

Section-C: Brief Overview of Column & Boom Systems

C01 : Stationary Version

BCBM (Stationary)



Pg-82
Stationary Version

Stationary Column & Boom System



C02 : Movable on Rail Version

BCBM (Movable on Rail)



Pg-83
Movable Version



Movable on Rail Column & Boom System



C03 : Elbow-Pipe Welding Line

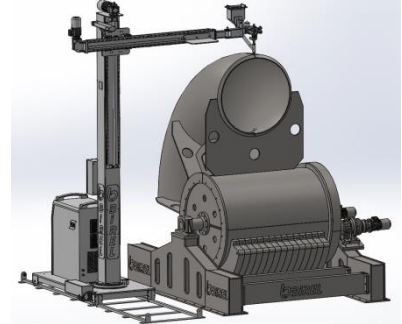
BKB (Birel Elbow Welding With Column&)Boom)



Pg-84
Stationary Version

Elbow-Pipe Welding Line

Elbow Welding Line



C04 : Mini Version Column-Boom

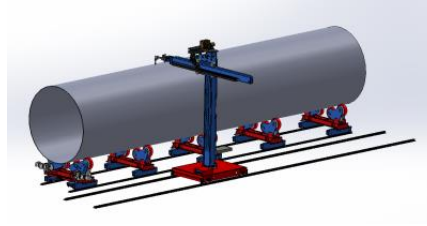
BCBM (mini)



Mini Column & Boom System

❖ All technical specifications are subject to change without prior notice.

Description



General Features ;

- Column-Boom systems, Although can perform welding independently for workpieces, it can also perform circular or lengthwise welding using rotator or positioner.
- Allow reducing the production time and getting tired of operator , as well as, Increase the accuracy and the amount of continuous welding that an operator can do.
- Welding types that can be used by the system; could be SAW, MIG, MAG, etc
- Column-Boom systems over ground ;
 - i) As standard Fixed to ground type is provided.
 - ii) Optionally Automatic Movement over Rails can be manufactured.
- Column Rotary System ;
 - i) As standard, Manual Rotation by means of Butt bearing is provided.
 - ii) Optionally, Automatic Motor Driven type can be manufactured.

Technical Advantages ;

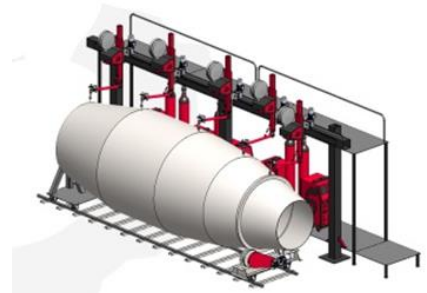
- Birel Machinery as standard provides the following models: BCBM-3x3 | BCBM-4x4 | BCBM-5x5 | BCBM-6x6
- Motor with brake and forced fan cooling.
- Birel Machinery, out of these standard capacities, according to customer standards & requirements ,can present quotation against the machine revision process or fulfill customer request against new designs.
- For any special request or project, Please do not hesitate to contact with us.

Standard Equipments

- Fixable to the ground system. (BCBM- S model)
- 360° degree Manually Rotating Column
- Ajustable linear Boom speed
- Boom speed digital display
- Against Anti-fall mechanical Locking System for boom.
- Limit switch for all movements.
- Welding power unit table on the column.
- Cable channels on the Column – Boom.
- Torch mounting equipment on the boom end.
- 5mt.Cable Pendant Control with cable.
- 5mt.Power Cable.
- Casing Color (RAL 7011-Grey) and Covers(RAL 3002-Red)
- Brake & forced fan cooled motor.
- Power Supply: 380V - 50 Hz. (3 phase)
- One(1) Year Warranty

Optional Control Units

- Column and Boom System moving on Rail.(BCMB-M model)
- Master Command Panel
- Automatic Rotary Column
- Operator Chair
- Stairs
- Tandem Welding Apparatus
- Lighting.
- Synchronization opportunity of working with Rotators over Master Panel.
- Oscillator System (with MIG/MAG)
- Rail movement
- SAW, MIG/MAG Weldings
- Joint Tracking System – Laser
- Joint Tracking System – Mechanical Sensor.
- Flux Suction Systems (only SAW)
- Automation Systems
- Wireless remote controller



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Section-C : Column & Boom | C01 : Stationary Version
STATIONARY Version Column & Boom System



Stationary Version



Model	STANDARD VERSION
Ground Mounting	Fixed To Ground
Column Rotation	Manual Rotation over of butt bearing

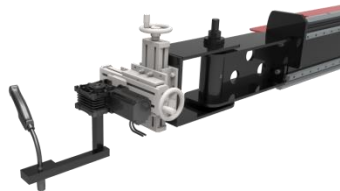


OPTIONAL Modifications & Equipments;

M01:Movable Chair



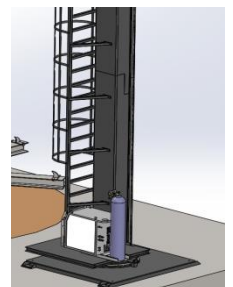
M02:Oscillator



M03:Motorised Column Rotation



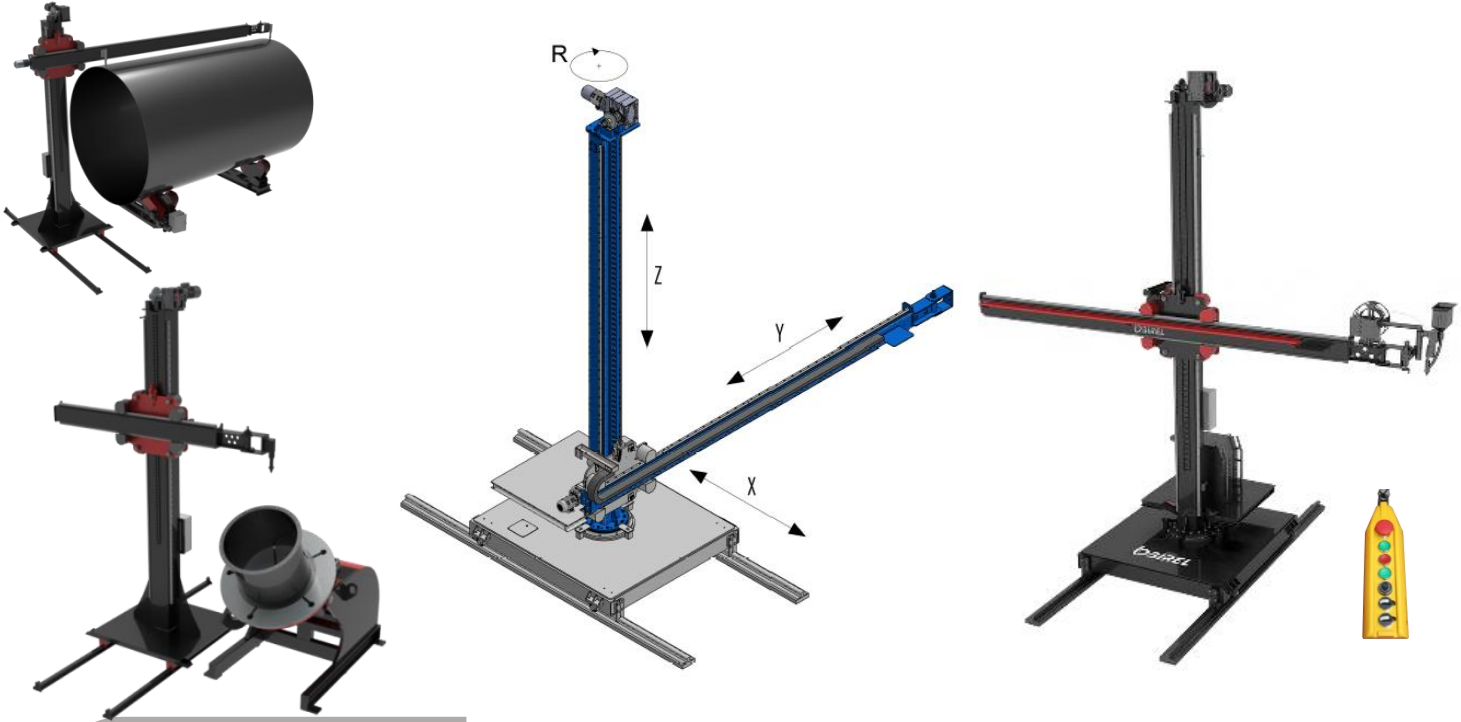
M04: Steel Stair



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Movable on Rail Version



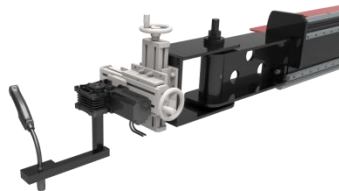
Model	RAIL VERSION
Ground Mounting	Movable on Rail
Column Rotation	Manual Rotation over of butt bearing

OPTIONAL Modifications & Equipments;

M01: Movable Chair



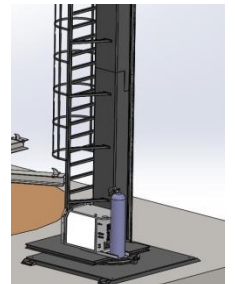
M02: Oscillator



M03: Motorised Column Rotation



M04: Steel Stair

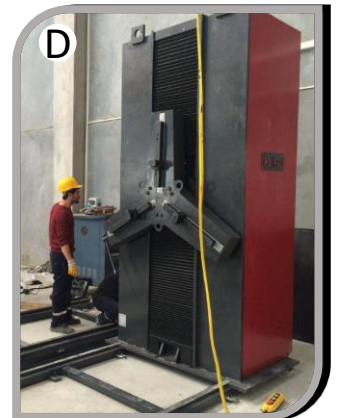
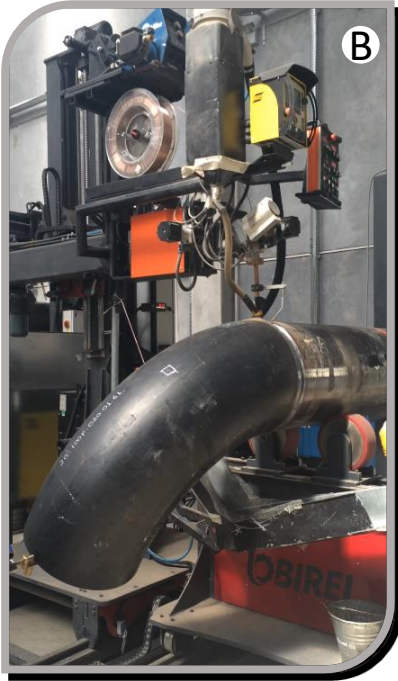


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Elbow-Pipe Welding Line



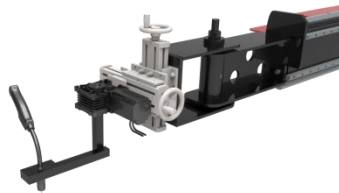
Model	ELBOW – PIPE Welding Line
Ground Mounting	Movable on Rail
Column Rotation	As standard not available (optional)



OPTIONAL Modifications & Equipments;

M01: Oscillator

M02: Motorised Column Rotation





Mini Version

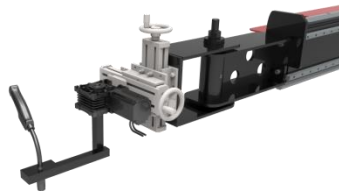
Model	Mini Version Column –Boom Welding Line
Ground Mounting	Movable on Rail
Column Rotation	As standard Not available (optional)



OPTIONAL Modifications & Equipments;

M01:Oscillator

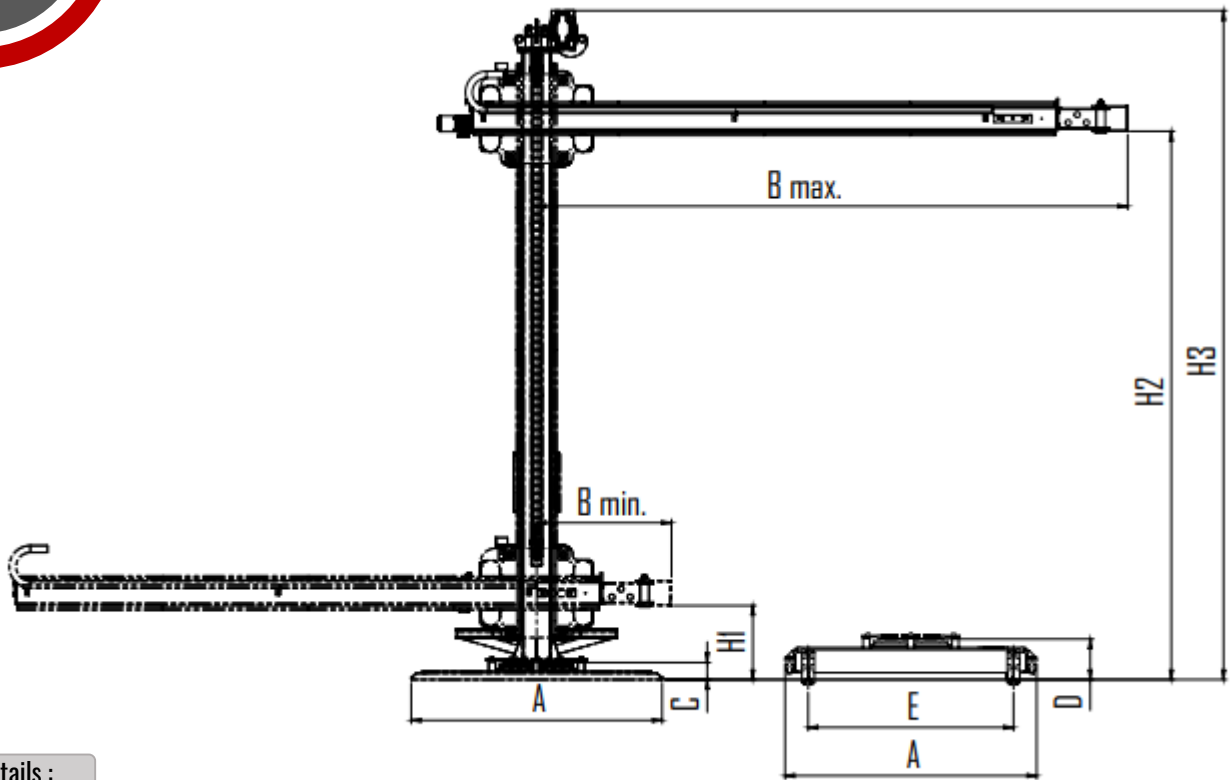
M02:Motorised Column Rotation



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Technical Properties



Technical Details :

Model : BCBM	Sym	Unit	BCBM-3 x 3	BCBM-4 x 4	BCBM-5 x 5	BCBM-6 x 6
Working range		m	3 x 3	4 x 4	5 x 5	6 x 6
Max load (boom)		kg	200	200	150	150
Boom speed (welding) min/max		mm/min	200-1850	200-1850	200-1850	200-1850
Lifting speed min/max		mm/min	1.220	1.220	1.220	1.220
Column rotation			manual	manual	manual	manual
Column rotation motorized			option	option	option	option
Boom height Max (movable base)	H2+(D-C)	mm	4.000	5.000	6.000	6.920
Boom height Min (movable base)	H1+(D-C)	mm	850	850	980	920
Height (Moveable Type)	H3+(D-C)	mm	4.970	6.050	7.050	8.010
Boom height Max (stationary base)	H2	mm	3.800	4.800	5.800	6.800
Boom height Min (stationary base)	H1	mm	650	650	780	780
Height (Fixed Type)	H3	mm	4.770	5.850	6.850	7.850
Extension min/max	Bmax-Bmin	mm	1180-4180	1180-5180	1180-6180	1290-7290
Base size (width x length)	A	mm	2200x2200	2200x2200	2200x2200	2400x2400
Base speed (welding) min/max		mm / min	200-1770	200-1770	200-1770	200-1770
Track width (inside to inside)	E	mm	1.800	1.800	1.800	2.000
Rail type			A55	A55	A55	A55
Platform size (width x length)		mm	1230x1400	1230x1400	1230x1400	1230x1400
Total load on platform		kg	150	150	150	150
Weight (Moveable Type)		kg	2.790	3.060	4.100	4.900
Weight (Fixed Type)		kg	2.380	2.620	3.780	4.200
Total Motor Power		kW	1	1	1	1

✎ Out of these standard capacities, Birel Machinery, according to customer requirements, has the manufacturing possibility at different capacities, sizes.

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