

GMH

Automatic joint tracking system for most joint types

The GMH joint tracking controller together with ESAB servo slides and a sensor unit forms a robust and easy to use joint tracking system for automatic welding.

GMH

The GMH system minimizes repair welding and adjustments after welding thanks to that the arc is always in the optimal position. The general quality will be kept on an even level and the operator does not need to focus on the weld head and its position.

The operator can then keep an eye on the entire installation and contribute to a non-interrupted welding production by adding flux and prepare for changing the wire spool well in advance.

System contents

The welding head is mounted on a motorised double servo slide where the head can be moved up-down and left-right. The sensor is the most vital part in the system which gives information to the control system how to adjust the slides to keep the arc in the optimal position. There are a number of different mechanical sense fingers for different applications. Inductive sensors can also be used.

Operation

The operator uses the joystick to guide the welding head and mechanical sensor finger into correct position. No programming at all is required. The unit is set in track mode and the welding can start.

Curved details can as long as they are within the working range of the servo slides be welded fully automatic with GMH as the guiding tool.

Applications

- Shipbuilding (panels, sub-components)
- Power generation (wind towers, boilers, vessels)
- Infrastructural components (beams, bridges)
- Off-road vehicles (excavators, dump trucks)

GMH is available in three versions:



With control panel on the front
Suitable for ESAB's A2 / A6 tractor automats and A2 / A6 beam travelling carriage. Automatic solutions with short distance between welding head and GMH control box and where the operator has a good overview of weld joint and welding head without moving around.



With remote control (no control panel on the front)
Suitable for Column & Booms and large automatic installations with long distance between welding head and GMH control box and when the operator must move around in order to get a good view of the welding joint.



Without control panel and remote control
Suitable for customized solutions where the customer's own remote control is adapted to the GMH control box.

- Easy to use, no programming required
- Robust
- Flexible with a remote control
- Very short set-up times
- Gives a less stressful environment for the operator
- Minimise operator errors

Technical data

Control voltage	42V AC, 50-60 Hz
Fuse, supply voltage	10A (slow)
Max motor current	6A 100%
Armature voltage	40V DC
Field voltage	60V DC
Current limit	15A
Dimensions l x w x h, mm	246x235x273
Weight, kg	6.0
Enclosure class	IP 23

Remote control

Dimensions l x w x h, mm	205x135x118
Weight, kg	2.7
Enclosure class	IP 23

Sensor (Standard)

Sensitivity	±0.1 mm
Weight, kg	0.6

Mini Cross saddle and support for the saddle

Setting length	80 mm
Weight, kg	1.6

Intermediate transformer

Input voltage:	190, 230, 400, 415, 440, 500V 50Hz
	200, 230, 400, 415, 440, 500V 60Hz

Output voltage	42V 660VA
Dimensions l x w x h, mm	308x223x133
Weight, kg	15.6

Types of weld

Double-flanged butt joint		
I-weld		
V-weld		
1/2 V-weld		
1/2 V-weld		
U-weld		
Double U-weld		
J-weld		
Double J-weld		
X-weld		
Asymmetrical X-weld		
K-weld		
K-weld		
Fillet weld		

Ordering information

GMH without control panel	0460 503 880
GMH with control panel	0460 503 881
GMH with remote control	0460 698 880

GMH System, complete

consisting of	0460 884 880
- GMH with remote control (0460 698 880)	
- Sensor with finger (0416 688 880)	
- Control cable L=5,0 m (0416 749 880)	
- Mini cross saddle + sensor support (0416 739 880)	

GMH System, complete

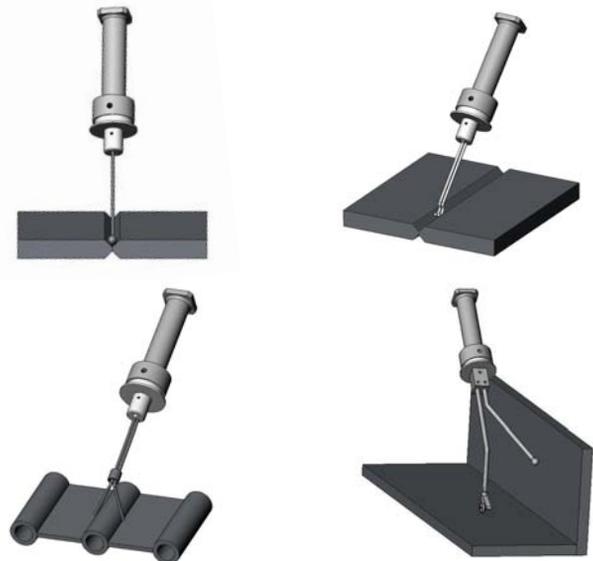
consisting of	0460 884 881
- GMH with control panel (0460 503 881)	
- Sensor with finger (0416 688 880)	
- Control cable L=5,0 m (0416 749 880)	
- Mini cross saddle + sensor support (0416 739 880)	

Accessories

Sensor with finger	0416 688 880
Mini Cross saddle + sensor support	0416 739 880
Remote control	0460 570 880
Protective rubber boot for sensor	0412 013 001
Standard finger	0146 586 001
Finger with ball	0416 719 001
Finger for heat exchange plates	0443 328 880
Finger for beam welding	0443 187 880
Intermediate transformer	0148 636 002
Cable restraining bracket	0460 861 880
Sensor cable, L = 5.0 m	0416 749 888
Sensor cable, L = 9.0 m	0416 749 889
Sensor cable, L = 19.0 m	0416 749 880
Motor cable, L = 5.0 m	0460 745 881
Motor cable, L = 10.0 m	0460 745 882
Motor cable, L = 19.0 m	0460 745 884

Servo slides	0334 333 xxx
See separate fact sheet	

Types of fingers for different applications



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