

**WE SERVICE
WHAT WE
MANUFACTURE**

www.3arm.net



TECNOSPIRO
MACHINE TOOL SL

Tecnospiro Machine Tool, S.L.

Tel. +34 93 8764359 Fax. +34 93 8767738

Pl. Pla dels Vinyats, B

08250 St.Joan de Vilatorrada Barcelona

3ARM® www.3arm.net

3arm@3arm.net



Customer Commitment

To work hard everyday to be regarded in the metal working marketplace as a supplier that is friendly, helpful and easy to do business with - EVERYDAY, EVERYTIME.

To offer innovative high quality solutions at a competitive price.

To be receptive & proactive in identifying solutions for our customers needs & requirements.



3arm®



ERGONOMIC SOLUTIONS

© Tecnospiro Machine Tool S.L.

Modifications reserved

Edition: September 2014

www.3arm.net

Catalog

3arm Details

	SERIES 1	SERIES 2	SERIES 3	SERIES 4	SERIES 6 (Telescopic)
Max. RADIUS mm/inches	1120/44"	860/34"	1730/68"	1460/58"	2190/86"
VERTICAL DISTANCE mm/inches	1070/42"	530/22"	1070/42"	1375/54"	670/26"
MAXIMUM WEIGHT Kg./lbs	10 / 22	6 / 13	35 / 77	24 / 53	20 / 44
LOCK ON BRAKES	NO	NO	OPTIONAL	OPTIONAL	NO
Top or BOTTOM Mounted	YES	YES	YES	YES	YES

Head members



A

Tilting arm movement only



B

Tilting arm movement only



C

Tilting arm movement only



D

X:Turns 360°, Z:Turns 90° right & left. Lockable in any position



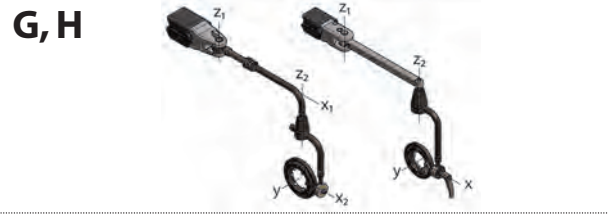
E

X:Turns 360°. Lockable in any position
Z:Turns 90° right & left. Lockable in any position



F

X:Turns 360°. Lockable in any position
Z:Turns 90° right & left. Lockable in any position



G, H

G: from 0 up to 15 kg/33 lbs with Quick Change
X1:Turns 360°. Lockable each 45°
X2:Turns 360°
Y:Turns 360°
Z1:Turns 90° right & left.
Z2:Turns 360°. Non lockable

H: from 15 kg/33 lbs up to 30 kg/66 lbs. NO Quick Change
X:Turns 360°. Lockable in any position
Y:Turns 360°. Lockable in any position
Z1:Turns 90° right & left
Z2:Turns 360°



I

Z:Turns 90° right & left. Lockable in any position



J

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



L

X:Turns 90°. Lockable in any position
Y:Turns 90° right & left.
Z:Turns 360°. Lockable in any position. Height adjustable up to 175 mm.



M

Z:Turns 90° right & left.



N, Q

N: from 0 up to 15 kg with Quick change
X:Turns 360°. Lockable 4x90°.
Z1:Turns 90° right & left.
Z2:Turns 360°
Q: from 15 up to 30 kg
X:Turns 360°. Lockable in any position
Z1:Turns 90° right & left
Z2:Turns 360°. Lockable in any position



R

X:Turns 360°. 64 Lockable positions
Z1:Turns 90° left. 5 Lockable positions
Z2:Turns 360°. 8 Lockable positions



T, U

T: from 0 up to 15 kg with Quick change
X:Turns 360°. Lockable 4x90°
Y:Turns 360°
Z1:Turns 90° right & left
Z2:Turns 360°
U: from 15 up to 30 kg
X:Turns 360°. Lockable 4x90°
Y:Turns 360°. Lockable in any position
Z1:Turns 90° right & left
Z2:Turns 360°



X

X1:Turns 360°. Lockable each 45°
X2:Turns 360°
Y:Turns 360°
Z1:Turns 90° right & left.
Z2:Turns 360°



APPLICATION	TOOLS	3arm solution
Deburring Sharpen Polish	Straight grinder Angular grinder Orbital Sander Pneumatic Electric	S1 - S2 - S3 - S4 Head G or X
Flat Polishing	Sander	S3 - S4 + Lock. Head M
Cut Rivet Stapling	Cutters & Spreaders Riveting Stapler	S1 - S2 - S3 - S4 Head G or X (+dynamic) Head N (- dynamic)
Welding	Stud Welding	S1 - S2 - S3 - S4 A / B / C / D / E / F / N
	Spot Welding	S1 - S2 - S3 - S4 Head N (- dynamic) Head G or X (+dynamic)



APPLICATION	TOOLS	3arm solution
Positioning	Camera Laser Scanner	S1- S2 - S3 - S4 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	S1 - S2 - S3 - S4 - S6 Head N (- dynamic) Head G or X (+ dynamic) Head H / Q / T (only S3)
Screwing with torque	Wrench Pneumatic Electronic Hydraulic Straight Angle	S2 - S3 - S4 Look "TORQUE" table data page 5



Ref	Description	Dimensions	Series					
			1	2	3	4	6	
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					
			1	2	3	4	6	
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					
			1	2	3	4	6	
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	Linear Guide	2000 mm. 78,7"	●	●	●	●	●	
CL021504	Pillar	764 mm. 30"	●	●	●	●	●	
CL040000	Floor Rail	2000 mm. 78,7"	●	●	●	●	●	

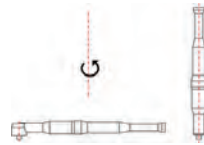
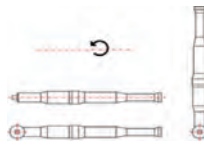
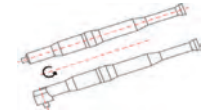
FLOOR RAILS & BEAMS

AVAILABLE UPON REQUEST

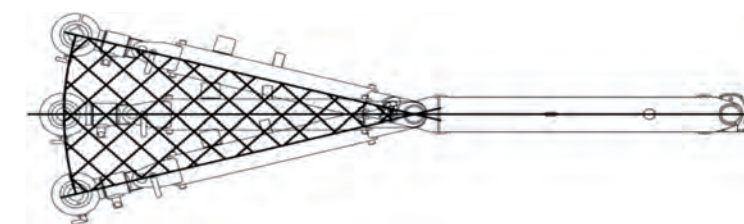
CALL FOR AN ENGINEERED SOLUTION

TORQUE TABLE

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 - RECOMMENDED LOCKING, **S4 - REQUIRED LOCKING



UNUSABLE AREA WITHOUT LOCKING

Accessories

BIG CLAMP



TROLLEY + COLUMN + PNEUMATIC LIFTER



TABLE



TOLLEY + LIFTER 2000



FLOOR RAIL + LIFTER 2000



BEAM + PILLARS



Damper Weight Range

Head Type	N6	T6
Load Range Kg	Min	Min
SERIES 6 TELESCOPIC BOTTOM & TOP Mounted	0	11
	2	13
	3	15
	4	18
	6	20



2Kg

3Kg

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

* Ex.:
Head N6 2 Kg
Tool 14 Kg
Total 16 Kg

Right choices:
6 - 20



Series 6

Weight Range
0-20 Kg / 44 lbs.
According Damper Weight Range

Maximum Reach
2190 mm / 86"

Vertical Distance
670 mm / 26"

Applications

Build an ergonomic solution

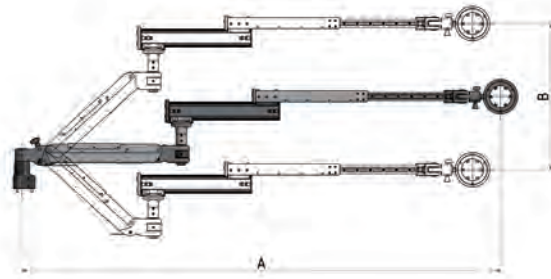
Pick your Radial Base Arm

Pick your Head Member



Radial Base Arm

BP + RA + BM



Arm Dimensions

Radial Base Arm	A (Maximum Reach) mm./inches	B (Vertical Distance) mm./inches
BP+RA+BM	2190/86.2"	670/26.4"
DM	1460/57.5"	1415/55.5"

Orbital Attachment

N6 Pistol Style tool holder



T6 Pistol Style tool holder



3arm Pictured
BP+RA+BM+N6
Tool not included



Engineered for your application Over 600 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 1 - up to 10 Kg / 22 lbs, 1120 mm / 44"
- 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 6 - up to 20 Kg / 44 lbs, 2190 mm / 86"

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 1

Weight Range
0-10 Kg / 22 lbs.
According Damper Weight Range

Maximum Reach
1120 mm / 44"

Vertical Distance
1070mm / 42"

Top & Bottom Mount

Build an ergonomic solution

Pick your Radial Base Arm

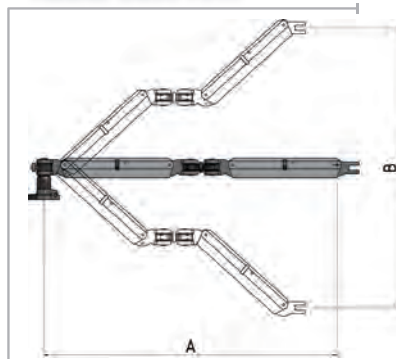


+

Pick your Head Member



Radial Base Arm



Arm Dimensions

Radial Base Arm	A (Maximum Reach)	B (Vertical Distance)
1SN+1DS	1120 mm / 44"	1070 / 42"

Stationary

A1 Vertical



B1 Flat



C1 Adjustable



Articulating

D1 Vertical



E1 Flat



F1 Adjustable



Orbital Attachment

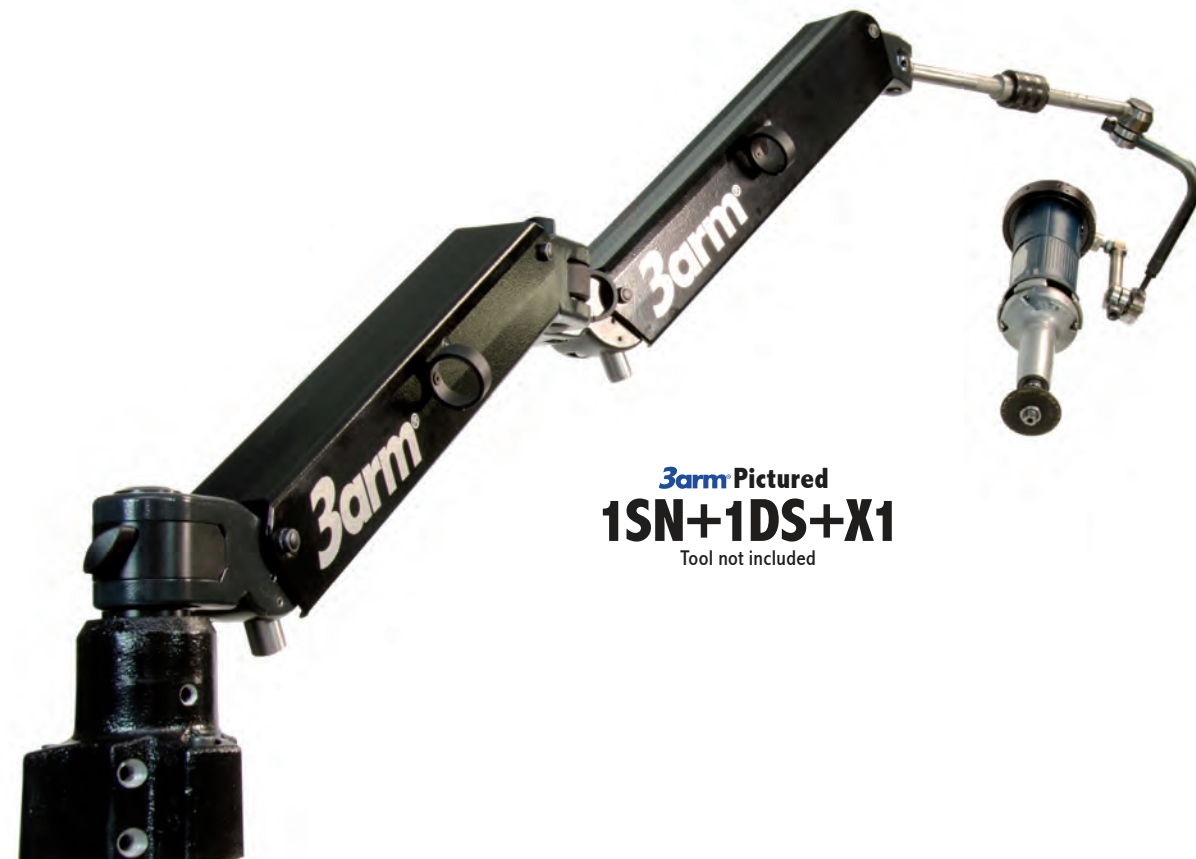
G1, X1 Quik change Gimbal



N1 Pistol-Style Tool Holder with Quick-Change Gimbal



T1 Pistol-Style Tool Holder



3arm Pictured
1SN+1DS+X1
Tool not included

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
	R4: REVOLVING	300
HORIZONTAL		
	B4: STATIONARY FLAT + RING	250
	E4: ARTICULATED FLAT + RING	120
	R4: REVOLVING	250
ANY ANGLE		
	E: ARTICULATED FLAT + RING	120
	R4: REVOLVING	200

**S4 -REQUIRED LOCKING

Damper Weight Range

Head Type	A4	B4
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	24
	2	4
	3	6
	3	7
	4	9
	6	11
	7	13
	8	14
	9	16
	10	18
	11	20
	12	21

SERIES 4
DM + Head type

SERIES 4
DS + Head type

					1Kg
					2Kg
					3Kg
					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 4

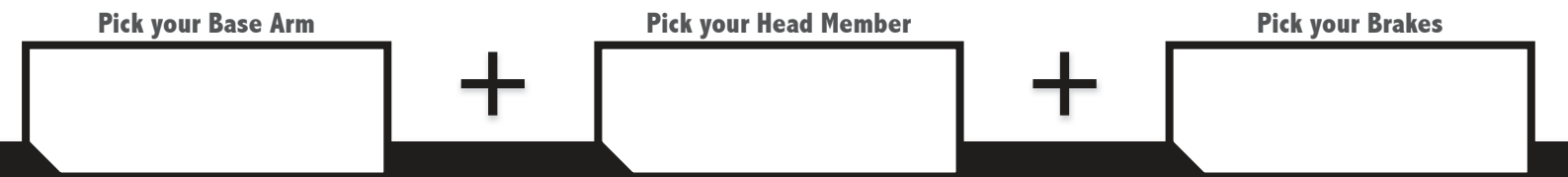
Weight Range
0-24 Kg / 53 lbs.
According Damper Weight Range

Maximum Reach
1460 mm / 58"

Vertical Distance
1375 mm / 54"

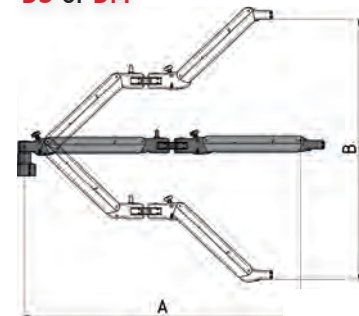
Top & Bottom Mount

Build an ergonomic solution



Radial Base Arm

DS or DM



Arm Dimensions

Radial Base	A (Maximum Reach) mm./inches	B (Vertical Distance) mm./inches	Weight Range Kg./lbs
DS	1220/48"	1020/40"	21/46
DM	1460/57.5"	1375/54"	24/53

Stationary

A4 Vertical



B4 Vertical



C4 Adjustable



Articulating

D4 Vertical



E4 Flat



F4 Adjustable



R4 Adjustable



L4 Adjustable



Orbital Attachment

G4, H4, X4 Quick-Change Gimbal



I4 Flat Locatable Surface



J4 Flat Vertical Surface



N4 Pistol-Style Tool



T4, U4 Pistol-Style Tool Holder

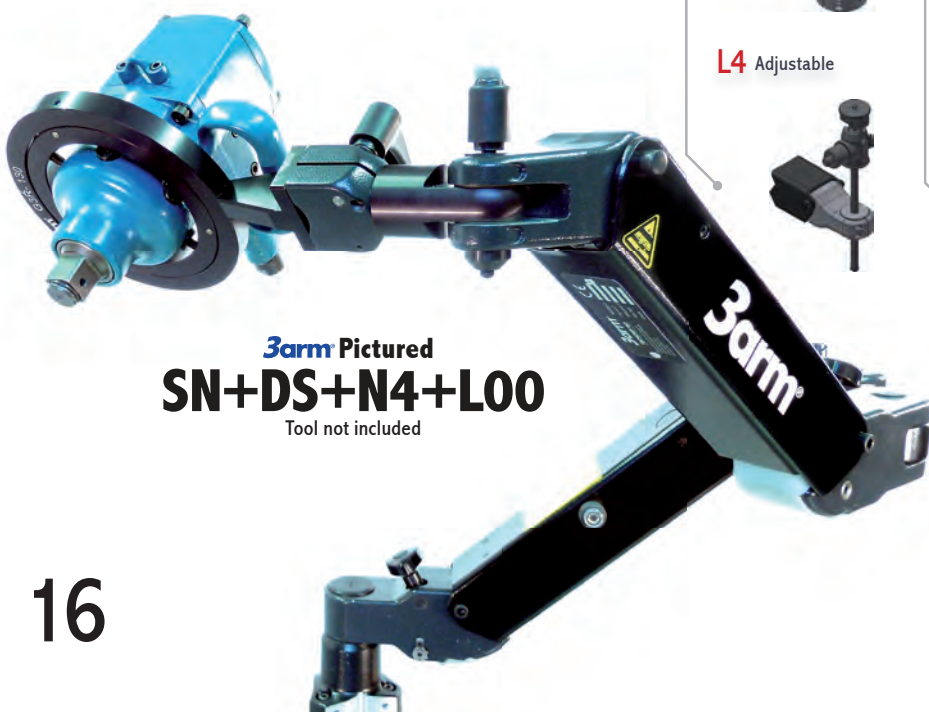


Brakes

L00 None

L22 Pneumatic

L92 Brakes lock by tool trigger



3arm Pictured
SN+DS+N4+L00
Tool not included

Head Type	A1	B1
Load Range Kg	Min	Min
SERIES 1 TOP & BOTTOM Mount 1SN + 1 DS + Head type	0	0,9
	0,7	2,1
	1,4	3,2
	2,1	4,3
	2,8	5,5
	3,6	6,7
	4,3	7,7
5	8,9	
5,7	10	

Damper Weight Range

C1	D1	E1	0,5 Kg
F1	T1	1 Kg	
N1	1,5 Kg		
G1/X1	2 Kg		

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

* Ex.:
Head G1 2 Kg
Tool 3 Kg
Total 5 Kg

Right choices:
3,6 - 6,7
4,3 - 7,7

Series 2

Weight Range
0-6 Kg / 13 lbs.
According Damper Weight Range

Maximum Reach
860 mm / 34"

Vertical Distance
530 mm / 22"

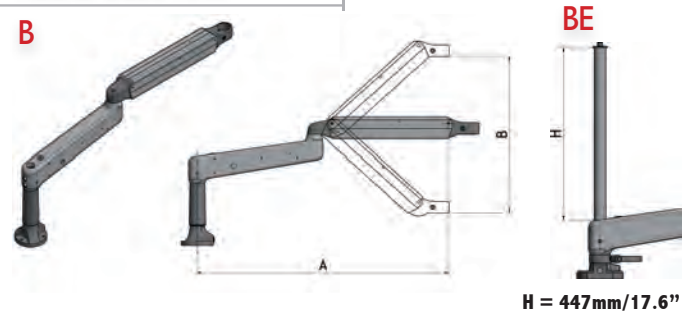
Build an ergonomic solution

Pick your Radial Base Arm

Pick your Head Member



Radial Base Arm



Arm Dimensions

Radial Base	A (Maximum Reach)	B (Vertical Distance)
B	860 / 33.9"	530 mm / 21"
BE	860 / 33.9"	530 mm / 21"

Stationary

A2 Vertical



B2 Flat



C2 Adjustable



Articulating

D2 Vertical



E2 Flat



F2 Adjustable



Orbital Attachment

G2, X2 Quik change Gimbal



N2 Pistol Style tool holder



3arm Pictured
B+G2
Tool not included

Damper Weight Range

Head Type	Damper Weight Range	
	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	Damper Weight Range	
	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

SERIES 3 TOP & BOTTOM MOUNT

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

C3	D3	E3	L3	M3	1Kg
F3	I3	J3	N3, Q3		
G3, H3, X3	T3, U3				2Kg
R3					3Kg
					4Kg

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

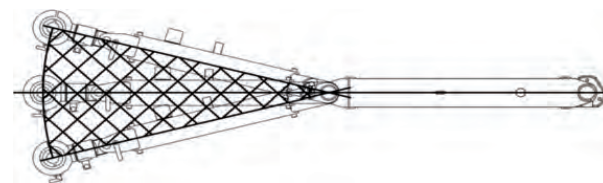
* Ex.:
Head F3 2 Kg
Tool 5 Kg
Total: 7 Kg

Right choice:
5 - 9
5 - 10

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

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
Load Range Kg	Min	Min
SERIES 2 TOP & BOTTOM Mount B + Head Type	0	0,6
	0,3	1,1
	0,6	1,5
	0,8	2
	1,1	2,4
	1,7	3,3
	2,3	4,2
	2,9	5,1
	3,5	6

			0,5 Kg
	1 Kg		
	1,5 Kg		
	2 Kg		

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

* Ex.:
Head G2 2 Kg
Tool 3 Kg
Total 5 Kg

Right choices:
3,6 - 6

Series 3

Weight Range
0-35 Kg / 77 lbs.
According Damper Weight Range

Maximum Reach
1730 mm / 68"

Vertical Distance
1070 mm / 42"

Top & Bottom Mount

Build an ergonomic solution

Pick your Base Arm



+

Pick your Tilt Arm



+

Pick your Head Member



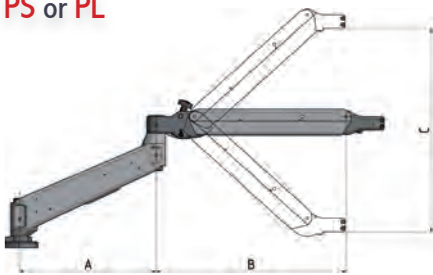
+

Pick your Brakes

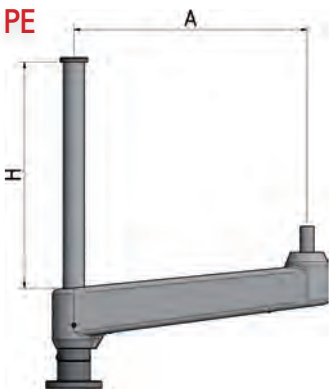


Bottom Radial Base Arm

PS or PL



PE



H = 482mm./19"

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	625/24"	670/26"	1075/42"
		BM	925/36"	1070/42"	1375/54"
PL	808/31.8"	BS	610/24.0"	707/27.8"	1430 / 56"
		BM	910/35.8"	1130/44.5"	1730/67.6"
PE	500/19.7"	BS	610/24.0"	707/27.8"	1125/44"
		BM	910/35.8"	1130/44.5"	1425/56"

Vertical Tilt Arm

BS Small (Length 625 mm / 24", up to 35 Kg/77 lbs)

BM Medium (Length 925 mm /36", up to 18 Kg /40 lbs)



Stationary

A3 Vertical



B3 Vertical



C3 Adjustable



Articulating

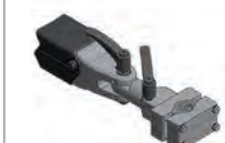
D3 Vertical



E3 Flat



F3 Adjustable



R3 Adjustable



L3 Adjustable



Orbital Attachment

G3, H3, X3 Quick-Change Gimbal



I3 Flat Locatable Surface



J3 Flat Vertical Surface



N3, Q3 Pistol-Style Tool



M3 Constant-Pressure Tool Holder



T3, U3 Pistol-Style Tool Holder



Brakes

L00 None

L11 Manual

L22 Pneumatic

L50 Manual Lock at Base

L92 Brakes lock by tool trigger