub components
 - General fabrication
 - Single or multi-wire applications



Controllers & Power Sources

Ordering Information

ARISTO 1000 AC/DC SAW 0462100880

Options & Accessories

A2-A6 PEK process controller 0460504880
 Parallel kit (1 per power source) 0463201882
 Tandem kit (1 per power source) 0463201882
 Interconnecting control cable¹ 0463282880

¹Required for the parallel and tandem kit #0463201882.

Control Cables

Control cable, 49 ft. (15 m) 0460910881
 Control cable, 82 ft. (25 m) 0460910882
 Control cable, 115 ft. (35 m) 0460910883
 Control cable, 164 ft. (50 m) 0460910884



A2-A6 PEK Process Controller

ARISTO® 1000 AC/DC SAW

AC/DC Inverter Power Source for SAW



- Efficient cooling channel design provides optimal cooling of the machine while all sensitive components are protected from dust and particles
- The cooling channel is easy to clean with compressed air
- Re-usable air filters minimize the amount of particles in the cooling channel

Specifications

| ARISTO 1000 AC/DC SAW | | | | | | | | |
|--------------------------------------|-------------------------|-----------|----------|----------|----------|----------|----------|----------|
| Mains supply, 3ph, 50/60Hz, V | 380-575 | | | | | | | |
| Setting range (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 | 121 | | | | | | | |
| Open circuit power, W | 240 | | | | | | | |
| Efficiency | 0.88 | | | | | | | |
| Power factor | 0.93 | | | | | | | |
| Dimensions, LxWxH, in. (mm) | 34x24x52 (865x610x1320) | | | | | | | |
| Weight, lbs. (kg) | 727.5 (330) | | | | | | | |

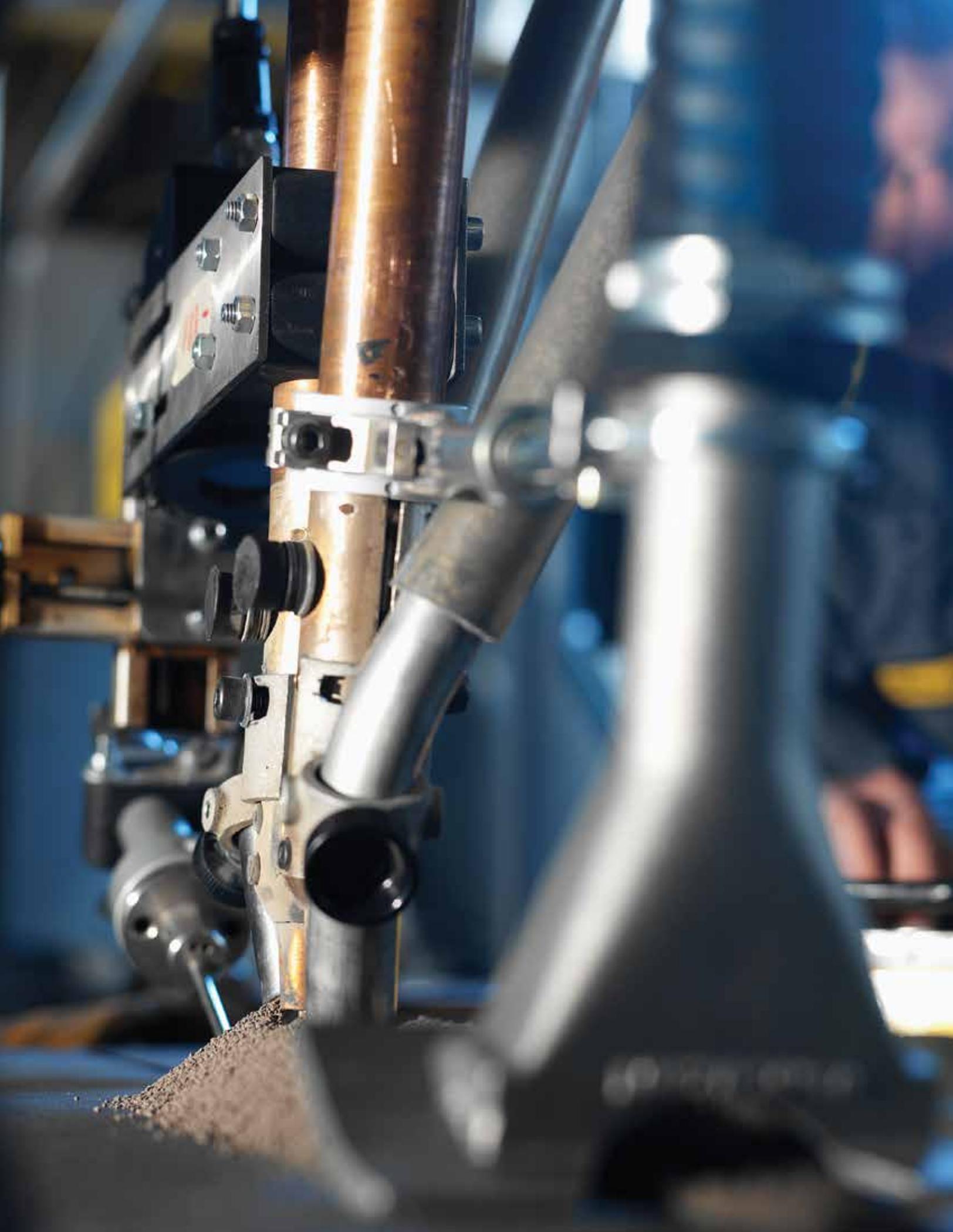


LAF 1251



LAF 1251





Welding Heads

A2S Mini Master

Multi-Purpose Welding System

- Versatile welding system for single wire submerged arc welding (SAW), twin wire SAW, or gas metal arc welding (GMAW)
- Lightweight, compact design for greater flexibility
- Modular design allows user to expand, integrate, or modify the system quickly and easily
- Use with 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 - PEK

Manual slides 3.5x3.5 in. (90x90 mm) 0449170900
 Motorized slides 7x7 in. (180x180 mm), PAV... 0449170901
 Motorized slides 7x7 in. (180x180 mm), GMH. 0449170902

A2S Mini Master SAW Systems - PEI

Manual slides 3.5x3.5 in. (90x90 mm) 0449370880
 Motorized slides 7x7 in. (180x180 mm), PAV... 0449370881
 Motorized slides 7x7 in. (180x180 mm), GMH. 0449370882

A2S Mini Master GMAW MTW (4WD) Systems - PEK

Manual slides 3.5x3.5 in. (90x90 mm) 0449181900
 Motorized slides 7x7 in. (180x180 mm), PAV... 0449181901
 Motorized slides 7x7 in. (180x180 mm), GMH. 0449181902

A2S Mini Master GMAW MTW (2WD) Systems - PEI

Manual slides 3.5x3.5 in. (90x90 mm) 0449380880
 Motorized slides 7x7 in. (180x180 mm), PAV... 0449380881
 Motorized slides 7x7 in. (180x180 mm), GMH. 0449380882

Options & Accessories

Laser lamp kit (for PEK), 6.5 ft. (2 m) cable 0821440880
 Laser lamp kit (for PEK), 23 ft. (7 m) cable 0821440883
 Thin wire straightener, single wire 0332565880
 Thin wire straightener, twin wire 0145787880

Gas Handling Equipment, GMAW Only:

Cooling unit OCE 2H, 220V AC 50/60 Hz 0414191881
 Gas hose..... 0190270101
 Water-cooling hose..... 0190315104
 Arc shield 0334689880

Optional Equipment SAW:

Flux recovery unit OPC 0148140880
 Flux container, silumin alloy 0413315881
 Concentric flux funnel 0145221881
 Contact tube, bent..... 0413511001
 Wire reel, plastic, 66 lbs. (30 kg) 0153872880
 Wire reel, steel, 66 lbs. (30 kg) 0416492880
 Wire reel, steel, flexible width..... 0449125880
 Wire reel, steel, Ø 8.7 in. (220 mm) 0671164080

Conversion kit, SAW to GMAW MTW (4WD)* .. 0461248880

**For A2-A6 PEK process controller.*

Specifications

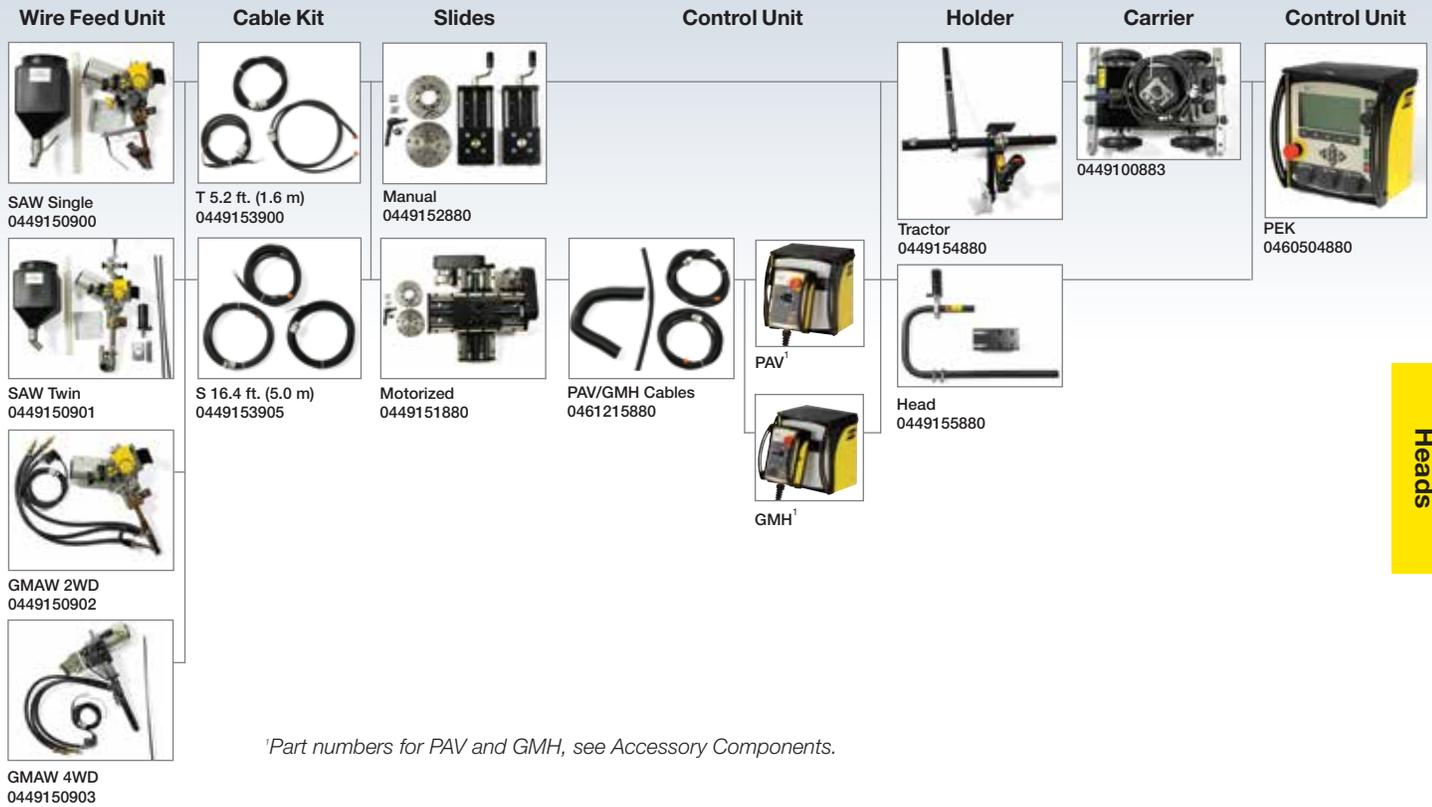
| A2S Mini Master | Single wire SAW | Twin wire SAW | GMAW | GMAW MTW 600w |
|--------------------------------------|---------------------|-------------------------|---------------------|---------------------|
| Wire diameter, in. (mm): | | | | |
| Steel | 1/16-5/32 (1.6-4.0) | 2x.045-3/32 (2x1.2-2.5) | .030-1/16 (0.8-1.6) | .040-1/16 (1.0-1.6) |
| Stainless Steel | 1/16-5/32 (1.6-4.0) | - | .030-1/16 (0.8-1.6) | .040-1/16 (1.0-1.6) |
| Cored wire | 1/16-5/32 (1.6-4.0) | - | .045-3/32 (1.2-2.4) | .040-3/32 (1.0-2.4) |
| Aluminum | - | - | .045-1/16 (1.2-1.6) | .040-5/64 (1.0-2.0) |
| Max. wire feed speed, ipm (m/min) | 354 (9) | 354 (9) | 630 (16) | 984 (25) |
| Flux hopper capacity, gal. (L) | 1.4 (6) | 1.4 (6) | - | - |
| Max. permissible load 100%, A | 800 | 800 | 600 | 600 |
| Control voltage, V AC | 42 | 42 | 42 | 42 |
| Linear slide stroke length, in. (mm) | 3.5 (90) | 3.5 (90) | 3.5 (90) | 3.5 (90) |
| Rotary slide setting range | 360° | 360° | 360° | 360° |

A2 Component System Modularization

For PEK and PEI Process Controllers

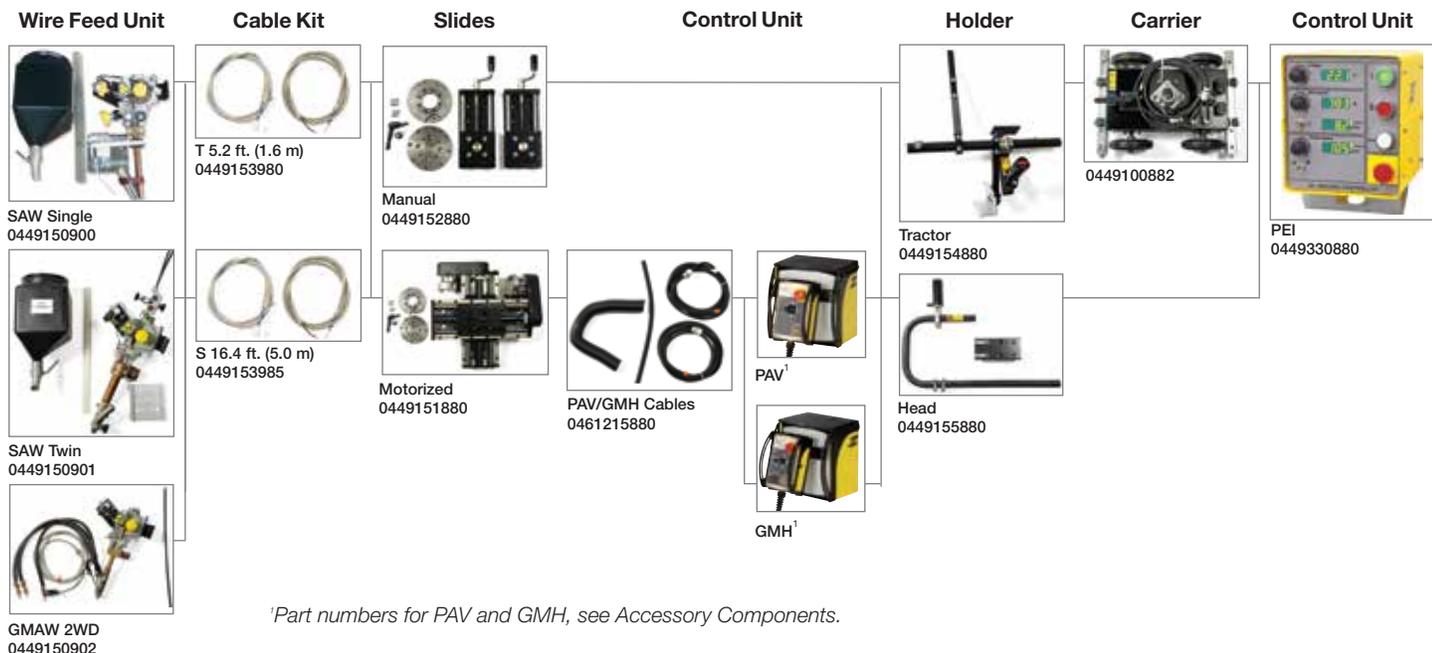


A2-A6 PEK Process Controller



Welding Heads

A2 PEI Process Controller



A6S Arc Master

Modular System for GMAW and SAW

- 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 ICE™ (Integrated Cold Electrode) 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)



A6S Arc Master



A6S Arc Master shown with camera system

Ordering Information

Single Wire SAW Systems

Standard Wire Feed Unit (gear ratio 156:1)

Manual slides 8.3x8.3 in. (210x210 mm) 0449270900
 Motorized slides 11.8x11.8 in. (300x300 mm), PAV ... 0449270901
 Motorized slides 11.8x11.8 in. (300x300 mm), GMH. 0449270902

High-Speed Wire Feed Unit (gear ratio 74:1)

Manual slides 8.3x8.3 in. (210x210 mm) 0449270910
 Motorized slides 11.8x11.8 in. (300x300 mm), PAV ... 0449270911
 Motorized slides 11.8x11.8 in. (300x300 mm), GMH. 0449270912

Twin Wire SAW Systems

High-Speed Wire Feed Unit (gear ratio 74:1)

Manual slides 8.3x8.3 in. (210x210 mm) 0449271910
 Motorized slides 11.8x11.8 in. (300x300 mm), PAV ... 0449271911
 Motorized slides 11.8x11.8 in. (300x300 mm), GMH. 0449271912

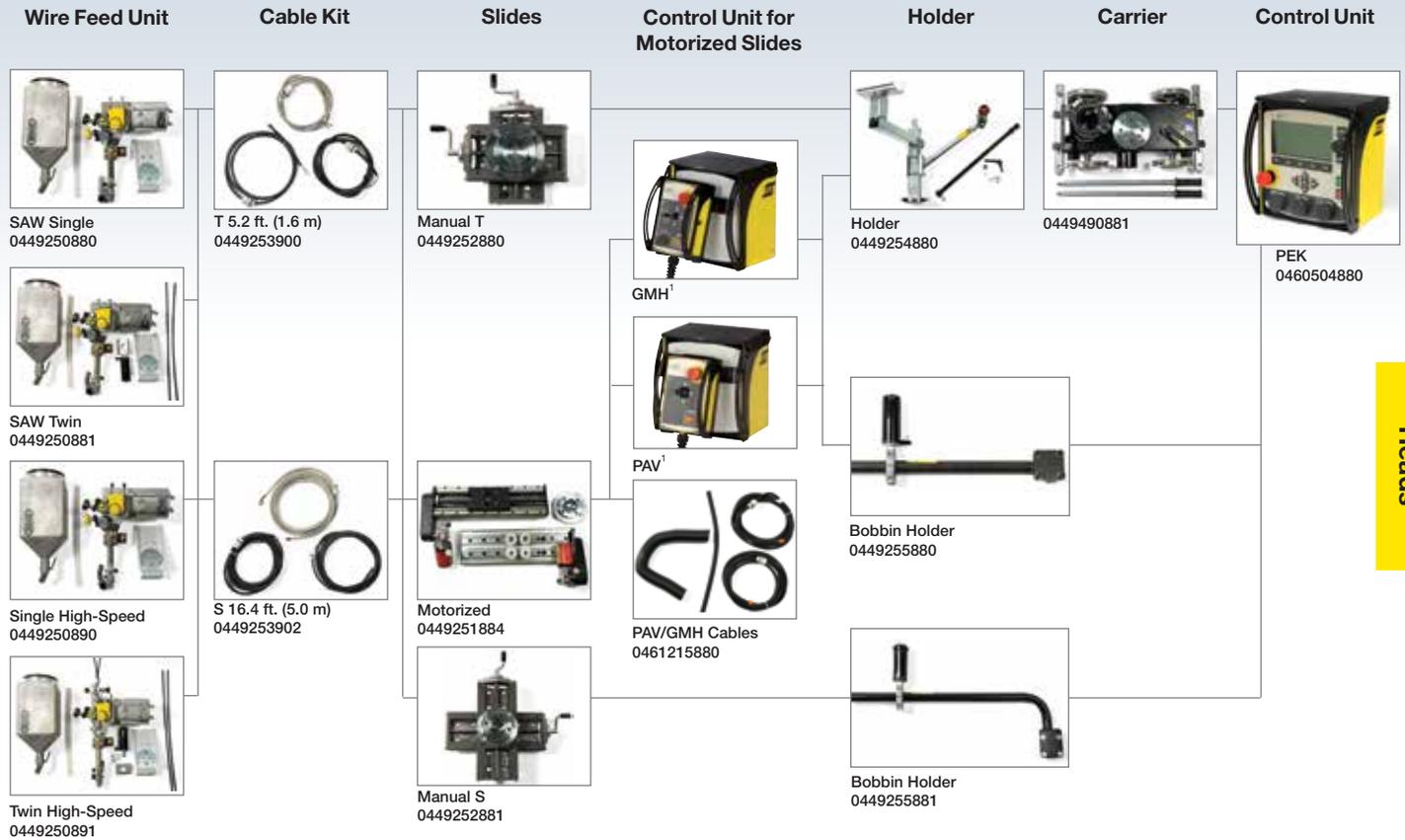
Specifications

| A6S Arc Master | Ratio 156:1 | Ratio 74:1 |
|--------------------------------------|-------------------------------|-------------------------------|
| Max. wire feed speed, ipm (m/min) | 8-157 (0.2-4.0) | 0.4-8.0 (16-315) |
| Wire diameter, single, in. (mm) | 0.118-0.236 (3.0-6.0) | 1.6-4.0 (0.063-0.157) |
| Wire diameter, twin, in. (mm) | 2x0.079-2x0.118 (2x2.0-2x3.0) | 2x1.6-2x2.5 (2x0.063-2x0.098) |
| Tubular wire single, in. (mm) | 0.118-0.157 (3.0-4.0) | 1.6-4.0 (0.063-0.157) |
| Linear slide stroke length, in. (mm) | 3.5 (90) | 3.5 (90) |
| Rotary slide setting range: | | |
| Circular slide, crank operated | ± 180° | ± 180° |
| Straightener | ± 45° | ± 45° |
| Max. permissible load, 100%, A | 1500 | 1500 |

A6 Component System Modularization



A2-A6 PEK Process Controller



Welding Heads

¹Part numbers for PAV and GMH, see Accessory Components.

A6S and A6DS Tandem Welding Heads

For Heavy Construction Welding

- Weld with DC/DC, DC/AC or AC/AC
- Uses A2-A6 PEK process controller 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 ICE™ (Integrated Cold Electrode) systems
- Adjustable +90° interval turning bracket and cross slide
- Automatic joint tracking keeps the weld in the joint no matter which direction welding occurs
- Available in two basic versions:
 1. **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
 2. **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
- 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) | 0818971880 |
| A6S Tandem Master, high-speed (74:1) | 0818971881 |
| A6DS Tandem Master, standard (156:1)..... | 0818970880 |
| A6DS Tandem Master, high-speed (74:1)..... | 0818970881 |

Options & Accessories

| | |
|--|------------|
| Twin kit (one per torch) | 0809934882 |
| GMH, joint tracking with remote | 0460884880 |
| GMH, joint tracking with control panel | 0460884881 |
| GMH, slide motor cables, 16.4 ft. (5 m) | 0461215880 |
| Laser lamp kit, cable, 23 ft. (7 m)..... | 0821440883 |
| Bracket (straight) for wire | 0334318880 |
| Brake hub, for wire reel | 0146967880 |
| Wire reel, plastic, 66 lbs. (30 kg)..... | 0153872880 |
| Wire reel, steel, fixed width, 66 lbs. (30 kg)..... | 0416492880 |
| Wire reel, steel, flexible width, 66 lbs. (30 kg) .. | 0449125880 |

Specifications

| Basic Components | A6S Tandem Master | A6DS Tandem Master |
|--|--------------------|--------------------|
| A6 feed unit HD type for wire 1/8-1/4 in. (3-6 mm) | 2 pcs | 2 pcs |
| Horizontal motorized slide with double runners L = 14 in. (355 mm) | 1 pc | 1 pc |
| Vertical motorized slide with double runners L = 23.4 in. (595 mm) | 1 pc | 1 pc |
| A2-A6 PEK process controller | 2 pcs | 2 pcs |
| Flux hopper, 2.3 gal (10 L) including bracket | 1 pc | 1 pc |
| Cable holder | 1 pc | 1 pc |
| Main bracket with mounting flange for cross slide assembly | 1 pc (0810786880) | - |
| Swivel bracket for rotating head 90° | 1 pc (0334549880) | 1 pc (0809873880) |
| Welding head | 2 pcs | 2 pcs |
| Each welding head has: | | |
| A6 manual slide L = 3.5 in. (90 mm) | 1 pc (0154465880) | 1 pc (0154465880) |
| A6 circular slide | 1 pc (0671171580) | 1 pc (0671171580) |
| Insulators | 4 pcs (0278300180) | 4 pcs (0278300180) |
| Weight (excl PEK, wire and flux), lbs. (kg) | 474 (215) | 419 (190) |

A6S Compact Welding Heads

For Internal Welding Inside Tubes

- For welding longitudinal and circumferential butt joints inside tubes
- Two versions available:
 1. A6S Compact 300 for internal welding of tubes down to 11.8 in. (300 mm) inside diameter
 2. A6S Compact 500 for internal welding of tubes down to 19.6 in. (500 mm) inside diameter
- Equipped with reliable VEC feed motor for superior weld performance
- Supervise and adjust the head position using a TV monitoring system (optional)
- Use standard mini-cross slide assembly and manual PAV or automatic GMH joint tracking system to easily follow the joint (optional)
- Add either the FFRS Basic/Super or FFRS 2000/3000 Flux Feed & Recovery System to optimize the welding process



A6S Compact 300
 Longitudinal welding 11.8 in. (300 mm)
 Min ID circ. welding 19.6 in. (500 mm)



A6S Compact 500
 Longitudinal welding 19.6 in. (500 mm)
 Min ID circ. welding 21.6 in. (550 mm)

Welding Heads

Ordering Information

| | |
|----------------------------------|------------|
| A6S Compact 300, standard..... | 0809280880 |
| A6S Compact 300, high-speed..... | 0809280881 |
| A6S Compact 500, standard..... | 0416967880 |
| A6S Compact 500, high-speed..... | 0416967882 |

For specifications and more information for A6S Compact 500, please contact your local ESAB representative.

Options & Accessories - Compact 300

| | |
|-------------------------------|------------|
| Flux valve control kit' | 0813620880 |
| Laser pointer..... | 0811177880 |

'Includes solenoid valve and 16.4 ft. (5 m) air hose.

Contact Tips, wire size

| | |
|------------------------------|------------|
| M12, 7/64 in. (3 mm) | 0154623005 |
| M12, 1/8 in. (3.2 mm) | 0154623004 |
| M12, 5/32 in. (4.0 mm) | 0154623003 |

Feed Rollers, wire size

| | |
|----------------------------|------------|
| 1/8 in. (3.0-3.2 mm) | 0218510298 |
| 5/32 in. (4.0 mm) | 0218510286 |

Specifications

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

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 1.2-4.0 in. (30-100 mm) and as thick as 0.02 in. (0.5 mm)

Electroslag Welding (ESW)

- 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 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 1 in. (25 mm) and above

For specifications and more information for the ESW Welding Head, please contact your local ESAB representative.



Ordering Information

Strip cladding kit¹ 0155972880

¹For use with A6T SAW Tractor or A6S Arc Master HD.

Options & Accessories

Reel holder¹ 0417636880

Wire reel, steel 0416492880

Suction nozzle, flux 0156025001

¹Do not use with motor-operated cross slide.

Specifications

| A6S SAW Strip Cladding Head | |
|--|------------------|
| Max. welding current at 100% duty cycle, A | 1500 |
| Feed roller diameter, in. (mm) | 2.0 (50) |
| Strip width, in. (mm) | 1.2-4.0 (30-100) |
| Strip thickness, in. (mm) | 0.02 (0.5) |

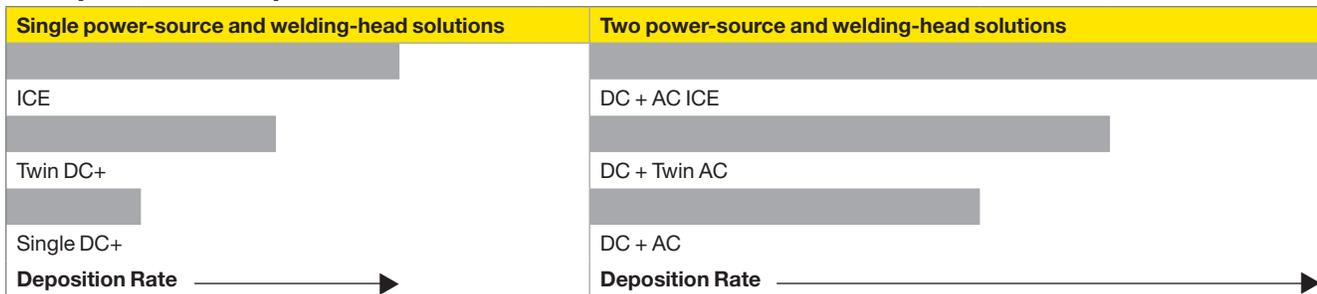
- ICE exploits the excess heat generated by the welding process to melt an additional non-powered welding electrode - the Integrated Cold Electrode; this yields significant productivity benefits without increasing heat input
- Up to 50% higher deposition rate - instead of adding more energy, ICE utilizes the excess heat available to melt more wire, boosting productivity by up to 50%, depending on the application
- High Deposition Root™ - ICE technology enables the use of tandem welding in root passes for improved penetration and high productivity, eliminating the need for back gouging
- High Deposition Root and increased deposition rate can increase productivity in applications where welding speed is the key to maximizing productivity
- Reduced energy consumption - the ICE process enables an increase in deposition rate by up to 50% without adding more energy, combining environmental benefits with significantly reduced energy consumption
- Innovative Flat Cap Control™ - adjusting the ratio of “cold wire” used for cap runs makes it possible to produce a flatter cap to the weld, increasing fatigue resistance and reducing the need for post weld treatment
- Reduced flux consumption - complete welding applications with fewer runs resulting in a reduction of flux consumption by up to 20% when welding with a 50% higher deposition rate



Welding Heads

- Ideal for these applications:
 - Windtower manufacturing
 - Offshore fabrication
 - Pipe welding
 - General heavy fabrication
 - Shipbuilding

Comparison of deposition rate for ICE and other methods:



These results are based on the testing results carried out under controlled conditions by ESAB using ESAB consumables and experienced welding engineers and may vary accordingly.



Accessory Components

Beam Travelling Carriage

Use with 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 fit with any A2 or A6 welding head
- For longitudinal or circumferential welding
- Place the carriage on either a standard I-beam or specially machined I-beam (contact ESAB for details)
- Fast and easy pre-programming of travel motion and welding parameters using the A2-A6 PEK process controller



Ordering Information

Beam travelling carriage 0457897881

Options & Accessories

- Mounting bracket for tandem head..... 0458026001
- Track in lengths of 10 ft. (3 m)..... 0145282880
Required number of floor columns: 2
- Track in lengths of 15 ft. (4.5 m)..... 0145282881
Required number of floor columns: 3
- Track in lengths of 20 ft. (6 m)..... 0145282882
Required number of floor columns: 3
- Track in lengths of 26 ft. (8 m)..... 0145282883
Required number of floor columns: 4

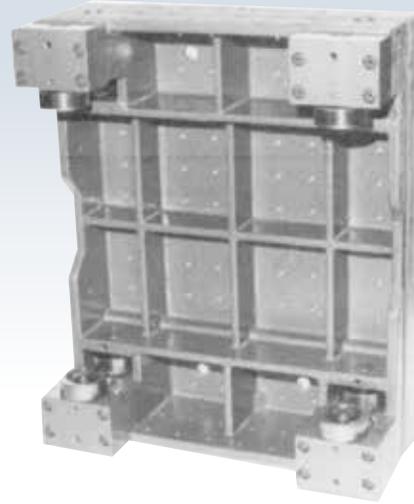
Specifications

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

MBVA 330 & 550

Beam Welding Carriage

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



Ordering Information

MBVA 330 carriage 0150765880
 MBVA 550 carriage 0150901880

Options & Accessories

Cable, length 5-164 ft. (1.5-50 m)..... contact ESAB
 Travel unit, 1.2-32 ipm (3-80 cm/min)..... 0150943880
 Travel unit, 4-49 ipm (11-125 cm/min)..... 0150943881
 Travel unit, 5.5-98 ipm (14-250 cm/min)..... 0150943882
 Travel unit, 14.5-590 ipm (37-1500 cm/min).... 0150943883
 Travel unit, 11-208 ipm (27-530 cm/min)..... 0150943884

MBVA 330 - Beam

300 cm (118 in.), 529 lbs. (240 kg) 0803348880
 450 cm (177 in.), 1058 lbs. (480 kg) 0803348881
 600 cm (236 in.), 1587 lbs. (720 kg) 0803348882
 750 cm (295 in.), 2116 lbs. (960 kg) 0803348883
 900 cm (354 in.), 2204 lbs. (1000 kg) 0803348884
 1050 cm (413 in.), 2645.5 lbs. (1200 kg) 0803348885
 1200 cm (472 in.), 3130.5 lbs. (1420 kg) 0803348886

MBVA 550 - Beam

118 in. (300 cm)..... 0321527880
 177 in. (450 cm)..... 0321527881
 236 in. (600 cm)..... 0321527882
 315 in. (800 cm)..... 0321527883
 472 in. (1200 cm)..... 0321527884

Specifications

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

Accessory Components

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 41 in. (1030 mm) with a central point of attachment
- Operates jointly with A2 or A6 components
- Slides available from 2.4 in. (60 mm) to 41 in. (1030 mm) working range
- Permissible load of 337 ft-lbs. (1500 N) in any mounting position
- Maximum torque for vertical unit is 3540 lbs/in. (400 Nm); maximum torque for horizontal unit is 2480 lbs/in. (280 Nm)



Ordering Information

| | |
|---|------------|
| Servo slide, 2 in. (60 mm) | 0334333880 |
| Servo slide, 5 in. (120 mm) | 0334333881 |
| Servo slide, 7 in. (180 mm) | 0334333882 |
| Servo slide, 9 in. (240 mm) | 0334333883 |
| Servo slide, 12 in. (300 mm) | 0334333884 |
| Servo slide, 17 in. (420 mm) | 0334333885 |
| Servo slide, 21 in. (540 mm) | 0334333886 |
| Servo slide, 29 in. (730 mm) | 0334333887 |
| Servo slide, 41 in. (1030 mm) | 0334333888 |
| Servo slide, 14 in. (358 mm), heavy-duty..... | 0416190880 |
| Servo slide, 23.5 in. (598 mm), heavy-duty..... | 0416190884 |

Options & Accessories

| | |
|--|------------|
| Connecting cable, 6.5 ft. (2 m) | 0460745880 |
| Connecting cable, 16.4 ft. (5 m) | 0460745881 |
| Connecting cable, 33 ft. (10 m) | 0460745882 |
| A2 rotary manual slide..... | 0413506880 |
| A6 rotary manual slide..... | 0671171580 |
| A6 rotary manual locking slide | 500C274 |
| 2000A insulators | 0278300880 |
| Mounting grub screws M10-12 | 0148853001 |

Specifications

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

| | Slide 2 in. (60 mm) | Slide 5 in. (120 mm) | Slide 7 in. (180 mm) | Slide 9 in. (240 mm) | Slide 12 in. (300 mm) | Slide 17 in. (420 mm) | Slide 21 in. (540 mm) | Slide 29 in. (730 mm) | Slide 41 in. (1030 mm) |
|-------------------------------------|---------------------------|----------------------------|----------------------------|----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|------------------------------|
| Total length, in. (mm) | 12 (305) | 14 (365) | 17 (425) | 19 (485) | 21.5 (545) | 26 (665) | 31 (785) | 40 (1025) | 54.5 (1385) |
| Number of 2.4 in. (60 mm) indexings | 3 | 4 | 5 | 6 | 7 | 9 | 11 | 14 | 21 |
| Weight, lbs. (kg) | 25 (11.5) | 29 (13.2) | 33 (15) | 37 (16.7) | 41 (18.5) | 48 (21.9) | 56 (25.4) | 68 (30.9) | 85.5 (38.8) |

PAV

Manual Joint Positioning System

- Simple and easy to use
- Adapt for use with almost any type of welding joint
- For manual joint tracking
- Works equally well with ESAB A2 or A6 welding systems
- Motorized servo slides guarantee reliable, accurate joint tracking
- Available in three versions:
 1. With control panel on the front
 2. With remote control
 3. Without control panel suitable for integration into customized solutions



Ordering Information

PAV without control panel 0460502880
 PAV with control panel 0460502881
 PAV with remote control 0460697880

Options & Accessories

Cable restraining bracket 0460861880
 Motor cable, 16.4 ft. (5 m) 0460745881
 Motor cable, 33 ft. (10 m) 0460745882
 Motor cable, 62 ft. (19 m) 0460745884
 Transformer, 110-42 V AC 200C263
 Servo slides see product page for ordering information

Specifications

| PAV | |
|------------------------------|----------------------------|
| Mains supply, V AC, 50-60 Hz | 42 |
| Primary input current, A | 15 |
| Duty cycle 100%, A | 6 |
| Fuse, A | 10 |
| Armature voltage, V DC | 40 |
| Field voltage, V DC | 60 |
| Current limit, A | 15 |
| Dimensions, LxWxH, in. (mm) | 9.7x9.3x10.7 (246x235x273) |
| Weight, lbs. (kg) | 13 (6) |
| Enclosure class | IP 23 |

GMH

Automatic Joint Positioning and Tracking System

- Simple and easy to use
- Adapt for use with almost any type of welding joint
- For automatic joint tracking
- Works equally well with ESAB A2 or A6 welding systems
- Motorized servo slides guarantee reliable, accurate joint tracking
- Available in three versions:
 1. With control panel on the front
 2. With remote control
 3. Without control panel, suitable for integration into customized solutions
- Designed for use in fillet and butt joints using sensor fingers
- Compensates for irregularities in weld joint, tracks simple geometric shapes, and avoids parallax problems



Ordering Information

| | |
|---------------------------------|------------|
| GMH without control panel | 0460503880 |
| GMH with control panel | 0460503881 |
| GMH with remote control | 0460698880 |
| GMH system ¹ | 0460884880 |
| GMH system ² | 0460884881 |

¹Includes remote control, sensor, sensor cable, and mini cross saddle.

²Includes control panel, sensor, sensor cable, and mini cross saddle.

Options & Accessories

| | |
|--|---|
| Cable restraining bracket | 0460861880 |
| Motor cable, 16.4 ft. (5 m) | 0460745881 |
| Motor cable, 33 ft. (10 m) | 0460745882 |
| Motor cable, 62 ft. (19 m) | 0460745884 |
| Servo slides | see product page for ordering information |
| Sensor cable, 16.4 ft. (5 m) | 0416749888 |
| Sensor cable, 29.5 ft. (9 m) | 0416749889 |
| Sensor cable, 62 ft. (19 m) | 0416749880 |
| Sensor with finger | 0416688880 |
| Mini cross saddle + sensor support | 0416739880 |
| Remote control | 0460570880 |
| Protective rubber boot for sensor | 0412013001 |
| Standard finger | 0146586001 |
| Finger with ball | 0416719001 |
| Finger for heat exchange plates | 0443328880 |
| Finger for beam welding | 0443187880 |
| Transformer, 110-42 V AC | 200C263 |

Specifications

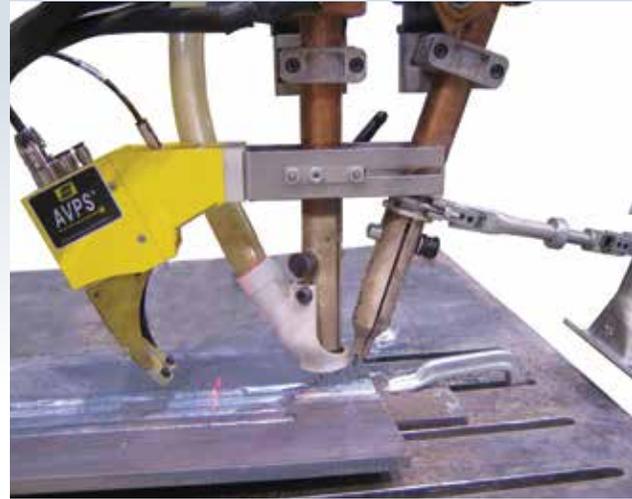
| GMH | |
|--|------------------------------|
| Mains supply, V AC, 50-60 Hz | 42 |
| Primary input current, A | 15 |
| Duty cycle 100%, A | 6 |
| Fuse, A | 10 |
| Armature voltage, V DC | 40 |
| Field voltage, V DC | 60 |
| Current limit, A | 15 |
| Remote control dimensions, LxWxH, in. (mm) | 8x5x4.6 (205x135x118) |
| Remote control weight, lbs. (kg) | 6 (2.7) |
| Sensor sensitivity, in. (mm) | ±0.004 (±0.1) |
| Sensor weight, lbs. (kg) | 1.3 (0.6) |
| Mini-cross saddle and support for the saddle, setting length, in. (mm) | 3 (80) |
| Mini-cross saddle and support for the saddle, weight, | 3.5 (1.6) |
| Intermediate transformer, input rating, V, 50 Hz | 190, 230, 400, 415, 440, 500 |
| Intermediate transformer, input rating, V, 60 Hz | 200, 230, 400, 415, 440, 500 |
| Intermediate transformer, output voltage, V/VA | 42/660 |
| Intermediate transformer, dimensions, LxWxH, in. (mm) | 12x8.7x5.2 (308x223x133) |
| Intermediate transformer, weight, lbs. (kg) | 34.4 (15.6) |
| Dimensions, LxWxH in. (mm) | 246x235x273 (9.7x9.3x10.7) |
| Weight, lbs. (kg) | 13 (6) |
| Enclosure class | IP 23 |

AVPS Laser Seam Tracking System

For Circumferential and Longitudinal Welding



- Laser vision sensing improves the productivity and quality of circumferential and longitudinal welding processes as typically found in windtower manufacturing
- Longitudinal weld seam tracking on roll-formed tubes
- Inside circumferential weld seam tracking
- Outside circumferential weld seam tracking
- Servo-Robot's intelligent seam tracking technology, combined with ESAB's GMH joint tracking system and pendant control, maintains precise wire position both in the joint and with respect to the vertical direction ensuring a consistent wire stickout
- Parameters are easily set with the ESAB remote control pendant eliminating the need for special operator training
- The operator selects the correct joint template (butt, groove, etc.) using the remote control pendant
- The welding head is mounted on a motorized double servo slide where the head can be moved up-down and left-right
- The Servo-Robot Mini-Box Control Unit is at the center of the tracking acting as both a vision control unit and as a process control unit which communicates with the GMH system to perform the tracking tasks



Ordering Information

For ordering information, please contact your nearest ESAB representative.

Accessory Components

Specifications

| Mini-I/D Laser Camera | |
|--------------------------------------|------------------------|
| Laser class | IIIb |
| Stand-off distance, in. (mm) | 3 (80) |
| Field of view depth, in. (mm) | 4 (100) |
| Field of view width, in. (mm) | 1.2-2.4 (30-60) |
| Average depth resolution, in. (mm) | 0.002 (0.05) |
| Average lateral resolution, in. (mm) | 0.002 (0.05) |
| Dimensions, LxWxH, in. (mm) | 1.2x2.2x3.5 (30x56x90) |
| Weight, lbs. (kg) | 1 (0.5) |

| Mini-Box Control Unit with ESAB GMH Interface | |
|---|---|
| Mains supply, V DC | 24 |
| HMI port | Ethernet 10/100 Mbps |
| E-STOP input | External alarm input for laser safety |
| Camera cooling control output | Used with SRI camera air cooling system |
| Laser enable key-lock | Key-lock switch for laser safety |
| Operating temperature | 41-104°F (5-40°C) |
| Dimensions LxWxH, in. (mm) | 12x12x6 (300x300x150) |
| Weight, lbs. (kg) | 7.7 (3.5) |

OPC Basic & Super

Sturdy, Compact Flux Recovery Systems

- Robust and compact design
- Easy operation and maintenance
- Integrated system for maximum productivity with lower investment and service costs
- Adapts to any A2 or A6 welding system - mobile 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 normal and large butt welds, and left and right fillet welds)



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

OPC Super Flux Recovery System

- Similar to basic system but with stronger ejector and cyclone - provides better suction
- Can also be used with preheated flux

Specifications

| | OPC Basic | OPC Super |
|--|-----------|-----------|
| Airflow capacity: | | |
| at working pressure 58 psi (cfh) | 371 | 890 |
| at working pressure 72 psi (cfh) | 477 | 1059 |
| at working pressure 87 psi (cfh) | 530 | 1229 |
| Max working pressure, psi (cfh) | 87 | 87 |
| Max suction height: | | |
| at working pressure 58 psi, cfh | 31 | 40 |
| at working pressure 72 psi, cfh | 31 | 48 |
| at working pressure 87 psi, cfh | 31 | 55 |
| Sound level at work, dB | 70 | 72 |
| Max working temperature, °F (°C) | 266 (130) | 302 (150) |
| Short term temperature, °F (°C) ² | 338 (170) | 374 (190) |

¹Suction height with normal flux bead and a welding speed of 39.3 ipm (100 cm/min).

²Tested with preheated flux to temp. max 428°F (220°C) and weld object temp. max 662°F (350°C).

Ordering Information

| | |
|--|------------|
| OPC Basic, with standard filter bag | 0148140880 |
| OPC Basic, with cyclone filter | 0802415882 |
| OPC Basic, with Tedak filter | 0802415883 |
| OPC Super (retrofit kit) ¹ | 0339719880 |
| OPC Super complete, with cyclone filter..... | 0802415892 |
| OPC Super complete, with Tedak filter | 0802415893 |

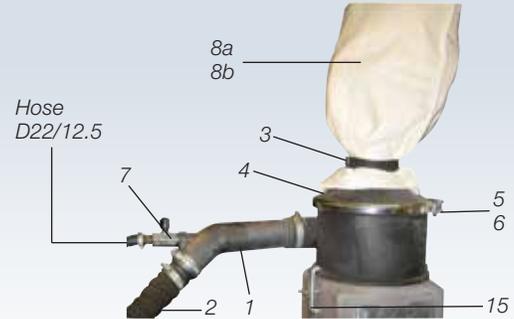
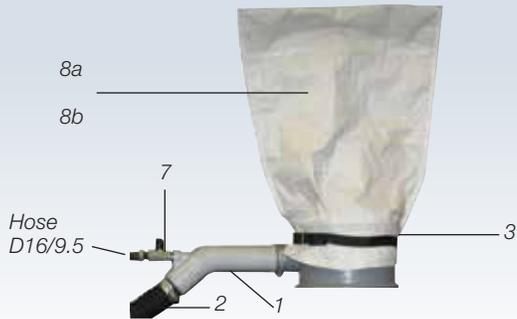
¹Excludes hose, nozzles and filter.

Options & Accessories

| | |
|--|------------|
| Air pressure hose 3/8 in. (9.5 mm) | 0190343104 |
| Air pressure hose 1/2 in. (12.7 mm) | 0190343106 |
| Dust exhaust hose Ø 63 mm, 2.5 in. (63.5 mm) . | 0193125003 |
| Air central..... | 0417714880 |
| Plastic bag | 0190665004 |
| Filter bag, paper..... | 0155966001 |
| Filter bag, cotton..... | 0332448001 |
| Cyclone filter..... | 0379538880 |
| Tedak filter | 0453708881 |



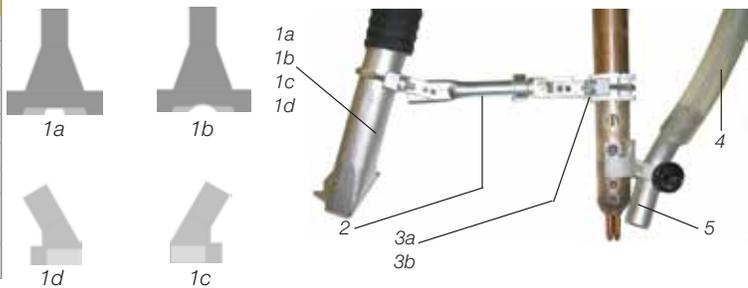
OPC Flux Recovery System Wear Parts



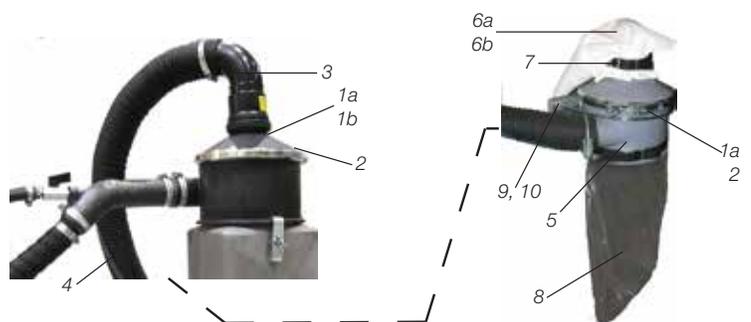
| OPC Basic | | |
|-----------|---------------------|------------|
| 1 | Ejector | 0147640880 |
| 2 | Hose ID 4000 D47/38 | 0379016001 |
| 3 | Tension band | 0192855002 |
| 4 | Cone* | 0148143001 |
| 5 | Tension ring* | 0148144001 |
| 6 | O-ring, 189.3x5.7 | 0215201353 |
| 7 | Ball valve | 0145824881 |
| 8a | Filter, paper | 0155966001 |
| 8b | Filter, cotton* | 0332448001 |
| 9 | Funnel | 0148142001 |
| 10 | Rubber lining | 0145565001 |
| 11 | O-ring 149.2x5.7 | 0215201345 |
| 12 | Cyclone | 0148141001 |
| 13 | Rubber lining | 0145073001 |
| 14 | Tension spring | 0145815001 |
| 16 | Strainer | 0020301780 |

| OPC Super | | |
|-----------|---------------------|------------|
| 1 | Ejector | 0339720001 |
| 2 | Hose ID 4000 D47/38 | 0379016001 |
| 3 | Tension band | 0192855002 |
| 4 | Cone | 0332279001 |
| 5 | Tension ring | 0148144001 |
| 6 | O-ring, 189.3x5.7 | 0215201353 |
| 7 | Ball valve | 0333625001 |
| 8a | Filter, paper | 0155966001 |
| 8b | Filter, cotton* | 0332448001 |
| 9 | Funnel | 0332280001 |
| 10 | Rubber lining | 0332282001 |
| 11 | O-ring 149.2x5.7 | 0215201345 |
| 12 | Cyclone | 0332281001 |
| 13 | Rubber lining | 0332283001 |
| 14 | Tension spring | 0145815002 |
| 15 | Clamp | 0340612001 |
| 16 | Strainer | 0020301780 |

| Suction Nozzle | | |
|----------------|---|------------|
| 1a | Butt weld 1 | 0145501001 |
| 1b | Butt weld 2 | 0145502001 |
| 1c | Fillet weld left | 0145504001 |
| 1d | Fillet weld right | 0145505001 |
| 2 | Nozzle bracket | 0147384881 |
| 3a | Insulator D20 | 0145131004 |
| 3b | Insulator D35 | 0145131002 |
| 4 | Flux hose, D32.0/25.0, free length/m, 1.6 ft. (0.5 m) | 0443383001 |
| 5 | Pipe bent | 0153296001 |



| Cyclone Filter | | |
|----------------|-----------------------|------------|
| 1a | Cone basic | 0148143001 |
| 1b | Cone super | 0332279001 |
| 2 | Tension ring | 0148144001 |
| 3 | Bend | 0413576001 |
| 4 | Spiral hose D67, 2/63 | 0193125003 |
| 5 | Cyclone | 0148141001 |
| 6a | Filter, paper | 0155966001 |
| 6b | Filter, cotton* | 0332448001 |
| 7 | Tension band | 0192855002 |
| 8 | Plastic bag | 0190665004 |
| 9 | U-screw | 0379600001 |
| 10 | Bracket | 0379599880 |



*Optional item.

Accessory Components

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 cost efficiency
- Fewer weld stops for increased efficiency
- Efficient filtration of used air
- Flux feeds from a 20 gal (75 L) capacity TPC-75 pressurized flux tank to the ESAB flux hopper of your choice; 1.6 gal or 2.6 gal (6 L or 10 L)
- Flux feed inlet options; straight or bent

FFRS Super

- Built on OPC Super modules
- For increased flux and heat conditions
- Based on ejector vacuum principle

FFRS 2000 & 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..... | 0417714880 |
| Flux hopper 2.6 gal (10 L), bent left | 0156230883 |
| Flux hopper 2.6 gal (10 L), bent front..... | 0156230884 |
| Flux hopper 2.6 gal (10 L), bent right | 0156230885 |
| Holder for hopper..... | 0148487880 |
| Level indicator for TPC..... | 0452048880 |
| Pneumatic flux valve | 0802540880 |
| Flux valve control unit | 0813620880 |

Specifications

| | FFRS 2000 | FFRS 3000 |
|---|--------------------------|--------------------------|
| Weight without flux, lbs. (kg) | 507 (230) | 882 (400) |
| Dimensions, LxWxH, in. (mm) | 41x18x87 (1053x450x2210) | 30x18x87 (750x450x2210) |
| Primary separator: | | |
| Volume, gal (L) | 13 (50) | 13 (50) |
| Dimensions, LxW, in. (mm) | 18x28 (450x700) | 18x35 (450x900) |
| Suction unit: | | |
| 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, ft. ³ /hr (m ³ /hr) | 512 (156) | 886 (270) |
| Sound level, dB | 74 | 63 |
| Filter area, ft. ² (m ²) | 2.0 (0.6) | 10 (3) |
| Life-span of filter, work hours | 99.95 | 99.95 |
| Weight, kg (lbs.) | 42 (19) | 428 (194) |
| Dimensions, LxWxH, in. (mm) | 19x16x46 (480x400x1160) | 47x27x79 (1200x690x2000) |



Ordering Information

| | |
|--|------------|
| FFRS Super with cyclone filter | 0809914881 |
| FFRS Super with heaters in TPC | 0809914882 |
| FFRS Super with Tedak dust filter | 0809914883 |
| FFRS Super with heaters and Tedak filter | 0809914884 |

FFRS Super systems include 82 ft. (25 m) 1/2 in. air pressure hose, 82 ft. (25 m) flux feed hose from TPC to hopper [65.6 ft. (20 m) for heated systems] 2 m (6.5 ft.) flux suction hose, 19.7 ft. (6 m) dust hose from hopper to filter [32.8 ft. (10 m) for systems with Tedak], bent inlet for flux hopper and flux recovery nozzles.

| | |
|-----------------------------|------------|
| FFRS 2000 | 0809914885 |
| FFRS 2000 with heaters..... | 0809914886 |
| FFRS 3000 | 0809914887 |
| FFRS 3000 with heaters..... | 0809914888 |

FFRS 2000/3000 systems include 82 ft. (25 m) 1/2 in. air pressure hose, 82 ft. (25 m) flux feed hose from TPC to hopper [65.6 ft. (20 m) for heated systems] 16 m (52.5 ft.) flux suction hose, suction hose between the primary separator and the vacuum unit [2000 = 6.5 ft. (2 m), 3000 = 16.4 ft. (5 m)], bent inlet for flux hopper and flux recovery nozzles.

CRE 30 and CRE 60 Air Drying Units

For Use with 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 0443570880
 CRE 60 air drying unit 0443570881

Options & Accessories

Desiccant, type 512¹ 0443570017
 Oil filter..... 0443570018
 Dust filter 0443570019

¹Packaged per 55 lbs. (25 kg).

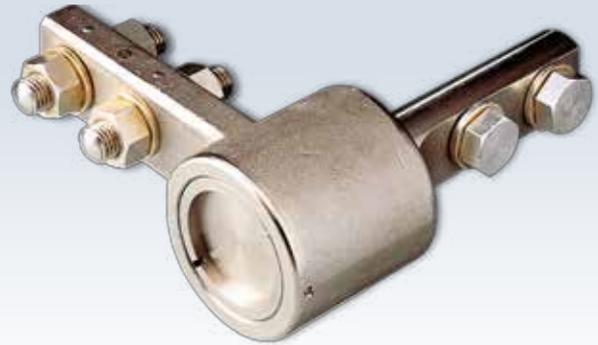
Accessory Components

Specifications

| | 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 87 psi (6 bar, m ³ /h) | 1060 (30) Normal | 2120 (60) Normal |
| Regenerating flow at 87 psi (6 bar), % | 14 | 14 |
| Max. dew point under nominal working conditions, °F (°C) | -14 (-26) | -14 (-26) |
| Desiccant Type 512: | | |
| Sodium-Aluminum-Silicate, lbs. (kg) | 22 (10) | 35 (16) |
| Normal pore size, Ångström | 4 | 4 |
| Particle size, in. (mm) | 0.01-0.20 (2.5-5.0) | 0.01-0.20 (2.5-5.0) |
| Density, lbs/cfh(kg/m ³) | 2362 (720) | 2362 (720) |
| Cycle time per container | 5 | 5 |
| Max. permissible air flow for oil separation filter, cfh (cmh) | 197 (60) Normal | 197 (60) Normal |
| Manifold thread size | R12 | R12 |
| Max. working pressure, psi (bar) | 87 (6) | 87 (6) |
| Max. air pressure at testing, psi (bar) | 145 (10) | 145 (10) |
| Max. inlet air temperature under nominal conditions, °F (°C) | 86 (30) | 86 (30) |

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



Rotating ground coupling NKK

Ordering Information

| | |
|--|------------|
| NKK 600, max. 600A, 4.8 lbs. (2.2 kg) | 0700004007 |
| NKK 800, max. 800A, 5.9 lbs. (2.7 kg) | 0700004001 |
| NKK 1200, max 1200A, 8.8 lbs. (4.0 kg) | 0700004002 |
| NKK 2000, max 2000A, 16 lbs. (7.3 kg) | 0700004003 |

Ground Clamps for Rotating Workpieces

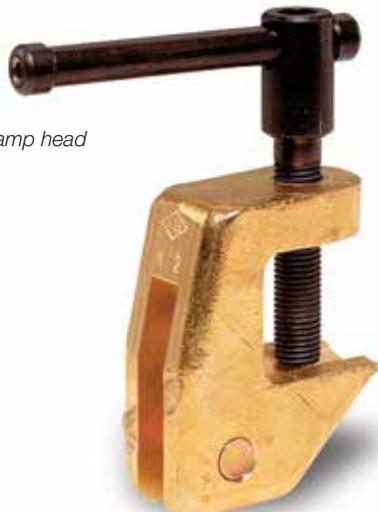
- K2 or PZ3 ground clamps can be mounted directly onto the rotatable ground coupling to create good contact between the workpiece and the return cable
- Return clamps can also be used together with the GA 800 handle connection to form a complete ground clamp to handle high current welding on non-rotating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

Ordering Information

| | |
|---------------------------------------|------------|
| K2 clamp head for NKK 800/1200..... | 0700004004 |
| GA 800 handle connection for K2 | 0700004005 |
| PZ3 pole clamp for NKK 2000..... | 0700004006 |



Handle connection GA 800



K2 clamp head



Pole clamp PZ3

Camera Systems

For Submerged Arc and Open Arc Welding

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



Ordering Information

All systems include camera, camera housing, monitor, crosshair generator, camera mounting bracket, work light, work light bracket, necessary cables.

| | |
|--|------------|
| A2/A6 SAW camera with cooling unit..... | 0811412880 |
| A2/A6 SAW camera without cooling unit..... | 0811412881 |
| SAW compact camera with cooling unit | 0811413900 |
| SAW compact camera without cooling unit | 0811413901 |
| SAW compact Basic/Overview camera | 0811413880 |
| SAW camera system with bracket | 0809516881 |
| GMAW camera with cooling unit..... | 0811414880 |
| GMAW camera without cooling unit..... | 0811414881 |

Components

| | |
|---|------------|
| SAW camera..... | 0810092880 |
| GMAW camera | 0811380880 |
| GMAW camera (prepared for cooling)..... | 0811380881 |
| SAW compact camera | 0811381880 |
| SAW compact camera (prepared for cooling) . | 0811381881 |
| SAW compact Basic/Overview | 0810517880 |
| Monitor including crosshair generator | 0811383880 |

Housing is included with cameras and monitor.



Welding head shown with camera system

Accessory Components

Specifications

| Monitor | | | |
|--|----------------------------------|--|--------------------------------------|
| Panel type | LCD 15 in. with protective glass | | |
| Operating temperature range, °F (°C) | 23 to 95 (-5 to 35) | | |
| | SAW Camera | GMAW Camera/ SAW Compact camera | SAW Compact camera Basic/Overview |
| TV standard | PAL/NTSC | PAL/NTSC | PAL/NTSC |
| Temperature range: Operating, °F (°C) Cooled version, °F (°C) ¹ | 23 to 122 (-5 to 50) - | 14 to 122 (-10 to 50) approx. 572 (300) | - - |
| Dimensions, LxWxH, in. (mm) | 2.4x2.4x4.1 (60x60x105) | 5.7x0.9x0.9 (145x24x24) | 1x1x5 (25x25x126) + lens |
| Weight, lbs. (kg) | approx 1 (0.46) | approx 1 (0.46) | approx. 0.35 (0.16) |

¹Water cooling is required.

OCE-2H Cooling unit

Compact and Efficient

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



Ordering Information

Cooling unit OCE-2H 0414191881
 Flow guard for OCE-2H 0414231880

Specifications

| Pump With Motor | |
|--------------------------|---------------------|
| Max power consumption, W | 250 |
| Mains supply, V, Hz | 230, 50/60, 1-phase |
| Mains water pressure at: | |
| 50 Hz 300 kPa, bar | 3 |
| 60 Hz 410 kPa, bar | 4.1 |

| Cooler | |
|---|-----------------------------|
| Cooling power: | |
| 104°F (40°C) overtemp and 0.5 gal/min (2.0 L/min), kW | 1.1 |
| 140°F (60°C) overtemp and 0.5 gal/min (2.0 L/min), kW | 1.7 kW |
| Water pressure at 0.5 gal/min (2.0 L/min), kPa | 220 |
| Total water consumption, gal (L) | 2.11 (8) |
| Dimensions, LxWxH, in. (mm) | 9.3x12.4x15.7 (236x316x398) |

Accessory Components





Handling Equipment

CD/CI 5-120 Rollerbeds

Conventional Rollerbeds

- Robust design with durable rollers
- Gritblasted steelwork with polyurethane finished coating to endure the abrasive environment of offshore and marine industries
- 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



Ordering Information

| Drive Unit | Idler Unit |
|------------------------|-----------------------|
| CD-50370250000 | CI-5.....0370250001 |
| CD-150370250004 | CI-15.....0370250005 |
| CD-300370250006 | CI-30.....0370250007 |
| CD-600370250008 | CI-60.....0270250009 |
| CD-900370250107 | CI-90.....0370250109 |
| CD-1200370250012 | CI-120.....0370250013 |

Options & Accessories

| | |
|-------------------------------|------------|
| Foot pedal..... | 0370250301 |
| Synchronize kit | 0370250302 |
| Pendant with LCD display..... | 0370250431 |

Specifications

| | CD/CI-5 | CD/CI-15 | CD/CI-30 | CD/CI-60 | CD/CI-90 | CD/CI-120 |
|--|--|--|--|--|--|--|
| Max loading capacity, drive/idler unit, ton | 2.5 | 7.5 | 15 | 30 | 45 | 60 |
| Turning capacity, drive unit, ton | 7.5 | 22.5 | 45 | 90 | 135 | 180 |
| Turning speed, ipm (mm/min) | 3.9-39 (100-1000) | 4-40.2 (102-1020) | 4.9-49.2 (125-1250) | 5-51 (130-1300) | 5-51 (130-1300) | 5-51 (130-1300) |
| Workpiece diameter, min 90°, max 30°, in. (mm) | 7.9-169.3 (200-4300) | 7.9-196.9 (200-5000) | 19.7-236.2 (500-6000) | 19.7-236.2 (500-6000) | 19.7-236.2 (500-6000) | 19.7-236.2 (500-6000) |
| Polyurethane tire, dia, in. (mm) | 13 (330) | 18 (457) | 20.5 (520) | 20.5 (520) | 20.5 (520) | 20.5 (520) |
| Size, width, in. (mm) | 4.5 (113) | 5 (127) | 7 (178) | 7 (178) x 2 | 7 (178) x 2 | 7 (178) x 4 |
| Mains supply: 50 Hz, 3-phase, V 60 Hz, 3-phase, 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 |
| IP Classification | IP 54 | IP 54 | IP 54 | IP 54 | IP 54 | IP 54 |
| Isolator rating, A | 50 | 50 | 50 | 50 | 50 | 50 |
| Control voltage, V AC | 24 | 24 | 24 | 24 | 24 | 24 |
| Motor, kW | 2 x 0.37 | 2 x 0.55 | 2 x 1.1 | 2 x 1.5 | 2 x 3 | 2 x 4 |
| AC inverter, kW | 1.5 | 1.5 | 2.2 | 3 | 7.5 | 11 |
| Weight, lbs. (kg): Drive unit Idler unit | 884 (401) 487 (221) | 1466 (665) 767 (348) | 2694 (1222) 1473 (668) | 4413 (2002) 2727 (1237) | 5926 (2688) 3428 (1555) | 7326 (3323) 4451 (2019) |
| Dimensions, LxHxW, in. (mm): Drive unit Idler unit | 82x21x21 (2090x540x534) 82x21x15 (2090x540x386) | 97x24.5x22 (2465x620x562) 97x24.5x19.6 (2465x620x500) | 110x30x35 (2790x765x765) 110x30x35 (2790x765x700) | 110x30x37 (2790x765x933) 110x30x35 (2790x765x888) | 134x30x46 (3400x765x1177) 110x30x42.5 (2790x765x1080) | 134x30x50.5 (3400x765x1284) 110x30x43.7 (2900x765x1110) |
| Cable control box, ft. (m) | 33 (10) | 33 (10) | 33 (10) | 33 (10) | 33 (10) | 33 (10) |

SD/SI 5-120 Rollerbeds

Self-Aligning Rollerbeds

- Gritblasted steelwork with polyurethane finished coating to endure the abrasive environment of offshore and marine industries
- 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



Ordering Information

| Drive Unit | Idler Unit |
|------------------------|------------------------|
| SD-50370250050 | SI-50370250051 |
| SD-150370250134 | SI-150370250135 |
| SD-300370250136 | SI-300370250137 |
| SD-600370250058 | SI-600370250059 |
| SD-900370250138 | SI-900370250139 |
| SD-1200370250095 | SI-1200370250096 |

Options & Accessories

| | |
|-------------------------------|------------|
| Foot pedal..... | 0370250301 |
| Synchronize kit | 0370250302 |
| Pendant with LCD display..... | 0370250431 |

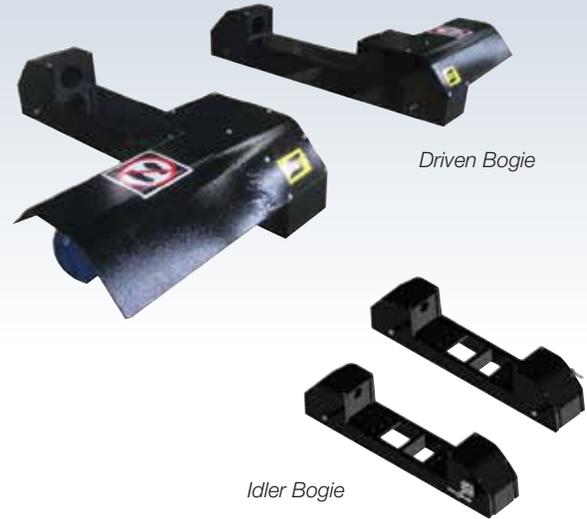
Specifications

| | SD/SI-5 | SD/SI-15 | SD/SI-30 | SD/SI-60 | SD/SI-90 | SD/SI-120 |
|--|--|--|--|--|--|---|
| Max loading capacity, drive/idler, ton | 2.5 | 7.5 | 15 | 30 | 45 | 60 |
| Turning capacity, drive unit, ton | 7.5 | 22.5 | 45 | 90 | 135 | 180 |
| Turning speed, ipm (mm/min) | 5-50 (127.3-1273) | 5-51 (130-1300) | 4.7-47.2 (120-1200) | 4.7-47.2 (120-1200) | 4-40 (100-1000) | 4-40 (100-1000) |
| Workpiece diameter, 2 tire, in. (mm) | 8-31 (200-788.8) | 8-31 (200-788.8) | 11.8-44.7 (300-1136) | 11.8-44.7 (300-1136) | 8-42.1 (200-1070) | 11.8-45.5 (300-1156) |
| Workpiece diameter, 4 tire, in. (mm) | 31-259.8 (789-6600) | 31-259.8 (789-6600) | 44.8-283.5 (1137-7200) | 44.8-299.2 (1137-7600) | 42.2-326.8 (1071-8300) | 45.5-318.9 (1157-8100) |
| Polyurethane tire, diameter, in. (mm) | 13 (330) | 13 (330) | 18 (457) | 18 (457) | 17.7 (450) | 20.5 (520) |
| Size, width, | 3 (76.2) | 6 (152.4) | 5 (127) | 5 (127) x 2 | 9.8 (250) | 7 (178) x 2 |
| Mains supply: 50 Hz, 3-phase, V 60 Hz, 3-phase, 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 |
| IP Classification | IP 54 | IP 54 | IP 54 | IP 54 | IP 54 | IP 54 |
| Isolator rating, A | 50 | 50 | 50 | 50 | 50 | 50 |
| Control voltage, V AC | 24 | 24 | 24 | 24 | 24 | 24 |
| Motor, kW | 2 x 0.37 | 2 x 0.55 | 2 x 1.1 | 2 x 1.5 | 2 x 3 | 2 x 4 |
| AC inverter, kW | 1.5 | 1.5 | 2.2 | 3 | 7.5 | 11 |
| Weight, lbs. (kg): Drive unit Idler unit | 2094 (950) 1367 (620) | 2580 (1170) 1808 (820) | 5115 (2320) 3439 (1560) | 6746 (3060) 4850 (2200) | 7187 (3260) 5436.5 (2466) | 9694 (4397) 7518 (3410) |
| Dimensions, LxHxW, in. (mm): Drive unit Idler unit | 150x37x30 (3816x930x753) 122x37x27 (3100x930x686) | 150x37x31 (3814x930x788) 122x37x30 (3100x930x756) | 167x51x32 (4232x1295x818) 134x51x32 (3400x1295x814) | 179x51x38 (4537x1295x965) 142x51x35 (3600x1295x890) | 189x55x39 (4800x1406x987) 153.5x55x37 (3900x1406x938) | 191.5x59x42.5 (4866x1502x1082) 156x59x38 (3968x1502x975) |
| Cable control box, ft. (m) | 33 (10) | 33 (10) | 33 (10) | 33 (10) | 33 (10) | 33 (10) |

Rail Bogie DB/IB 5-120

Motorized and Idler Rail Bogie Variants

- Space saving for transport
- Modularization means easy stocking
- Standard size rail 1730/2000 mm (68-79 in.)
- Bolted on with standard conventional and self-aligning rollerbeds



Ordering information

Motorized Bogie

| | |
|---------------|------------|
| DB 5-30 | 0370250250 |
| DB 60 | 0370250252 |
| DB 90 | 0370250254 |
| DB 120 | 0370250256 |

Idler bogie

| | |
|---------------|------------|
| IB 5-30 | 0370250251 |
| IB 60 | 0370250253 |
| IB 90 | 0370250255 |
| IB 120 | 0370250257 |

Specifications

| | DB/IB 5-30 | DB/IB 60 | DB/IB 90 | DB/IB 120 |
|--|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Max loading capacity, drive/idler, ton | 15 | 30 | 45 | 60 |
| Turning capacity, drive unit, ton | 45 | 90 | 135 | 180 |
| Wheel, in. (mm) | 68/78.5 (1725/1995) | 68/78.5 (1725/1995) | 68/78.5 (1725/1995) | 68/78.5 (1725/1995) |
| Mains supply: | | | | |
| 50 Hz, 3-phase, V | 380/400/415 | 380/400/415 | 380/400/415 | 380/400/415 |
| 60 Hz, 3-phase, V | 440/460/480 | 440/460/480 | 440/460/480 | 440/460/480 |
| IP Classification | IP 54 | IP 54 | IP 54 | IP 54 |
| Isolator rating, A | 50 | 50 | 50 | 50 |
| Control voltage, V AC | 24 | 24 | 24 | 24 |
| Travel car speed, ipm (mm/min) | 12-122 (310-3100) | 12.4-124 (315-3150) | 11.8-118 (300-3000) | 11.8-118 (300-3000) |
| Motor, kW | 2 x 0.75 | 2 x 1.1 | 2 x 1.1 | 2 x 1.5 |
| Weight, lbs. (kg): | | | | |
| Drive unit | 1014 (460) | 1455 (660) | 1587 (720) | 1896 (860) |
| Idler unit | 794 (360) | 948 (430) | 1159 (526) | 1411 (640) |
| Dimensions, LxHxW, in. (mm): | | | | |
| Drive unit | 88x12.5x55 (2242x320x1390) | 89x13x59 (2253x328x1500) | 87x12.5x66 (2252x320x1670) | 87x15x75.5 (2252x383x1920) |
| Idler unit | 88x12.5x48 (2242x320x1220) | 89x13.5x51 (2253x343x1290) | 87x12.5x59 (2252x320x1490) | 87x15x67 (2252x383x1700) |

FIR 35, 75, and 100 Rollerbeds

Heavy-Duty for Growing Line Production

- Designed and robustly built to withstand rugged work environments
- This unit is part of a growing line, ideal for windtower production
- FIR has four independently adjustable rollers to align the workpieces with each other, and two cross rollers to lift up the section for conveying out the workpiece
- Ideal for:
 - Windtower fabrication
 - Vessels
 - Pipemills



Ordering Information

FIR 35 0370250934
 FIR 75 0370250935
 FIR 100 0370250936

Specifications

| | FIR 35 | FIR 75 | FIR 100 |
|---------------------------------------|-------------------------------|---------------------------------------|--------------------------------|
| Max loading capacity, ton | 35 | 75 | 100 |
| Workpiece diameter, in. (mm) | 86.6-197 (2200-5000) | 35.4-236 (900-6000) | 35.4-236 (900-6000) |
| Tire type, steel, Ø in. (mm) | 11.8 (300) | 11.8 (300) | 11.8 (300) |
| Control voltage, V AC | 24 | 24 | 24 |
| Mains supply, 50 Hz, 3-phase, V | 480 | 480 | 480 |
| Enclosure class (electrical) | IP 43 | IP 43 | IP 43 |
| Power pack rating, kW | 3 | 5.5 | 5.5 |
| Pump, cc | 3.2 | 5.5 | 5.5 |
| Tank capacity, gal (L) | 16 (60) | 24 (90) | 24 (90) |
| Stroke length cylinder A, in. (mm) | Ø 4.9x6.3x0.08 (125x160x2) | Ø 5.9x3.3x6.3x0.08 (150x85x160x2) | Ø 7.1x6.3x0.08 (180x160x2) |
| Stroke length cylinder B, in. (mm) | Ø 3.9x8.3x0.16 (100x210x4) | Ø 5.9x3.3x13.8x0.16 (150x85x350x4) | Ø 7.1x15.8x0.16 (180x400x4) |
| Stroke length cylinder C, in. (mm) | Ø 5.9x11.8 (150x300) | Ø 5.9x3.3x11.8 (150x85x300) | Ø 7.1x11.8 (180x300) |
| Net weight, lbs. (kg) | 10692 (4850) | 18519 (8400) | 19842 (9000) |
| Cable length control pendant, ft. (m) | 33 (10) | 33 (10) | 33 (10) |

Handling Equipment

FIT 30, 60, and 100 Rollerbeds

Idler Units with Hydraulic Height Adjustment

- Designed and robustly built to withstand rugged work environments
- This unit can be used individually for aligning several workpieces or used as part of a growing line, ideal for windtower production
- Two independently adjusted rollers to align the workpieces with each other
- Delivered with or without rail bogie
- Ideal for:
 - Windtower fabrication
 - Vessels
 - Pipemills



Ordering Information

| | |
|-----------------|------------|
| FIT 30..... | 0370250937 |
| FIT 30IB | 0370250938 |
| FIT 60..... | 0370250939 |
| FIT 60IB | 0370250940 |
| FIT 100..... | 0370250941 |
| FIT 100IB | 0370250942 |

Specifications

| | FIT 30 | FIT 60 | FIT 100 |
|--|----------------------------------|-----------------------------------|-----------------------------------|
| Max. loading capacity, ton | 15 | 30 | 50 |
| Max. lifting capacity, ton | 15 | 30 | 50 |
| Workpiece diameter, in. (mm) | 59x256 (1500-6500) | 59x256 (1500-6500) | 60x216 (1524-5486) |
| Fuse, A | 16 | 16 | 16 |
| Control voltage, V AC | 24 | 24 | 24 |
| Mains supply, 50/60 Hz, 3-phase, V | 400 | 400 | 400 |
| Enclosure class, motor | IP 55 | IP 55 | IP 55 |
| Enclosure class, electrical | IP 43 | IP 43 | IP 43 |
| Power pack rating, kW | 1.1 | 2.2 | 4 |
| Weight, lbs. (kg) | 3968 (1800) | 4189 (1900) | 5060 (2295) |
| Dimensions with travel car, LxWxH, in. (mm) | 147x35.4x62.6 (3730x900x1590) | 147x44.5x62.6 (3730x1130x1590) | 147x52.4x62.6 (3730x1330x1590) |
| Dimensions without travel car, LxWxH, in. (mm) | 147x21.3x37.2 (3730x540x945) | 147x30.3x37.2 (3730x770x945) | 147x42.1x37.2 (3730x1070x945) |
| Cable length control box, ft. (m) | 19.6 (6) | 19.6 (6) | 19.6 (6) |

FUB 30 and 60 Fit-Up Beds

System to Assemble 1+1 Sections

- 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 rollerbed 30T, four independantly adjustable rollers to align the two sections with each other
- The rollerbed and rollers are all mounted on one main frame
- Tires of type polyurethane 520.7 x 177.8 mm (20.5 x 7 in.)
- Ideal for:
 - Wind tower fabrication
 - Vessels
 - Pipemills



Ordering Information

FUB 30..... 0370250931
 FUB 60..... 0370250932

Specifications

| | FUB 30 | FUB 60 |
|---|----------------------------|-------------------|
| Max. loading capacity, ton | 30 | 60 |
| Min. workpiece diameter, at 90° incl. angle, in. (mm) | 24 (610) | 24 (610) |
| Max. workpiece diameter, at 30° incl. angle, in. (mm) | 253.3 (6435) | 253.3 (6435) |
| Roller speed, mm/min (ipm) | 5-51 (130-1295) | 5-51 (130-1295) |
| 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, ipm (mm/min) | 9.4-94 (238-2380) | 9.5-95 (240-2400) |
| Travel car drive, AC kW | 1.1 | 2.2 |
| Power pack rating, kW | 1.5 | 1.5 |
| Enclosure class, motor | IP 55 | IP 55 |
| Enclosure class, electrical | IP 43 | IP 43 |
| Pump, cc | 2.1 | 2.1 |
| Tank capacity, gal (L) | 4.23 (16) | 4.23 (16) |
| Weight, lbs. (kg) | 11575 (5250) | 16226 (7360) |

RT3 - RT35 2-Axis Positioners

For Rotating and Tilting Workpieces

- Continuous (stepless), adjustable speed
- Low voltage (24V) 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

| | |
|------------|------------|
| RT3 | 0370250851 |
| RT5 | 0370250852 |
| RT10 | 0370250853 |
| RT15 | 0370250854 |
| RT20 | 0370250855 |
| RT35 | 0370250856 |

Options & Accessories

| | |
|-----------------|------------|
| Foot pedal..... | 0370250298 |
|-----------------|------------|

Specifications

| | 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, s | 80 | 113 | 177 | 120 | 177 | 105 |
| Tilting motor c/w brake | 1.5 | 2.2 | 4 | 7.5 | 9.2 | 7.5 |
| Mains supply: | | | | | | |
| 50 Hz, 3-phase, V | 380/400/415 | 380/400/415 | 380/400/415 | 380/400/415 | 380/400/415 | 380/400/415 |
| 60 Hz, 3-phase, V | 440/460/480 | 440/460/480 | 440/460/480 | 440/460/480 | 440/460/480 | 440/460/480 |
| Fuse, A | 16 | 18 | 25 | 40 | 60 | 60 |
| Control voltage, V AC | 24 | 24 | 24 | 24 | 24 | 24 |
| Table plate diameter, in. (mm) | 47 (1200) | 59 (1500) | 71 (1800) | 71 (1800) | 87 (2200) | 110 (2800) |
| Max. welding current, A | 800 | 1000 | 1000 | 1000 | 1000 | 1000 |
| Enclosure class | IP 55 | IP 55 | IP 55 | IP 55 | IP 55 | IP 55 |
| Weight, lbs. (kg) | 3461 (1570) | 5996.5 (2720) | 9987 (4530) | 15653 (7100) | 22046 (10000) | 37479 (17000) |
| Dimensions, LxWxH, in. (mm) | 64x42x41 (1625x1070x1057) | 68x62.5x48 (1720x1590x1227) | 96.5x81.5x62.4 (2453x2070x1586) | 110x86x72.5 (2800x2190x1840) | 120x94.5x73 (3050x2400x1850) | 76x116x102 (1940x2950x2600) |
| Cable control box, ft. (m) | 19.6 (6) | 19.6 (6) | 19.6 (6) | 33 (10) | 33 (10) | 33 (10) |

TAP 1-HD, 3-HD and 6-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
- Ideal for:
 - Pipe shops
 - Vessels
 - Cladding of dish ends
 - Fuel tanks



Ordering Information

TAP 1-HD 0370250753
 TAP 3-HD 0370250754
 TAP 6-HD 0370250755

Options & Accessories

Foot pedal 0370250298

Specifications

| | TAP 1-HD | TAP 3-HD | TAP 6-HD |
|---------------------------------------|--|--|--|
| Max. turning capacity, ton @ in. (mm) | 1 @ 11 (270) | 3 @ 6.5 (165) | 6 @ 6 (150) |
| Max. tilting capacity, ton @ in. (mm) | 1 @ 11 (270) | 3 @ 6.5 (165) | 6 @ 6 (150) |
| Rotation speed, rpm | 0.115-1.15 | 0.061-0.61 | 0.089-0.89 |
| Tilting range table plate, ° | 0-135 | 0-135 | 0-135 |
| Tilting range arm, ° | 0-45 | 0-45 | 0-135 |
| Mains supply | 380/400/415 V, 3ph, 50 Hz 440/460/480 V, 3ph, 60 Hz | 380/400/415 V, 3ph, 50 Hz 440/460/480 V, 3ph, 60 Hz | 380/400/415 V, 3ph, 50 Hz 440/460/480 V, 3ph, 60 Hz |
| Fuse, A | 9 | 9 | 18 |
| Control voltage, V AC | 24 | 24 | 24 |
| Motor, kW | 0.75 | 1.5 | 3 |
| IP classification | IP 54 | IP 54 | IP 54 |
| AC inverter, kW | 0.75 | 1.5 | 3 |
| Table plate diameter, in. (mm) | 35 (900) | 39 (1000) | 47 (1200) |
| Welding current, A | 800 | 800 | 800 |
| Weight, lbs. (kg) | (1150) | (1935) | (4340) |
| Max. tilting height, in. (mm) | 53 (1354) | 68 (1738) | 78 (1976) |
| Dimensions, LxWxH, in. (mm) | 51x64x31 (1294x1620x790) | 50x90x42 (1280x2280x1058) | 66.5x98x44 (1690x2500x1130) |
| Cable length control box, ft. (m) | 20 (6) | 20 (6) | 20 (6) |

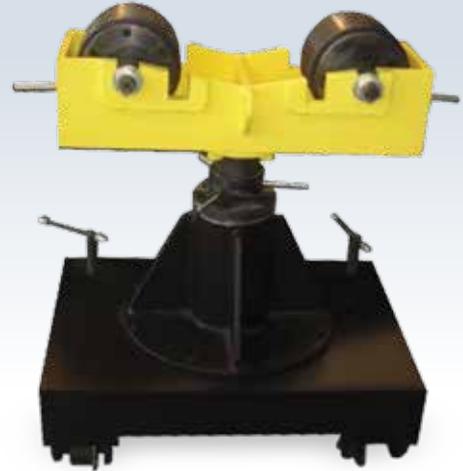
MTS1 and MTS3

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

MTS1 0370251057
 MTS3 0370251058



Specifications

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



L-1116 Rev 1/20

WARNING
ELECTRICAL
Hazard



Special Applications

Swift Arc Transfer™

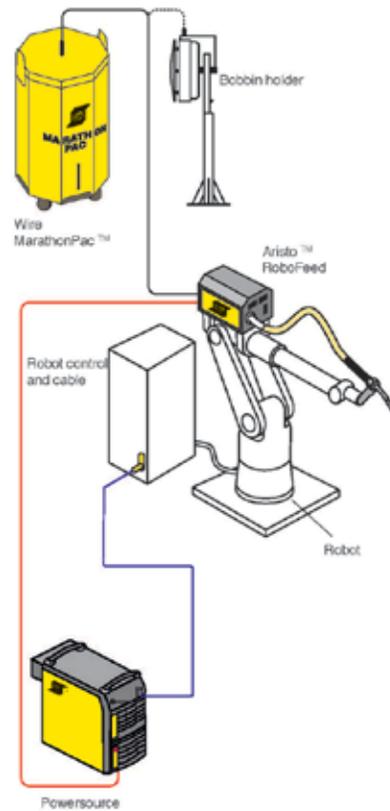
High-Speed Robotic GMAW Process

- Swift Arc Transfer (SAT) is a high productivity GMAW process using AristoRod™ non-copper coated wires with Advanced Surface Characteristics at travel speeds well beyond the limits of normal spray arc welding
- The advantage AristoRod non-copper-coated wire over copper-coated wires is that it does not contaminate the feed system with copper particles
- Synergic lines are available for three AristoRod wire sizes and various shielding gases
- SAT produces flat welds with a good penetration and without undercut
- An additional advantage is the low heat input, resulting in less deformation
- SAT is developed for robotic, automated and mechanized welding, and suited for fillet and overlap welds in thin to thick plate, in downhand positions
- SAT uses ESAB inverter power sources together with the Robofeed 3004 wire feeder for wire feed speeds up to 30 m/min (1200 ipm) in conjunction with U8₂ Plus control unit
- ESAB provides a complete package of equipment, consumables, and synergic lines as well as the expertise to successfully implement the SAT process



Advanced Robotic Welding Technology

- ESAB's Aristo U8₂ robot package is a complete set of welding equipment and consumables, based on ESAB's latest digital power source technology
- A complete package consists of:
 - Aristo Mig 5000iw inverter or Origo Mig 4002, 5002 or 6502 chopper power source
 - Aristo U8₂ control unit with SAT synergic lines or the Aristo W8₂ interface for different robot brands
 - Robofeed 3004w ELP encapsulated wire feeder with up to 30 m/min (1.2 ipm) wire feed speed
 - Cable packages
 - ESAB Marathon Pacbulk wire drum system with robot quality welding wire and optional bobbin holder
- The robot package can be installed to enable SAT welding on newly built robots, but also for retrofit of existing installations



Special Applications

Friction Stir Welding

Advanced joining process

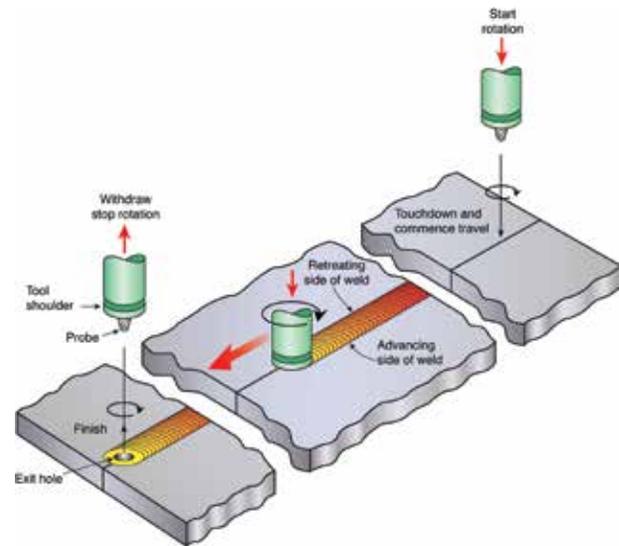
- Friction Stir Welding (FSW) is based on the principle of obtaining a sufficiently high temperature and pressure to join two components together by using a rotating tool, which under high pressure, moves along the joint, thereby creating a weld
- FSW is ideal for joining straight profiles and flat plates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

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

Applications

- Shipbuilding
- Offshore platforms
- Aerospace industry
- Railway wagons, streetcars, underground train carriages
- Automotive industry
- Production of electric motors
- Defense industry
- Cooling elements
- Most Aluminum, Copper, and Magnesium alloys can be welded with FSW



SuperStir™ Friction Stir Welding System

- The ESAB SuperStir range is designed for high-volume production of large Aluminum 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
- SuperStir FSW technology is applied across the entire industrial spectrum, from shipping, offshore, construction, and transportation to defense, and aerospace.

Legio™ Friction Stir Welding

A Modular Friction Stir Welding System

- The modular system makes it possible to assemble welding stations to suit the most varied FSW applications
- In a series of seven sizes there are five basic designs: S, ST, U, UT, and double-headed ST
- S and ST models are designed for linear welding (x and z), U and UT models for 2D (x-y and z), and double-headed versions are for welding hollow profiles
- 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 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 ST models are the most suitable with tables prepared with a hole pattern where fixtures can be attached
- All machines are designed with a rigid framework for high performance during load conditions
- The welding head travels on heavy-duty linear bearings and is driven by a rack and pinion drive system
- All Legio machines have an ESAB HMI (Human Machine Interface) control system, specially developed for FSW
- Control the welding process (the vertical a-axis) either by force or position control; a hydraulic cylinder with a closed loop system controls the a-axis



Ordering Information

For ordering information, please contact your nearest ESAB representative.

Specifications

| | FSW 1 | FSW 2 | FSW 3 | FSW 4 | FSW 5 | FSW 6 | FSW 7 |
|---------------------------------|------------|------------|-----------|-----------|-----------|-----------|------------|
| Welding depth, in. (mm): | | | | | | | |
| Al 236 in. (6000 mm) | 0.12 (3) | 0.20 (5) | 0.40 (10) | 0.71 (18) | 35 (1.38) | 2.36 (60) | 3.94 (100) |
| Al 197 in. (5000 mm) | 0.08 (2) | 0.14 (3.5) | 0.28 (7) | 0.40 (10) | 20 (0.80) | 1.57 (40) | 2.95 (75) |
| Al 79 in. (2000 mm) | 0.06 (1.5) | 0.10 (2.5) | 0.20 (5) | 0.35 (9) | 18 (0.71) | 0.98 (25) | 2.75 (70) |
| Al 275.5 in. (7000 mm) | 0.06 (1.5) | 0.10 (2.5) | 0.20 (5) | 0.35 (9) | 18 (0.71) | 0.98 (25) | 2.75 (70) |
| Cu (oxygen free) | 0.03 (0.8) | 0.06 (1.5) | 0.12 (3) | 0.28 (7) | 12 (0.47) | 0.98 (25) | 1.57 (40) |
| Max. welding speed, ipm (m/min) | 79 (2) | 79 (2) | 79 (2) | 79 (2) | 79 (2) | 79 (2) | 79 (2) |
| Vertical down force, kN | 6 | 12.5 | 25 | 60 | 100 | 150 | 200 |

Rosio™ Friction Stir Welding Robot

FSW Robot for Welding Challenging Joints

- The ESAB FSW robot system enables flexible joining of complex structures, ideally Aluminum
- The ability to perform welds in an arbitrary direction of a 3-dimensional workspace increases the possibilities of usage for new challenging FSW applications
- The cell consists of an ABB IRB 7600 robot, modified for the purpose of FSW
- The welding equipment is integrated in the mechanical structure of the robot without limiting the robot's standard working envelope
- The robot's reachable workspace spans over 2.5 m (8.2 ft.), in which a down force of up to 13 kN may be applied during welding
- Running on the state-of-the-art control system IRC5, an embedded force control solution allows in-contact motions with high accuracy
- An extension to the standard motion programming language is included - this extension includes instructions for welding linear in arbitrary directions, circular, and square shaped paths, as well as functionalities to support custom made path programming and spindle operations
- To provide valuable feedback to the operator, a man-machine-interface is included extending the IRC5's own interface on the Flex Pendant, based on WinCE



Ordering Information

For ordering information, please contact your nearest ESAB representative.

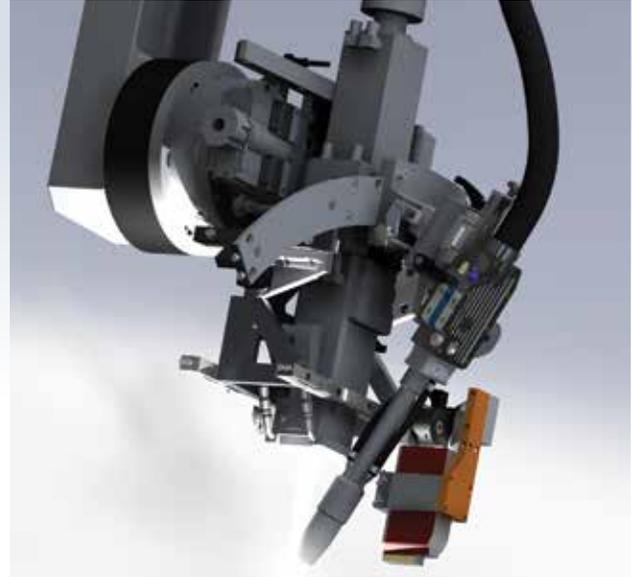
Specifications

| Rosio | |
|------------------------------------|-----------------------------------|
| Welding depth, in. (mm): | |
| Al 236 in. (6000 mm) | 0.04-0.28 (1-7) |
| Al 197 in. (5000 mm) | 0.04-0.24 (1-6) |
| Al 79 in. (2000 mm) | 0.04 - 0.20 (1-5) |
| Al 275.5 in. (7000 mm) | 0.04 - 0.20 (1-5) |
| Welding speed, ipm (m/min) | >39.4 (>1) |
| Spindle rotation, max rpm | 3000 |
| Vertical down force, kN | 13 |
| Spindle torque (stall), Nm | 44 |
| Robot reach, in. (mm) | 100 (2550) |
| Robot base dimension, LxW in. (mm) | 47.5 x 47 (1206.5 x 1200) |
| Robot weight, lbs. (kg) | 5511.5 (2500) |
| Cabinet dimension, LxWxH in. (mm) | 85 x 28.5 x 28 (2160 x 725 x 710) |
| Cabinet weight, lbs. (kg) | 551 (250) |
| Mains supply, V, 50 Hz | 400 |

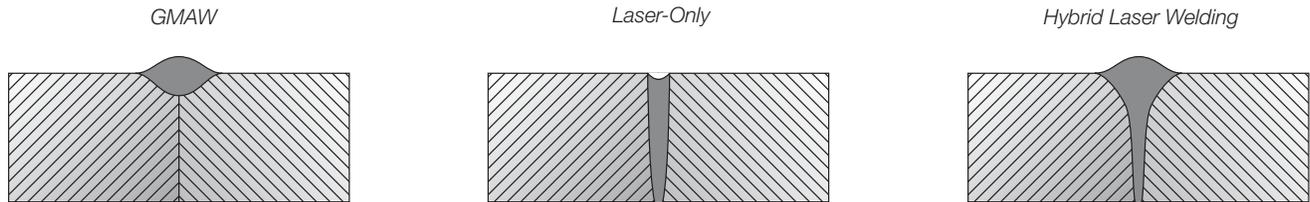
Hybrio™ - Hybrid Laser Welding

Laser and GMAW Welding Technology

- 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 overcomes the limitations of laser-only welding with its ability to produce quality 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



Special Applications



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

Ordering Information

For more information, please contact your nearest ESAB representative.

Hybrio™ - Hybrid Laser Welding



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 4 m x 20 m (13 ft. x 67 ft.) and longer. Additionally, this system can be configured to cover a range of z-axis depths from 1 m to 3 m (3 ft. to 10 ft.). This gives the user the flexibility to use the Hybrio Flex system for a large variety of product geometries and weld joint configurations.



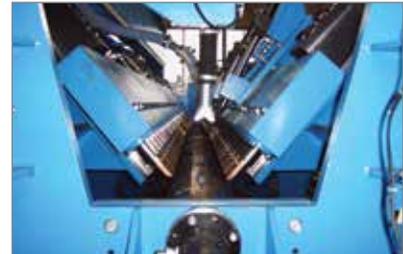
Hybrio Beam

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 on 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.



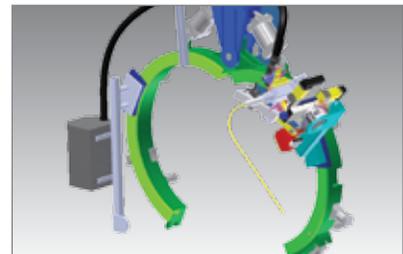
Hybrio Tube

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.

Special
Applications

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.)
- Meets the demands for a fully automatic welding process with accurate controlling of all parameters for reduced welding times and perfect weld metal when welding high-tensile material
- Designed around the flat welding nozzle
- The reciprocating movement of the nozzle is accomplished by means of a pneumatic three position cylinder and is transferred from cylinder to nozzle through a shaft transmission system
- The welding head is equipped with separate joint tracking system for vertical and horizontal joint tracking, respectively
- Automatic shift overlap
- Possible to weld up to 50 mm (1.97 in.) joint width
- Air-cooled torch
- High productivity
- Optional WeldLog computer program for welding supervision and documentation



Ordering Information

For more information, please contact your nearest ESAB representative.

Specifications

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

AGW1 and AGW2

Single And Double-Side Tank Welders

- 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 single-side (AGW1) and double-side (AGW2) versions
- Designed to travel along the top edge of the tank shell
- With AGW2, the operator 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 maximum safety and comfort
- The cage can be covered by curtains for protection against weather
- The cabin on the AGW2 is equipped with step ladders and a joining bridge at the top for operators to climb aboard
- The bridge has guard rails for operator safety



Ordering Information

AGW1, tank welder, single-side 0370250700
 AGW2, tank welder, double-side 0370250701

Options & Accessories

AGW1 transportable stand 0370250703
 AGW2 transportable stand 0370250704
 Cable set, 3.7 in² (95 mm²), 328 ft. (100 m) (75+25).. 0370250705
 Cabin light..... 0370250706

Specifications

| | AGW1 | AGW2 |
|-------------------------------|-------------------------|-------------------|
| Max. load, lbs. (kg) | 661 (300) | 661 (300) |
| Shell height, in. (m) | 71-138 (1.8-3.5) | 71-138 (1.8-3.5) |
| Height increment, in. (m) | 4 (100) | 4 (100) |
| Max. shell thickness, in. (m) | 2 (50) | 2 (50) |
| Min. side clearance, in. (m) | 57 (1450) | 57 (1450) |
| Travel speed, mm/min (ipm) | 10-96 (244-2440) | 11-110 (278-2780) |
| Flux hoist (max), lbs. (kg) | 154 (70) | 154 (70) |
| Dimensions, LxWxH, in. (m) | 5x19x7 (1440x5836x2102) | 7.25x19x7 () |
| Weight, lbs. (kg) | 2866 (1300) | 3219 (1460) |

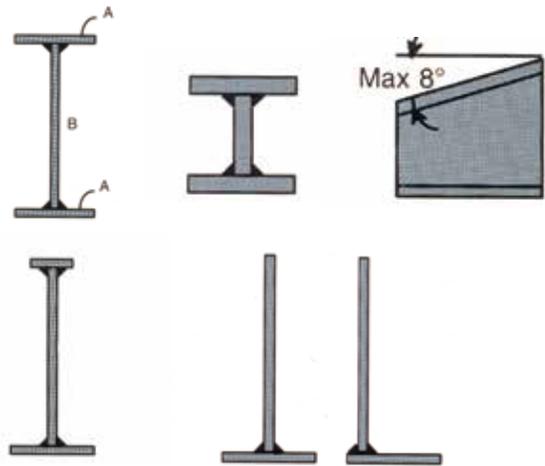
Beam Welding - Pull-Through Welders

For Welding Beams and Profiles

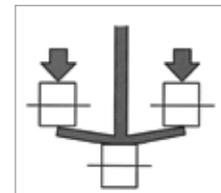
- Whether you weld I-, T- or L-beams, wide flange beams, columns, tapered beams or non-symmetrical beams, ESAB has the expertise and welding equipment to match your efficiency, quality, precision, versatility, productivity, and overall welding economy requirements
- Two types of machines:
 1. IT-machines where the beams are welded with the web unit in the vertical position
 2. I-machines, where the beams are produced in horizontal position; contact ESAB for more information
- 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



Examples of beams that can be welded:



Straightening principle:



Beam welder IT-258

Specifications

Total range of beam sizes that can be welded:

| Machine Type | Web | Flange |
|--------------|-----------------------------|-------------------------|
| IT-158 | 7.8-59 in. (200-1500 mm) | 4-27.5 in. (100-700 mm) |
| IT-258 | 7.8-98.4 in. (200-2500 mm) | 4-27.5 in. (100-700 mm) |
| IT-358 | 7.8-137.8 in. (200-3500 mm) | 4-27.5 in. (100-700 mm) |

Welding Solutions for Pipemills

Full Range of Automated Welding Solutions

Flexible, reliable welding equipment

- A wide range of products developed for various multi-wire submerged arc welding (SAW) applications which are particularly suitable for pipe welding

Precise, high-speed longitudinal welding

- ESAB's concept for longitudinal SAW is suitable for pipes in a normal diameter range of 508-1626 mm (20-64 in.), 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 ESAB has designed pre-stressed booms and 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

Grounding Systems

- 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 straightforward supply of new and re-used flux
- The correct combination of compressed air, flux feeding, easy replenishment of new flux via the BigBag flux 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 on 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



Internal welding



External welding

Ordering Information

For more information, please contact your nearest ESAB representative.

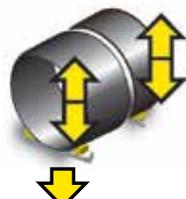
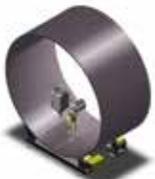
Windtower Manufacturing

Turnkey Automated Welding Solutions

- The key to efficient production of windtowers 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 windtower 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



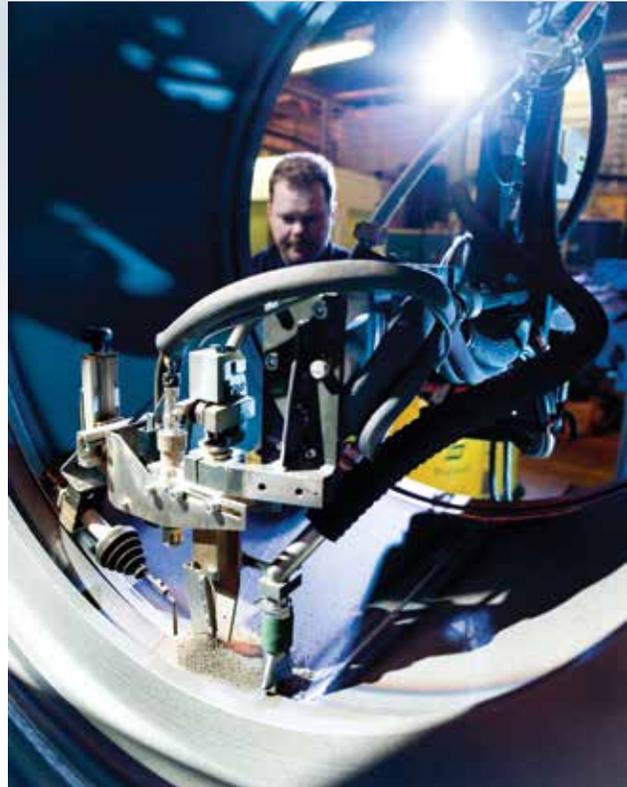
Special Applications

| | |
|---|---|
| <p>1</p>  <p><i>Oxy-fuel or plasma cutting of plate and seam preparation.</i></p> | <p>5</p>  <p><i>Submerged arc welding of flanges and supports.</i></p> |
| <p>2</p>  <p><i>Rolling, forming and tack welding of the shell.</i></p> | <p>6</p>  <p><i>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.</i></p> |
| <p>3</p>  <p><i>External longitudinal submerged arc welding using a column and boom.</i></p> | <p>7</p>  <p><i>Automatic welding of the door frame.</i></p> |
| <p>4</p>  <p><i>Internal longitudinal submerged arc welding using a column and boom.</i></p> | <p>8</p>  <p><i>Production of sub-components using an ESAB positioner and manual welding equipment.</i></p> |

ESAB Retrofit

System Upgrades for a Modern Solution

- 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 determine the most suitable welding process
- Over a time, these conditions will change, which might require a change of process
- ESAB can offer a variety of different welding heads for different processes to be fitted to any carrier
- ESAB Retrofit is an ideal alternative to costly investments in new equipment
- In addition to increased availability, a conversion of this kind frequently 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 machinery



Why Retrofit?

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

Time to Retrofit?

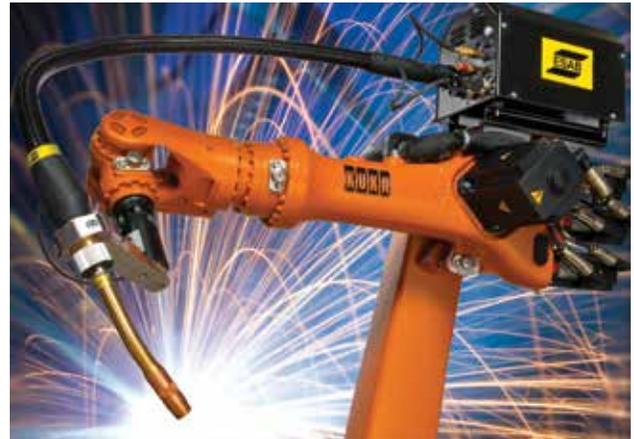
What kind of carrier can be retrofitted?

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

Swift Arc Robotic Systems

Pre-Engineered Robotic Systems

- The Swift Arc series of pre-engineered, robotic welding cells are available in 3 models: AL (angle-load), (front-load), SL (side-load)
- Each system is an economic configuration for a complete work cell, and is ideal for job shops introducing robotics to their applications
- The complete robotic system is delivered ready-to-weld - just hook up the input power, gas, and wire to start welding
- The state-of-the-art welding power source and wire feeder are offered as standard components, designed to minimize spatter and burn-through on thin materials
- TruArc Voltage is a standard feature offered to provide truly accurate voltage information for critical welding
- Other standard features include harmonized motion between the robot and external axes, open architecture Windows HMI, easy teaching with the PC-based controller, constant wrist orientation function, electronic mastering for quick calibration, and much more
- Each Swift Arc system comes with an ESAB Marathon Pac of bulk welding wire and Aristo RT robotic torch
- The torches' universal contact tips can be interchanged between water-cooled and gas-cooled torches
- The Swift Arc AL features a simple cell design with easy-open manual doors for minimum maintenance and two independent working locations for maximum productivity
- Tooling can be changed on one side while welding takes place on the other side
- At 36 ft. x 42 ft. (11 m x 12.8 m), the large capacity flat table side is approximately twice the size of a 1524 mm (60 in.) rotating turntable
- The cell features a KUKA KR-5 Arc Robot with PC-based KRC-2 controller with 5-kg (11-lb) payload and 55.5 in. (1409.7 mm) reach



KUKA Robotics

- KUKA Robotics has one of the largest and most diverse product lines of arc welding and cutting tool robots available
- Choose from multiple options to fit your application: standard or hollow wrists, shelf mount, extended reach or high accuracy models are available

Ordering Information

For more information, please contact your nearest ESAB representative.

Special Applications





Applied Automation

Mechtrac 1730, 2100, 2500, and 3000

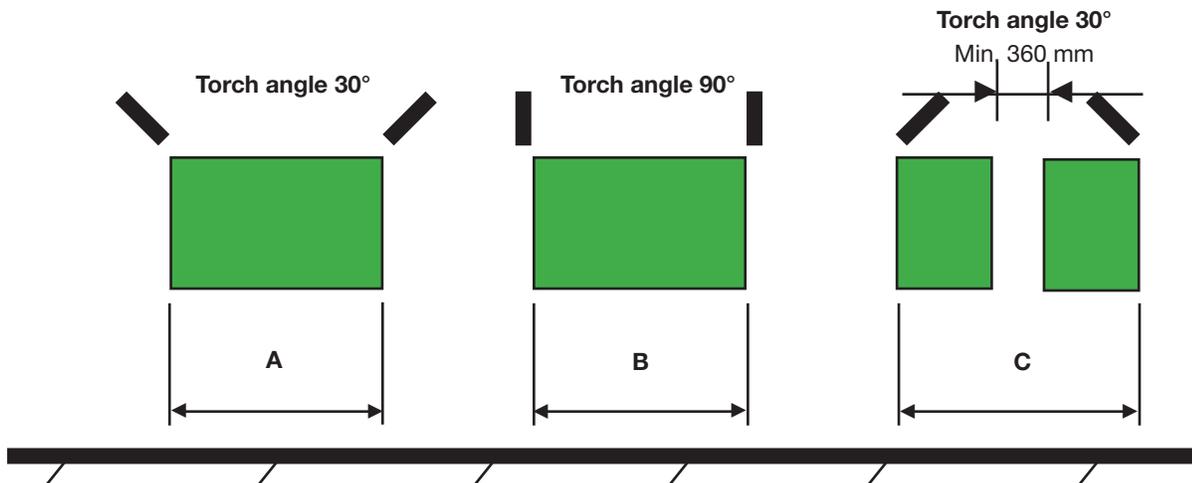
For Mechanized Gantry Automation

- Fast and flexible way to increase productivity
- Equipped with A2-A6 process controller PEK 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 or tapered columns
- Available in four versions (width of gantry): 68 in. (1730 mm), 83 in. (2100 mm), 94 in. (2500 mm), or 118 in. (3000 mm)
- All versions have a standard gantry leg height of 59 in. (1500 mm)
- Floor mounted rail delivered in standard lengths of 10 ft. (3 m); can be easily extended
- Dual-drive motors are standard
- Gantry can support a maximum weight of 485 lbs. (220 kg) - up to two A2 welding heads, complete with GMH joint tracking and OPC flux recovery systems



Ordering Information

For ordering information and specifications, please contact your nearest ESAB representative.



Gantrac

Optimized, Stable 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 (SAW) is the ideal process 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 $\pm 180^\circ$ for welding in both X-directions as well as 90° 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

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 GMH joint tracking controls the vertical and horizontal axes, eg/ the slides and the carriages, to safeguard the superior weld quality
- A large number of positioning axes permit flexible welding production



Ordering Information

For ordering information, please contact your nearest ESAB representative.

Column and Boom (CaB) Systems

Cost Efficient, 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 welding head
 - A2-A6 process controller PEK with ESAB DC or AC power sources
 - ESAB low load positioning equipment
 - 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; these numbers refer to boom profile height (mm), which determines working range and load capability
- Choose from stationary or mobile, rail-travelling carriage systems
- Versatile to suit to any automated welding application



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 and 460S

Standard format - exceptional economy

- Conventional column and boom with a movable boom and 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 has a working range of 10 to 16.5 ft. (3 to 5 m) both vertically and horizontally
- The CaB 460S has a working range of 16.5 to 23 ft. (5 to 7 m) 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.

Column and Boom (CaB) Systems



CaB 300M, 460M, and 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
- 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, and 600C

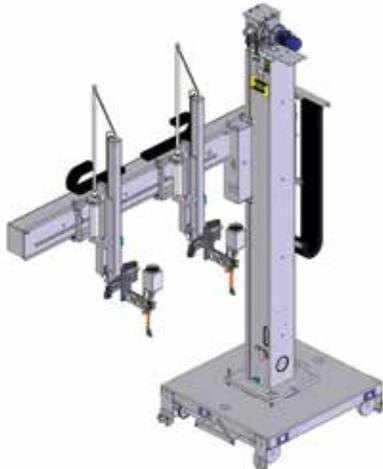
Custom format - special capabilities

- A customized range of welding column and booms for different 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 gas tungsten arc welding (GTAW), gas metal arc welding (GMAW), and submerged arc welding (SAW) cladding, as well as Narrow Gap, can be chosen on customized stations



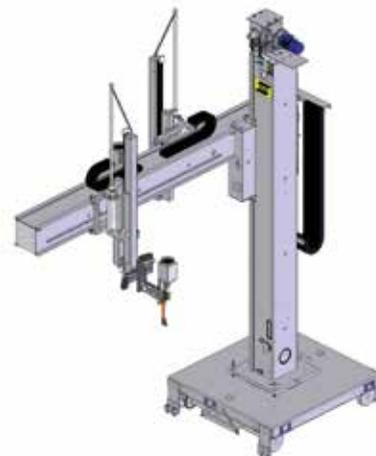
Basic Station 2 - Custom Format

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 - CaB 300S/CaB 300M

Specifications

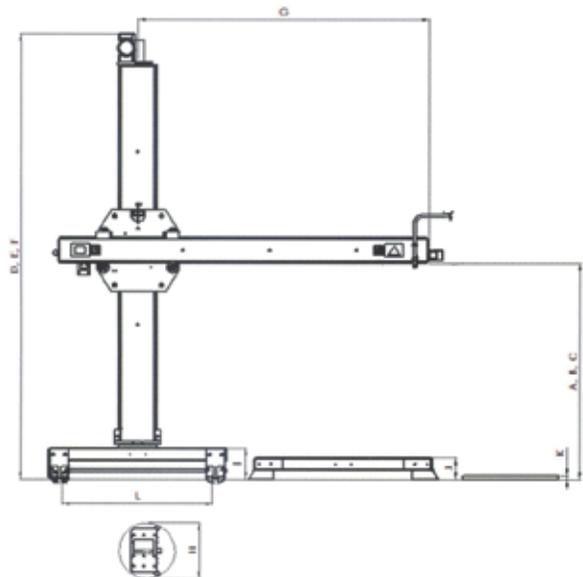
| Column | CaB 300S/300M | | |
|---|---------------|-------------|-------------|
| Effective working range, ft. (m) | 10 (3) | 13 (4) | 16.5 (5) |
| Max. boom height A, ft. (m) | 13 (4070) | 16.5 (5070) | 20 (6070) |
| Using movable carriage, min. ft. (m) | 3 (930) | 3 (930) | 3 (930) |
| Max. boom height B, mm (ft.) | 15.6 (3955) | 19.5 (4955) | 23.5 (5955) |
| Using concrete stand, min. ft. (m) | 2.7 (815) | 2.7 (815) | 2.7 (815) |
| Max. boom height C, mm (ft.) | 14.7 (3750) | 18.7 (4750) | 22.6 (5750) |
| Using stationary foot plate, min. ft. (m) | 2.4 (610) | 2.4 (610) | 2.4 (610) |
| Total height D using movable carriage, ft. (m) | 17 (5170) | 20 (6170) | 23.5 (7170) |
| Total height E using concrete stand, ft. (m) | 16.5 (5055) | 20 (6055) | 23 (7055) |
| Total height F using stationary foot plate, ft. (m) | 16 (4850) | 19 (5850) | 22.5 (6850) |
| Lifting speed, ipm (m/min) | 27.5 (0.7) | 27.5 (0.7) | 27.5 (0.7) |
| Max total load on column platform, lbs. (kg) | 1320 (600) | 1320 (600) | 1320 (600) |

| Boom | CaB 300S/300M | | |
|--------------------------------------|----------------|----------------|----------------|
| Extension G: | | | |
| Max., ft. (mm) | 11.8 (3580) | 15 (4580) | 18 (5580) |
| Min., ft. (mm) | 1.8 (540) | 1.8 (540) | 1.8 (540) |
| Permissible loads: | | | |
| Total, max., lbs.(kg) | 660 (300) | 485 (220) | 330 (150) |
| One end, max., lbs.(kg) | 530 (240) | 330 (150) | 165 (75) |
| Cross-sectional diameter H, ft. (mm) | 13 (325) | 13 (325) | 13 (325) |
| Welding speed, ipm (m/min) | 4-79 (0.1-2.0) | 4-79 (0.1-2.0) | 4-79 (0.1-2.0) |
| Transport speed, ipm (m/min) | 79 (2.0) | 79 (2.0) | 79 (2.0) |

| Rail Carriage | |
|---|-----------------------|
| Track width L, inside to inside, in. (mm) | 68.11 (1730) |
| Width x length, in. (mm) | 81.1x91.7 (2060x2330) |
| Height I, in. (mm) | 14.4 (365) |
| Welding speed, ipm (m/min) | 4-79 (0.1-2.0) |
| Transport speed, ipm (m/min) | 79 (2.0) |
| Total weight, lbs. (kg) | 3681 (1670) |

| Concrete Stand | |
|--------------------------|-----------------------|
| Width x length, in. (mm) | 81.1x82.7 (2060x2100) |
| Height J, in. (mm) | 9.84 (250) |
| Total weight, lbs. (kg) | 3417 (1550) |

| Foot Plate | |
|--------------------------|-----------------------|
| Width x length, in. (mm) | 43.3x43.3 (1100x1100) |
| Height K, in. (mm) | 1.6 (40) |
| Total weight, lbs. (kg) | 772 (350) |



CaB Systems - CaB 460S/CaB 460M



Specifications

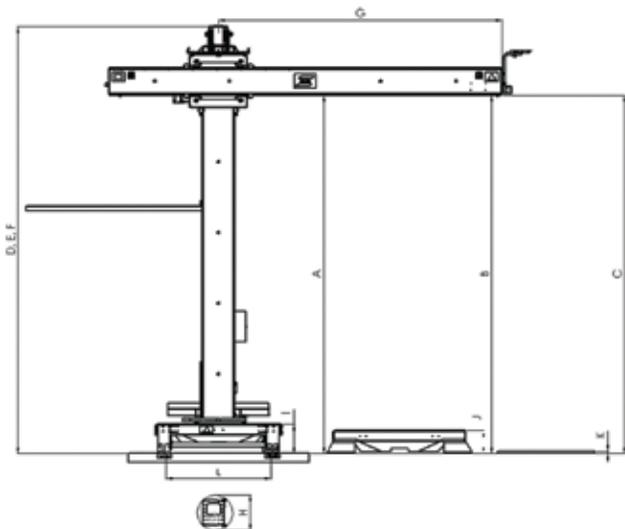
| Column | CaB 460M only | CaB 460S/460M | | |
|--|---------------|---------------|-------------|-------------|
| Effective working range, ft. (m) | 13 (4) | 16.5 (5) | 20 (6) | 23 (7) |
| Max. boom height A, ft. (mm) | 16 (4950) | 19.5 (5950) | 23 (6950) | 26.1 (7950) |
| Using movable carriage, min. ft. (mm) | 3.1 (950) | 3.1 (950) | 3.1 (950) | 3.1 (950) |
| Max. boom height B, ft. (mm) | 16 (4845) | 19 (5845) | 22.5 (6845) | 25.7 (7845) |
| Using concrete stand, min. ft. (mm) | 2.8 (845) | 2.8 (845) | 2.8 (845) | 2.8 (845) |
| Max. boom height C, ft. (mm) | 15 (4510) | 18 (5510) | 21.5 (6510) | 24.6 (7510) |
| Using stationary foot plate, min. ft. (mm) | 1.6 (510) | 1.6 (510) | 1.6 (510) | 1.6 (510) |
| Total height D using movable carriage, ft. (mm) | 20.5 (6275) | 24 (7275) | 27 (8275) | 30.4 (9275) |
| Total height E using concrete stand, ft. (mm) | 21 (6170) | 23.5 (7170) | 27 (8170) | 30 (9170) |
| Total height F using stationary foot plate, ft. (mm) | 20 (5835) | 22.5 (6835) | 25.5 (7835) | 29 (8835) |
| Lifting speed, ipm (m/min) | 79 (2.0) | 79 (2.0) | 79 (2.0) | 79 (2.0) |
| Max total load on column platform, lbs. (kg) | 3300 (1500) | 3300 (1500) | 3300 (1500) | 3300 (1500) |

| Boom | CaB 460M only | CaB 460S/460M | | |
|--------------------------------------|----------------|----------------|----------------|----------------|
| Extension G: | | | | |
| Max., ft. (mm) | 15.5 (4715) | 18.8 (5715) | 22 (6715) | 25.3 (7715) |
| Min., ft. (mm) | 2.4 (715) | 2.4 (715) | 2.4 (715) | 2.4 (715) |
| Permissible loads: | | | | |
| Total, max., lbs. (kg) | 2423 (1100) | 2313 (1050) | 2203 (1000) | 2094 (950) |
| One end, max., lbs. (kg) | 1212.5 (550) | 992 (450) | 772 (350) | 331 (150) |
| Cross-sectional diameter H, in. (mm) | 25 (630) | 25 (630) | 25 (630) | 25 (630) |
| Welding speed, ipm (m/min) | 4-79 (0.1-2.0) | 4-79 (0.1-2.0) | 4-79 (0.1-2.0) | 4-79 (0.1-2.0) |
| Transport speed, ipm (m/min) | 79 (2.0) | 79 (2.0) | 79 (2.0) | 79 (2.0) |

| Rail Carriage | |
|---|-----------------------|
| Track width L, inside to inside, in. (mm) | 68 (1730) |
| Width x length, in. (mm) | 82.7x93.7 (2100x2380) |
| Height I, in. (mm) | 19.1 (485) |
| Welding speed, ipm (m/min) | 4-79 (0.1-2.0) |
| Transport speed, ipm (m/min) | 79 (2.0) |
| Total weight, lbs. (kg) | 6305 (2860) |

| Concrete Stand | |
|--------------------------|-----------------------|
| Width x length, in. (mm) | 82.7x94.9 (2100x2410) |
| Height J, in. (mm) | 15 (380) |
| Total weight, lbs. (kg) | 6393 (2900) |

| Foot Plate | |
|--------------------------|-------------------|
| Width x length, in. (mm) | 63x63 (1600x1600) |
| Height K, in. (mm) | 1.6 (40) |
| Total weight, lbs. (kg) | 1113 (505) |



Applied Automation

CaB Systems - CaB 600M

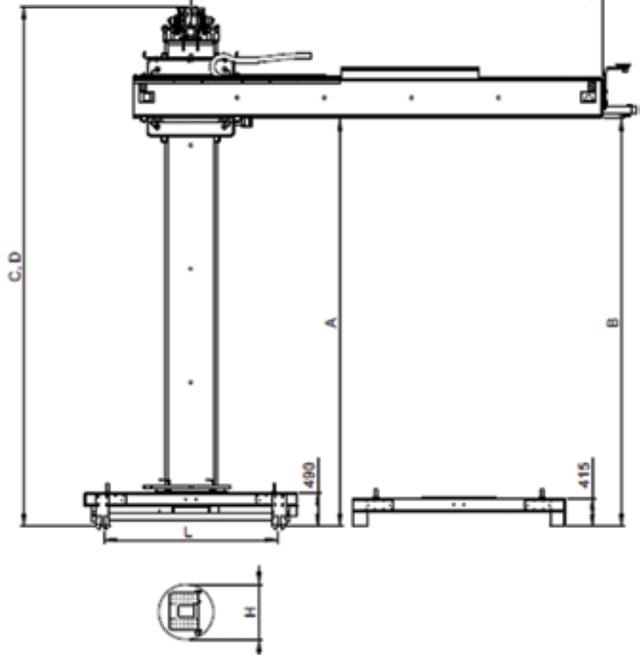
Specifications

| Column | CaB 600M | | | | |
|--|--------------|-------------|--------------|--------------|--------------|
| Effective working range, ft. (m) | 20 (6) | 23 (7) | 26 (8) | 29.5 (9) | 33 (10) |
| Max. boom height A, ft. (mm) | 276.6 (7025) | 316 (8025) | 355.3 (9025) | 395 (10025) | 434 (11025) |
| Using movable carriage, min. ft. (mm) | 42.3 (1075) | 42.3 (1075) | 42.3 (1075) | 42.3 (1075) | 42.3 (1075) |
| Max. boom height B, ft. (mm) | 22.8 (6950) | 26.1 (7950) | 29.4 (8950) | 32.6 (9950) | 35.9 (10950) |
| Using concrete stand, min. ft. (mm) | 3.3 (1000) | 3.3 (1000) | 3.3 (1000) | 3.3 (1000) | 3.3 (1000) |
| Max. boom height C, using stationary foot plate, min. ft. (mm) | 28.2 (8585) | 31.4 (9585) | 34.7 (10585) | 38 (11585) | 41.3 (12585) |
| Total height D, using movable carriage, ft. (mm) | 27.9 (8510) | 31.2 (9510) | 34.5 (10510) | 37.8 (11510) | 41 (12510) |
| Lifting speed, ipm (m/min) | 79 (2.0) | 79 (2.0) | 79 (2.0) | 79 (2.0) | 79 (2.0) |

| Boom | CaB 600M | | |
|--------------------------------------|----------------|----------------|----------------|
| Extension E: | | | |
| Max., ft. (mm) | 23 (7000) | 26 (8000) | 29.5 (9000) |
| Min., ft. (mm) | 3.3 (1000) | 3.3 (1000) | 3.3 (1000) |
| Permissible loads: | | | |
| Total, max., lbs. (kg) | 4277 (1940) | 4034 (1830) | 3748 (1700) |
| One end, max., lbs. (kg) | 1213 (550) | 882 (400) | 551 (250) |
| Cross-sectional diameter H, ft. (mm) | 3.3 (1000) | 3.3 (1000) | 3.3 (1000) |
| Welding speed, ipm (m/min) | 4-79 (0.1-2.0) | 4-79 (0.1-2.0) | 4-79 (0.1-2.0) |
| Total weight incl cables, lbs. (kg) | 2315 (1050) | 2568 (1165) | 2822 (1280) |

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

| Concrete Stand | |
|--------------------------|-----------------------|
| Width x length, in. (mm) | 122x105.5 (3100x2680) |
| Height J, in. (mm) | 16.3 (415) |
| Total weight, lbs. (kg) | 9370 (4250) |



CaB 22 VLS

For Light-Duty Applications

- The CaB 22 VLS is specifically designed for light-duty applications
- Smooth 360° lockable rotation
- Linear guidings on column and boom for smooth movement which makes it ideal for 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
- Pendant control station using low voltage on the generous 10 m (33 ft.) cable
- A standard safety feature including anti-fall device and limit switches for all motions



Ordering Information

For ordering information, please contact your nearest ESAB representative.

Specifications

| CaB 22 VLS | |
|--|---------------------|
| Mains supply: | |
| 50 Hz, 3-phase, V | 380/400/415 |
| 60 Hz, 3-phase, V | 440/460/480 |
| Capacity, at 7.8 in. (200 mm) away from end of boom, lbs. (kg) | 331 (150) |
| Vertical speed, at 60 Hz, ipm (mm/min) | 43.7 (1110) |
| Boom speed, ipm (mm/min) | 13.7-139 (348-3528) |
| Max. under boom height, in. (mm) | 78.7 (2000) |
| Effective boom travel, in. (mm) | 78.7 (2000) |
| Weight, lbs. (kg) | 2800 (1270) |

CaB 44, 55, 66, and 77

Column and Boom Systems

- 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
- Worm 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 54 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 300 kg (661 lbs.) at 600 mm (260 in.) from boom end



Ordering Information

| Motorized Carriage | Fixed Stand |
|------------------------|-----------------------|
| CaB 44.....0370250601 | CaB 44.....0370250606 |
| CaB 55.....0370250602 | CaB 55.....0370250607 |
| CaB 66..... 0370250603 | CaB 66.....0370250608 |
| CaB 77.....0370250604 | CaB 77.....0370250609 |

Options & Accessories

| | |
|--------------------------------------|------------|
| Camera system | 0370250616 |
| Spools at rear end of the boom | 0370250617 |
| Motorized rotation | 0370250618 |
| Tandem platform | 0370250619 |
| 0.5 m (1.6 ft.) boom section..... | 0370250621 |
| 0.5 m (1.6 ft.) column section | 0370250622 |

Specifications

| | CaB 44 | CaB 55 | CaB 66 | CaB 77 |
|----------------------------------|---------------------|---------------------|---------------------|---------------------|
| Overall height, in. (mm) | 214.3 (5445) | 253.7 (6445) | 293.1 (7445) | 332.4 (8445) |
| Boom length, in. (mm) | 213.3 (5420) | 252.7 (6420) | 292.1 (7420) | 331.5 (8420) |
| Vertical under boom: | | | | |
| Min., in. (mm) | 39.4 (1000) | 39.4 (1000) | 39.4 (1000) | 39.4 (1000) |
| Max., in. (mm) | 157.5 (4000) | 197 (5000) | 236.2 (6000) | 275.5 (7000) |
| Boom range horizontal, in. (mm) | 157.5 (4000) | 197 (5000) | 236.2 (6000) | 275.5 (7000) |
| Rail G-G, in. (mm) | 78.7 (2000) | 78.7 (2000) | 98.4 (2500) | 118.1 (3000) |
| Vertical speed, ipm (mm/min) | 49.2 (1250) | 49.2 (1250) | 49.2 (1250) | 49.2 (1250) |
| Boom speed, ipm (mm/min) | 6.5/65 (165/1650) | 6.5/65 (165/1650) | 6.5/65 (165/1650) | 6.5/65 (165/1650) |
| Travel speed, ipm (mm/min) | 13/131.3 (333/3335) | 13/131.3 (333/3335) | 13/131.3 (333/3335) | 13/131.3 (333/3335) |
| Vertical drive AC, c/w brake | 3 kW | 3 kW | 3 kW | 3 kW |
| Boom drive AC, c/w force cooling | 0.55 kW | 0.55 kW | 0.55 kW | 0.55 kW |
| Travel car drive AC, c/w brake | 0.75 kW | 0.75 kW | 0.75 kW | 0.75 kW |
| IP Classification | IP 54 | IP 54 | IP 54 | IP 54 |
| Mains supply: | | | | |
| 50 Hz, 3-phase, V | 380/400/415 | 380/400/415 | 380/400/415 | 380/400/415 |
| 60 Hz, 3-phase, V | 440/460/480 | 440/460/480 | 440/460/480 | 440/460/480 |
| Control voltage, V AC | 24 | 24 | 24 | 24 |
| Slewing | Manual | Manual | Manual | Manual |

Telbo™ 6500 and 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, even with mixed workpiece sizes and plate thicknesses
- Loaded with 1000 kg (2204 lbs.) flux BigBag and 1000 kg (2204 lbs.) wire EcoCoils, welding is continuously performed and costly down times are minimized
- Ideal for:
 - Windtower Fabrication
 - Pipelines & Pipemills
 - General Fabrication



Features

- PLC control system for synchronized boom motion
- Automatic “wind back” of wire during boom retraction
- Telescopic wire guides
- Remote-controlled flux nozzle (optional)
- Remote-controlled height adjustment of joint tracking sensor (optional)
- Reduced factory floor footprint
- Increased workshop safety
- Enables flexible production
- “Big Pack” handling concepts (optional)
- Camera supervision system (optional)

Ordering Information

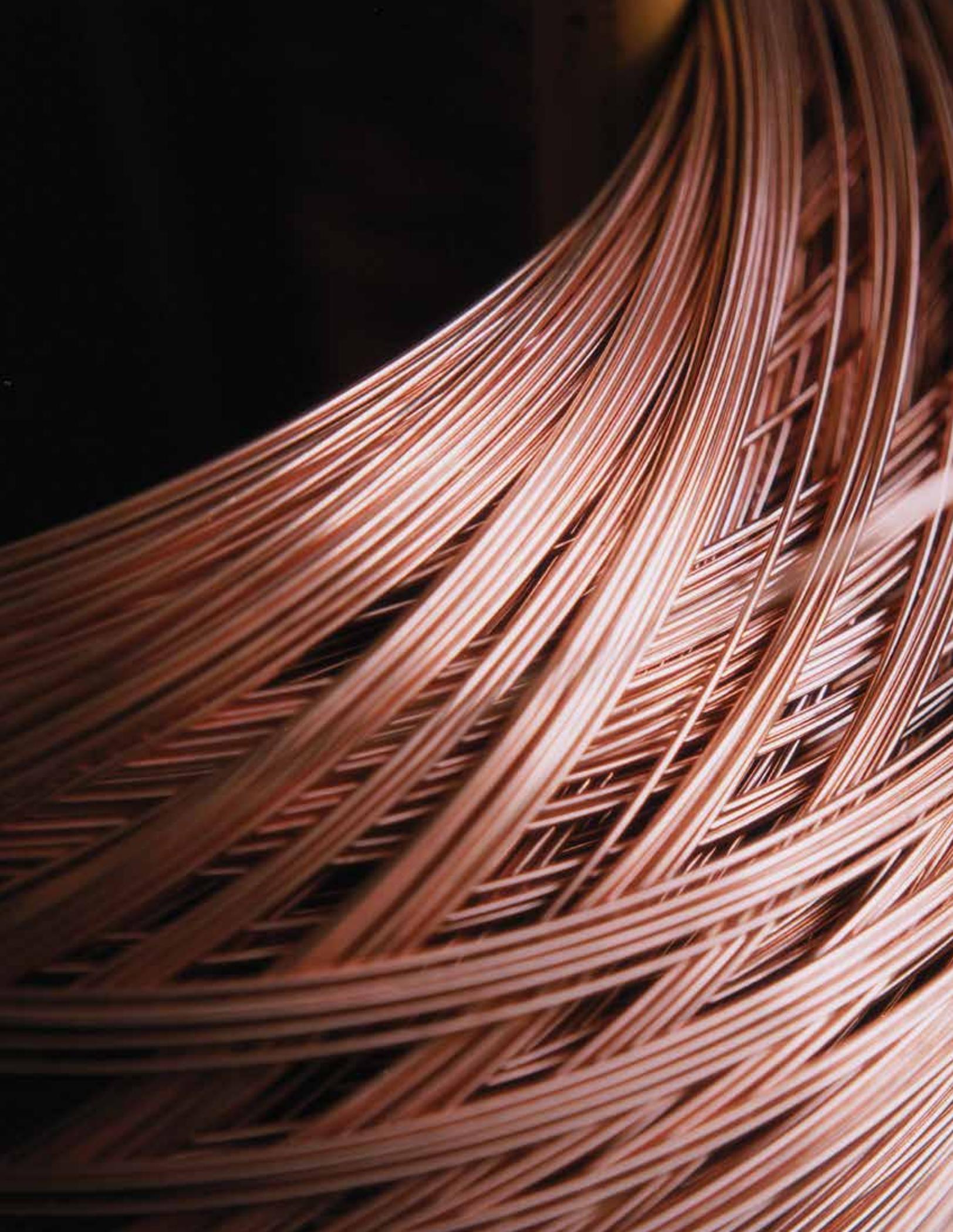
For ordering information, please contact your nearest ESAB representative.



Specifications

| | Telbo 6500 | Telbo 9500 |
|-------------------------------------|-------------|---------------------------------------|
| Effective working range, ft. (m) | 21.3 (6.5) | 31.2 (9.5) |
| Max extension, ft. (m) ¹ | 26.3 (8.0) | 41 (12.5) |
| Max load at boom end, lbs. (kg) | 661.4 (300) | 1102 (500) |
| 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 |

¹Measured from column center.



Welding Consumables

Gas Metal Arc Welding (GMAW)

- Gas Metal Arc Welding (GMAW), is also known as “MIG” or “MIG/MAG” welding
- Arc is maintained between a continuous solid wire electrode and the workpiece
- Arc and weld pool are shielded by a stream of inert or active gas
- The process is suitable for most materials and consumables are available for a wide range of metals
- Versatile process, which can deposit weld metal at a very high rate in all positions
- Widely used on light to medium gauge steel fabrications and on aluminum alloy structures, particularly where high-rate manual operator production is required
- Easy to mechanize or adapt for robotic applications
- Cost-effective method for process automation on thin materials
- Available in a wide array of diameters and packages for any requirement
- High deposition efficiency, up to 98%



Selected Product

| Mild Steel | AWS Class | Features & Typical Applications |
|--|--|--|
| Spoolarc 65 | ER70S-2 | Copper-coated, triple deoxidized carbon steel wire, designed for welding over rust and mill scale. Preferred wire for positional welding of small diameter pipe. |
| Spoolarc 29S | ER70S-3 | Copper-coated carbon steel wire for general purpose applications including heavy equipment, automotive applications, and sheet metal. |
| Spoolarc 86 | ER70S-6 | Copper-coated carbon steel wire with higher tolerance to rust and mill scale than ER70S-3. Often used for butt and fillet welding applications including heavy equipment, structural, automotive and general carbon steel fabrication. |
| OK Aristorod 12.50 | ER70S-6 | Non-copper-coated carbon steel wire. ASC (advanced surface characteristic) technology provides lower spatter levels, superior feedability, and welding performance for robotic or automated welding. |
| Spoolarc 87HP | ER70S-7 | Copper-coated carbon steel wire with optimized manganese and silicon ratio to produce weld beads with excellent appearance. Widely used in robotic welding applications in the automotive industry. |
| Spoolarc 83 | ER80S-D2 | Copper-coated low-alloy steel wire, 0.5% Mo for higher welding deposit strength. Often used for high tensile tubing and pipe as well as earth moving and construction equipment. |
| Stainless Steel | AWS Class | Features & Typical Applications |
| OK Autrod 308LSi OK Autrod 309LSi OK Autrod 316LSi | ER308Si/308LSi ER309Si/309LSi ER316Si/316LSi | Full range of stainless steel welding wires for any application. All OK Autrod stainless steel solid wires have a matte finish to improve feedability and provide a smooth, stable arc. |
| Aluminum | AWS Class | Features & Typical Applications |
| OK Autrod 4043 OK Autrod 5356 | ER4043 ER5356 | Full range of aluminum alloys to meet any requirement. All ESAB wires are manufactured with a patented process to optimize feeding characteristics. |

Small representation of full product line. For full line of welding consumables, please contact your ESAB Representative.

Flux Cored Arc Welding (FCAW)



- Flux Cored Arc Welding (FCAW) and Metal Cored Arc Welding (MCAW) are similar to GMAW as far as operation and equipment are concerned
- The main difference between FCAW/MCAW and GMAW is that the wire is not solid, but consists of a metal sheath surrounding a core of flux
- Wire begins as a flat metal strip which is formed into a “U” shape, then flux and alloying materials are deposited into the “U”, which is then closed into a tube by a series of forming rolls
- High deposition rates and efficiency, up to 98%
- Excellent weld bead appearance with little to no spatter
- Deep arc penetration when welding - allows tighter joint design, reducing amount of filler metal needed to fill the joint



- Wide selection of alloys available
- Metal cored wires have high current capacity and produce little to no slag - very high weld efficiency and deposition rates

Selected Product

| Flux Cored Wires | AWS A5.20 | AWS A5.36 | Features & Typical Applications |
|--|--|---|---|
| Dual Shield R-70 Ultra | E70T-1/9 | E70Ti-C1A2-CS1-DH8 E70Ti-M21A2-CS1-DH8 | Flat and horizontal positions, low fuming wire. Single or multi-pass welding on carbon steels. Uses CO ₂ gas only. |
| Dual Shield 7100 Ultra | E71T-1/1M/9/9M | E71 Ti-C1A2-CS1-DH8 E71 Ti-M21A2-CS1-DH8 | All-position, low fuming wire. Single or multi-pass welding on carbon steels. Uses CO ₂ or Ar/CO ₂ gas mixtures. |
| Dual Shield II 712X | E71T-MJH8/12MJH8 | E71 Ti-M21A6-CS1-H8 | All-position, low fuming wire with wide operating range. Provides excellent low temperature toughness in as-welded and/or stress-relieved conditions at -40°C (-40°F). Uses 75% Ar/25% CO ₂ gas only. |
| Flux Cored Wires | AWS A5.29 | AWS A5.36 | Features & Typical Applications |
| Dual Shield II 80Ni1H4 | E81T1-Ni1M-JH4 | E81T1-M21A6-Ni1-H4 E81T1-M21P6-Ni1-H4 | Produces diffusible Hydrogen levels of <4mL/100g over a wide range of welding parameters. Applications include petrochemical equipment, bridge fabrication, offshore oil construction, ship fabrication railcar, and heavy machinery. |
| Metal Cored Wires | AWS A5.18 | AWS A5.36 | Features & Typical Applications |
| Coreweld 77-HS | E70C-6MH4 | E70T15-M21AO-CS1-H4 | High deposition efficiency, up to 98%. Smaller diameters, up to 1.6 mm (1/16 in.), can be used out of position. Ideal for robotic applications. Uses Ar/CO ₂ gas only. |
| Coreweld C-6 | E70C-6MH4 | E70T15-M21A4-CS1-H4 | Developed for handheld, automatic, and robotic welding. Ideal for flat or horizontal fillet welds. Performs well with Ar/CO ₂ shielding gas mixes from 75%-92% Ar. |
| Metal Cored Wires | AWS A5.28 | AWS A5.36 | Features & Typical Applications |
| Coreweld 88HS Ni1 | E80C-Ni1 | E80T15-M21AS-Ni 1 | A 1% nickel low alloy metal cored wire designed specifically for high speed welding where a clean weld surface is required. Deposits have very few silicon islands and almost no slag at the weld toes. Special advantage in applications where post weld coating or painting is specified. |
| Coreweld 110 | E110C-K3 | E100T15-M21A6-K3-H4 | A metal cored electrode designed for single and multipass welding of high strength low alloy steels, such as T-1, HY-80, and HY-100. Recommended for welding quenched and tempered high strength steels. |
| Stainless Steel Cored Wires | AWS Class | | Features & Typical Applications |
| Shield-Bright 308L Shield-Bright 309L Shield-Bright 316L | E308LT1-1/T1-4 E309LT1-1/T1-4 E316LT1-1/T1-4 | | Full line of stainless steel flux cored wires designed for flat and horizontal or all-position welding. |

Small representation of full product line. For full line of welding consumables, please contact your ESAB Representative.

Submerged Arc Welding (SAW)

- Arc is struck between the workpiece and the end of a consumable electrode, covered by a layer of granular flux; no fumes or arc radiation
- Some of the flux melts to provide a protective slag cover over the weld pool; the remainder can be collected for re-use
- Cored wires or arrangements of multiple solid wires can be introduced
- Because of its high metal deposition rate and travel speeds, it is particularly suited to long straight joints of good quality in the flat position
- It is widely used in the pressure vessel, chemical plant, heavy structural, repair, shipbuilding, and windtower fabrication
- Deep arc penetration when welding for tighter joint design and increased productivity



Selected Product

| Wire | Flux | AWS Class | Features & Typical Applications |
|-----------------------------|---------------------------------|--------------------------|--|
| Spoolarc 29S | OK Flux 429 | F7A2-EM13K | Carbon steels, multi-pass; good mechanical properties and weld performance for general fabrication. |
| | OK Flux 10.71 | F7A4-EM13K | Carbon steels, multi-pass; for general fabrication. Excellent as-welded or stress-relieved mechanical properties combined with good weld performance. |
| Spoolarc 81 | OK Flux 231 | F7A2-EM12K | Carbon and low-alloy steels, single pass only; high tolerance to rust and mill scale. Applications include water heaters, rail cars, and structural steel. |
| | OK Flux 350 | F7A2-EM12K | Carbon steels, single pass only; high tolerance to rust and mill scale. Suitable for use with AC or DC power, single or multi-wire. Applications include shipbuilding, thin wall pressure vessels, and structural applications. |
| | OK Flux 429 | F7A2-EM12K F6P4-EM12K | Carbon and low alloy steels, multi-pass; moderate tolerance to rust and mill scale. Ideal for bridge, ship, pressure vessel, and general structural fabrication. |
| | OK Flux 10.62 | F7A6-EM12K | Carbon and low alloy steels, multi-pass; base plate must be free of rust and mill scale. For use with AC or DC power up to 1000 A; exceptional impact toughness at low temperatures. Ideal for critical applications including pressure vessels, offshore construction, and structures requiring good CTOD values. |
| | OK Flux 10.71 | F7A5-EM12K | Carbon and low alloy steels; multi-pass; moderate tolerance to rust and mill scale. Improved mechanical properties compared to OK Flux 429. Ideal for narrow gap applications, shipbuilding, pressure vessels, and spiral/longitudinal welding of line pipe. |
| | OK Flux 10.72 | F7A8-EM12K F6P8-EM12K | Carbon and low alloy steels, multi-pass. Excellent slag removal in narrow V-joints; excellent low temperature impact properties. Designed for high current-carrying capacity, DC or AC, with single or multi-wire systems. Ideal for windtower and pressure vessel construction. |
| Spoolarc 71 | OK Flux 10.71 | F7A2-EM14K F7P4-EM14K | Carbon and low alloy steels, multi-pass. Used for welding pressure vessels and other applications requiring good mechanical properties after stress-relieving. |
| | OK Flux 10.62 | F7A6-EM14K F7P6-EM14K | Use OK Flux 10.62 for improved impact toughness. |
| Spoolarc 75 | OK Flux 429 or OK Flux 10.71 | F8A4-ENi1K-Ni1 | Weathering and carbon steels with up to 1% nickel, multi-pass. Ideal for bridge and structural welding. |
| Alloy Shield 70S | OK Flux 10.71 | F7A5-EC1-H8 | Carbon steels, multi-pass. Basic metal cored wire provides higher travel speeds; up to 30% increase in deposition rate compared to solid wire. Excellent mechanical properties and impact properties at -46°C (-50°F). |
| OK Autrod 308L/309L/316L | OK Flux 10.93 | N/A | Provides stainless steel deposit to match corresponding welding alloy. Basic non-alloying flux providing excellent welding properties and performance. |

Small representation of full product line. For full line of welding consumables, please contact your ESAB Representative.

Strip Cladding



- Submerged Arc Welding (SAW) or Electroslag Welding (ESW) typically used for cladding large areas
- Both methods offer a high deposition rate in terms of both kg/h and area coverage (m²/h), combined with low penetration and high deposit quality
- Stainless steel strip cladding is widely used in the production of components for the chemical, petrochemical and nuclear industries
- Reduces the need for expensive highly-alloyed base material, such as stainless steel or nickel-base alloys
- High deposition processes with low dilution
- Allows for flexibility in the production of pieces in varying shapes and sizes



ESW Strip Cladding

- An arc-less method using ohmic heating to melt the strip/flux/parent material
- Current flows through the strip electrode and a shallow layer of liquid electro-conductive slag
- Penetration is lower for ESW than for SAW since the molten slag pool is used to melt the strip and some of the parent material rather than as an arc between the strip electrode and the parent material
- ESW strip surfacing reduces dilution by up to 50% compared with SAW strip surfacing for the same heat input with a significantly higher deposition rate

SAW Strip Cladding

- An electric arc is formed between the strip electrode and the workpiece
- Flux is used to form a molten slag to protect the weld pool from the atmosphere and helps form a smooth weld bead surface

Common ESAB Strip/Flux Combinations

| Consumable | %C | %Si | %Mn | %Cr | %Ni | %Mo | Other | Ferrite |
|---|-------|------|-----|------|------|-----|-------|---------|
| Typical all weld metal composition using OK Flux 10.05 | | | | | | | | |
| <i>An agglomerated flux for SAW strip cladding. Recommended for cladding with Cr, CrNi, and CrNiMo austenitic stainless types of strip. Slag removal and overlapping with this flux provides excellent results. Use with OK Band 308L, 309L, 316L. Basicity Index: 1.1</i> | | | | | | | | |
| 1. 308L overlay combination on 2.25 Cr 1Mo steel, typical parameters: DC+, 750A, 28V, 7 m/h | | | | | | | | |
| OK Band 309L | 0.020 | 0.4 | 1.9 | 23 | 13 | - | - | - |
| Weld composition 1st layer | 0.027 | 0.7 | 1.1 | 19 | 11.3 | - | - | FN 5 |
| OK Band 308L | 0.022 | 0.3 | 1.7 | 19.6 | 10.1 | - | - | - |
| Weld composition 2nd layer | 0.021 | 0.6 | 1.0 | 18.9 | 10.6 | - | - | FN 8 |
| 2. 316 overlay combination on 2.25 Cr 1Mo steel, typical parameters: DC+, 750A, 28V, 7 m/h | | | | | | | | |
| OK Band 309L | 0.020 | 0.4 | 1.9 | 23 | 13 | - | - | - |
| Weld composition 1st layer | 0.028 | 0.7 | 1.1 | 19 | 11 | - | - | FN 5 |
| OK Band 316L | 0.017 | 0.4 | 1.8 | 18.2 | 13.1 | 2.8 | - | - |
| Weld composition 2nd layer | 0.018 | 0.7 | 1.1 | 18 | 12.9 | 2.1 | - | FN 7 |
| Typical all weld metal composition using OK Flux 10.10 | | | | | | | | |
| <i>An agglomerated flux for ESW strip cladding. Recommended for cladding with Cr, CrNi and CrNiMo types, with or without Nb-stabilization. Weldability, bead appearance, and slag removal with this flux provides excellent results. Use with OK Band 309L ESW, 309LMo ESW, and 309LNb ESW. Basicity Index: 4.0</i> | | | | | | | | |
| 1. "308L" overlay combination on 2.25 Cr 1Mo steel, typical parameters: DC+, 1250A, 25V, 9 m/h | | | | | | | | |
| OK Band 309L ESW | 0.015 | 0.2 | 1.8 | 21 | 11.4 | - | - | - |
| Weld composition 1st layer | 0.023 | 0.45 | 1.2 | 18.5 | 10 | - | - | FN 6 |
| 2. "316" overlay combination on 2.25 Cr 1Mo steel, typical parameters: CD+, 1250A, 25V, 9 m/h | | | | | | | | |
| OK Band 309LMo ESW | 0.015 | 0.2 | 1.8 | 20 | 13.7 | 2.7 | - | - |
| Weld composition 1st layer | 0.024 | 0.4 | 1.2 | 18 | 12 | 2.7 | - | FN 8 |

Packaged for Productivity

- ESAB offers many different consumable package types to meet almost any requirement
- Standard packaging for ESAB solid and cored wires includes spools and coils
- Bulk packages for mechanized, robotic, and high production welding include Marathon Pac for mild steel, stainless steel, aluminum solid wires, and most cored wires
- SAW wire is available in coils and bulk drums
- SAW flux is available in plastic-lined bags and as a BigBag bulk package for high volume production



Packaging Types

Coils



- Standard package for most solid and cored wires
- 27.2-29.5 kg (60-65 lbs.) of wire on a coil with a 300 mm (12 in.) internal diameter
- Coil adaptor required

Payoff Pac



- Large diameter drum, most often used with SAW wires
- Package weights are typically 454 kg (1000 lbs.)
- Efficient solution for high production, stationary SAW welding stations

Reels



- Unique bulk solution for SAW wires
- 136 kg (300 lbs.) of wire on an adaptorless wooden reel
- Often used with column and boom systems

Jumbo Marathon Pac 2



- Total load of 500 kg (1105 lbs)
- Reduces feeding stops by using an inner cylinder inside the wire coil, which guides the wire during unwinding
- Increases productivity by replacing the traditional wire decoiling cone with a decoiling ring with foam lips that better guides the wire making sure no wire loops result in feeding stops
- 100% recyclable

Eco-Coil



- Ideal for high-production fabrication holding 1000 kg (2200 lbs.) of wire in an economical, ecologically-friendly package
- The package is shipped around a cardboard core, shrink wrapped, and strapped to the pallet for shipping
- Once received, the Eco-Coil is then removed from the pallet and placed on a reusable "one-way spider" or "stem" for use

BigBag



- Unique solution for bulk users of SAW welding flux
- 500-1000 kg (1100-2200 lbs.) per bag
- Bag is made of layers of fabric coated on the inside for moisture protection
- Discharge spout in the bottom of the bag with an opening that can be easily opened and reclosed by a rope
- Four strong straps for lifting by forklift or overhead crane

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USA: P.O. Box 100545, 411 South Ebenezer Road, Florence, SC 29501-0545

Canada: 6010 Tomken Road, Mississauga, Ontario L5T-1X9

Mexico: Ave. Diego Díaz de Berlanga, No. 130, Col. Nogalar San Nicolás de los Garza N.L. CP 66480 Monterrey, Mexico

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