

Standard CBM Technical Specification Data Sheet



AMET is pleased to provide the following technical specification for the “standard” column and boom manipulator. Our column and boom manipulators are designed for industrial environment and provide excellent performance. They can be used to position a weld head over a part, or provide linear welding over a stationary part.



GENERAL SPECIFICATIONS & FEATURES

Column Stroke:	As specified in the Model Number of the system – see chart on Pg 2 (range = 4 ft to 18 ft)
Boom Stroke:	As specified in the Model Number of the system – see chart on Pg 2 (range = 4 ft to 18 ft)
Maximum Height under boom:	Dependent on model number - see chart on Pg 2
Overall Height:	Dependent on model number – see chart on Pg 2

BOOM ASSEMBLY:

Machining Accuracy:	+/- 0.015” per 10ft of weld length (+/- 0.4 mm per 3 meter)
Stress Relieved:	Included
Boom Deflection:	Less than .024”/1ft (2mm/1M)
Boom Design:	Machined Tube Assembly, fitted with linear hardened rails on top and bottom, with 4 row recirculating ball bearing linear runner blocks
Boom Drive:	Gear rack, pinion gear, & gear box
Boom Motor:	AC variable speed motor
Boom Speed:	4 to 80 IPM (100 to 2000 mm/min)

Precision Boom Option:	Upgrade to precision servo motor, control and gear box, with speed range of 2 to 120 IPM (50 to 3000 mm/min). Includes encoder based closed-loop feedback.
Boom Weight Cap.:	Based on boom length - See Chart on Pg 2
Limit Switches:	Included – Electronic travel limit switches with over travel dead stops
Boom Control:	Standard – Hand pendent Optional – XMS-Linear control
Cable Carrier:	Included (Column & Boom)
Torch Mount Brackets:	Optional

COLUMN ASSEMBLY:

Machining Accuracy:	+/- 0.015” per 10ft of weld length (+/- 0.4 mm per 3 meter)
Stress Relieved:	Included
Column Design:	Machined Tube Assembly, fitted with linear hardened rails on each side, with 4 row recirculating ball bearing linear runner blocks
Column Drive:	Chain, Sprocket & gear box with counter weight and free fall prevention assembly
Column Motor:	AC fixed speed motor
Column Speed:	Approx. 60 IPM (1500 mm/min)
Limit Switches:	Included – Electronic travel limit switches with over travel dead stops
Column Control:	Standard – Hand pendent
Cable Carrier:	Included
Power Supply Rack:	Optional

FREE STANDING BASE ASSEMBLY:

Rotation:	Manual 360 degrees, unless inhibited by equipment
Locking Mechanism:	Manual, 2 knobs to securely lock rotating base into position
Leveling pads:	Included
Mounting pads:	Included – suggest base be leveled and anchored for optimum performance and stability

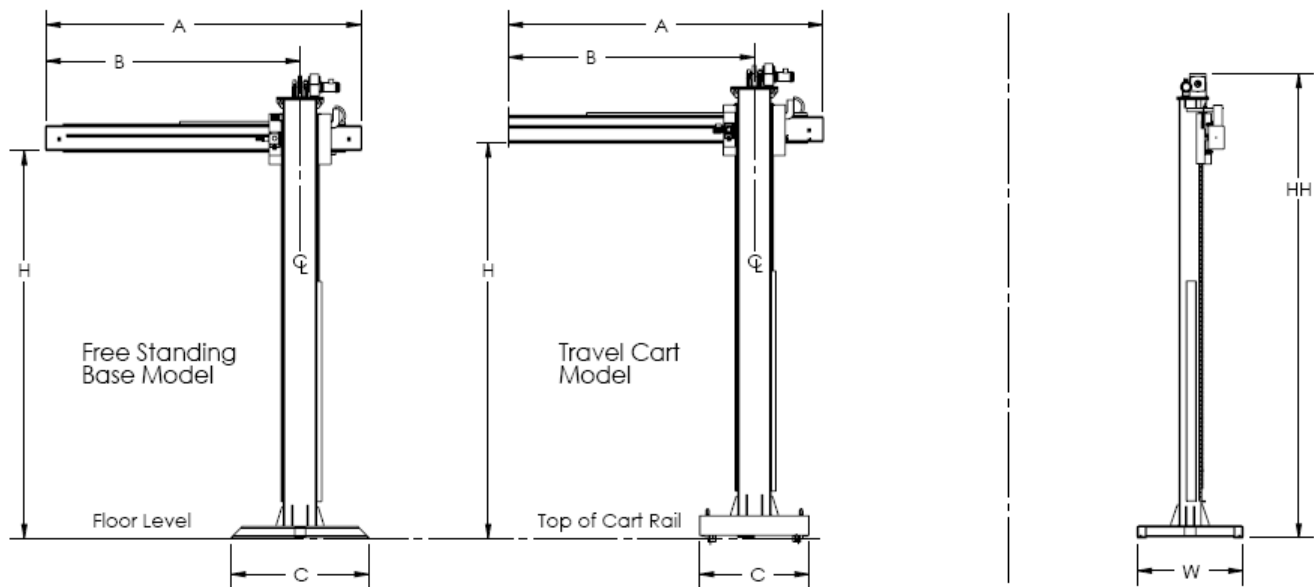
SERVICE REQUIREMENTS:

Power Requirements	460/575 volts, 60 hz, 3 ph
Please Contact AMET for different Primary input voltages	

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Standard Column and Boom Manipulators



Model Number V x H *	Column & Boom Stroke	Boom Length "A"	Boom Extension "B"	Boom Capacity kg (lbs)	Free Standing Base			Motorized Travel Cart		
					Boom Height "H"	Overall Height "HH"	Base Size "C" x "W"	Boom Height "H"	Overall Height "HH"	Cart Size "C" x "W"
CBM - L - 1.2 x 1.2	1200 (48)	2620 (103)	1830 (72)	225 (495)	560 - 1760 (22 - 69)	2770 (109)	1400 x 1500 (55 x 50)	770 - 1970 (30 - 77)	2960 (117)	1510 x 2210 (59 x 87)
CBM - 1.2 x 1.2	1200 (48)	2600 (102)	1900 (75)	500 (1100)	700 - 1900 (28 - 75)	3100 (122)	1900 x 1600 (75 x 63)	900 - 2100 (36 - 83)	3300 (130)	1800 x 2500 (71 x 99)
CBM - 2 x 2	2000 (78)	3400 (134)	2700 (106)	500 (1100)	700 - 2700 (28 - 106)	3900 (154)	1900 x 1600 (75 x 63)	900 - 2900 (36 - 114)	4100 (162)	1800 x 2500 (71 x 99)
CBM - 2.5 x 2.5 **	2500 (98)	3900 (154)	3200 (126)	500 (1100)	700 - 3200 (28 - 126)	4400 (173)	1900 x 1600 (75 x 63)	900 - 3400 (36 - 134)	4600 (181)	1800 x 2500 (71 x 99)
CBM - 3 x 3	3000 (118)	4400 (173)	3700 (146)	415 (915)	700 - 3700 (28 - 146)	4900 (193)	1900 x 1600 (75 x 63)	900 - 3900 (36 - 154)	5100 (201)	1800 x 2500 (71 x 99)
CBM - 3.5 x 3.5 **	3500 (138)	4900 (193)	4200 (165)	360 (790)	700 - 4200 (28 - 165)	5400 (213)	1900 x 1600 (75 x 63)	900 - 4400 (36 - 173)	5600 (221)	1800 x 2500 (71 x 99)
CBM - 4 x 4	4000 (156)	5400 (213)	4700 (185)	310 (685)	700 - 4700 (28 - 185)	5900 (232)	1900 x 1600 (75 x 63)	900 - 4900 (36 - 193)	6100 (240)	1800 x 2500 (71 x 99)
CBM - 4.5 x 4.5 **	4500 (176)	5900 (232)	5200 (205)	280 (615)	700 - 5200 (28 - 205)	6400 (252)	1900 x 1600 (75 x 63)	900 - 5400 (36 - 213)	6600 (260)	1800 x 2500 (71 x 99)
CBM - 5 x 5	5000 (196)	6400 (252)	5700 (224)	250 (550)	700 - 5700 (28 - 225)	6900 (272)	1900 x 1600 (75 x 63)	900 - 5900 (36 - 232)	7100 (280)	1800 x 2500 (71 x 99)
CBM - 5.5 x 5.5 **	5500 (216)	6900 (272)	6200 (244)	220 (485)	700 - 6200 (28 - 244)	7400 (292)	1900 x 1600 (75 x 63)	900 - 6400 (36 - 252)	7600 (299)	1800 x 2500 (71 x 99)

All Dimensions are in mm (inch)

- * Manipulators can be special ordered with different column and boom stroke combinations
- ** Special Order Strokes

Note: 5.5 x 5.5 is the maximum length allowed with the Standard model type. If a longer stroke or more weight capacity is required, use Heavy Duty model, or consult factory with project details.

Note: Specifications subject to change

AMET-TS-CBM-S-0108B