

# ESAB Tandem Welding Heads

## For optimum productivity

**In today's industrial development, the rate of productivity has been brought more and more into focus as a decisive parameter for raising profitability. This requires submerged-arc welding heads designed for maximum flexibility to perform to the individual needs of the welding industry.**

ESAB has designed a number of highly versatile tandem welding heads aimed for extremely productive sub-arc welding. There are two basic versions of our range of tandem welding heads,

### A6S Tandem Master

With an adjustable  $+90^\circ$ -interval turning bracket and cross slide, the A6S' design is optimal for welding across multiple perpendicular axis'. The automatic joint tracking is kept intact no matter which direction welding occurs. (Important for cylindrical objects where both longitudinal and circumferential welding are needed.)

### A6DS Tandem Master

This welding head has an adjustable  $\pm 90^\circ$ -interval turning bracket and fixed cross slide. The A6DS is perfect for applications requiring automated welding of long weld joints. For example, when sub-arc welding long beams, use the A6 DC to weld one seam, rotate the head  $180^\circ$  and then weld the other seam. There's no need to return the manipulator to its starting point which wastes time.

Furthermore, by installing this head onto an ESAB CaB M-model manipulator and using the Shift Option it is possible to weld in multiple directions through this simple weld head adjustment. The Shift Option facilitates this process by shifting control of the horizontal tracking motion to the boom. This provides the operator with the ability to weld in three different directions in combination with the welding head rotation. In all directions, the automatic joint tracking still remains intact.

Both the A6S and A6DS are equipped with two A6 welding torches for DC/DC, DC/AC or AC/AC welding operation. While taking advantage of direct current (DC) control (good weld penetration) and alternating current (AC) control (high welding deposition rate), ESAB sets the stage for high quality and high output productivity. With ESAB's Twin-Wire welding technology the focus on productivity is further expanded.



A6DS Tandem

The A6S Tandem Welding Heads connect easily to ESAB's range of power supplies. With each welding head, ESAB's digital process controller PEK controls and stores all welding parameters. It can be quickly and accurately programmed via menus. Up to 255 weld parameter files can be stored and called-up eliminating time consuming adjustments by the operator during welding. For close monitoring during welding, the heat input is also displayed.

Together with ESAB's range of CaB 460 and 600 column and boom models, these welding heads provide a very versatile welding system which moulds to almost any standard and special welding application.

## Technical data

### Basic modules A6S Tandem Master

A6 feed unit HD-type (2 pcs.)	
Horizontal motorised slide with double runners L=355 mm (1 pc.)	
Vertical motorised slide with double runners L=595 mm (1 pc.)	
PEK, process controller (2 pcs.)	
Flux hopper, 10L incl. bracket (1 pc.)	
Cable holder (1 pc.)	
Main bracket with mounting flange for cross slide assembly (1 pc.)	(0810 786 880)
Swivel bracket for rotating head 90° (1 pc.)	(0334 549 880)
Welding head (2 pcs.), each 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 approx. 215 kg (excl. PEK, wire and flux)	

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Horizontal motorised slide with double runners L=355 mm (1 pc.)	
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PEK, process controller (2 pcs.)	
Flux hopper, 10L incl. bracket (1 pc.)	
Cable holder (1 pc.)	
Swivel bracket for rotating head 90° (1 pc.)	(0809 873 880)
Welding head (2 pcs.), each 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 approx. 190 kg (excl. PEK, wire and flux)	

## 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

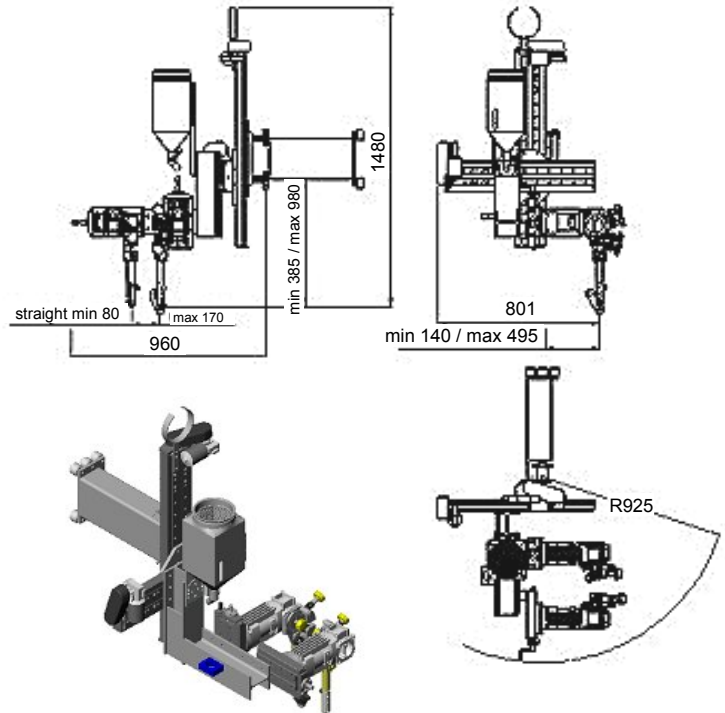
## Ordering information

A6S Tandem Master (gear ratio 156:1)	0818 971 880
A6S Tandem Master (gear ratio 74:1)	0818 971 881
A6DS Tandem Master (gear ratio 156:1)	0818 970 880
A6DS Tandem Master (gear ratio 74:1)	0818 970 881

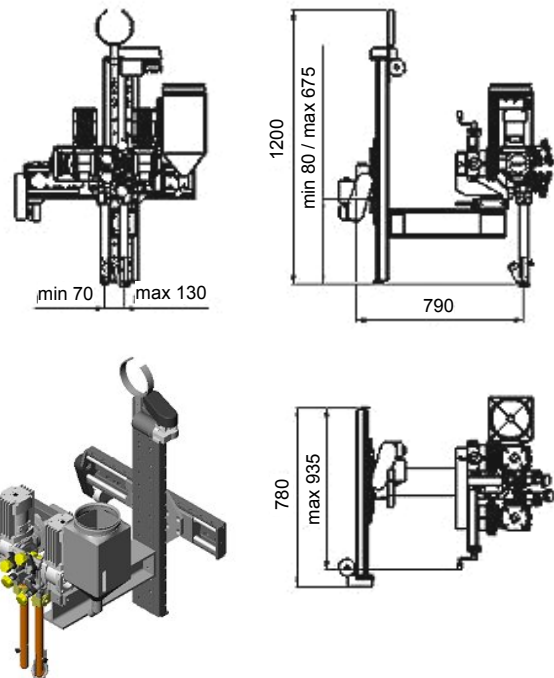
## Accessories

Twinkit (one kit per torch)	0809 934 882
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	0461 215 880
Laser lamp, 5 m cable	0821 440 882
Laser lamp, 7 m cable	0821 440 883
Bracket, (straight) for wire	0334 318 880
Brake hub, for wire reel	0146 967 880
Wire reel, plastic, 30 kg	0153 872 880
Wire reel, steel fixed width, 30 kg	0416 492 880
Wire reel, steel flexible width, 30 kg	0449 125 880

## A6S Tandem Master



## A6DS Tandem Master



Part numbers in parentheses are included in the package.  
Customised solutions are available. Please contact your local ESAB representative for further information.

2010-06-18 / ESAB reserves the right to alter specifications without prior notice



**ESAB AB**  
Welding Equipment  
SE-695 81 LAXÅ SWEDEN  
Phone: +46 584 81000  
Fax +46 584 411721  
E-mail: info@esab.se  
[www.esab.com](http://www.esab.com)



The ESAB group is certified according to ISO 14001 & OHSAS 18001