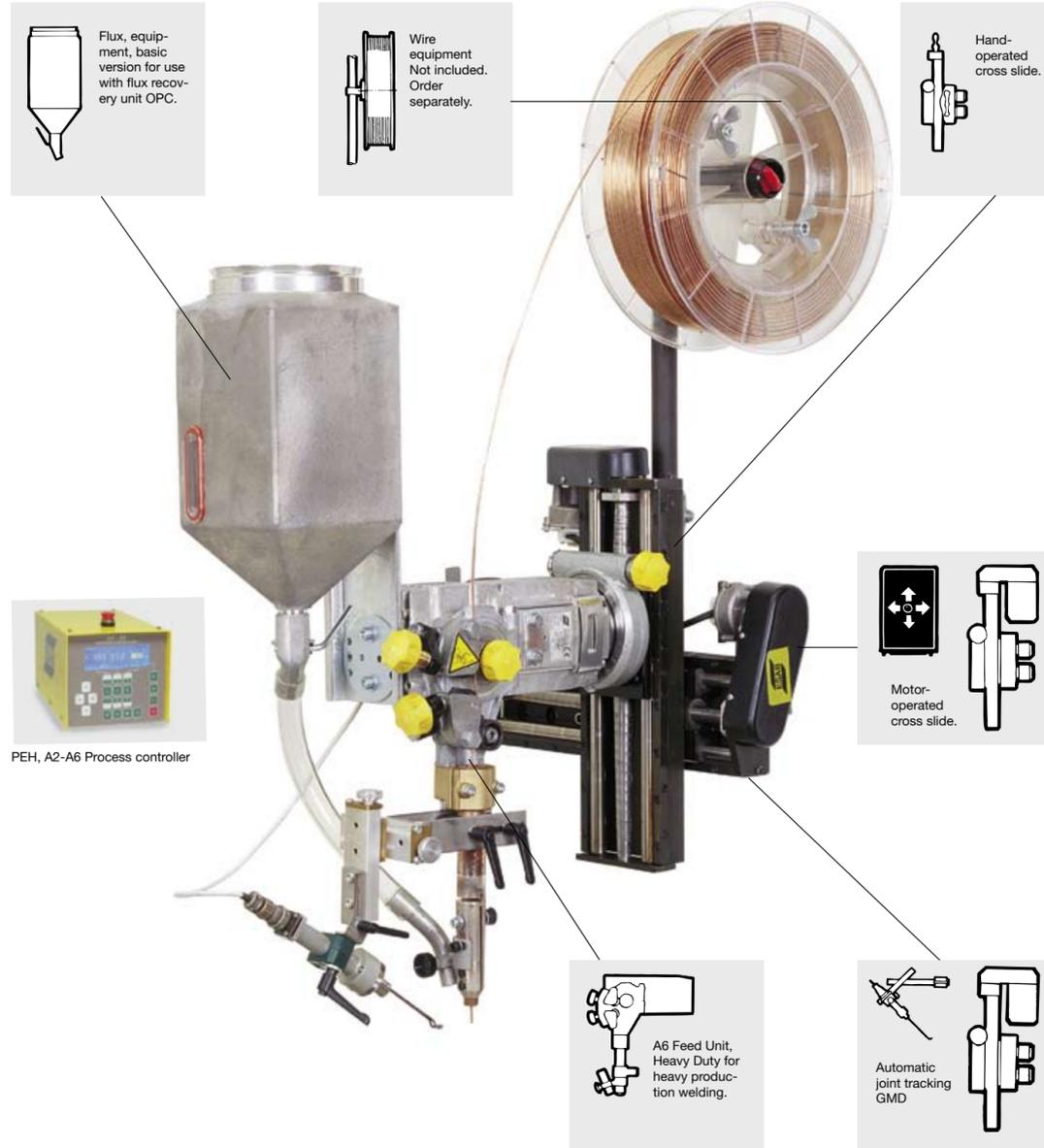


# A6S Arc Master – a complete system for automatic submerged arc welding.

By investing in efficient and well proven submerged-arc welding equipment, profitability and

productivity are sure to increase. A6S Arc Master offers flexibility, operational reliability and

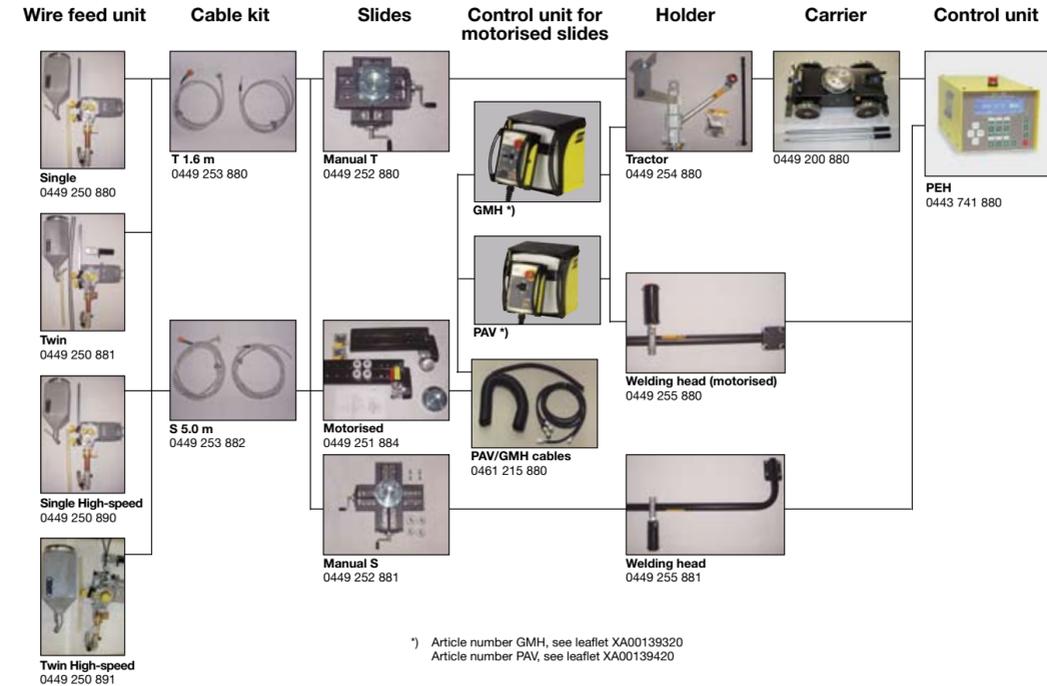
performance which are second to none.



PEH, A2-A6 Process controller

# A6 Modules.

If you need a head without the PEH process controller or only some of the modules, you will find the module and article number in the chart below.



\*) Article number GMH, see leaflet XA00139320  
Article number PAV, see leaflet XA00139420

# Accessories.

A large assortment of accessories and peripheral equipment make up the A6 welding heads to a universal automatic welder. Utilize

the opportunities offered by submerged-arc welding with A6 accessories for single wire, twin arc and cladding with strip or tubular

wires. An efficient flux handling unit is an important peripheral of a complete welding station.

# Build up your standard welding head for your specific welding needs.

BASIC MACHINE – in the yellow part of the table you can find the ordering number for your complete A6S Arc Master for AC or DC welding

OPTIONS - find the suitable wear parts for your A6S Arc Master. Description and ordering numbers below.

Feed unit SAW High speed Gear ratio 74:1 Feed unit SAW Twin Gear ratio 74:1 Feed unit SAW Gear ratio 156:1 Feed unit SAW Twin Gear ratio 156:1 Cable kit, L = 5 m 210 mm manual slides 300 mm motorised slides Holder PAV GMH PEH Cable kit PAV/GMH	Basic machine Ordering number	1 Contact jaws, single	2 Contact jaws, twin	3 Strip cladding	4 Carbon arc gouging	5 Pilot lamp	6 Central flux funnel	7 OPC Flux recovery unit	8 Wire reel
	0449 270 880								
	0449 270 881								
	0449 270 882								
	0449 270 883								
	0449 270 890								
	0449 270 891								
	0449 270 892								
	0449 270 893								
	0449 271 880								
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	0449 271 883								
	0449 271 890								
	0449 271 891								
	0449 271 892								
	0449 271 893								

<b>1 Contact jaws, single wire</b>	Wire	3.0 mm 4.0 mm 5.0 mm 6.0 mm	0265 900 880 0265 900 882 0265 900 883 0265 900 884
<b>2 Contact jaws, twin wire</b>	Wire	2x1.6 mm 2x2.0 mm 2x2.4-2.5 mm 2x2.5-3.0 mm 2x4.0 mm	0265 902 882 0265 902 881 0265 902 884 0265 902 880 0265 902 883
<b>3 Strip cladding</b>	0.5 x 30-100 mm	Wire reel, steel Suction nozzle, flux Reel holder	0155 972 880 0416 492 880 0156 025 001 0417 636 880
<b>4 Carbon arc gouging</b>	Carbon electrodes 8.0-12.7 mm VEC-motor, 312:1 to be used for carbon arc gouging		0145 063 906 0145 063 907 0155 592 880 0145 063 905
<b>5 Pilot lamps</b>	Light-bulb for contact tube D20/D35 Laser diode for contact tube D20/D35		0153 143 885 0457 788 884
<b>6 Central flux funnel</b>	D35 Insert, extended		0254 900 880 0254 900 301
<b>7 Flux equipment</b>	OPC flux recovery unit, basic version		0148 140 880
<b>8 Wire reel</b>	Wire reel, plastic 30 kg Wire reel, steel 30 kg Wire reel, steel flexible width		0153 872 880 0416 492 880 0449 125 880

For additional information, see  
- A6 Wear Parts Catalogue, XA00125820  
- OPC Flux recovery wear parts, XA00126420

**Knurled feed rollers for tubular twin wire**  
Feed roller 2x2.0-4.0 mm 0148 772 880  
Pressure roller 2x2.0-4.0 mm 0218 524 580

**Conversion kit from single to twin wire**  
To be used for rebuilding of A6 single wire welding head equipped with contact tube, diameter 35 mm and length up to 400 mm 0809 934 882

To be used for rebuilding of A6 single wire welding head equipped with contact tube, diameter 20 mm 0413 541 881

## Unique multi-featured basic unit.

### A6S Arc Master

The A6S Arc Master is the complete system for heavy SAW production welding offering flexibility, operational reliability and durability.

The A6S Arc Master is available in a number of standard models and can be adapted to suit the customer's specific demands.

The A6S Arc Master for automatic submerged-arc welding can as standard be delivered with single or twin wire welding heads.

The productivity and quality can be improved by using twin wire. The higher current density which is achieved with two wires in line with the joint, normally allows a 30-40% increase in the rate of bead deposition as compared with single wire welding. In addition the risk of porosity is greatly reduced when making fillet welds. With the wires parallel, penetration is minimised and the risk of burn-through and deformation is reduced. Gaps are easily bridged too.

The A6S Arc Master is the unique multi-featured basic unit of ESAB's automatic welding program with capacity for strip cladding and carbon arc gouging.

The welding heads can be equipped with the standard wire feed unit (gear ratio 156:1) or with high speed wire feed unit (gear ratio 74:1). The A6 VEC motor is used for a reliable and consistent wire feed.

### Manual or motor-operated cross slides

The A6S Arc Master is easy to use, with accurate positioning on the joint. Choose

between manual or motor operated cross slides. Motor operated cross slides with joystick control is a way to a more efficient welding equipment. With automatic joint tracking GMH equipment, the system is fully controlled.

### Process Controller

With PEH electronic control equipment, you can quickly and accurately

programme all welding parameters before welding commences. No running-in for adjustments is necessary. The feedback system gives you high and consistent welding quality from start to finish. You save time and material

– two very important factors in welding economy.

By investing in efficient and well-proven submerged-arc welding equipment – profitability and productivity are sure to increase. A6S Arc Master offers flexibility, operational reliability and performance, which are second to none.

### Beam travelling carriage

The beam travelling carriage can be used together with the complete A6S Arc Master. The carriage is developed to be used on a standard I-profile IPE 300. When a straight and smooth welding motion is required, the machine track produced by ESAB can be used. The travelling speed will be controlled by the control box PEH. The carriage can even be moved by hand. See separate leaflet XA00091920.



A6S Arc Master basic version with manual slide, a complete welding head with easy-to-use 4-axis positioning on the joint.



A6S Twin Master for highly productive fillet or butt welding, also on light-gauge material.



PEH an advanced control unit with numerous features:

- Presetting of all welding parameters
- Constant current (CA) or constant wire speed (CW)
- Programming via menus



Beam travelling carriage

## Technical data.

### Welding methods

Submerged-arc welding for solid, strip and tubular wires,

Accessories for carbon arc gouging.

### Wire feed speed and wire dimensions

A6 feed unit	Ratio 156:1	Ratio 74:1
Wire feed speed	0.2 - 4.0 m/min	0.4 - 8.0 m/min
Wire, single	3.0 - 6.0 mm	1.6 - 4.0 mm
Wire, twin	2x2.0 - 2x3.0 mm	2x1.6 - 2x2.0 mm
Tubular wire, single	3.0 - 4.0 mm	1.6 - 4.0 mm

### Types of joints

Butt and vertical or horizontal fillet welds.

### Wire reels

Optional steel or plastic wire reel attached to welding head or strip max 30 kg wire

### Flux hopper

Standard type, volume 10 l

### Positioning, angular

Circular slide, crank operated ± 180°  
Straightener ± 45°

### Weights

Basic version, manual slides	64 kg
Basic version, motor-operated cross slide with joystick control	80 kg
Basic version with GMD	108 kg
Feed unit excluding slide, flux and wire equipment and PEH	16 kg

### PEH, A2-A6 Process controller

Enclosure class, protection	IP 23
Mains supply	42V (AC), 50-60 Hz
Max power consumption	900 VA
Weight	5.5 kg
External dimensions, LxWxH	355x210x164 mm

# A6S Arc Master

## FLEXIBILITY AS STANDARD

