

Column & Boom Systems

- 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
 - A2-A6 PEH process controller with LAF or 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 (mm) which determines working range and load capability]
- Choose from stationary or mobile, rail-travelling carriage systems
- Versatile to respond to any automated welding demand



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 column and booms
- More than 20 options fully integrated, such as tandem, shift function, transport speed etc
- Only for Basic station 1

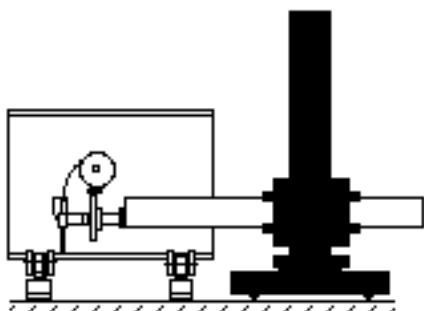
C: Customized

- 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.

Column & Boom Systems - Basic Stations

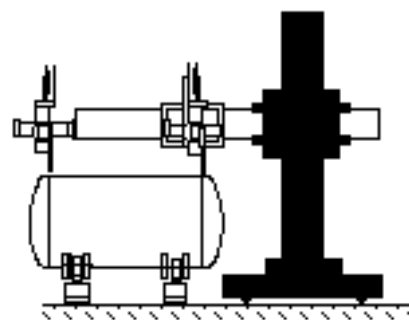
Basic station 1

- 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



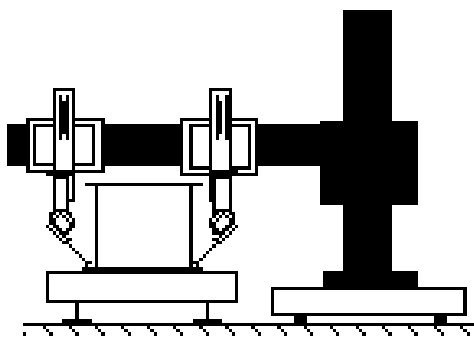
Basic station 2

- 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



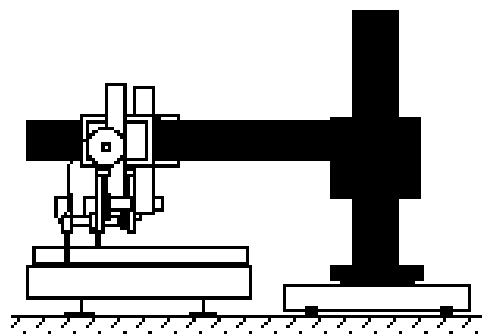
Basic station 3

- 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

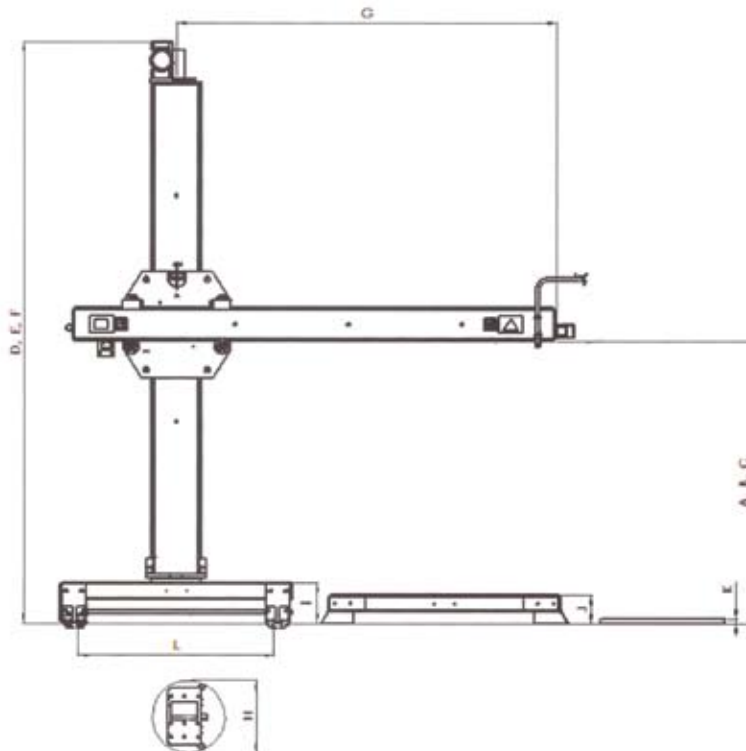
- Welding station with horizontally fixed boom featuring double track with boom carriages supporting welding equipment on both sides of the boom
- Simultaneous welding operation with two heads as standard
- Application: containers, truck platform bodies, box girders, beams, stiffener section and joining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



Technical Data

300S/300M

Column - Effective working range, m (ft.)	3 (10)	4 (13)	5 (16.5)
Max. boom height A, w/ moveable carriage, mm (ft.)	4070 (13)	5070 (16.5)	6070 (20)
Min. boom height A, w/ moveable carriage, mm (ft.)	950 (3)	950 (3)	950 (3)
Max. boom height B, w/ concrete stand, mm (ft.)	3750 (147)	4750 (187)	5750 (226)
Min. boom height B, w/ concrete stand, mm (ft.)	610 (24)	610 (24)	610 (24)
Max. boom height C, w/ floor plate, mm (ft.)	3955 (156)	4955 (195)	5955 (234.5)
Min. boom height C, w/ floor plate, mm (ft.)	815 (32)	815 (32)	815 (32)
Total height D, w/ moveable carriage, mm (ft.)	5170 (17)	6170 (20)	7170 (23.5)
Total height E, w/ concrete stand, mm (ft.)	5055 (16.5)	6055 (20)	7055 (23)
Total height F, w/ foot plate, mm (ft.)	4850 (16)	5850 (19)	6850 (22.5)
Lifting speed, m/min (ipm)	0.7 (27.5)	0.7 (27.5)	0.7 (27.5)
Boom - Effective working range, m (ft.)	3 (10)	4 (13)	5 (16.5)
Max. extension G, mm (ft.)	3580 (11.75)	4580 (15)	5580 (18)
Min. extension G, mm (ft.)	540 (2)	540 (2)	540 (2)
Permissible loads			
total, Kg (lbs.)	300 (660)	220 (485)	150 (330)
one end, Kg (lbs.)	240 (530)	150 (330)	75 (165)
Cross sectional diameter H, mm (in.)	325 (13)	325 (13)	325 (13)
Welding speed, m/min (ipm)	0.1-2.0 (4-79)	0.1-2.0 (4-79)	0.1-2.0 (4-79)
Transport speed, m/min (ipm)	2 (78)	2 (79)	2 (79)
Rail Carriage/Concrete Stand/Foot Plate			
Rail carriage track width, inside to inside L, mm (in.)		1730 (68)	
Rail carriage dimensions, WxL, mm (in.)		2060x2330 (81x92)	
Rail carriage height I, mm (in.)		365 (14)	
Welding speed, m/min (ipm)		0.1-2.0 (4-79)	
Transport speed, m/min (ipm)		2 (79)	
Concrete stand dimensions, WxL, mm (in.)		2060x2100 (81x83)	
Concrete stand height J, mm (in.)		250 (10)	
Foot plate dimensions, WxL, mm (in.)		1100x1100 (43x43)	
Foot plate height K, mm (in.)		40 (1.6)	



Technical Data		460S/460M		
Column - Effective working range, m (ft.)		4 (13)	5 (16.5)	6 (20)
Max. boom height A, w/ moveable carriage, mm (ft.)		4950 (16)	5950 (19.5)	6950 (23)
Min. boom height A, w/ moveable carriage, mm (ft.)		950 (3)	950 (3)	950 (3)
Max. boom height B, w/ concrete stand, mm (ft.)		4845 (16)	5845 (19)	6845 (22.5)
Min. boom height B, w/ concrete stand, mm (ft.)		845 (3)	845 (3)	845 (3)
Max. boom height C, w/ floor plate, mm (ft.)		4510 (15)	5510 (18)	6510 (21.5)
Min. boom height C, w/ floor plate, mm (ft.)		510 (1.6)	510 (1.6)	510 (1.6)
Total height D, w/ moveable carriage, mm (ft.)		6275 (20.5)	7275 (24)	8275 (27)
Total height E, w/ concrete stand, mm (ft.)		6170 (21)	7170 (23.5)	8170 (27)
Total height F, w/ foot plate, mm (ft.)		5835 (20)	6835 (22.5)	7835 (25.5)
Lifting speed, m/min (ipm)		0.7 (27.5)	0.7 (27.5)	0.7 (27.5)
Boom - Effective working range, m (ft.)		4 (13)	5 (16.5)	6 (20)
Max. extension G, mm (ft.)		4850 (16)	5850 (19)	6850 (22.5)
Min. extension G, mm (ft.)		850 (3)	850 (3)	850 (3)
Permissible loads				
total, Kg (lbs.)		1100 (2423)	1050 (2313)	1000 (2203)
one end, Kg (lbs.)		550 (1211)	450 (991)	350 (771)
Cross sectional diameter H, mm (in.)		630 (25)	630 (25)	630 (25)
Welding speed, m/min (ipm)		0.1-2.0 (4-79)	0.1-2.0 (4-79)	0.1-2.0 (4-79)
Transport speed, m/min (ipm)		2 (78)	2 (79)	2 (79)
Rail Carriage/Concrete Stand/Foot Plate				
Rail carriage track width, inside to inside L, mm (in.)			1730 (68)	
Rail carriage dimensions, WxL, mm (in.)			2100x2380 (83x94)	
Rail carriage height I, mm (in.)			485 (19)	
Welding speed, m/min (ipm)			0.1-2.0 (4-79)	
Transport speed, m/min (ipm)			2 (79)	
Concrete stand dimensions, WxL, mm (in.)			2100x2410 (83x95)	
Concrete stand height J, mm (in.)			380 (15)	
Foot plate dimensions, WxL, mm (in.)			1600x1600 (63x63)	
Foot plate height K, mm (in.)			40 (1.6)	

