

ESAB Handling Equipment

Asia Pacific
3rd Edition



Contents

Column & Boom.....	3
Column & Boom	
HC 2020, 4040, 5050, 6060, 7070	4
Roller Beds.....	6
Fit Up Roll	
ZD-YG-35, ZD-YG-75 & ZD-YG-100	7
Fit Up System	
ZD-30-DB, ZD-30-IB Beds.....	8
Fit Up Beds	
ZD-T-30 & ZD-T-60	9
Conventional Roller Beds	
GK05, 10, 20, 40, 60, 80, 100	10
Positioner	12
3-Axis Positioners.....	13
2-Axis Positioners.....	14
Turn Table	
TT05-S, TT10-S, TT20-S, TT50-S, TT100-S	16
ICE™	17
ICE™	18
Welding Heads.....	20
A2S Mini master	21
A6S Arc Master	22
A6 SFE2 Tandem Welding Heads	23
A6S Compact Welding Heads	24
A6S SAW Strip Cladding Head.....	25
A6S Electroslag Strip Cladding	26

Column & Boom

Column & Boom

HC 2020, 4040, 5050, 6060, 7070

The Column & Boom HC2020 4040, 5050, 6060 and 7070 are purposely designed and robustly built to withstand the rugged environment in the welding industry.

- A smooth 360-degree column rotation.
- Solid-state inverter with variable speed on horizontal boom travel and travel carriage.
- High tensile roller chain used for vertical travel with the addition of a counter balance system with the column that provides smooth effortless travel.
- IP 54 pendant control station using low voltage on the generous 10 metre cable.

- A standard safety feature includes anti-fall device and limit switches for all motions.
- Remain interface, can be integrated with roller bed for welding application.

Applications

- Wind Tower Fabrication
- Pressure Vessels
- Profiles

Technical data	HC2020A-FB-MHD	HC2020A-TCM-MHD	HC4040A-FB-VHD	HC4040A-TCM-VHD
Loading capacity at end, kg	300	300	300	300
Vertical speed , mm/min	1000	1000	1000	1000
Vertical motor, kW	0.75	0.75	1.5	1.5
Boom (bottom) height range, mm	750-2000	750-2000	850-4000	850-4000
Boom moving stroke, mm	2000	2000	4000	4000
Boom speed, mm/min@5-50Hz	120-1200	120-1200	120-1200	120-1200
Boom motor, kW	0.25	0.25	0.37	0.37
Travel speed, mm/min@5-50Hz	/	200-2000	/	200-2000
Travel motor, kW	/	0.4	/	2*0.25
Control means	via push button	via push button	via push button	via push button
Pendant cable length, m	10	10	10	10
Operator chair	N	N	N (option)	N (option)
Welding controller bracket (PEK&GMH)	Y	Y	Y	Y
Mounting bracket	Y	Y	Y	Y
Wire reel bracket	Y	Y	Y	Y
Power source bracket	Y	Y	Y	Y
Base type	Fixed	Motorized	Fixed	Motorized
Slewing type	Manual, +/-180deg	Manual, +/-180deg	Motorized, +/-180deg	Motorized, +/-180deg
Locking type	Manual	Manual	Manual	Manual
Travel car gauge	/	Rail G-G 1250mm	/	Rail G-G 1730mm
Incoming power supply	380/400/415V -50Hz/3ph 440/460/480V -60Hz/3ph	380/400/415V -50Hz/3ph 440/460/480V -60Hz/3ph	380/400/415V -50Hz/3ph 440/460/480V -60Hz/3ph	380/400/415V -50Hz/3ph 440/460/480V -60Hz/3ph
IP rating	IP54	IP54	IP54	IP54
Estimated weight, kg	2000	2500	3650	4100
PEK kits	space for I/O board	space for I/O board	space for I/O board	space for I/O board
Sync kits	N	N	N	N
CE compliance	Y	Y	Y	Y
Control voltage, V	24	24	24	24

Ordering Information

HC2020A-FB-MHD	W370 250 605
HC2020A-TCM-MHD	W370 250 585
HC4040A-FB-VHD	W370 250 606
HC4040A-TCM-VHD	W370 250 601
HC5050A-FB-VHD	W370 250 607
HC5050A-TCM-VHD	W370 250 602
HC6060B-FB-VHD	W370 250 608
HC6060B-TCM-VHD	W370 250 603
HC7070B-FB-VHD	W370 250 609
HC7070B-TCM-VHD	W370 250 604

Options & Accessories

Operator Chair	WE03 032 222
----------------	--------------



HC5050A-FB-VHD	HC5050A-TCM-VHD	HC6060B-FB-VHD	HC6060B-TCM-VHD	HC7070B-FB-VHD	HC7070B-TCM-VHD
250	250	300	300	250	250
1000	1000	1000	1000	1000	1000
1.5	1.5	2.2	2.2	2.2	2.2
900-5000	900-5000	1000-6000	1000-6000	1000-7000	1000-7000
5000	5000	6000	6000	7000	7000
120-1200	120-1200	120-1200	120-1200	120-1200	120-1200
0.37	0.37	0.55	0.55	0.55	0.55
/	200-2000	/	200-2000	/	200-2000
/	2*0.4	/	2*0.4	/	2*0.4
via push button	via push button	via push button	via push button	via push button	via push button
10	10	10	10	10	10
N (option)	N (option)	N (option)	N (option)	N (option)	N (option)
Y	Y	Y	Y	Y	Y
Y	Y	Y	Y	Y	Y
Y	Y	Y	Y	Y	Y
Fixed	Motorized	Fixed	Motorized	Fixed	Motorized
Motorized, +/-180deg	Motorized, +/-180deg	Motorized, +/-180deg	Motorized, +/-180deg	Motorized, +/-180deg	Motorized, +/-180deg
Manual	Manual	Pneumatic	Pneumatic	Pneumatic	Pneumatic
/	Rail G-G 2000mm	/	Rail G-G 2000mm		Rail G-G 2500mm
380/400/415V -50Hz/3ph 440/460/480V -60Hz/3ph	380/400/415V -50Hz/3ph 440/460/480V -60Hz/3ph	380/400/415V -50Hz/3ph 440/460/480V -60Hz/3ph	380/400/415V -50Hz/3ph 440/460/480V -60Hz/3ph	380/400/415V -50Hz/3ph 440/460/480V -60Hz/3ph	380/400/415V -50Hz/3ph 440/460/480V -60Hz/3ph
IP54	IP54	IP54	IP54	IP54	IP54
4900	5200	6700	7000	7700	8000
space for I/O board	space for I/O board	space for I/O board	space for I/O board	space for I/O board	space for I/O board
N	N	N	N	N	N
Y	Y	Y	Y	Y	Y
24	24	24	24	24	24



Roller Beds

Fit Up Roll

ZD-YG-35, ZD-YG-75 & ZD-YG-100

ZD-YG-35, ZD-YG-75 and ZD-YG-100 are part of a growing line and used especially in wind tower production. Standard loading capacity from 35, 75 and 100 tonnes respectively.

- The ZD-YG series is purposely designed and robustly built to withstand the rugged environment in the welding industry.
- This unit is part of a growing line and used in wind-tower, pile and vessel position.
- ZD-YG has four independently adjustable rollers to align the can with each other and two cross rollers.
- To lift up the section for out conveying the workpiece.



Applications

- Wind Tower Fabrication
- Pressure Vessels
- Profiles

Ordering Information

ZD-YG-35	W370 250 934
ZD-YG-75	W370 250 935
ZD-YG-100	W370 250 936



Technical data	ZD-YG-35	ZD-YG-75	ZD-YG-100
Load capacity	35 Metric Ton	75 Metric Ton	100 Metric Ton
Vessel size (min) diameter, mm	Ø2200	Ø2000	Ø2000
Vessel size (max) diameter, mm	Ø5000	Ø6000	Ø6000
Tire type steel, mm	Ø300	Ø300	Ø300
Control voltage, V AC	24	24	24
Roller distance, mm	1200-1600	900-1900	900-1900
Power supply voltage	380/400/415V-3P-50Hz 440/460/480V-3P-60Hz	380/400/415V-3P-50Hz 440/460/480V-3P-60Hz	380/400/415V-3P-50Hz 440/460/480V-3P-60Hz
IP classification	IP 54	IP 54	IP 54
Control Pendant via Push Button	10m cable	10m cable	10m cable
Power Pack Rating, KW	3.0	5.5	5.5
Pump	3.2 cc	5.5 cc	5.5 cc
Tank Capacity	60 Litres	90 Litres	90 Litres
Cylinder A Stroke Length, mm	Ø125 x 160 x 2	Ø150 x 85 x 160 x 2	Ø180 x 160 x 2
Cylinder B Stroke Length, mm	Ø100 x 210 x 4	Ø150 x 85 x 350 x 4	Ø180 x 400 x 4
Cylinder C Stroke Length, mm	Ø150 x 300	Ø150 x 85 x 300	Ø180 x 300
Dimension (LxWxH), mm	2327/1600/1151	2680/1600/1329	2790/1480/1180
Net Weight, kg	4850	8400	9000

Fit Up System

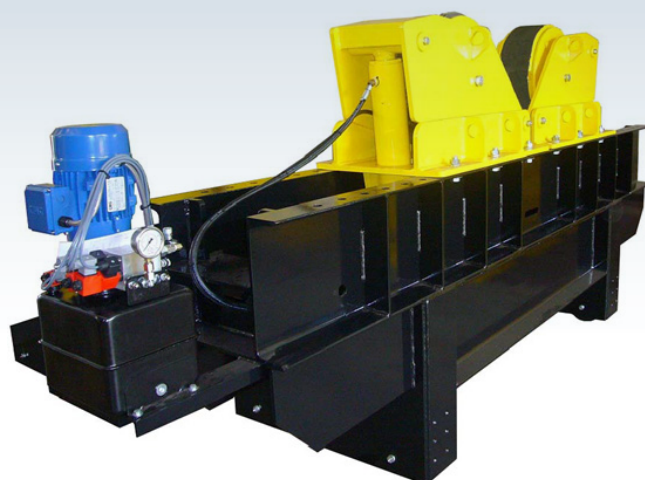
ZD-30-DB, ZD-30-IB Beds

The ZD series is designed and built to withstand the rugged environment in the welding industry.

- This unit can be used independently for alignment purposes, mainly used for fitting up applications.
- ZD has two independatly adjustable rollers.
- The ZD can be delivered with or without rail bogie.

Applications

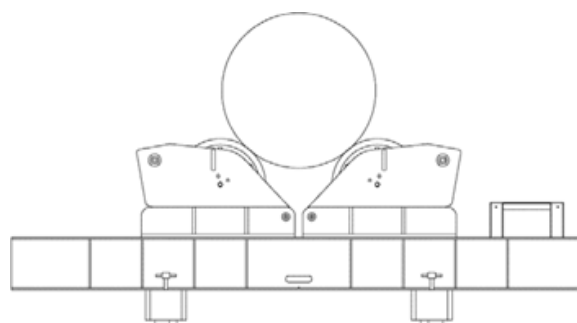
- Vessels
- Wind Tower
- Pipe Mill



Ordering Information

ZD-30-DB
ZD-30-IB

W370 250 575
W370 250 919



Technical data	ZD-30-DB	ZD-30-IB
Loading capacity, t	15	15
Traveling speed, mm/min@50Hz	3000	Manual
Traveling power, KW	2*0.75	/
Bogie locking type	Motor brake	Manual
Travel car gauge	Rail G-G 1730mm/2000mm	Rail G-G 1730mm/2000mm
Roller material	PU	PU
Roller diameter, mm	Ø520	Ø520
Vessel size(min), mm	Ø1000	Ø1000
Vessel size(max), mm	Ø5000	Ø5000
Control means	via push button	via push button
Pendant cable length, m	10	10
Incoming power supply	380/400/415V-50Hz/3Ph or 440/460/480V-60Hz/3Ph	380/400/415V-50Hz/3Ph or 440/460/480V-60Hz/3Ph
IP rating	IP54	IP54
CE compliance	Y	Y
Control voltage, V	24	24
Pump power, KW	1.5	1.5

Fit Up Beds

ZD-T-30 & ZD-T-60

- The ZD-T series is designed and built to withstand the rugged environment in the welding industry.
- Efficient system to assemble 1+1 CAN.
- One set of ZD-T consist of one power and idler roller bed, four independently adjusted rollers to align the two can with each other.
- The roller bed and the rollers are all mounted on one main frame.



Applications

- Vessels
- Wind Tower
- Pipe Mill

Ordering Information

ZD-T-30	W370 250 931
ZD-T-60	W370 250 932

Options & Accessories

PEK cable 15m	WE02 520 046
PEK cable 25m	WE02 520 007
PEK cable 35m	WE02 520 047
PEK cable 50m	WE02 520 048

Technical data	ZD-T-30				ZD-T-60			
Contain	Driving roller bed	idler roller bed	Fit up bed 1	Fit up bed 2	Driving roller bed	idler roller bed	Fit up bed 1	Fit up bed 2
Loading capacity, t	15	15	7.5	7.5	30	30	15	15
Turning capacity	30t	/	/	/	60t	/	/	/
Roller speed, mm/min@5-50Hz	100-1000	/	/	/	100-1000	/	/	/
Driving power, KW	2*1.1	/	/	/	2*1.5	/	/	/
Roller material	PU				PU			
Roller diameter, mm	Ø350*240		Ø350*180		Ø450*300		Ø450*180	
Vessel size(min), mm	Ø1000				Ø1000			
Vessel size(max), mm	Ø3800				Ø4800			
Traveling power, KW	2*0.75	Manual	Manual	Fixed	2*1.1	Manual	Manual	Fixed
Traveling speed, mm/min@50Hz	3000	/	/	/	3000	/	/	/
Travel car gauge	Rail G-G 1300mm			/	"Rail G-G 2000mm			/
Pump packpower, KW	/		2.2		/		3.0	
Rating pressure, MPa	/		20		/		20	
Rail length	6m*2pcs				12m*2pcs			
Control means	via push button				via push button			
Pendant cable length, m	10				10			
Incoming power supply	380/400/415V-50Hz/3Ph or 440/460/480V-60Hz/3Ph				380/400/415V-50Hz/3Ph or 440/460/480V-60Hz/3Ph			
IP rating	IP54				IP54			
PEK kits	Y	/			Y	/		
Sync kits	Y	/			Y	/		
CE compliance	Y				Y			
Control voltage, V	24				24			

Conventional Roller Beds

GK05, 10, 20, 40, 60, 80, 100

- Robust design with durable rollers.
- Grit blasted steelwork with polyurethane finished coating to endure abrasive environment.
- Special formulated high-load polyurethane tyre design for high wear resistance.
- Cast steel gearbox with double worm gear arrangement for smooth operation and minimum backlash.
- Solid state inverter for precise speed control.
- Motorised and Idler rail Bogie are options available.



Applications

- Wind Tower Fabrication
- Offshore and Shipyards
- Pressure Vessels
- Pipe Lines

Technical data	GK05D	GK05I	GK10D	GK10I	GK20D	GK20I
Loading capacity, t	2.5	2.5	5	5	10	10
Turning capacity	5t	/	10t	/	20t	/
Roller speed, mm/min@5-50Hz	100-1000	/	100-1000	/	100-1000	/
Driving power, KW	2*0.37	/	2*0.55	/	2*0.75	/
Roller material	PU	PU	PU	PU	PU	PU
Roller diameter, mm	Φ250	Φ250	Φ300	Φ300	Φ350	Φ350
Vessel size(min), mm	Φ250@68.1deg	Φ250@68.1deg	Φ300@62.2deg	Φ300@62.2deg	Φ300@76deg	Φ300@76deg
Vessel size(max), mm	Φ2300 @50.1deg	Φ2300 @50.1deg	Φ2800 @51.6deg	Φ2800 @51.6deg	Φ4000 @50.3deg	Φ4000 @50.3deg
Control means	via push button	/	via push button	/	via push button	/
Pendant cable length, m	10	/	10	/	10	/
Incoming power supply	380/400/415V -50Hz/3ph 440/460/480V -60Hz/3ph	/	380/400/415V -50Hz/3ph 440/460/480V -60Hz/3ph	/	380/400/415V -50Hz/3ph 440/460/480V -60Hz/3ph	/
IP rating	IP54	IP54	IP54	IP54	IP54	IP54
PEK kits	Y	/	Y	/	Y	/
Sync kits	Y	/	Y	/	Y	/
CE compliance	Y	Y	Y	Y	Y	Y
Control voltage, V	24	/	24	/	24	/
Estimated weight, kg	265	175	560	430	730	470

Ordering Information

GK05D	W370 250 000
GK05I	W370 250 001
GK10D	W370 250 002
GK10I	W370 250 003
GK20D	W370 250 004
GK20I	W370 250 005
GK40D	W370 250 006
GK40I	W370 250 007
GK60D	W370 250 008
GK60I	W370 250 009
GK80D	W370 250 010
GK80I	W370 250 011
GK100D	W370 250 012
GK100I	W370 250 013

Options & Accessories

PEK cable 15m	WE02 520 046
PEK cable 25m	WE02 520 007
PEK cable 35m	WE02 520 047
PEK cable 50m	WE02 520 048
Synchronizing cable 15m	WE02 520 053
Synchronizing cable 35m	WE02 520 054

GK40D	GK40I	GK60D	GK60I	GK80D	GK80I	GK100D	GK100I
20	20	30	30	40	40	50	50
40t	/	60t	/	80t	/	100t	/
100-1000	/	100-1000	/	100-1000	/	100-1000	/
2*1.5	/	2*1.5	/	2*3.0	/	2*3.0	/
PU	PU	PU	PU	PU	PU	PU	PU
Φ400	Φ400	Φ450	Φ450	Φ500	Φ500	Φ500	Φ500
Φ600@73.7deg	Φ600@73.7deg	Φ750@50.3deg	Φ750@50.3deg	Φ850@72.7deg	Φ850@72.7deg	Φ1000@83.6deg	Φ1000@83.6deg
Φ4200@51.5deg	Φ4200@51.5deg	Φ4800@51.2deg	Φ4800@51.2deg	Φ5000@50.8deg	Φ5000@50.8deg	Φ5500@50.5deg	Φ5500@50.5deg
via push button	/	via push button	/	via push button	/	via push button	/
10	/	10	/	10	/	10	/
380/400/415V -50Hz/3ph 440/460/480V -60Hz/3ph	/	380/400/415V -50Hz/3ph 440/460/480V -60Hz/3ph	/	380/400/415V -50Hz/3ph 440/460/480V -60Hz/3ph	/	380/400/415V -50Hz/3ph 440/460/480V -60Hz/3ph	/
IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54
Y	/	Y	/	Y	/	Y	/
Y	/	Y	/	Y	/	Y	/
Y	Y	Y	Y	Y	Y	Y	Y
24	/	24	/	24	/	24	/
900	600	1280	950	2600	1900	2850	2100



Positioner

3-Axis Positioners

ESAB Three Axis Positioners SHB-STD are in fact the best answer to the problem of lifting, rotating and tilting demanding workpieces. Height, angle and speed are stepless adjustable.

- High durability and safety standards.
- Workpiece can be braked and steady self-lock on any position.
- User friendly Remote control operations.
- Remain interface, can be intergrated with manipulator for welding application.
- Speed adjustable of rotation adopts stepless inverter, large range and rotation steady.



Applications

- Wind Tower Fabrication
- Offshore and Shipyards
- Pressure Vessels
- Pipe Lines

Ordering Information

SHB10T-HD	W370 250 753
SHB30T-HD	W370 250 754
SHB50T-HD	W370 250 755
SHB80T-HD	W370 250 756
SHB100T-HD	W370 250 757

Options & Accessories

PEK cable 15m	WE02 520 040
PEK cable 35m	WE02 520 049
PEK cable 50m	WE02 520 050

Technical data	SHB10T-HD	SHB30T-HD	SHB50T-HD	SHB80T-HD	SHB100T-HD
Loading capacity, t	1	3	5	8	10
Turning capacity	1t@100mm	3t@150mm	5t@150mm	8t@150mm	10t@150mm
Turning speed, rpm@5-50Hz	0.15-1.5	0.07-0.7	0.05-0.5	0.05-0.5	0.05-0.5
Turning power, KW	0.55	2*0.55	1.1	2*1.1	2*1.5
Tilting torque, Nm	1500	6000	15000	24000	30000
Tilting offset from table, mm	1t@150	3t@200	5t@300	8t@300	10t@300
Tilting time	25sec(0-135deg)	30sec(0-130deg)	36sec(0-130deg)	45sec(0-130deg)	71sec(0-130deg)
Turn table dia., mm	Ø780	Ø1200	Ø1400	Ø1600	Ø1800
Earthing current, AMP	500	500	700	1000	1000
Control means	via push button				
Pendant cable length, m	5	5	5	5	5
Incoming power supply	380/400/415V-50Hz/3ph; 440/460/480V-60Hz/3ph				
IP rating	IP54	IP54	IP54	IP54	IP54
PEK kits	Y	Y	Y	Y	Y
Sync kits	N	N	N	N	N
CE compliance	Y	Y	Y	Y	Y
Control voltage, V	24	24	24	24	24
Pump station power, KW	0.75	3	4	5.5	5.5
Rating working pressure, MPa	16	16	16	16	16
Estimated weight, kg	700	1650	2200	3100	3600

2-Axis Positioners

- Two Axis HB Positioners are in fact the best answer to the problem of rotating and tilting workpieces.
- Speed is stepless adjustable.
- ESAB Positioners exceed the strictest international EN safety requirements.
- CE Compliance.
- HB series positioners offer perfect solutions with optimized motor and gear drive sizes.
- The positioners of HB series have 2-axis; rotation and tilting.
- Thus 2-axis operation guarantees the ideal ergonomic working position.
- Mechanically and electrically the positioner has been designed for easier maintenance and smaller number of spare parts as well.



Applications

- Pipe shop
- Vessels
- Cladding of dish end
- Fuel tank

Technical data	HBW150-2-LLP-S	HBW300-2-LLP-S	HBW600-2-LLP-S	HB10-2-RT-S	HB20-2-RT-S	HB30-2-RT-S
Loading capacity, kg	150	300	600	1000	2000	3000
Max. rotation torque, Nm	100	450	900	2000	4000	6000
Eccentricity, mm	65	150	150	200	200	200
Turning power, kW	0.12	0.375	0.37	0.75	1.1	1.1
Turning speed, rpm	0.25-5.5	0.25-4	0.16-1.6	0.12-1.2	0.1-1.0	0.05-0.5
Max. tilt torque, Nm	Manual	Manual	1500	3000	6000	9000
Tilting offset from table, mm	Manual	Manual	250	300	300	300
Tilting speed, rpm	Manual	Manual	0.34	0.35	0.35	0.35
Tilting range, deg	0-90	0-135	0-135	0-135	0-135	0-130
Turn table dia, mm	380	560	700	900	1100	1300
Number of slots and width, mm	6×12	4×16	4×16	4×22	4×22	4×22
Max. turning dia at 90 deg, mm	670	940	1250	1350	1630	1750
Table height from floor, mm	435	600	800	900	1000	1050
Earthing current, AMP	500	500	500	500	500	700
Control means	Electrical panel + Foot pedal					
Pendant cable length, m	/		10	10	10	10
Incoming power supply	220V 50HZ 1ph					
IP rating	IP54	IP54	IP54	IP54	IP54	IP54
PEK kits	N	N	Y	Y	Y	Y
Sync kits	N	N	N	N	N	N
CE compliance	Y	Y	Y	Y	Y	Y
Control voltage, V	24	24	24	24	24	24
Estimated weight, kg	90	200	550	720	1050	2150

Ordering Information

HBW150-2-LLP-S	W0000U0101
HBW300-2-LLP-S	W0000U0102
HBW600-2-LLP-S	W0000T0613
HB10-2-RT-S	W0000T0601
HB20-2-RT-S	W0000T0602
HB30-2-RT-S	W0000T0603
HB40-2-RT-S	W0000T0604
HB50-2-RT-S	W0000T0605
HB60-2-RT-S	W0000T0606
HB80-2-RT-S	W0000T0607
HB100-2-RT-S	W0000T0608
HB150-2-RT-S	W0000T0609
HB200-2-RT-S	W0000T0610
HB250-2-RT-S	W0000T0611
HB300-2-RT-S	W0000T0612

Options & Accessories*

Foot Pedal with 6m cable	WE02520058
PEK cable 15m	WE02520040
PEK cable 35m	WE02520049
PEK cable 50m	WE02520050
*Applicable for 600kg and above	

HB40-2-RT-S	HB50-2-RT-S	HB60-2-RT-S	HB80-2-RT-S	HB100-2-RT-S	HB150-2-RT-S	HB200-2-RT-S	HB250-2-RT-S	HB300-2-RT-S
4000	5000	6000	8000	10000	15000	20000	25000	30000
6000	10000	12000	16000	20000	30000	60000	100000	100000
150	200	200	200	200	200	300	400	330
1.1	1.5	1.5	1.1	1.5	1.5	3	2x1.5	2x2.2
0.05-0.5	0.05-0.5	0.05-0.5	0.02-0.2	0.02-0.2	0.02-0.2	0.02-0.2	0.02-0.2	0.02-0.2
12000	15000	18000	32000	40000	75000	80000	100000	150000
300	300	300	400	400	500	400	400	500
0.35	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
0-130	0-130	0-130	0-130	0-130	0-130	0-130	0-130	0-130
1300	1500	1600	1800	2000	2180	2200	2200	2500
6x22	6x28	6x28	6x32	6x32	6x32	6x36	6x36	8x36
1750	2000	2150	2300	2500	2700	2700	3000	3000
1050	1200	1300	1425	1600	1700	1750	1900	1900
700	700	700	1000	1000	1000	1000	1000	1000
Electrical panel + Pendant								
10	10	10	10	10	10	10	10	10
380/400/415V-50Hz/3ph & 440/460/480V-60Hz/3ph								
IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54
Y	Y	Y	Y	Y	Y	Y	Y	Y
N	N	N	N	N	N	N	N	N
Y	Y	Y	Y	Y	Y	Y	Y	Y
24	24	24	24	24	24	24	24	24
2750	3350	3500	5355	6135	8000	9200	10500	11500

Turn Table

TT05-S, TT10-S, TT20-S, TT50-S, TT100-S

Turn Table is one of the equipments that is used to rotate objects to assure easy access for assembling and welding purpose and is used in many different applications.



Ordering Information

TT05-S	W0000U0103
TT10-S	W0000U0104
TT20-S	W0000U0105
TT50-S	W0000U0106
TT100-S	W0000U0107

Options & Accessories

Foot Pedal with 6m cable	WE02520058
PEK cable 15m	WE02520040
PEK cable 35m	WE02520049
PEK cable 50m	WE02520050

Applications

- Welders working method
- Improve productivity & quality

Technical data	TT05-S	TT10-S	TT20-S	TT50-S	TT100-S
Loading capacity, kg	5000	10000	20000	50000	100000
Max. rotation torque, Nm	1600	2800	6000	12500	30000
Turning power, kW	0.55	0.75	1.1	2.2	3
Turning speed, rpm	0.05-0.5	0.05-0.5	0.05-0.5	0.025-0.25	0.02-0.2
Turn table dia, mm	1500	1800	2000	2200	2500
Number of slots and width, mm	4*22	4*22	4*28	4*30	4*36
Table height from floor, mm	487	556	556	700	1150
Earthing current, AMP	500	500	1000	1000	1000
Control means	Control panel + Pendant				
Pendant cable length, m	10				
Incoming power supply	380/400/415V-50Hz/3ph & 440/460/480V-60Hz/3ph				
IP rating	IP54				
PEK kits	Y				
Sync kits	N				
CE compliance	Y				
Control voltage, V	24				
Estimated weight, kg	900	1200	1500	2500	5000

ICE™

ICE™

Revolutionary Saw Technology For Enhanced Productivity

ICE™ technology is as simple as it is brilliant. ICE™ exploits the excess heat generated by the welding process to melt an additional non-powered welding electrode – the **Integrated Cold Electrode**. This yields significant productivity benefits without increasing heat input.

- Up to 50% higher deposition rate with same heat input
- Up to 35% increase in welding speed
- Up to 20% reduction in flux consumption
- Energy savings
- Reduced heat input and distortion
- Flat Cap Control™
- High Deposition Root™



Q: Is welding a critical part of your production process and does it cause a bottleneck?

A: If so, ICE™ is the solution.

Q: Want to increase capacity within your existing production footprint?

A: ICE™ can boost output significantly without need for expensive investment in new welding systems and extra capacity. No need for additional skilled welders.

Q: Need to invest in new production systems?

A: Look no further. The combination of ESAB's ICE™ technology, welding consumables and know-how offers the optimum welding solution.

Enjoy the increased productivity from shorter production times and the most cost-efficient Submerged Arc Welding.

Q: ICE™ saves energy and the environment?

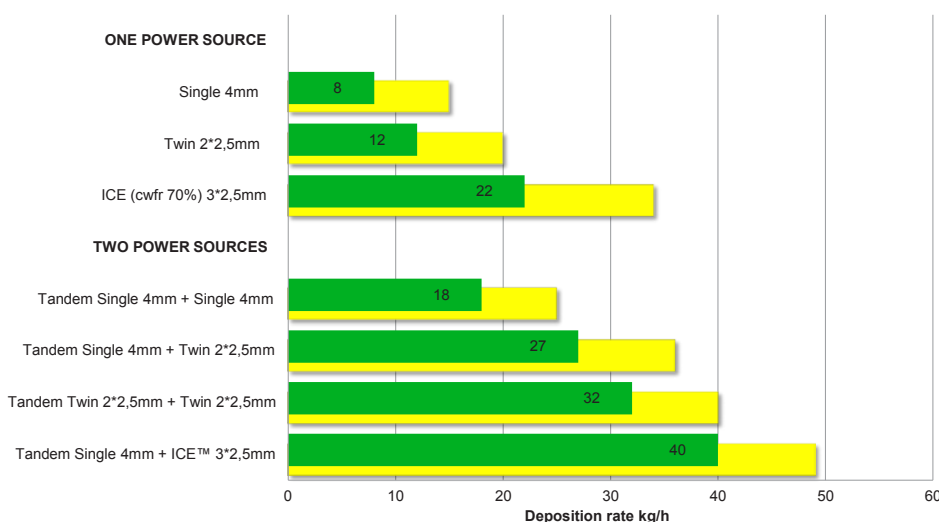
A: ICE™ reduces your energy requirement, to ensure a smaller carbon footprint, greener production and lower costs. Unlike conventional SAW methods.

Applications

Some of the many applications that can benefit from ICE™ technology are:

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

Maximum deposition rate comparison



Green = Comfort parameters
Yellow = Process limit

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

Note: The comparison is made welding at approximately the same heat input.

Comparison of deposition rate for ICE™ and other methods.

Deposition rate →



ICE™



Twin DC+



Single DC+

Single power source and welding-head solutions

Deposition rate →



DC + AC ICE™



DC + Twin AC+



DC + AC

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

Up to 50% higher deposition rate

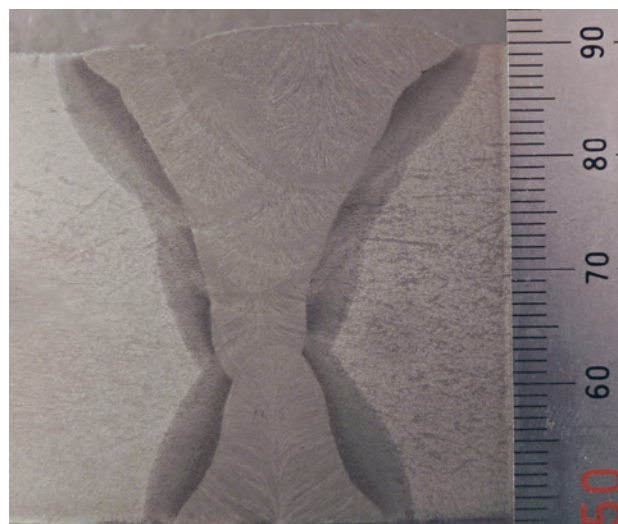
Submerged arc welding is already the most productive welding process. But as with any other welding process, the need to limit heat input inhibits productivity. Instead of adding more energy, ICE™ utilises the excess heat available to melt more wire. This boosts productivity by up to 50%, depending on the application.

High Deposition Root™

ICE™ technology enables the use of tandem welding in root passes, for improved penetration and high productivity and eliminating the need for back gouging. High Deposition Root can increase productivity up to 100% in root welding, depending on the application.

Higher welding speed

The increased deposition rate can also be utilised to increase welding speed. This can significantly improve productivity in applications where welding speed is the key to maximising productivity.



Reduced energy consumption

Welding is an energy intensive manufacturing operation. The ICE™ process enables an increase in deposition rate by up to 50%, without adding more energy. This combines environmental benefits with significantly reduced energy consumption.

Innovative Flat Cap Control™

Adjusting the ratio of "cold wire" used for cap runs makes it possible to produce a flatter cap to the weld. This increases fatigue resistance and reduces the need for post weld treatment. Just one more boost to your productivity.

Reduced flux consumption

The significant productivity improvement provided by ICE™ enables many applications to be completed with fewer runs. In this way, flux consumption can be reduced by up to 20% when welding with a 50% higher deposition rate.

For more information, please contact your nearest ESAB representative for a ICE™ HIT team member.



Welding Heads

A2S Mini master

A multi-purpose automatic welding system

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



Ordering Information

A2S Mini Master SAW Systems

Incl A2-A6 Process controller PEK and flux hopper

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

A2S Mini Master GMAW MTW (4WD) Systems

Incl A2-A6 Process controller PEK and gas solenoid

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

Typical 3.2mm wire DC welding package

A2S Mini Master + PEK controller	0449 170 900 x 1
Flux funnel	0145 221 881 x 1
Welding rectifier LAF 1001 DC	0460 513 880 x 1
Welding cable 95 mm ² x 15 m	0413 768 899 x 2
Return cable, 95 mm ² x 10 m	0413 768 898 x 2
Control cable, 15 m	0460 910 881 x 1
Reference cable 6 mm ² x 10	0820 129 881 x 1
Steel reel spring loaded	7803 615 000 x 1
Contact nozzle 3.2 mm	0154 632 004 x 5
Feed roller 3.2 mm	0218 510 286 x 1

Options & Accessories

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

Gas handling equipment, GMAW only:

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

Optional equipment SAW:

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

For PEK:

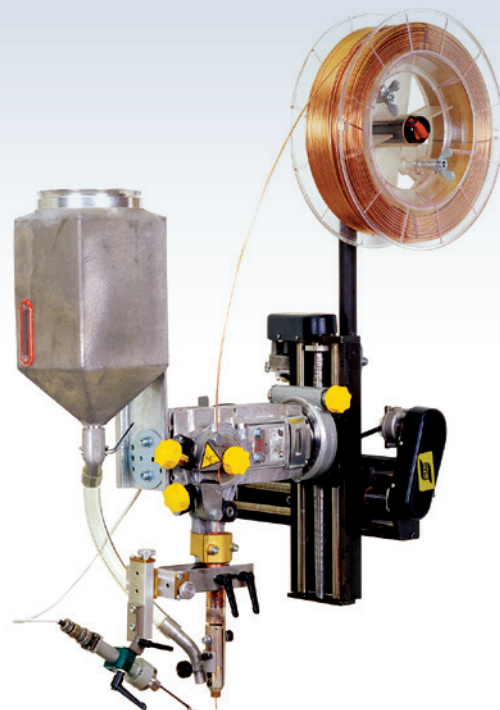
Conversion kit, SAW to GMAW A2 (2WD)	0461 247 880
Conversion kit, SAW to GMAW MTW (4WD)	0461 248 880

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

A6S Arc Master

Flexibility as standard

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



Ordering Information

Single wire SAW systems

Standard wire feed unit (gear ratio 156:1)

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

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

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

Twin-wire SAW system

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

With manual slides 210x210 mm	0449 271 910
With motorized slides 300x300 mm and PAV	0449 271 911
With motorized slides 300x300 mm and GMH	0449 271 912
Sales Literature	XA00 088 920

Typical 4mm wire DC welding package

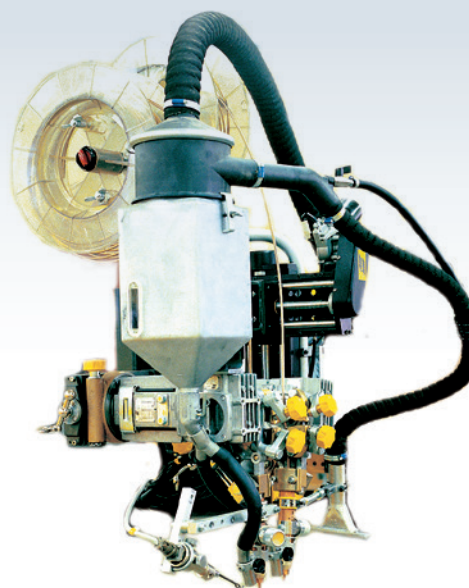
A6 SF, Master 156:1 + PEK	0449 270 900 x 1
OPC basic	0148 140 880 x 1
Plastic wire spool 30 kg	0153 872 880 x 1
Flux funnel	0254 900 880 x 1
Welding Rectifier LAF 1251 DC	0460 514 880 x 1
Welding cables 120 mm ² x 15 m	0413 768 896 x 2
Return cables 120 mm ² x 10 m	0413 768 895 x 2
Control cable 15 m	0460 910 881 x 1
Reference cable 6 mm ² x 10 m	0820 129 881 x 1
Feed roller 4 mm	0218 510 286 x 1
Contact jaw 4 mm	0265 900 882 x 5

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

A6 SFE2 Tandem Welding Heads

For optimum productivity

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



Ordering Information

A6S Tandem Master, standard (156:1)	0457 720 907
Sales Literature	XA00 091 620

Options & Accessories

Twin kit (one per torch)	0334 291 889
GMH, joint tracking with remote, complete	0460 884 880
GMH, joint tracking with control panel, complete	0460 884 881
GMH, slide motor cables, 5.0 m (16 ft.) x 2	0461 215 880
Laser lamp, 5 m cable (16 ft.)	0821 440 882
Laser lamp, 7 m cable (23 ft.)	0821 440 883
Bracket (straight) for wire	0334 318 880
Brake hub, for wire reel	0146 967 880
Wire reel, plastic, 30 kg (66 lbs.)	0153 872 880
Wire reel, steel, fixed width, 30 kg (66 lbs.)	0416 492 880
Wire reel, steel, flexible width, 30 kg (66 lbs.)	0449 125 880

Technical data (Basic components)

Technical data (Basic components)	A6S Tandem Master
A6 feed unit HD type for wire 3-6 mm (1/8-1/4 in.)	2 pcs
Horizontal manual slide with double runners L=220 mm	1 pc
Vertical manual slide with L=220 mm	1 pc
PEK, process controller	2 pcs
Flux hopper, 10 L (2.3 gal.) incl bracket	1 pc
Cable holder	1 pc
Main bracket with mounting flange for cross slide assembly	1 pc
Swivel bracket for rotating head 90°	1 pc (0334 549 880)
Welding head	2 pcs
Each welding head has:	
A6 manual slide L=90 mm	1 pc (0154 465 880)
A6 circular slide	1 pc (0671 171 580)
Insulators	4 pcs (0278 300 180)
Total weight (excl PEK, wire and flux) approx. kg (lbs)	190 (419)

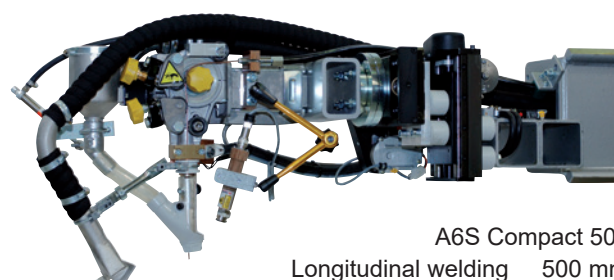
A6S Compact Welding Heads

For excellent welding results

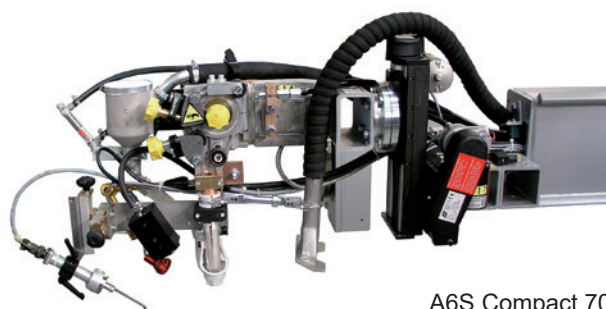
- For welding longitudinal and circumferential butt joints inside tubes.
- Three versions available:
A6S Compact 300 for internal welding of tubes down to 300 mm (12 inch) inside diameter.
A6S Compact 500 for internal welding of tubes down to 500 mm (20 inch) inside diameter.
A6S Compact 700 for internal welding of tubes down to 700 mm (27.5 inch) inside diameter.
- Equipped with reliable, VEC feed motor for superior weld performance.
- Supervise and adjust the head position via TV monitoring system - Optional.
- Use standard mini-cross slide assembly and PAV manual tracking system or GMH automatic joint tracking system to easily follow the joint - Optional.
- Add either the FFRS Basic/Super or FFRS 2000/3000 Flux Feed & Recovery System to optimize the welding process.



A6S Compact 300
Longitudinal welding 300 mm
Min ID circ. welding 500 mm



A6S Compact 500
Longitudinal welding 500 mm
Min ID circ. welding 550 mm



A6S Compact 700
Longitudinal welding 700 mm
Min ID circ. welding 750 mm

Ordering Information

A6S Compact 300 Welding head, standard 0809 280 880
A6S Compact 300 Welding head, high-speed 0809 280 881
A6S Compact 500 Welding head, standard 0416 967 880
A6S Compact 500 Welding head, high-speed 0416 967 882
A6S Compact 700 Welding head, standard 0811 054 880
A6S Compact 700 Welding head, high-speed 0811 054 881
Sales Literature XA00 124 620

Technical data

Compact 300

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

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

Options & Accessories

Compact 300

Flux valve control kit, including

Solenoid valve and 5 m (16.4 ft.) air hose	0813 620 880
TV monitoring equipment	0811 176 880
Laser pointer	0811 177 880

Contact tips, wire size

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

For Compact 500 & 700, please include contact jaws.

Feed rollers, wire size

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

A6S SAW Strip Cladding Head

For surfacing with high alloyed materials

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

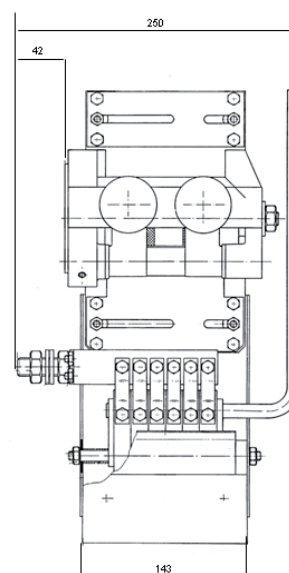
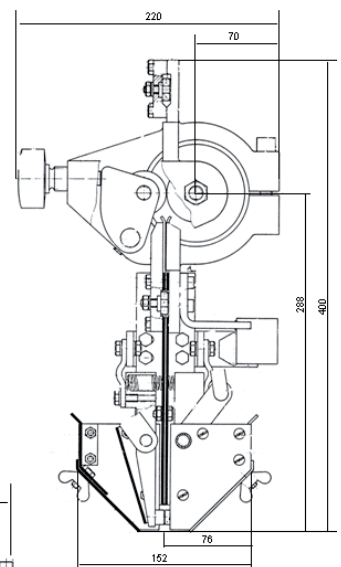
Technical data	A6S SAW
Max welding current at 100% duty cycle, A	1500
Feed roller diameter, mm (in.)	50 (2.0)
Strip width, mm (in.)	30-100 (1.2-4.0)
Strip thickness, mm (in.)	0.5 (0.02)
Strip feed speed	see sales literature for A6 Mastertrac, (XA00109420) or A6S Arc Master (XA00088920)

Ordering Information

Strip cladding kit	0155 972 880
(for use with A6T SAW Tractor or A6S Arc Master HD)	
Sales Literature	XA00 101 020

Options & Accessories

Reel holder	0417 636 880
(not to be used with motor-operated cross slide)	
Wire reel, steel	0416 492 880
Suction nozzle, flux	0156 025 001



A6S Electroslag Strip Cladding

The electroslag strip cladding process is increasingly used for the production of corrosion resistant overlays in equipment for the offshore and process industries. Since it has been developed in the early seventies, the technical and economical advantages of this process have resulted in more widespread use compared to that of submerged arc strip cladding.

The equipment for electroslag cladding corresponds with equipment for submerged arc cladding, except the special ESW cladding head is water cooled.

ESW Cladding Kit

- Possibility to use strip electrode with a width from 30-90 mm with water cooled heads
- ESW 60 (30-60mm) & ESW 90 (60-90mm)

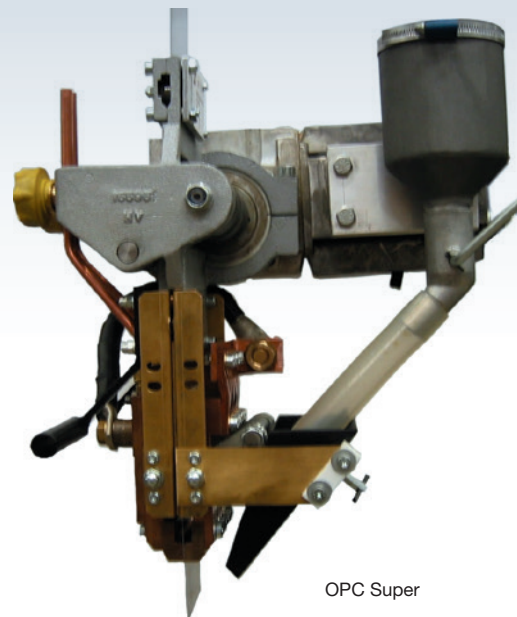
Magnets (Option)

The geometry of the weld pool can be influenced by way of external electro magnets. The magnets are to be placed on either side of the welding head. The magnetic flow is oriented so the desired magnetic flow is created. Recommended for strips over 60 mm.

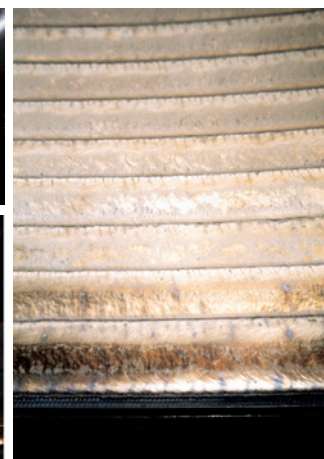
The ESW cladding head can be added to the famous ESAB A6 component system and has been designed for the specialities of this process.

Power sources

LAF 1251, LAF 1601 or parallel connectors LAF 1250 x 2 = 2500Amps.



OPC Super



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

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

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

Ordering Information

ESW kit to be used together with A6 SAW equipment

ESW 60 (30-60 mm) Strip	0772 306 900
ESW 90 (60-90 mm) Strip	0772 385 880
Water cooling unit WP 20SC (with temperature setting)	0772 384 880
Reel holder	0417 636 880
(not to be used with motor-operated cross slide)	
Wire Reel, steel	0416 492 880

Options & Accessories

ESMD 300 Magnetic Device	0772 285 880
--------------------------	--------------

Technical data

	ESW 60	ESW 90
Current capacity@100%, A	Max. 1200	Max. 2300
Strip width, mm (in.)	Max. 60 (Max. 2.36)	Max. 90 (Max. 3.54)
Strip thickness, mm (in.)	Max. 0.5 (Max. 0.02)	Max. 0.5 (Max. 0.02)
Water Cooling bar	Pressure 4-6	Pressure 4-6
Cooling unit	WP20SC	WP20SC
Weight, kg (lbs.)	18 (39.68)	18 (39.68)
Dimension (LxWxH), mm	360x230x400	400x300x400

World leader in welding and cutting technology and systems



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

Quality, and environment and health & safety standards

Quality, the environment and safety are three key areas of focus. ESAB is one of few international companies to have obtained the ISO 9001, ISO 14001 and OHSAS 18001

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

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

ESAB Sales and Support Offices Worldwide



DISCLAIMER

Although every effort is made to ensure the accuracy of information contained within this brochure, in the interest of continuous improvement ESAB reserves the right to change the specifications given or design of any of its products without prior notice. ESAB provides no warranty, express or implied, as to the accuracy, reliability or completeness of the information and ESAB accepts no liability for any loss whether direct, indirect or consequential arising from the information contained within this brochure.



ESAB / esab.com

