

WELDING AUTOMATION



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Controllers & Power Sources



Process Controller PEK

For use with ESAB CAN-controlled power sources and motors

- For use with ESAB automatic power sources LAF 631/1001/1251/1601, TAF 801/1251 and Aristo® 1000 AC/DC SAW.
- 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.
- Five Soft Keys can be configured according to operator preferences.



Ordering information

| | |
|------------------------------|--------------|
| A2-A6 process controller PEK | 0460 504 880 |
| Sales Literature | XA00143720 |

All sales literature can be downloaded at assets.esab.com

Options & Accessories

| | |
|-------------------------------|--------------|
| I/O-Module | 0462 080 001 |
| Set of connectors | 0462 119 880 |
| Cable restraining bracket | 0460 861 880 |
| Control cable, 15 m (49 ft.) | 0460 910 881 |
| Control cable, 25 m (82 ft.) | 0460 910 882 |
| Control cable, 35 m (115 ft.) | 0460 910 883 |
| Control cable, 50 m (164 ft.) | 0460 910 884 |



Adjustable sun shield for better visibility for outdoor use

Technical data

| | |
|---|---|
| Connection voltage from the power source | 42V AC, 50/60 Hz |
| Connection power | max 900 VA |
| Motor connection adjusted for ESAB's A2 and A6 motors | connection of 2 motors, motor current 6A cont., max 10A |
| Speed control | feedback from pulse encoder |
| Welding speed, m/min (ipm) | 0.1-2.0 (4-79) depending on travel carriage |
| Max. manual travel speed, m/min (ipm) | 2.0 (79) |
| Consumable wire feed speed, m/min (ipm) | 0.3-25 (12-984) depending on wire feed unit |
| Valve output | 1 pc, 42 V AC, 0.5A |
| Inputs | for connection of sensors or limit switches |
| Connection to power source | Burndy contact 12-poles |
| Max ambient temperature, °C (°F) | 45 (113) |
| Min ambient temperature, °C (°F) | -15 (59) |
| Max humidity (of air) | 95% |
| Dimensions, LxWxH, mm (in.) | 246x235x273 (7x9.25x11) |
| Weight, kg (lbs) | 6.6 (14.5) |
| Enclosure class | IP23 |
| Standards | EN60974-1, EN60974-10 |

Process Controller EAC 10

For use with CAN- and Analogue controlled power sources and motors

- Intuitive user interface with real-time heat input keeping you in control of the weld.
- Detachable remote control interface lets you control the system from a comfortable position.
- The automatic weld head detection and setup lets you change between SAW, GMAW and gouging in no time.
- Digital and analogue interface to the power source – works with all current ESAB SAW power sources as well as most analogue power sources on the market including old LAF.
- Closed loop encoder based control system for precise wire feed and travel speed control.



Ordering information

A4 process controller EAC 10 0446 225 880
 Sales Literature XA00200320

All sales literature can be downloaded at assets.esab.com

Options & Accessories

| | |
|--------------------------------|--------------|
| Control cable, 15 m (49 ft.) | 0460 910 881 |
| Control cable, 25 m (82 ft.) | 0460 910 882 |
| Control cable, 35 m (115 ft.) | 0460 910 883 |
| Control cable, 50 m (164 ft.) | 0460 910 884 |
| Control cable, 77 m (246 ft.) | 0460 910 885 |
| Control cable, 100 m (328 ft.) | 0460 910 886 |

Technical data

| | |
|--|---|
| Connection voltage from the power source | 60V DC or 42V AC, 50/60 Hz |
| Connection power | max 900 VA |
| Motor connection adjusted for ESABs motors | Connection of two motors, 6A cont, max 10A |
| Speed control | Feedback from pulse encoder |
| Welding speed, m/min (ipm) | 0.1-2.0 (4-79) depending on travel carriage |
| Max. transport speed, m/min (ipm) | 2.0 (79) |
| Consumable wire feed speed, m/min (ipm) | 0.3-25.0 (12-984) depending on wire feed unit |
| Connection to power source | Burndy contact, 12 poles |
| Inputs | For connection of sensors or limit switches |
| Max humidity (of air) | 95% |
| Operating temperature, °C (°F) | -10 - +40 (14-104) |
| Weight complete control unit, kg (lbs.) | 6.8 (15) |
| Weight control pendant, kg (lbs.) | 1.25 (2.8) |
| Dimensions complete control unit LxWxH, mm (in.) | 275×300×165 (10.8×11.8×6.5) |
| Dimensions control pendant LxWxH, mm (in.) | 245×225×50 (9.7×8.9×2.0) |
| Enclosure class | IP23 |

PAB Fieldbus Interface

For use with ESAB CAN-controlled power sources

- PA universal fieldbus interface offering unlimited control from a PLC, PC or any general control unit.
- Standard HMI.
- Control the welding application from the same communication panel in a multifunctional automation system.
- The dual DC-motor drive unit named FAA is designed for seamless use with the Fieldbus interface.



Technical data

| | |
|--|--|
| External accessible communication interfaces | Fieldbus (Profibus DIN 19245 Part 1) for welding commands and data |
| | Ethernet for FTP and Web server |

Ordering information

| | |
|---|--------------|
| PAB Fieldbus interface | 0449 535 881 |
| User manual (or digital at www.esab.com) | 0465 589 001 |
| Sales literature | XA00169820 |

All sales literature can be downloaded at assets.esab.com

Options & Accessories

| | |
|----------------------|--------------|
| FAA Dual motor drive | 0460 505 880 |
|----------------------|--------------|

Welding Process quality systems

WeldQAS

Automated welding processes require automated quality checks. The WeldQAS system is an automatic welding process monitor and controls 100% of the production. Parameters are directly monitored during the welding process, enabling an immediate reaction in case of error to avoid consequential damage. WeldQAS can be used to acquire the latest knowledge about welding production, optimisation and cost-effective use in the production processes.

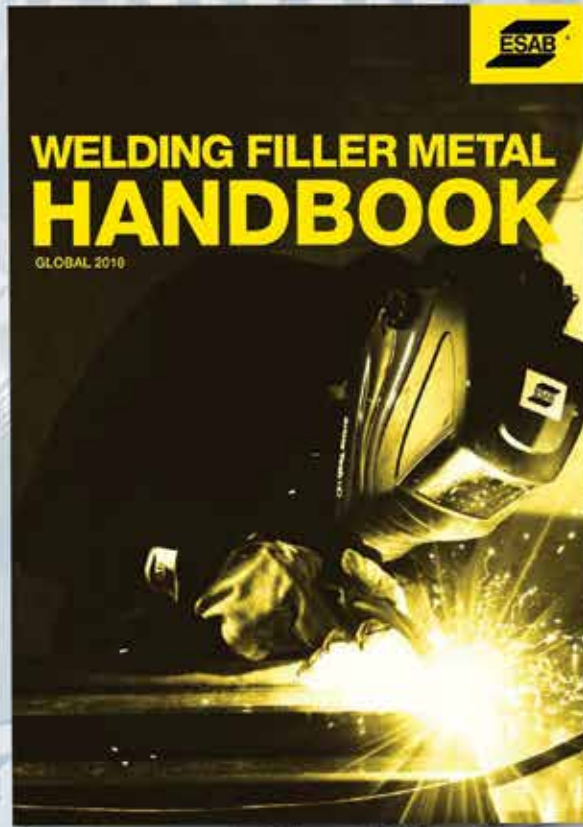
Avoid having to rework or recall your product

WeldQAS uses a 100% checkup of all welded seams by trend analyses and evaluation tools to force reproducible evaluation of the welding parameters. Recognising these changes in welding parameters quickly prevents further production of faulty parts.



Multi-wire setup with PEK and WeldQAS

DOWNLOAD THE ESAB FILLER METAL HANDBOOK AT ESAB.COM/FILLERMETALS



Dual Shield II 81-K2

The wire produces a smooth, stable arc and forms penetrating V groove welds with Dual Shield II-K2 gas combined for high tensile strength and excellent arc characteristics. This wire is an excellent choice for welding ASTM grade A505, 5055, 5057, 5058, 5059, 5100, 5101, 5102, 5103, 5104, 5105, 5106, 5107, 5108, 5109, 5110, 5111, 5112, 5113, 5114, 5115, 5116, 5117, 5118, 5119, 5120, 5121, 5122, 5123, 5124, 5125, 5126, 5127, 5128, 5129, 5130, 5131, 5132, 5133, 5134, 5135, 5136, 5137, 5138, 5139, 5140, 5141, 5142, 5143, 5144, 5145, 5146, 5147, 5148, 5149, 5150, 5151, 5152, 5153, 5154, 5155, 5156, 5157, 5158, 5159, 5160, 5161, 5162, 5163, 5164, 5165, 5166, 5167, 5168, 5169, 5170, 5171, 5172, 5173, 5174, 5175, 5176, 5177, 5178, 5179, 5180, 5181, 5182, 5183, 5184, 5185, 5186, 5187, 5188, 5189, 5190, 5191, 5192, 5193, 5194, 5195, 5196, 5197, 5198, 5199, 5200.

Classification: Weld Metal
AWS E80T8-K01, E80T9-K02, E80T10-K03, E80T11-K04, E80T12-K05, E80T13-K06, E80T14-K07, E80T15-K08, E80T16-K09, E80T17-K10, E80T18-K11, E80T19-K12, E80T20-K13, E80T21-K14, E80T22-K15, E80T23-K16, E80T24-K17, E80T25-K18, E80T26-K19, E80T27-K20, E80T28-K21, E80T29-K22, E80T30-K23, E80T31-K24, E80T32-K25, E80T33-K26, E80T34-K27, E80T35-K28, E80T36-K29, E80T37-K30, E80T38-K31, E80T39-K32, E80T40-K33, E80T41-K34, E80T42-K35, E80T43-K36, E80T44-K37, E80T45-K38, E80T46-K39, E80T47-K40, E80T48-K41, E80T49-K42, E80T50-K43, E80T51-K44, E80T52-K45, E80T53-K46, E80T54-K47, E80T55-K48, E80T56-K49, E80T57-K50, E80T58-K51, E80T59-K52, E80T60-K53, E80T61-K54, E80T62-K55, E80T63-K56, E80T64-K57, E80T65-K58, E80T66-K59, E80T67-K60, E80T68-K61, E80T69-K62, E80T70-K63, E80T71-K64, E80T72-K65, E80T73-K66, E80T74-K67, E80T75-K68, E80T76-K69, E80T77-K70, E80T78-K71, E80T79-K72, E80T80-K73, E80T81-K74, E80T82-K75, E80T83-K76, E80T84-K77, E80T85-K78, E80T86-K79, E80T87-K80, E80T88-K81, E80T89-K82, E80T90-K83, E80T91-K84, E80T92-K85, E80T93-K86, E80T94-K87, E80T95-K88, E80T96-K89, E80T97-K90, E80T98-K91, E80T99-K92, E80T100-K93, E80T101-K94, E80T102-K95, E80T103-K96, E80T104-K97, E80T105-K98, E80T106-K99, E80T107-K100.

Approximate Mechanical Properties (Metric): Tensile strength (Rm) 480 MPa, Yield strength (ReH) 295 MPa, Elongation (A) 20%.

Welding Current: DC+

Shielding Gas: Dual Shield II (E80T) gas

| Condition | Yield Strength | Tensile Strength | Elongation |
|-------------------|----------------|------------------|------------|
| CO2 shielding gas | 147 MPa | 481 MPa | 20% |
| As welded | | | |

Typical Charpy V Notch Properties

| Condition | Testing Temperature | Impact Value |
|-------------------|---------------------|--------------|
| CO2 shielding gas | -30°C | 100 J |
| As welded | -40°C | 90 J |
| As welded | -50°C | 80 J |
| As welded | -60°C | 60 J |

Typical Weld Metal Analysis %

| | Mn | Si | Ni | Cr |
|-------------------|-------|-------|-------|------|
| C | | | | 0.08 |
| CO2 shielding gas | 0.141 | 0.413 | 1.083 | 0.08 |
| Cr | | | | 0.08 |

Deposition Data

| Current | Voltage | Wire Feed Speed | Deposition Rate |
|-----------|---------|-----------------|-----------------|
| 140-200 A | 28-31 V | 38-18.2 mm/min | 15.5 kg/h |

Wire Feed Speed vs TIG Shot:

| Wire Feed Speed | TIG Shot |
|-----------------|----------|
| 830 m/min | 10 mm |
| 778 m/min | 16 mm |
| 1076 m/min | 25 mm |

1.2 mm E80T94-K

esab.com

Power source Aristo® 1000 AC/DC SAW

AC/DC inverter power source for efficient submerged arc welding

- Based on unique and patent pending technologies to deliver the best welding performance with the lowest power consumption.
- Designed for use with the digital PEK controller and the robust A2/A6 feeder units.
- A global inverter - connect to a three phase mains supply from 380 to 575 V, 50 or 60 Hz.
- Change between DC and AC "on the fly". Minimize downtime and weld defects by the push of a button with the patent pending "on the fly" function.
- **CableBoost™** patent-pending technology ensures the performance of the power source is unaffected even when long welding cables are used. What you set is what you get.
- Increase productivity up to 65% compared to DC+ welding by using the higher deposition rate of unbalanced AC with the same heat input.
- **Bead Profile Modelling™** provides adjustable AC settings for precise control of penetration profile and depth, dilution, arc stability and weld appearance to achieve the best productivity and quality for each weld.



Technical data

| | |
|-------------------------------------|---------------------------------|
| Mains supply, 3 ph, V, Hz | 380-575, 50/60 |
| Mains voltage (DC load), V | 380/400/415/440/460/500/550/575 |
| Mains current (DC load), A | 86/82/79/74/71/66/59/57 |
| Rated output at 100%, A / V | 1000 / 44 |
| AC Balance, % | 25-75 |
| AC Offset, A / V | ±300 / ±10 |
| AC Frequency, Hz | 10-100 |
| Output range, A | 200-1000 |
| EMC Filter | included |
| Parallel connection | available |
| Cable requirements, mm ² | 2x95 / 2x120 |
| Welding cable length (total) | up to 100 m |
| Remote On/Off input | available |
| Digital welding regulator | 3rd generation |
| Open circuit voltage, V DC | 130 |
| Idle power, W | 200 |
| Efficiency % | 88 |
| Power factor | 0.93 |
| Dimensions, LxWxH, mm (in.) | 865x610x1320 (34x24x52) |
| Weight, kg (lbs) | 330 (727.5) |
| Enclosure class | IP23 |
| Certification | CE-certified |
| Third party approvals | CSA, CCC, Ghost-R |

Ordering information

| | |
|---|--------------|
| Aristo® 1000 AC/DC SAW | 0462 100 880 |
| Interconnection cable, 4 m (for parallel/tandem operation) | 0463 282 880 |
| Installation manual (for parallel/tandem operation) | 0740 801 030 |
| Sales literature | XA00171020 |

All sales literature can be downloaded at assets.esab.com

Options & Accessories

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

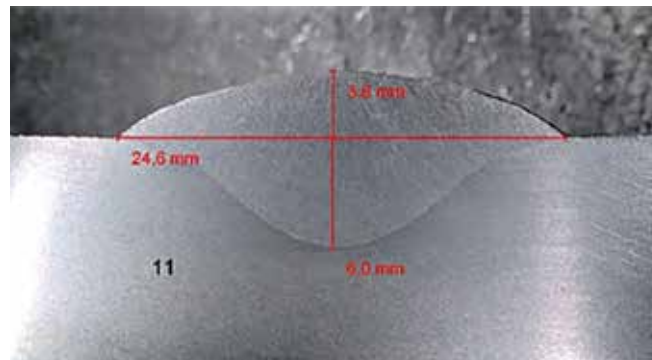
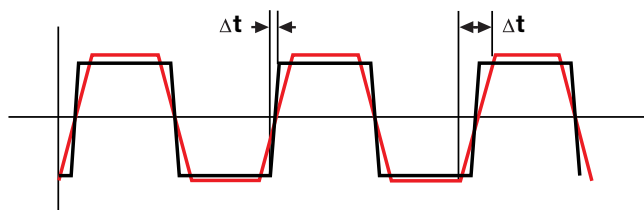
Power source Aristo® 1000 AC/DC SAW

Cont.

- **True Square Wave Technology™** delivers the optimum wave form to overcome issues traditionally impacting AC welding. This technology increases process stability compared to conventional AC power sources.
- **SoftStart™** sequence reduces the risk of weld defects. This specially designed start sequence provide improved quality, saves cost and down time by avoiding re-work.
- Critical component protection is provided by a cooling channel design that guards all sensitive power source components from dust and particle contamination, ensuring extended component life.
- Minimal maintenance keeps uptime at a maximum with re-usable air filters that are easily accessed at the front of the machine and cooling channels that are quickly cleaned using compressed air.
- Cable protection ensures there are no production stops because of damaged cables or connectors. All connectors are positioned behind an enclosed door located at the front of the unit for protection and easy access.

Transition time Aristo®

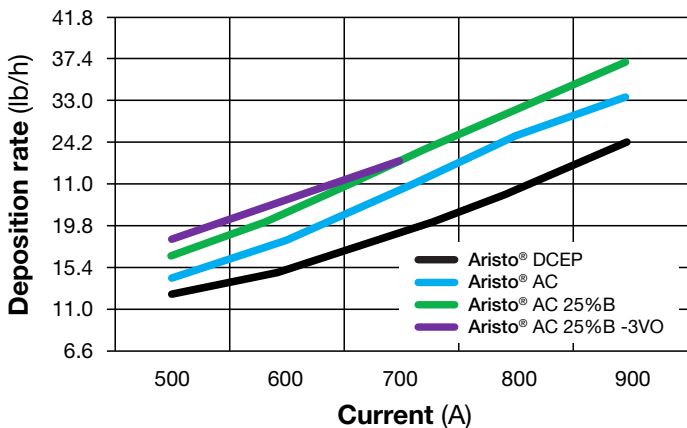
Transition time other inverters and power sources



DC+ 650A, 29V, 45 cm/min (17.7 ipm)
 Deposition rate: 7.2 kg/hr (15.8 lbs/hr)
 Unbalanced AC 650A, 39V, 45 cm/min (17.7 ipm)
 Balance 25%, Offset -3V, Frequency 100Hz
 Deposition rate: 11.6 kg/hr (25.5 lbs.hr)

61% higher deposition rate with unbalanced AC

Aristo® 1000 AC/DC deposition rate chart
A6, 4 mm wire, ESO 32 mm



Power sources LAF 631, 1001, 1251 and 1601

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

- Three-phase, fan-cooled DC welding power sources designed for high productivity automated submerged-arc welding (SAW) or high productivity gas metal arc welding (GMAW).
- Used in combination with ESAB's A2-A6 equipment range and the A2-A6 Process Controllers (PEK or PEI).
- Good arc stability at both high and low arc voltages.
- Adjust and monitor the welding parameters on the power source from the front panel of the process controller (PEK or PEI).
- Welding current range can be extended by connecting two power sources in parallel for the most demanding applications.
- Ideal for SAW applications such as wind tower components, nuclear power vessels, boilers and in the ship building industry.
- Ideal for GMAW applications such as welding the root pass in heavy pipe production.



LAF 631 in combination with MechTrac and GMH

Ordering information

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

All sales literature can be downloaded at assets.esab.com

Options & Accessories

PEK

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

PEI

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

Power sources LAF 631, 1001, 1251 and 1601

Cont.

| Technical data | LAF 631 | LAF 1001 | LAF 1251 | LAF 1601 |
|-----------------------------|---------------------------|----------------------------|--------------------------------|--------------------------------|
| Mains supply, 3 ph 50 Hz, V | 400/415 | 400/415/500 | 400/415/500 | 400/415/500 |
| Mains supply, 3 ph 60 Hz, V | 440 | 400/440/550 | 400/440/550 | 400/440/550 |
| Current 100%, 50 Hz, A | 52 | 64/64/52 | 99/99/80 | 136/136/108 |
| Current 100%, 60 Hz, A | 52 | 64/64/52 | 99/99/80 | 136/136/108 |
| Fuse, slow, 50 Hz, A | 63 | 63 | 100/100/80 | 160/160/125 |
| Fuse slow, 60 Hz, A | 63 | 63 | 100/100/80 | 160/160/125 |
| Maximum load at: | | | | |
| 100% duty cycle, A/V | 630/44 | 800/44 | 1250/44 | 1600/44 |
| 80% duty cycle, A/V | - | - | - | - |
| 60% duty cycle, A/V | 800/44 | 1000/44 | - | - |
| Setting range, A/V | | | | |
| GMAW | 50/17-630/44 | 50/17-1000/45 | 60/17-1250/44 | - |
| SAW | 30/21-800/44 | 40/22-1000/45 | 40/22-1250/44 | 40/22-1600/46 |
| Open circuit voltage, V | 54 | 52 | 51 | 54 |
| Open circuit power, W | 150 | 145 | 220 | 220 |
| Efficiency % | 84 | 84 | 87 | 86 |
| Power factor | 0.90 | 0.95 | 0.92 | 0.87 |
| Enclosure class | IP23 | IP23 | IP23 | IP23 |
| Dimensions, LxWxH, mm (in.) | 670x490x930 (26x19x37) | 646x552x1090 (25x22x43) | 774x598x1428 (30.5x23.5x56) | 774x598x1428 (30.5x23.5x56) |
| Weight, kg (lbs.) | 260 (573) | 330 (727.5) | 490 (1080) | 585 (1290) |
| Application class | S | S | S | S |

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

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

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

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

Power sources TAF 801 and 1251

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

- Square wave AC power sources that convert the secondary voltage from a sinus wave via a thyristor controlled rectifier bridge to a square wave arc voltage with excellent strike characteristics and good welding properties.
- Capacity for continuous welding
- Pre-setting of arc voltage.
- Reliable square wave striking.
- Arc voltage or current feed back.
- Optimized open circuit voltage.
- Compensation of mains supply fluctuation.
- Voltage drop compensation for long welding cables.
- High power factor ensuring low power consumption.
- Designed and built for convenient servicing.
- Safety control voltage 42V.
- Prepared for Scott connection of two power sources.
- Used in combination with ESAB's A2-A6 equipment range and the A2-A6 Process Controllers (PEK or PEI).



Ordering information

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

All sales literature can be downloaded at assets.esab.com

Options & Accessories

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

| Technical data | TAF 801 | TAF 1251 |
|-----------------------------|-----------------------------|-----------------------------|
| Mains supply, 1 ph 50 Hz, V | 400/415/500 | 400/415/500 |
| Mains supply, 1 ph 60 Hz, V | 400/440/550 | 400/440/550 |
| Maximum load at: | | |
| 100% duty cycle, A/V | 800/44 | 1250/44 |
| 60% duty cycle, A/V | 1000/44 | 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 % | 86 | 86 |
| Power factor | 0.75 | 0.76 |
| Dimensions, LxWxH, mm (in.) | 774x598x1428 (30.5x23.5x56) | 774x598x1428 (30.5x23.5x56) |
| Weight, kg (lbs) | 495 (1091) | 608 (1340) |
| Enclosure class | IP23 | IP23 |
| Application class | S | S |

Welding Tractors



Versotrac with process controller EAC 10

Designed to conquer your jobsite

- Modularised system where the tractor can be disassembled into smaller units, carried separately and easily transported.
- Robust wire feed mechanism that can weld mild steel wire up to 5 mm up to 1000A @ 100%.
- The automatic weld head detection and setup lets you change between SAW, GMAW and gouging in no time.
- Intuitive user interface with real-time heat input –keeps you in control of the weld.
- Introducing an all new ergonomic handling system for welding wire spools, making wire changes easy.
- Tool-less interaction makes it easy to change weld point position and switch between butt and fillet welding.
- Re-buildable between three and four wheel versions to suit your needs.



Ordering information

| | |
|----------------------------------|--------------|
| Versotrac EWT 1000 (SAW), EAC 10 | 0904 200 880 |
| Sales Literature | XA00200120 |
| Sales Literature Brochure | XA00201020 |

All sales literature can be downloaded at assets.esab.com

Options & Accessories

| | |
|----------------------------------|--------------|
| EWB 1000 (SAW) Welding Head | 0904 520 880 |
| EWB 1000 (Twin SAW) Welding Head | 0904 520 884 |
| EWB 600 (GMAW) Welding Head | 0904 520 885 |
| Guide wheel bogie | 0413 542 880 |
| Idling roller | 0333 164 880 |
| Guide bar 3 m (10 ft.) | 0154 203 880 |
| V-wheeltrack in steel | 0443 682 881 |
| Lamp kit (2x27W) | 0904 273 880 |
| 3-wheel kit | 0904 557 880 |
| Flat fillet kit | 0904 586 880 |
| Twin Kit EWB 1000 (SAW) | 0446 110 880 |

| Technical data | Single SAW | Twin SAW | GMAW with EWB 600 |
|---------------------------------------|---------------------|-----------------------------|---------------------|
| Wire diameters, mm (in.) | | | |
| - Steel | 1.6-5.0 (1/16-3/16) | - | 0.8-2.5 (.030-3/32) |
| - Stainless steel | 1.6-4.0 (1/16-5/32) | - | 0.8-1.6 (.040-1/16) |
| - Cored wire | 1.6-5.0 (1/16-3/16) | - | 1.2-3.2 (.045-1/8) |
| - Twin Wire | - | 2x1.2-1.6 (2x(0.45x1/16)) * | - |
| Max wire feed speed, m/min (ipm) | 9 (354) | 16 (354) | 16 (630) |
| Wire reel weight, kg (lbs.) | 30 (66) | 2x30 (2x66) | 30 (66) |
| Flux hopper capacity, l (gal.) | 6 (1.4) | 6 (1.4) | - |
| Weight, excl wire and flux, kg (lbs.) | 65 (143) | 67 (148) | 64,5 (142) |
| Permissible load 100%, A | 1000 | 1000 | 600 |
| Control voltage, V AC | 42 | 42 | 42 |
| Travel speed, m/min (ipm) | 0.1-2.0 (4-79) | 0.1-2.0 (4-79) | 0.1-2.0 (4-79) |
| Linear slides stroke length, mm (in.) | 90 (3.5) | 90 (3.5) | 90 (3.5) |
| Rotary slide setting angle | 360° | 360° | 360° |

* Optional twin kit 0446 110 880 is needed.

A2 Multitrac with process controller PEK

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

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



Ordering information

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

All sales literature can be downloaded at assets.esab.com

Options & Accessories

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



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

A6 Mastertrac A6TF (SAW)

For efficient Submerged-arc Welding

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

Single: available with standard or high speed motor

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

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

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

Ordering information

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

All sales literature can be downloaded at assets.esab.com



A6 Mastertrac Tandem

Options & Accessories

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

Carbon arc gouging

| | |
|---|---------------|
| Rebuilding kit | |
| (use with carbon electrodes Ø 8.9-12.7) | 0153 592 880 |
| VEC-motor, 312:1 | 20145 063 905 |

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

A6-DK

The portal welding machine

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



Ordering information

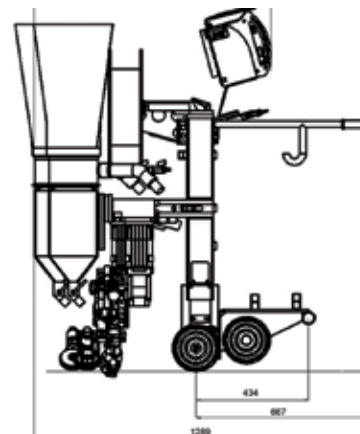
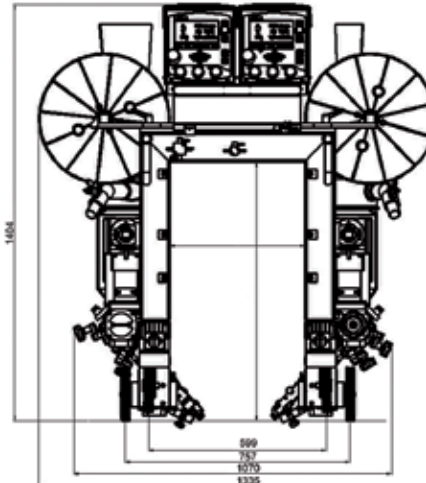
A6-DK SAW, single wire
 excl. wire reel, feed rollers and contact jaws *) 0461 237 901
 Sales Literature XA00143620

All sales literature can be downloaded at assets.esab.com

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

Options & Accessories

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



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

ESAB Mechanised GMAW Solutions

Now in separate sales literature

- Key benefits of mechanisation, advanced process solutions, recommended ESAB consumables and standard equipment.
- Updated offering of battery-driven welding tractors and carriages easily mechanise your GMAW process and thermal cutting applications for weaving and non-weaving tasks to meet real-world welding and cutting challenges.
- Innovative features ensure high quality welds and cuts with the highest possible productivity, reliability, repeatability and efficiency.
- Flexible operation with either a battery or external power source.
- All models feature a reliable 4-wheel drive system with rapid acceleration and accurate stepper motor control for constant travel speeds, resulting in more time welding and less downtime.



Ordering information

Sales Literature

XA00204220

All sales literature can be downloaded at assets.esab.com

Welding Heads



A2S Mini Master

A multi-purpose automatic welding system

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



Ordering information

A2S Mini Master SAW Systems

Incl A2-A6 Process controller PEK and wire equipment

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

Incl A2 Process controller PEI and wire equipment

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

A2S Mini Master GMAW MTW (4WD) Systems

Incl A2-A6 Process controller PEK and wire equipment

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

Incl A2 Process controller PEI and wire equipment

| | |
|--|--------------|
| With manual slides 90x90 mm | 0449 380 880 |
| With motorized slides 180x180 mm and PAV | 0449 380 881 |
| With motorized slides 180x180 mm and GMH | 0449 380 882 |

Options & Accessories

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

Gas handling equipment, GMAW only:

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

Optional equipment SAW:

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

For PEK:

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

For PEI:

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

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

A6S Arc Master

Flexibility as standard

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



Ordering information

Single wire SAW systems

standard wire feed unit (gear ratio 156:1)

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

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

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

Twin-wire SAW system

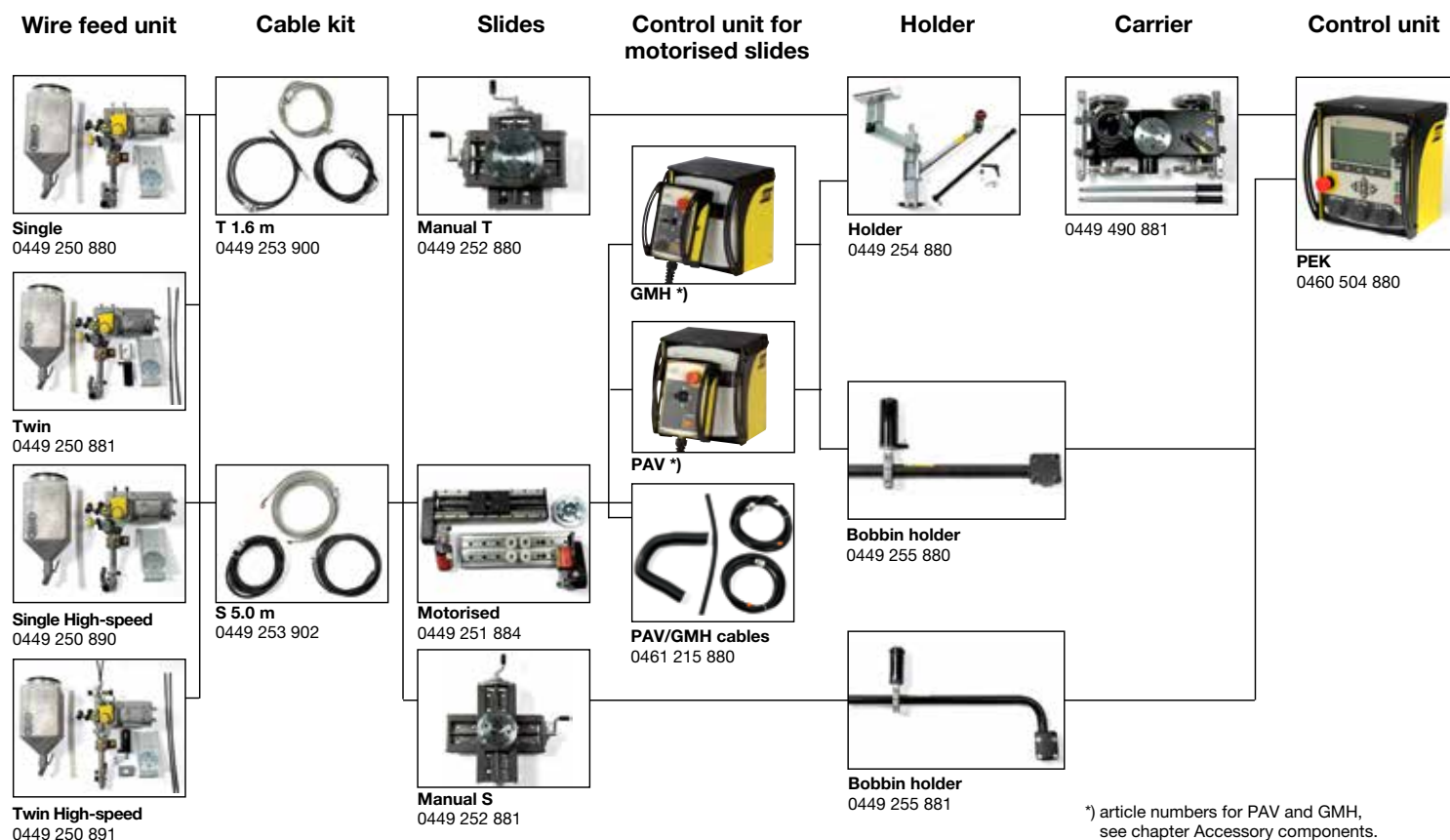
high-speed wire feed unit (gear ratio 74:1)

| | |
|--|--------------|
| With manual slides 210x210 mm | 0449 271 910 |
| With motorized slides 300x300 mm and PAV | 0449 271 911 |
| With motorized slides 300x300 mm and GMH | 0449 271 912 |



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

A6 Component system Modularization



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

A6S and A6DS Tandem welding heads

For optimum productivity

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



Ordering information

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

All sales literature can be downloaded at assets.esab.com

Options & Accessories

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

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

A6S and A6DS Tandem welding heads

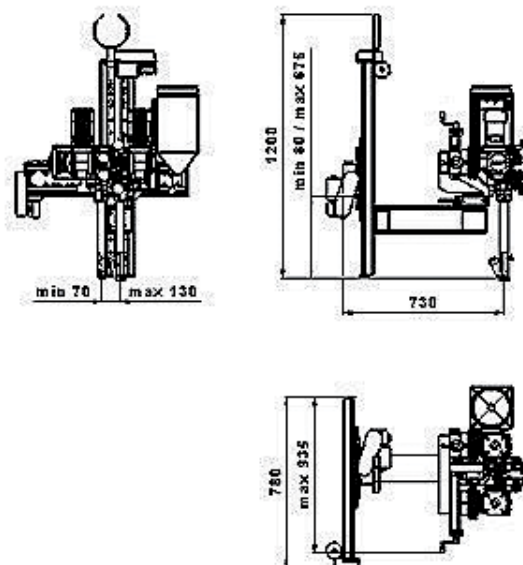
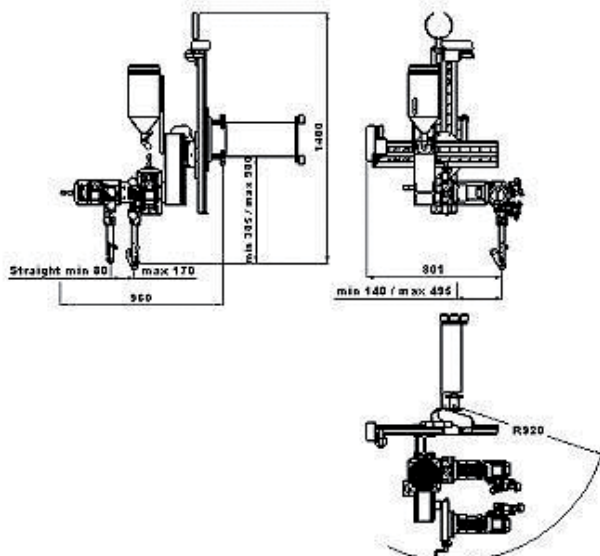
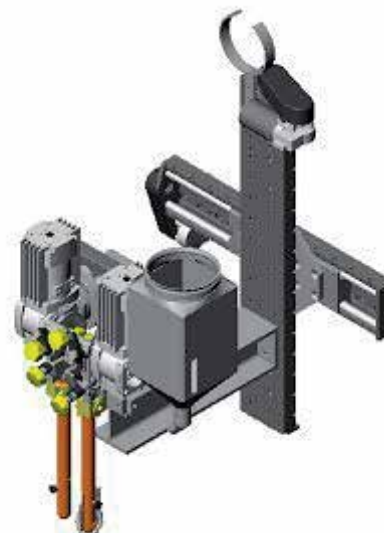
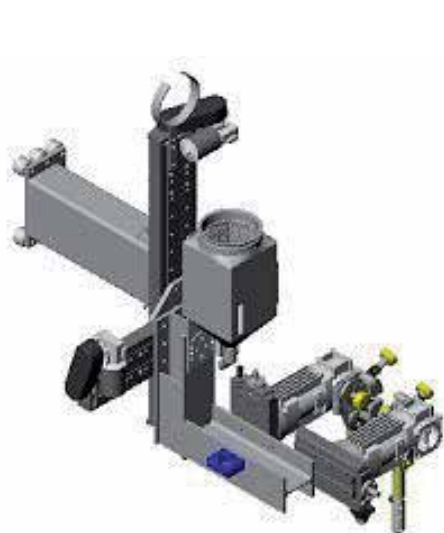
cont.

A6S Tandem Master

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

A6DS Tandem Master

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



A6S Compact welding heads for internal welding

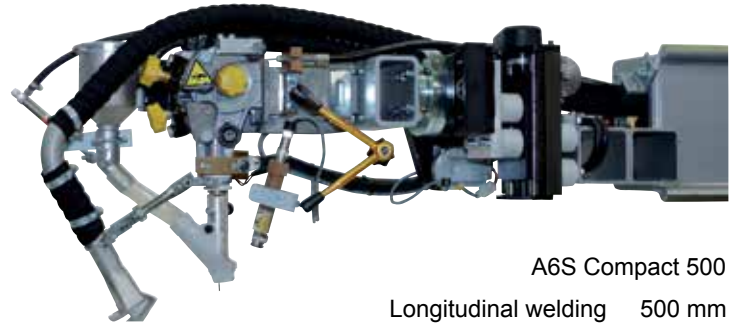
For excellent welding results

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



A6S Compact 300

Longitudinal welding 300 mm
Min ID circ. welding 500 mm



A6S Compact 500

Longitudinal welding 500 mm
Min ID circ. welding 550 mm



A6S Compact 700

Longitudinal welding 700 mm
Min ID circ. welding 750 mm

Ordering information

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

All sales literature can be downloaded at assets.esab.com

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

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

Options & Accessories - Compact 300

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

Contact tips, wire size

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

Feed rollers, wire size

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

ICE™

Revolutionary SAW technology for enhanced productivity

- ESAB's patent pending ICE™ technology exploits the excess heat from the Twin SAW process to increase productivity by up to 100% without increasing heat input.
- **Up to 50% higher deposition rate.** Submerged arc welding is already the most productive welding process. But as with any other welding process, the need to limit heat input inhibits productivity. Instead of adding more energy, ICE™ utilises the excess heat available to melt more wire. This boosts productivity by up to 50%, depending on the application.
- **High Deposition Root™** - the ICE™ technology enables the use of tandem welding in root passes, for improved penetration and high productivity and eliminating the need for back gouging. High Deposition Root can increase productivity up to 100% in root welding, depending on the application.
- **Higher welding speed** - the increased deposition rate can also be utilised to increase welding speed. This can significantly improve productivity in applications where welding speed is the key to maximising productivity.
- **Reduced energy consumption** - welding is an energy intensive manufacturing operation. The ICE™ process enables an increase in deposition rate by up to 50%, without adding more energy. This combines 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. This increases fatigue resistance and reduces the need for post weld treatment. Just one more boost to your productivity.
- **Reduced flux consumption** - The significant productivity improvement provided by ICE™ enables many applications to be completed with fewer runs. In this way, flux consumption can be reduced by up to 20% when welding with a 50% higher deposition rate.



Comparison of deposition rate for ICE™ and other methods.

Deposition rate →



ICE™



Twin DC+



Single DC+

Single power-source and welding-head solutions

Deposition rate →



DC + AC ICE™



DC + Twin AC+



DC + AC

Two power-source and welding-head solutions (tandem welding)

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.

Suitable application areas

- On- and offshore windtower manufacturing
- Offshore fabrication
- Pipe welding
- General heavy fabrication
- Shipbuilding

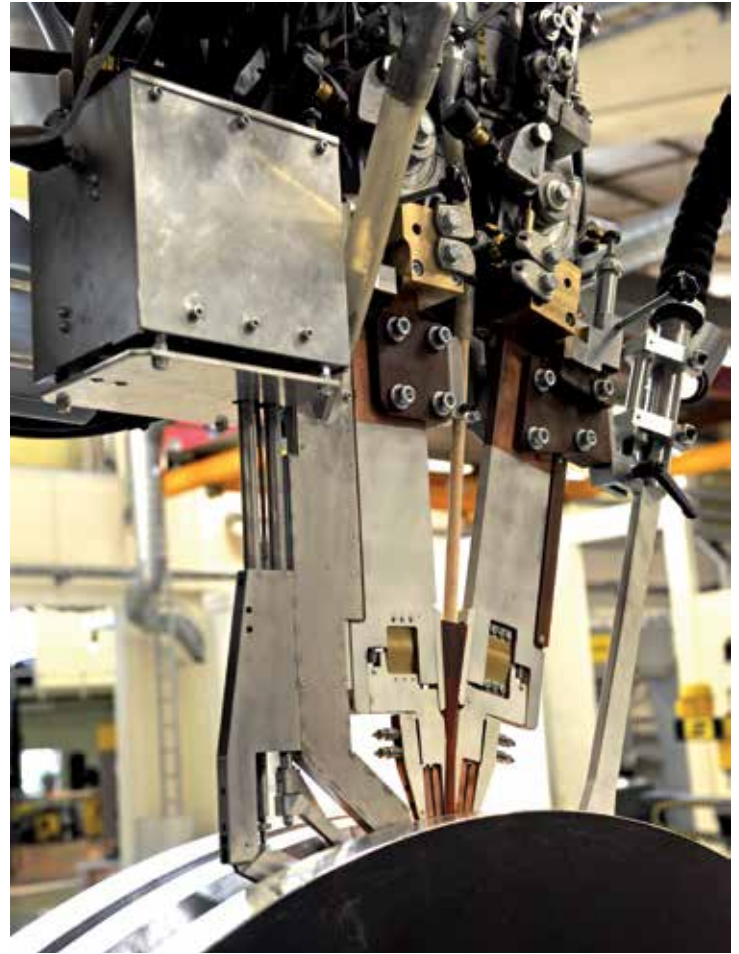
HNG Multi

Narrow Gap Welding System

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

Technical data

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



Ordering information

For more information, please contact your nearest ESAB representative.

Sales Literature

XA00141620



Double-sided joint tracking

A6S SAW strip cladding kit

For surfacing with high alloyed materials

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

Ordering information

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

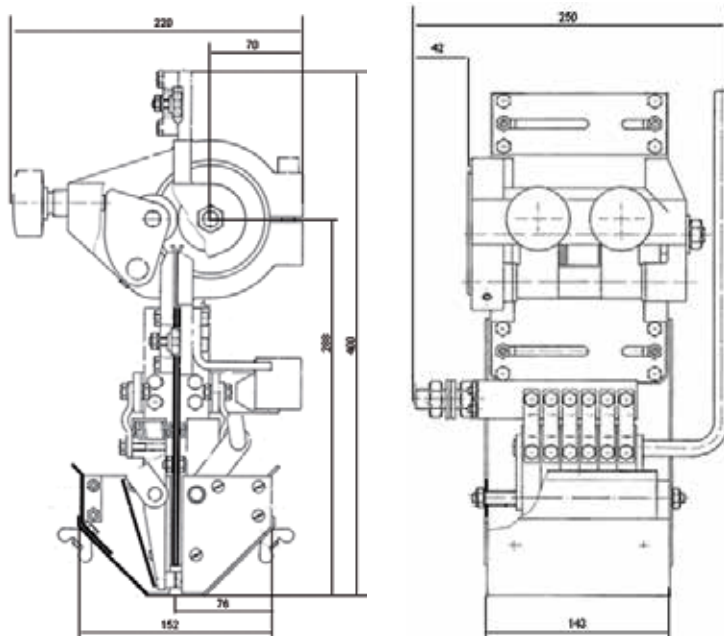
0155 972 880
XA00101020

All sales literature can be downloaded at assets.esab.com

Options & Accessories

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

0417 636 880
0416 492 880
0156 025 001



Technical data

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

ESW - Electroslag welding

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

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

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

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

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

Column & Booms



CaB Systems

Cost efficient and flexible weld mechanization

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



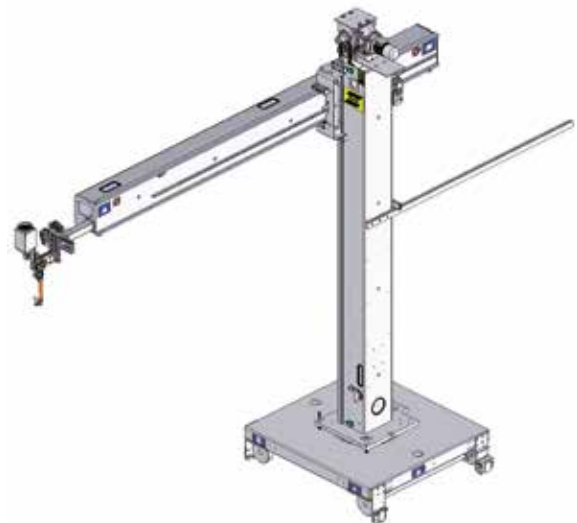
Standard CaB sizes

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

CaB 300S

Standard format - exceptional economy

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



Basic Station 1 - Standard format

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

CaB Systems

Cont.

CaB 300M / 460M / 600M

Modular format - extended functionality

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



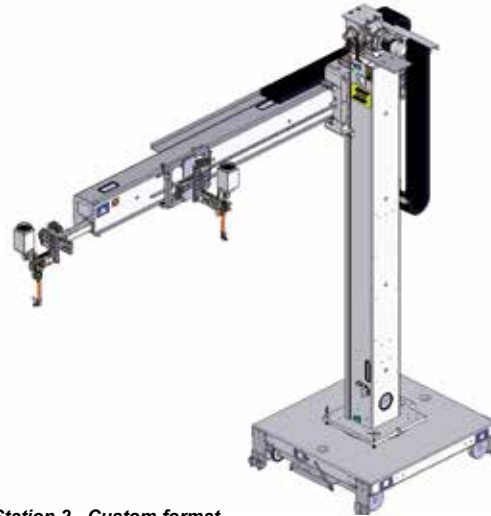
Basic Station 1 - Modular and Custom format

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

CaB 300C / 460C / 600C

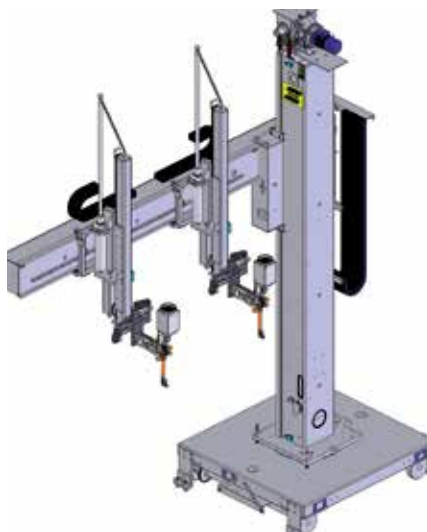
Custom format - special capabilities

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



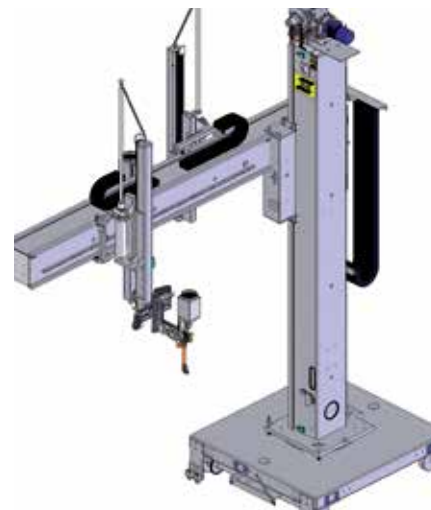
Basic Station 2 - Custom format

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



Basic Station 3 - Custom format

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



Basic Station 4 - Custom format

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

CaB Systems

Technical data CaB 300S and 300M

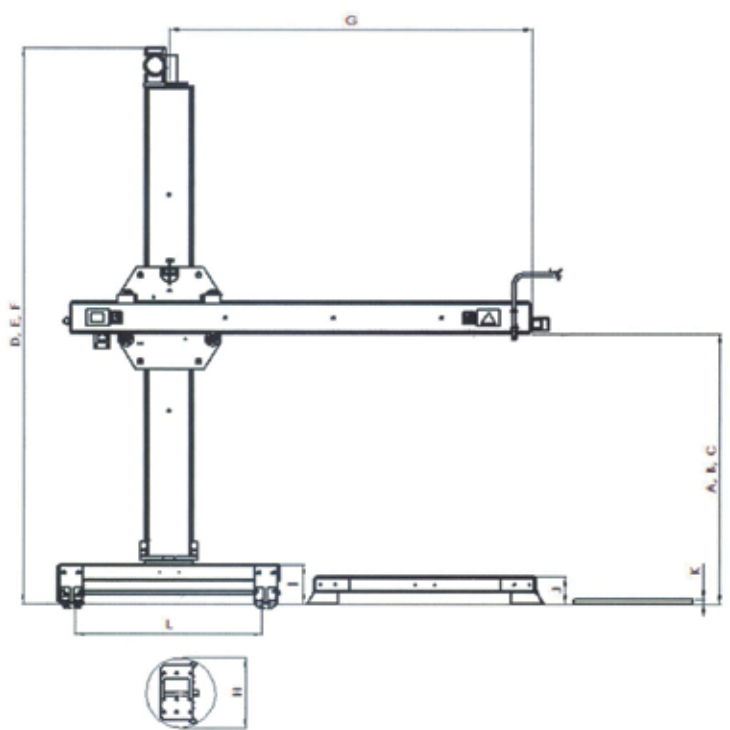
| Technical data - Column | | CaB 300S / 300M | | |
|---|---------------------------|---------------------------|---------------------------|--|
| Effective working range, m (ft.) | 3 (10) | 4 (13) | 5 (16.5) | |
| Max. boom height A , mm (ft.) using movable carriage, min mm (ft.) | 4070 (13) 930 (3) | 5070 (16.5) 930 (3) | 6070 (20) 930 (3) | |
| Max. boom height B , mm (ft.) using concrete stand, min mm (ft.) | 3955 (15.6) 815 (2.67) | 4955 (19.5) 815 (2.67) | 5955 (23.5) 815 (2.67) | |
| Max. boom height C , mm (ft.) using stationary foot plate, min mm (ft.) | 3750 (14.7) 610 (2.4) | 4750 (18.7) 610 (2.4) | 5750 (22.6) 610 (2.4) | |
| Total height D using movable carriage, mm (ft.) | 5170 (17) | 6170 (20) | 7170 (23.5) | |
| Total height E using concrete stand, mm (ft.) | 5055 (16.5) | 6055 (20) | 7055 (23) | |
| Total height F using stationary foot plate, mm (ft.) | 4850 (16) | 5850 (19) | 6850 (22.5) | |
| Lifting speed, m/min (ipm) | 0.7 (27.5) | 0.7 (27.5) | 0.7 (27.5) | |
| Max total load on column platform, kg (lbs) | 600 (1320) | 600 (1320) | 600 (1320) | |

| Technical data - Boom | | CaB 300S / 300M | | |
|---|----------------------------|-------------------------|-------------------------|--|
| Effective working range, m (ft.) | 3 (10) | 4 (13) | 5 (16.5) | |
| Extension G , max mm (ft.) min mm (ft.) | 3580 (11.75) 540 (1.77) | 4580 (15) 540 (1.77) | 5580 (18) 540 (1.77) | |
| Permissible loads: | | | | |
| total, max kg (lbs.) | 300 (660) | 220 (485) | 150 (330) | |
| one end, max kg (lbs.) | 240 (530) | 150 (331) | 75 (165) | |
| Cross-sectional diameter H , mm (ft.) | 325 (13) | 325 (13) | 325 (13) | |
| Welding speed, m/min (ipm) | 0.1-2.0 (4-79) | 0.1-2.0 (4-79) | 0.1-2.0 (4-79) | |
| Transport speed, m/min (ipm) | 2.0 (79) | 2.0 (79) | 2.0 (79) | |

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

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

| Technical data - Foot plate | |
|-----------------------------|-----------------------|
| Width x length, mm (in.) | 1100x1100 (43.3x43.3) |
| Height K , mm (in.) | 40 (1.57) |
| Total weight, kg (lbs.) | 350 (772) |



CaB Systems

Technical data CaB 460M

Technical data - Column

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

Technical data - Boom

| Effective working range, m (ft.) | 4 (13) | 5 (16.5) | 6 (20) | 7 (23) |
|--|---------------------------|---------------------------|--------------------------|---------------------------|
| Extension G , max mm (ft.) min mm (ft.) | 4715 (15.5) 715 (2.35) | 5715 (18.8) 715 (2.35) | 6715 (22) 715 (2.35) | 7715 (25.3) 715 (2.35) |
| Permissible loads: total, max kg (lbs.) one end, max kg (lbs.) | 1100 (2423) 550 (1213) | 1050 (2313) 450 (992) | 1000 (2203) 350 (772) | 950 (2094) 150 (331) |
| Cross-sectional diameter H , mm (ft.) | 630 (25) | 630 (25) | 630 (25) | 630 (25) |
| Welding speed, m/min (ipm) | 0.1-2.0 (4-79) | 0.1-2.0 (4-79) | 0.1-2.0 (4-79) | 0.1-2.0 (4-79) |
| Transport speed, m/min (ipm) | 2.0 (79) | 2.0 (79) | 2.0 (79) | 2.0 (79) |

Technical data - Rail carriage

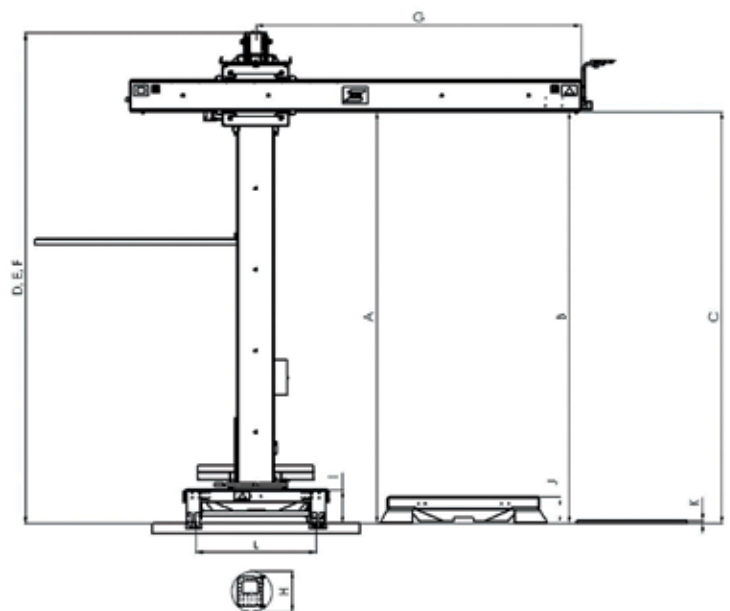
| | |
|--|-----------------------|
| Track width L , inside to inside, mm (in.) | 1730 (68.11) |
| Width x length, mm (in.) | 2100x2380 (82.7x93.7) |
| Height I , mm (in.) | 485 (19.1) |
| Welding speed, m/min (ipm) | 0.1-2.0 (4-79) |
| Transport speed, m/min (ipm) | 2.0 (79) |
| Total weight, kg (lbs.)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

Technical data - Concrete stand

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

Technical data - Foot plate

| | |
|----------------------------|-------------------|
| Width x length, mm (in.) | 1600x1600 (63x63) |
| Height K , mm (in.) | 40 (1.57) |
| Total weight, kg (lbs.) | 505 (1113) |



CaB Systems

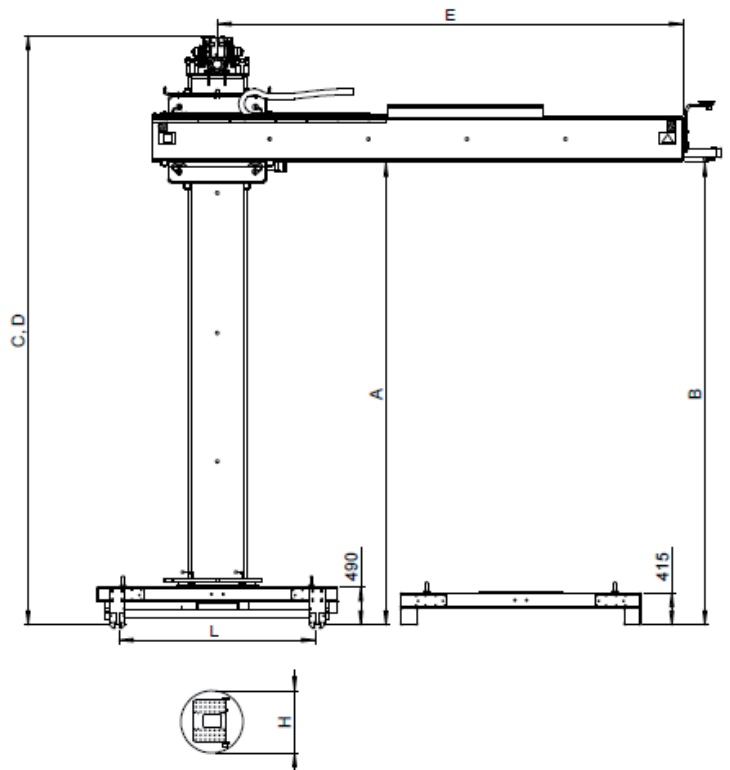
Technical data CaB 600M

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

| Technical data - Boom | | 6 (20) | 7 (23) | 8 (26) |
|---|-------------------------|-------------------------|---------------------------|--------|
| Effective working range, m (ft.) | | | | |
| Extension E , max mm (ft.) min mm (ft.) | 7000 (23) 1000 (3.3) | 8000 (26) 1000 (3.3) | 9000 (29.5) 1000 (3.3) | |
| Permissible loads: | | | | |
| total, max kg (lbs.) | 1940 (4277) | 1830 (4034) | 1700 (3748) | |
| one end, max kg (lbs.) | 550 (1213) | 400 (882) | 250 (551) | |
| Cross-sectional diameter H , mm (ft.) | 1000 (3.3) | 1000 (3.3) | 1000 (3.3) | |
| Welding speed, m/min (ipm) | 0.1-2.0 (4-79) | 0.1-2.0 (4-79) | 0.1-2.0 (4-79) | |
| Transport speed, m/min (ipm) | | | | |
| Total weight incl cables, kg (lbs.) | 1050 (2315) | 1165 (2568) | 1280 (2822) | |

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

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



Telbo™ 6500 and Telbo™ 9500

Telescopic boom

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



Ordering information

For ordering information, please contact nearest ESAB representative.

Features

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

Applications

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

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

*) Measured from column centre.

Gantries



Mechtrac 1730/2100/2500/3000

For mechanised gantry automation

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



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

Ordering information

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

All sales literature can be downloaded at assets.esab.com

Options & Accessories

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

Technical data

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



Gantrac 300 and 460

Highly stabilized manipulation of welding torches with optimized welding results

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



Ordering information

For ordering information, please contact your nearest ESAB representative.

Walltrac

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

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



Beam Travelling Carriage

To be used with ESAB A2 and A6 welding heads

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

Ordering information

| | |
|--------------------------|--------------|
| Beam travelling carriage | 0457 897 881 |
| Sales Literature | XA00091920 |

Options & Accessories

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



Technical data

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

MBVA 330 and 550

Beam welding carriage

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



Ordering information

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

All sales literature can be downloaded at assets.esab.com

Options & Accessories

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

Technical data

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

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



Ordering information

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

All sales literature can be downloaded at assets.esab.com

Options & Accessories

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

Technical data

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

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

PAV and GMH

Joint Positioning and Tracking systems

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



Adjustable sun shield for better visibility for outdoor use

Ordering information

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

Technical data

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



GMH with and without remote control



PAV with and without remote control

Options & Accessories

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

For GMH only:

| | |
|--|--------------|
| Sensor with finger (requires cable 0416 749 9xx) | 0416 688 880 |
| Mini cross saddle + sensor support | 0416 739 880 |
| Remote control | 0460 570 880 |
| Protective rubber boot for sensor | 0412 013 001 |
| Standard finger | 0146 586 001 |
| Finger with ball | 0416 719 001 |
| Finger for heat exchange plates | 0443 328 880 |
| Finger for beam welding | 0443 187 880 |
| Intermediate transformer | 0148 636 002 |
| Sensor cables for sensor 0416 749 881 (post June 2019) | |
| Sensor cable, 5 m (16.4 ft.) | 0416 749 888 |
| Sensor cable, 9 m (29.5 ft.) | 0416 749 889 |
| Sensor cable, 19 m (62.3 ft.) | 0416 749 880 |
| Sensor cables for sensor 0416 749 880 (pre June 2019) | |
| Sensor cable, 5 m (16.4 ft.) | 0416 749 888 |
| Sensor cable, 9 m (29.5 ft.) | 0416 749 889 |
| Sensor cable, 19 m (62.3 ft.) | 0416 749 880 |

OPC Basic & Super

Sturdy compact flux recovery systems

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



OPC Basic Flux Recovery System

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

OPC Super Flux Recovery System

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

Ordering information

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

*) excl. hose, nozzles and filter

Options & Accessories

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

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

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

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



FFRS Flux Feed and Recovery Systems

Efficient flux handling for cost-effective welding

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

FFRS Super

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

FFRS 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 | 0417 714 880 |
| Flux hopper 10 l (2.6 gal.) | 0147 649 881 |
| Flux hopper 6 l (1.6 gal.) | 0413 315 881 |
| Holder for hopper | 0148 487 880 |
| Level indicator for TPC | 0452 048 880 |
| Pneumatic flux valve | 0802 540 880 |
| Flux valve control unit | 0813 620 880 |
| Sales Literature FFRS Super | XA00104820 |
| Sales Literature FFRS 2000 & 3000 | XA00104920 |



FFRS 3000

Ordering information

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

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

| | |
|------------------------|--------------|
| FFRS 2000 | 0809 914 893 |
| FFRS 2000 with heaters | 0809 914 894 |
| FFRS 3000 | 0809 914 887 |
| FFRS 3000 with heaters | 0809 914 888 |

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

| Technical data | FFRS 2000 | FFRS 3000 |
|---|------------------------------|--------------------------|
| Weight without flux, kg (lbs.) | 320 (705) | 400 (882) |
| Dimensions, LxWxH, mm (in.) | 1100x800x2210 (43.3x31.5x87) | 750x450x2210 (30x18x87) |
| Primary separator | | |
| Volume, l (gal.) | 50 (13) | 50 (13) |
| Dimensions, LxW, mm (in.) | 450x700 (18x28) | 450x900 (18x35) |
| Suction unit | | |
| Power, W | 2000 | 3000 |
| Mains supply, V/Hz | 400 / 3-50 | 400 / 3-50 |
| Fuse, A | 16 | 16 |
| Max. vacuum, kPa | -30 | -25 |
| Max. air flow capacity, m ³ /h | 240 | 270 |
| Sound level, dB | 71 | 63 |
| Filter area, m ² | 3 | 3 |
| Filtration efficiency, % | 99.95 | 99.95 |
| Life-span of filter, work hours | 5-6000 | 4000-6000 |
| Weight, kg (lbs.) | 74 (163) | 194 (428) |
| Dimensions, LxWxH, mm (in.) | 950x640x1200 (37x25x47) | 1200x690x2000 (47x27x79) |

CRE 30 & CRE 60 Air Drying Units

For use with ESAB flux handling systems

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



Ordering information

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

All sales literature can be downloaded at assets.esab.com

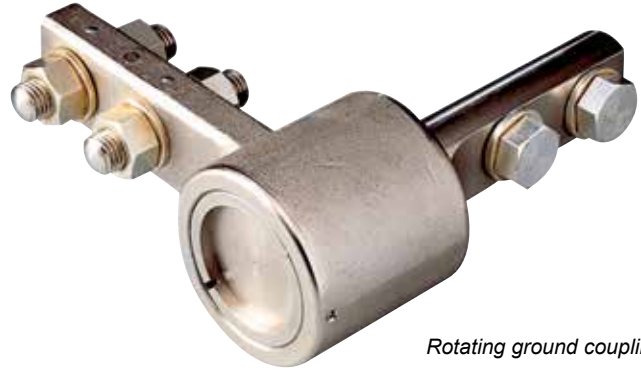
Options & Accessories

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

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

Rotating Ground Couplings

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



Rotating ground coupling NKK

Ordering information

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

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.



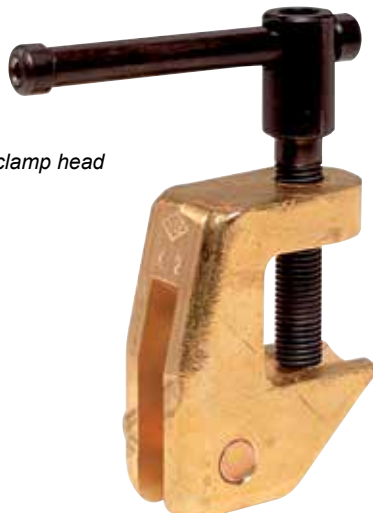
Pole clamp PZ3

Ordering information

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



Handle connection GA 800



K2 clamp head

OCE-2H Cooling unit

Compact and efficient

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

Ordering information

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

All sales literature can be downloaded at assets.esab.com



Technical data 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 (3 bar) |
| 60 Hz | 410 kPa (4.1 bar) |

Technical data Cooler

| | |
|----------------------------------|--------------------------------|
| Cooling power | |
| 40° overtemp and 2.0 l/min, kW | 1.1 |
| 60° overtemp and 2.0 l/min, kW | 1.7 |
| Water pressure at 2.0 l/min, kPa | 220 |
| Coolant volume, l (gal.) | 8 (2.11) |
| Dimensions, LxWxH, mm (in.) | 236x316x398 (9.3x12.4x15.7) |

Handling Equipment



ECD 15-120 and ECI 15-120

Conventional Roller Beds

- Interface connection to ESAB CaB equipped with weld controller PEK for complete integration.
- Two wireless remote-control pendants using Radio Frequency (RF), and an inductive charger comes as standard.
- Control panel with PLC and solid-state inverter for precise speed control.
- Wheel holder C-C adjustable in steps to cover various work piece diameters.
- High quality gear motors from a European supplier with a minimum of backlash.
- Optional Motorised/Idler Rail Bogie versions.



Ordering information

Drive unit

| | |
|-------------------------------------|--------------|
| Roller Bed ECD-15 | 0909 000 880 |
| Roller Bed ECD-15, digital display | 0909 000 881 |
| Roller Bed ECD-30 | 0909 002 880 |
| Roller Bed ECD-30, digital display | 0909 002 881 |
| Roller Bed ECD-60 | 0909 004 880 |
| Roller Bed ECD-60, digital display | 0909 004 881 |
| Roller Bed ECD-90 | 0909 006 880 |
| Roller Bed ECD-90, digital display | 0909 006 881 |
| Roller Bed ECD-120 | 0909 008 880 |
| Roller Bed ECD-120, digital display | 0909 008 881 |

Idler unit

| | |
|--------------------|--------------|
| Roller Bed ECI-15 | 0909 001 880 |
| Roller Bed ECI-30 | 0909 003 880 |
| Roller Bed ECI-60 | 0909 005 880 |
| Roller Bed ECI-90 | 0909 007 880 |
| Roller Bed ECI-120 | 0909 009 880 |

Options & Accessories

| | |
|---------------------------------------|----------------------|
| CaB integration cable 10/20/30/40/50m | 0909 530 880/1/2/3/4 |
| Synchronisation cable 10/20/30/40/50m | 0909 530 900/1/2/3/4 |
| Sales literature | XA00213120 |

All sales literature can be downloaded at assets.esab.com

| Technical data | | ECD/ECI-15 | ECD/ECI-30 | ECD/ECI-60 | ECD/ECI-90 | ECD/ECI-120 |
|--|-------------------|----------------------------------|-----------------------------|-----------------------------|------------------------------|------------------------------|
| Max loading capacity, ton/per section | Drive unit | 7.5 | 15 | 30 | 45 | 60 |
| | Idler unit | 7.5 | 15 | 30 | 45 | 60 |
| Turning capacity, ton | Drive unit | 22.5 | 45 | 90 | 135 | 180 |
| Turning speed, min-max, mm/min (ipm) | | 200-2000 (7.9-78.7) | | | | |
| Workpiece diameter, min-max, mm (in.) | | 480-5700 (19-224) | 480-5700 (19-224) | 700-7600 (27.5-299) | 700-7600 (27.5-299) | 700-7600 (27.5-299) |
| | Mains supply, V | 50Hz, 3ph | | 380-440 | | |
| Roller type | | Polyurethane (90°C / 92°A Shore) | | | | |
| Roller width / diameter, mm no. of wheels | | 90/400 1 | 90/400 1 | 180/580 1 | 250/580 1 | 180/580 2 |
| | Weight, kg (lbs.) | Drive unit 645 (1422) | 865 (1907) | 1390 (3064) | 1895 (4178) | 2600 (5732) |
| Dimensions LxHxW, mm (in.) | Idler unit | 475 (1047) | 625 (1819) | 1055 (2326) | 1430 (3153) | 1895 (4178) |
| | Drive unit | 3647x774x700 (144x30x28) | 3874x810x700 (153x32x28) | 4920x895x900 (194x36x36) | 5054x1028x900 (199x41x36) | 5300x1230x900 (209x49x90) |
| | Idler unit | 2790x600x700 (110x24x28) | 2790x700x700 (110x28x28) | 3740x700x900 (148x32x36) | 3740x800x900 (148x32x36) | 3740x900x900 (148x36x36) |
| Control voltage, V DC | | 24 | | | | |

Mains cable not included in delivery.

ESD 15-120 and ESI 15-120 Self-Aligning Roller Beds

- Self-Aligning is designed for safer handling and gives better side support in thinner wall thicknesses.
- Interface connection to ESAB CaBequipped with weld controller PEK for complete integration.
- Two wireless remote-control pendants using Radio Frequency (RF), and an inductive charger comes as standard.
- Control panel with PLC and solid-state inverter for precise speed control.
- Wheel holder C-C adjustable in steps to cover various work piece diameters.
- High quality gear motors from a European supplier with a minimum of backlash.
- Optional Motorised/Idler Rail Bogie versions.



Drive unit (cont.)

| | |
|-------------------------------------|--------------|
| Roller Bed ESD-120 | 0909 018 880 |
| Roller Bed ESD-120, digital display | 0909 018 881 |

Idler unit

| | |
|--------------------|--------------|
| Roller Bed ESI-15 | 0909 011 880 |
| Roller Bed ESI-30 | 0909 013 880 |
| Roller Bed ESI-60 | 0909 015 880 |
| Roller Bed ESI-90 | 0909 017 880 |
| Roller Bed ESI-120 | 0909 019 880 |

Ordering information

Drive unit

| | |
|------------------------------------|--------------|
| Roller Bed ESD-15 | 0909 010 880 |
| Roller Bed ESD-15, digital display | 0909 010 881 |
| Roller Bed ESD-30 | 0909 012 880 |
| Roller Bed ESD-30, digital display | 0909 012 881 |
| Roller Bed ESD-60 | 0909 014 880 |
| Roller Bed ESD-60, digital display | 0909 014 881 |
| Roller Bed ESD-90 | 0909 016 880 |
| Roller Bed ESD-90, digital display | 0909 016 881 |

Options & Accessories

| | |
|---------------------------------------|----------------------|
| CaB integration cable 10/20/30/40/50m | 0909 530 880/1/2/3/4 |
| Synchronisation cable 10/20/30/40/50m | 0909 530 900/1/2/3/4 |
| Sales literature | XA00220520 |

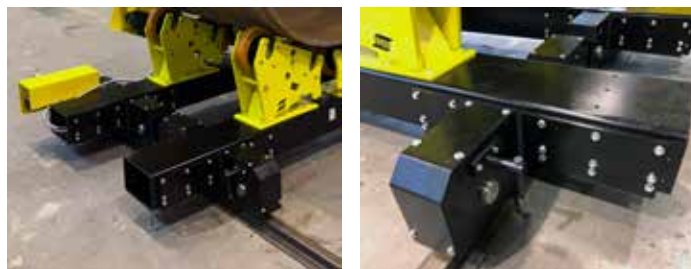
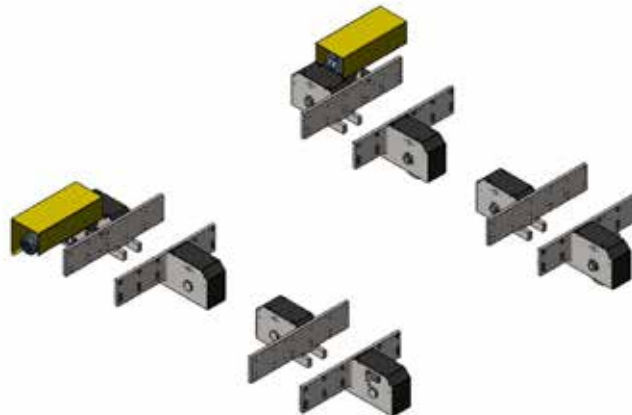
| Technical data | | ESD/ESI-15 | ESD/ESI-30 | ESD/ESI-60 | ESD/ESI-90 | ESD/ESI-120 |
|---|------------|----------------------------------|-----------------------------|-----------------------------|------------------------------|------------------------------|
| Max loading capacity, ton/per section | Drive unit | 7.5 | 15 | 30 | 45 | 60 |
| | Idler unit | 7.5 | 15 | 30 | 45 | 60 |
| Turning capacity, ton | Drive unit | 22.5 | 45 | 90 | 135 | 180 |
| Turning drive motor, kW | | 2x 0.18 | 2x 0.37 | 2x 0.75 | 2x 1.00 | 2x 1.50 |
| Turning speed, min-max, mm/min (ipm) | | 200-2000 (7.9-78.7) | | | | |
| Workpiece diameter all wheels, min-max, mm (in.) | | 1090-4400 (43-173) | 1420-4900 (56-193) | 1420-6300 (56-193) | 2120-6200 (83-244) | 2120-6200 (83-244) |
| Workpiece diameter inner wheels, max, mm (in.) / weight ton | | 350(13.7)/7 | 490(19.2)/15 | 500(19.6)/30 | 810(31.8)/45 | 810(31.8)/80 |
| Mains supply, V | 50Hz, 3ph | 380-440 | | | | |
| Roller type | | Polyurethane (90°C / 92°A Shore) | | | | |
| Roller width / diameter, mm no. of wheels | | 90/300 1 | 90/400 1 | 90/400 2 | 180/580 1 | 180/580 1 |
| | | | | | | |
| Weight, kg (lbs.) | Drive unit | 703 (1550) | 1066 (2350) | 2031 (4478) | 2569 (5664) | 2894 (6380) |
| | Idler unit | 561 (1237) | 847 (1868) | 1802 (3973) | 2130 (4696) | 2207 (4866) |
| Dimensions LxHxW, mm (in.) | Drive unit | 3647x774x700 (144x30x28) | 3874x810x700 (153x32x28) | 4920x895x900 (194x36x36) | 5054x1028x900 (199x41x36) | 5300x1230x900 (209x49x90) |
| | Idler unit | 2790x600x700 (110x24x28) | 2790x700x700 (110x28x28) | 3740x700x900 (148x28x36) | 3740x800x1126 (148x32x44) | 3746x900x900 (148x36x36) |
| Control voltage, V DC | | 24 | | | | |

Mains cable not included in delivery.

EDB/EIB-15 to EDB/EIB-120

Rail Bogies

- EDB-15 to EDB-120 (Drive) and EIB-15 to EIB-120 (Idler) are rail cars/rail bogies to be used together with conventional or self-aligning roller beds and fit-up units.
- Side mounted design which reduces the total height
- Mechanical and electrical Interface to ESAB standard roller beds and fit-up units
- Standard track width C –C, 1730 mm up to 30 ton and 2500 mm above
- High quality gear motors from a European supplier with a minimum of backlash



Ordering information

Drive unit

| | |
|----------------------------------|------------|
| Rail Car EDB-15/-30, Drive Unit | 0909025880 |
| Rail Car EIB-15/-30, Idler Unit | 0909026880 |
| Rail Car EDB-60, Drive Unit | 0909029880 |
| Rail Car EIB-60, Idler Unit | 0909030880 |
| Rail Car EDB-90, Drive Unit | 0909031880 |
| Rail Car EIB-90/-120, Idler Unit | 0909032880 |
| Rail Car EDB-120, Drive Unit | 0909033880 |

Options & Accessories

Sales literature XA00224820

All sales literature can be downloaded at assets.esab.com

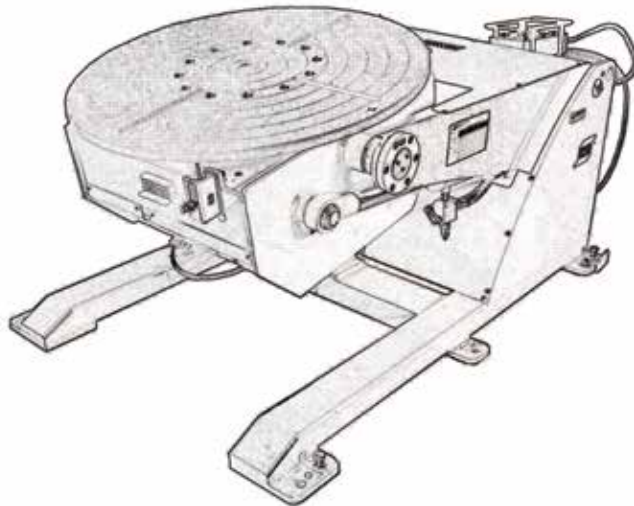
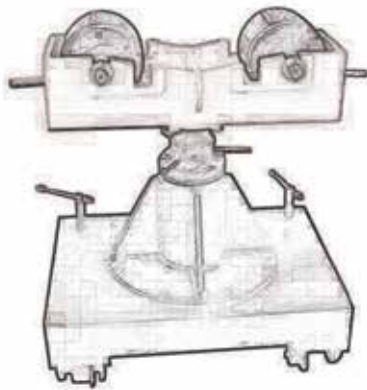
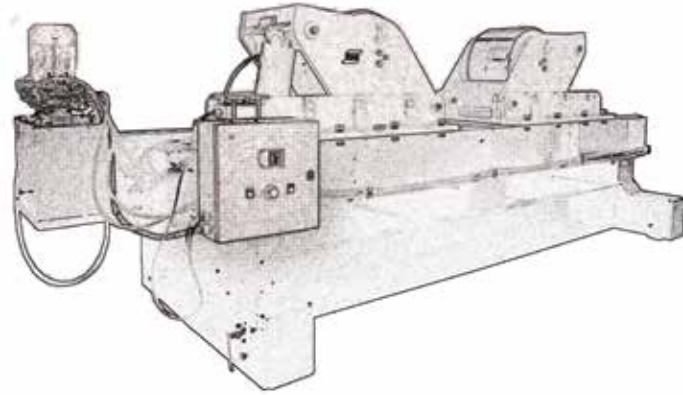
| Technical data | | EDB/EIB-15/-30 | EDB/EIB-60 | EDB-90 | EDB-120 | EIB-90/-120 |
|---|------------|--|---|---|---|-------------------------------|
| Max loading capacity, ton Per set * | Drive unit | 15 | 30 | 45 | 60 | 60 |
| | Idler unit | 15 | 30 | 45 | 60 | 60 |
| Travelling capacity max, ton | Drive unit | 30 | 60 | 90 | 120 | N/A |
| Drive motor, kW | | 2x 0.12 | 2x 0.25 | | 2x 0.37 | N/A |
| Travelling speed, low-high, mm/min (ipm) | | 200-2000 (7.9-78.7) | | | | N/A |
| Track Width, mm | | 1730 | | | 2500 | |
| Mains supply, V ** | 50Hz, 3ph | | | 380-440 | | N/A |
| Wheel type | | Steel wheel with single flange | | | | |
| Weight, kg (lbs.) Per set | Drive unit | 436 (960) [2x128+2x90 (2x282+2x198)] | 716 (1578) [2x207+2x151 (2x456 +2x333)] | 1142 (2516) [2x334+2x237 (2x736+2x522)] | 1234 (2720) [2x380+2x237 (2x838+2x522)] | N/A |
| | Idler unit | 360 (792) [4x90 (4x198)] | 604 (1332) [4x151 (4x333)] | N/A | N/A | 948 (2088) [4x237 (4x522)] |
| Dimensions mm (in.) Extended to the roller bed Width extended along the rails | Width | 706 (28) [2x353 (2x14)] | 826 (32.6) [2x413 (2x16.3)] | | 926 (38.8) [2x493 (2x19.4)] | |
| | Height | 90 (3.5) | 150 (6) | | 230 (9) | |
| Control voltage, V DC | | | 24 | | | N/A |

* One set is needed to carry one roller bed unit. ** Mains supply and control voltage from roller bed control panel.

Other Equipment

On request

- Positioners
- Pipe rotators
- Fit-up units



Applications



Welding solutions for Pipemills

Our experience and knowledge - your benefit!

Flexible, reliable welding equipment

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

Precise, high-speed longitudinal welding

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

Internal and external welding

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

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

Return current systems (grounding)

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

Problem-free flux and wire feed systems

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

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

Spiral pipe welding

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

Ordering information

For more information, please contact your nearest ESAB representative.

Sales Literature

XA00136520



Internal welding



External welding

Windmill Tower Manufacturing

Dedicated solutions for dedicated manufacturers

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



Oxy-fuel or plasma cutting of plate and seam preparation



Rolling, forming and tack welding of the shell



External longitudinal submerged-arc welding using a column and boom



Internal longitudinal submerged-arc welding using a column and boom



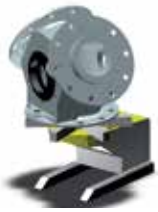
Submerged-arc welding of flanges and supports



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



Automatic welding of the door frame.



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

Tank welder Circotech

A series of mechanized compact girth welders

Circotech is a series of self-propelled 3 o'clock welding equipment primarily developed for on-site erection of large storage tanks, silos, blast furnaces and similar cylindrical objects. It is available as a single-side version and a double-side version. Usually it is designed to travel on the top edge of the tank shell. As there are different ways of building tanks, one machine in the series is designed to travel on a rail which is temporarily fixed to the shell or on a stand-alone ring outside the shell.

Operator safety - CE approved

The operator of each machine (if a double-side version) rides in a cabin, where he supervises and controls the welding process with the control panel within easy reach. The cabin, whose floor level under the carriage is variable to suit the height of the plate, is built as a cage to give the operator(s) maximum safety and comfort. For weather protection the cage can be covered by curtains. The cabin of a double-side machine is equipped with step ladders and a joining bridge at the top to facilitate for the operators to climb onboard. The bridge also has guard rails for the safety of the operators.

Submerged-arc welding

The machine is usually equipped for SAW with single wire. SAW with twin wires is, upon request, available as an alternative. The flux is supplied from a flux hopper and supported in the welding position by an endless rubber belt from where it may be collected/ sucked up after welding and re-circulated. A flux recovery unit can be included.



Technical data

| | |
|--|--------------------|
| Height, mm (in.) | 1000-3000 (39-118) |
| Thickness, mm (in.) | 8-35 (5/16-1.4) |
| Min. Shell curvature, radius, mm (in.) | 4000 (157) |

Economic benefits

The investment in a Circotech installation contributes to a consistent weld quality, which means low defect rate. The consumption of welding consumables is low because of efficient joint preparation. All in all this means good return on investment.

Circotech design

The Circotech is built up of modules to satisfy a variety of customer requirements. The very basic machine can be equipped with a carriage which travels on the top edge of the plates of a tank, or it can be supplied with a carriage made to travel on a separate rail or ring. In this shape the machine can also be controlled by an operator walking along with it on a built-up cat-walk.

However, the machine is usually supplied with a cabin in the form of a safety cage with curtains for protection against rain and wind.

It is easy to adjust the machine for different plate heights, because of the telescopic design of the frame. The design also makes it easy to transport.

For environmental and safety reasons, tanks are nowadays often built with double shells with a space between shells of around 2 m. Circotech is designed to operate also in this space.



Double-side Circotech being lifted onto the job.

Package content

- Ready to weld ESAB subarc welding machine type A6 with manual adjustment slides
- Pre-set control box
- Weather-shielded safety cabin
- ESAB power source LAF 1000
- Flux hopper, 6 l and flux support
- 50 m control cable
- Welding and return cables

A single-side Circotech can be specified for welding either in right-hand or in left-hand direction.



Close-up of the welding head.

Ordering information

- Single side or double side equipment
- A6 system for SAW with single wire or twin wire
- Top of plate travelling or rail travelling

For ordering information, please contact your nearest ESAB representative.

Options & Accessories

- Preheating and joint-cleaning oxy-acetylene device (*complete incl. hoses*)
- Lighting equipment
- Extension cables
- Twin-arc kit
- Motorized slide

ESAB Retrofit

Bring new life to your equipment

Even old carriers of welding equipment can be revitalised to secure continuous production. ESAB Retrofit is a solution to modernise your SAW equipment for extended life and increased productivity.

We offer standardised packages for welding equipment run by the PEG or the PEH process controller for single or tandem wire set-up. The packages include a choice of power source(s) depending on application and needs, and specialised components for retrofit.

- Increased productivity by upgrading your power source or welding head
- Maintained high integration between controller and CaB motion
- The PEK process controller share the same logic as PEG and PEH
- Same type of wear parts used

Benefits of upgrading from PEG or PEH to the modern PEK process controller

- Access quality data displaying welding parameters from previous welds
- Access production statistics displaying historical deposition rates
- More precise welding values and higher process stability due to encoder feedback with all motors
- Display heat input based on actual welding conditions
- User-friendly interface and menus
- Increased number of weld data settings available
- Quicker software upgrade using USB
- Connectivity to a wider range of automation power sources including Aristo® 1000 AC/DC SAW
- Enables upgrade to ICE™ technology (on request)

Please note: The PEG controller was replaced by PEH in late 1990's. The PEH was made obsolete in 2009 and with the ESAB 10 year spare part supply policy the product will not be supported from 2019.



Tandem setup with PEK



Closeup of ICE wire



Benefits of upgrading your power source

Upgrading from 1000 A to 1250 A

Increased welding current which allows the full utilisation of twin technology. Twin kit is required.

LAF/TAF to Aristo 1000 inverter

Aristo 1000 offers AC/DC capability all in one power source. DC+ to secure penetration in root pass and AC for higher deposition rate in fill pass.

Additional features:

- Parameter and polarity change on the fly. No need to stop welding to change polarity or parameter set-up
- Refine the process and improve deposition rate by adjusting frequency, balance and off-set
- Multi process power source with additional capability for gouging
- Cable boost function ensures stable parameters even with long cables

ESAB Retrofit kits

| Present configuration | | | New configuration | | | |
|-----------------------|--------------|------------|-------------------|-------------------------|------------|--------------|
| Controller | Power source | Wire setup | Controller | Power source | Wire setup | Kit no. |
| PEG | LAE | Single | PEK | LAF 1001 | Single | 0906 210 880 |
| | | | PEK | LAF 1251 | Single | 0906 211 880 |
| | | | PEK | Aristo 100 AC/DC SAW | Single | 0906 212 880 |
| PEH | LAF | Single | PEK | LAF 1001 | Single | 0906 213 880 |
| | | | PEK | LAF 1251 | Single | 0906 214 880 |
| | | | PEK | Aristo 100 AC/DC SAW | Single | 0906 215 880 |
| PEG | LAE/TAE | Tandem | PEK | LAF 1251/TAF 801 | Tandem | 0906 216 880 |
| | | | PEK | LAF 1251/TAF 1251 | Tandem | 0906 217 880 |
| | | | PEK | 2x Aristo 100 AC/DC SAW | Tandem | 0906 218 880 |
| PEH | LAF/TAF | Tandem | PEK | LAF 1251/TAF 801 | Tandem | 0906 219 880 |
| | | | PEK | LAF 1251/TAF 1251 | Tandem | 0906 220 880 |
| | | | PEK | Aristo 100 AC/DC SAW | Tandem | 0906 221 880 |

The kits above contain parts for a standard retrofit. Additional work outside of the kit will be quoted separately. Other functions and features on request.

We also offer tailored retrofits on various types of SAW stations including other brands than ESAB.

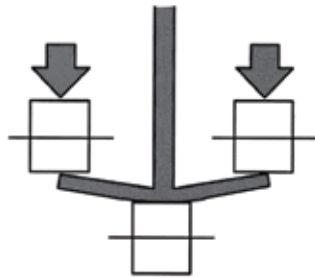
Retrofits using above standard kits do not require re-certification in accordance with EU regulations.

Beam Welding - Pull Through Welders

For welding of beams and profiles

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

Straightening principle:



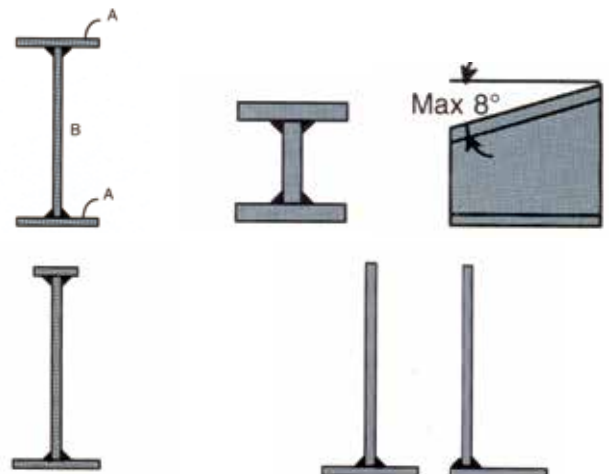
Beam welder IT-258



Total range of beam sizes that can be welded:

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

Examples of beams than can be welded:



Wear Parts



A2 Wear Parts

Secure your welding quality and productivity with ESAB original parts

Wear Part Kits

| Contents | Wire Diameter, mm (in.) | Part Number | |
|--|--|--|--|
| Wear part kit A2 SAW 15 pcs contact nozzles 2 pcs feed rollers 2 pcs 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 | |
|-------------------------|-------------|------------|------|--|
| 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 | • | |

Feed Roller Grooved and Knurled

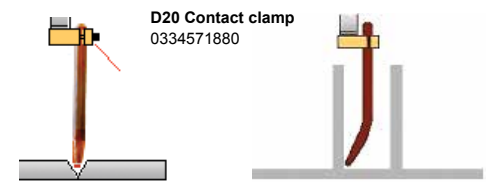
| Wire Dimension Cored Wire, mm (in.) | Part Number | SAW Single | GMAW | |
|--|-------------|------------|------|---|
| 0.8-1.6 (.030-1/16) | 0146024880 | • | • |  |
| 2.0-4.0 (5/64-5/32) | 0146024881 | • | • | |

Pressure Roller Grooved and Knurled

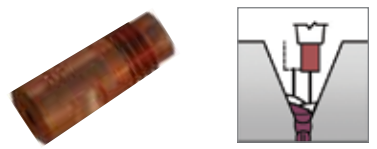


| Wire Dimension Cored Wire, mm (in.) | Part Number | SAW Single | GMAW | |
|--|-------------------------|------------|------|---|
| 0.8-1.6 (.030-1/16) | 0146025880 ¹ | • | • |  |
| 2.0-4.0 (5/64-5/32) | 0146025881 ¹ | • | • | |
| Shaft for pressure roller | 0212901101 | • | • | |

¹Use with shaft for pressure roller 0212901101.

Contact Tube D20 Single Wire

| Length, mm (in.) | Part Number | SAW Single | |
|------------------|-------------|------------|--|
| 100 (4) | 0413510003 | • |  <p>D20 Contact clamp 0334571880</p> |
| 190 (7.5) | 0413510002 | • | |
| 260 (10.2) | 0413510001 | • | |
| 500 (19.7) | 0413510004 | • | |
| 260 (10.2) bent | 0413511001 | • | |

Contact Nozzles

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

¹Use in conjunction with tip adaptor M10 to M6 for GMAW applications.

A2 Wear Parts

Cont.

Contact Device D20 Complete GMAW

| Description | Part Number | GMAW | |
|----------------------|------------------------------|------|--|
| 1. A2 torch | 0030465389 | • | |
| 2. Gas nozzle | 0145227882 | • | |
| 3. Insulating sleeve | 0145226001 | • | |
| 4. Contact tube | 0145534882 | • | |
| 5. Plug | 0146099001 | • | |
| 6. Extension | 00409798-03/-04 ¹ | • | |
| 7. Guide tube | 0415032001 | • | |
| 8. O-ring, 22.2x3 | 0190680405 | • | |
| 9. O-ring, 15.3x2.4 | 0190680313 | • | |
| 10. O-ring, 5.3x2.4 | 0190680303 | • | |

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

MTW-600 GMAW Torch, 600A

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

¹ Cut to suitable length

MTW-600 GMAW Feed Roller, Single Wire

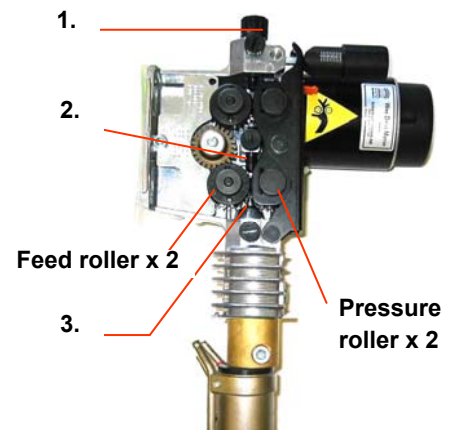
| Wire Dimension mm (in.) | Part Number | | GMAW | |
|-------------------------------|-------------|------------|------|--|
| | Fe, SS | Al | | |
| 0.6-0.8 (.023-.030) | 0369557001 | - | • | |
| 0.8-0.9 (.030-.035) | - | 0369557011 | • | |
| 0.8-1.0 (.030-.040) | 0369557002 | - | • | |
| 1.0-1.2 (.040-.045) | 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 | • | |
| 2x1.2 (2 x .045) | 0369557010 | - | • | |
| Pressure roller (flat roller) | 0369728001 | 0369728001 | • | |

MTW-600 GMAW Feed Roller, Single Wire, Groove, Knurled

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

MTW-600 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 |



A6 Wear Parts

Secure your welding quality and productivity with ESAB original parts

Feed Roller SAW Single Wire

| Wire Dimension, mm (in.) | Part Number | |
|--------------------------|-------------|--|
| 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 | |
| 5.0 (3/16) | 0218510287 | |
| 6.0 (1/4) | 0218510288 | |
| Pressure roller | 0153148880 | <p>Idling pressure roller</p> <p>Driving feed roller with groove</p> |

Feed Roller SAW Single Wire, Knurled V-Groove

| Wire Dimension, mm (in.) | Part Number | |
|--------------------------|-------------|--|
| 3.0-5.0 (.012-3/16) | 0218510299 | |
| Pressure roller | 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 | | <p>Geared driving feed and pressure roller with knurled groove, eg/ soft, tubular wire</p> |
| 0.8-1.6 (.030-1/16) | 0146024880 | |
| 2.0-4.0 (5/64-5/32) | 0146024881 | |
| Pressure Roller | | |
| 0.8-1.6 (.030-1/16) | 0146028880 ¹ | |
| 2.0-4.0 (5/64-5/32) | 0146025881 ¹ | |
| Shaft for pressure roller | 0212901101 | |

¹Use with shaft for pressure roller #0212901101.

Feed Roller SAW Twin Wire

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

Feed Roller SAW Twin Wire, Knurled U-Groove

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

¹Spherical type with shaft

D35 Heavy-Duty System

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

Contact Jaws for Heavy-Duty System

| Wire Dimension, mm (in.) | Part Number | |
|--|-------------|---|
| Single Wire, Length 65/58 mm (2.5/2.3 in.) | | |
| 2.0 (5/64) | 0332581880 | <p>65 mm (2.5 in.) 0332581880/-881 58 mm (2.3 in.) 0265900880/-884 120 mm (4.7 in.) 0000237320/-321 Long contact jaws 120 mm (4.7 in.) for improved access to deep joints</p> |
| 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.) Durable contact jaws for all wire dimensions between 1.6-3.0 mm (1/16-.012 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 | |

A6 Wear Parts

Cont.

SAW Contact Nozzles for Light-Duty System

| Wire Dimension, mm (in.) | Part Number | |
|--|-------------|---|
| SAW Contact Nozzle M6 for Twin Wire | | |
| 2 x 1.2 (.045) | 0153501005 | <p>M6</p> <p>Guide tube, L=358, D6/4 0415032001</p> <p>Guide tube, L=750, D6/4 0415032002</p> <p>Spiral insert, L=366, D3.5/1.5 0334279001</p> <p>Nozzle holder 0333772001</p> <p>Contact nozzle x2</p> |
| 2 x 1.6 (1/16) | 0153501007 | |
| 2 x 2.0 (5/64) | 0153501009 | |
| 2 x 2.4-2.5 (3/32) | 0153501010 | |

SAW Contact Jaws for ICE™

| Description | Part Number | |
|--|--|--|
| Contact jaw, 2.5 mm (3/32) Contact jaw, 2.4-2.5 mm (3/32) Wire guide Ceramic sleeve | 0819882880 0816019983 0824038001 0819883001 | <p>L=73.5 mm (3 in.) 0819882880</p> <p>L=120 mm (4.7 in.) 0816019983</p> |
| ICE Wear Kit 3 pcs contact jaw, 2.5 mm 3 pcs ceramic sleeve 1 pc feed roller, 2.5 mm | 0824376880 | |

Insulated Contact Nozzle with Nozzle Cap for Narrow V-Joints

| Description | Part Number | |
|------------------|-------------|---|
| Nozzle holder | 0000237415 | <p>M16</p> <p>Nozzle holder</p> <p>Contact nozzle</p> <p>Nozzle cap</p> <p>D35 contact tube</p> |
| 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

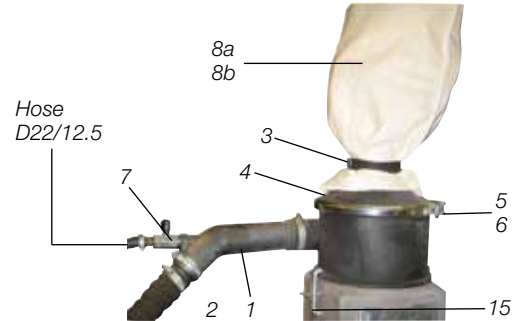
| Description | Part Number | Description | Part Number |
|---|--|---|--|
| D20 Contact Tube | | | |
| 1. Tube 2. Clamp 5. Flux hose 0.5 m (1.6 ft.) 5.1. Flux hose free length/m (ft.) | 0332948001 0333094880 0443383002 0443383001 | | |
| D35 Contact Tube | | | |
| 3. Flux nozzle complete 3.1. Tube bent 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 | | |
| 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 | 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 |

Contact Jaws for A6 SAW Cladding Head Assembly

| Description | Part Number | |
|--|-------------|--|
| Contact jaws <i>12 pcs required for complete assembly</i> | 0148325001 | |

OPC Flux Recovery System Wear Parts

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OPC Basic

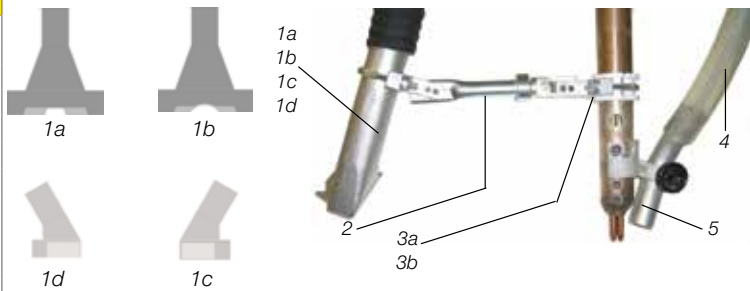
| | | |
|----|-----------------------------|------------|
| 1 | Ejector | 0147640880 |
| 2 | Spiral hose D47.0/38.1 | 0191813801 |
| 3 | Tension band | 0192855002 |
| 4 | Cone ¹ | 0148143001 |
| 5 | Tension ring ¹ | 0148144001 |
| 6 | O-ring, 189.3x5.7 | 0215201353 |
| 7 | Ball valve | 0145824881 |
| 8a | Filter, paper | 0155966001 |
| 8b | Filter, cotton ¹ | 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 | Spiral hose D47.0/38.1 | 0191813801 |
| 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 ¹ | 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 |

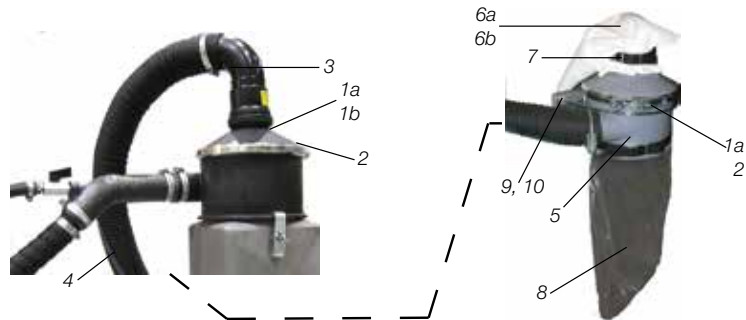
Suction Nozzle

| | | |
|----|--|------------|
| 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 | 0443383001 |
| | 0.5 m (1.6 ft.) | 0443383002 |
| 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 ¹ | 0332448001 |
| 7 | Tension band | 0192855002 |
| 8 | Plastic bag | 0190665004 |
| 9 | U-screw | 0379600001 |
| 10 | Bracket | 0379599880 |



¹Optional item.

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