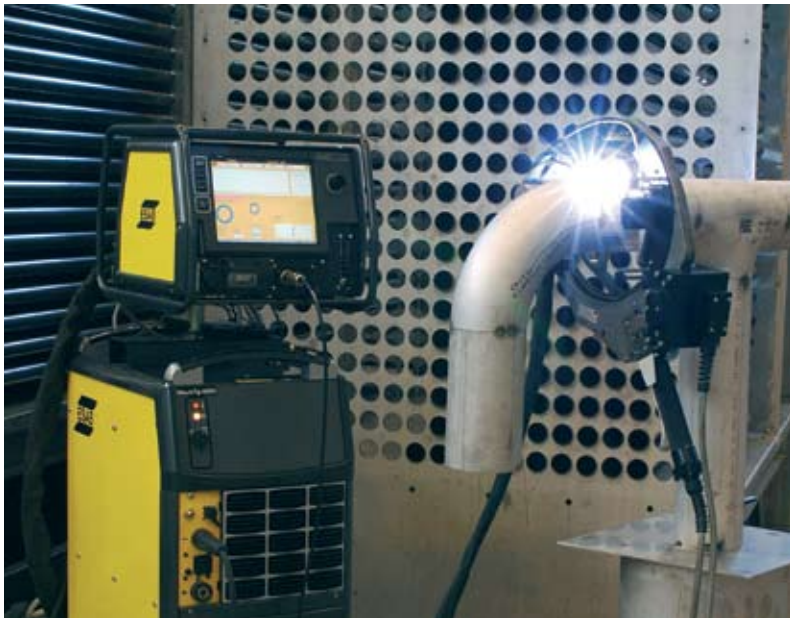
Welding Automation
Submerged Arc, TIG, MIG/MAG

COMPLETE SOLUTIONS IN WELDING AND CUTTING FROM ESAB



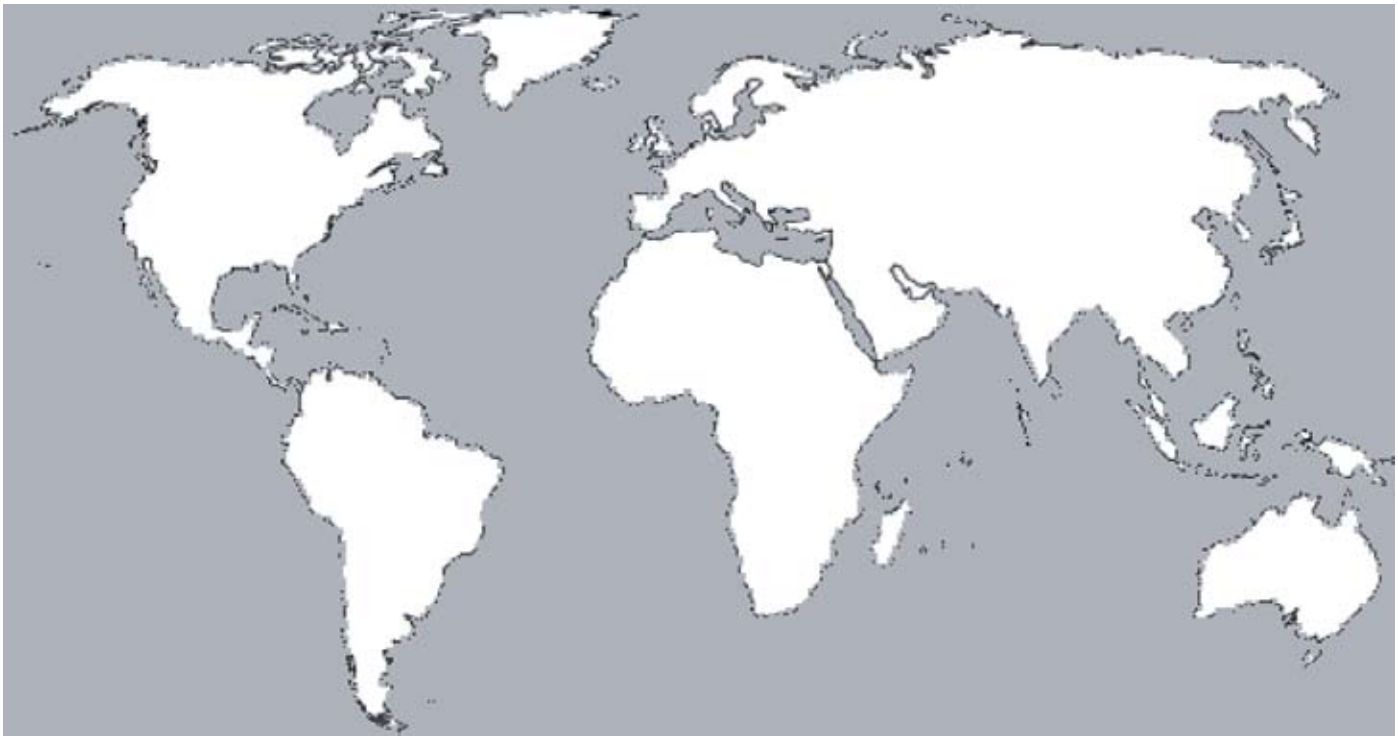
IA00900011

World leader in welding and cutting technology and systems.

Since 1904, ESAB has been a pioneer in the welding and cutting business. By continuously improving and developing our products and methods, we meet the challenges of technological advance in every sector we operate in.

Our focus on quality issues has always been strong. Quality is an ongoing process that is at the heart of all our production processes and facilities worldwide. With world leadership comes worldwide applications experience and expertise.
Multinational manufacturing of welding consumables and equipment brings ESAB quality and innovation closer to our customers.

ESAB customers enjoy full and personal access to an unrivalled resource of technical and applications knowledge, service and support. With local representation all over the world, together with a network of independent distributors, ESAB brings practical expertise and solutions to challenges involving materials, welding, cutting and overall productivity at local level.



Wherever in the world quality and productivity in welding and cutting counts, ESAB is there to set the standard.

ESAB®

Welding Automation

The 21st Century has brought many new challenges to the metal fabrication industry. Metal fabricators must meet the demand for increased quality while providing their customers with an overall lower cost. Productivity is challenged by the shortage of skilled workers and the added health and safety concerns for these workers. Profitability is under continued pressure from intense global competition. As a result, manufacturers are required to utilize new fabrication techniques to build increasingly complex designs and structures.

ESAB is committed to providing the necessary solutions to keep you competitive. Whether your metal fabrication project requires simple components such as tractors or requires large turn-key systems and production lines, ESAB offers a full range of automation products to meet every need. At ESAB, we consistently offer the best welding solutions to meet the ever changing challenges of the metal fabrication industry.

Quality Welds- Every Time

ESAB offers the widest range of filler metals in the world. Our goal is to provide the most productive filler metal for your job. ESAB will meet the needs of any welding process and application.

Total System Responsibility

Because we build the entire system, we can integrate the welding process, arc path, and material handling. An integrated design simplifies the equipment, improves reliability, and ensures unsurpassed performance. Operator appeal is maximized through simple, straightforward control panels. Because ESAB provides Total System Responsibility, including the filler metals and technical service, we ensure your project is successful.

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Railtrac 1000

A unique, flexible, multi-purpose system for welding and cutting

- *Create suitable solutions for most applications*
- *Consists of aluminum and steel parts to withstand harsh environments*
- *Welding possibilities include horizontal to horizontal and vertical (up only)*
- *Practical accessories available*
- *New joint system allows for both stiff and flexible rail applications*
- *Straightforward and well designed programming unit with up to 5 different programs*
- *Standard software offers programmable interval welding and backfill function*
- *Remote control allows functionality without lifting welding visor*
- *Buttons featured on remote control include: start and stop, shift program, weaving width, zero line displacement, and many more*
- *Adjust the welding current and voltage during welding with only two potentiometers on the remote control (when using ESAB equipment)*
- *Remote control only available on FW1000 and FWR1000 models*

Technical Data	Railtrac F1000 Flexi	Railtrac FW1000(L) Flexi Weaver	Railtrac FR1000 Flexi Return	Railtrac FWR1000 Flexi Weaver Return
Power supply (VAC/VDC)	36-46/40-60	36-46/40-60	36-46/40-60	36-46/40-60
Power consumption (Max) (W)	30	80	30	80
Weight excl. rail, Kg	6	7	6	7
Measurements, LxWxH, mm	170x400x190	170x350x190	170x400x190	170x350x190
Rail measurements-flexi rail, mm	60x5	60x5	60x5	60x5
Stiffener bar, mm	40x10	40x10	40x10	40x10
Min bend diameter externally, mm	3000	3000	3000	3000
Slide for height adjustment, mm	± 22	± 22	± 22	± 22
Mechanical lateral adjustment, mm		± 35		± 35
Welding speed, cm/min	10-150	10-150	10-150	10-150
Quick transport, cm/min	150	150	150	150
Preheating time (s)	0.0-9.9	0.3	0.0-9.9	0.3
Interval welding, cm	1-99	1-99	1-99	1-99
Crater-filling time (s)	0.0-9.9	0.0-9.9	0.0-9.9	0.0-9.9
“Backfill”, mm	0-99	0-99	0-99	0-99
Weaving speed, mm/s	-	6-60		6-60
Weaving width, mm		1-30		1-30
Electrical 0-line displacement, mm		± 12.5		± 12.5
Pause time at outer edge, (s)		0.0-9.9		0.0-9.9
Weaving pattern (No.)		3		3
Number of programs	5	5	5	5
Temp. machine and magnets (°C)	0-70	0-70	0-70	0-70
Temp. vacuum attachment (°C)	0-90	0-90	0-90	0-90
Safety class (DIN 40050)	IP 23	IP 23	IP 23	IP 23

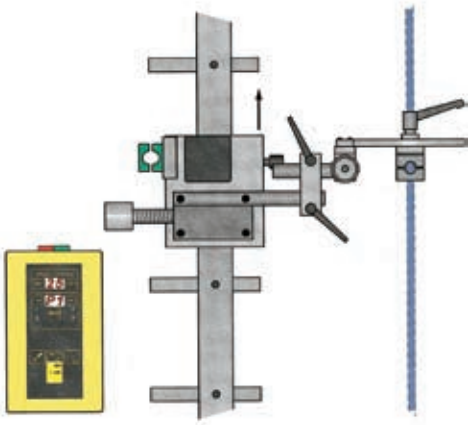
Instruction Manual Railtrac 1000 (F, FR), order number 0777167001
Instruction Manual Railtrac 1000 (FW, FWR), order number 0777168001
Instruction Manual Railtrac 1000 (BV, BVR)), order number.....0777169001
Sales Literature Railtrac 1000 (F, FR), order number XA00086720
Sales Literature Railtrac 1000 (FW, FWR), order number XA00086720
Sales Literature Railtrac 1000 (BV, BVR), order number XA00086720

Railtrac 1000

System Configuration

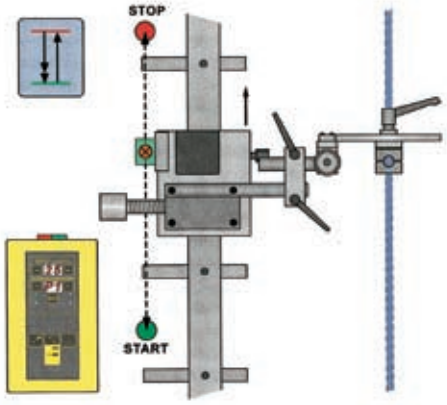
Railtrac F1000 Flexi

- *Flexible combi-rail*
- *Suitable for both inside and outside welding and cutting*
- *Cut along curved and straight surfaces*
- *Suitable for thermal cutting*



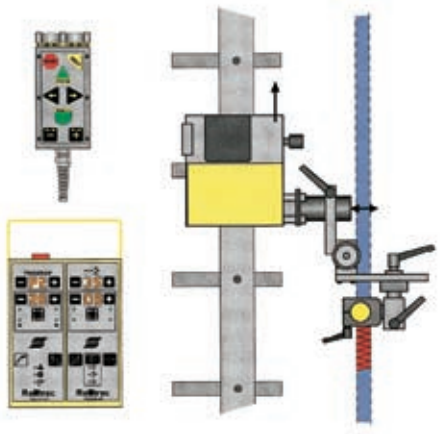
Railtrac FR1000 Flexi-Return

- *Flexible combi-rail and facilities for movable parts*
- *Start and stop for automatic return of length*
- *Ideal for use in fixed installations or repetitive welding*



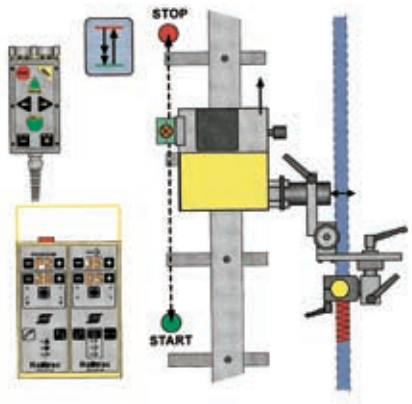
Railtrac FW1000 Flexi-Weaver

- *Flexible combi-rail*
- *Equipped with weaver- use for different patterns*
- *Equipped with a user friendly remote control unit*



Railtrac FWR1000 Flexi-Weaver Return

- *Equipped with weaving unit*
- *Adjustable start, stop and return facilities*
- *Unique design remote control unit with advanced solutions for a number of applications*



Railtrac 1000

System Configuration

Ordering Information

Railtrac F1000 Flexi 0398 146 002
Railtrac FW1000 Flexi-Weaver..... 0398 146 012
Railtrac FR1000 Flexi-Return 0398 146 003
Railtrac FWR1000 Flexi-Weaver Return 0398 146 013

Options and Accessories	Railtrac F1000 Flexi	Railtrac FW1000 (L) Flexi Weaver	Railtrac FR1000 Flexi Return	Railtrac FWR1000 Flexi Weaver Return	Ordering Information
Basic Equipment (Standard)					
Weaving unit		*		*	
Control unit	*	*	*	*	
Remote control		*		*	
Universal torch holder with slide	*	*	*	*	
Automatic start and stop function			*	*	
Rails and attachments (Components)					
Flexible alu-rail, 2.5 m	*	*	*	*	0398 146 115
Flexible alu-rail, 2.5 m, 8 magnets	*	*	*	*	0398 146 112
Flexible alu-rail, 2.5 m, 4 vac. Attachm.	*	*	*	*	0398 146 113
Stiffener bar, 2.5 m	*	*	*	*	0398 146 116
Magnetic attachment, at least 8/2.5 m *(1)	*	*	*	*	0398 146 100
Vacuum attachment, at least 4/2.5 m	*	*	*	*	0398 146 104
Screw attachment for stiffened rail	*	*	*	*	0398 146 114
Accessories					
Torch holder PSF 400/500	*	*	*	*	0398 145 101
Adapter for a majority of existing attachments to the stiffened rail	*	*	*	*	0398 146 106
Universal pivoted torch holder	*	*	*	*	0398 145 104
Attachment for IMP cutting torch	*	*	*	*	0398 145 260
Torch and attachment	*	*	*	*	0398 145 215
Tilt unit for weaving unit		*		*	0398 145 200
Turning unit for weaving unit		*		*	0398 145 201
“Floating” head	*	*	*	*	0398 145 211
IMP cutting torch	*	*	*	*	0398 145 250
Transport and storage box	*	*	*	*	0398 145 199

*(1) 2 pcs in each bag

Miggytrac 1001-2000

The perfect complement to your MIG power source

- *Small and compact*
- *Accomodates any standard welding torch*
- *Four-wheel drive system ensures even and stable movement*
- *Drives itself against work pieces*
- *Additional functions include setting travel speed, magnet on/off for free welding and welding on/off*
- *Equipped with two manual slides for fine corrections of torch position*
- *Includes rotating slide which allows precise torch angle manipulation*
- *Continuous and interval welding (Miggytrac 2000 only*

Miggytrac 1001

Miggytrac 2000

Ordering Information

Miggytrac 1001, 42 VAC 0457 357 881
Miggytrac 2000, 42 VAC 0457 358 880
Welding screen 0457 463 880

Options and Accessories

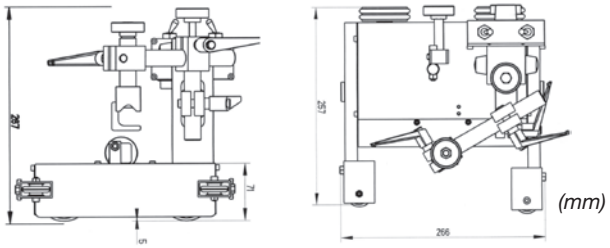
Control Cable ESAB, 5mt..... 0457 360 880
(12 pin male- 23 pin male Burndy style). For all MEK (also requires 457 462 880), ESABFeed, and ARISTOFeed feeders (also requires 458 757 881)

ESAB MEK Wire Feeder Adaptor kit.....0457 462 880
(Required for connection of Miggytrac to MEK feeders)

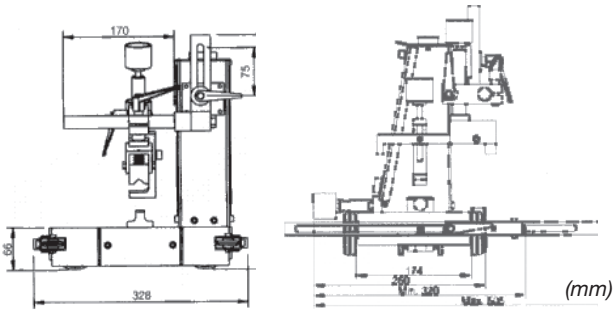
ESAB ARISTOFeed.....0459 491 911
(Required for connection of Miggytrac to ARISTOFeed)

Universal Control Cable, 5mt 0457 360 881
(12 pin male Burndy style-open end). Requires user-supplied plug to connect cable to OEM feeders

Transformer kit, 220-42 VAC.....0457 467 880
Universal kit used to adapt 115 VAC wire feeders to Miggytrac



Miggytrac 1001



Miggytrac 2000

Technical Data	1001	2000
Control voltage	36-46 V AC	36-46 V AC
Power	20 W	40 W
Welding speed, mm/min	150-1200	150-1500
Dimensions (LxWxH), mm	266x257x267	330x260x360
Weight, kg	7	9,5
Adjustment of slide, mm	± 20	± 17
Connection	Burndy, 12 pins	Burndy, 12 pins
Remote control outlet	Volt and Ampere (wire feed speed)	Volt and Ampere (wire feed speed)
Welded interval, mm	no	10-990
Non-welded interval, mm	no	10-990
Backfill, sec	no	0,3
Crater-fill time , sec	no	0-9,9
Fast positioning speed, mm/min	no	2500

Instruction Manual Miggytrac 1001,order number.....0457572001
Instruction Manual Miggytrac 2000,order number.....0449310001
Sales literature Miggytrac 1001, order number XA00086520
Sales literature Miggytrac 2000, order number XA00104720

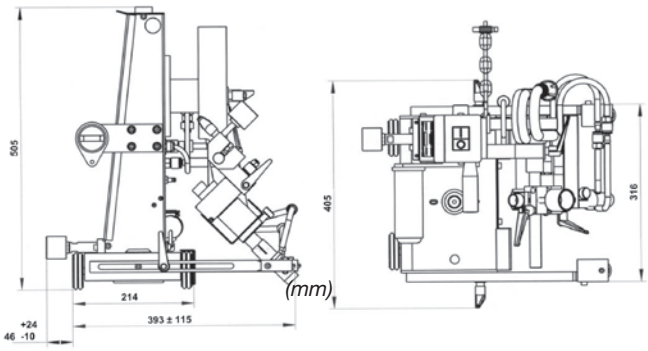
Miggytrac 3000

The most versatile and compact solution for fillet semiautomatic welding

- *Small, lightweight and complete with on-board wire feeder and water cooling*
- *Four-wheel drive system ensures even and stable movement*
- *Control panel for carriage movement, wire-feeder, continuous or interval welding*
- *Programmable functions for Crater-fill / Backfill*
- *For wire spools up to 20 kg*
- *Adjustable pre and post gas*

Ordering Information

Miggytrac 3000, 42 VAC 0457 359 880



Options and Accessories

Contact tip, 1 mm CO_2 ..... 0468 502 005
Contact tip, 1,2 mm CO_2 ..... 0468 502 007
Contact tip, 1,4 mm CO_2 ..... 0468 502 008

Cooled gas nozzle 0449 903 101
15 m cable for Origo™Mig - Aristo™Mig 0469 836 887
Steel wheels (4 pieces) 0457 357 081

Technical Data	3000
Control voltage	36-46 V AC
Power	80 W
Welding speed, mm/min	150-1500
Dimensions (LxWxH), mm	370x400-530x520
Weight, kg	17
Adjustment of slide, mm	± 17
Connection	Burndy, 23 pins
Remote control outlet	Volt e Ampere (wire feed speed)
Welded interval, mm	10-990
Non-welded interval, mm	10-990
Backfill, mm	0-99
Crater-fill time, sec	0-99
Wire feed speed, m/min	2-25
Gas pre-flow / post-flow, sec	0-99
Fast positioning speed, mm/min	2500

Instruction Manual Miggytrac 3000,order number.....0449453001
Sales literature Miggytrac 3000, order number XA00123620

A2 Multitrac (PEH)

The universal welding tractor

- *Compact and efficient design allows for easy movement between work pieces*
- *Self-propelled, four-wheel drive for stable, accurate, and constant operation*
- *PEH Process Controller with digital display, allows presetting and control of welding parameters (for more info on PEH Controller, see page 19)*
- *Horizontal, vertical and rotary slides allow for quick adjustment of weld nozzle into various positions*
- *Reliable mechanical parts, even under harsh environments*
- *For use with LAF (DC) or TAF (AC) power sources*
- *Many specially developed accessories available*
- *Minimal inside diameter 1300 mm*

Ordering Information

A2 Multitrac GMAW 0449 161 880
A2 Multitrac GMAW MTW 800 ..... 0449 161 881
A2 Multitrac SAW.....0449 160 880

Options and Accessories

Accessories..... page 10
Feed rolls, contact tips ..... page 15-18
Power supplies ..... page 20-21
Control cables..... page 20-21

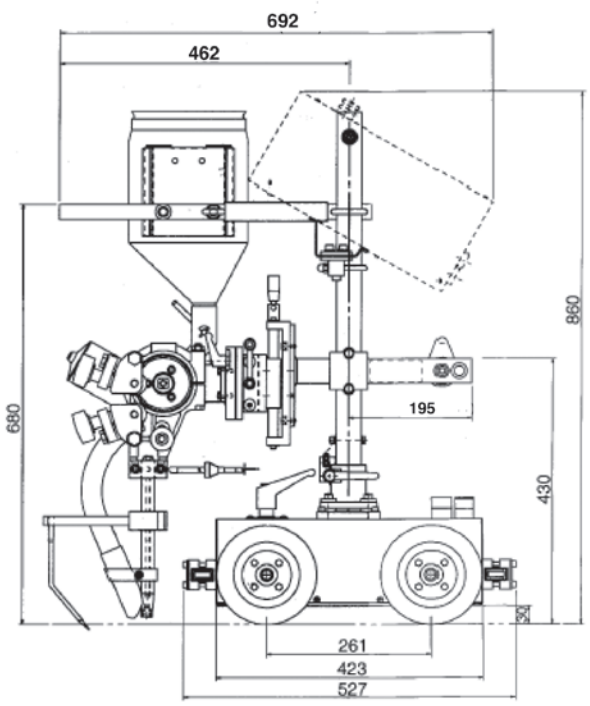
Technical Data		SAW
Wire dimensions, mm	Steel	1.6-5.0
	Stainless	1.6-4.0
	Cored Wire	1.6-4.0
Max wire feed speed, m/min		> 9
Electrode weight, kg		30
Flux volume, l		6
Weight excl. wire and flux, kg		47
Permissable load 100%, A		800
Control voltage, V		42
Travel speed, m/min		0.1-1.7
Linear slides setting length, mm		90
Rotary slide setting angle		360°

Technical Data		GMAW	GMAW MTW 600
Wire dimensions, mm	Steel	0.8-1.6	1.0-1.6
	Stainless	0.8-1.6	1.0-1.6
	Cored Wire	1.2-2.4	1.0-2.4
	Aluminum	1.2-1.6	1.0-2.0
Max wire feed speed, m/min		>16	>25
Electrode weight, kg		30	30
Weight excl. wire and flux, kg		43	43
Permissable load 100%, A		600	600
Control voltage, V		42	42
Travel speed, m/min		0.1-1.7	0.1-1.7
Linear slides setting length, mm		90	90
Rotary slide setting angle		360°	360°

Instruction Manual SAW, order number 0449165060
Instruction Manual GMAW MTW 600, order number (MTW) 0449165060
Instruction Manual MTW 600, order number 0449006001
Sales Literature SAW, order number XA00105420
Sales Literature GMAW, order number..... XA00105520

A2 Multitrac (PEH)

Options and Accessories		GMAW	SAW
Auxiliary guiding equipment			
Guide wheel bogie	0413 542 880	*	*
Idling roller	0333 164 880	*	*
Guide bar 3 m	0000 909 185	*	*
V-guide wheel	0333 098 881	*	*
V-wheeltrack in steel	0443 682 881	*	*
Loop for connection of two tractors	0334 680 881	*	*
Pilot lamp, light-bulb	0153 143 885	*	*
Pilot lamp, laser diode	0457 788 884	*	*
Wire reel			
Wire reel, plastic, 30 kg	0153 872 880		*
Wire reel, steel, 30 kg	0416 492 880		*
Flux handling equipment			
Flux recovery unit OPC	0148 140 880		*
Bracket suction	0332 947 880		*
Flux hopper of silumin alloy	0413 315 881		*
Concentric flux feeding funnel, D20	0145 221 881		*
Contact tube, bent	0413 511 001		*



Dimensions (mm)

A2 Tripletrac

For internal circumferential welding

- *Increase productivity and quality*
- *Ideal for internal circumferential welding of large cylindrical objects that are rotating on a turning roll system*
- *Heavy duty feed unit secures an even and stable wire feed for a top quality and homogenous weld*
- *Delivered with the digital A2-A6 Process Controller (PEH)*
- *Unique steering system allows operator to simultaneously adjust the wheel and torch position for an accurate and effortless seam tracking*
- *Control equipment is easy to use and requires minimal training*
- *Choose between start methods, burn-back times and other settings*

Ordering Information

A2 Tripletrac with PEH 0449 430 880

Options and Accessories

Accessories ..... page 10
Feeds rolls, contact tips ..... page 15-18
Power supplies ..... page 20-21
Control cables ..... page 20-21

Technical Data		SAW
Wire dimensions, mm	Steel	1.6-4.0
	Stainless	1.6-4.0
	Cored Wire	1.6-4.0
Max wire feed speed, m/min		> 9
Electrode weight, kg		30
Flux volume, l		6
Weight, excl. wire and flux, kg		47
Permissable load 100%, A		800
Control voltage, V		42
Travel speed, m/min		0.1-1.7
Linear slides setting lenght, mm		90
Rotary slide setting angle		360°

Options & Accessories	SAW
Auxiliary guiding equipment	
Pilot lampe, light-bulb (PEH)	0153 143 885
Pilot lampe, laser diode (PEH)	0457 788 884
Utility light	0000 932 048
Flux handling equipment	
Flux recovery unit OPC	0148 140 880
Bracket suction	0332 947 880
Flux hopper of Silumin alloy	0413 315 881
Concentric flux feeding funnel, D20	0145 221 881
Contact tube, bent	0413 511 001
Wire reel	
Wire reel plastic, 30 kg	0153 872 880
Wire reel steel, 30 kg	0416 492 880

Instruction Manual A2 Tripletrack, order number 0449435104
Sales Literature A2 Tripletrack, order number XA00118220

A6 Mastertrac

For heavy duty arc welding

- *Self-propelled, four-wheel drive for stable, accurate, and constant operation*
- *Available in three different wire configuration designs: Single, Twin, or Tandem*
- *Ample capacity for heavy production welding and can take up to 6 mm (1/4 in) wire using 1500 Amps (DC or AC)*
- *PEH Process Controller with digital display allows for preset accuracy in all welding parameters*
- *Designed for use with LAF (DC) or TAF (AC) power sources*
- *Many specially developed accessories available*

Ordering Information

A6 Single Mastertrac, standard 0449 260 880
156:1 feed motor
(wire feed speed range of 0,2-4,0 m/min)
A6 Single Mastertrac, high speed 0449 260 890
74:1 feed motor
(wire feed speed range of 0,8-16 m/min)
A6 Tandem Mastertrac, complete 0334 191 882

Options and Accessories

Feed rolls, contact jaws ..... page 15-18
Power supplies ..... page 20-21
Control cables..... page 20-21

Options & Accessories	
Contact equipment heavy Twin Arc, complete	0334 291 889
Wire reel, plastic 30 kg	0153 872 880
Wire reel, steel 30 kg	0416 492 880
Wire reel, steel, 30-100 mm adjustable	0449 125 880
Brake hub heavy duty	0146 967 880
Rebuilding kit GMAW	0334 299 890
Strip cladding kit	0155 972 880
Flux hopper holder for strip cladding	0148 107 003
Flux recovery nozzle, strip	0156 025 001
Concentric flux funnel, D35	0254 900 880
Flux funnel insert	0254 900 301
Angular slide	0671 171 580
Pilot lamp, light-bulb	0153 143 885
Pilot lamp, laser diode	0457 788 884
Flux recovery unit OPC	0148 140 880
Bracket suction	0332 947 880
Idler rollers (2 required)	0333 164 880
Guide wheel, fillet	0671 125 780
Magnetic guide rail, 3m	0154 203 880
Carbon arc gouging	
Rebuilding kit carbon arc gouging	0153 592 880
VEC-motor, 312:1 to be used for carbon arc gouging	0145 063 905

Instruction Manual A6 Mastertrac (SAW), order number 0449265060
Instruction Manual A6 (GMAW) Mastertrac, order number 0456503001
Instruction Manual A6 Tandem Mastertrac, order number 0456503001
Sales Literature A6 Mastertrac, order number XA00085120

A6-DK

Portable welding machine

- *Works with a single wire on each head*
- *Each weld head is controlled by a PEH process controller and a LAF (DC) or TAF (AC) power source*
- *Ideal for simultaneous horizontal-vertical welding on both sides of a web or trough panel*
- *Straddles work pieces up to 800 mm tall and symmetrical profile widths of 400 mm*
- *Travels directly on a work piece guided by a joint*
- *Travel speed adjustable from 0.15-2.0 m/min*
- *Store up to 10 l of flux in the hopper*
- *Each weld head is equipped with an OPC Flux recovery system*

Ordering Information

A6DK-SAW single wire.....0454 200 901
Excl. wire reel, feed rollers, and contact jaws

Options and Accessories

Feed rolls, contact tips ..... pag 15-18
Power supplies ..... pag 20-21
Control cables ..... pag 20-21
Wire reel plastic, 30 kg..... 0153 872 880
Wire reel steel, 30 kg..... 0416 492 880

Technical Data	
Permissible load 100%, A	1500
Travel Speed, m/min	0.15-2.0
Wire feed speed, m/min	0.2-4.0
Wire reel (optional), kg	2x30
Wire diameter SAW, mm	3.0-6.0
Flux capacity (each welding head), l	10
Weight A6 DK, Excl. wire and flux, kg	150
Straddle opening	
Vertical space limitation, mm	800
Longitudinal symmetrical extension, mm	400

Instruction Manual A6 DK, order number .....Contact ESAB
Sales Literature A6 DK, order number XA00100120

Frametrac™ for Welding Windtower Door Frames

- *Compact, motor-powered tractor that travels on the door frame to be welded.*
- *Four driving wheels guarantee even, stable movement on the frame.*
- *Standard ESAB torch can be attached and adjusted to fit the frame and type of welding.*
- *Control travel direction and speed, weaving speed and width from the control box and remote control.*
- *The Automatic Current Control (ACC) holds the arc length stable to secure the best possible arc.*
- *Use directly on frames with a constant thickness of 20-75 mm.*

Ordering Information

Frametrac with ACC 0449 925 880

Options and Accessories

Spring arms for frames 50-75 mm 0449 904 025
Connection cable 0457 360 880

Technical Data	
Control Voltage, VAC	36-46
Power, W	80
Welding speed, cm/min	10-99
Frame Width, mm	20-50
Min. Radius on Frame, mm	150
Min. Height on Frame, mm	40
Max. Height Difference on Frame, mm	120
Dimensions, LxWxH, mm	280x430x508
Weight, excl. wire reel, kg	30

Frametrac Sales Literature, order number XA00126620
Frametrac Instruction Manual, order number 0460 072 001

A2/A6 Tractor Wear Parts

Technical Reference Key

Process	Duty Type	Contact Tube	Contact Tips / Jaws
A2 Contact Equipment			
SAW, single wire	Light-Duty	D20	M12
SAW, twin wire	Light-Duty	D35[1]	M6
GMAW, 2WD	Light-Duty	D35	M10 or M6 with adaptor
GMAW, 4WD	Light-Duty	MTW 600	M8
A6 Contact Equipment			
SAW, single wire	Light-Duty	D20	M12
SAW, twin wire	Light-Duty	D35	M6
SAW, single or twin wire	Heavy-Duty	D35	Contact Jaws
SAW, compact	Heavy-Duty	D35	Contact Jaws
GMAW, single wire only	Light-Duty	D35	M10 or M6 with adaptor

[1] D35 twin wire adaptor – P/N 333 772 001

Accessories: GMAW MTW 600

Wire Diameter	Wire Material Type				Part Number	Wear Insert (liner) Type				Ref. Item
mm	Fe	Ss	Cw	Al		Steel	Teflon	Teflon	Brass	
1.0	*	*	*		0457 625 005	A				A
1.0				*	0457 625 005		B			B
1.2	*	*	*		0457 625 006	A				A
1.2				*	0457 625 007		B			B
1.4	*	*	*		0457 625 008	A				A
1.6	*	*	*		0457 625 009	A				A
1.6				*	0457 625 009		B			B
1.6	*	*	*		0457 625 010	A				A
1.6				*	0457 625 010		B			B
2.0	*		*		0457 625 011				D	D
2.0				*	0457 625 011			C		C
2.4	*		*		0457 625 012				D	D
2.4				*	0457 625 012			C		C

Reference Item	Wear Insert (liner) Type	Wire Diameter, mm	Part Number
A	Steel Spiral	1.0-1.6	0457 454 002
B	Teflon Insert	1.0-1.6	0457 619 001 (to be cut to length when mounting)
C	Teflon Insert	2.0-2.4	0457 619 002 (to be cut to length when mounting)
D	Brass Tube	2.0-2.4	0457 620 002

A2 Wear Parts Catalogue, part number..... XA00115820
A2 GMAW (MIG) Wear Parts Brochure, part number XA00126820
A6 Wear Parts Catalogue, part number..... XA00125820

A2/A6 Tractor Wear Parts, cont'd

Feed Rollers

Wire Diameter mm	Part Number
SAW Feed roller, single wire	
0.8	0145 538 881
1.0	0145 538 882
1.2	0145 538 883
1.6	0218 510 281
2.0	0218 510 282
2.4-2.5	0218 510 283
3.0-3.2	0218 510 298
4.0	0218 510 286
5.0	0218 510 287
6.0	0218 510 288
Pressure Roller	0153 148 880
SAW Feed roller, single wire, knurled V-groove	
0.8-1.6	0146 024 880
2.0-4.0	0146 024 881
3.0-5.0	0218 510 299
Pressure Roller	0153 148 880
GMAW Feed roller, single wire, 2WD drive, knurled U-groove	
0.8-1.6	0146 024 880
2.0-4.0	0146 024 881
Pressure Roller	
0.8-1.6	0146 025 880*
2.0-4.0	0146 025 881*
*Shaft for pressure roller	0212 901 101
SAW Feed roller, twin wire	
2x1.2 2x	0218 522 486
2x1.6 2x	0218 522 488
2x2.0 2x	0218 522 484
2x2.4-2.5 2x	0218 522 480
2x3.0-3.2 2x	0218 522 481
Pressure roller (spherical type with shaft)	0218 524 580
SAW Feed roller, twin wire, knurled U-groove	
2x2.0-3.2 2x	0148 772 880
Pressure roller (spherical type with shaft)	0218 524 580
GMAW Feed roller, single wire, 4WD	
0.6-0.8	0369 557 001
0.8-0.9***	0369 557 001
0.8-1.0	0369 557 002
1.0-1.2	0369 557 003
1.0-1.2**	0369 557 006
1.2-1.6	0369 557 007
1.4-1.6	0369 557 013
1.6**	0369 557 008
2.0**	0369 557 009
2x1.2 2x	0369 557 010
Pressure roller (flat roller)	0369 728 001
GMAW Feed roller, single wire, knurled, 4WD**	
1.0-1.2/1.4-1.6	0369 557 004
1.4-1.6/2.0-2.4 369 557 005	0369 557 005
Pressure roller (knurled roller)	0466 262 001

** Aluminum only *** For Cored Wire

Idling pressure roller

Driving feed roller with groove

Idling pressure roller

Driving feed roller with knurled groove

Geared driving feed and pressure roller with knurled groove, eg/soft Tubular wire

Spherical idling pressure roller for equal distributed pressure on the two wires

Driving feed with grooves for twin wire system

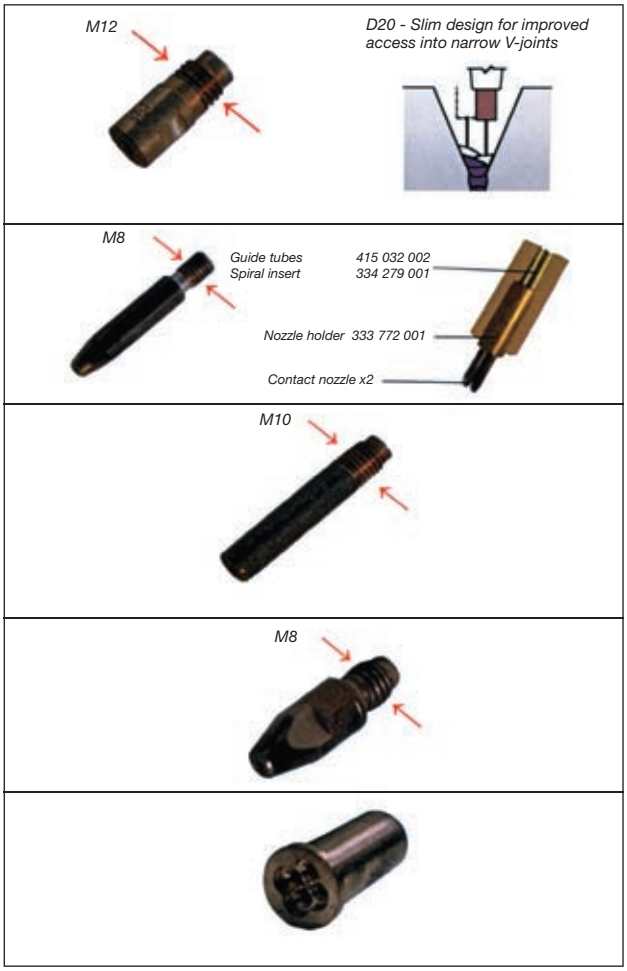
A2/A6 Tractor Wear Parts, cont'd

Contact Tips

Wire Diameter mm	Part Number
SAW contact tip, M12 for single wire	
1.6	0154 623 008
2.0	0154 623 007
2.4-2.5	0154 623 006
3.0	0154 623 005
3.2	0154 623 004
4.0	0154 623 003
SAW contact tip, M6 for twin wire	
2x0.8	0153 501 002
2x1.0	0153 501 004
2x1.2	0153 501 005
2x1.6	0153 501 007
2x2.0	0153 501 009
2x2.4-2.5	0153 501 010
GMAW contact tip, M10 for single wire	
0.8	0258 000 914
1.0	0258 000 913
1.2	0258 000 908
1.6	0258 000 909
2.0	0258 000 910
2.4	0258 000 911
3.2	0258 000 915
GMAW contact tip, M8 for single wire	
1.0	0457 625 005
1.2	0457 625 006
1.2*	0457 625 007
1.4	0457 625 008
1.6	0457 625 009
2.0	0457 625 011
2.4	0457 625 012
ESAB contact tip, twin**	
2.0	Q450559001
1.6	Q450559002
2.5	Q450559003
1.2	Q450559004

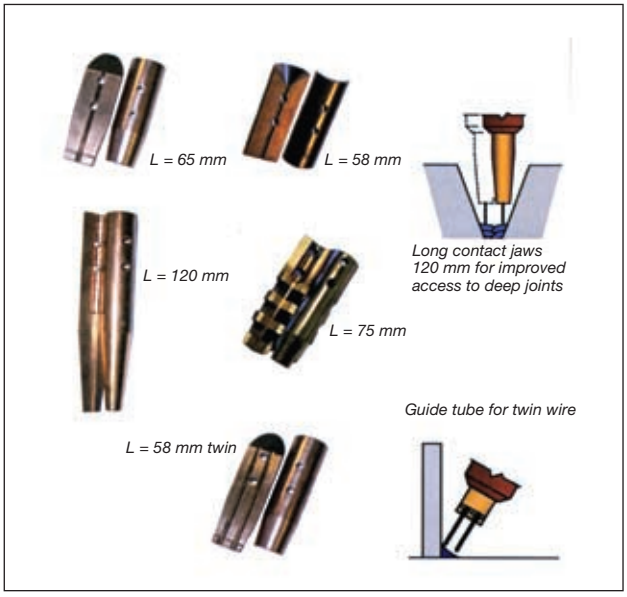
** Aluminum only*

*** For trailer beam welding; for OEM tips, omit "Q" on part number.*



Contact Jaws

Wire Diameter mm	Part Number
SAW contact jaws for single wire, length 65/58 mm	
2.0	0332 581 880
2.4-2.5	0332 581 881
3.0-3.2	0265 900 880
4.0	0265 900 882
5.0	0265 900 883
6.0	0265 900 884
SAW contact jaws for single wire, length 75 mm	
1.6-3.2	0265 901 480
SAW contact jaws for single wire, length 120 mm	
3.0-3.2	0000 237 320
4.0	0000 237 321
SAW contact jaws for twin wire, length 58 mm	
2x1.6	0265 902 882
2x2.0	0265 902 881
2x3.0-3.2	0265 902 880
SAW contact jaws for twin wire, length 73 mm, w/ guide tube connect.	
2x1.6	0808 650 882
2x2.0	0808 650 881
2x3.0	0808 650 880



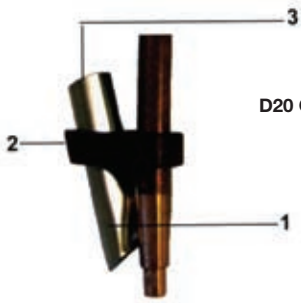
A2/A6 Tractor Wear Parts, cont'd

Contact Tubes

Length mm	Part Number
D20 light-duty system	
100	0413 510 003
190	0413 510 002
260	0413 510 001
260, bent 30°	0413 511 001
500	0413 510 004
Contact clamp	0334 571 880
Contact device D20 complete GMAW	
90	0030 465 389
140	0030 465 388
Gas nozzle	0145 227 882
Insulating sleeve	0145 226 001
Contact tube	0145 534 882
Plug	0146 099 001
Extension	0040 979 803 (158mm)
	0040 979 804 (108mm)
Guide tube	0415 032 001
O-ring 22.2x3.0	0190 680 405
O-ring 15.3x2.4	0190 680 313
O-ring 5.3x2.4	0190 680 303
D35 heavy-duty system	
220	0417 959 880
275	0417 959 881
400	0417 959 882
500	0417 959 883
Clamp half	0809 342 880
Contact device D35, complete twin wire	
275	0333 852 881
Nozzle holder	0333 772 001
Guide tube	0415 032 001
Spiral wire guide insert	0334 279 001
MTW 600 GMAW light-duty system	
200	0457 455 005
250	0457 455 006
300	0457 455 007
400	0457 455 008
Contact device MTW 600 complete single wire	
Gas nozzle	0457 451 001
Splatter protection	0457 452 001
Centering sleeve	0457 453 001
O-ring	0457 458 001
Nozzle adaptor	0808 311 001

Flux Nozzles

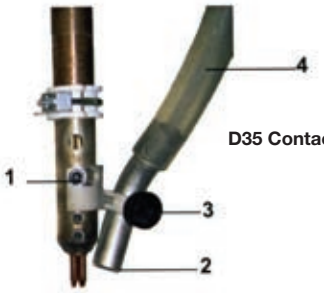
Length mm	Part Number
D20 Contact Tube	
Tube	0332 948 001
Clamp	0333 094 880
Flux hose, 0.5 m	0443 383 002
Flux hose free length/m	0443 383 001
Flux funnel complete	0145 221 881
Insulation sleeve	0333 667 001
D35 Contact Tube	
Flux nozzle, complete	0153 299 880
Tube bent	0153 296 001
Tube holder	0153 290 002
Flux hose, 0.5 m	0443 383 002
Flux hose free length / m	0443 383 001
Flux tunnel, complete	0254 900 880
Insert	0254 900 301
A2 Flux gate w/ shut-off valve	0903787
Flux gate nozzle (18 mm)	0708876



D20 Contact Tube

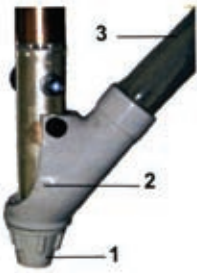
1 - Tube
2 - Clamp
3 - Insert flux hose

1 - Flux funnel
2 - Insulation sleeve
3 - Flux hose



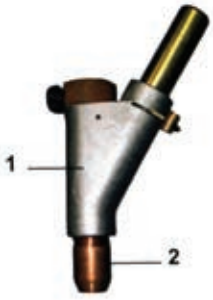
D35 Contact Tube

1 - Flux nozzle, complete
2 - Tube bent
3 - Tube holder
4 - Flux hose



1 - Flux funnel
2 - Insert
3 - Flux hose

A2 Flux Gate w/ Shut-off Valve



1 - Flux gate
2 - Nozzle

A2-A6 Process Controller (PEH)

- *Designed for use with ESAB's LAF (DC) and TAF (AC) power sources*
- *Suitable for MIG or SAW processes*
- *Preset all welding parameters by keying values on front panel; can store up to 10 different data sets in memory for easy recall during welding*
- *Submenus let user decide on welding direction, wire type/dimension, and weld start/stop*
- *Microprocessor automatically fine tunes arc characteristics depending on wire type and parameters selected*
- *Microprocessor controlled system is user friendly and requires minimal training*
- *Choose between 12 different languages and view heat input on display*

Ordering Information

A2-A6 PEH Process Controller..... 0443 741 880

Accessories

Control cable, 15 m 0449 449 880
Control cable, 25 m 0449 449 881
Control cable, 35 m 0449 449 882
Control cable, 50 m 0449 449 883
Control cable, 75 m 0449 449 884
Control cable, 100 m 0449 449 885
PHH1 remote control, 5 m cable..... 0449 040 880
PEH Eprom..... 0486 471 880

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/A6 motors	Connection of 2 motors with or without field windings motor current 5 A continuous, max 10 A
Speed control	Internal EMK-adjustment, alt. with AC-tacho
Welding speed, m/min	0.1-2 depending on travel carriage
Max man. travel speed, m/min	2
Wire feed speed, m/min	0.3-25 depending on wire feed unit
Gas valve/auxiliary	42V AC, 0.5 A
Inputs	For connection of sensors or limit switch (2 pcs. NC)
Connection to power source through operat. cable max 100 m	Burndy contact, 12-poles
Max ambient temperature, °C	45°
Min ambient temperature, °C	-15°
Relative humidity of air	98%
Weight, kg	5.5
Dimensions, mm	355x210x164
Enclosure class	IP 23

Instruction Manual PEH Controller (4.0 >), order number 0443745001
Instruction Manual PEH Controller (4.0 <), order number 0443745160
Sales Literature PEH Controller, order number XA00089320

LAF 635, 1000, 1250, & 1600

DC Power Sources

- *Used in conjunction with ESAB PEH Process Controller*
- *Solid state, SCR-controlled, three phase, fan-cooled DC welding power sources*
- *Designed for high productivity mechanized submerged arc or MIG welding*
- *Excellent welding characteristics throughout the entire current and voltage range, with particularly good starting and re-ignition properties*
- *Extremely efficient power usage saves on power costs*
- *Thermal overload protection*
- *Extend current range by connecting two power sources in parallel*

Ordering Information

LAF 635.....0457 350 880
LAF 1000.....0456 321 881
LAF 1250.....0456 323 880
LAF 1600.....0456 324 880

Options and Accessories

Cable kit, complete*, 15 meters.....0000 970 800
Cable kit, complete*, 25 meters.....0000 970 801
Cable kit, complete*, 35 meters.....0000 970 802
Cable kit, complete*, 50 meters.....0000 970 803
EPROM TAF-LAF 0486 525 880
Parallel kit.....0808 573 880

* Cable kit includes: welding cable 2x95 mm^2, return cable 2x95 mm^2 (5 meters length), control cable, air hose

Control cable only, 15 meters.....0449 449 880
Control cable only, 25 meters.....0449 449 881
Control cable only, 35 meters.....0449 449 882
Control cable only, 50 meters.....0449 449 883

Technical Data	LAF 635	LAF 1000	LAF 1250	LAF 1600
Voltage, 3 ph 60 Hz, V	440	400/440/550	400/440/550	400/440/550
Current A 100%, 60 Hz	52	64/64/52	99/99/80	136/136/108
Fuse, slow A 60 Hz	63	63	100/100/80	160/160/125
Maximum load at:				
100% duty cycle A/V	630/44	800/44	1250/44	1600/44
60% duty cycle A/V	800/44	1000/44	-	-
Setting range A/V				
MIG/MAG	50/17-630/44	50/17-1000/45	60/17-1250/44	-
SAW	30/21-800/44	40/22-1000/45	40/22-1250/44	40/22-1600/46
Open circuit voltage, V	54	52	51	54
Open circuit power, W	150	145	220	220
Efficiency	0.84	0.84	0.87	0.86
Power factor	0.90	0.95	0.92	0.87
Enclosure class	IP23	IP23	IP23	IP23
Dimensions (LxWxH), mm	670x490x930	646x552x1090	774x598x1428	774x598x1428
Weight, kg	260	330	490	585
Application class	S	S	S	S

The symbol S indicated that the welding power source may be used in areas with an increased electrical hazard, i.e. areas where the electrical hazard is increased due to damp and/or the proximity to earthed metal objects. Equipment marked IP23 is designed for indoor and outdoor use.
** Primary cable not included.*

Instruction Manual LAF 635 Power Source, order number 0457795101
Instruction Manual LAF 1000 Power Source, order number 0456512001
Instruction Manual LAF 1250/1600 Power Source, order number..... 0456511001
Sales Literature LAF Power Source, order number XA00090920

TAF 800 & 1250

AC Power Sources

- *Used in conjunction with ESAB PEH Process Controller*
- *Solid state, SCR-controlled, three phase, fan-cooled AC welding power sources*
- *Square wave AC output, no arc blow*
- *Capacity for continuous welding*
- *Arc voltage or current feedback*
- *Optimized open circuit voltage*
- *Extremely efficient power usage saves on power costs*
- *Prepared for Scott connection of two power sources*

Ordering Information

TAF 800 .....0456 325 880
TAF 1250 .....0456 326 880

Options and Accessories

Cable kit, complete*, 15 meters 0000 970 800
Cable kit, complete*, 25 meters 0000 970 801
Cable kit, complete*, 35 meters 0000 970 802
Cable kit, complete*, 50 meters 0000 970 803
EPROM TAF-LAF 0486 525 880

* Cable kit includes: welding cable 2x95 mm^2, return cable 2x95 mm^2 (5 meters length), control cable, air hose.

Control cable only, 15 meters.....0449 449 880
Control cable only, 25 meters.....0449 449 881
Control cable only, 35 meters.....0449 449 882
Control cable only, 50 meters.....0449 449 883

Technical Data	TAF 800	TAF 1250
Voltage, 3 ph, 60 Hz	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	0.86	0.86
Power factor	0.75	0.76
Enclosure class	IP23	IP23
Dimensions (LxWxH), mm	774x598x1428	774x598x1428
Weight, kg	495	608
Application class	S	S

The symbol S indicated that the welding power source may be used in areas with an increased electrical hazard, i.e. areas where the electrical hazard is increased due to damp and/or the proximity to earthed metal objects. Equipment marked IP23 is designed for indoor and outdoor use.
**Primary cable not included.*

Instruction Manual TAF Power Sources, order number 0456513201
Sales Literature, TAF Power Sources, order number..... XA00088720

A2S Mini Master

A multi-purpose automatic welding system

- *Versatile welding system for single wire SAW, twin wire SAW or GMAW*
- *Low weight and compact design allows for greater flexibility*
- *Modular design allows user to expand, integrate, or modify system quickly and easily*
- *Uses A2-A6 process controller PEH (see page 19 for more information)*
- *Accurate, easy joint-tracking with manual or motorized slide system (see page 34 for more information on joint-tracking)*
- *System attaches to any beam travelling carriage or Column & Boom system*

Ordering Information

MIG System (A2)
A2S GMAW MTW w/Manual Slides 90x90 mm 0449 181 880
A2S GMAW MTW w/Motorized Slides 180x180 mm & PAK..... 0449 181 881
A2S GMAW MTW w/Motorized Slides 180x180 mm & GMD 0449 181 882
- Includes the PEH and Wire Equipment

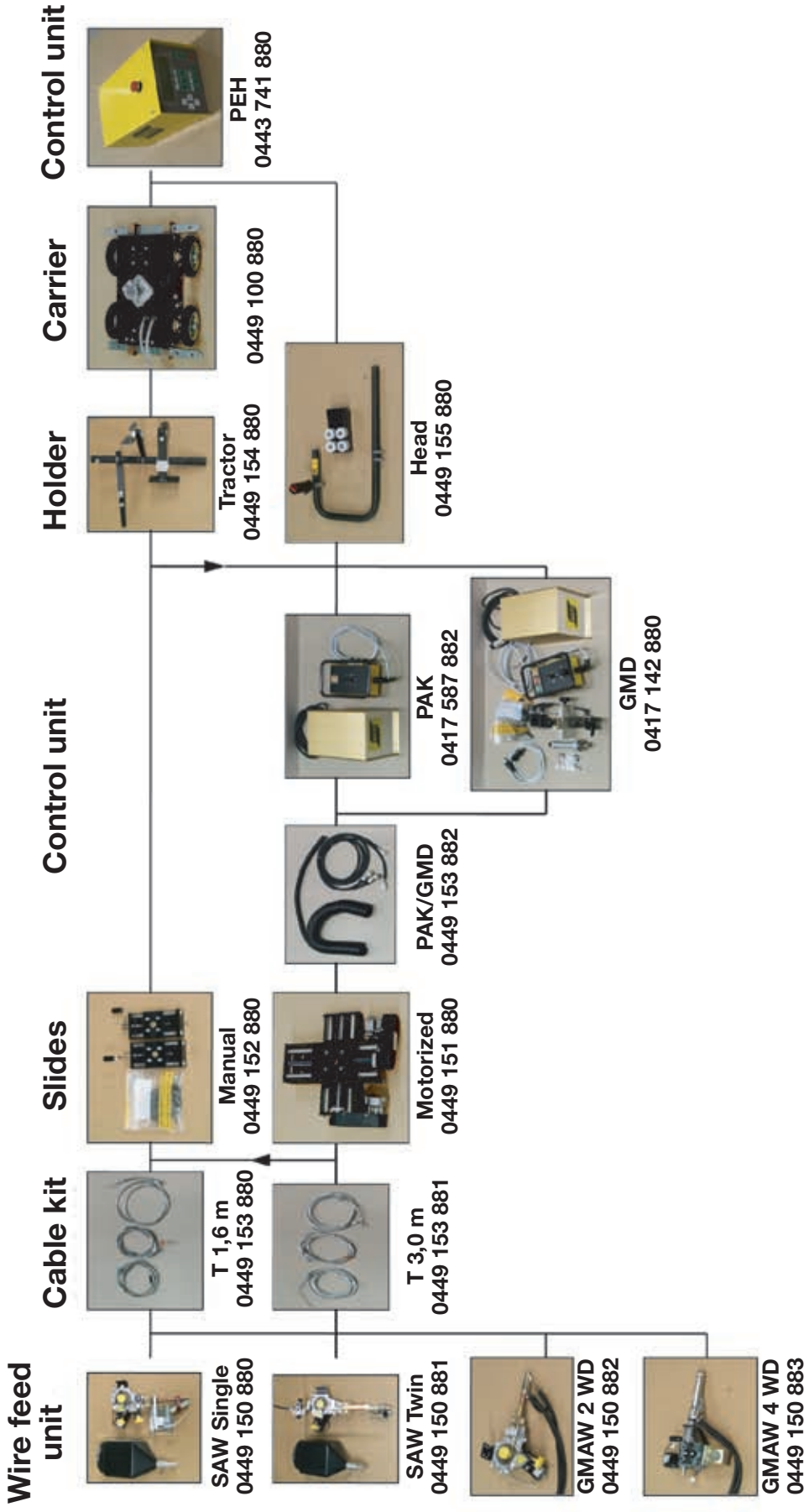
SAW Systems (A2)
A2S SAW w/Manual Slides 90x90 mm 0449 170 880
A2S SAW w/Motorized Slides 180x180 mm & PAK..... 0449 170 881
A2S SAW w/Motorized Slides 180x180 mm & GMD 0449 170 882
- Includes the PEH, Flux and Wire Equipment

Options and Accessories

Pilot lamp, light bulb 0153 143 885
Pilot lamp, laser diode 0457 788 884
Thin wire straightener, single wire 0332 565 880
Flux recovery unit OPC 0148 140 880
Flux Hopper, 6 l 0413 315 881
Concentric flux funnel 0145 221 881
Contact tube, bent 0413 511 001
Wire reel plastic 30 kg 0153 872 880
Wire reel steel 30 kg 0416 492 880
Conversion kit MIG/MAG..... 0413 526 881
Circular slide A6..... 0671 171 580
Manual slide A6 210 mm.....0154 465 881
Insulator A2-A6..... 0278 300 180

Instruction Manual A2S Mini Master, order number 0449175060
Sales Literature A2S Mini Master, order number XA00088820

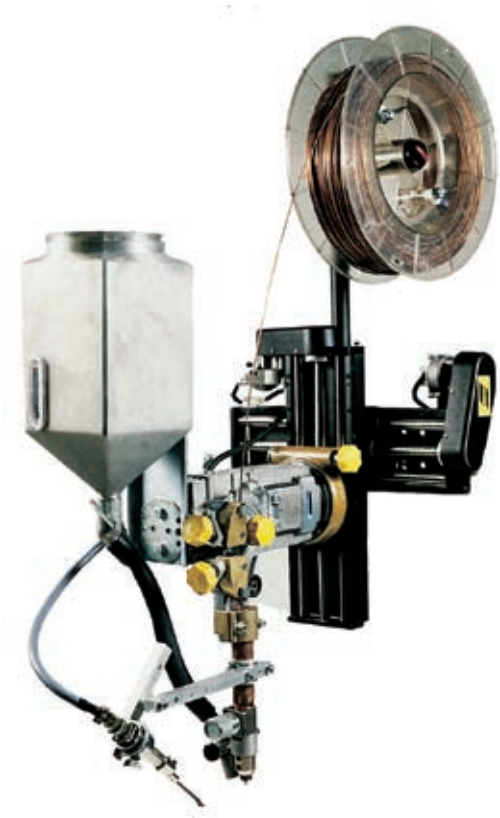
A2 Component System Modularization



A6S Arc Master

Flexible, complete solution for automated arc welding

- *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 joint-tracking with manual slides or joystick-controlled motor-operated cross slides (see page 34 for more information on joint-tracking)*
- *Capable of heavy duty MIG, single/twin wire SAW, as well as strip cladding and Synergic Cold Wire (SCW) welding with optional accessories*
- *Uses PEH process controller - fast, accurate pre-setting of all parameters before welding commences*
- *Feedback system ensures high and consistent welding quality - save time and material*



Ordering Information

Single wire SAW system A6

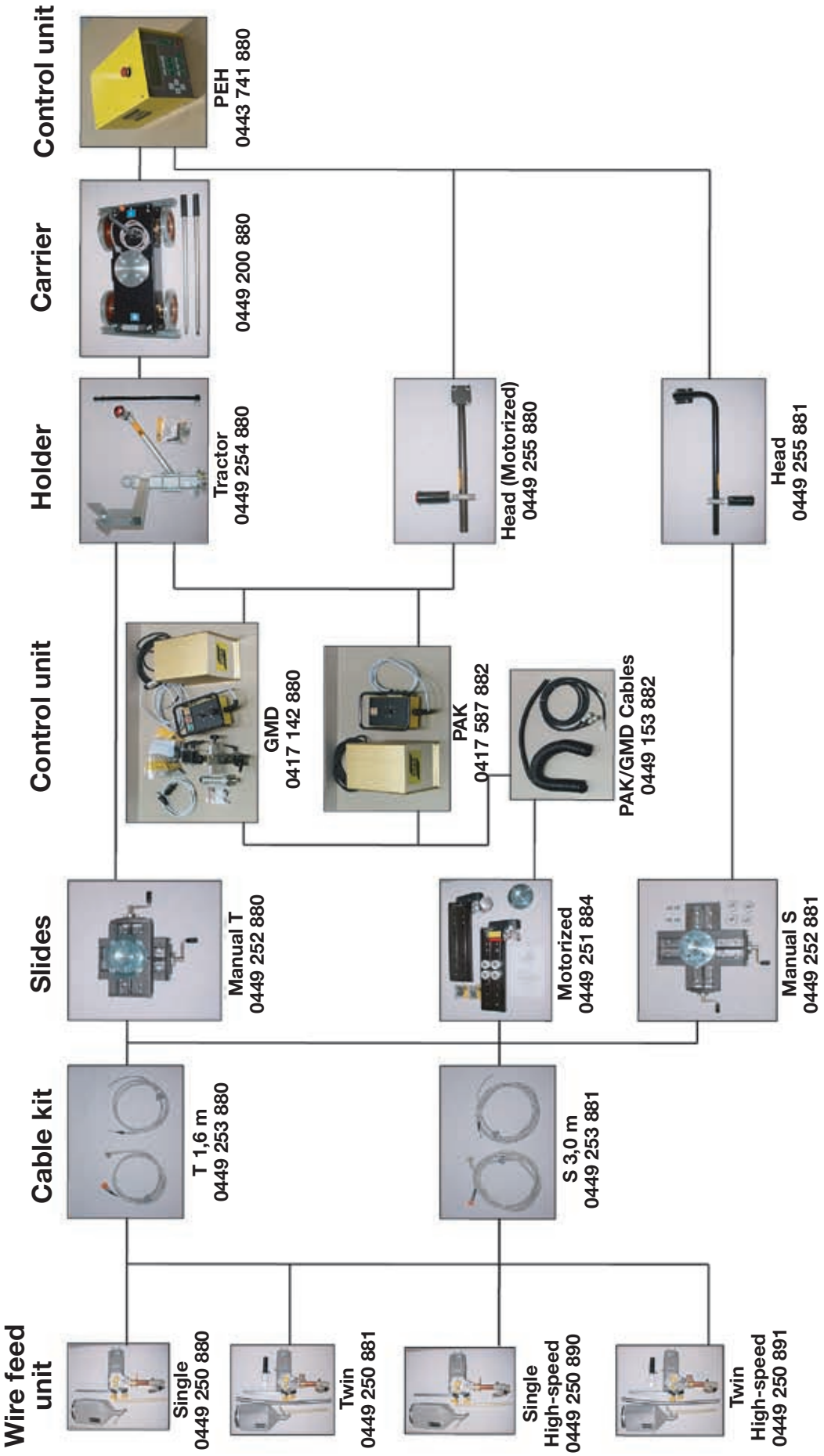
A6S SAW w/Manual Slides 210x210 mm – 156:1..... 0449 270 880
A6S SAW w/Motorized Slides 300x300 mm & PAK – 156:1 ..... 0449 270 881
A6S SAW w/Motorized Slides 300x300 mm & GMD – 156:1..... 0449 270 882
A6S SAW w/Manual Slides 210x210 mm – 74:1..... 0449 270 890
A6S SAW w/Motorized Slides 300x300 mm & PAK – 74:1 ..... 0449 270 891
A6S SAW w/Motorized Slides 300x300 mm & GMD – 74:1..... 0449 270 892
- Twin wire SAW available
- Accessories: see page 12

Technical Data

Welding current and wire dimensions	
Submerged arc welding DC or AC	max 1500 A
A6 feed unit (High Speed) (74:1)	
Wire feed speed, m/min	0.4-8
Wire, single, mm	1.6-4.0
Wire, twin, mm	2x1.2-2x2.5
Cored wire, single, mm	1.6-4.0
A6 feed unit (Low Speed 156:1)	
Wire feed speed, m/min	0.2-4.0
Wire, single, mm	3.0-6.0
Wire, twin, mm	2x2.0-2x3.0
Cored wire, single, mm	3.0-4.0
Types of joints	
Butt and vertical or horizontal fillet welds	
Wire reels	
Optional steel or plastic wire reel attached to welding head (To be order separately)	Max 30 kg (wire or strip)
Flux hopper	
Standard type volume, l (gal)	10
Positioning, angular	
Circular slide, crank operated	± 180 °
Straightener	± 45 °
Weights, kg	
Feed unit excluding slide, flux and wire equipment, and PEH	16
Basic version, manual slides	64
Basic version, motor operated cross slide with joystick control	80
Basic version, with GMD	108
Operating voltage	42 V, 50/60 Hz

Instruction Manual A6S Arc Master, order number..... 0449275060
Sales Literature A6S Arc Master, order number..... XA00088920

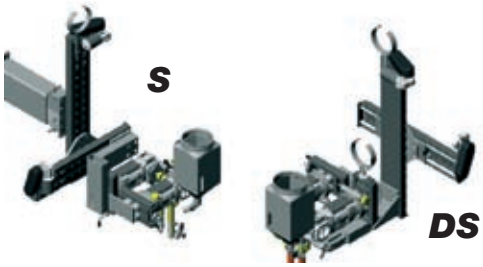
A6 Component System Modularization



A6S Tandem

For optimum productivity and profitability

- *Suitable for heavy construction welding*
- *Capable of welding DC/DC, DC/AC or AC/AC*
- *Uses digital PEH process controller (included) - quickly and accurately program welding parameters for each torch*
- *Feedback system gives high and consistent welding quality from start to finish, saving time and money*
- *Versatile positioning through easy to use, complete slide assembly for welding torch position, distance-stick-out, and angle on both leading and trailing torches*
- *Enhance productivity by adding optional equipment such as Twin Wire and Synergic Cold-Wire systems (See page 31)*
- *Available in a two basic versions with several configurations to match specific safety, quality and productivity requirements*



- ***A6S Tandem Master*** *is optimized for welding across multiple perpendicular axis' and is key in the welding of cylindrical objects where both longitudinal and circumferential welding is required.*
  - *Adjustable + 90° interval turning bracket and cross slide.*
  - *Automatic joint tracking keeps in track no matter which direction welding occurs.*

- ***A6DS Tandem Master*** *is optimized for welding in multiple directions and is key in the automated welding of long weld joints such as beams and girders.*
  - *Adjustable ± 90° interval turning bracket and fixed cross slide.*
  - *Automatic joint tracking in any direction when integrated to ESAB CaB M-model systems; Simply rotate the head 180° and weld in the reverse direction.*

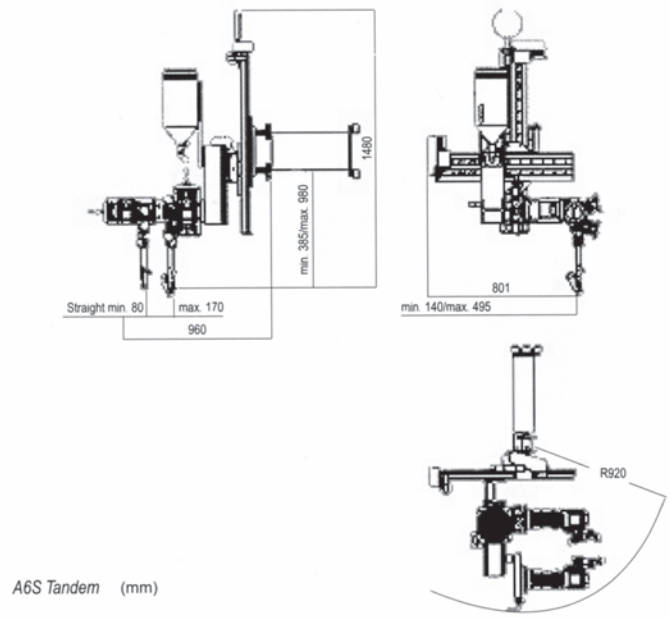
Ordering Information

A6DS Tandem Master (gear ratio 156:1)..... 0809 939 880
A6DS Tandem Master (gear ratio 74:1)..... 0809 939 881
A6S Tandem Master (gear ratio 156:1)..... 0809 940 880
A6S Tandem Master (gear ratio 74:1)..... 0809 940 881

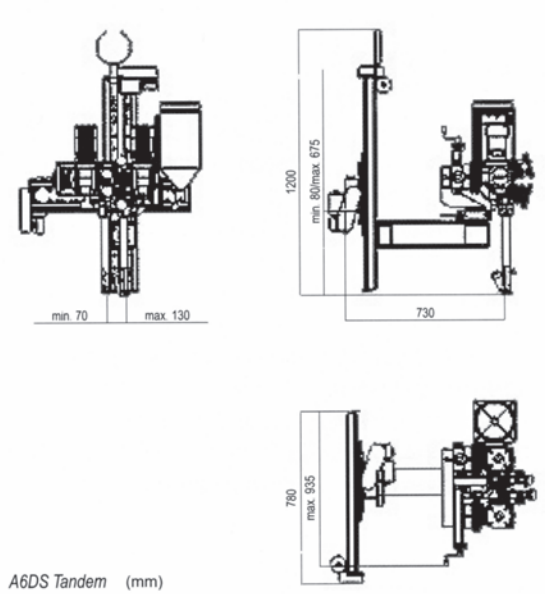
Options and Accessories

Twinkit LD (one kit per torch) 0809 934 880
Twinkit HD (one kit per torch) 0809 934 881
GMD, joint tracking 0417 142 880
Pilot lamp, light bulb 0153 143 886
Pilot lamp, laser diode 0457 788 884
Bracket, (straight) for wire 0334 318 880
Brake hub, for wire reel 0146 967 880
Straightener, for single thin wires..... 0332 565 880
Wire reel, plastic, 30 kg..... 0153 872 880
Wire reel, steel, 30 kg.....0416 492 880
Double panel support.....0433 762 812

A6S Tandem, cont'd



A6S Tandem (mm)

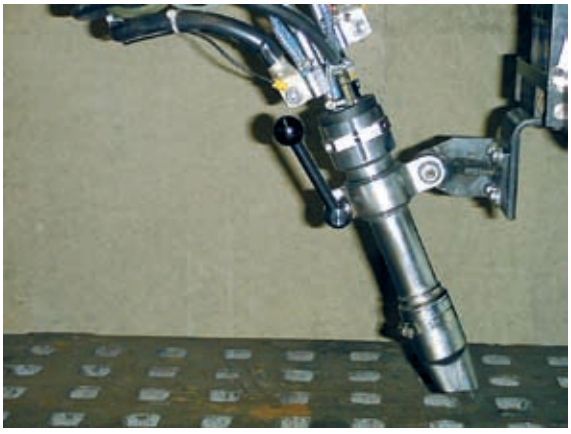


A6DS Tandem (mm)

Technical Data (Basic Components)	A6S Tandem Master	A6DS Tandem Master
A6 feed unit for HD-type for wire 3-6 mm	*	*
Horizontal motorized slide with double runners L=355 mm	*	*
Vertical motorized slide with double runners L=595 mm	*	*
A2 PEH Process Controller	*	*
Flux Hopper, 10 l incl. bracket	*	*
Cable holder	*	*
Welding head, 2 pcs. Each head has:		
A6 manual slide L=90 mm, P/N 154 465 880	*	*
A6 circular slide, P/N 671 171 580	*	*
Insulators, 4 pcs., P/N 278 300 180	*	*
Main bracket with mounting flange for cross slide assembly, P/N 810 786 880	*	*
Swivel bracket for rotating head 90°	0334 549 880	0809 873 880
Total weight, excl. PEH, wire and flux, kg	215	190

Tandem MIG Welding Head

- *Tandem MIG advantages include high speed welding, low heat input and increased productivity.*
- *Isolated wire contacts allows different parameters, wire type and diameter for each wire.*
- *Torch has variable wire spacing, angles, electrical stichout and various gas shielding cups.*
- *Available for robotics or hard automation.*
- *Use either dual AristoMig or LAF (DC) power supplies*

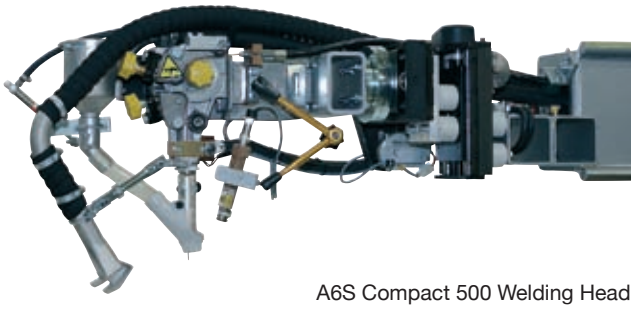


Contact ESAB for more information.

A6S Compact Welding Heads for Internal Tube Welding

- *For welding longitudinal and circumferential butt joints inside tubes*
- *Two versions available:*
  - *A6S Compact 300 for internal welding of tubes down to 300 mm inside diameter*
  - *A6S Compact 500 for internal welding of tubes down to 500 mm inside diameter*
- *Supervise and adjust the head position via TV monitoring system*
- *Use standard mini-cross slide assembly and PAK manual tracking system or GMD automatic joint tracking system to easily follow the joint*
- *Add either the FFRS Basic/Super o FFRS 1200/3000 Flux Feed & Recovery System to optimize the welding process*

A6S Compact 300 Welding Head



A6S Compact 500 Welding Head

Ordering Information

A6S Compact 300 Welding Head, standard 0809 280 880
A6S Compact 300 Welding Head, high-speed ...0809 280 881
A6S Compact Welding Head 500*.....0416 967 880

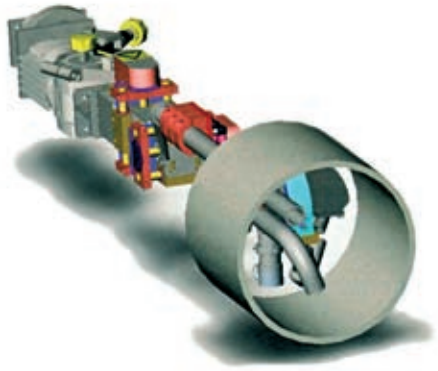
** Contact ESAB for Ordering Information, Options & Accessories and Technical Data A6S Compact 500 Welding Heads.*

Options & Accessories

Flux valve control Kit.....0813 620 880
Include solenoid valve and 5 m air hose
Inductive Sensor.....0811 178 880
TV Monitoring Equipment.....0811 176 880
Laser Pointer.....0811 177 880

Contact Tips, wire size
M12, 3,0 mm.....0154 623 005
M12, 3,5 mm.....0154 623 004
M12, 4,0 mm.....0154 623 003

Feed Rollers, wire size
3,0 – 3,2 mm 0218 510 298
3,0 mm 0218 510 286



Technical Data		
Wire Dimensions, mm	Steel	3,0 - 4,0
	Stainless Steel	3,2
Permissible Load 100%, A		800
Contro Voltage, VAC		42
Travel Speed, cm/min		10 - 170
Linear Slides Setting Range, mm		50
Angular Slide Setting Range		360°
Wire Feed Speed, standard, cm/min		20 - 400
Wire Speed Feed, high-speed, cm/min		40 - 800

A6S SAW Strip Cladding Head

- *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 and as thick as 0,5 mm*
- *Recommended for use with LAF 1250 or LAF 1600 power sources and PEH process controller (see pages 20-21)*

A6S ESW Strip Cladding Head (Electroslag)

- *For strips as wide as 30-60 mm*
- *Up to 2000 A, water cooled (Cooling unit available on request)*
- *Magnetic deviator*
- *Kit including VEC motor + 1-liter flux tank*

Ordering Information

SAW Strip Cladding Kit 0155 972 880
Flux suction nozzle.....0156 025 001
ESW Strip Cladding Kit 30-40.....0772 306 880
ESW Strip Cladding Kit 60-90.....0772 385 880
Magnetic Deviator 0772 285 880
For use with A6S SAW tractor or A6S Arc Master head

Options and Accessories

Reel holder 0417 636 880
Not to be used with motor-operated cross slide
Wire reel, steel 0416 492 880

Technical Data	Strip Torch	ESW 30-60 Torch	ESW 60-90 Torch
Current capacity, A	1500 max	2000 max	2500 max
Feed roll diameter, mm	50	50	50
Strip width, mm	30-100	30-60	60-90
Strip thickness, mm	0,5	0,5	0,5

Automatic Welding Head for Manholes - PEG1 / PEH

- *Automatic welding equipment for SAW welding of manholes on cylindrical objects or plates*
- *For manholes having external diameter from 300 to 1100 mm*
- *Available with tilting device for the synchronization with roller beds*
- *Rotating collector for signal, power and compressed air transmission, to make it possible an “infinite” rotation without the need to rewind cables*
- *PEH panel available on request*

Ordering Information

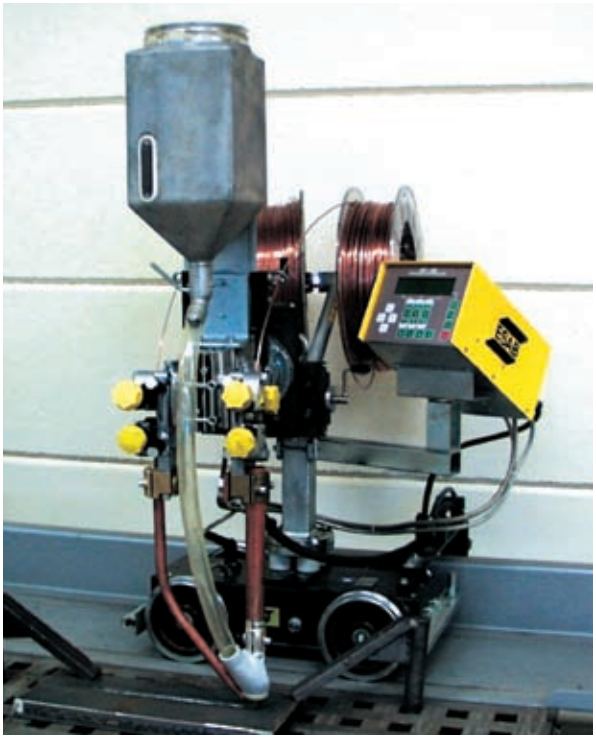
MHW 0000 960 271
MHW with balancing device 0000 960 272

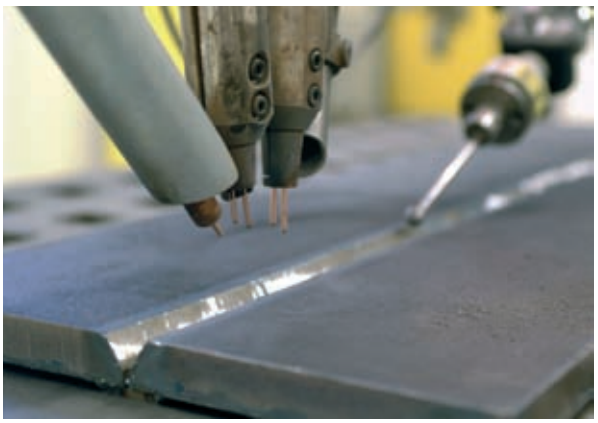
Technical Data	
Current capacity, A	1500
Max external diameter, mm	1100
Min internal diameter, mm	200*
Manhole height, mm	150 (under-collar) - 750
Clamping min. height, mm	25

** If wall thickness of manhole is 50 mm, the min diameter can be of 150 mm*

A6 Synergic Cold Wire

- *Increase productivity by boosting deposition rate by up to 50% for any given current/wire feed speed (utilizes excess heat from arc)*
- *Synergic Cold Wire welding offers less distortion, reduced flux consumption, and fewer weld beads*
- *Easy to use, requires no additional control units or separate wire feed mechanisms*
- *Allows flexible process configuration- solid/ cored wires, single, twin wire, tandem and multiple wire combinations*
- *Synergic Cold Wire has no arc and can be used for "hard to weld" alloys with cored wire*
- *Set wire in leading or trailing position depending on requirement of penetration vs. build-up*
- *Fits all ESAB A6 systems*





Ordering Information

Synergic Cold Wire Kit, complete 0449 022 880
Includes VEC Motor (156:1), straightener (left),
breake hub, cartridge, hand-wheel and mounting hardware

Synergic Cold Wire Kit Components

Motor VEC (156:1)..... 0145 063 886
Straightener left..... 0147 639 881
Breake hub..... 0146 967 880
Braket A6..... 0154 734 001
Cartridge A6..... 0156 907 001
Hand-wheel isolated A6..... 0218 810 183

Options and Accessories

Contact Device, L=400mm (D35)..... 0417 959 882
Wire reel, steel 0416 492 880
Twin-wire Kit 0334 291 889
06A - Iron powder batching device..... 0413 630 880

A6B Beam Travelling Carriage

- *Ideal solution for submerged-arc and MIG/MAG welding applications requiring beam-mounted carriage*
- *Can be fitted with any A2 or A6 welding head*
- *Place 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 PEH control (To be ordered separately)*

Ordering Information

Beam Travelling carriage 0457 897 880

Options and Accessories

Mounting bracket for Tandem head 0458 026 001
Track in lengths of 3 m 0145 282 880
Required number of floor columns: 2
Track in lengths of 4,5 m 0145 282 881
Required number of floor columns: 3
Track in lengths of 6,0 m..... 0145 282 882
Required number of floor columns: 3
Track in lengths of 8,0 m 0145 282 883
Required number of floor columns: 4

Technical Data

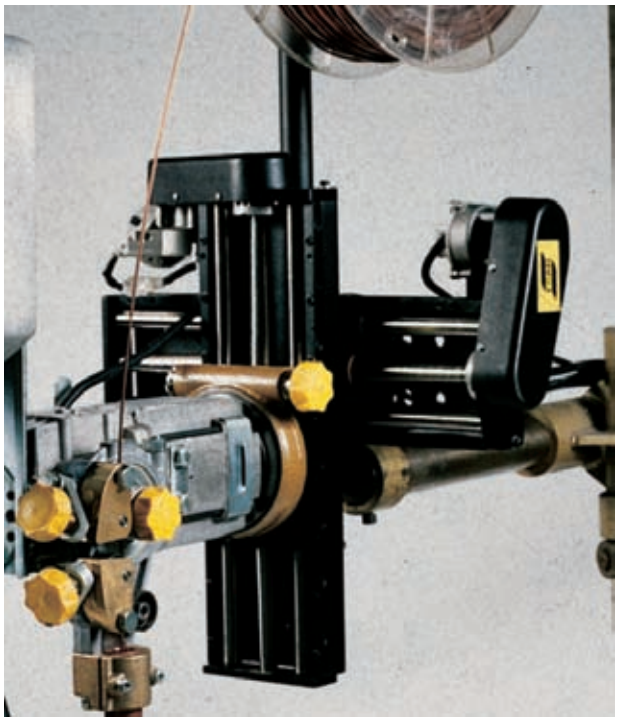
Travel speed Beam-carriage, cm / min	6-200
Carriage weight (head not included), kg	60

Instruction Manual A6B Beam Travelling Carriage, order number..... 0458028001
Sales Literature A6B Beam Travelling Carriage, order number..... XA00091920

Motorized slides

Servo slides for automated 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 1.030 mm with a central point of attachment*
- *Operates jointly with A2 or A6 components*
- *Slides available from 60 mm to 1.030 mm working range*
- *Permissible load of 1500 N in any mounting position*
- *Maximum torque for vertical unit is 400Nm; maximum torque for horizontal unit is 280 Nm.*



Ordering Information

Servo Slide 0334 333	**-880**	**-881**	**-882**	**-883**	**-884**	**-885**	**-886**	**-887**	**-888**
Setting length, mm	60	120	180	240	300	420	540	730	1030
Total length, mm	305	365	425	485	545	665	785	1025	1385
Number of 60 mm Indexings	3	4	5	6	7	9	11	14	21
Weight, kg	11,5	13,2	15	16,7	18,5	21,9	25,4	30,9	38,8

Order connection cables separatly

Connection Cables

One connection cable is required for each servo slide for connection of slide to linear motion controller (eg. GMD or PAK)

Connection cable, 2 mt 0417 310 887
Connection cable, 5 mt 0417 310 888
Connection cable, 10 mt 0417 310 889

Technical Data	
Control voltage, VDC	42
Max ambient temperature, °C	80
Axial play runner, mm	0,1
Max Torque-free load, kg	150

Instruction Manual Motorized Slides, order number . 0443394060
Sales Literature Motorized Slides, order number XA00032720

PAK and GMD – Joint Positioning and Tracking Systems

The key to quality in automated welding

- *Simple and easy to use*
- *Adapt for use with almost any type of welding joint*
- *PAK system is for manual joint tracking; GMD system is for automatic joint tracking*
- *PAK and GMD work equally well with A2 or A6 welding systems*
- *Motorized servo slides guarantee a reliable and accurate joint tracking*
- *PAK system available with or without remote control, and can be integrated into a Column and Boom welding system*
- *GMD automatic joint tracking system is designed for use in fillet and butt joints using sensor fingers*
- *GMD compensates for irregularities in weld joint, tracks simple geometric shapes, and avoids parallax problems*
- *Standard GMD components include: sensor with finger, cross saddle and support for sensor, GMD joint tracking unit, GMD remote control unit with a 3.5 m cable, and control cable 2 m for connecting the control unit with the sensor*

Option and Accessories*

Sensor with finger	**0416 688 880**
Cross saddle and support for the sensor	**0416 739 880**
GMD joint tracking unit	**0416 066 880**
GMD remote control unit	**0416 065 880**
Control cable 2m	**0416 749 887**
Finger with ball	**0416 719 001**
Protective rubber boot	**0412 013 001**
Finger for beam welding	**0443 187 880**
Standard finger	**0146 586 001**
Intermediate transformer	**0148 636 002**

***Only for GMD models**

Ordering Information

GMD system, complete **0417 142 880**

Includes GMD joint tracking unit, GMD remote control with 3.5 m cable, 2 m control cable, sensor with finger, and cross saddle and support for sensor

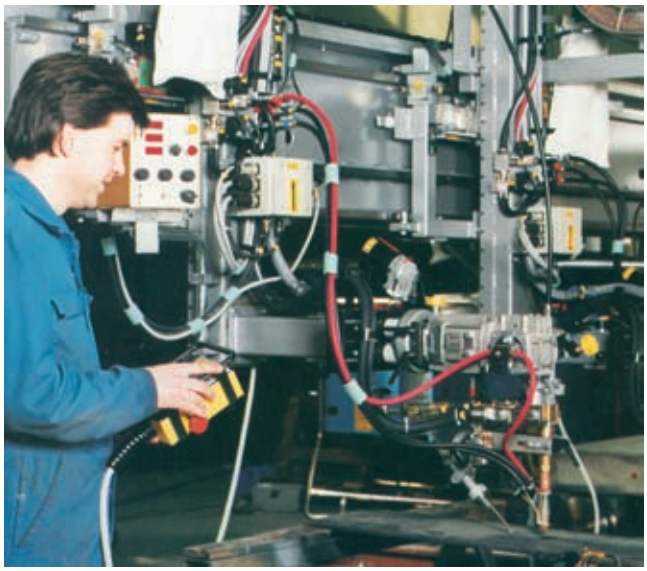
PAK Control Unit, joy-stick on front panel	**0417 587 880**
PAK Control Unit, separate remote control	**0417 587 882**
PAG Manual control unit	**0156 405 881**

Instruction Manual Joint Tracking System (GMD), order number **0443403002**
Instruction Manual Joint Tracking System (PAK), order number..... **0443405002**
Sales Literature Joint Tracking System (GMD/PAK), order number.. **XA00068420**

PAK and GMD – Joint Positioning and Tracking Systems (Cont'd)

The key to quality in automated welding

Technical Data	
PAK Control Unit	
Control and operating voltage	42V AC 50-60 HZ
Power requirement	460 VA
Enclosure type	IP 23
Max ambient temperature, °C	+45°
Weight, kg	4.5
Weight remote control unit, kg	2.0
GMD Sensor with finger	
Sensitivity, mm	+/-0.1
Weight sensor, kg	0.6
Cross saddle and support for the sensor	
Cross saddle, setting length, mm	80
Weight cross saddle, kg	1.6
GMD Joint tracking unit	
Control and operating voltage	42V AC 50-60 HZ
Power requirement	460 VA
Enclosure type	IP 53
Max ambient temperature, °C °	+45°
Weight, kg	2.2
GMD remote control unit	
Positioning speed:	High / Low
Weight, kg	2.0
GMD Accessories	
Finger with ball, Length, mm	100
Intermediate Transformer, for separate voltage supply	200/230/440/500V 60 Hz Main to 42V secondary



OPC – Flux Recovery Systems

Robust, compact flux recovery units

- *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 to use*
- *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

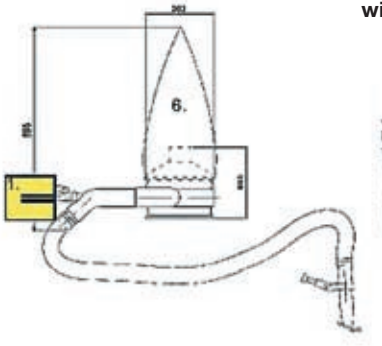
- *Similar to Basic system but with stronger ejector and cyclone – provides better suction*
- *Can also be used with pre-heated flux*

Ordering Information

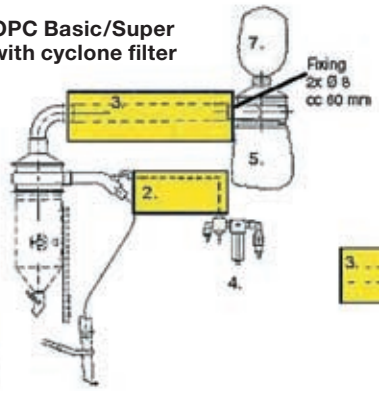
OPC Basic, with standard filter bag 0148 140 880
OPC Basic, with cyclone filter..... 0802 415 882
OPC Basic, with Tedak filter..... 0802 415 883
OPC Super, with cyclone filter 0802 415 892
OPC Super, with Tedak filter..... 0802 415 893
Powder separation filter 0000 908 997

Powder separation tank.....0000 970 361
OPC filter bag 0155 966 001
Powder collecting tube.....0000 909 234
Pneumatic valve 0254 901 181
Electro-valve 0000 970 137
Hopper.....0147 649 881

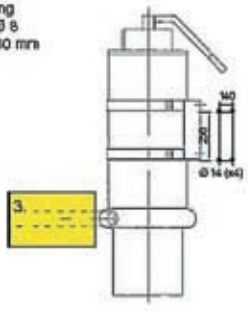
OPC Basic



OPC Basic/Super with cyclone filter



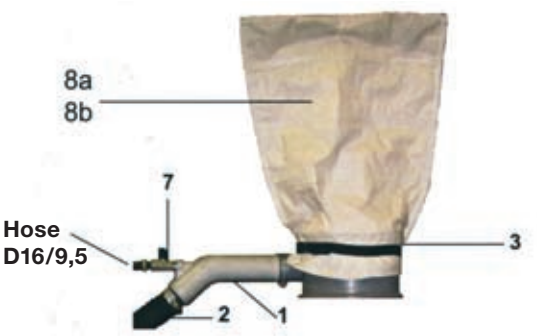
Tedak Filter

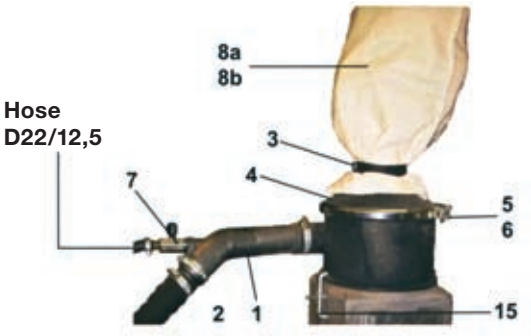


1 - Air pressure hose, 3/8”
2 - Air pressure hose, 1/2”
3 - Air pressure tube, 63 mm
4 - Air central
5 - Plastic bag
6 - Filter bag
7 - Filter bag, cyclone, tedak

Instruction Manual OPC Flux Recovery System, order number 0443407001
Sales Literature OPC Flux Recovery System, order number XA00105020

OPC Flux Recovery System Wear Parts

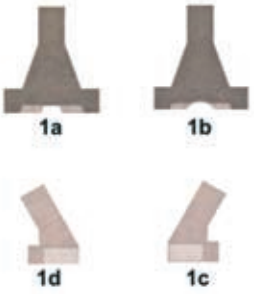


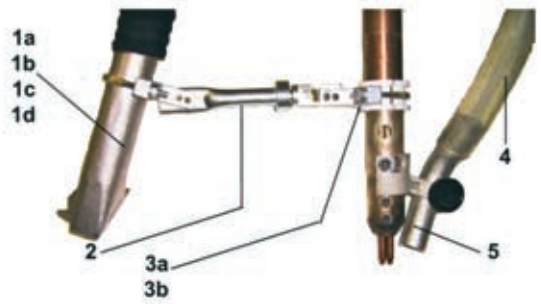


OPC Basic		
1	Ejector	0147 640 880
2	Spral hose, D47, 0/38, 1	0191 813 801
3	Tension band	0192 855 002
4	Cone	0148 143 001*
5	Tension ring	0148 144 001*
6	O-ring, 189.3x5.7	0215 201 353
7	Ball valve	0145 824 881
8a	Filter, paper	0155 966 001
8b	Filter, cotton	0332 448 001*
9	Funnel	0148 142 001
10	Rubber lining	0145 565 001
11	O-ring 149.2x5.7	0215 201 345
12	Cyclone	0148 141 001
13	Rubber lining	0145 073 001
14	Tension spring	0145 815 001
16	Strainer	0020 301 780

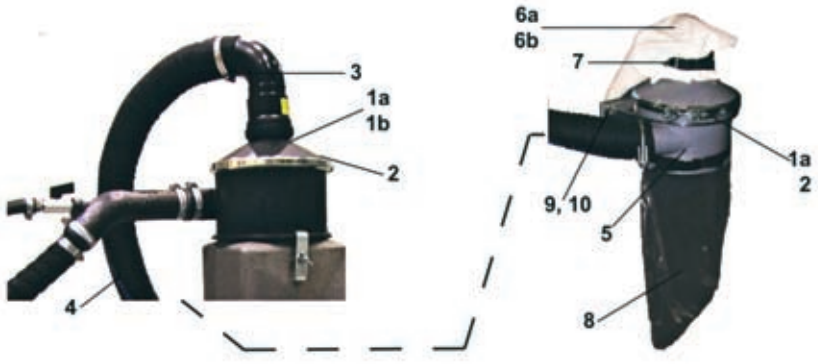
OPC Super		
1	Ejector	0339 720 001
2	Spiral hose, D47, 0/38, 1	0191 813 801
3	Tension band	0192 855 002
4	Cone	0332 279 001
5	Tension ring	0148 144 001
6	O-ring, 189.3x5.7	0215 201 353
7	Ball valve	0333 625 001
8a	Filter, paper	0155 966 001
8b	Filter, cotton	0332 448 001*
9	Funnel	0332 280 001
10	Rubber lining	0332 282 001
11	O-ring 149.2x5.7	0215 201 345
12	Cyclone	0332 281 001
13	Rubber lining	0332 283 001
14	Tension spring	0145 815 001
15	Clamp	0340 612 001
16	Strainer	0020 301 780

Suction Nozzle		
1a	Butt weld 1	0145 501 001
1b	Butt weld 2	0145 502 001
1c	Fillet weld left	0145 504 001
1d	Fillet weld right	0145 505 001
2	Nozzle bracket	0147 384 881
3a	Insulator D20	0145 131 004
3b	Insulator D35	0145 131 002
4	Flux hose, D32.0/25.0, free length /m, length. 0,5 m	0443 383 001
5	Pipe bent	0153 296 001





Cyclone Filter		
1a	Cone basic	0148 143 001
1b	Cone super	0332 279 001
2	Tension ring	0148 144 001
3	Bend	0413 576 001
4	Spiral hose D67, 2/63	0193 125 003
5	Cyclone	0148 141 001
6a	Filter, paper	0155 966 001
6b	Filter, cotton	0332 448 001*
7	Tension band	0192 855 002
8	Plastic bag	0190 665 004
9	U-screw	0379 600 001
10	Bracket	0379 599 880



** Optional Item*

FFRS - Flux Feed and Recovery Systems

Efficient flux handling puts economy into your welding

- *Ideal for continuous and high capacity welding*
- *Automatic flux fill and recovery - improved productivity and less downtime*
- *Minimum manual flux handling and reduced consumption*
- *Flux feeds from a 75 l capacity TPC-75 pressurized flux tank to the ESAB flux hopper of your choice: 6 l or 10 l.*
- *Flux feed inlet options: straight or bent*

FFRS- Basic & Super

- *Based on ejector vacuum principle utilizing OPC Basic/Super systems*
- *Basic type is for normal welding; Super is used with increased flux and heat conditions*
- *Closed system ensures better working environment with fresh air*

FFRS 3000

- *Ultimate flux feed and recovery system for demanding applications*
- *Designed for use when extra high recovery force is required*
- *Based on an electric suction unit to create powerful vacuum of flux*
- *Electrical vacuum unit has low noise level*

Ordering Information

FFRS 3000 systems consist of TPC-75 flux pressure tank, motor driven vacuum unit with dust filter, common mounting post for system, air pressure regulator with water trap, suction hose between primary separator and vacuum unit, air central with 10 m air hose included, flux suction nozzle, and flux feeding hose 30 m included.

FFRS 3000 ..... 0801 500 920
TPC 75 standard 0333 225 880
TPC 75 heated 0000 970 430

Options and Accessories

Air center..... 0417 714 880
TPC armoured tube..... 0000 970 061
Suction hose D47/38 (max 12 m)..... 0379 016 001
Flux hopper with bent inlet pipe 10 l
left hand side seen from front 0156 230 883
Flux hopper with bent inlet pipe 6 l
left hand side seen from front..... 0413 404 883
Low level indicator TPC-75 flux tank 0452 048 880
Pre-heating kit for 10 l flux hopper.....0000 970 374

Instruction Manual FFRS Basic/Super Flux Equipment, order number .....Contact ESAB
Instruction Manual FFRS 3000 Flux Equipment, order number .....Contact ESAB
Sales Literature FFRS Basic/Super Flux Equipment, order number XA00104820
Sales Literature FFRS 3000 Flux Equipment, order number XA00104920

FFRS 3000

Technical Data	FFRS 3000	
Flux feeding and recovery system		
Weight, kg*	400	
Dimensions LxWxH, mm	750x450x2210	
FFRS Suction Unit		
Power, W	3000	
Mains supply, V/Hz	400/3-50, others on request	
Fuse, A	16	
Max vacuum, kPa (psi)	-25	(-3.6)
Max air flow capacity, m^3/h	270	
Sound level dB	63	
Filter area, m^2	3.0	
Filtration efficiency, %	99.95	
Lifespan of filter, working hours	4000-6000	
Weight, kg	194	
Dimensions LxWxH, mm	1200x690x2000	
Primary separator for FFRS		
Volume, l	50	
Dimensions approx., mm	450x900	

* Without flux

CRE 30 & CRE 60 Air Drying Units

- *Designed for use with any flux handling system*
- *System is based on absorption principle - reduces the risk of hydrogen cracking in weld metal by ensuring SAW 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

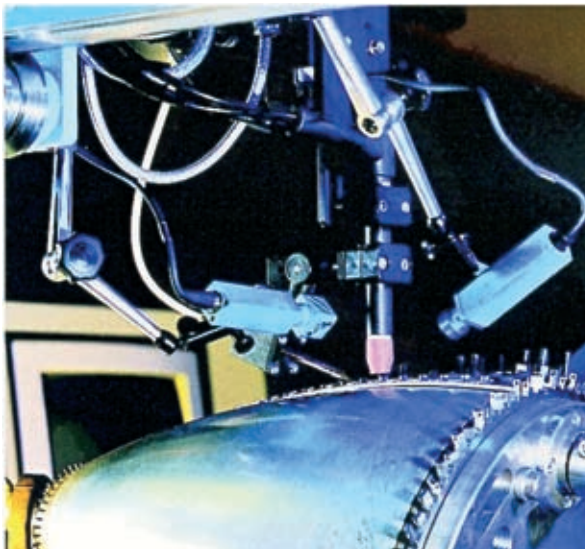
CRE 30 air drying unit 0443 570 880
CRE 60 air drying unit 0443 570 881

Technical Data	CRE 30	CRE 60
Supply voltage (AC)	230 V 50/60 Hz	230 V 50/60 Hz
Max power rating	40W	50W
Net air flow capacity at 6 bar, m^3/h	30	60
Regenerating flow at 6 bar	14%	14%
Max dew point under nominal working conditions	-26	-26
Desiccant, Type 512		
Sodium-Aluminum-Silicate, kg	10	16
Normal pore size, Angstrom	4	4
Particle size, mm	2,5-5,0	2,5-5,0
Density, kg/m^3	720	720
Cycle time per container	5000-6000	4000-6000
Max permissable air flow for oil separation filter, m^3/h	60	60
Mainfold thread size	R12"	R12"
Max working pressure, bar	6	6
Max air pressure at testing, bar	10	10
Max inlet air temp, under nominal conditions, °C	30	30

Instruction Manual CRE 30/60 Air Dryer, order number 0443423001
Sales Literature CRE 30/60 Air Dryer, order number XA00101920

Camera Systems for Submerged and Open Arc Welding

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



Ordering Information

Includes camera, camera housing, monitor, crosshair generator, camera mounting bracket, work light, work light bracket, necessary cables.

A2/A6 SAW camera system with cooling unit..... 0811 412 880
A2/A6 SAW camera system without cooling unit..... 0811 412 881

SAW compact camera system with cooling unit..... 0811 413 900
SAW compact camera system without cooling unit..... 0811 413 901

GMAW camera system with cooling unit..... 0811 414 880
GMAW camera system without cooling unit..... 0811 414 881

Overview SAW camera system without cooling unit..... 0811 413 881
SAW compact basic camera system with cooling unit..... 0811 413 880
SAW compact basic camera system without cooling unit..... 0811 413 882

Technical Data	SAW Camera	GMAW/SAW Compact Camera	Overview/SAW Compact Basic Camera
TV Standard	PAL / NTSC	PAL / NTSC	PAL / NTSC
Model No.	VUP2.01P/VUP2.01N	WeldCam/SAWC	OV3.04
Resolution	480TVL	480TVL	350 TVL
Min. illumination	0.25 lx (con F1.6)	----	3.0 lx
Electronic Iris	Autom.1/60 (1/50) - 1/10000 sec	Autom.1/50 - 1/10000 sec	1/50-1/10000 sec
Horizontal field angle	approx 79°,focale 3,5mm (Wide) approx 33°,focale 8 mm (Tele)	----	----
Vertical field angle	approx 63°,focale 3,5mm (Wide) approx 25°,focale 8 mm (Tele)	----	----
Focal length	varifocal lens, 3,5mm – 8mm	----	----
External terminals	A-power input +12VDC, B-GND C-video output, D-GND	----	----
Output resistance	----	75 ohm	----
Power supply range	DC 12V	DC+/-0,5V	DC+6V-DC+7,5V
Power consumption	200mA (max)	360mA (max)	200mA (max)
Temperature range	-10°C - +50°C (PCB)	-10°C - +50°C (PCB)	----
Dimensions, mm	60x60x105	145x24x24	18x18x43 +lens
Weigth, kg	approx 0,46	approx 0,46	approx 0,025

Note: SAW compact basic and Overview camera have the same specifications, but SAW compact basic is used for compact applications. SAW compact basic is a simpler alternative to SAW compact camera.

Camera System Literature, order number XA00124520

Weldoc™ WMS 4000

Data program for welding supervision and documentation

- *Enables welding industry to comply with rigorous quality requirement in the ISO 9000 standards*
- *Provides necessary documentation for quality requirements – user-specified limit values facilitates monitoring and process deviation*
  - *Use with the following ESAB power sources:*
  - *Aristo MechTig, Aristo MechControl*
  - *LAF 635, 1000, 1250, 1600*
  - *TAF 800, 1250*
- *No manual settings required – automatic recording of date, time, and reference number of weld joints*
- *Program automatically receives and stores welding parameter data from power source*
- *SPS 4000 documentation program provides setting welding data in power source*

Ordering Information

Description	Aristo™MechTig	Aristo™MechControl	LAF & TAF	Order number
Weldoc WMS 4000, complete version	X	X	X	0457 410 880
SPS 4000, documentation program	Y	Y	Y	0457 410 881
Connection kit Arc Power (LAF/TAF)			X/Y	0457 755 880
Opto-cable WMS 4000, 15 m	*	*	*	0457 072 881
Opto-cable WMS 4000, 2 m	*	*	*	0457 072 882

** Choose one cable length*

Technical Data	
Weldoc™ WMS 4000	*Software for surveillance of the power sources Aristo™ MechTig, Aristo™ MechControl and the LAF/TAF range equipped with CAN- and Echelon-bus*
Operating system 16-bit	*Minimum Windows 95 or Windows NT 4.0*
Computer (not supplied by ESAB)	*IBM Compatible. For workshop environment, a computer with robust design and EMC equipment according to Mil standard 461C&D is requested. For connected printer the same request is desired* *Processor: Pentium 133 MHz or better* *Ram memory; 16 MB or better* *Capacity of the hard disc: 1.5 GB minimum recommended*
Screen	*15-inch colour monitor or larger with resolution of 800x600 or better. The resolution is important for the number of welding parameters that can be shown in real time* *Serial data communication: RS-232* *Signal transfer: Optical through fiber cable to the serial port to avoid interference from peripheral equipment*

Instruction Manual Weldoc WMS 4000, order number 0457413074
Sales Literature Weldoc WMS 4000, order number XA00088020

5-500 TA

Self-aligning Turning Rolls

- *Ideal for difficult and demanding work pieces*
- *Even weight distribution for thin-walled work pieces and heavy objects*
- *Compact and narrow design with durable rollers*
- *Dual drive motors and gears- eliminate need for interconnect driveshaft*
- *Vector inverter control system for constant and precise speed control*
- *Equipped with RC-30 remote control with a 12 m cable*
- *Plug & play connection to accessories available including synchronization control, external connection, rail bogies, anti-creep/fit-up control, start/stop foot pedal, and PEH process controller*

Ordering Information

All Turning Rolls include RC-30 remote control with 12 m cable

Power Section 5 TA PH10356300
Power Section 10 TA PH10356400
Power Section 25 TA PH10356500
Power Section 40 TA PH10356601
Power Section 70 TA PH10356701
Power Section 100 TA PH10356800
Power Section 150 TA PH10356900
Power Section 200 TA PH10357001
Power Section 300 TA PH10357101
Power Section 500 TA PH10357201

Idler Section 5 TA..... PH10357300
Idler Section 10 TA..... PH10357400
Idler Section 25 TA..... PH10357500
Idler Section 40 TA..... PH10357600
Idler Section 70 TA..... PH10357700
Idler Section 100 TA..... PH10357800
Idler Section 150 TA..... PH10357900
Idler Section 200 TA..... PH10358000
Idler Section 300 TA..... PH10358101
Idler Section 500 TA..... PH10358201

Technical Data		5 TA	10 TA	25 TA	40 TA	70 TA	100 TA	150 TA	200 TA	300 TA	500 TA
Max load, metric ton		2.5	5.0	12.5	20	35	50	75	100	150	250
Rolling Capacity, metric ton		7.5	15	37.5	60	105	150	225	300	450	750
Max rotation force, kN		5.5	11	20	32	60	75	110	165	210	250
Rotation speed, mm/min		60-1250	60-1250	60-1250	60-1250	60-1250	60-1250	60-1250	60-1250	60-1250	60-1250
Diameter range 75 % load min-max, mm		500-4500	500-4500	500-4500	1000-5200	1000-5200	1000-7800	1000-7800	1000-7800	1000-7800	1000-7800
Diameter range 100 % load min-max, mm		1250-4500	1250-4500	1250-4500	1750-5200	1750-5200	2000/7800	2000/7800	2000/7800	2000/7800	2000/7800
Rollers pcs/section		4	4	8	4	8	4	8	8	8	4
Roller dia/total width, mm		350/75)	350/75	350/150	425/150	425/300	580/220	580/450	580/450	710/520	710/260
Roller material		PU	PU	PU	PU	PU	PU	PU	PU	PU	Acciaio
Length, mm	Power	2560)	2625	2665	3070	3070	3750	3800	3800	4700	5500
	Idler	2200	2200	2200	2710	2710	3450	3450	3450	4200	4400
Width, mm	Power	720	720	775	1050	1230	1400	1900	2000	2200	2200
	Idler	400	490	490	830	830	900	1300	1400	1400	1400
Weight, kg	Power	760	925	1185	1770	2430	5000	6200	7000	12000	18000
	Idler	585	585	751	1220	1670	4000	4500	5300	9000	15000
Primary Input Voltage, VAC, 60 Hz		230 1ph	460/575 3ph	460/575 3ph	460/575 3ph	460/575 3ph	460/575 3ph	460/575 3ph	460/575 3ph	460/575 3ph	460/575 3ph
Primary Input Current, A		16	16	16	16	16	16	16	16	16	16

Sales Literature TA Turning Rolls, order number..... XA00120320

3-500 TNA

Conventional Turning Rolls

- *Basic solution for handling a variety of work pieces*
- *Easy to use screws for adjusting diameters*
- *Dual drive motors and gears- eliminate need for interconnect driveshaft*
- *Vector inverter control for a constant and precise speed adjustment*
- *Compact and narrow design with durable rollers*
- *Equipped with RC-30 remote control with 12 m cable*
- *Many accessories available including synchronization control, external connection, rail bogies, anti-creep/fit-up, and start/stop foot pedal*

Ordering Information

All Turning Rolls include RC-30 remote control with 12 m cable

Power Section 3 TNA PH10358400
Power Section 5 TNA PH10358500
Power Section 10 TNA PH10358600
Power Section 25 TNA PH10358700
Power Section 40 TNA PH10358801
Power Section 60 TNA PH10358901
Power Section 100 TNA PH10359001
Power Section 150 TNA PH10359100
Power Section 200 TNA PH10359200
Power Section 300 TNA PH10359301
Power Section 500 TNA PH10359400

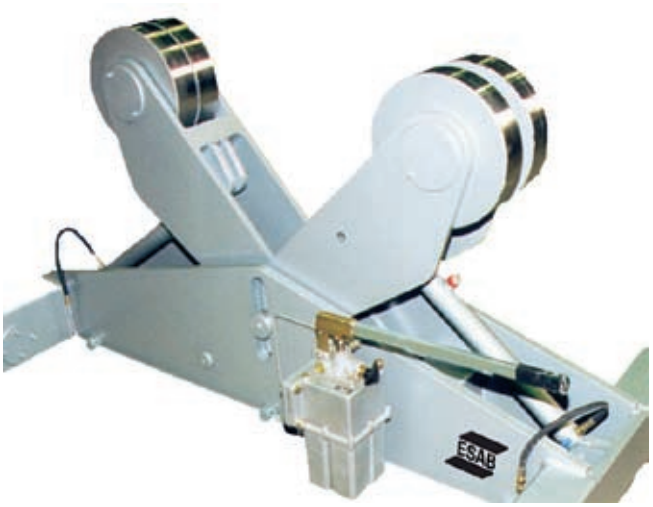
Idler Section 3 TNA.....PH10359500
Idler Section 5 TNA.....PH10359600
Idler Section 10 TNA.....PH10359700
Idler Section 25 TNA.....PH10359800
Idler Section 40 TNA.....PH10359900
Idler Section 60 TNA.....PH10360000
Idler Section 100 TNA.....PH10360100
Idler Section 150 TNA.....PH10360200
Idler Section 200 TNA.....PH10360300
Idler Section 300 TNA.....PH10360401
Idler Section 500 TNA.....PH10360500

Technical Data		3 TNA	5 TNA	10 TNA	25 TNA	40 TNA	60 TNA	100 TNA	150 TNA	200 TNA	300 TNA	500 TNA
Max load, metric ton		1.5	2.5	5.0	12.5	20	60	50	75	100	150	250
Rolling Capacity, metric ton		5	7.5	15	37.5	60	90	150	225	300	450	750
Max rotation force, kN		3	5.5	11	20	32	60	75	110	165	210	250
Rotation speed, mm/min		60-1250	60-1250	60-1250	60-1250	60-1250	60-1250	60-1250	60-1250	60-1250	60-1250	60-1250
Diameter range min-max, mm		150-3200	150-3200	150-4500	150-4500	300-4500	300-4500	500-7800	500-7800	500-7800	500-7800	500-7800
Rollers pcs/section		2	2	4	6	4	6	4	6	8	8	2
Roller dia/total width, mm		350/75	350/75	350/155	350/235	425/310	425/470	580/470	580/720	580/970	710/1130	710/260
Roller material		PU	PU	PU	PU	PU	PU	PU	PU	PU	PU	Steel
Length, mm	Power	2310	2310	3040	3040	4460	4460	5100	5200	5200	8500	7200
	Idler	1950	1950	2680	2685	3060	3060	4700	4800	4800	5400	6800
Width, mm	Power	630	630	660	700	830	830	1400	1700	2000	2900	2100
	Idler	400	400	490	490	830	830	850	1100	1400	1600	1600
Weight, kg	Power	455	530	660	1035	2200	2200	3500	6500	7000	10000	16500
	Idler	310	310	385	670	1360	1360	2500	5500	6000	8800	15200
Primary Input Voltage, VAC, 60 Hz		230 1ph	230 1ph	460/575 3ph	460/575 3ph	460/575 3ph	460/575 3ph	460/575 3ph	460/575 3ph	460/575 3ph	460/575 3ph	460/575 3ph
Primary Input Current, A		16	16	16	16	16	16	16	16	16	16	16

TXA Turning Rolls

Scissor-type Turning Rolls

- *Ideal for applications requiring a constant centre height*
- *Complete with a low voltage (24V) remote control unit for all functions*
- *Available as a motorized or freely rotating idling unit*
- *Easily adjust the diameter with manually operated hydraulic hand-pumps*
- *Ideal for handling long objects*
- *Plug & play connection to accessories available including synchronization control, external connection, rail bogies, start/stop foot pedal, and PEH process controller*



Ordering Information

ESAB 1 TXA, Idler Unit PH10260001
ESAB 3 TXA, Idler Unit PH10260101
ESAB 5 TXA, Idler Unit PH10260201
ESAB 3 TXA, Idler Unit PH10260601
ESAB 5 TXA, Idler Unit PH10260701

Technical Data		1 TXA	3 TXA	5 TXA
Max. load, metric ton	Power	-	1.5	2.5
	Idler	0.5	1.5	2.5
Rotation capacity, metric ton		-	3	5
Rotation speed range, mm/min		-	60-1200	60-1200
Center height diameter, mm		-	105-780/800	105-780/800
Total diameter range min-max, mm		30-1750	100-2100	100-2100
Rollers pcs/axel		2	2	4
Roller diameter/total width, mm		200-50	350-75	350-75
Roller material		PU	PU	PU
Length in, mm	Power	-	1685	1685
	Idler	850	1445	1445
Width in, mm	Power	-	670	770
	Idler	400	570	670
Height min-max, mm	Power	-	610-880	610-880
	Idler	500-700	610-880	610-880
Weight, kg	Power	-	490	540
	Idler	150	350	400
Mains supply connection VAC, 50/60 Hz		-	1x230	1x230
Power, A			16	16

250-35000 AHMA

Positioners for lifting, rotating and tilting demanding work pieces

- *3-axis positioning: height, angle, and rotation*
- *Unique design allows for a large operating range*
- *All positioners above 250 kg capacity have AC drives*
- *Improved hydraulics with integrated safety valves for total safety operation*
- *Vector inverter control system for constant and precise rotation speed and improved torque at low speeds*
- *Equipped with RC-30 remote control*
- *Plug & play connection to accessories available including external connection, start/stop foot pedal, speed control foot pedal, and PEH process controller*

Ordering Information

All positioners include remote control and cable as indicated in technical data table

250 AHMA Positioner PH10365300
750 AHMA Positioner PH10365400
1500 AHMA Positioner PH10365500
3500 AHMA Positioner PH10365601
7000 AHMA Positioner PH10365700
15000 AHMA Positioner PH10365800
25000 AHMA Positioner PH10365900
35000 AHMA Positioner PH10366000

Technical Data	250 AHMA	750 AHMA	1500 AHMA	3500 AHMA	7000 AHMA	15000 AHMA	25000 AHMA	35000 AHMA
Max. load, N	2500	7500	15000	35000	70000	150000	250000	350000
Rotation speed, rpm	0.2-4.5	0.05-2.0	0.02-1.3	0.05-1.6	0.03-1.0	0.01-0.75	0.005-0.4	0.0005-0.4
Max. Rotation torque, Nm	80	600	1000	2800	9000	18000	40000	55000
Tilting/angle, ° degree	Man 135	hy 135	hy 135	hy 135	hy 135	hy 135	hy 120	hy 120
Tilting time: 0° -max angle, s	manuale	25	25	30	55	60	80	160
Max. tilting torque , Nm	300	1500	3000	7500	14000	70000	175000	280000
Max welding current, A	350	700	700	700	1400	1400	2100	2100
Table plate diameter, mm	400	700	700	950	1100	1490	1950	1950
T-slots on table plate	3 - tipo M10	3 - tipo M12	3 - tipo M12	4 - tipo M20	4 - tipo M20	4 - tipo M24	8 - tipo M24	6 - tipo M24
Center hole diameter, mm	60	-	-	-	-	-	-	-
Height min-max, mm	490-910	725-1450	775-1540	980-1750	1000-1855	1295-2325	1600-2860	2000-3500
Length, mm	940	1575	1640	2340	1640	3150	4080	4750
Width, mm	470	696	810	1030	1490	1820	2380	3450
Weight, kg	130	550	730	1800	3150	6500	15000	23000
Remote control cable type	RC40	RC30	RC30	RC30	RC30	RC30	RC30	RC30
Remote cable length, m	3	6	6	6	8	12	12	12
Primary Input Voltage, VAC 60 Hz	230 1ph	460/575 3ph	460/575 3ph	460/575 3ph	460/575 3ph	460/575 3ph	460/575 3ph	460/575 3ph
Primary Input Current, A	16	16	20	25	25	32	35	50

75-750 SKA

For small and light work pieces

- *Ideal for small and light work pieces*
- *Complete with a low voltage (24V) remote control unit for all functions*
- *Includes manual height adjustment, manual tilting angle adjustment and motorized rotation*

Ordering Information

ESAB 75SKA PH10272900
ESAB 150SKA PH10273001
ESAB 750SKA PH10613401

Technical Data	75 SKA	150 SKA	750 SKA
Max. load, N	750	1500	7500
Rotation speed, rpm	0.4-7.0	0.2-4.5	0.05-2.0
Max. Rotation torque, Nm	30	80	600
Tilting/angle ° degree	360	360	360
Tilting time: 0° -max angle, s	manual	manual	60
Max welding current, A	350	350	700
Max tilting torque, Nm	150	300	1500
Table plate diameter, mm	300	350	700
T-slots on table plate		3 pcs size M10	3 pcs size M12
Center hole diameter, mm	-	60	-
Height min-max, mm	500-800	500-800	685
Length, mm	750	860	1470
Width, mm	610	650	700
Weight, kg	60	90	425
Remote control cable type, m	fisso	RC40-3	RC30-6
Mains supply connection VAC, 50/60 Hz	1x230	1x230	1x230
Primary Input Current, A	16	16	16

750-10000 SHA

Positioners for demanding and heavy work pieces

- *Handle large and demanding work pieces in all positions*
- *Equipped with adjustable hydraulics with built-in safety valves*
- *3-axis operation (height, tilting angle, and rotation) for ideal ergonomic working conditions*
- *Low voltage (24 V) remote control with all functions*
- *Rotation and tilting speed controlled by vector inverters for improved accuracy and better rotation torque*
- *Drives equipped with an AC motor*
- *Plug & play connection to accessories available including external connection, start/stop foot pedal, speed control foot pedal, and PEH process controller*

Ordering Information

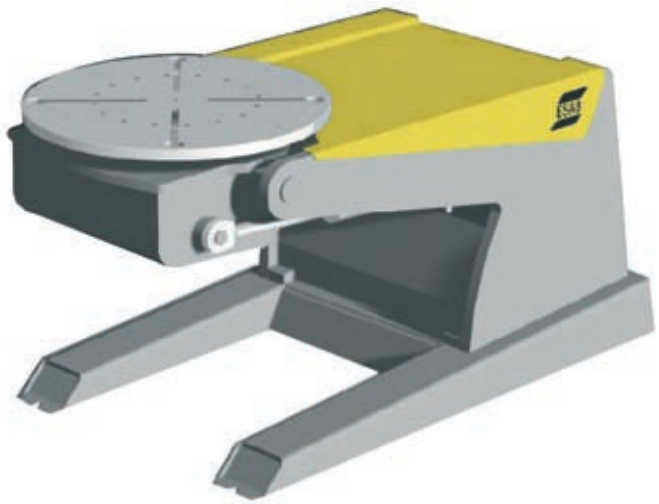
ESAB 750SHA PH10537300
ESAB 1500SHA PH10537400
ESAB 3500SHA PH10537500
ESAB 5000SHA PH10537600
ESAB 7000SHA PH10537700
ESAB 10000SHA PH10537800

Technical Data	750 SHA	1500 SHA	3500 SHA	5000 SHA	7000 SHA	10000 SHA
Max. load, N	7500	15000	35000	50000	70000	100000
Rotation speed, rpm	0.05-2.0	0.02-1.3	0.05-1.6	0.01-1.5	0.03-1.0	0.02-0.75
Max. Rotation torque, Nm	600	1000	2800	6000	9000	18000
Tilting speed, rpm	0.1-1.5	0.1-1.5	0.1-1.0	0.1-0.75	0.1-0.75	0.1-0.75
Tilting torque , Nm	1500	3000	6000	10000	15000	20000
Adjustable tilting axle height min-max, mm	700-1500	700-1500	1100-1900	1200-2000	1200-2000	1200-2000
Off set distance mm	400	400	400	500	500	500
Max welding current, A	700	700	700	1400	1400	1400
Max work piece diameter, mm	2000	2500	3000	3200	3500	4000
Table plate diameter, mm	700	700	950	1100	1100	1490
T-slots on table plate	3 pcs M12	3 pcs M12	4 pcs M20	4 pcs M20	4 pcs M20	4 pcs M24
Height, mm	2110	2200	3060	3200	3200	4000
Length, mm	2240	2650	3710	4400	4700	5490
Width, mm	940	1160	1450	2040	2040	2140
Weight, kg	1200	1700	4950	9550	10800	13500
Remote control cable type, m	RC30- 6	RC30- 6	RC30- 6	RC30- 6	RC30- 12	RC30- 12
Mains supply connection VAC, 60 Hz	460/575 3ph	460/575 3ph	460/575 3ph	460/575 3ph	460/575 3ph	460/575 3ph
Primary Input Current, A	16	20	25	25	25	32

3500-100000 FA

Positioners for automated circumferential welding

- *Ideal for large and heavy work pieces*
- *Complete with a low voltage (24 V) remote control unit for all functions*
- *Motorized rotation and tilting for ideal positioning*
- *Vector inverter control system for constant and precise speed*
- *Hydraulically actuated tilting with safety valves*
- *Drives equipped with AC motors*
- *Plug&Play connection to accessories available including external connection, start/stop foot pedal, speed control foot pedal, and PEH process controller*



Ordering Information

ESAB 3500 FA PH10366100
ESAB 7000 FA PH10366200
ESAB 15000 FA PH10366300
ESAB 25000 FA PH10366400
ESAB 35000 FA PH10366500
ESAB 50000 FA PH10366600
ESAB 75000 FA PH10366700
ESAB 100000 FA PH10366800

Technical Data	3500 FA	7000 FA	15000 FA	25000 FA	35000 FA	50000 FA	75000 FA	100000 FA
Max. load, N	35000	70000	150000	250000	350000	500000	750000	1000000
Rotation speed, rpm	0.05-1.6	0.03-1.0	0.01-0.75	0.005-0.4	0.005-0.4	0.003-0.2	0.003-0.2	0.003-0.2
Max. Rotation torque, Nm	2800	9000	18000	40000	55000	75000	110000	150000
Tilting angle, ° degrees	135	135	135	120	120	110	110	110
Tilting time from 0 to max, sec	30	55	60	80	160	180	180	180
Max tilting torque, Nm	7500	14000	70000	175000	280000	400000	600000	800000
Max welding current, A	700	1400	1400	2100	2100	2100	2100	2100
Table plate diameter, mm	950	1100	1490	1950	1950	1950	1950	1950
T-slots on table plate	3 pcs M20	4 pcs M20	4 pcs M24	8 pcs M24	6 pcs M24	8 pcs M30	8 pcs M36	8 pcs M36
Height, mm	1100	1300	1500	2500	2500	2500	2750	2750
Length, mm	1750	2100	3000	4100	4100	4500	4500	4800
Width, mm	1150	1350	1600	1950	2450	2450	2450	2450
Weight, kg	1200	2700	5500	11000	12000	15000	18000	25000
Remote control cable type, m	RC30-6	RC30-8	RC30-12	RC30-12	RC30-12	RC30-12	RC30-12	RC30-12
Mains supply VAC, 50 Hz	3x400V+N+PE	3x400V+N+PE	3x400V+N+PE	3x400V+N+PE	3x400V+N+PE	3x400V+N+PE	3x400V+N+PE	3x400V+N+PE
Primary input current, A	25	25	25	25	35	35	50	50

25000-50000 CRA

Positioners for highly demanding and large work pieces

- *Ideal for large and heavy work pieces*
- *Complete with a low voltage (24V) remote control unit for all functions*
- *Adjustable rotation and tilting for ideal positioning*
- *Vector inverter control system for constant and precise speed*
- *Drives equipped with an AC motor*
- *Plug & play connection to accessories available including external connection, start/stop foot pedal, speed control foot pedal, and PEH process controller*

Ordering Information

ESAB 25000CRA PH10543000
ESAB 35000CRA PH10543100
ESAB 50000CRA PH10543200

Technical Data	25000 CRA	35000 CRA	50000 CRA
Max. load, N	250000	350000	500000
Rotation speed, rpm	0.01-0.4	0.01-0.4	0.004-0.2
Max. Rotation torque, Nm	40000	55000	75000
Tilting speed, rpm	0.03-0.3	0.03-0.3	0.03-.03
Tilting torque, Nm	70000	110000	150000
Off set distance, mm	600	800	800
Max welding current, A	2100	2100	2100
Max work piece diameter, mm	6000	7000	7000
Table plate diameter, mm	1490	1490	1950
T-slots on table plate	8 pcs size M24	8 pcs size M24	8 pcs size M30
Height, mm	5100	5400	5600
Length, mm	9340	10600	10600
Width, mm	3160	3660	4000
Weight, kg	22000	34000	43000
Remote control cable type, m	RC30-12	RC30-12	RC30-12
Mains supply connection VAC, 60 Hz	460/575 3ph	460/575 3ph	460/575 3ph
Primary Input Current, A	32	32	32

750-50000 Head & Tailstock

Positioners for long revolving workpieces

- *Ideal for circumferential welding and assembly of difficult workpieces*
- *Complete with a low voltage (24V) remote control unit for all functions*
- *Use headstock with or without tailstock*
- *Head & tailstock can be equipped with a stepless height adjustment and tailstock with hydraulic motorized rail-bogie for various lengths*
- *Plug & play connection to accessories available including external connection, rail bogies, start/stop foot pedal, and PEH process controller*
- *Headstock HSA features motorized rotation and fixed height*
- *Headstock HSLA features motorized rotation and stepless height adjustment*
- *Tailstock TSA/TSLA features freely rotating table plate, and fixed/adjustable height*

Ordering Information

Motorized Rotation, Fixed or Adjustable Height

750 HSA	PH10538000
750 TSA	PH10539600
1500 HSA	PH10538100
1500 TSA	PH10539700
3500 HSA	PH10538200
3500 TSA	PH10539800
7000 HSA	PH10538300
7000 TSA	PH10539900
15000 HSA	PH10538400
15000 TSA	PH10540000
25000 HSA	PH10538500
25000 TSA	PH10540100
35000 HSA	PH10538600
35000 TSA	PH10540200
50000 HSA	PH10538700
50000 TSA	PH10540300

Height Extension Blocks

750 HSA/HSLA Extension	PH10650700
1500 HSA/HSLA Extension	PH10650700
3500 HSA/HSLA Extension	PH10650800
7000 HSA/HSLA Extension	PH10650900
15000 HSA/HSLA Extension	PH10651000
25000 HSA/HSLA Extension	PH10651100
35000 HSA/HSLA Extension	PH10651200
50000 HSA/HSLA Extension	PH10651300

Motorized Railbogies

750 RBTSA	PH10541200
1500 RBTSA	PH10541300
3500 RBTSA	PH10541400
7000 RBTSA	PH10541500
15000 RBTSA	PH10541600
25000 RBTSA	PH10541700
35000 RBTSA	PH10541800
50000 RBTSA	PH10541900

Sales Literature Head and Tailstock, order number.....XA00119320

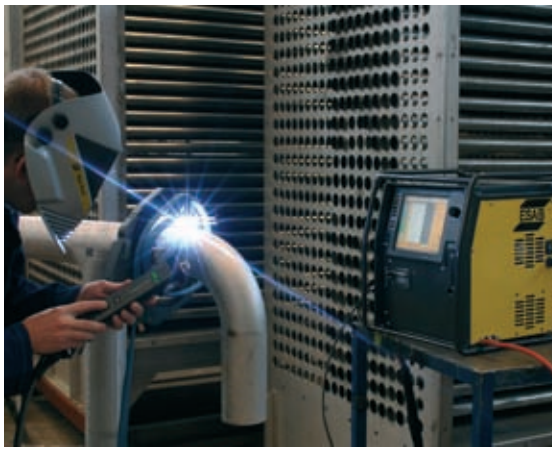
Technical Data	750 HSA/TSA	1500 HSA/TSA	3500 HSA/TSA	7000 HSA/TSA	15000 HSA/TSA	25000 HSA/TSA	35000 HSA/TSA	50000 HSA/TSA
Max. load, N	7500	15000	35000	70000	150000	250000	350000	500000
Rotation speed, rpm	0.05-2.0	0.02-1.3	0.05-1.6	0.03-1.0	0.02-0.75	0.01-0.4	0.01-0.4	0.004-0.2
Max. Rotation torque, Nm	600	1000	2800	9000	18000	40000	55000	75000
Max. allowed tilting moment , Nm	1500	3000	7500	14000	70000	175000	280000	400000
Centre height, mm	800	800	800	1000	1200	1200	1400	1400
Max. welding current, A	700	700	700	14000	1400	2100	2100	2100

Technical Data	750 HSLA/TSLA	1500 HSLA/TSLA	3500 HSLA/TSLA	7000 HSLA/TSLA	15000 HSLA/TSLA	25000 HSLA/TSLA	35000 HSLA/TSLA	50000 HSLA/TSLA
Max. load, N	7500	15000	35000	70000	150000	250000	350000	500000
Rotation speed, rpm	0.05-2.0	0.02-1.3	0.05-1.6	0.03-1.0	0.02-0.75	0.01-0.4	0.1-0.4	0.003-0.2
Max. Rotation torque, Nm	600	1000	2800	9000	18000	40000	55000	75000
Max. allowed tilting moment, Nm	1500	3000	7500	14000	70000	175000	280000	400000
Adjustable height min-max, mm	700-1500	700-1500	700-1500	1100-1900	1200-2000	1400-2200	1400-2200	1400-2200
Max. welding current, A	700	700	700	1400	1400	2100	2100	2100

Technical Data	750 Extension	1500 Extension	3500 Extension	7000 Extension	15000 Extension	25000 Extension	35000 Extension	50000 Extension
Extension Blocks and Railbogies								
Height, mm	204	204	204	256	288	288	288	450
Length, mm	1070	1070	1070	1400	2050		2800	3000
	750 RBTSA	1500 RBTSA	3500 RBTSA	7000 RBTSA	15000 RBTSA	25000 RBTSA	35000 RBTSA	50000 RBTSA
Railbogies:								
Travel Speed, mm/min	0.2-2.3	0.2-2.3	0.2-2.3	0.2-2.3	0.2-2.3	0.2-2.3	0.2-2.3	0.2-2.3
Height, mm	204	204	204	256	288	288	288	450
Length, mm	1710	1710	1710	2130	2450	2700	3300	3600

Aristo™MechTig C2002i, Aristo™MechTig 4000i, Aristo™ MechControl 2 & 4

- *Aristo™ MechTig C2002i is a compact, robust and easy-to-use 200A power generator, with built-in cooling unit for the water cooled torches, control system with graphic interface, program library and capacity of self-generation of welding programmes.*
- *Aristo™ MechControl 2 is a control unit featuring the same functions of the Aristo™ MechTig C2002i, but without power generator generator and cooling unit.*
- *Aristo™ MechControl 4 is similar to Aristo™ MechControl 2, with in addition AVC (Arc Voltage Control) and weaving functions.*
- *Aristo™MechTig 4000i is a power generator to be used in conjunction with the Aristo™ MechControl 2 or Aristo™ MechControl 4 control units, having 400A capacity and built-in cooling unit for water-cooled torches.*
- *The large 10" colour display helps obtaining the best performances and the Windows user interface make it easy searching programmes from the integrated library or the automatic generation of customized programmes, simply introducing data such as type of material, external diameter and tube wall thickness.*
- *New programmes can be added to the existing library. Alternatively, all welding parameters can be manually set by means of a graphic interface or electronic spreadsheet.*
- *Integrated printer, to produce copy on paper of the programmed welding parameters and of the measured values related to speed, current, voltage, wire and power.*
- *USB (Universal Serial Bus) connection to transfer welding programmes between different machines, to store and to update programmes.*
- *ESAB offers a wide range of welding heads compatible with the new machines, to build complete orbital welding systems suitable for all applications.*
- *The Weldoc WMS 4000 monitoring and documentation system is available, to satisfy the needs of the ISO 9000/SS-EN729 international quality system. Alternatively, the SPS 4000 system can store the pre-set programmes.*
- *The MechT 1 CAN remote control unit has the ability to control and display data.*



Aristo™MechTig C20021i

Aristo™MechTig 4000 with Aristo™MechControl

Aristo™MechTig C2002i, Aristo™MechTig 4000i, Aristo™ MechControl 2 & 4

Technical Data	MechTig C2002i	MechTig 4000i	MechControl 2 – 4
Main connection	230 V, 1 ph, 50/60 Hz	3x400V, 50/60 Hz	42 V, 50/60 Hz
Permitted load at			
100% duty cycle	110 A	250 A	----
60% duty cycle	140 A	320 A	----
35% duty cycle	180 A	400 A	----
Welding current range, TIG DC	3-200 A	4-400 A	----
Open circuit voltage	60-75 V	78-90 V	----
Dimensions, LxWxH, mm	471x477x475	625x394x776	471x403x364
Weight, kg	29	81	17,4 - 18,4
Protection class	IP23	IP23	IP23
Application class	S	S	S

Ordering information

Aristo™MechTig C2002i, 230 V single-phase, 50/60 Hz 0444 600 880
Aristo™MechTig 4000i, with cooling unit, 400 V 3-phase, 50/60 Hz..... 0458 625 886
Aristo™MechControl 2, control unit..... 0444 500 880
Aristo™MechControl 4, control unit..... 0444 500 881

Aristo™MechTig 4000 with Aristo™MechControl

Options and Accessories

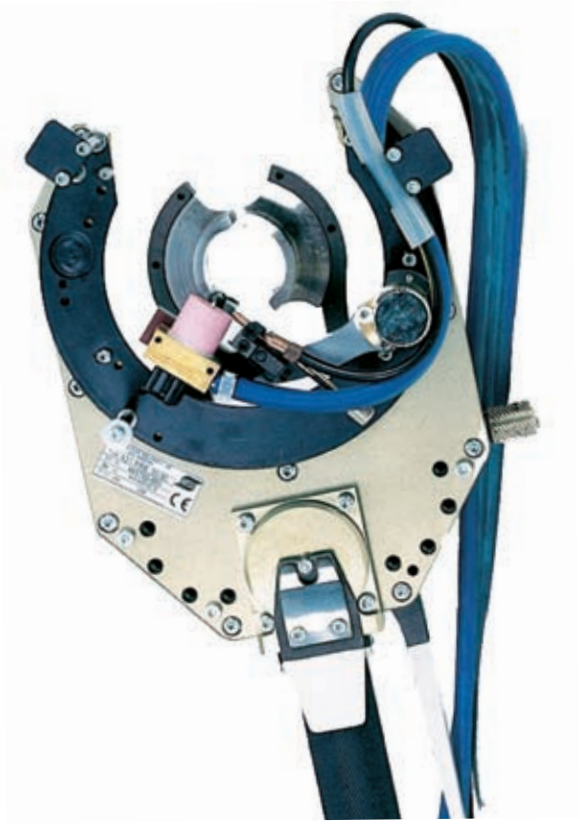
Connection cable 1,7 m MechControl 2-4 ..... 0460 210 880
Connection cable 8 m MechControl 2-4 ..... 0460 210 881
Remote control MechT 1 CAN 0460 181 880
MechT 1 CAN remote control cable, 5m 0459 554 880
MechT 1 CAN remote control cable, 10m 0459 554 881
MechT 1 CAN remote control cable, 15m 0459 554 882
MechT 1 CAN remote control cable, 25m 0459 554 883
MechT 1 CAN remote control cable, 0,25m 0459 554 884
Trolley for MechTig C2002i 0301 100 880
Multivoltage unit for MechTig 4000i (3x 208/230/400/460/475/575V, 50/60Hz) 0459 145 880
Handle kit (2 pieces) for separate multivoltage unit 0459 307 881
Trolley type 1 (standard) for MechTig 4000i 0458 530 880
Trolley type 2 (for 2 bottles) for MechTig 4000i..... 0458 603 880
Guide pin (if no trolley) 0458 731 880

Fact-sheet Aristo™MechTig C2002i, ordering code.....XA00131320
Fact-sheet Aristo™MechTig 4000i, ordering code.....XA00131520
Fact-sheet Aristo™MechControl 2 & 4, ordering code.....XA00131420

A21 PRB

Tube to Tube Weld Heads

- *Small, flexible, and lightweight*
- *Heads based on unique clamp-on principle to reduce set-up time*
- *Available in air-cooled or water-cooled versions*
- *Available in three sizes for tubes with outer diameters of 17 mm to 170 mm*
- *Use with Aristo™MechTig power sources*
- *Complete with 7 m connection cable*



Ordering Information

All PRB weld heads include 7 m of connection cable

PRB 17-49, water cooled 0443 750 880
PRB 17-49, air cooled 0443 750 881
PRB 33-90, water cooled 0443 760 880
PRB 33-90, air cooled..... 0443 760 881
PRB 60-170, water cooled 0443 770 880
PRB 60-170, air cooled..... 0443 770 881

Options and Accessories

Angular Support Bracket 0443 875 880
Rebuilding kit, PRB/PRC 17-49 ..... 0444 002 880
For welding tubes with OD of 8-17 mm
Rebuilding kit, PRB/PRC 33-90..... 0443 908 880
For welding tubes with OD of 20-33 mm
Rebuilding kit PRB/PRC 60-170..... 0443 909 880
For welding tubes with OD of 44-60 mm

Technical Data	PRB 17-49	PRB 33-90	PRB 60-170
Rate of rotation, rpm	0.1-2.4	0.1-1.6	0.04-0.95
Tube OD, mm	17-49	33-90	60-170
Tube OD, mm Option	8-17	20-33	44-60
Max welding current at 100% duty cycle, water-cooled, A	250	250	250
Max welding current at 100% duty cycle, air-cooled, A	100	100	100
Electrode diameter, mm	1.6-2.4	1.6-2.4	1.6-2.4
Weight (less cables), kg	2.8	3.2	4.4
Minimum spacing required between two parallel tubes, mm	D/2+70*	D/2+94*	D/2+137

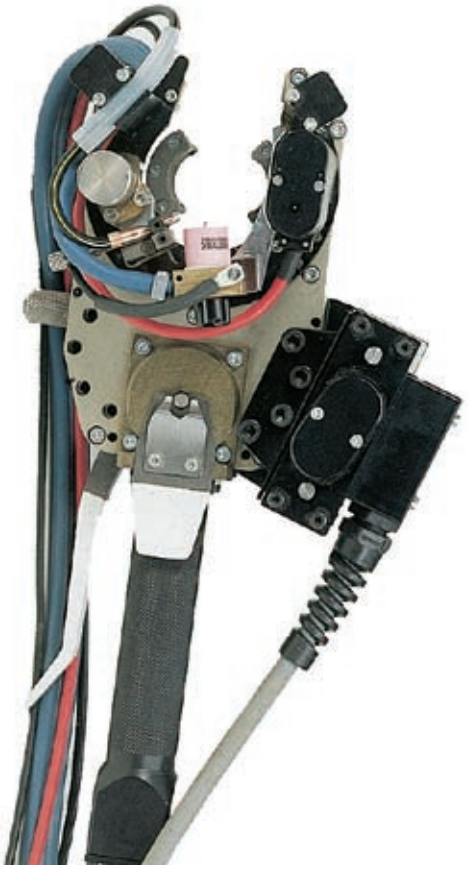
* Without fine adjustment wheel for wire. Electrode cap and spacer screw may need to be replaced with the shortest variant supplied with the tool

Instruction Manual PRB Welding Head, order number..... 0443808001
Sales Literature PRB Welding Head, order number..... XA00098520

A21 PRC

Flexible Tube to Tube Weld Heads

- *Water-cooled*
- *Features arc weaving movement and arc voltage control*
- *Increase productivity and quality of weld, particularly when welding thick-walled tubes*
- *Use in combination with Aristo™MechTig power sources*



Ordering Information

PRC 17-49 with AVC 0443 751 880
PRC 17-49 with AVC and weaving 0443 752 880
PRC 33-90 with AVC 0443 761 880
PRC 33-90 with AVC and weaving 0443 762 880
PRC 60-170 with AVC 0443 771 880
PRC 60-170 with AVC and weaving 0443 772 880

Options and Accessories

Angular Support Bracket 0443 875 880
Rebuilding kit, PRB/PRC 17-49 ..... 0444 002 880
For welding tubes with OD of 8-17 mm
Rebuilding kit, PRB/PRC 33-90 ..... 0443 908 880
For welding tubes with OD of 20-33 mm
Rebuilding kit PRB/PRC 60-170 ..... 0443 909 880
For welding tubes with OD of 44-60 mm

Technical Data	PRC 17-49	PRC 33-90	PRC 60-170
Rate of rotation, rpm	0.1-2.4	0.1-1.6	0.05-0.95
Tube OD, mm	17-49	33-90	60-170
Tube OD with options, mm	8-17	20-33	44-60
Max welding current 100% duty cycle, water-cooled, A	250	250	250
Electrode diameter, mm	1.6-2.4	1.6-2.4	1.6-2.4
Weight with arc length control (less cables), kg	3.3	3.7	4.9
Weight with arc length control and weave unit (less cables), kg	5.1	5.5	6.7
Arc length control, Arc adjustment rate, mm/s	2.5	2.5	2.5
Oscillation:			
Adjustment range, mm/s	20	20	20
Amplitude, mm	+/- 6	+/- 6	+/- 6
Weave speed, mm/s	2-12	2-12	2-12
Minimum spacing required between two parallel tubes, mm	D/2+70*	D/2+94*	D/2+137

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

Instruction Manual PRC Welding Head, order number..... 0443934001
Sales Literature PRC Welding Head, order number XA00098520

A21 PRD

Orbital Tube Weld Heads

- *Precision TIG tube and pipe welding heads that are rugged and easy to use*
- *Water-cooled, designed for up to 400 Amps*

PRD 160 Weld Head

- *For pipes with OD of 160 mm and greater*
- *Use with Aristo™MechTig power sources*
- *Modular design allows wire feed, Arc Voltage Control, and weaving unit to be added to basic*

PRD 100 Weld Head

- *For pipes with OD of 100 mm and greater*
- *Compact low-profile design- requires only 73 mm clearance around pipe*
- *Use with Aristo™MechTig power source*
- *Standard features include synchronized current pulsing with wire feed and carriage movement, arc weaving, and automatic Arc Voltage Control*
- *Capable of TIG Narrow Gap Orbital welding (with optional head) to achieve increased productivity and reduced heat input on tubes with a wall thickness greater than 10 mm*

Ordering Information

PRD 160 Weld Head

Basic unit, intended only for fusion welding with a floating head 0444 151 880
Basic unit with wire feeder unit complete 0444 151 881
Basic unit with AVC (Arc Voltage Control) 0444 151 882
Basic Unit with AVC plus wire feeder unit complete 0444 151 883
Basic Unit with AVC plus wire feeder unit complete and wave unit 0444 151 884

TPRD 100 Weld Head

PRD 100 Unit 0444 016 880
Narrow Gap head, 50mm 0441 623 880
Narrow Gap head, 80mm 0441 623 881

Options and Accessories

PRD 160 Weld Head

Weave unit complete 0444 140 880
Wire feeder unit complete 0444 137 880
AVC (Arc Voltage Control) complete 0443 656 881

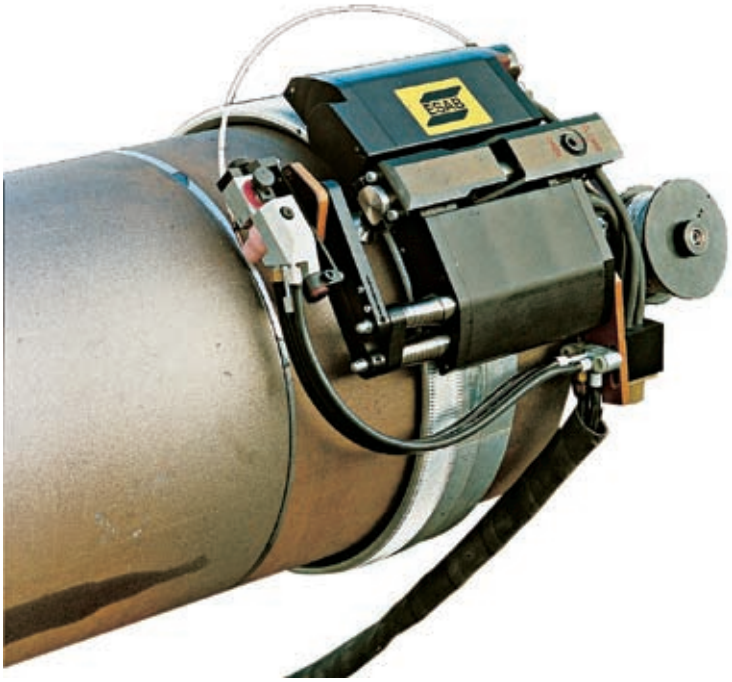
PRD 100 Weld Head

Straight rack with suction feet, 2 m 0334 150 880
Straight rack with suction feet, 4 m 0334 150 881

***Note**: the PRD orbital welding heads move on racks embracing the tube to be welded. Racks are available suited for tube diameters from 100 to 1000 mm.*

Instruction Manual PRD 100, order number 0444061001
Instruction Manual PRD 160, order number 0444100001
Sales Literature PRD 100, order number XA00091720
Sales Literature PRD 160, order number ..... Contact ESAB

Technical Data	PRD 160	PRD 100
Maximum welding current (100% duty cycle)	315 A continuous DC 400 A pulsed DC	315 A continuous DC 400 A pulsed DC
Working range external, mm	160-1025	100 to flat
Clearance height, mm	111-119 + 37 for handle	73 minimum
Min distance to flange, mm	18 at 0° skew	18 at vertical
Rotation speed, cm/min	2-40	2-40
Torch, water-cooled with gas lens		
Electrode size, mm	1.6-3.2	1.0-4.0
Angular adjustment, °	-30° to +45°	-30° to +45°
Filler wire		
Feed speed, cm/min	15-150	10-250
Diameter, mm	0.8-0.9	0.6-1.2
Contact tip	Adjustable in X,Y, Z direction	Adjustable in X,Y, Z direction
Wire spool diameter, mm	100	100
Weaving		
Speed, mm/s	2-12	2-19
Amplitude, mm	+/- 15	+/- 15
Rest time at end position, s	0.1-10	0.1-10
AVC, Arc voltage control		
Speed, mm/s	2.0	2.0
Amplitude, mm		25
Weight less cables, kg	8	8



POC 12-60 / PO13

Tube-to-Tube sheet weld heads

- *Easy to handle, precision built, robust and versatile welding head*
- *Capable of pulsing at 200 Amps, 60% duty cycle*
- *Working range of 12-60 mm tube outer diameter*
- *Lightweight, compact water-cooled system*
- *Precise centering ensures a consistent and perfect weld*
- *Many accessories available*
- *Easy to maintain and service – no special tools needed*

Ordering Information

POC 12-60 welding head, complete with wire feed unit 0443 930 880
PO 13 welding head without cold wire 0000 970 162
PO 13 welding head with cold wire..... 0000 970 182

Options and Accessories

3-point support, includes electrode holder..... 0333 897 880
For fillet welding up to 36 mm POC 12-60
3-point support, includes electrode holder..... 0000 970 254
For PO 13

Additional gas cup, POC 12-60 ..... 0441 000 880
Additional gas cup, PO 13 ..... 0000 970 181
Hoist-type device for welding head hanging 0000 970 183

***Note**: for Shafts and Centering cartridges, contact ESAB*

Technical Data	
Working range diameter:	
Electrode parallel with tube axis, mm	12-60
Electrode 30° from tube axis, mm	12-36
Rotation, rpm	0.2-4.5
Electrode diameter, mm	1.6-2.4
Rating, A at 60 % duty cycle	180
Welding head weight, kg	4.8
Welding cable length, m	8
Wire feed unit	
Filler wire diameter diameter, mm	0.8-0.9
Filler wire speed, m/min	0.15-1.5
Wire spool diameter, mm	100
Wire reel weight, kg	0.5

Instruction Manual POC 12-60 Welding Head, order number 0443959041
Sales Literature POC 12-60 Welding Head, order number XA00087220

A21 PRH

Enclosed tube welding heads

- *Protects the welding arc with shielding gas from external environments*
- *Weld without filler material*
- *Rotating components and tungsten electrode are enclosed in gas chamber formed by outer casing*
- *Thin water-cooled design- for use where clearances are limited*
- *Available in three sizes for pipes with outer diameter ranging from 3 mm up to 76.2 mm*
- *All heads equipped with encoder motors for precise positioning of each sector when welding various parameters*
- *May be used with Aristo™MechTig power sources*

Ordering Information

Welding head PRH 3-12 ..... 0444 300 880
Welding head PRH 3-38 ..... 0444 301 880
Welding head PRH 6-76 ..... 0444 302 880

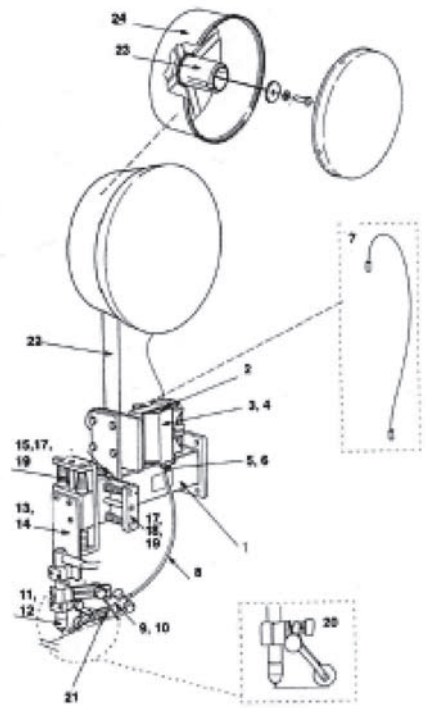
Technical Data	PRH 3-12	PRH 3-38	PRH 6-76
Rate of rotation, rpm	0.65-12.6	0.5-9.5	0.31-6.15
Tube OD, mm	3-12.7	3-38.1	6-76.2
Max. continuous welding current, 100% duty cycle, water cooled, A	15	50	60
Max. pulsed welding current, water-cooled, A	40	100	100
Electrode diameter, mm	1.0	1.6/2.4	1.6/2.4
Weight (with cables), kg	5.0	6.5	7.5

Instruction Manual PRH Welding Head, order number..... 0444291104
Sales Literature PRH Welding Head, order number.....XA00115920

A25 Components System

Mechanized TIG Modular Component System

- *Modular components can be easily combined to create customized solution for specific welding tasks*
- *Available add-on components:*
  - *Rotary slide for adjusting the torch angle*
  - *Motorized slide for Arc Voltage Control (AVC)*
  - *Motorized slide for weaving*
  - *Floating head*
  - *Narrow Gap kit for BTE 500M*
  - *VEC motor with pulse-controlller for rotation of the work piece or connection to a turn table*
- *Available with either a BTE 250M (max 250 A) or BTE 500M (max 500 A) TIG torch*
- *For use with Aristo™MechTig power sources*



Ordering Information

A25 TIG welding system complete with:	BTE 250M Torch(1)	BTE 500M Torch(2)
AVC	0443 911 880	0443 911 881
AVC and Weaving slides	0443 911 882	0443 911 883
AVC and manual horizontal slides	0443 911 884	0443 911 885
Manual vertical and horizontal slides	0443 911 886	0443 911 887
Slides for floating heads	0443 912 880	0443 912 881
AVC and weaving slides mounted on a stand, with VEC motor and turntable	0443 910 880	0443 910 881

(1) Delivered as standard for following wire diameters: 0,6 -1,2 mm
(2) Delivered as standard for following wire diameters: 0,6-0,8 1,2-1,6 mm

Accessory Components

1.	Bracket	0441 404 880
2.	Wire feed unit diam 0.6-0.8 mm	0441 300 882
3.	Feed roller diam 1.0-1.2 mm	0369 557 003
4.	Feed roller diam 1.2-1.6 mm	0369 557 007
5.	Outlet pipe diam 0.8-1.2 mm	0441 456 881
6.	Outlet pipe diam 1.6 mm	0441 456 882
7.	Connection cable, feed unit 8 m	0443 828 880
8.	Wire hose, per meter	0192 799 112
9.	Wire nozzle, BTE 250M	0441 407 880
10.	Wire nozzle, BTE 500M	0441 407 881
11.	TIG torch BTE 250M	0441 362 880
12.	TIG torch BTE 500M	0441 418 880
13.	Holder BTE 250M	0441 414 880
14.	Holder BTE 500M	0441 414 881
15.	Slide AVC	0443 913 880
16.	Circular slidee	0145 945 880
17.	Slide manual	0413 518 880
18.	Slide weaving	0443 913 881
19.	Slide floatinge	0441 674 881
20.	Single guide wheel unit, BTE 250M	0441 833 880
	Single guide wheel unit, BTE 500M	0441 833 881
21.	Double guide wheel unit, BTE 250M	0441 358 880
	Double guide wheel unit, BTE 500M	0441 358 881
22.	Bracket	0441 412 880
23.	Brake hub	0146 967 881
24.	Bobbin protection	0157 482 880

Instruction Manual BTE Torch, order number 0443424001
Instruction Manual A25 Welding Station, order number 0443922001
Sales Literature A25 Welding Station, order number XA00089520

MEI 21 and MEI 10

Wire feed unit for Mechanized TIG Welding

MEI 21

- *Four-roll drive system*
- *Easily connected to welding head through a flexible wire guide*
- *Can use 5 kg wire spools*
- *Use with wire diameters from 0.6-0.8 mm*
- *Geared DC drive motor with microprocessor closed-loop feedback ensures precise wire feed speed*

MEI 10

- *Developed for mounting on PRB/PRC 17-170 tools*

Ordering Information

MEI 21 Wire Feed Unit 0443 830 880
MEI 10 for PRB/PRC 17-49 with AVC 0444 211 880
MEI 10 for PRB 33-90, PRC 60-170 with AVC and PRC 33-90 with AVC and weaving 0444 212 880
MEI 10 for PRB 60-170, PRC 60-170 with AVC and PRC 60-170 with AVC and weaving 0444 213 880

Technical Data	MEI 21
Motor	
Current	48 V DC
Gear ratio	159:1
Rational speed, rpm	70-5500
Max. Output	50 W
Wire spool	
Outer diameter, mm	200
Spool width, mm	60
Hub width, mm	60
Hub hole diameter, mm	51.5
Wire diameter, mm	0.6-0.8
Wire feed speed, m/min	0.1-2.6
Wire conduit length, m	4.2
Weight excl. wire spool, kg	4

Technical Data	MEI 10
Motor	
Current	24 V DC
Gear ratio	159:1
Output torque, Nmm	300
Encoder, ppr	16
Filler wire steel, mm	0.8
Filler wire aluminium, mm	0.8-1.0
Wire feed speed, m/min	0.1-1.2
Weight excl. reel and cable, kg	0.5

Instruction Manual MEI 21 Cold Wire Feed Unit, order number 0443831001
Instruction Manual MEI 10 Cold Wire Feed Unit, order number 0444215001
Sales Literature MEI 21 Cold Wire Feed Unit, order number XA00089020
Sales Literature MEI 10 Cold Wire Feed Unit, order number XA00098620

G-Tech

Precision TIG Electrode Grinder

- *Unique enclosed wet grinding system*
- *Stable, concentrated TIG welding arc- guarantees accuracy and repeatability*
- *Automatic collection of grinding dust- no risk to welder or environment*
- *No oxidation of the tungsten electrode when wet grinding*
- *Longer life of electrode point*

Ordering Information

G-Tech Tungsten Grinder, 110/115 V, 1 ph, 60 H... 0700 009 882
Complete with one diamond grinding disc and accessory kit for 1 to 4 mm electrodes

Options and Accessories

Diamond grinding disc 0700 009 002
Grinder fluid, 250 ml 0700 009 004
Return bottle, 250 ml 0700 009 005
Electrode clamp 1,0 mm 0700 009 007
Electrode clamp 1,6 mm 0700 009 008
Electrode clamp 2,4 mm 0700 009 009
Electrode clamp 3,2 mm 0700 009 010
Electrode clamp 4,0 mm 0700 009 011
Electrode holder, stainless 0700 009 014
Waste Container 0700 009 017
Accessory kit, complete 0700 009 020

Instruction Manual G-Tech Grinder, order number 0700009027
Sales Literature G-Tech Grinder, order number 898C129

Aristo™robot package

A complete Aristo™ robot package consists of:

- *Aristo™ Mig power source*
- *Wire feed units: Aristo™ RoboFeed or FeedMech with the separate control unit FeedControl.*
- *Aristo™ U8 -programming unit with integrated Fieldbus interfaces.*
- *Bus splitter -for connection to the robot cabinet.*
- *Control cable and cable package with quick connections.*
- *Welding torch or PP torch incl. holder.*
- *ESAB wire*

Suitable processes when robotic welding:

- *MIG/MAG welding*
- *MIG/MAG pulse welding*
- *MIG/MAG Aristo SuperPulse™*
  - *Short arc / pulse*
  - *Pulse / pulse*
  - *Pulse / spray arc*
- *MIG/MAG Brazing*

Easy to install

The Aristo™ Mig power sources are connected to the enclosed feeder Aristo™ RoboFeed 3004w or the enclosed feeder unit Aristo™ FeedMech 4804w with separate control unit Aristo™ FeedControl by quick connectors. Connection of the power sources and the Aristo™ U8 to the robot control cabinet is by help of a bus splitter available from ESAB. Wire conduit in different lengths are available for efficient transport of the wire from the Marathon Pac drum to the feeder units.

Full range of Equipment

The precision Aristo™ Mig power sources can weld MIG/MAG solid wire and cored wires using constant current, pulsing, super pulsing as well as MIG/MAG brazing.
ESAB's 100 years of welding process knowledge has been captured and stored in the many pre-programmed Synergic lines enabling you to achieve the optimum performance for every material, process and gas combination in your mechanised application.

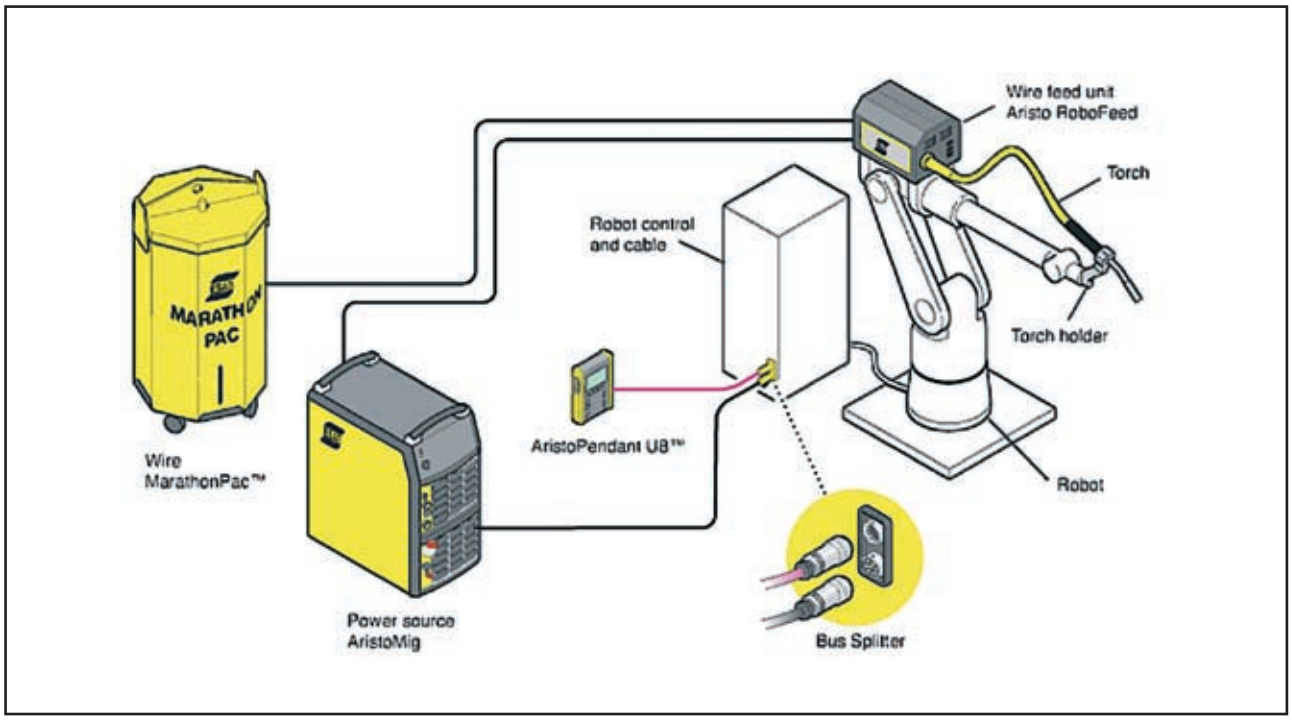
Wire feeders

We offer you two alternatives:

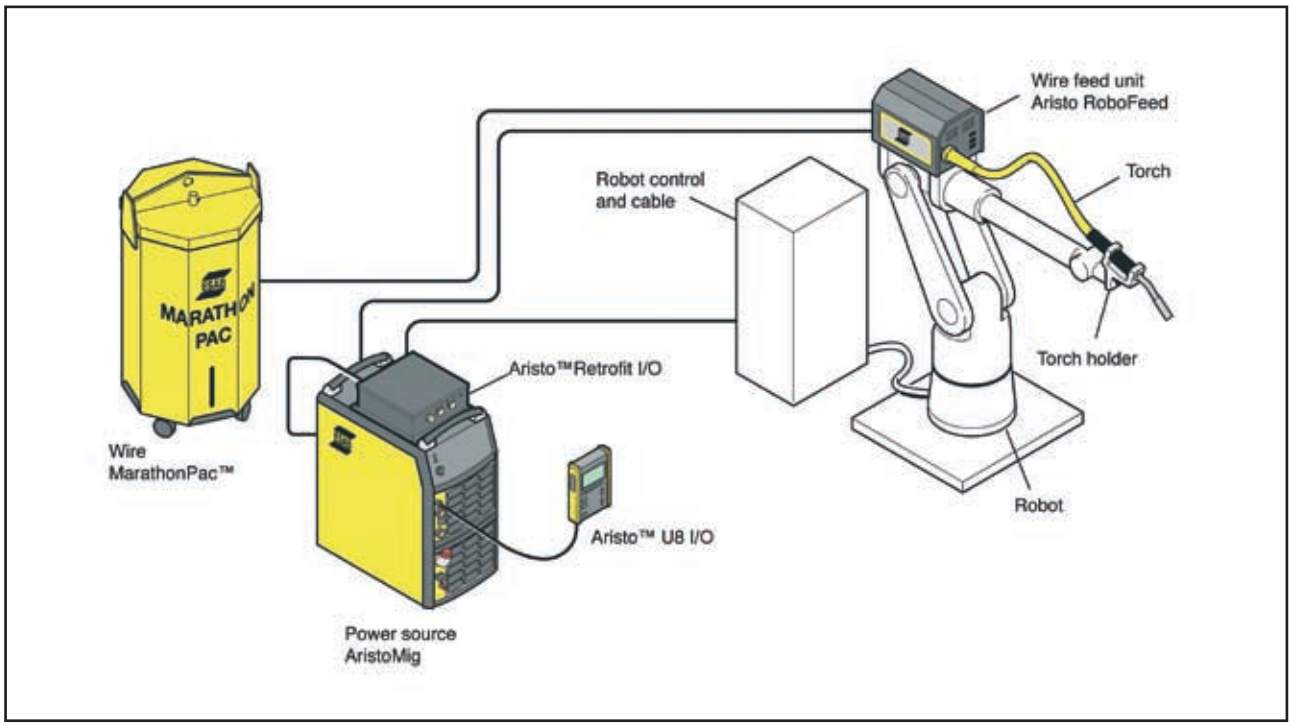
- *Aristo™RoboFeed 3004w, with 30 mm diameter traction rollers.*
- *Aristo™FeedMech 4804w, with 48 mm diameter traction rollers and separate control unit Aristo™FeedControl.*

Full range of consumables

ESAB has wire packages for very high productivity, easy handling and high quality assurance
The Marathon Pac™. We have the Marathon Pac™ in 250 and 475kg sizes. Both sizes exist in Endless version which enables continuous welding operations.



Aristo™Robot Package standard components for FieldBus communication



Aristo™Robot Package standard components for Retrofit

Mechtrac 1730/2100/2500/3000

Components for mechanized gantry automation

- *Fast and flexible way to increase productivity*
- *Equipped with PEH process controller and A2 welding equipment for mechanized SAW or MIG welding*
- *Weld various profiles such as I-, T-, or L- beams, straight columns, or tapered columns*
- *Available in four versions (width of gantry): 1730mm, 2100 mm, 2500 mm, or 3000 mm*
- *All versions have standard gantry leg height of 1500 mm*
- *Floor mounted rail delivered in standard lengths of 3 m - can be easily extended*
- *Dual-drive motors are standard on Mechtrac 2100/2500/3000, Mechtrac 1700 available as single or dual-drive*
- *Gantry can support a maximum weight of 220 kg up to two A2 weld heads, complete with GMD joint tracking, and OPC flux recovery systems*

Ordering Information

Mechtrac 1730, single drive..... 0809 670 880
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

Options and Accessories

Travelling rail, 3 m..... 0806 707 880
Travelling rail, extension, 3 m..... 0806 707 881

Technical Data	
Travel speed, m/min	0.2-1.9
Maximun load, kg	220
Standard rail length, m	3

Instruction Manual Mechtrac 1730/2100/2500/3000, order number..... 0807230101
Sales Literature Mechtrac 1730/2100/2500/3000, order number..... XA00101220

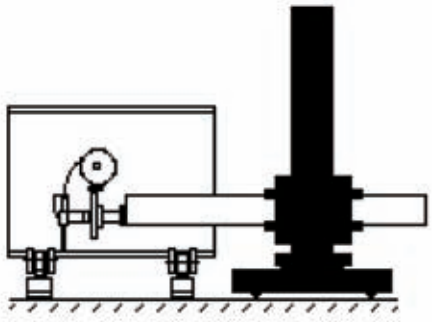
ESAB CaB Systems

Flexible, Modular Column & Booms

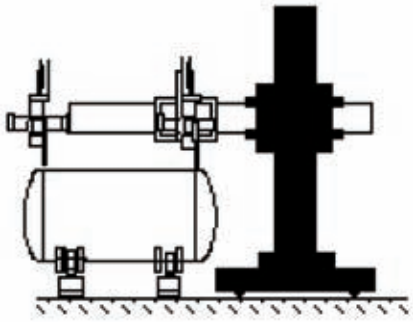
- *Modular design concept allows total customization using standard components*
- *Large selection of available components to integrate for a custom solution:*
  - *Any A2 or A6 weld head system*
  - *PEH Process Controller with LAF/TAF power sources*
  - *ESAB turning rolls and positioners*
  - *ESAB flux feeding and recovery systems*
  - *GMD and Laser Joint Tracking Systems*
  - *Monitoring systems, cameras, WMS 4000 quality supervision software*
- *Four basic station designs suitable for most standard applications*
- *Three different sizes: 300, 460 and 600 (number refers to boom profile height which determines working range and load capability)*
- *Different types of foundations available- stationary or rail-travelling carriage*
- *A variety of options to cover any automation demands*

Standard CaB Stations

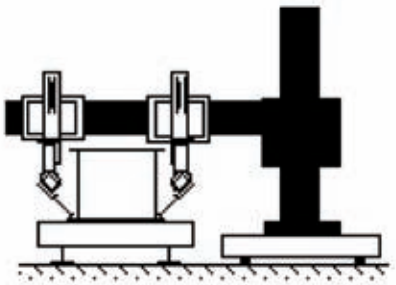
Basic station 1
- *Standard set-up with welding equipment on one or both ends of the boom*
- *Positioning of welding equipment in 4-axis*
- *Application: Vessels, pipes, profiles and other large welding constructions. Perfect for narrow spaces*



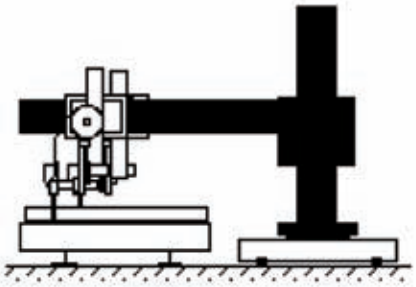
Basic station 2
- *Basic station 1 with the added advantages of a side boom carriage with welding equipment*
- *Boom is movable and simultaneous welding can be achieved with two heads*
- *Application: Vessels and pipes or conical girders and box profiles*



Basic station 3
- *Welding station with horizontally fixed boom and is equipped with two side boom carriages supporting welding equipment on same side of boom*
- *Weld simultaneously with two heads*
- *Application: Straight and conical girders, box profiles, beams, stiffeners and vessels*



Basic station 4
- *Welding station with horizontally fixed boom featuring double track with boom carriages supporting welding equipment on both sides of the boom*
- *Simultaneous welding operation with two heads as standard*
- *Application: Containers, truck platform bodies, box girders, beams, stiffener section and jointing of plates and section*



Sales Literature CaB 300S, order number..... XA00118720
Sales Literature CaB 300M, order number..... XA00118820
Sales Literature CaB 460S, order number..... XA00118920
Sales Literature CaB 460M, order number..... XA00119020

Standard CaB Sizes

The manipulators are divided into three different sizes 300, 460 and 600. These sizes are the throat dimensions of the boom in millimeters. Each 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.

Performance Categories

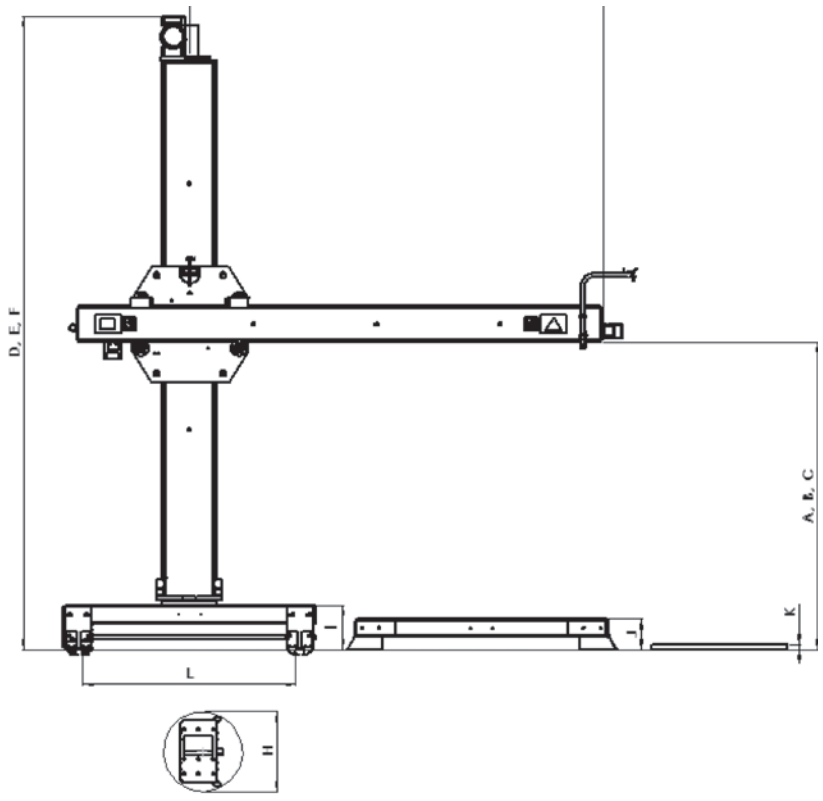
The system is divided into three different categories for performance:

S: Standard
- *Standard mechanical performance, no cable chain*
- *A few options, camera-system, tacho-regulated speed and flux control*
- *Only for Basic station 1*

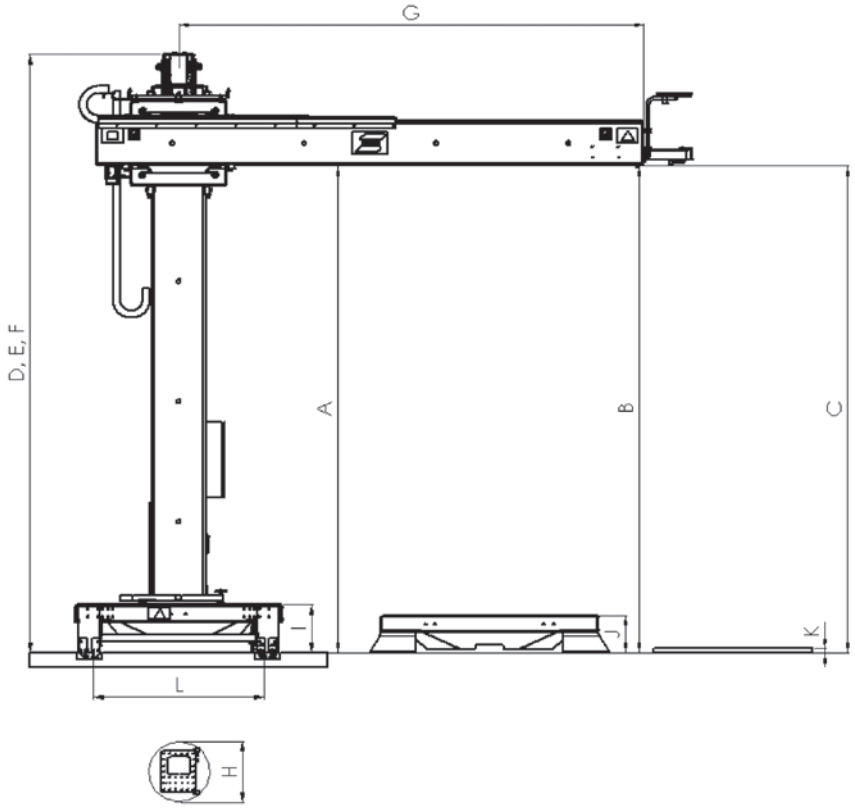
M: Modular
- *Standard mechanical performance, including cable chain for Columns and Booms*
- *More than 20 options fully integrated, such as tandem, shift function, transport speed etc*
- *Only for Basic station 1*

C: Customized
- *Based on the same mechanical performance as the S- and M- model*
- *Based on the same electrical system as the M- model*
- *Includes everything that is not a S- or M- model such as:*
  - *Basic station 2, 3, and 4*
  - *Odd sizes (ex. 4.35 m x 5.15 m)*
  - *Option demands not offered in S- or M- model.*

CaB 300S/300M	Basic Station 1		
Column			
Effective working range, m	**3**	**4**	**5**
Max boom height **A**, using movable carriage, mm	4070	5070	6070
Min boom height **A**, using movable carriage, mm	950	950	950
Max boom height **B**, using concrete stand, mm	3955	4955	5955
Min boom height **B**, using concrete stand, mm	815	815	815
Max boom height **C**, using stationary foot plate, mm	3750	4750	5750
Min boom height **C**, using stationary foot plate, mm	610	610	610
Total height, **D**, using movable carriage, mm	5170	6170	7170
Total height, **E**, using concrete stand, mm	5055	6055	7055
Total height, **F**, using stationary foot plate, mm	4850	5850	6850
Lifting speed, m/min	0.7	0.7	0.7
Boom			
Effective working range, m	**3**	**4**	**5**
Max extension, **G**, mm	3580	4580	5580
Min extension, **G**, mm	540	540	540
Permissible loads			
-total, kg	300	220	150
-one end, kg	240	150	75
Cross sectional diameter, **H**, mm	325	325	325
Welding speed, m/min	0.1-2.0	0.1-2.0	0.1-2.0
Transport speed, m/min	2.0	2.0	2.0
Rail Carriage/Concrete Stand/Foot plate			
Rail carriage track width, inside to inside, **L**, mm	1730		
Rail carriage width x length, mm	2060 x 2330		
Rail carriage height, **I**, mm	365		
Welding speed, m/min	0.1-2.0		
Transport speed, m/min	2.0		
Concrete stand width x length, mm	2060 x 2100		
Concrete stand height, **J**, mm	250		
Foot plate width x length, mm	1100 x 1100		
Foot plate height, **K**, mm	40		



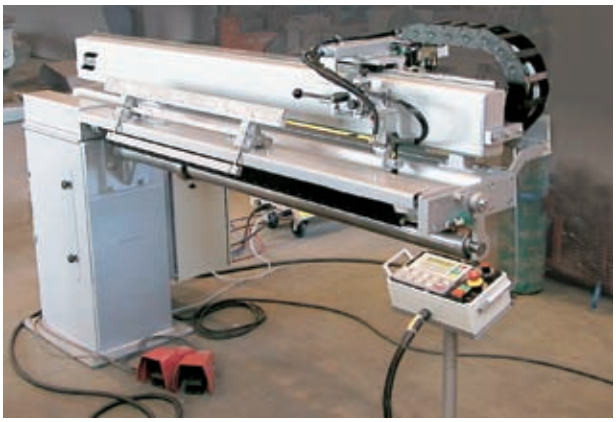
CaB 460S / 460M	Basic Station 1		
Column			
Effective working range, m	**4**	**5**	**6**
Max boom height **A**, using movable carriage, mm	4950	5950	6950
Min boom height **A**, using movable carriage, mm	950	950	950
Max boom height **B**, using concrete stand, mm	4845	5845	6845
Min boom height **B**, using concrete stand, mm	845	845	845
Max boom height **C**, using stationary foot plate, mm	4510	5510	6510
Min boom height **C**, using stationary foot plate, mm	510	510	510
Total height, **D**, using movable carriage, mm	6275	7275	8275
Total height, **E**, using concrete stand, mm	6170	7170	8170
Total height, **F**, using stationary foot plate, mm	5835	6835	7835
Lifting speed, m/min	0.7	0.7	0.7
Boom			
Effective working range, m	**4**	**5**	**6**
Max extension, **G**, mm	4850	5850	6850
Min extension, **G**, mm	850	850	850
Permissible loads			
-total, kg	1100	1050	1000
-one end, kg	550	450	350
Cross sectional diameter, **H**, mm	630	630	630
Welding speed, m/min	0.1-2.0	0.1-2.0	0.1-2.0
Transport speed, m/min	2.0	2.0	2.0
Rail Carriage/Concrete Stand/Foot plate			
Rail carriage track width, inside to inside, **L**, mm	1730		
Rail carriage width x length, mm	2100 x 2380		
Rail carriage height, **I**, mm	485		
Welding speed, m/min	0.1-2.0		
Transport speed, m/min	2.0		
Concrete stand width x length, mm	2100 x 2410		
Concrete stand height, **J**, mm	380		
Foot plate width x length, mm	1600 x 1600		
Foot plate height, **K**, mm	40		



ESAB Seamers for External Welding

Longitudinal seam welding machine

- *Best solution for welding high quality longitudinal welds to plates, tanks or other cylindrical work pieces*
- *Seamers are delivered ready to weld*
- *Available for 1-6 m long welds and for diameters 150-1000 mm*
- *Easy alignment of plates with help from laser light*
- *Pneumatically operated stoppers for plate alignment available*
- *Water cooled backing bar*
- *Copper backing bar equipped with shielding gas for plasma and TIG processes*
- *Manual and remote control operations with PLC controller*

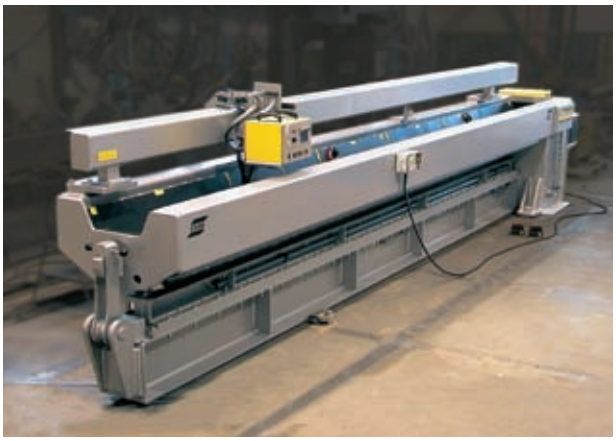


Technical Data	ED15H10	ED20H10	ED30H10	ED40H10	ED60H10
Nominal length, mm	1500	2000	3000	4000	6000
Welding length, mm	1750	2250	3250	4250	6250
Minimum diameter, mm	180	180	250	350	600
Maximum diameter, mm[1]	1000	1000	1000	1000	1000
Plate thickness, mm not tack-welded	1-8	1-8	1-8	1-8	1-8
Max plate thickness, mm tack-welded	10	10	10	10	10

[1] Extension block available

ESAB Seamers for Internal Welding

- *Best solution for welding high quality longitudinal welds to plates, tanks or other cylindrical work pieces*
- *Seamers are delivered ready to weld*
- *Available for welding a max of 6 m long welds and diameters greater than 1500 mm*
- *Easy alignment of plates with help from laser light beam*
- *Pneumatically operated stoppers for plate alignment available*
- *Copper backing bar equipped with shielding gas for Plasma and TIG processes*
- *Conserve shielding gas with divided gas valves*
- *Manual and remote control operations with PLC controller*



Technical Data	ID40H10	ID60H10
Nominal length, mm)	4000	6000
Welding length, mm	4250	6250
Minimum diameter, mm	1500	1500
Plate thickness, mm not tack-welded	1-8	1-8
Max plate thickness, mm tack-welded	10	10

Sales Literature ED External Seamers, order number..... XA001200020
Sales Literature ID Internal Seamers, order number XA001200120

Ordering Information- External Seamers

Welding Equipment*	ED15H10	ED20H10	ED30H10	ED40H10	ED60H10
SAW1	010695000	010695100	010695200	010695300	010695400
SAW2	010630900	010631000	010631100	010631200	010631300
MIG1	010695500	010695600	010695700	010695800	010695900
MIG2	010631400	010631500	010631600	010631700	010631800
MIG3	010631900	010632000	010632100	010632200	010632300
TIG1	010632400	010632500	010632600	010632700	010632800
TIG2	010632900	010633000	010633100	010633200	010633300
Plasma1	010633400	010633500	010633600	010633700	010633800
Plasma2	010633900	010634000	010634100	010634200	010634300
Plasma3	010634400	010634500	010634600	010634700	010634800

Options and Accessories

500 mm high extension block	010639200	010639300	010639400	010639500	010639600
Plate stopper, required amount	2	2	2	2	2
Stopper ring	010639800	010639900	010640000	010640100	010640200

Ordering Information- Internal Seamers

Welding Equipment*	ID40H10	ID60H10
SAW1	010696300	010696400
SAW2	010637600	010637700
MIG1	010696500	010696600
MIG2	010637800	010637900
MIG3	010638000	010638100
TIG1	010638200	010638300
TIG2	010638400	010638500
Plasma1	010638600	010638700
Plasma2	010638800	010638900
Plasma3	010639000	010639100

Options and Accessories

AVC control for plasma equipment	010642300	010642300
Camera monitoring systems	010642200	010642200
Pneumatic plate stopper (3 required)	010645900	010645900

***Welding Equipment Package**

SAW1	LAF 635 power source, A2 wire feeder with PEH control, OPC flux recovery unit
SAW2	LAF 1000 power source, A2 wire feeder with PEH control, OPC flux recovery unit
MIG1	ESABMig 500 power source, ESABFeed 48-4, M14 wire feeder, MIG torch
MIG2	AristoMig 400 power source, AristoFeed 48-4W, MA6 wire feeder, MIG torch
MIG3	AristoMig 450 power source, AristoFeed 48-4W, MA6 wire feeder, MIG torch
TIG1	AristoTIG 400 power source, BTE500M TIG torch
TIG2	AristoTIG 400 power source, MEI 10 and MEI 21 wire feeder (cold wire), BTE500M TIG torch
Plasma 1	PLW202 200A power source, CWC3-CWF1 wire feeder, PTM150 plasma torch
Plasma 2	PLW402 400A power source, CWC3-CWF1 wire feeder, PT300 plasma torch
Plasma 3	PLW402 400A power source, CWC3-CWF1 wire feeder, PT8 plasma torch

Sales Literature ED External Seamers, order number.....XA001200020
Sales Literature ID Internal Seamers, order number.....XA001200120

Circotech

Mechanized compact girth welding system

- *Self propelled three o'clock welding system*
- *Designed for on-site erection of large storage tanks, silos, blast furnaces and cylindrical objects*
- *Available in single-sided or double-sided*
- *Designed to travel along the edge of a tank shell, on a rail temporarily attached to shell, or on a stand-alone ring outside the shell*
- *Equipped with caged cabin for maximum safety and easy to reach welding controls*
- *Standard equipment includes single-wire SAW, or twin wire SAW on request*
- *Utilizes ESAB's flux supply and recovery system*
- *Contributes to a consistent quality weld*
- *Fully functional package consists of: Subarc welding machine type A2 or A6 with motorised slides, PAK manual tracking system, PEH process controller, a weather shielded safety cabin, LAF power source, 6 l flux hopper and flux support, 50 m control cable, and welding and return cables*

Ordering Information

Contact ESAB

Technical Data	
Plates to be welded	
Height, mm	*1000-3000*
Thickness, mm	*8-35*
Shell curvature, radius, mm	*4000 min.*

Rototech 80

Programmable rotary welding equipment for automated MIG/MAG, TIG and Plasma welding

- *Programmable welding system for welding light and medium weight cylindrical objects*
- *Welding process and parameters are controlled by modern PLC control technology*
- *Includes the following main components:*
  - *Rigid frame with two support legs*
  - *Movable turning device with vector controlled frequency transformer and asynchronous motor*
  - *Spindle with double-sided bearings*
  - *Turntable with guide holes for attaching fixtures*
  - *Movable clamping device with pneumatic cylinder and hand-operated locking device*
  - *Pneumatically controlled gun holder with movable arm*
  - *PLC control and operation box*
  - *Centre point for clamping*
- *Weld components as large as 400 mm in diameter, 3000 mm in length, and up to 80 kg in weight*

Ordering Information

Contact ESAB

Technical Data	
Input Power, 3 phase	As per request
Recommended fuses, A	16
Maximum welding current per gun, A	450
Air supply, kPa	500
Operational voltage, VDC	24
Contact function (galvanically insulate) for current contactor/cold wire feed unit	2 A resistive load, 80 VA inductive load
Clamping force, Nm	150 at max 0.3 MPa
Clamping length, pressure cylinder, mm	80
Protection class, motor unit	IP 23
Protection class, electrical cabinet	IP 55
Speed of rotation, rpm	0.12-7.0
Weld length, degrees	0.1°-3600° (0-10 rotations)
Number of programs	1
Maximum torque during continuous operation, Nm	60
Maximum diameter of work object, mm	400
Maximum weight of work object, kg	80
Weight, kg	Approx. 260
Ambient temperature, °C	+5° to +40°
Operational noise, dBA	<50
Dimensions	See Sales Literature

The Wind Energy Industry

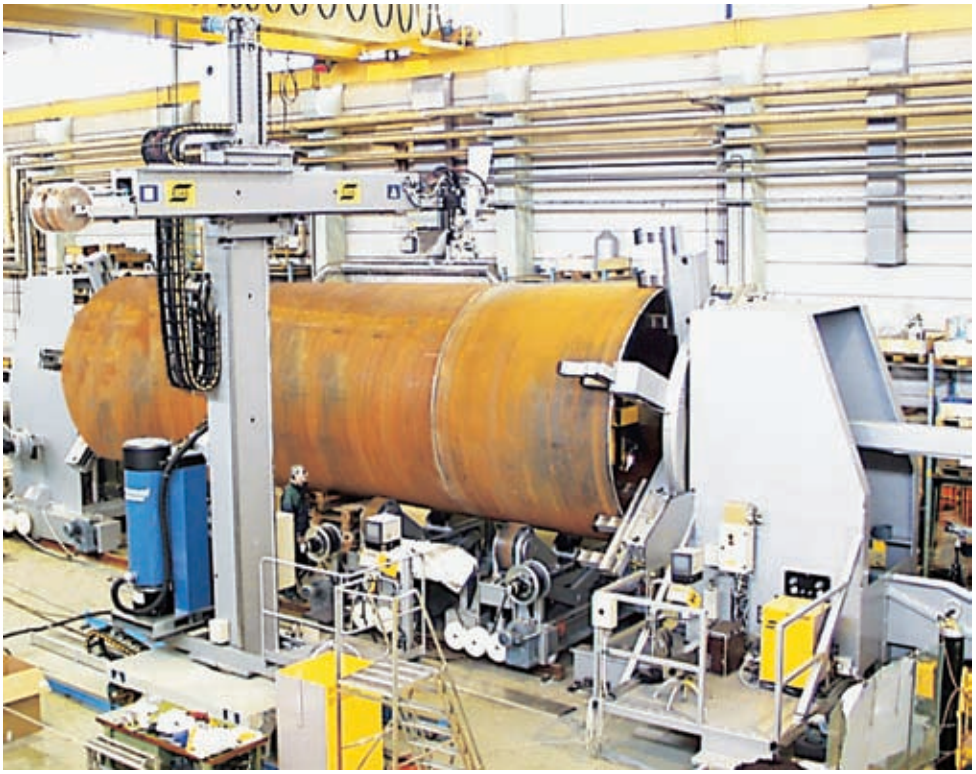
Wind is an untapped and virtually unlimited source of clean, renewable energy. Advances in electrical generation turbines are transforming the wind into abundant and competitive electrical energy. The growing shortage, as well as the pollution associated with fossel fuels, practically guarantees that wind energy will continue to grow at a rapid pace.

Wind energy creates a new market for many industries, including metal fabrication. The industry requires all sorts of products, from the blades, turbines and towers, to specialized cranes and handling equipment, trucks, excavation equipment, concrete, transmission lines, switch gear, and much more.

One area where ESAB has been particularly successful is in the windtower industry. Towers are usually large, conical, welded steel structures, which must support the turbine and blades (Nacelle). It is a very demanding application. The tower must support the immense weight of the nacelle, as well as resist the vibration, cyclical bending stresses, in all weather and temperatures. This is a welding challenge.

ESAB has worked with the fabricators of towers since the beginning. In doing so, ESAB has developed extensive specialized equipment, weld metals and procedures to reduce the cost of tower manufacturing. From the filler metals and small tractors, to bevel cutting machines through to highly automated assembly lines, ESAB is helping customers around the globe to succeed in efficient windtower production.

Wind tower production provides a great opportunity for metal fabricators. Please call ESAB for more information on specialized windtower equipment.



Complete Tower Assembly line.
Reduces assembly time to a fraction of conventional assembly methods

The Wind Energy Industry

Automated Assembly Line

- *Unique Head and Tailstock sytem, capacity 80 ton, up to 6.1 m diameter. Precision clamping system ensures roundness of cans, for precision fit-up*
- *Special fit-up jig allows operator effortless alignment adjustment*
- *Turning rolls and transport equipment, adapted for conical towers*
- *System reduces assembly time to a fraction of conventional assembly*

Large Column and Boom Manipulators

- *Uses A6 subarc weld heads and PEH microprocessor controller*
- *High deposition rates can be achieved with options such as twin wire, synergic cold wire, flux feed and recovery, and large wire reels*
- *Operator controls process from floor height platform, through seam tracking and video cameras*
- *Can be equipped with tandem wire process for higher production in thick sections*

Turning Rolls and Transport Equipment

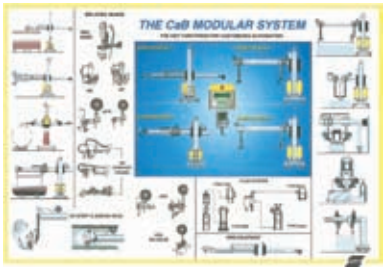
- *Extensive variety of turning rolls customized for heavy windtower sections*
- *Transfer carriages on bogies*
- *Fit-up, transport and paint rolls*

Door Frame Welder

- *Unique, multiaxis robot, drastically reduces weld time, while improving quality. Available for a variety of door designs*
- *Based on the Railtrac Flexible Automation system, control offers programmable bead shape, oscillation, and full control over ESAB semi-automatic welder*
- *Operator can easily modify program on the fly to allow for changing fitup of the joint*

Beam Welding

ESAB offers a variety of beam welding solutions from simple tractors to fully automated beam assembly lines for all styles of beams, from I-, T-, L-beams, wide flange beams, columns, tapered beams and non-symmetrical beams. Our extensive experience in beam welding ensure optimum straightness and productivity.
Some beam welder examples are shown, please call for further information on specific applications.



CaB Based Beam Welders

- *Weld a large variety of beams with various configurations of standard columns and booms*
- *Processes include: subarc, tandem subarc, MIG, cored wire, and aluminum welding*
- *PEH integrated process controller*
- *A2/A6 heads*
- *Seam tracking options can be modified for curved shapes, such as trailer beams*

Aluminum Trailer Beam Welder, With Narrow Precision Track

- *Pivot base allows welding on both sides of track*
- *Unique joint tracking allows proper torch alignment through the transition curves on the beam*
- *MIG welding process with AristoMIG 450 and includes integrated fume extraction system*

Submerged Arc Trailer Beam Welder

- *Available similar to above but equipped A2/A6 subarc heads, PEH process control, and flux recovery system*
- *Also available for metalcore process*

Walltrac Wall Mounted CaB Welding Station

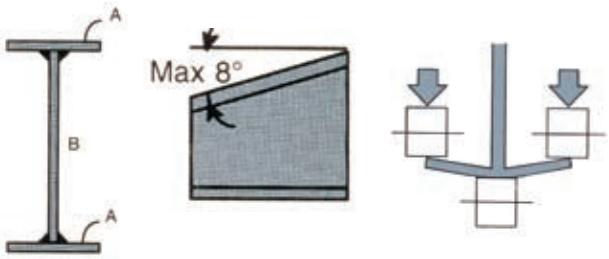
- *For production of various beams structures, such as I/H, box beams and non symmetrical design*
- *Floor space is minimized with single rail/wall support*
- *Longitudinal and transverse welding procedures*
- *Uses A6 welding heads, PEH process control and GMD joint tracking*

Beam Welding

Pull Through Beam Welders:
Welding head is stationary and beam is pulled through the station. Parts are automatically aligned and compressed, eliminating tacking. Tight fit-up ensures high weld quality. Models available for vertical or horizontal web.

IT 100, 258 and 3200 Web Vertical Pull Through Beam Welder

- *Both sides of flange welded simultaneously*
- *Built-in straightening device to compensate for pullback of the flanges*
- *Optional induction or gas heating equipment to ensure straight beams. Required for T beams*
- *Complete material handling systems available*
- *PLC controlled, uses A6 DC-AC tandem subarc heads on each side for high speed welding*
- *Specs:*
  IT 100: Web height max 1 m
  IT 258: Web height max 2.5 m
  IT 3200: Web height max 3.2 m



IT 2000 Web Horizontal Pull Through Beam Welder

- *Both flanges welded simultaneously*
- *Easy to install, no special foundation required*
- *Place two machines in line for continuous flow*
- *Infeed and outfeed conveyors available*
- *PLC controlled, uses A6 DC-AC tandem subarc heads on each side for high speed welding*
- *Specs:*
  Flange size: 100 – 700 mm;
  Beam height: 246 – 2200 mm

Welding Gantries

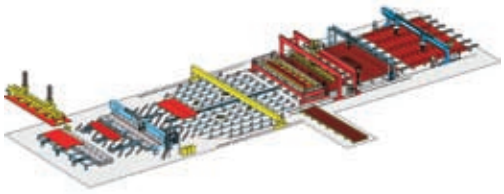
ESAB has a variety of gantry designs, most often customized for customer applications. Call ESAB for more information.

Gantrac
This gantry is rigid, and has dual drive system to ensure a uniform and stable welding speed. Operator controls welding process from platform mounted on one bogie carriage. Well proven A6 subarc heads are mounted on rack and pinion slides with long working range for easy access to various size work pieces. Automatic joint tracking ensures consistent welding quality. Heads can be rotated 90 degress for welding in horizontal direction, as well as 180 degrees for welding in the return direction. Flux feed and recovery system for continous welding, while reducing flux consumption and keeping the installation clean.

Stable gantry station with a width of 7000 mm for welding stainless steel railway wagon roofs
The joints are of the overlap type without prior tack welding. A pneumatic clamping device ensures that the plates are tightened to each other during the MIG welding procedure. An Aristo power source with pulsed welding sequences provides superior weld quality. An A2 welding head equipped with a durable water cooled torch is used to withstand the very grueling working conditions. Non-interrupted welding length of up to 30 m at a rapid welding speed is possible. The reverse speed is 10 m/min using efficient AC synchronic motors.

Sales Literature Welding Gantry, order number..... contact ESAB

Shipyard Applications



ESAB provides total panel line solutions for shipbuilding, from plate cutting and marking to assembly and material handling. Call for more information.

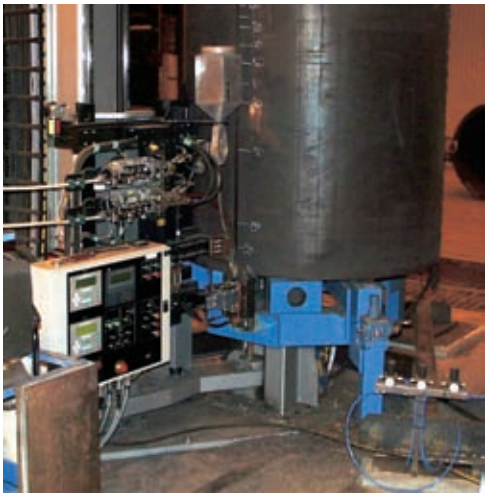
One Side Welder (OSW)
One side welding improves panel assembly efficiency by eliminating the need to rotate large panels. ESAB OSW uses vacuum clamping to securely hold plates in position during welding, without tackwelding. System uses ESAB A6 welding heads, and 3-wire subarc systems. Backing flux is automatically and accurately deposited on the water-cooled backup bar. Plates are fed through the OSW with infeed and outfeed tables with gripper conveyor system.

Stiffener Assembly and Welding
Stiffener assembly gantry positions and welds both sides of stiffener. Programmable stitch or continous. Gantry can carry dual stations (4 weld heads) for increased productivity. PLC controlled, uses A2 MIG welding components. Various designs and levels of automation are available.

Robot Vision Technology
Revolutionary solution for the welding robotized systems programming. A photographic scan system of the workpiece and an advanced software allow to program the movements of all the robot station, torch travels and welding parameters directly on the photo of the scanned workpiece.
And everything by the single “click” of the mouse.
It’s dedicated to plan pieces and panels.

Custom Welding Solutions

Roll Buildup and Hard Surfacing
Rototech 2000 is an integrated unit for surfacing of cylindrical objects, such as steel mill rolls. It uses a head and tailstock, with PLC controlled positioning equipment. Weld process can be plasma, MIG, subarc or strip cladding. Program variables include selectable bead placement style, carriage and rotation speed, bead width and overlap, oscillation speed and amplitude. Process variables are preset on the PEH welding control.



Electroslag Welding Machine
Machine for longitudinal welding of cylinders for the pulp industry. The picture shows a machine with the welded cylinder in the vertical position. The assembly is equipped with an inside-cooling support column for applying a cooling shoe to the closed joint of the upright cylinder. The machine permits the welding of plates with a thickness of 40-450 mm while using one to three electrode wires.

Pipemill Welding equipment, for Longitudinal and Spiral pipe mills
Equipment includes GMAW high speed, high current tacking equipment, internal booms with up to 4 weld heads, and external heads up to 6 wires. Advanced controls easily control and monitor the parameters of all wires. A wide range of ancillary equipment is available, including laser or mechanical guidance systems, flux delivery and recycling equipment, slag crushers, pipe handling lines and Weldoc™ monitoring software.
This equipment is designed for retrofit of existing mills as well as for new mills.

Lamp Pole Welder
Various systems available for tapered lamp pole welding. Photo shows single sheet formed pole, which is pulled through the welding station. Heavy guide rollers ensure a tight fitup at the seam. Joint tracking keeps the arc centered on the joint. Available with ESAB subarc or MIG equipment. Infeed and outfeed conveyors are also available.

Column and Boom station for welding dish ends in the chemical and petrochemical reactors market
The weld object, which is clamped to a positioner table is tilted during the weld operation. Integrated motions between the positioner and the boom-travelling welding head allow for constant welding speeds.
Station consists of NC controlled CaB 600 manipulator, 10x6 m column and boom; A6 submerged arc welding heads, and 50 ton positioner.

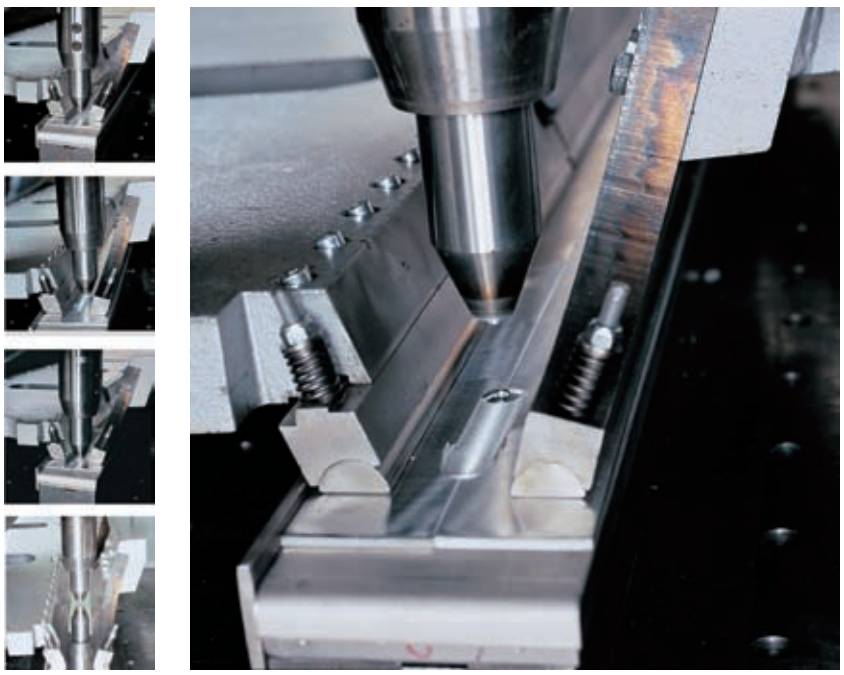
Multi-head gantry stations for the energy and process market
Welding heavy winch drums intended for the ship and offshore industry. The circumferential weld procedure utlizes twin-wire flux cored wire. The shell of the drum is joined at various lengths using butt joints. Simultaneously welded with two welding heads.
Dimension of object: Shell diameter max 3500 mm. Length of drum max 9300 mm. Wall thickness max 80 mm. The station comprises of the following: stationary gantry with two motorized carriages (each equipped with slide assemblies and special A6 welding heads), TV monitoring system for remote control from floor level and turning rolls for support and weld rotation.

Column and Boom station for welding turbines in the hydropower energy market
CNC-controlled welding manipulator with six programmable axes (teach in). Butt joining of the blades to the shaft of the turbine rotor. The complex 4 m longitudinal preparation is curved into three dimensions. The process is Twin-wire SAW. The working range of the manipulators is 2x4.3x2 m (HxLxW). The three remaining axes are integrated in the customized welding head.

Boiler Manufacturing Automation
ESAB offers a complete line of boiler equipment from tube-fin prefab machines, fin-bar and tube-to-tube machines, to complete membrane wall panel welding and finishing. Membrane welders can be moveable gantry or stationary pull-through systems. Multiple head A6 subarc welding is normally used. Photo shows stationary membrane welder.

Friction Stir Welding System

- *Friction Stir Welding (FSW) is based on the principal of obtaining a sufficiently high temperature and pressure to join two components together. This is done by using a rotating tool which under high pressure moves along the joint and thereby creates a weld*
- *FSW is ideal for joining straight profiles and flat plates from 1.2 to 30 mm. Butt, lap and corner joints can be welded. Round and circular welds can be welded with multiaxis machines*
- *Metals that can be welded include aluminum, copper and magnesium. It is also possible to weld dissimilar alloys and dissimilar materials such as copper to aluminum, magnesium to aluminum*
- *Advantages of FSW include:*
  - *Much higher weld strength than conventional arc welding*
  - *Very low distortion and shrinkage*
  - *No joint preparation- only degreasing is required*
  - *Environmentally friendly- no fumes, arc glare, spatter or noise*
  - *Extremely reliable process- expect year after year of defect free welds*
- *Suitable applications include:*
  - *Aluminum production of large extrusions, large panels, girders and trusses, such as used in fast ferries, ships, offshore living quarters and railway wagons*
  - *Aerospace, such as rocket fuel tanks, aircraft structures and components*
  - *Production of cooling blocks, coolers and housings for electrical motors*
  - *Aluminum in automotive applications, such as frame components, seats and cooling components*
  - *Leisure vehicle aluminum frames and components*
  - *Improvement of material in high stress areas, such as edges on diesel pistons*
  - *Production of panels with stiffeners in 5000-series aluminum*
  - *Joining of dissimilar alloys and metals, such as copper to aluminum*



ESAB is the world leader for commercial installations of Friction Stir Welding machines

LegioTM Friction Stir Welder

The ESAB LEGIO™ concept combines the latest technology with proven quality. The modular system makes it possible to assemble welding stations to suit the most varied Friction Stir Welding applications.

The LEGIO™ system consists of five basic designs in a series of seven sizes, covering a welding depth of 1.2 mm to 60 mm. These basic types can be supplemented with different types of equipment to suit the most varied production needs and give maximum flexibility to any production line.

The versatile Legio family includes linear motion with single or dual (over /under) heads, with or without tables. Dual axis(x – y) model is available with or without table. Tables include a hole pattern for attaching fixtures.

Legio includes ESAB HMI control specifically designed for Friction Stir Welding. It is a closed loop welding control, including the ability to control the Z axis either by pressure or position. PC network connections and data transfer options are available

LEGIO™ Modular Friction Stir Welder

Super Stir™ Friction Stir Welder

The ESAB SuperStir™ program includes a variety of machines developed from a standarized ESABSuperStir™ base unit and with working ranges of 0.5x1.5 m up to 10x20 m within the same concept.

The program includes customized models of various designs for specific customer requirements in different production areas.

These different designs are used worldwide in R&D centers for joining of extrusions to panels, in production of pressure vessels as well as small parts for the automotive and electronic industries.

Installation of a SuperStir at DanStir ApS, Copenhagen, Denmark

Sales Literature LEGIO, order number XA00117820
Sales Literature SuperStir, order number XA00098320

Narrow Gap Welding

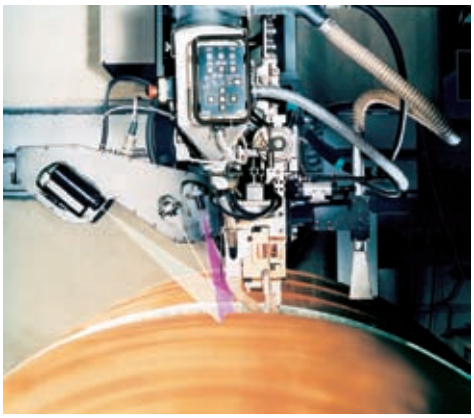
- *Highly mechanized multi-run system technology for heavy walled work pieces*
- *Continuous welding process requires little or no operator input*
- *Achieve high quality welds with accuracy and repeatability*
- *ESAB offers four different "state of the art" systems: HNG-S, HNG-T, FANG, and ABW*

HNG-S and HNG-T

- *For joint depths up to 350 mm*
- *Employs Programmable Logic Welding control for simple handling of different joint configurations*
- *Features: Automatic 2-axis joint tracking and shift function for automatic fill*
- *Ideal for pressure vessel manufacturing*

FANG

- *Fully automated longitudinal and circumferential seam welding*
- *Features: Automatic bead placement and uniform fill functions*
- *Ideal for continuous mass production of products, such as heavy wall, offshore structural pipes*



ABW

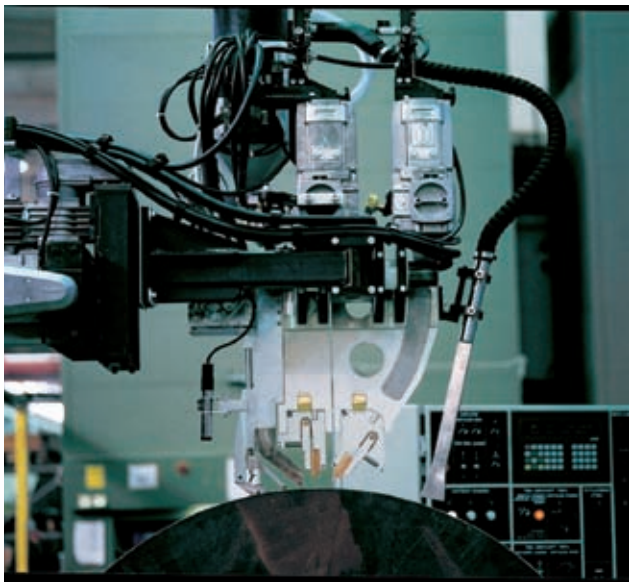
- *Fully automatic and adaptive welding for any kind of butt joint*
- *Features: Excellent adaptive function capable of handling joint gap or mismatch deviations along the joint line*
- *Available in single and tandem wire versions*

Sales Literature Narrow Gap Systems- HNG, order number XA00080520
Sales Literature Narrow Gap Systems- ABW, order number XA00048320
Sales Literature Narrow Gap Systems- FANG, order number.....XA00055820

Narrow Gap System- HNG

Fully automatic Submerged Arc Welding

- *Automatic welding process based on two runs-per-layer technology*
- *Equipment available for both single wire (HNG-S) and tandem wire (HNG-T) applications*
- *Operate with joint gaps ranging from 18-24 mm for single and > 20 mm for tandem*
- *Welding defects such as lack of fusion, undercut, and slag entrapment are eliminated*
- *Produces a perfect seam shape and surface finish (smooth blending with side walls and excellent self-releasing action)*
- *Improved weld metal and heat-affected zone toughness*
- *Can be integrated with ESAB's CaB and turning roll units*
- *Achieve precise and accurate bead placement with two-axis joint tracking system*
- *System includes all required hardware, software, and programming information for automatic joint tracking and bead placement*



Ordering Information

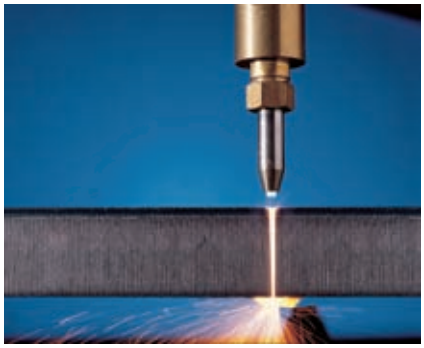
Contact ESAB

Technical Data	
Wire dimension, mm	3-4
Wire feed motor, A6-VEC	312:1
Wire feed speed, m/min	4
Welding current, A	Max. 1x800 / 2x800
Beads per layer	2
Electrode angular setting	Max ± 3.5 °
Flux hopper capacity, litres	9.5
Air consumption, Nm^3/min	0.35 a 6 Kp / cm^3
Working range - Slide Assembly	
Horizontal, mm	300
Vertical, mm	420
Weight, kg	
HNG-S	140
HNG-T	165

Sales Literature Narrow Gap Systems- HNG, order number XA00080520
Sales Literature Narrow Gap Systems- ABW, order number XA00048320
Sales Literature Narrow Gap Systems- FANG, order number XA00055820

Cutting processes

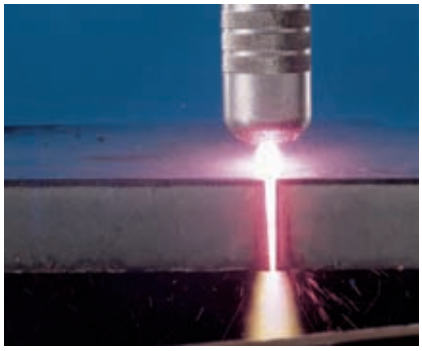
Almost seventy years' experience of cutting and responding to customers' needs have resulted in an extensive range of products to meet profile cutting applications. Based around the four methods of oxy-fuel cutting, plasma cutting, laser cutting and water jet cutting, ESAB has developed a range of machines that deliver better cut quality, higher cutting speeds, lower operating costs and integration into automated production methods.



Oxy-Cutting

Oxycutting is the most commonly used process for thicker mild / low alloy steel and large dimension plates from 3 mm to 500 mm. ESAB has unrivalled experience in this process and new improvements are continuously introduced.

- *Cooljet burner, cooling the cutting chamber while piercing and providing longer consumable life times*
- *Flame check control and monitoring giving all necessary information back to the numerical control on the status of the cutting process in real time.*
- *The new "Cutting parameters" option within the NCE automatically adjusts all of the parameters according to the plate thickness*



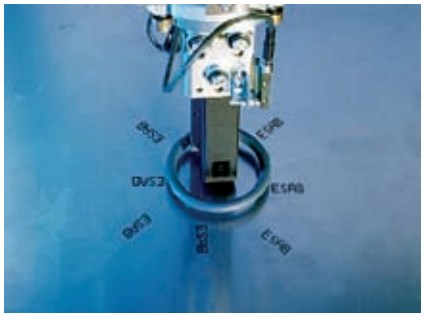
Plasma

The plasma cutting process is suitable for conductive metals and produces high cutting speeds in metals up to 50 mm. With larger power sources of up to 1,000 amp, stainless steel and aluminium can be cut up to 150 mm thickness. For over 40 years ESAB has pioneered the plasma technology and now has many thousands of installations. The design philosophy is to go towards unmanned production with control of all cutting parameters from SDP files in the numerical control in order to:

- *Provide operator independent cut quality*
- *Consistent high quality parts*
- *Reduce need for skilled labour*
- *Reduce set up time between different plates*

Laser

The 3 kW, 4kW, 5 kW or 6 kW CO_2 laser system is a very flexible tool. The advantages are cutting up to 25 mm and marking with the same tool, high process speed, very small kerf, minimum heat distortion, very high accuracy.



Marking

In combination with cutting processes ESAB has delivered many different types ofequipment to meet the varied applications for lines and text marking. The automation of these marking applications can give considerable benefits and cost savings.

- *Plasma marking - Line width from 0.6 mm up to 3 mm depending on the current. The biggest advantage is the marking speed up to 18 m/min, the immediate start and the permanent mark on the material.*
- *Inkjet marking - Provides the fastest marking solution and is able to mark line, text and bar codes in different fonts.*
- *Pen marking - Utilised on stainless steel surfaces for lettering and marking where the surface should remain undamaged.*
- *Punch marking - Offers an alternative marking solution when the plate must be drilled. This device is equipped with a pneumatic hammer unit.*

Bevelling

ESAB has developed a variety of beveling tools for the welding edge preparation:

- *Oxy-triple-torch - Provides a V-X-Y-K bevel in up to 75 mm mild steel plate thickness. Three devices are available for longitudinal cutting, ± 90° rotating, endless rotating with tangential control for shape cutting and endless rotating and lateral angle adjustment.*
- *Plasma bevelling - Offers the fastest bevelling cutting tool, whilst providing accurate V cuts from ± 45°. This device has an endless rotating head and can be equipped with dry or underwater plasma. The angle can be automatically adjusted while cutting.*
- *Laser bevelling - Provides the most precise bevelling cut due to the high quality of the laser beam. The angle can be automatically adjusted to ± 45°.*

ESAB Precision Plasma

- *Precision plasma cutting with a new dimension.*
- *Precision and high speed cutting for material thickness up to 50 mm.*
- *Different configuration options providing you with an enormous flexibility when selecting your individual cutting solution.*

m3plasma (200-400-600) Amp
New dimensions in Plasma Cutting
m3plasma represents ESAB's exclusive system solution in a cutting range between 1 and 150 mm which accounts for your full-service approach. Supply reliability, precision as well as flexibility and speed are your major targets. Solutions with a minimum administrative expense – as regards configuration, operation and maintenance – are decisive for your success. The low number of wear parts for the entire production range of m3plasma is unique. For instance, for material thicknesses from 2 to 40 mm no more than two nozzles and one electrode are needed.
This equipment can also be used for plasma marking.
Owing to its new torch design and the revolutionary gas control system, m3plasma achieves extraordinary cutting results throughout the wear parts' service life.

Plasma VBA-Wrist
Our innovative VBA-Wrist is used for precise and variable bevel and profile cutting of three-dimensional parts such as pipes, dished boiler ends, profile sections and plates.
A plasma torch is moved in five axes by program-controlled AC motors. In combination with ESAB Vision control, extremely small bevel tolerances can be guaranteed.
The function of VBA-Wrist follows a completely new, patented principle. In contrast to conventional systems, the tool center point (TCP) remains fixed in space during swivelling. The compact VBA-Wrist combines high accuracy with high stiffness and adapts perfectly to every cutting task.
The integration of VBA-Wrist into the CNC machine system allows for an uncomplicated control of bevel cutting. The cutting parameters are automatically set for various material thicknesses and bevel angles and thus significantly facilitate programming.

Plasma VBA-Expert Pro
The plasma VBA-Expert Pro is used to accurately bevel cut plate material, and is fully programmable to cut parts that have both bevel and straight cuts.
A single plasma torch is controlled via servo motors in three axes: tilt, rotation and vertical height. The system automatically switches between a high accuracy tactile height sensor and Arc Voltage Height Control to provide the most accurate bevel tolerance, while allowing for fully program controlled, bevel and straight cutting.
The integration of ESAB's Plasma Flow Control, CNC and bevel systems, allows unequalled control of bevel cutting. Cutting parameters such as speed, kerf and tilt angles are automatically adjusted for various material thickness and bevel angles, thus greatly simplifying part programming.

Numerical Controls, Offline Programming

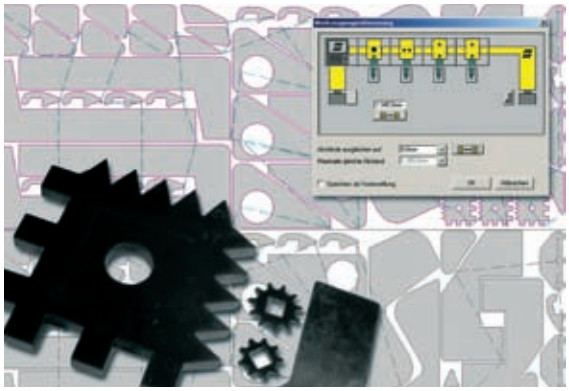
Numerical Controls

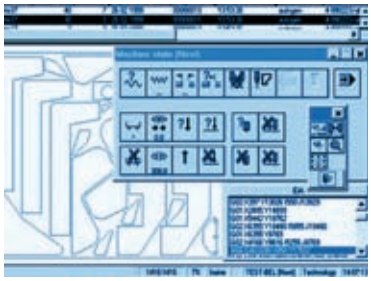
ESAB has developed a family of numerical controls including the NCE 620, Vision 55 and Vision PC. The controls are based on over 60 years of experience and all cutting parameters are adjusted and controlled by the NCE.
The bus wiring system reduces the wiring requirements thereby reducing the chance of machine breakdowns and simplifying later machine enhancements.
The fault diagnostic tools to investigate errors are efficient and offer fast problem solving and links to modem support. The ESAB Numerical Controls are powerful, functional and easy to use with 4 key steps:

1) Loading of the program
2) Localisation of the cut
3) Selection of the process directly by the NCE
4) Selection of the carriage - cut.

Offline Programming

COLUMBUS is ESAB's powerful offline software programming system. COLUMBUS includes all functionality required to import or draw parts, optimize the plate and to insert automatically special features relating to the cutting technologies and then to generate a NCE file that is needed at the machine. The consistent, modular structure of COLUMBUS enables the best adaptation to your requirements.





ULTRAREX UXC, ULTRAREX UXL-P, E-VENT

Easy service and maintenance

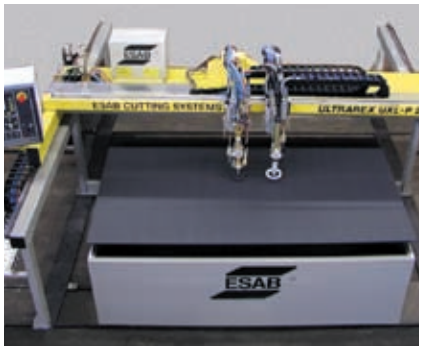
The machines are designed with a high build quality to give you many years of cutting life. The high reliability and low maintenance are assisted by:

- *Comprehensive machine diagnostics*
- *Ability to link machines to modem service doctor*
- *Plug and play replacement parts*
- *Easy access to major components*
- *Comprehensive documentation and instruction manuals*

ULTRAREX UXC

A cantilever coordinate drive profile cutting machine. This is the ideal machine for small and flexible production with up 2 meters plate width. Simply draw your shape on the paper, put it under the tracing head and cut.

- *Easy to install and to operate*
- *Oxycutting and small plasma unit up to 50 – 100 amps can be installed*
- *This machine offers expansion from optical control to full computer control in three easy steps: tracing head - NCE - offline programming*



ULTRAREX UXL-P

The UXL-P machine is a versatile portal type CNC machine designed specifically for flexible production and can be used for both plasma and oxyfuel cutting.

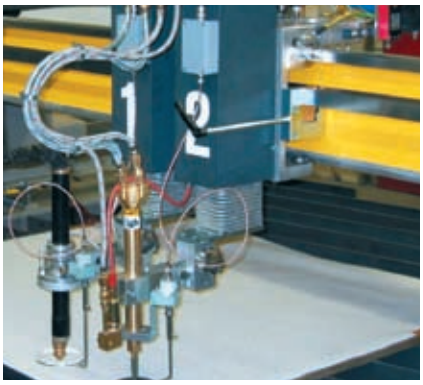
- *Cutting width – up to 2 meters*
- *Cutting capacity up to 50 mm with an oxytorch burner*
- *Cutting capacity up to 16 mm with a plasma unit*
- *Allows two automated carriages to be installed*
- *Automation features are installed such as the automatic height control, automatic ignition and piercing to give optimum cut quality*
- *The numerical control offers easy operator programming via standard shapes or can be connected to the off line system COLUMBUS, via DNC or disk, reducing the down time of the machine*

E – VENT

The new machine concept E-Vent stands for more Flexibility and Productivity on small machinery area. This special developed plasma cutting system for Heating-Ventilation, Clime and the isolation branches. E-Vent is fast installed, easy to use, complete equipped and immediately ready to use.

- *Cutting with: 1500 mm*
- *Cutting lenght: 3000 mm*
- *Cutting speed: up to 20000 mm/min (depending on material)*
- *Maximal thicknesses: up to 8 mm*
- *Control unit: Vision LE*
- *Plasma source: 50 Amp*
- *Control unit: Vision LE*

COMBIREX CXL-P, EAGLE



High Efficiency and productivity

High efficiency and productivity are provided by many unique features and including:

- *High speed torch raise and lower*
- *Patented pre-flow and pre-switch of plasma gases*
- *Cutting, contouring and positioning speed of up to 30 m/min*
- *Minimized set up time between different materials and thicknesses*
- *Multiple pre-defined cutting areas*
- *Pentium based processing power of CNC control*

COMBIREX CXL-P

The CXL – P is a modular designed CNC controlled portal cutting machine. The rugged machine can be equipped with high-speed plasma cutting or and oxyfuel cutting; making it a highly flexible production tool. The Combirex CXL-P can be configured in three sizes to meet your exact plate width requirements of 2000 mm, 2500 mm or 3000 mm. The lenght of the machine can be extended from the basic 5000 mm in 1000 mm rail extensions. The machine can be configured with up to four cutting tools and the modular design ensures that the machine can be easily upgraded with extra cutting tools if your requirement changes in the future.

- *Working speed up to 20 m/min*
- *Cutting width up to 3 m*
- *Cutting thickness up to 150 mm*
- *Applications: oxycutting, plasma, plasma marking tools for fully automated processes*

EAGLE

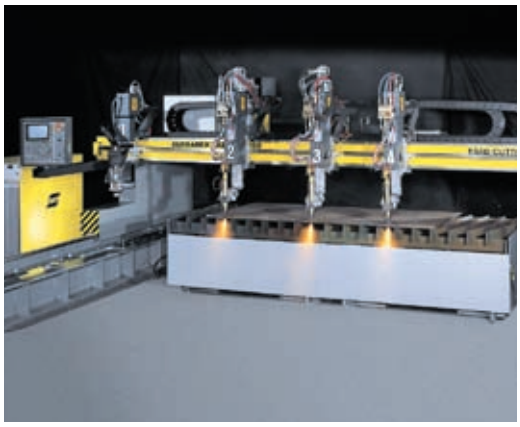
The EAGLE machine is designed specifically for precision plasma applications over a large range of plate sizes. The design incorporates many features for improved utilisation and efficient plate handling. It also incorporates all the modern designs and technology advances to enable the customer to cut parts at the cheapest price with the highest quality. ESAB´s latest technologies such as the SRHISS, and anticollision system are all included as standard.

- *Cutting width up to 3.5 meters*
- *Automatic cutting parameters according to plate thickness*
- *Working speed up to 30 m/min*
- *High acceleration*

SUPRAREX SXE-P SERIES

High performance - Heavy duty

- *The modular design of the SUPRAREX portal cutting system means that it can be adapted perfectly to meet our customers needs. This guarantees an optimum price to performance ratio.*
- *The SUPRAREX can be supplied in three types. These differ in the dimensions of the portal beam, the size of the working area and the type and complexity of the cutting tools.*
- *Double drive systems with a positional speed of 20.000 mm/min are standard for the entire SUPRAREX range.*



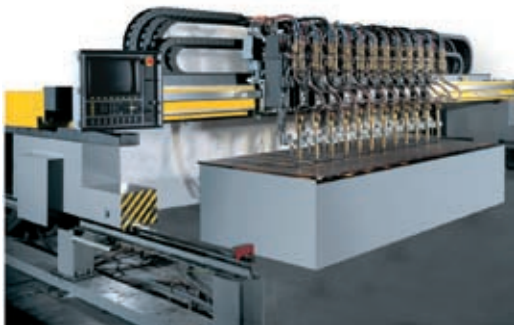
SUPRAREX SXE-P 1

The SUPRAREX SXE-P 1 is a heavy duty modular, high performance portal CNC machine, that can be adapted perfectly to meet the customers exact requirements. It provides high accuracy from its precise drives and strong beam design. This also gives it the flexibility to adapt to the different processes of oxycutting, plasma and marking.

- *Working speed up to 20 m/min*
- *Width up to 4,500 mm*
- *Carriages SXE-P 1: up to 6; SXE-P 2: up to 8*
- *Applications: oxycutting, plasma, plasma marking tools for fully automated processes*
- *Automation: automatic carriage positioning, automatic flame ignition, automatic height control, automatic gas adjustment and control*

SUPRAREX SXE-P 2

The SUPRAREX SXE-P 2 is based on the same modular concept of functionality, efficiency and quality as the SXE-P 1. The advantages are high flexibility for the solution of customer specific requirements. The SXE-P 2 is recommended for heavy tools, under water or dry plasma cutting requirements and offers a large width of up to 5,500 mm.



SUPRAREX SXE-P 3

The SUPRAREX SXE-P 3 is required for large cutting widths up to 8,000 mm. The strength of the beam can handle most cutting processes, even oxycutting thickness up to 500 mm.
This machine is designed for multishift operations and minimum operator presence ensuring an excellent return on investment.

NUMOREX NXB, TELEREX TXB, ALPHAREX AXD

NUMOREX NXB

The NUMOREX is a heavy duty large portal machine designed to work in extreme conditions and automatically enable cutting and marking operations to consistently and reliably work to the highest standards.

- *Working speed up to 24 m/min*
- *Width up to 8,500 mm*
- *Heavy tools: plasma bevelling head, oxybevelling head with endless rotating and angle adjustment, multitool/process carriage operated automatically.*

TELEREX TXB

The TELEREX portal CNC machine offers extensive scope for flexibility with up to 32 meters in width, customized equipment and extensive carriage options.

- *Width up to 32.000 mm*
- *Heavy tools*
- *Specific tools: Shot blasting, grinding devices, plasma marking units, plasma or oxycutting bevelling heads.*

ALPHAREX AXD

The ALPHAREX machine is a large laser machine capable of delivering consistent laser quality on the largest plates. The resonator laser source is integrated on the top of gantry providing a cutting width of up to 5 meters and an almost unrestricted length.
Specially developed straight laser cutting heads or bevelling heads enable the production of all different shapes and welding joint preparation, with the highest accuracy.

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The ESAB range of products

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Welding Automation

Welding Machines

Welding Consumables

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ISO 9001:2000

ISO 14001 WORLDWIDE

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