

3arm®



ERGONOMIC SOLUTIONS



3 Arm is a division of the Tecnospiro Machine Tool Company located in Sant Joan de Vilatorrada a small village about 40 miles west of Barcelona. They are a small family owned company that has been in business since the 60's. They have a state of the art manufacturing facility and a dynamic engineering staff that has been very innovative in design and inventing new products. The 3Arm ergonomic arm is the strongest most dependable arm available in the world market place today. It can be used for assistance in assembly, deburring, off line machining, and all types of lifting operations. Where ever operator fatigue is concern for employee safety, productivity, or quality 3Arm has a solution.



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3ARM® www.3arm.net

SAFETY WARNING 3ARM products are engineered and manufactured with safety in mind. The heat treat specifications exceed or meet all standards. All of the products manufactured by 3ARM are designed to perform without any undue safety issues when caution, common sense and proper safety practices are followed. The use of cutting tools and toolholders is safe when proper application and protection guidelines are observed. Even when these proper precautions are taken, it is possible that fragments of a cutting tool, cutting material, or holding device may be thrown at a very high rate of speed and have potential to cause severe bodily harm. It is imperative that general safety precautions and safety glasses be used at all times.

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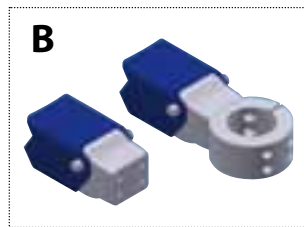
3arm Details

	SERIES 2	SERIES 3	SERIES 4	SERIES 5
RADIUS mm.	860	from 1075 to 1730	from 1220 to 1460	2130
VERTICAL DISTANCE mm.	565	from 705 to 1130	from 1075 to 1415	1150
MAXIMUM WEIGHT Kg.	6	up to 35	up to 24	12
LOCK ON BRAKES	NO	OPTIONAL	OPTIONAL	NO

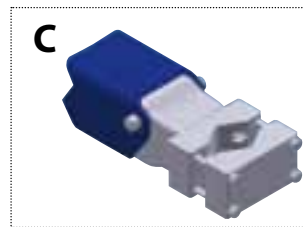
Head members



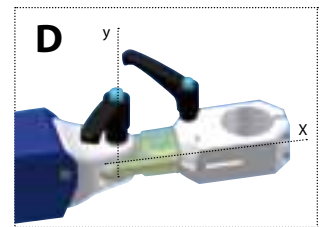
Tilting arm movement only



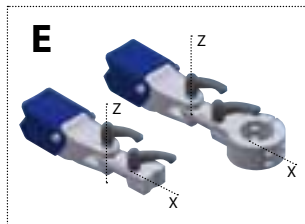
Tilting arm movement only



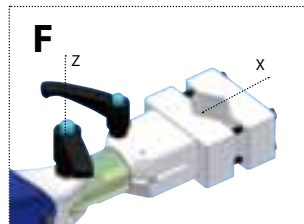
Tilting arm movement only



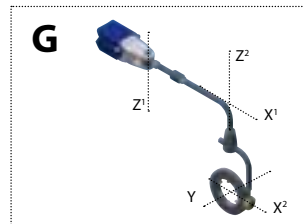
X: Turns 360°
Z: Turns 90° right and left, lockable in any position.



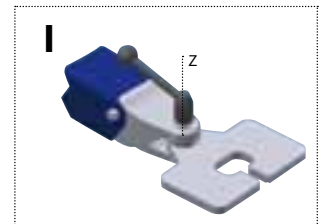
X: Turns 360°
Z: Turns 90° right and left, lockable in any position.



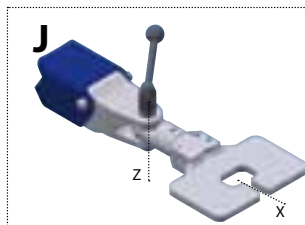
X: Turns 360°
Z: Turns 90° right and left, lockable in any position.



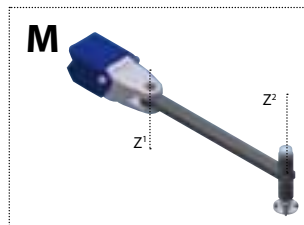
X¹: Turns 360°, lockable each 45°
X²: Turns 360°, non lockable
Y: Turns 360°, non lockable
Z¹: Turns 90° right and left, non lockable
Z²: Turns 360°, non lockable



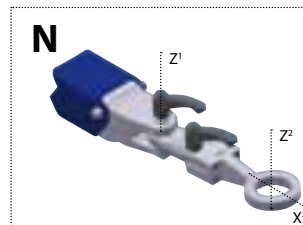
Z: Turns 90° right and left



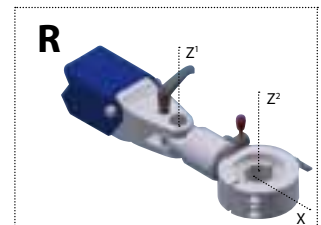
X: Turns 360°
Z: Turns 90° right and left, lockable in any position.



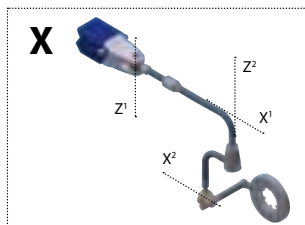
Z¹: Turns 90° right and left.
Z²: Tilting arm movement only



X: Turns 360°, lockable in any position.
Z¹: Turns 90° left, lockable in any position.
Z²: Turns 360°, non Lockable



X: Turns 360°, 64 lockable position.
Z¹: Turns 90° left, 5 lockable position.
Z²: Turns 360°, 8 lockable position.

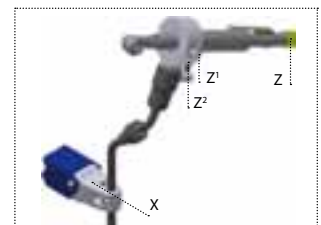


X¹: Turns 360°, lockable each 45°.
X²: Turns 360°, non lockable.
Y: Turns 360°.
Z¹: Turns 90° right and left, non lockable.
Z²: Turns 360°, non lockable.

**Others
On Request**



Z¹: Turns 90° right and left.
Z²: Turns 360°, lockable.



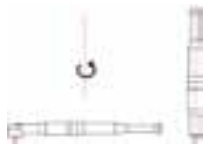
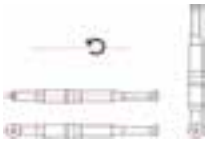

Z: Turns 360°, 8 positions each 45°.
Z¹: Turns 360°, 8 lockable position.
Z²: 64 position each 5,6°.
X: Turns 360° 8 positions each 45°.

APPLICATION	TOOLS	3arm solution
Deburring Sharpen Polish	Straight grinder Angular grinder Orbital Sander Pneumatic Electric	S2 - S3 - S4 - S5 Head G or X
Flat Polishing	Sander	S3 - S4 + Lock. Head M
Cut Rivet Stapling	Cutters & Spreaders Riveting Stapler	S2 - S3 - S4 - S5 Head G or X (+dynamic) Head N (- dynamic)
Welding	Stud Welding	S2 - S3 - S4 - S5 A / B / C / D / E / F / N
	Spot Welding	S2 - S3 - S4 - S5 Head N (- dynamic) Head G or X (+dynamic)

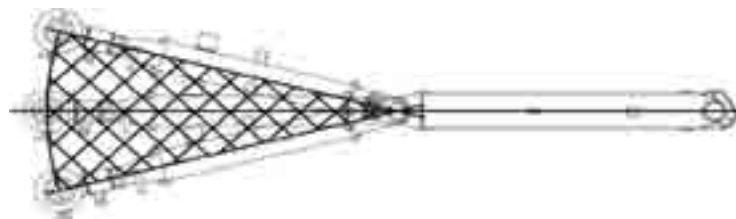
APPLICATION	TOOLS	3arm solution
Positioning	Camera Laser Scanner	S2 - S3 - S4 - S5 A / B / C / D / E / F / N
Positioning + attach	Roughness tester Gauge	S3 - S4 A / B / C / D / E / F + lock
Positioning + attach Accuracy	Specialized tools etc...	S3 - S4 A / B / C / D / E / F + lock + Ball head
Screwing without torque	Wrench Impact Impulse Bar reaction Hydraulic	S2 - S3 - S4 - S5 Head N (- dynamic) Head G or X (+ dynamic)
Screwing with torque	Wrench Pneumatic Electronic Hydraulic Straight Angle	S2 - S3 - S4 Look "TORQUE" table data

Quick Guide

WORK TYPE	Max TORQUE. Nm		
	S2	S3*	S4**
VERTICAL	120	650	300
HORIZONTAL	60/90 straight/angular	250	250
ANY ANGLE	60	200	200

WORK	HEAD Member	S2	S3*	S4**
	VERTICAL			
	B: STATIONARY FLAT + RING	120	650	300
	E: ARTICULATED FLAT + RING	60	120	
	R: REVOLVING	-		300
	HORIZONTAL			
	B: STATIONARY FLAT + RING	90	250	
	E: ARTICULATED FLAT + RING	60	120	
	R: REVOLVING	-		250
	ANY ANGLE			
	E: ARTICULATED FLAT + RING	60	120	
	R: REVOLVING	-		200

*S3 - REQUIRED LOCKING, **S4 - REQUIRED LOCKING



UNUSABLE AREA WITHOUT LOCKING

Accessories

CLAMP



TROLLEY WITH COLUMN



TABLE



LIFTER 2000S



FLOOR RAIL



BEAM + PILLAR



Applications



Engineered for your application

Over 450 standard combinations available

AS EASY AS KNOWING THE ANSWER TO 5 QUESTIONS

1

Choose the arm that will meet your weight and reach requirements

Series 2 - up to 6 Kg / 13 lbs, 860 mm / 34"

Series 3 - up to 35 Kg / 77 lbs, 1730 mm / 68"

Series 4 - up to 24 Kg / 53 lbs, 1460 mm / 58"

Series 5 - up to 12 Kg / 26 lbs, 2130 mm / 84"

3

Choose Your vertical lift arm

What overall reach & vertical distance do you need?

4

Choose your Head Member

Hold it with a vertical head?
Hold it with a vertical or horizontal head? Or an orbital attachment?

5

Choose a Brake option

Do you need manual brakes?
Pneumatic brakes?
Or without brakes?

2

Choose your base

What type of mount do you need? Bottom, Top or Adjustable Height Base

OR YOU CAN CONTACT US AND WE WILL ENGINEER A SOLUTION FOR YOU!



Series 2

Build an ergonomic solution

Pick your Base Arm

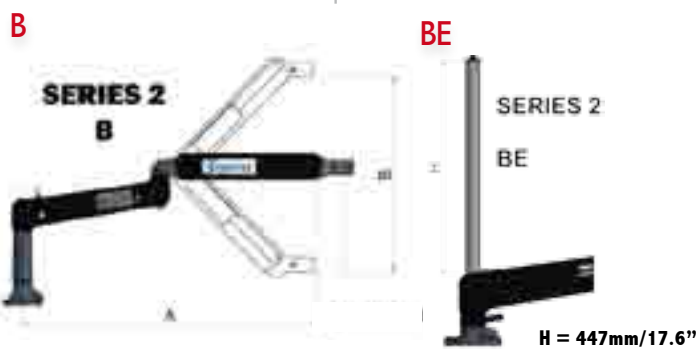


+

Pick your Head Member



Bottom Radial Base Arm



Arm Dimensions

Radial Base	A (Maximum Reach)	B (Vertical Distance)
B	860 / 33.9"	565 / 22.2"
BE	860 / 33.9"	565 / 22.2"

Stationary



Articulating



Orbital Attachment



3arm Pictured
B+G2
Tool not included




Weight Range
0-6 Kg / 13 lbs.

According Damper Weight Range

Maximum Reach
860 mm / 34"

Vertical Distance
565mm / 22"

WORK TYPE	Max TORQUE. Nm
	S2
VERTICAL	120
HORIZONTAL	60/90 straight/angular
ANY ANGLE	60

WORK	HEAD Member	S2
	VERTICAL	
	B2: STATIONARY FLAT + RING	120
	E2: ARTICULATED FLAT + RING	60
	HORIZONTAL	
	B2: STATIONARY FLAT + RING	90
	E2: ARTICULATED FLAT + RING	60
	ANY ANGLE	
	E2: ARTICULATED FLAT + RING	60

Damper Weight Range

Head Type	A2		B2		C2		D2		E2		F2		G2, X2		N2	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
SERIES 2 B + Head type	0	0,6	0,2	0,8												
	0,3	1,1	0,5	1,3	0	0,7	0	0,5	0	0,6						
	0,6	1,5	0,8	1,7	0,2	1,1	0	0,9	0,1	1						
	0,8	2	1	2,2	0,4	1,6	0,2	1,4	0,3	1,5	0	0,9				
	1,1	2,4	1,3	2,6	0,7	2	0,5	1,8	0,6	1,9	0	1,3			0	1,2
	1,7	3,3	1,9	3,5	1,3	2,9	1,1	2,7	1,2	2,8	0,6	2,2	0	1,5	0,5	2,1
	2,3	4,2	2,5	4,4	1,9	3,8	1,7	3,6	1,8	3,7	1,2	3,1	0,5	2,4	1,1	3
	2,9	5,1	3,1	5,3	2,5	4,7	2,3	4,5	2,4	4,6	1,8	4	1,1	3,3	1,7	3,9
	3,5	6	3,7	6,2	3,1	5,6	2,9	5,4	3	5,5	2,4	4,9	1,7	4,2	2,3	4,8

Series 3

Weight Range
0-35 Kg / 77 lbs.

According Damper Weight Range

Maximum Reach
1730 mm / 68"

Vertical Distance
1130 mm / 45"

Build an ergonomic solution

Pick your Base Arm



+

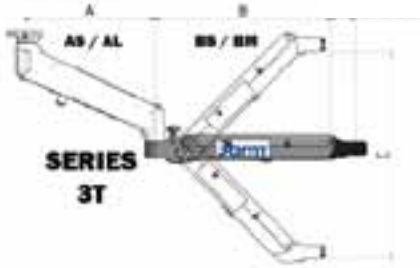
Pick your Tilt Arm



+

Top Radial Base Arm

AS or AL



Arm Dimensions

Radial Base	A (Length) mm./inches	Tilting Arm mm./inches	B (Length) mm./inches	C (Vertical Distance) mm./inches	Maximum Reach mm./inches
AS	450/17.7"	BS	610/24"	707/27.8"	1060/41.7"
		BM	910/35.8"	1130/44.5"	1360/53.5"
AL	808/31.8"	BS	610/24"	707/27.8"	1420/55.9"
		BM	910/35.8"	1130/44.5"	1730/67.6"

Vertical Tilt Arm

BS Small (Length 610mm./24", up to 35 Kg/77 lbs)

BM Medium (Length 910mm./ 35.8", up to 18 Kg/40 lbs)



3arm Pictured
AS+BM+A3+L11

Top Mount

Pick your Head Member



+

Pick your Brakes



Stationary

A3 Vertical



B3 Flat



C3 Adjustable



Articulating

D3 Vertical



E3 Flat



F3 Adjustable



R3 Nut Runner



Orbital Attachment

G3, X3 Quick-Change Gimbal



I3 Flat Locatable Surface



J3 Flat Vertical Surface



N3 Pistol-Style Tool Holder



M3 Constant-Pressure Tool Holder



Brakes

L00 None

L11 Manual

L22 Pneumatic

L50 Manual Lock at Base

L92 Brakes lock by tool trigger



Series 3

Weight Range
0-35 Kg / 77 lbs.

According Damper Weight Range

Maximum Reach
1730 mm / 68"

Vertical Distance
1130 mm / 45"

Build an ergonomic solution

Pick your Base Arm



+

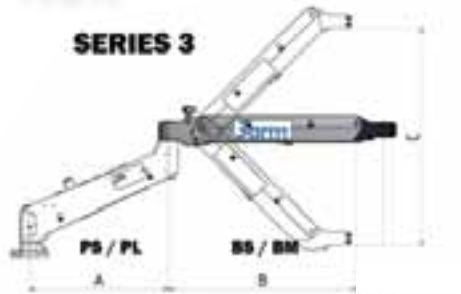
Pick your Tilt Arm



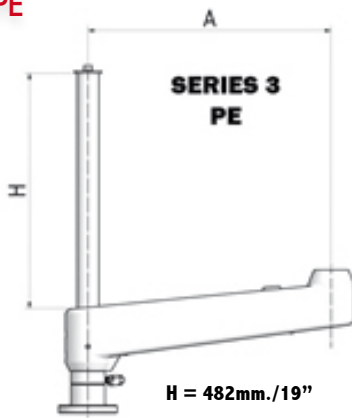
+

Bottom Radial Base Arm

PS or PL



PE



H = 482mm./19"

Vertical Tilt Arm

BS Small (Length 610mm./24", up to 35 Kg/77 lbs)

BM Medium (Length 910mm./35.8", up to 18 Kg /40 lbs)



Arm Dimensions

Radial Base	A (Length) mm./inches	Tilting Arm mm./inches	B (Length) mm./inches	C (Vertical Distance) mm./inches	Maximum Reach mm./inches
PS	450/17.7"	BS	610/24"	707/27.8"	1060/41.7"
		BM	910/35.8"	1130/44.5"	1360/53.5"
PL	808/31.8"	BS	610/24.0"	707/27.8"	1420/55.9"
		BM	910/35.8"	1130/44.5"	1730/67.6"
PE	500/19.7"	BS	610/24.0"	707/27.8"	1110/43.7"
		BM	910/35.8"	1130/44.5"	1410/55.8"

3arm Pictured
AS+BM+D3+L11

Bottom Mount

Pick your Head Member



+

Pick your Brakes



Stationary

A3 Vertical



B3 Flat



C3 Adjustable



Articulating

D3 Vertical



E3 Flat



F3 Adjustable



R3 Nut Runner



Orbital Attachment

G3, X3 Quick-Change Gimbal



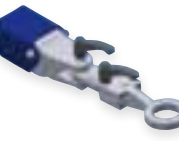
I3 Flat Locatable Surface



J3 Flat Vertical Surface



N3 Pistol-Style Tool Holder



M3 Constant-Pressure Tool Holder



Brakes

L00 None

L11 Manual

L22 Pneumatic

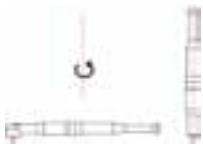
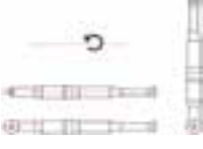

L50 Manual Lock at Base

L92 Brakes lock by tool trigger



Series 3

WORK TYPE	Max TORQUE. Nm
	S3*
VERTICAL	650
HORIZONTAL	250
ANY ANGLE	200

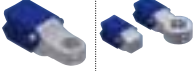
WORK	HEAD Member	S3*
VERTICAL		
	B3: STATIONARY FLAT + RING	650
	E3: ARTICULATED FLAT + RING	120
	R3: REVOLVING	300
HORIZONTAL		
	B3: STATIONARY FLAT + RING	250
	E3: ARTICULATED FLAT + RING	120
	R3: REVOLVING	250
ANY ANGLE		
	E3: ARTICULATED FLAT + RING	120
	R3: REVOLVING	200

*S3 -RECOMMENDED LOCKING



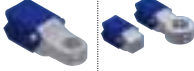
UNUSABLE AREA WITHOUT LOCKING

Damper Weight Range

Head Type	A3	B3
		
Load Range Kg	Min	Max
	1	3
	1	3
	2	5
	3	6
	4	8
	5	9
	5	10
	6	12
	7	13
	7	13
	8	15
	9	16
	10	18
	11	19
	11	20
	12	21
	12	22
	13	23
	14	25
	15	26
	16	27
	17	29
	17	30
	18	31
	18	32
	19	33
	20	35

SERIES 3 TOP & BOTTOM MOUNT

AS or PS + BS + Head type / AL or BL + BS + Head type

Head Type	A3	B3
		
Load Range Kg	Min	Max
	0	3
	1	4
	1	5
	2	5
	2	6
	2	7
	3	7
	3	8
	4	9
	4	10
	5	10
	5	11
	6	12
	6	13
	7	14
	7	14
	8	15
	8	16
	8	17
	9	17
	9	18
	10	19
	17	30
	18	31
	18	32
	19	33
	20	35

SERIES 3 TOP & BOTTOM MOUNT

AS or PS + BM + Head type / AL or PL + BM + Head type

C3 	D3 	E3 	I3 	M3 	1Kg
F3 	J3 	N3 			
G3 	X3 				3Kg
R3 					

* Add the head weight to the weight tool.
Look for the weight range wished in the table

* Ex.:
Head F3..... 2 Kg
Tool 5 Kg
Total: 7 Kg

Right choice:
5 - 9
5 - 10

Series 4

Build an ergonomic solution

Pick your Base Arm

Pick your Head Member

Pick your Brakes



Radial Base Arm

DS or DM

SERIES 4



Arm Dimensions

Radial Base	A (Maximum Reach) mm./inches	B (Vertical Distance) mm./inches	Weight Range Kg./lbs
DS	1220/48"	1075/42.3"	21/46
DM	1460/57.5"	1415/55.5"	24/53

Stationary

A4 Vertical



B4 Flat



C4 Adjustable



Articulating

D4 Vertical



E4 Flat



F4 Adjustable

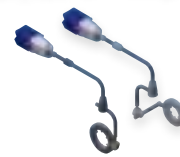


R4 Nut Runner



Orbital Attachment

G4, X4 Quick-Change Gimbal



I4 Flat Locatable Surface



J4 Flat Vertical Surface



N4 Pistol-Style Tool Holder



M4 Constant-Pressure Tool Holder



Brakes

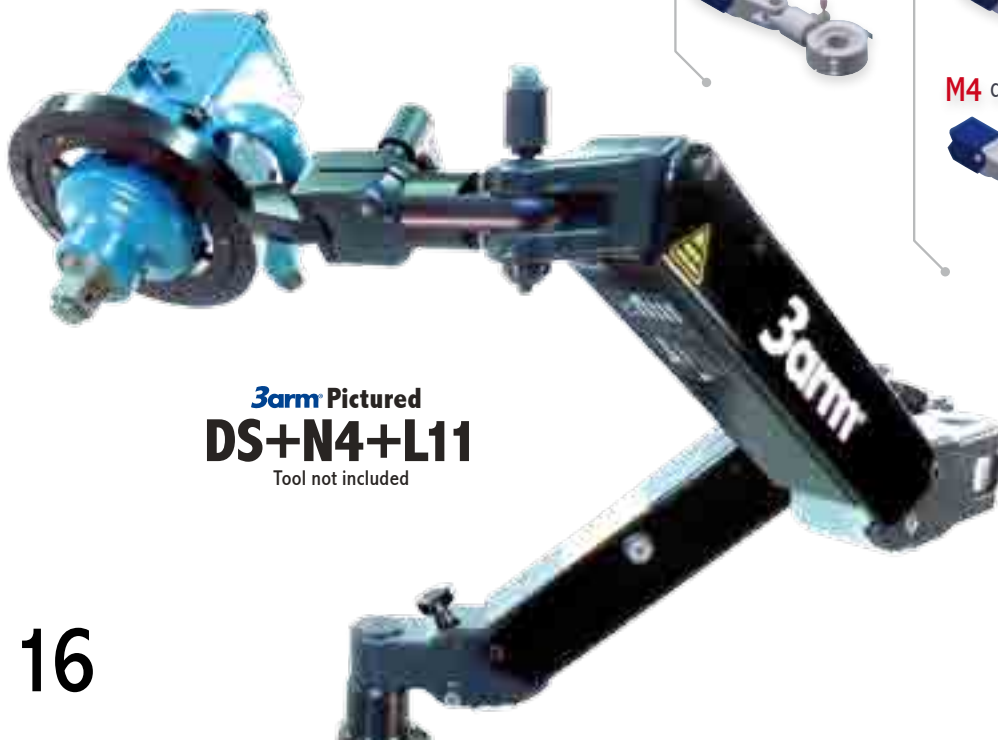
L00 None

L11 Manual

L22 Pneumatic

L50 Manual Lock at Base

L92 Brakes lock by tool trigger



3arm Pictured
DS+N4+L11
Tool not included

Can be engineered for
Top, Bottom or Wall mount


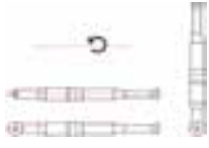

Weight Range
0-24 Kg / 53 lbs.

According Damper Weight Range

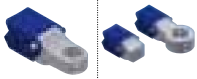
Maximum Reach
1460 mm / 58"

Vertical Distance
1410 mm / 56"

WORK TYPE	Max TORQUE. Nm
	S4**
VERTICAL	300
HORIZONTAL	250
Any Angle	200

WORK	HEAD Member	S4**
	VERTICAL	
	B4: STATIONARY FLAT+ RING	300
	E4: ARTICULATED FLAT + RING	120
	HORIZONTAL	
	B4: STATIONARY FLAT + RING	250
	E4: ARTICULATED FLAT + RING	120
	ANY ANGLE	
	E: ARTICULATED FLAT + RING	120
	R4: REVOLVING	200

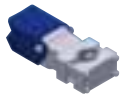










Damper Weight Range

Head Type	A4	B4
		
Load Range Kg	Min	Max

SERIES 4 DM + Head type	A4	B4
	1	3
	1	3
	2	5
	3	6
	4	8
	5	9
	5	10
	6	12
	7	13
	7	13
	8	15
	9	16
	10	18
11	19	

SERIES 4 DS + Head type	A4	B4
	11	20
	12	21
	12	22
	13	23
	14	24
	2	4
	3	6
	3	7
	4	9
	6	11
	7	13

**S4 -REQUIRED LOCKING

C4 	D4 	E4 	M4 	1Kg
F4 	I4 	J4 	N4 	
G4 	X4 			3Kg
R4 				4Kg

* Add the head weight to the weight tool.
Look for the weight range wished in the table

* Ex.:
Head F4..... 2 Kg
Tool 5 Kg
Total: 7 Kg

Right choice:
5 - 9
5 - 10

Series 5

Build an ergonomic solution

Pick your Base Arm



+

Pick your Head Member



+

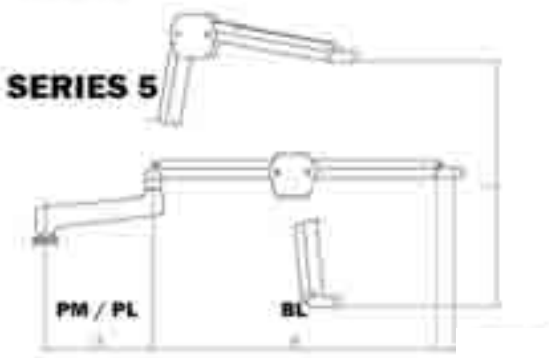
Pick your Brakes



L50

Radial Base Arm

PM or PL



Arm Dimensions

Radial Base	A (Length) mm./inches	Tilting Arm mm./inches	B (Length) mm./inches	C (Vertical Distance) mm./inches	Maximum Reach mm./inches
PM	1500/9.7"	BL	610/52"	1150/45.2"	1818/71.6"
PL	808/31.8"		610/52"	1150/45.2"	2130/83.8"

Stationary

A5 Vertical



B5 Flat



C5 Adjustable



Articulating

D5 Vertical



E5 Flat



F5 Adjustable



Orbital Attachment

G4, X5 Quick-Change Gimbal



Brakes

L50 Manual lock at base



3arm Pictured
PM+BL+A5+L50










Weight Range
0-12 Kg / 26 lbs.

According Damper Weight Range

Maximum Reach
2130 mm / 84"

Vertical Distance
1150 mm / 45"

Damper Weight Range

	A5	B5	C5	D5	E5	F5	N5	G5	X5
Head Type									
Load Range Kg	Min	Max	Min	Max	Min	Max	Min	Max	
SERIES 5 PM + BL + Head type PL + BL + Head type	2	6	1	5					
	2	7	1	6	0	5	0	4	
	5	12	4	11	3	10	2	9	
	7	14	6	13	5	12	4	11	

* Chose the weigh range according your tool weight and the head selected.



Accessories

Ref	Description	Dimensions	Series			
			2	3	4	5
TP000100	Small table	500x500x900 mm. 19 11/16" x 19 11/16" x 35 7/16"	○	Consult (according the load)		
TF000100	Medium table	850x850x850 mm. 33 7/16" x 33 7/16" x 33 7/16"	○	Consult (according the load)		
907B0000	Large table	1100x850x850 mm. 43 5/16" x 33 7/16" x 33 7/16"	○	Consult (according the load)		

Ref	Description	Dimensions	Series			
			2	3	4	5
BR000100	Clamp	127x63,5 mm. 5" x 2 1/2"	○			
BR100100	Big Clamp	127x127x65,5 mm. 5" x 5" x 2 1/2"	○	Consult (according the load)		

EDP	Description	Dimensions	Series			
			2	3	4	5
IC000100	Magnetic Suport	250 mm. 9 13/16"	○	Consult (according the load)		
KA011X04	Trolley	700 x 700 mm. 27,55" x 27,55"	○	Consult (according the load)		
CL000100	Column	940mm. 37"	○	○	○	○
EA0001A0	Pneumatic lifter	550 mm. 21 5/8"	○	○	Consult (according the load)	
CL013300	Column lifter	1450 mm. 57,1"	○	○	○	○
CL020000	Beam	2000 mm. 78,7"	○	○	○	○
CL021504	Pillar	764 mm. 30"	○	○	○	○
CL040000	Floor Rail	2000 mm. 78,7"	○	○	○	○

FLOOR RAILS & BEAMS

AVAILABLE UPON REQUEST

CALL FOR AN ENGINEERED SOLUTION



Small



Medium



Large



Small Clamp



Big Clamp



Magnetic Support



Lifter



Column



Trolley + Column



2000S
Column Rifter



Floor Rail +
Column Lifter



Beam + Pillar

