



ERGONOMICS AND WORKSTATIONS



**Torque Reaction systems  
and Posi-Control systems**





## The range



### TORQUE REACTION ARMS (p.4 to 33)

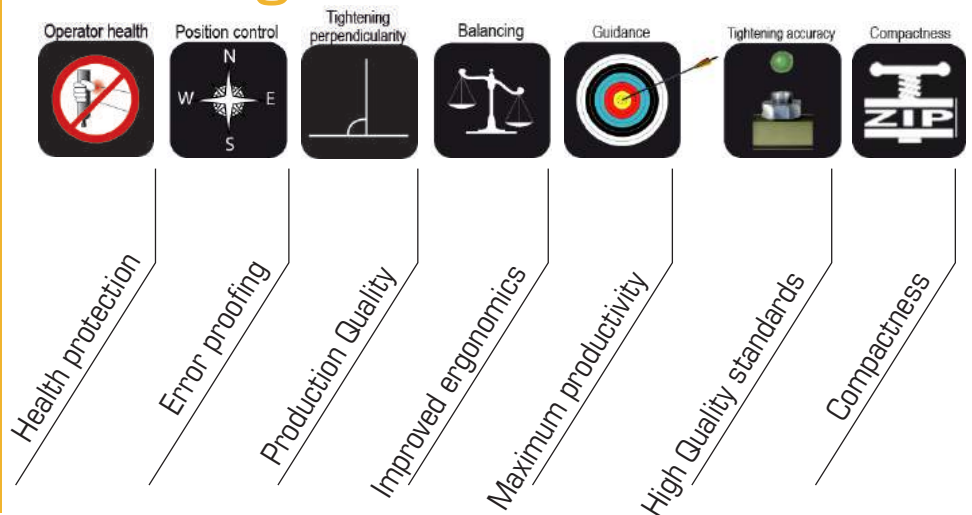
A comprehensive range of torque reaction systems to decrease employee injuries and boost your productivity.



### POSI CONTROL SYSTEM (p.34 to 47)

Error proofing and sequencing systems for zero fault assembly process. Automation devices management on your assembly line.

## Pictograms

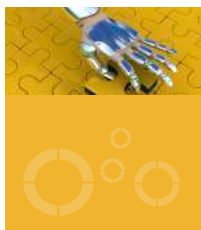


# Torque Reaction systems

The widest range of reaction arms to meet your various demanding requirements.

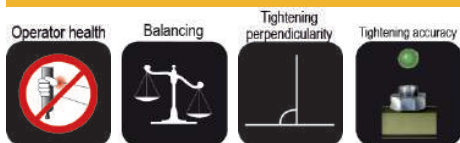
- Page 4 to 9 • Linear reaction arms BA Series
- Page 10 to 11 • Travelling arms BA...C Series
- Page 12 to 19 • Articulated reaction arms BA...R Series
- Page 20 to 21 • Articulated and air balanced pantograph arm BA...G Serie
- Page 22 to 29 • Carbon telescoping arms DMF/DMFi Series
- Page 30 to 41 • Suspended arms Sliderv
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- Page 48 to 49 • Articulated arms BA...RPC Series
- Page 50 to 53 • Carbon telescoping arms DMF...PC Series
- Page 54 to 56 • Suspended arms Slider BA...PC/RPC
- Page 57 to 59 • Special arms





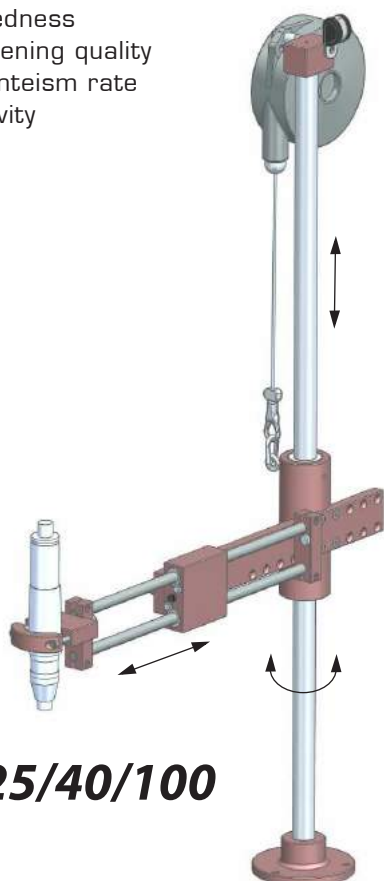
# Linear Arms

## BA Series

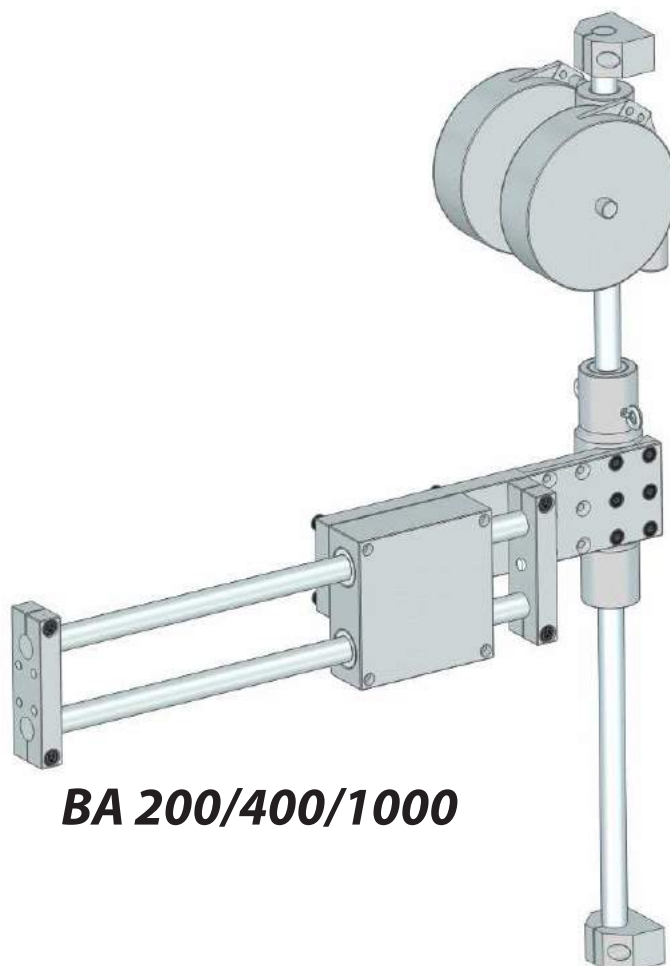


BA Series : Smooth tightening operation and perfect perpendicularity until 100 Nm.

- Erase torque reaction
- Ensure perfect perpendicularity
- Avoid illnesses
- Suppress the tiredness
- Improve the tightening quality
- Reduce the absenteeism rate
- Improve productivity



**BA 5/12/25/40/100**



**BA 200/400/1000**

Model	Torque max (Nm)	Tool Ø (mm)	Stroke	Load max (kg)	Code
BA 5	5	25 - 42	200	0,9	4-5200085
BA 12	12	27 - 50	225	1,2	4-5201000
BA 25	25	28 - 52	250	2,2	4-5200076
BA 40	40	28 - 52	295	2,2/4*	4-5200067
BA 100	100	28 - 52	325	3,5/6*	4-5200068

\* With additional balancer - **Code : 4-5200143** (see page 6)

Model	Torque max (Nm)	Stroke	Load max (kg)	Code
BA 200	200	345	8	4-5201092
BA 400	400	400	12	4-5201093
BA 1000	1000	400	16	4-5201094

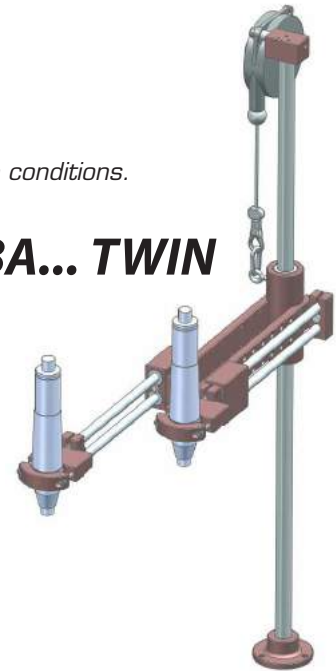
BA 200/400/1000 are delivered without clamp, floor post and non anodized.

# Linear Arms

## BA...TWIN Series

BA...TWIN model is an ideal solution when two screwdrivers are used in limited space conditions.

### BA... TWIN



Model	Torque max (Nm)	Tool Ø (mm)	Stroke	Load max (kg)	Code
BA 12 T	12	27 - 42	225	2	4-5200823
BA 25 T	25	28 - 52	250	3	4-5200721
BA 40 T	40	28 - 52	295	4	4-5200825
BA 100 T	100	28 - 52	330	6	4-5283105

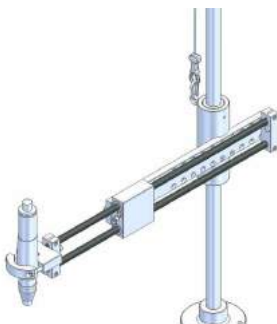
## BA Accessories

### Anti rotation clamp



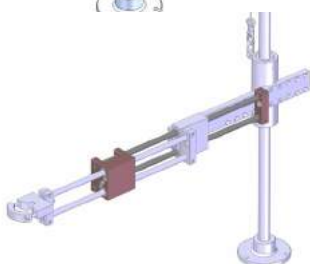
For	Code
BA 5	4-5200348
BA 12 & 25	4-5200116
BA 40 & 100	4-5200117

### Extended slides

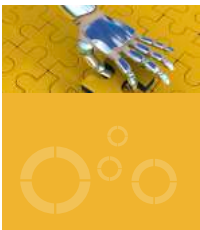


For	Stroke	Code
BA 12	+ 130	4-5200120
BA 25	+ 130	4-5200720
BA 40	+ 170	4-5200122
BA 100	+ 200	4-5200123

### Double slides

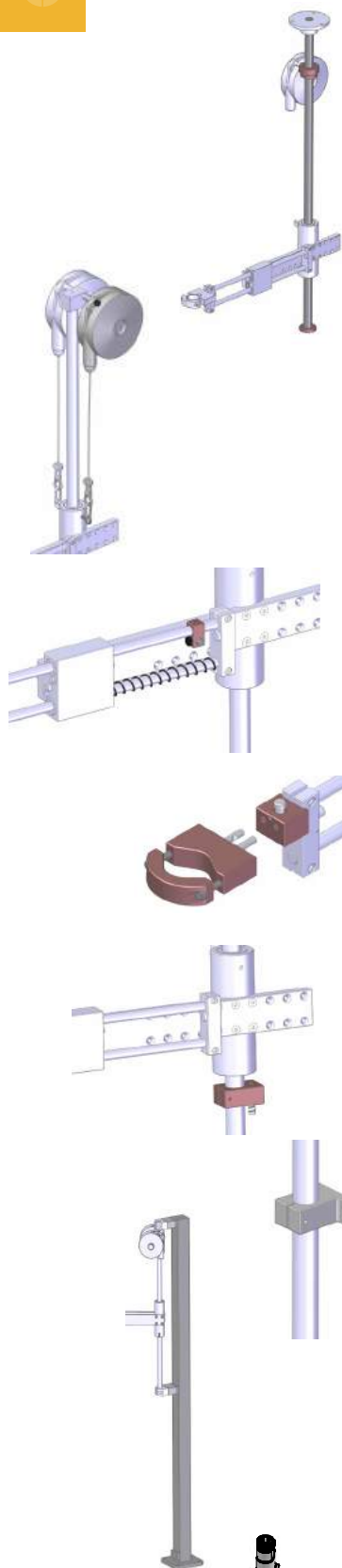


For	Stroke	Code
BA 12	+ 230	4-5200124
BA 25	+ 210	4-5200125
BA 40	+ 295	4-5200126
BA 100	+ 330	4-5200127



# Linear arms

## BA Accessories



### *Inverse mounting kit*

For	Code
BA 5	4-5200385
BA 12 & 25	4-5200128
BA 40 & 100	4-5200129

### *Additional balancing kit*

For	Arm max load (Kg)	Code
BA 40	4	4-5200143
BA 100	6	4-5200143

### *Auto rest position kit*

For	Code
BA 5 & 12	4-5200118
BA 25 & 40	4-5200119

### *Quick change clamp*

For	Adapter code	Clamp code
BA 12	4-5201109	4-5201003
BA 25	4-5201110	4-5200017
BA 40	4-5201111	4-5200017

### *Height adjusting clamp*

For	Code
BA 5	4-5200421
BA 12 & 25	4-5200422
BA 40 & 100	4-5200423

### *Pole upper clamp*

For	Code
BA 12 & 25	4-5200130
BA 40 & 100	4-5200131

### *Floor post*

For	Code
BA 100/200/400	4-5201096
BA 1000	4-5201097

### *Tool interface BA 100/200/400*

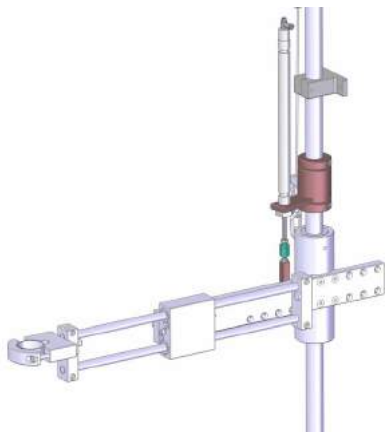
For	Code
BA 200	4-5201105
BA 400	4-5201106
BA 100/E34/E44 Series (Stanley)	4-5201124
BA 200/E45/E55 Series (Stanley)	4-5201125

# Linear arms

## BA Accessories

### Downward Assistance Kits

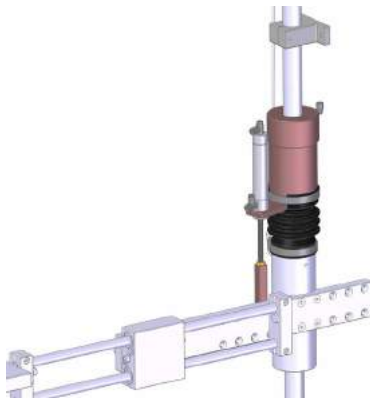
Downward Assistance Kits will provide you with Extreme Comfort and productivity increase. Ideal for self-tapping applications it requires no effort from the operator. BAPER system features a built-in collect chuck that allows the system to be used at any height. Easy Push system operates only at a preset height by using a mechanical stop that is set along.



#### EASY PUSH

Model	For	Pushing force (Kg)	Stroke (mm)	Type	Code
EASY PUSH	BA 12	5	125	Pneumatic	4-520099
EASY PUSH	BA 25	9	160	-	4-5200102
EASY PUSH	BA 40 & 100	9	200	-	4-5200103
EASY PUSH	BA 40 & 100	15	200	-	4-5200144
EASY PUSH	BA 100	25	200	-	4-5200145
EASY PUSH	BA 12	5	125	Electric	4-5200838
EASY PUSH	BA 25	9	160	-	4-5200839
EASY PUSH	BA 40 & 100	9	200	-	4-5200840
EASY PUSH	BA 40 & 100	15	200	-	4-5200841
EASY PUSH	BA 100	25	200	-	4-5200842
Easy Push Cable/GX					4-5200843
MD Cable					4-5210010
Easy Push Cable/DELVO					4-5200844
Cable without connector (for 5/9 kg pushing force)					4-5200845
Cable without connector (for 15/25 kg pushing force)					4-5200846
U3-D Interface for GX screwdrivers					4-1041888

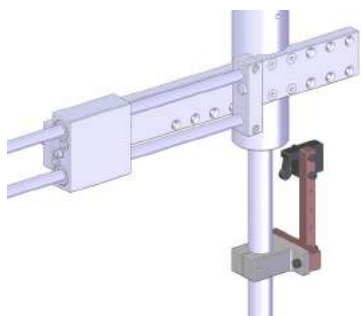
EASY PUSH kits are delivered without cable.



#### BAPER

Model	For	Pushing force (Kg)	Type	Code
BAPER	BA 12	5	Pneumatic	4-5200095
BAPER	BA 25	8	-	4-5200096
BAPER	BA 40 & 100	8	-	4-5200097
BAPER	BA 12	5	Electric	4-5200830
BAPER	BA 25	8	-	4-5200831
BAPER	BA 40 & 100	8	-	4-5200832
BAPER Cable/GX				4-5200833
MD Cable				4-5210010
BAPER Cable/DELVO				4-5200834
Cable without connector				4-5200835
U3-D Interface for GX screwdrivers				4-1041888

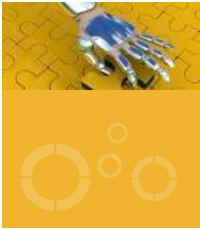
Electric BAPER kits are delivered without cable.



#### Safety kit

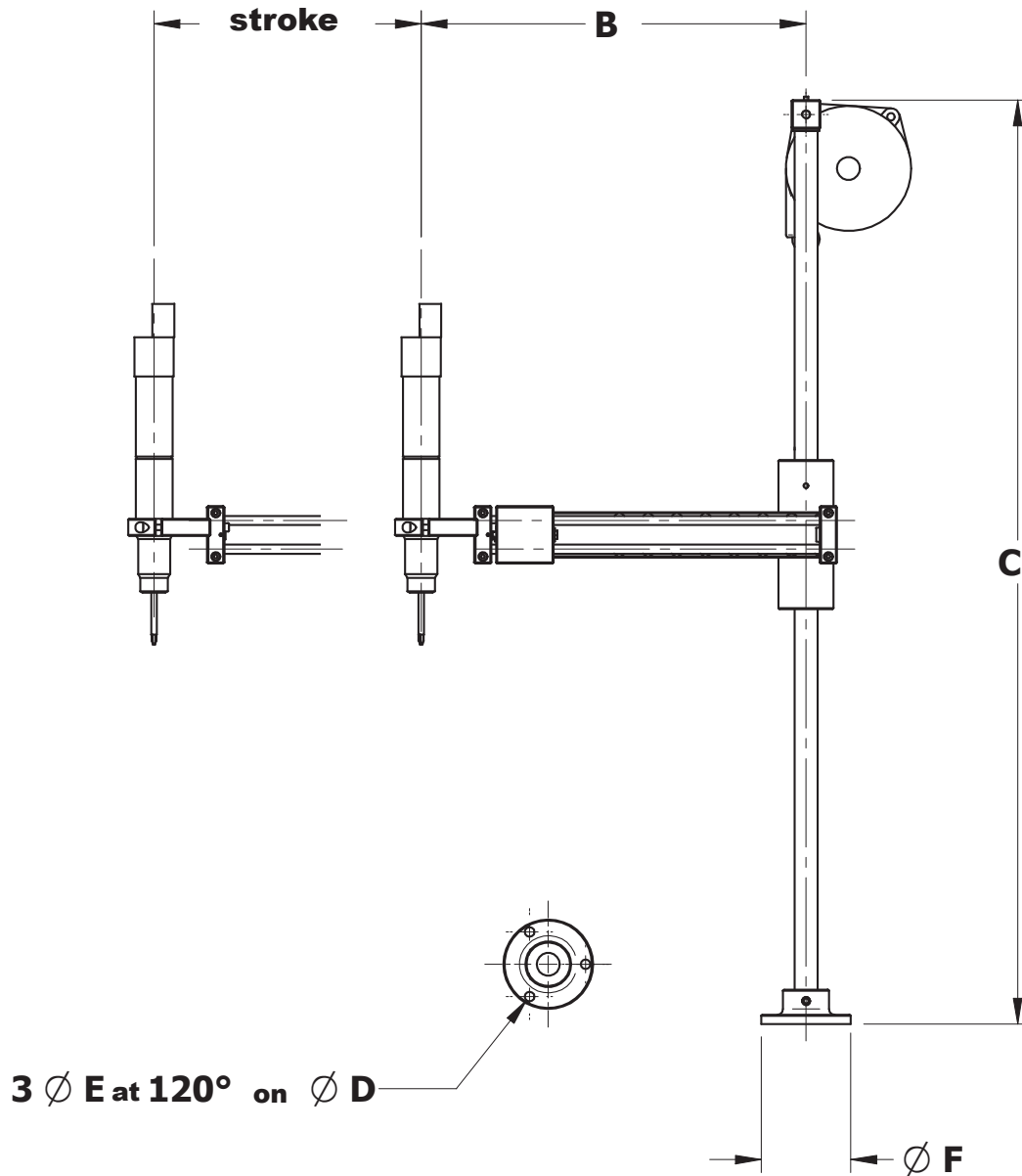
For	Code
BA 12 & 25	4-5200134
BA 40 & 100	4-5200135

The safety kit allows to avoid activation of downward assistance before powerbit gets in contact with the screw.



# Linear arms

BA 5 to 100 Dimensions



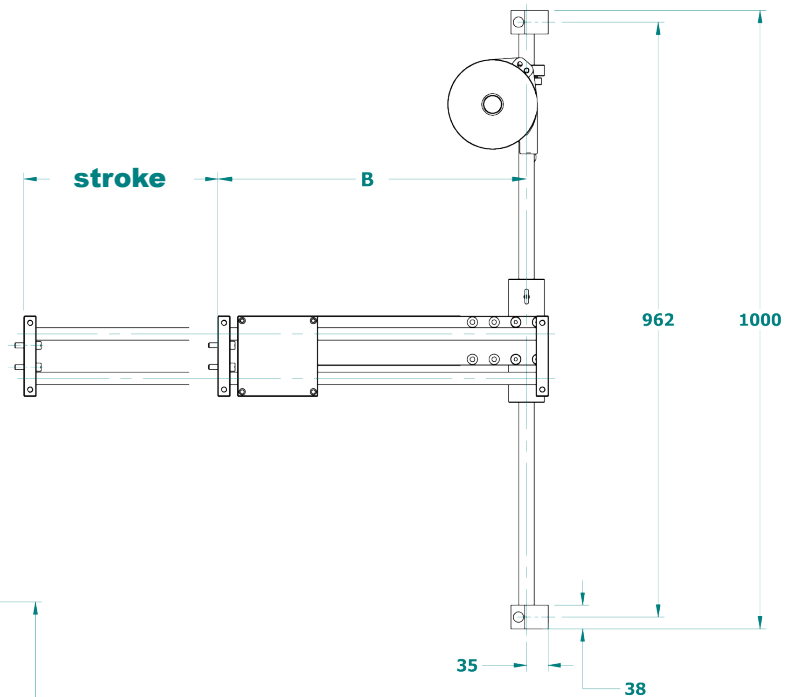
## BA Dimensions

Model	Stroke A	Min	B	Max	C	D	E	F
BA 5	200	222	302	705	65	8,5	78	
BA 12	225	186	336	805	65	8,5	78	
BA 25	250	221	396	908	65	8,5	78	
BA 40	295	260	460	1008	100	8,5	118	
BA 100	325	315	515	1008	126	10,5	148	

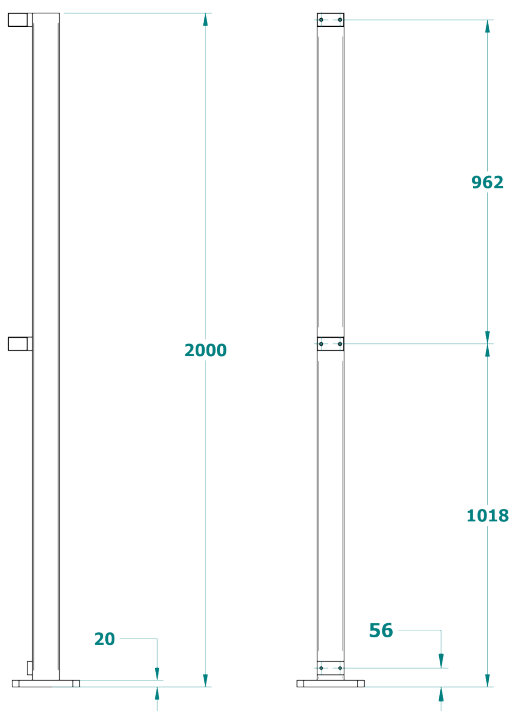


# Linear arms

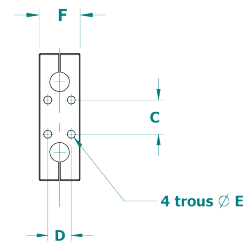
## BA 200 / 400 Dimensions



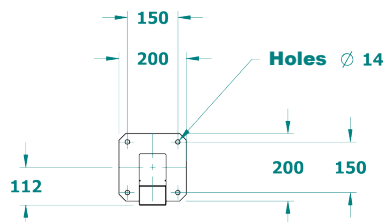
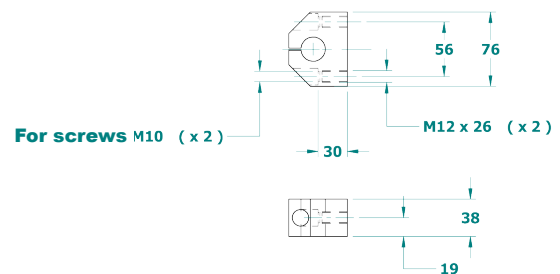
### Floor post



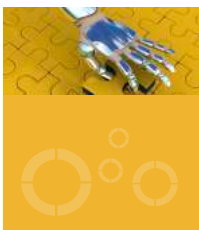
### Clamp Mounting Bracket



### Coupling flange

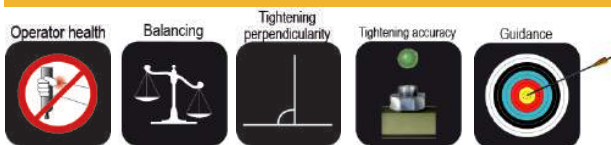


Model	Stroke A	B		C	D	E	F
		Min	Max				
BA 200	349	430	500	35	24	8,2	42
BA 400	390	326	406	40	28	12,2	52

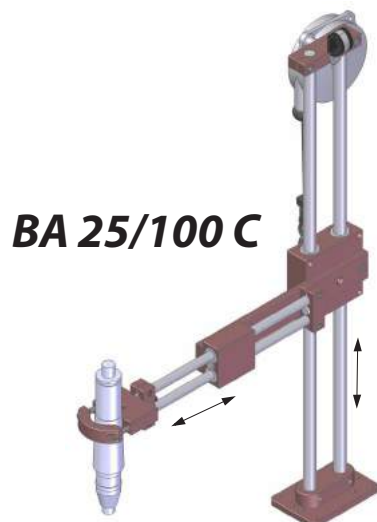


# Travelling arms

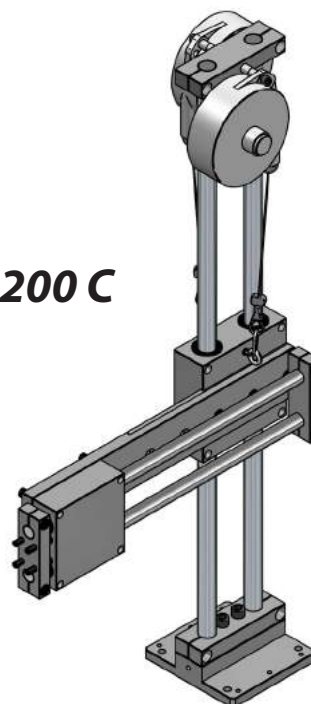
## BA...C Series



BA...C Series ideal for tightening operations on large surface or with repetitive tightening tasks.



**BA 200 C**

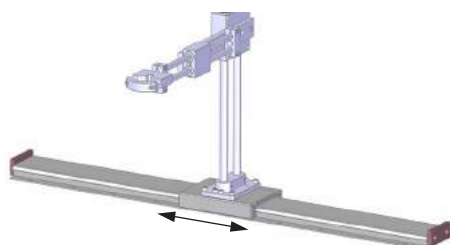


Model	Max torque (mm)	Tool Ø (mm)	Stroke (mm)	Load max (kg)	Code
BA 25 C	25	28-52	250	2,2	4-5200722
BA 100 C**	100*	28-52	330	3	4-5200433
BA 200 C	200	Sans	350	8	4-5200723

Delivered without horizontal rail.

Compatible accessories : extended slides, double slide, automatic rest position (ARP), quick change clamp (see page 5 and 6)

### Rails BA25/BA100C



Model	Length (mm)	Stroke (mm)	Code
Guiding rail	600	420	4-5200294
Guiding rail	1000	820	4-5200295
Guiding rail	1500	1320	4-5200296
Guiding rail	2000	1820	4-5200297

Higher length on request

Rail for BA100C on request

### Inverse mounting kit

For	Code
BA 25 C	4-5200811
BA 100 C	Standard

### Downward assistance kit

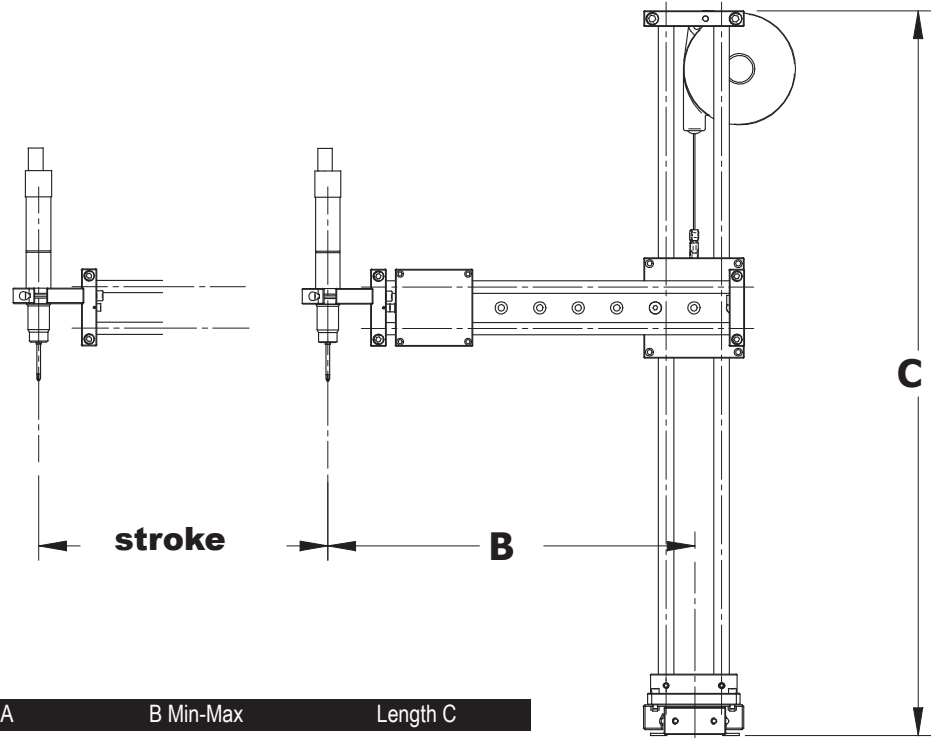
For	Pushing force (kg)	Stroke (mm)	Type	Code
EP 25 P	9	160	Pneu.	4-5200452
EP 25 E	9	160	Elect.	4-5200454
EP 100 P	9	200	Pneu.	4-5200453
EP 100 E	9	200	Elect.	4-5200455

### Safety kit

For	Code
BA 25 C	4-5200390
BA 100 C	4-5200391

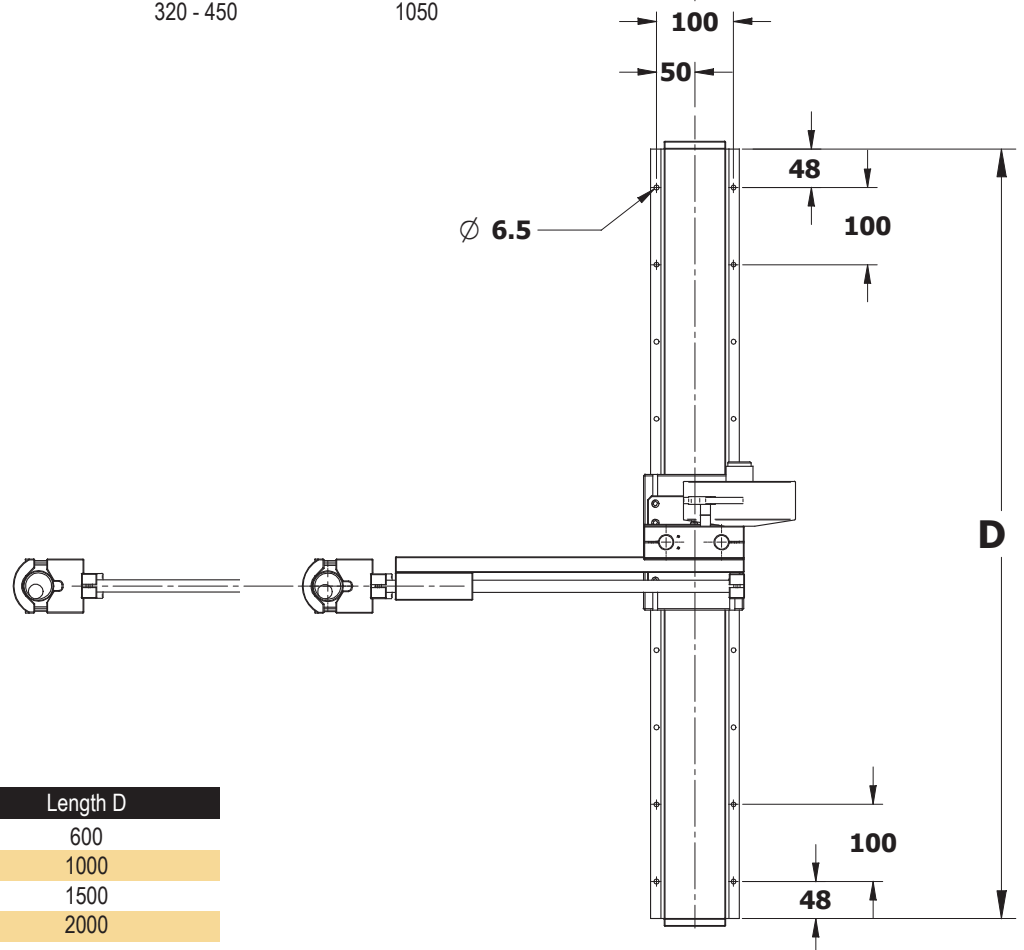
# Travelling arms

## BA...C Dimensions



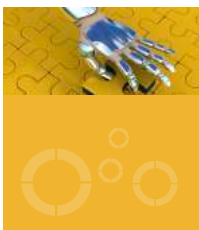
### Dimensions

Model	Stroke A	B Min-Max	Length C
BA 25 C	250	207 - 327	737
BA 100 C	325	259 - 483	940
BA 200 C	350	320 - 450	1050



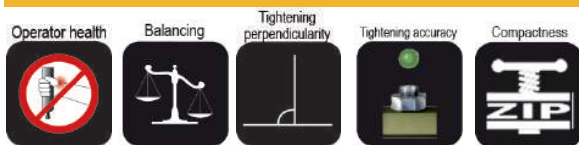
### Rails

Stroke	Length D
420	600
820	1000
1320	1500
1820	2000



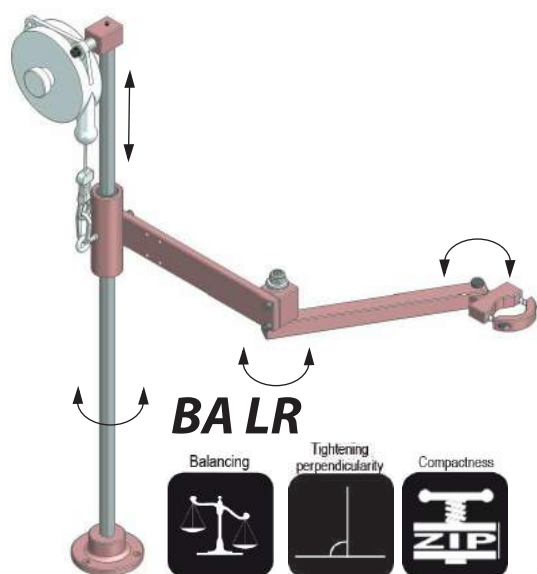
# Articulated reaction arms

## BA...R Series

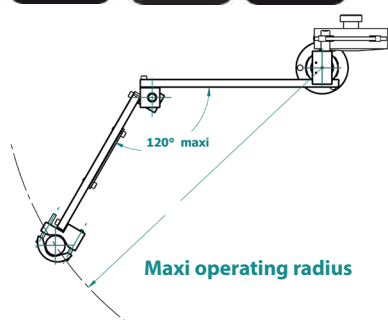
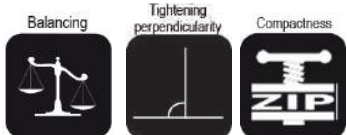


BA...R Series are equipped with a rotating articulation enabling a high working flexibility. Swivelling and folding up like a human arm, they are recommended for spaceless working places.

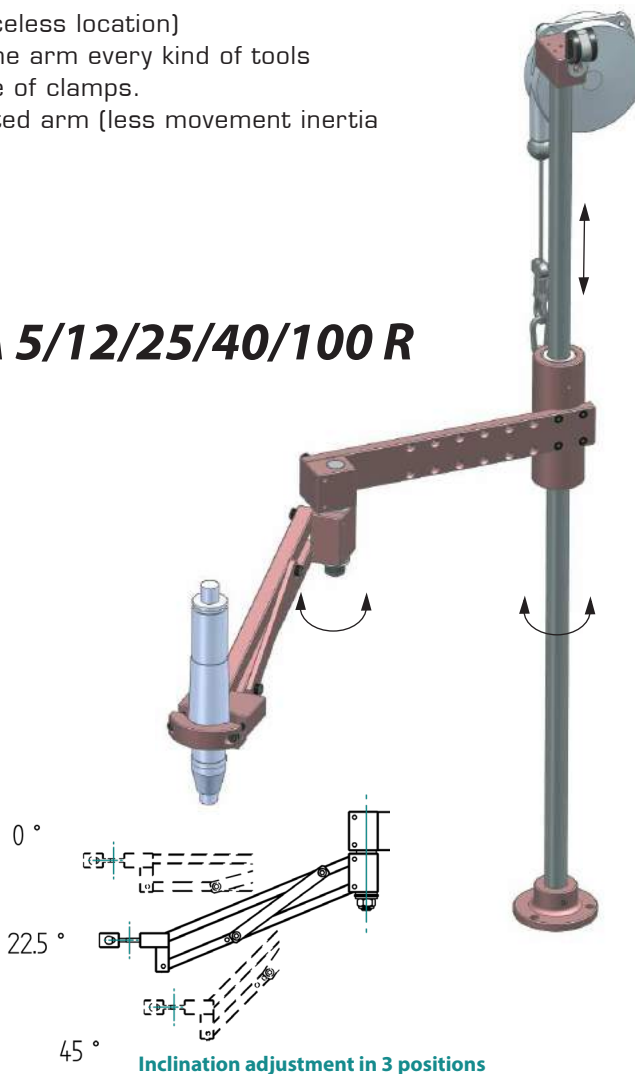
- Optimum ratio performance/dimensions (ideal for spaceless location)
- Economical and versatile : possibility to use on the same arm every kind of tools (straight, pistol, angle drivers) thanks to the large choice of clamps.
- Higher comfort for the operator thanks to the articulated arm (less movement inertia and better positioning accuracy).



**BA LR**



## BA 5/12/25/40/100 R



Inclination adjustment in 3 positions

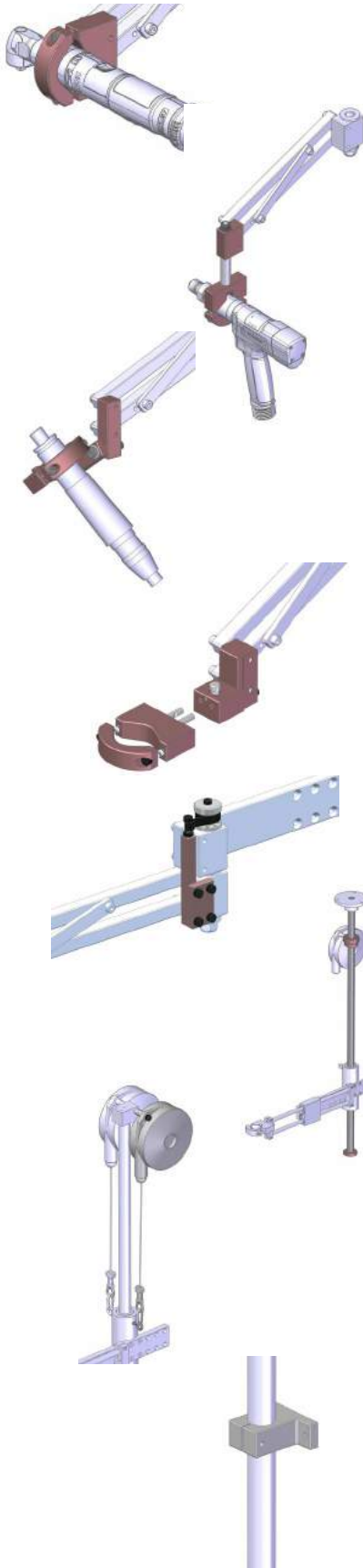
Model	Max torque (Nm)	Tool Ø (mm)	Max load (kg)	Max radius (mm)	Code
BA LR	-	25 - 42	0,9	450	4-5200826
BA 5 R	5	25 - 42	0,9	420	4-5200098
BA 12 R	12	27 - 50	1,2	450	4-5201001
BA 12 R	12	27 - 50	1	600	4-5201002
BA 25 R	25	28 - 52	2,2	445	4-5200070
BA 25 R	25	28 - 52	1,9	600	4-5200274
BA 25 R	25	28 - 52	1,5	800	4-5200275
BA 40 R	40	28 - 52	2,2 - 4*	630	4-5200071
BA 40 R	40	28 - 52	2 - 3,5*	800	4-5200276
BA 40 R	40	28 - 52	1,8 - 3*	1000	4-5200277
BA 100 R	100	28 - 52	3,5 - 6*	715	4-5200072
BA 100 R	100	28 - 52	3 - 5*	900	4-5200278
BA 100 R	100	28 - 52	3	1100	4-5200279

\* With additional balancer - **Code : 4-5200143.**

Delivered with standard clamp for straight tool.

# Articulated reaction arms

## BA...R Accessories



### Clamp for angle nutrunner

For	Tool Ø (mm)	Code
BA 12 R	27 - 50	4-5200089
BA 25 & 40 R	28 - 52	4-5200090
BA 100 R	28 - 52	4-5200091

### Clamp for pistol tool

For	Tool Ø (mm)	Code
BA 12 R	27 - 50	4-5200087
BA 25 & 40 R	28 - 52	4-5200088

### 2 axis clamp

For	Tool Ø (mm)	Code
BA 12 R	27 - 50	4-5200093
BA 25 & 40 R	28 - 52	4-5200094

### Quick change clamp

For	Adaptater code	Code
BA 12 R	4-5200847	4-5201003
BA 25 R	4-5200848	4-5200017
BA 40 R	4-5200848	4-5200017

### Auto rest spring

For	Code
BA 5/12 R	4-5200849
BA 25 R	4-5200850
BA 40 R	4-5200851

### Inverse mounting kit

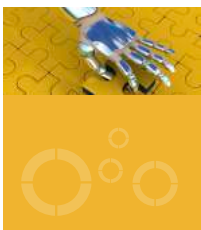
For	Code
BA 5 R	4-5200385
BA 12 & 25 R	4-5200128
BA 40 & 100 R	4-5200129

### Additional balancing kit

For	Arm max load (kg)	Code
BA 40 R	4	4-5200143
BA 100 R	6	4-5200143

### Pole upper clamp

For	Interface (mm)	Code
BA 12 & 25 R	2 Ø 4,3 at 45 mm from pole axis	4-5200130
BA 40 & 100 R	2 Ø 5,3 at 60 mm from pole axis	4-5200131

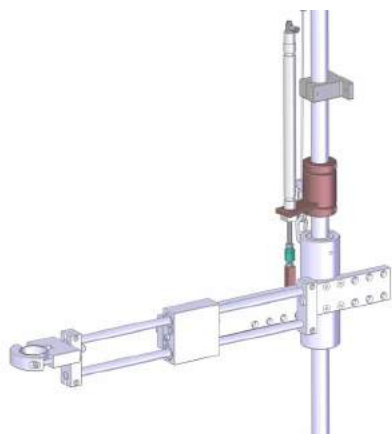


# Articulated reaction arms

## BA...R Accessories

### Downward assistance kits

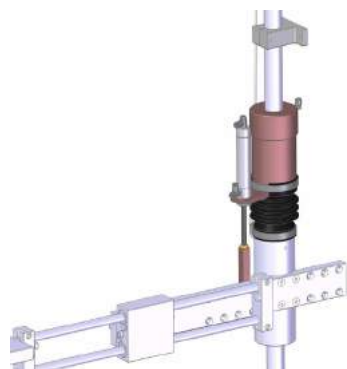
Downward assistance kits will provide you with extreme comfort and productivity increase. Ideal for self-tapping applications it requires no effort from the operator. BAPER system features a built-in collet check that allows the system to be used at any height. Easy push system operates only at a preset height by using a mechanical stop that is set along the pole.



#### EASY PUSH

Model	For	Pushing force (kg)	Stroke (mm)	Type	Code
EASY PUSH	BA 12 R	5	125	Pneumatic	4-5200099
EASY PUSH	BA 25 R	9	160	-	4-5200102
EASY PUSH	BA 40 & 100 R	9	200	-	4-5200103
EASY PUSH	BA 12 R	5	125	Electric	4-5200838
EASY PUSH	BA 25 R	9	160	-	4-5200839
EASY PUSH	BA 40 & 100 R	9	200	-	4-5200840
Easy Push Cable/GX					4-5200843
Easy Push cable MD					4-5210010
Easy Push Cable/DELVO					4-5200844
Cable without connector					4-5200845
U3-D Interface for GX screwdrivers					4-1041888

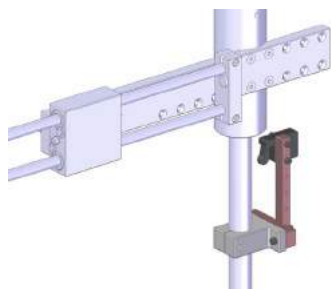
EASY PUSH kits are delivered without cable.



#### BAPER

Model	For	Pushing force (kg)	Type	Code
BAPER	BA 12 R	5	Pneumatic	4-5200095
BAPER	BA 25 R	8	-	4-5200096
BAPER	BA 40 & 100 R	8	-	4-5200097
BAPER	BA 12 R	5	Electric	4-5200830
BAPER	BA 25 R	8	-	4-5200831
BAPER	BA 40 & 100 R	8	-	4-5200832
BAPER Cable/GX				4-5200833
Easy Push cable MD				4-5210010
BAPER Cable/DELVO				4-5200834
Cable without connector				4-5200835
U3-D Interface for GX screwdrivers				4-1041888

Electric BAPER kits are delivered without cable.



#### Safety kit

Model	For	Code
Safety kit	BA 12 & 25 R	4-5200134
Safety kit	BA 40 & 100 R	4-5200135

The safety kit allows to avoid activation of downward assistance before powerbit gets in contact with the screw.

# Articulated reaction arms

## BA...R high torque



**BA 180 R**



**BA 200/500 R**



**BA 180 R**

Model	Max. torque (Nm)	Max load (kg)	Max radius (mm)	Code
BA 180 R / 1200	180	6	1200	4-5201095
BA 180 R / 1500	180	4	1500	4-5200827

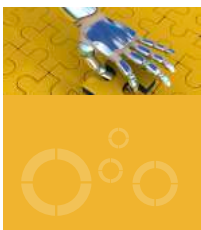
Delivered without tool clamp, floor post and not anodized.



**BA 200 R / 500 R**

Model	Max. torque (Nm)	Max load (kg)	Max radius (mm)	Code
BA 200 R	200	20	2000	4-5200828
BA 500 R	500	40	2000	4-5200829
BA 500 R/2500	500	30	2500	4-5283106
BA 500 R/3000	500	40	3000	4-5283107

Delivered without tool clamp.  
Higher capacity on request.



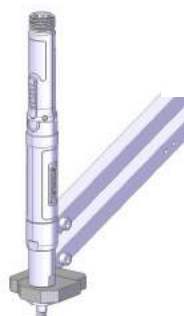
# Articulated reaction arms

## BA...R high torque accessories



### **BA 180 R equipped with floor post (optional)**

The BA 180 R can be mounted directly on your structure or on an optional post to split on the floor.



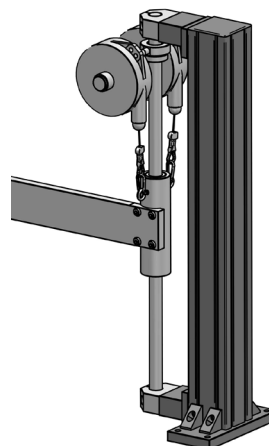
### **Arm/power tools interface for straight tools and for angular tool with BA180R**

**Code : 4-5201108.**

*Note : please precise the screwdriver type.*

### **Table mount post BA200/BA180R**

**Code : 4-5201098.**



### **BA200/400 and 180R Floor Post**

**Code : 4-5201096.**

### **Pneumatic break with rotating clamp (option)**



### **BA 200R/500R**

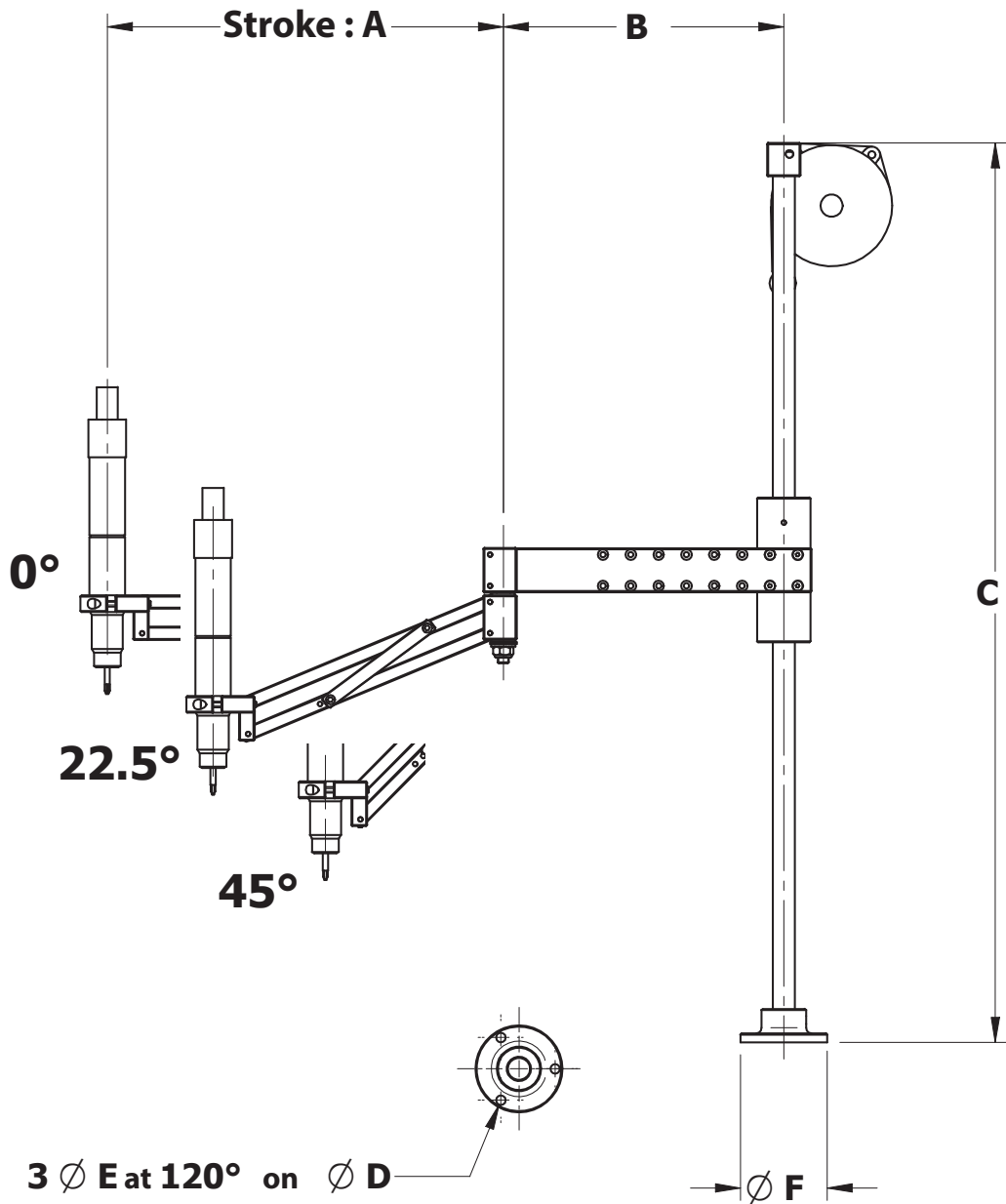
Numerous options are available to meet your process requirement :

- pneumatic break
- rotating clamp
- controller base plate
- remote start handle



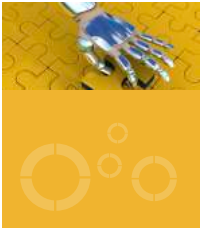
# Articulated reaction arms

## BA...R 5 to 100 Dimensions



### BA...R dimensions

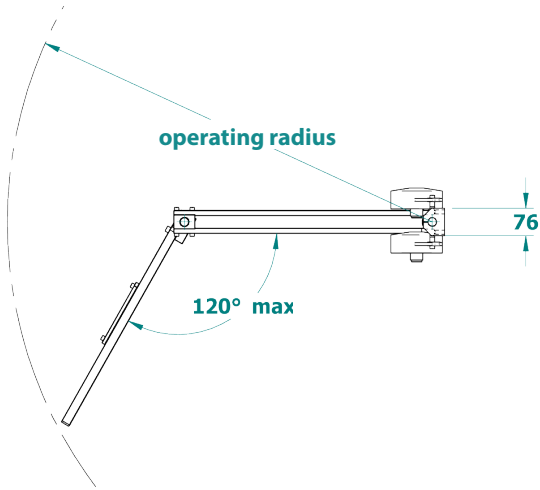
Model	A 0° (mm)	A 22,5° (mm)	A 45° (mm)	Min	B Max (mm)	C (mm)	Operating radius at 22,5° (mm)
BA 5 R	259	243	192	132	212	705	420
BA 12 R	279	261	209	102	252	808	450
BA 12 R / 600	332	310	247	332	357	808	600
BA 25 R	296	278	227	95	245	908	460
BA 25 R / 600	358	336	271	305	330	908	600
BA 25 R / 800	483	452	360	417	442	908	800
BA 40 R	414	387,5	310,5	150	350	1008	650
BA 40 R / 800	503	470	374	415	415	1008	800
BA 40 R / 1000	640	597	471	520	520	1008	1000
BA 100 R	462	433	351	205	405	1008	730
BA 100 R / 900	564	528	425	470	520	1008	900
BA 100 R / 1100	694	648	517	585	635	1008	1100



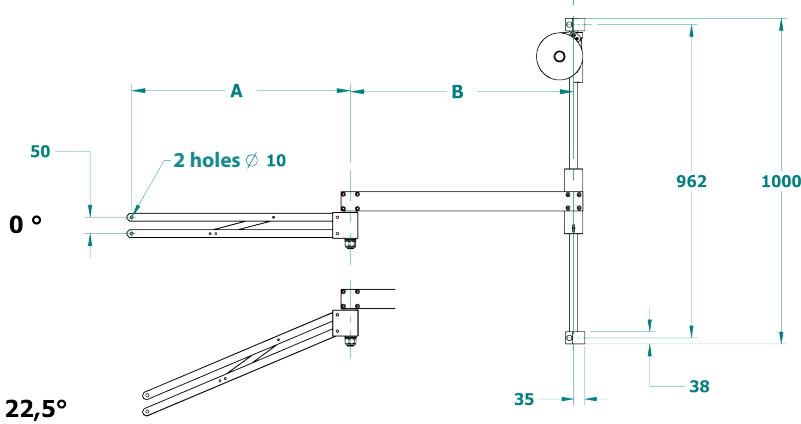
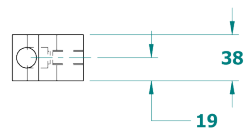
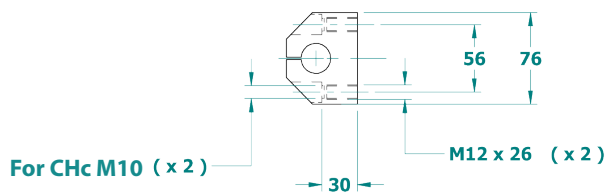
# Articulated reaction arms

## BA 180 R Dimensions

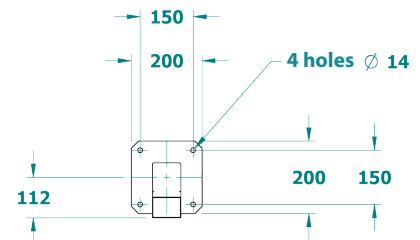
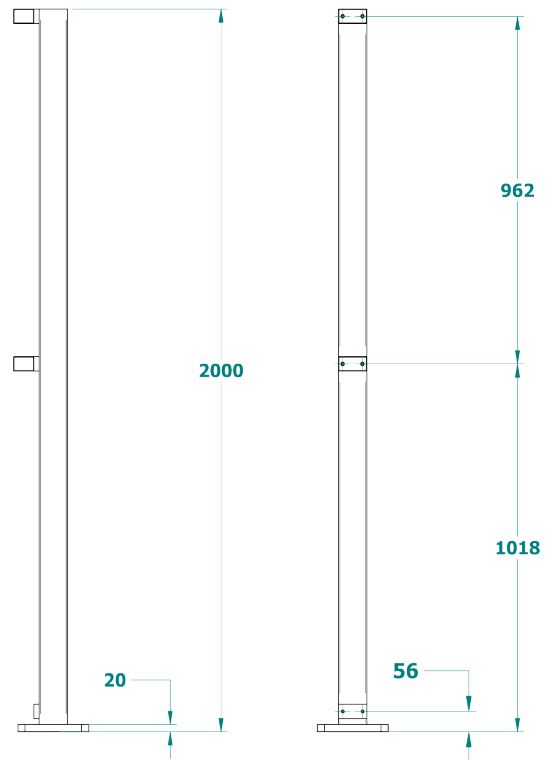
### BA 180 R



### Coupling flange



### Floor post

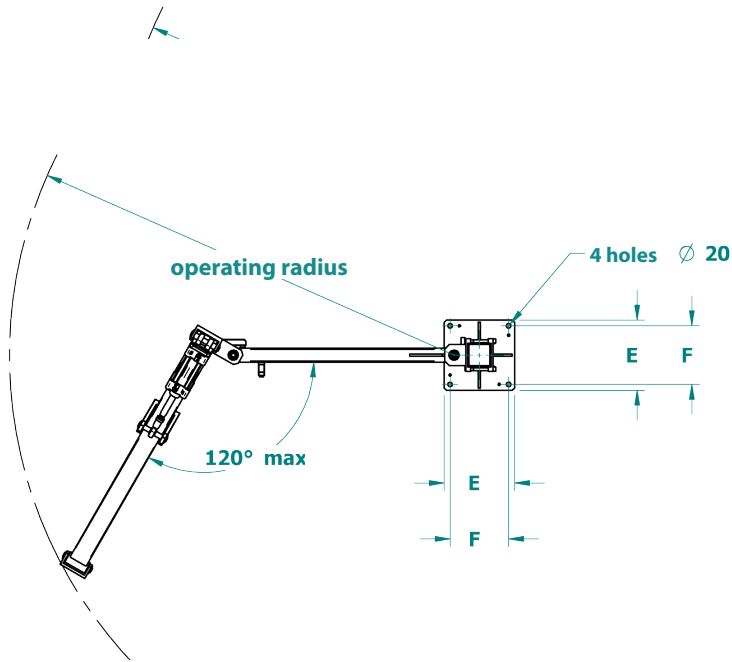
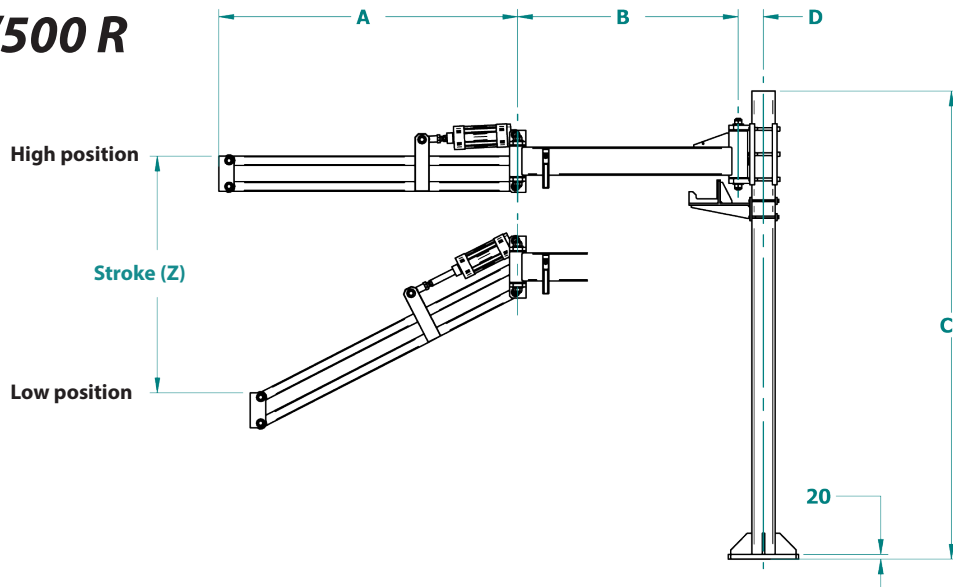


Type	A (0°)	A (22,5°)	B	C	Operating radius
BA 180 R/1200	686	637	700	2000	1200
BA 180 R/1500	820	760	855	2000	1500

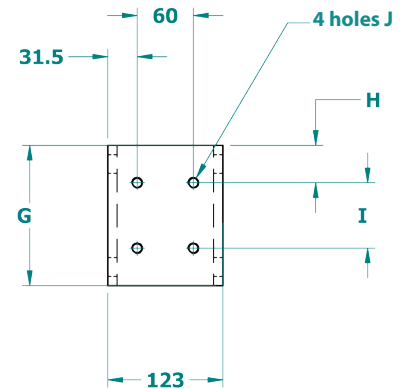
# Articulated reaction arms

## BA 200 & 500 R Dimensions

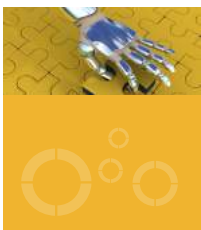
### BA 200/500 R



### Tool clamp mounting bracket

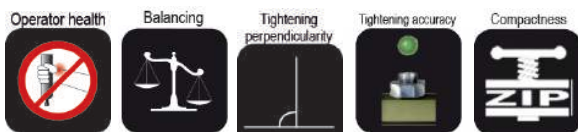


Model	A (high position)	Z (Stroke)	B	C	D	E	F	G	H	I	J	K	Operating radius
BA 200 R	1278	559	943	2000	108	300	250	150	40	70	M12	108	1900
BA 500 R	1278	559	943	2000	118	400	350	170	45	80	M16	118	1900
BA 500 R/2500	1478	650	1293	2000	118	400	350	170	45	80	M16	118	2400
BA 500 R/3000	1978	1100	1560	2000	118	500	450	170	45	100	M16	118	2900



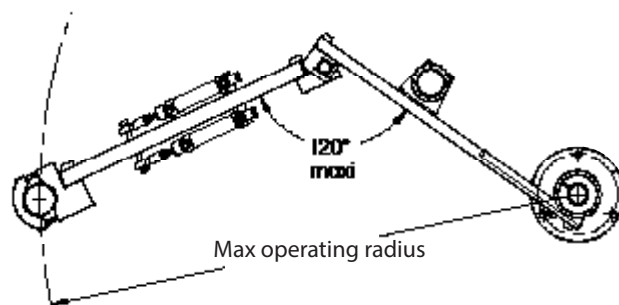
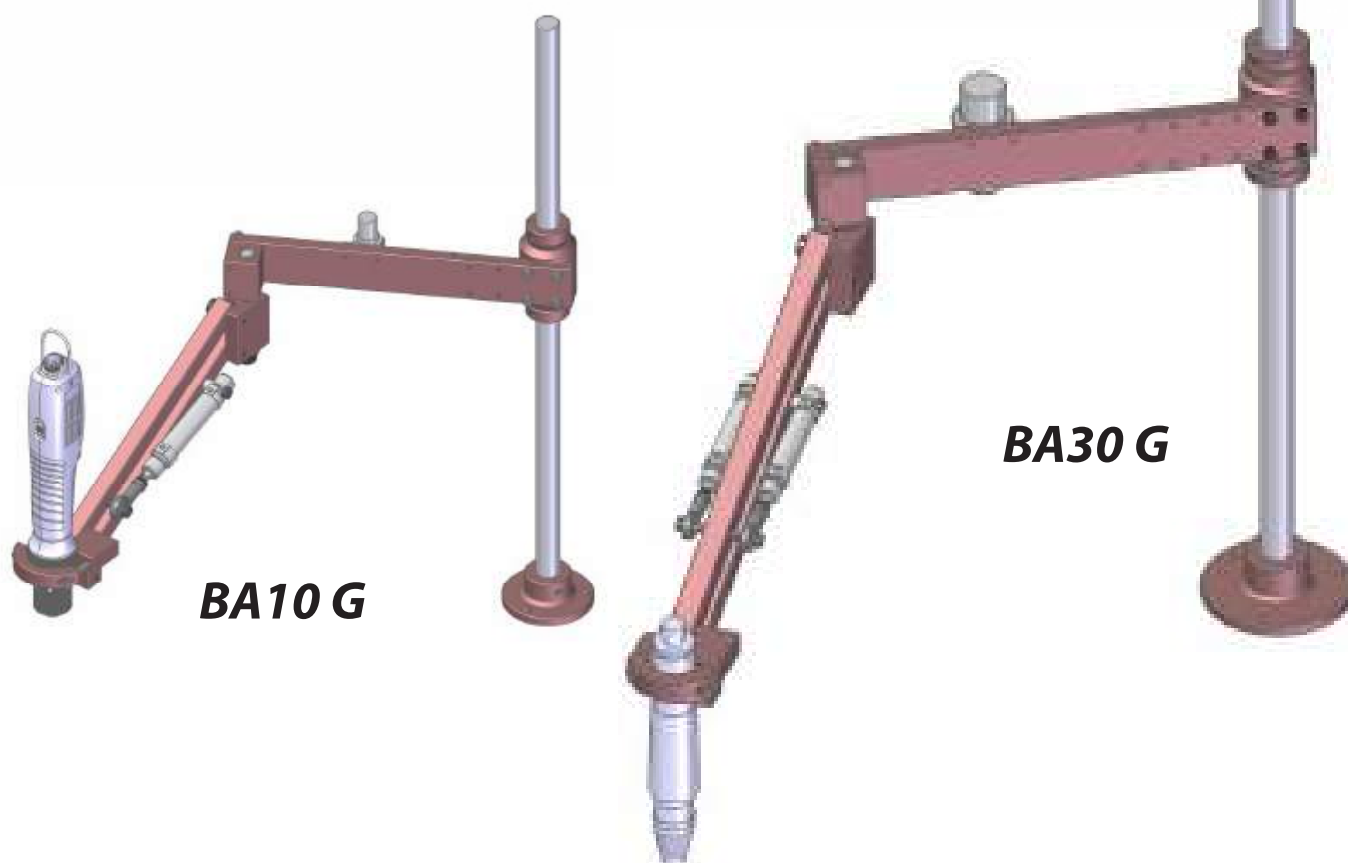
# Articulated and air balanced pantograph

## BA...G Series



Inspired from the BA...R Series, the BA...G Series provides you even more flexibility and confort thanks to the air balanced design.

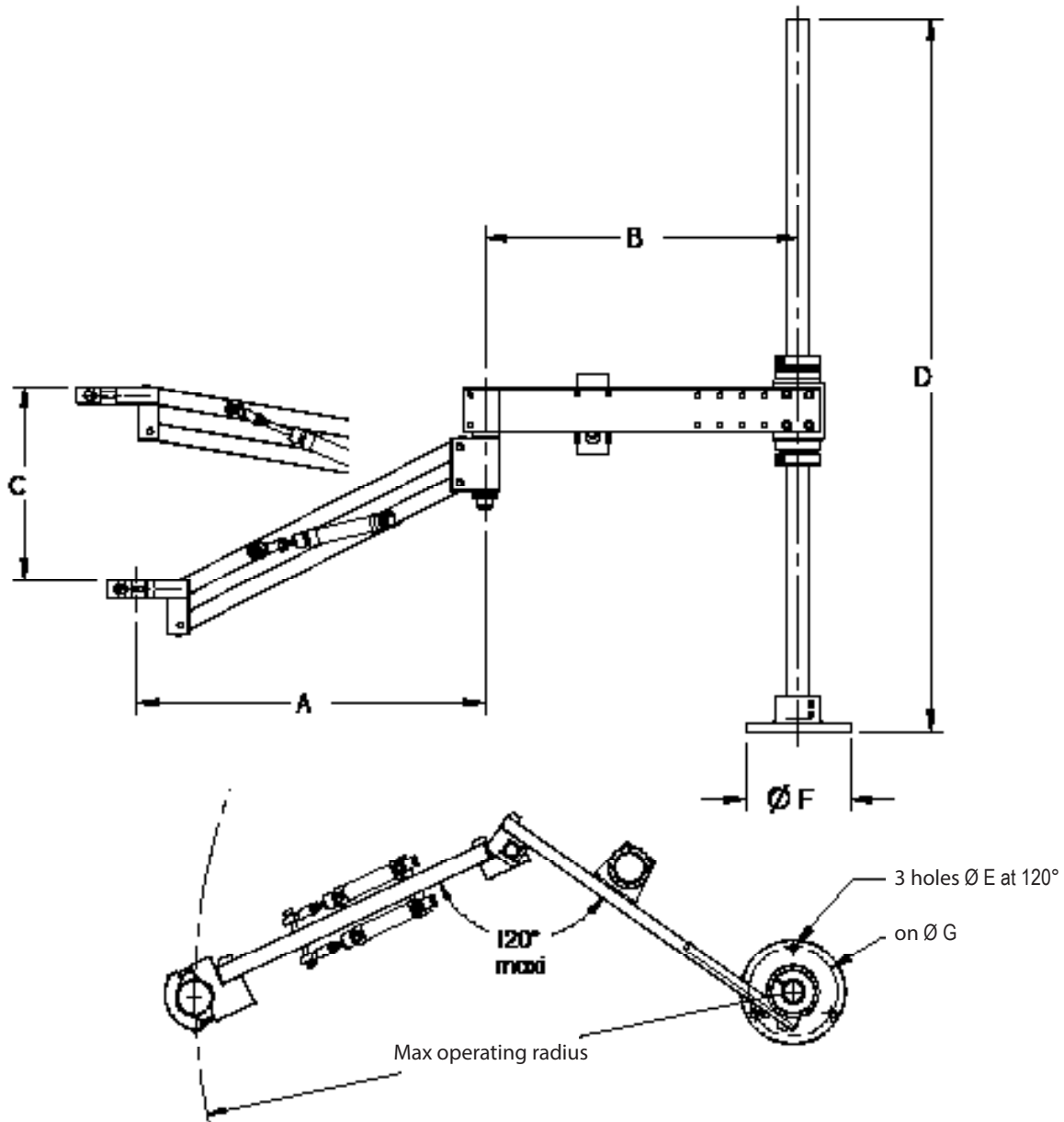
- Softly air balanced !
- Quick and quiet !



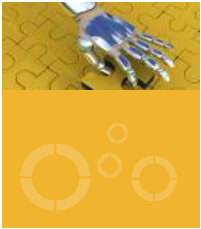
Model	Torque Max (Nm)	Tool Ø (mm)	Vertical Stroke (mm)	Maxi load (Kg)	Max radius (mm)	Code
BA10 G	10	27 - 50	170	1	470	4-5201013
BA10 G/600	10	27 - 50	170	1	600	4-5201014
BA30 G	30	28 - 52	220	2	670	4-5201015
BA30 G/800	30	28 - 52	220	2	800	4-5201016

# Articulated and air balanced pantograph

## BA...G Series



Model	A (down position)	B mini	B maxi	C Vertical Stroke	D	Dim. E	Dim. F	Dim. G	Max radius (mm)
BA10 G	260	202	252	170	600	8,5	78	65	470
BA10 G/600	260	357	407	170	600	8,5	78	65	600
BA30 G	391	250	350	218	800	8,5	118	100	670
BA30 G/800	391	405	505	218	800	8,5	118	100	800



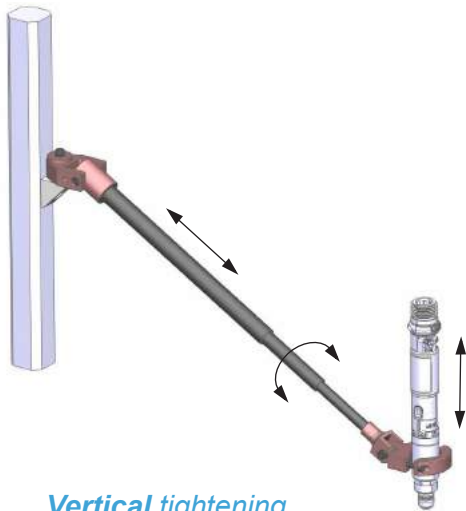
# Carbon telescoping arms

## DMF/DMFI Series



*DMF Series : Erase your torque reaction until 300 Nm.*

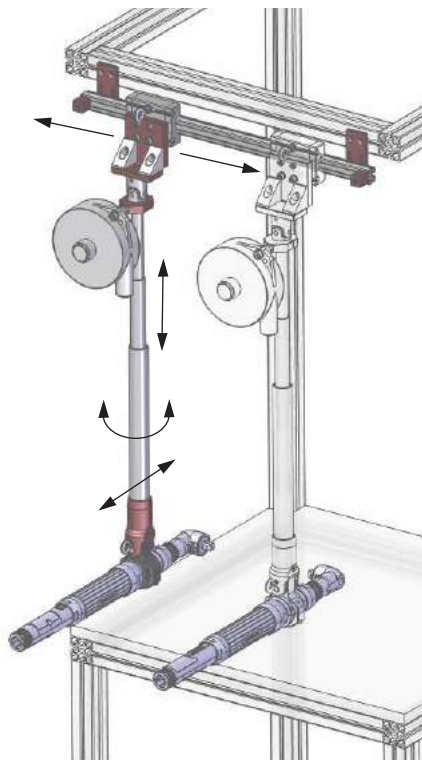
- Comfort : Easy to install on moving assembly line (mountable on existing standard rail). Require little space and doesn't disrupt flow production. Erase torque reaction of power tools.
- Economy : Maintenance free thanks to the carbon fiber (no greasing). Long last of living thanks to the durable carbon fiber.
- Productivity : Easy and quick operator handling thanks to the light weight carbon fiber.



*Vertical tightening*

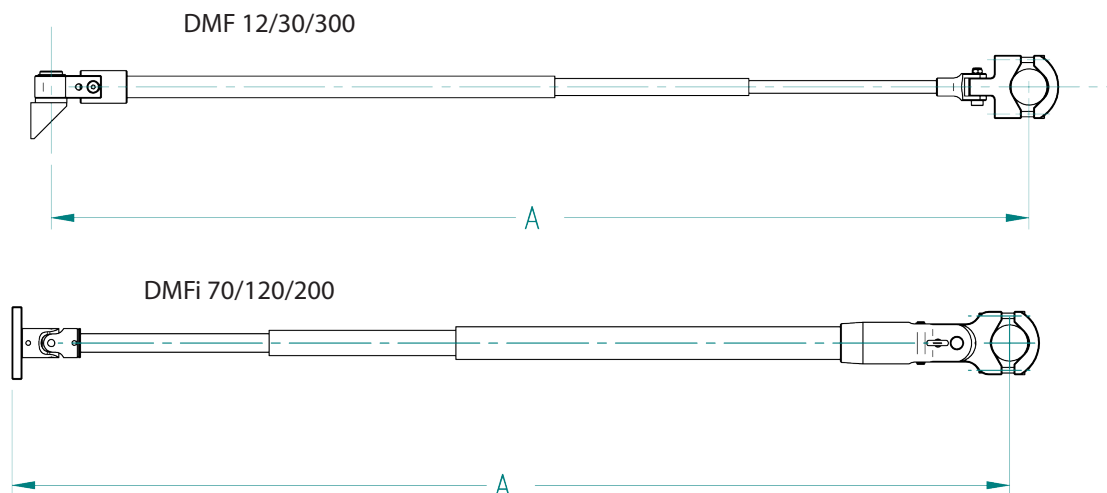


*Frontal tightening*



*Side tightening*

# Carbon telescoping arms



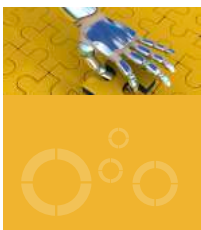
## Standard stroke

Model	Max torque (Nm)	Standard clamp	Tool Ø (mm)	A min (mm)	A max (mm)	Code	
						Without clamp	With clamp
DMF 5/950	5	P1	25 - 42	460	950		4-5200445
DMF 12/950	12	P1	27 - 50	460	950		4-5201004
DMF 12/1500	12	P1	27 - 50	650	1500		4-5201005
DMF 12/2000	12	P1	27 - 50	820	2000		4-5201006
DMF 30/960	30	P1	28 - 52	475	960	4-5244000	4-5200074
DMF 30/1500	30	P1	28 - 52	656	1500	4-5244001	4-5200282
DMF 30/2000	30	P1	28 - 52	823	2000	4-5244002	4-5200283
DMF 30/2500	30	P1	28 - 52	993	2500	4-5244003	4-5200284
DMF 30/3000	30	P1	28 - 52	1321	3000	4-5200813	4-5200818
DMFi 70/1500	70	P2	35 - 52	667	1500	4-5244004	4-5244020
DMFi 70/2000	70	P2	35 - 52	833	2000	4-5244005	4-5244021
DMFi 70/2500	70	P2	35 - 52	1000	2500	4-5244006	4-5244022
DMFi 70/3000	70	P2	35 - 52	1330	3000	4-5200814	4-5200819
DMFi 120/1500	120	P2	35 - 52	691	1500	4-5244007	4-5244023
DMFi 120/2000	120	P2	35 - 52	857	2000	4-5244008	4-5244024
DMFi 120/2500	120	P2	35 - 52	1023	2500	4-5244009	4-5244025
DMFi 120/3000	120	P2	35 - 52	1347	3000	4-5200815	4-5200820
DMFi 200/1500	200	P2	Maxi 63	920	1500	4-5244050	4-5244026
DMFi 200/2000	200	P2	Maxi 63	1170	2000	4-5244051	4-5244027
DMFi 200/2500	200	P2	Maxi 63	1420	2500	4-5244052	4-5244028
DMFi 200/3000	200	P2	Maxi 63	1720	3000	4-5200816	4-5200821
DMF 300/1500	300	P2	Maxi 73	970	1500	4-5244053	4-5244029
DMF 300/2000	300	P2	Maxi 73	1220	2000	4-5244054	4-5244030
DMF 300/2500	300	P2	Maxi 73	1470	2500	4-5244055	4-5244031
DMF 300/3000	300	P2	Maxi 73	1720	3000	4-5200817	4-5200822

Other dimensions on request (max length 4 meters).  
Torque up to 600 Nm is available on request.

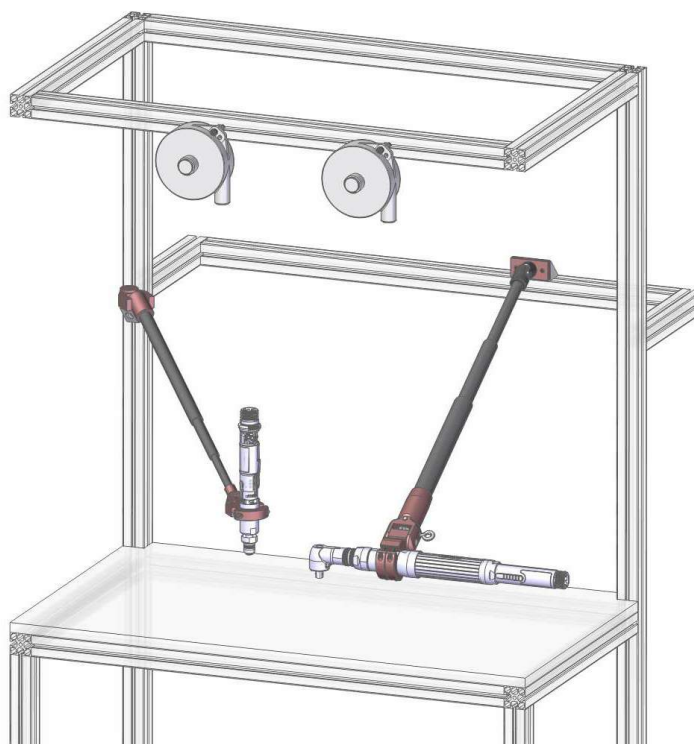
## Long stroke (LS)

Model	Max torque (Nm)	Standard clamp	Tool Ø (mm)	A min (mm)	A max (mm)	Code	
						Without clamp	With clamp
DMF 30/1500 LS	30	P1	28 - 52	555	1500	4-5200852	4-5200855
DMF 30/2000 LS	30	P1	28 - 52	680	2000	4-5200853	4-5200856
DMF 30/2500 LS	30	P1	28 - 52	805	2500	4-5200854	4-5200857
DMFi 100/1500 LS	100	P2	35 - 52	592	1500	4-5201213	4-5201221
DMFi 100/2000 LS	100	P2	35 - 52	717	2000	4-5201214	4-5201222
DMFi 100/2500 LS	100	P2	35 - 52	842	2500	4-5201215	4-5201223
DMFi 200/1500 LS	200	P2	Maxi 63	728	1500	4-5201216	4-5201224
DMFi 200/2000 LS	200	P2	Maxi 63	894	2000	4-5201217	4-5201225
DMFi 200/2500 LS	200	P2	Maxi 63	1060	2500	4-5201220	4-5201226



# Vertical tightening

## DMF/DMFI Series



### P1 clamp

For	Clamping (mm)	Code
DMF12	Clamp 27/50	Standard
DMF30	Clamp 28/52	Standard
DMFi 70	Mounting plate interface	4-5244032
DMFi 120/200	Mounting plate interface	4-5244033

### P2 clamp

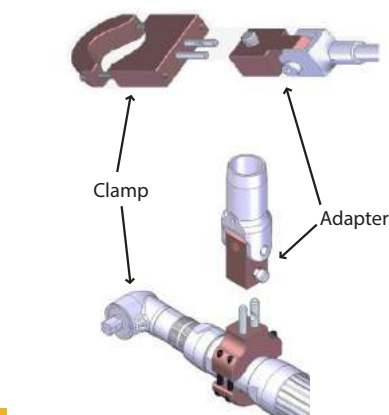
For	Capacity (mm)	Code
DMF30	28/52	4-5200300
DMFi70	35/52	Standard
DMFi120/200	35/52	Standard
DMFi200	63	Standard
DMF300	73	Standard

### Quick release clamp

For	Type	Code
DMF12	P1	4-5201003
DMF30	P1	4-5200017
DMFi 70	P2	4-5283102
DMFi 120/200	P2	4-5283103

### Quick release interface

For	Code
DMF12	4-5200470
DMF30	4-5200471
DMF70	4-5283100
DMF120/200	4-5283101

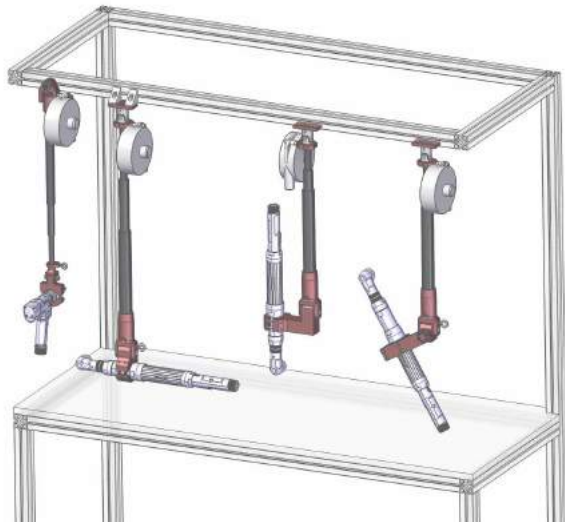




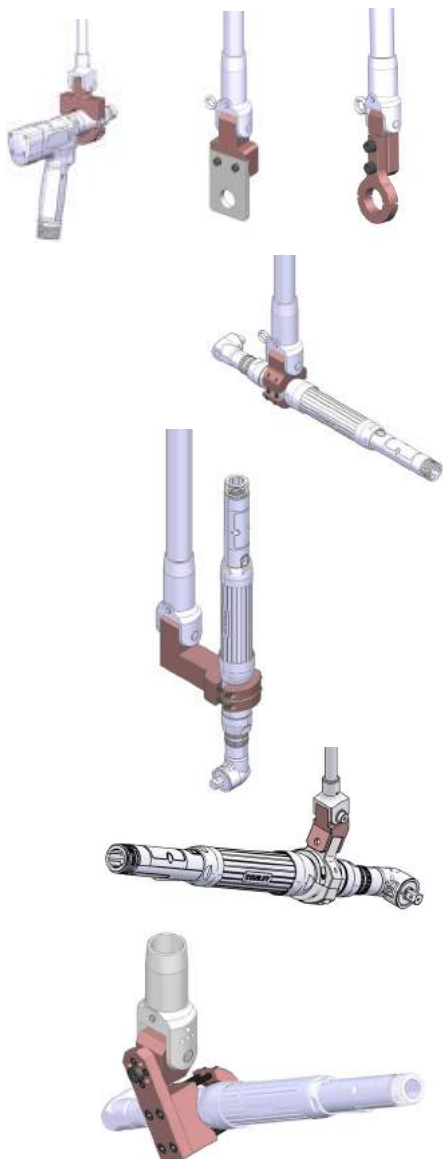
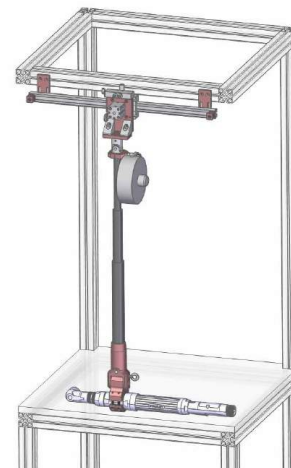
# Frontal tightening

## DMF/DMFI Series

### Fixed mounting



### Mounting on rail with locker



### P1 clamp

For	Clamping (mm)	Code
DMF12	Clamp 27/50	Standard
DMF30	Clamp 28/52	Standard
DMFi70	Mounting plate interface	4-5244032
DMFi120/200	Mounting plate interface	4-5244033
DMF300	Mounting plate interface	On request

### P2 clamp

For	Tool Ø	Code
DMF30	28/52	4-5200300
DMFi70	35/52	Standard
DMFi120/200	35/52	Standard
DMFi200	Max 63	Standard
DMF300	Max 73	Standard

### P4 clamp

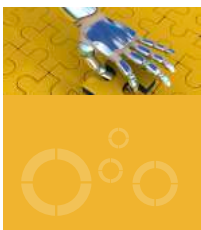
For	Tool Ø	Code
DMF30	28/52	4-5200302
DMFi70	35/52	4-5244015
DMFi120/200	35/52	4-5244016
DMFi200	Max 63	4-5244058
DMF300	Max 73	4-5244059

### Tilt interface

For	Tool Ø	Code
Interface/DMF30 (for all clamp types)	-	30° 45° 4-5201140 4-5201141

### Swivel clamp

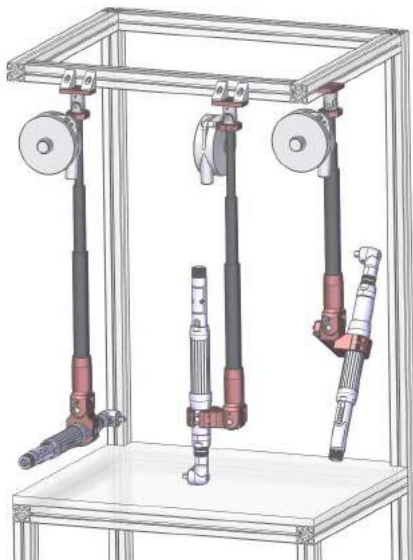
For	Tool Ø	Code
DMFi70 P2/P4	35/52	4-5201137
DMFi120/200 P2/P4	35/52	4-5201138
DMFi200 P2/P4	Max 63	4-5201139
DMF300	Max 73	On request



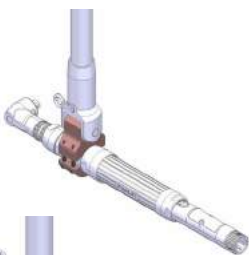
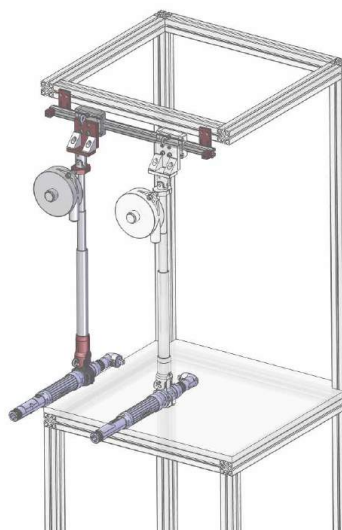
# Side tightening

## DMF/DMFI Series

### Fixed mounting



### Mounting on rail



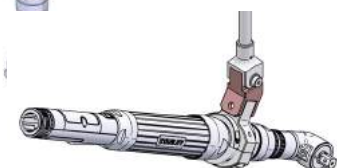
### P2 Clamp

For	Tool Ø	Code
DMF30	28/52	4-5200300
DMFi70	35/52	Standard
DMFi120/200	35/52	Standard
DMFi200	Max 63	Standard
DMF300	Max 73	Standard



### P3 Clamp

For	Tool Ø	Code
DMF30	28/52	4-5200301
DMFi70	35/52	4-5244013
DMFi120/200	35/52	4-5244014
DMFi200	Max 63	4-5244056
DMF300	Max 73	4-5244057



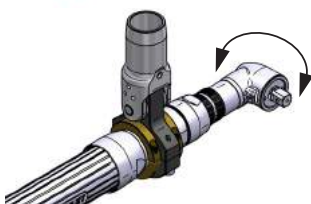
### Tilt interface

For	Tool Ø	Angle	Code
Interface / DMF30	-	15°	4-5283168
		30°	4-5283169



### Swivel clamp

For	Tool Ø	Code
DMFi70	35/52	4-5201137
DMFi120/200	35/52	4-5201138
DMFi200	Max 63	4-5201139
DMF300	Max 73	On request

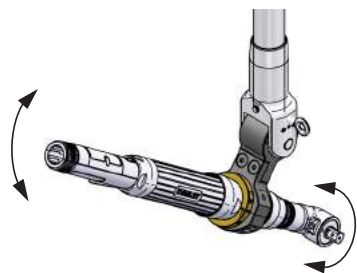


### Rotating clamp

For	Tool Ø	Code
DMF30	43	4-5201134
DMFi70	50	4-5244034
DMFi120/100LS	50	4-5244035
DMFi200/200LS	58	4-5244060
DMF300	70	4-5201136

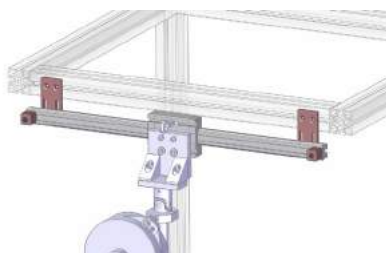
# DMF/DMFi

## Mounting on rail



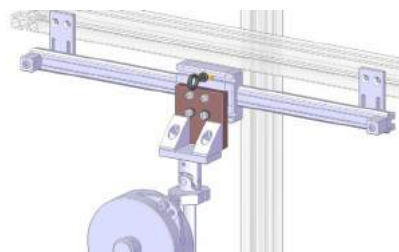
### Tilting and rotating clamp

For	Tool Ø	Tilt angle increment	Code
DMFi70	50	18°	4-5201205
DMFi100/120	50	-	4-5201206
DMFi200	58	-	4-5201218



### Rails

Length	Stroke (mm)	Number of flanges	Code
600	450	2	4-5200132
800	650	2	4-5200160
1000	850	2	4-5200161
1200	1050	3	4-5200162
1500	1350	3	4-5200163
2000	1850	4	4-5200164

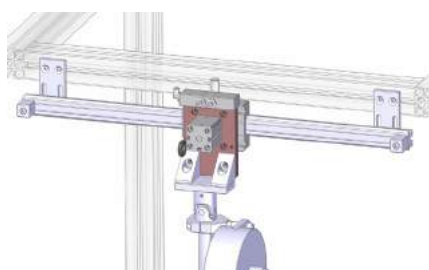


### Rail interface

Allows installation of DMF on rail.

For	Code
DMF12/30	4-5200341
DMFi70/120/200	4-5200708
DMF300	4-5200342

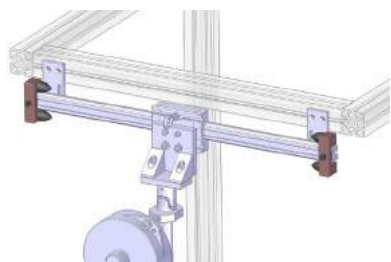
NOTE : delivered without safety hook (Code 4-5200309)



### Pneumatic locker

For	Type	Code
DMF12/30	Pneumatic	4-5200442
DMF12/30	Electric	4-5200869
DMFi70/120	Pneumatic	4-5200706
DMFi70/120	Electric	4-5200707
DMFi200	Electric	4-5201150
DMF300	Electric	4-5201142

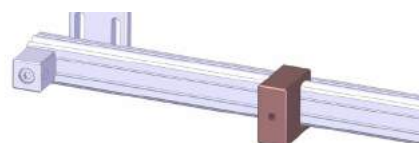
The power tool has to be equipped with a motor run signal.



### Absorbing stop

Recommended in case of repeatable side shocks.

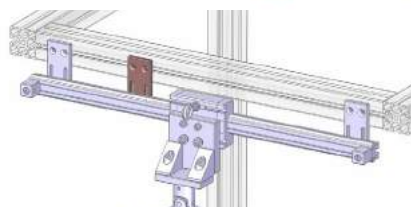
Code 4-5201121 Set of 2



### Adjustable stop

To limit the slide of the arm on the rail.

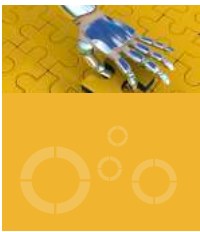
Code 4-5200167



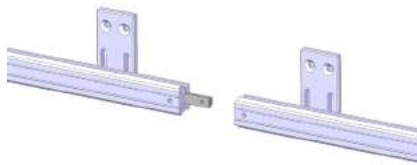
### Additional flange

To reinforce the rail installation for high torque applications.

Code 4-5200873



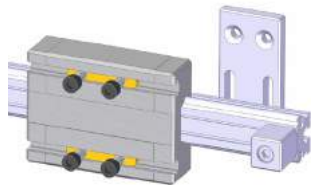
# Accessories DMF/DMFi



## Rail link

To link two rails together.

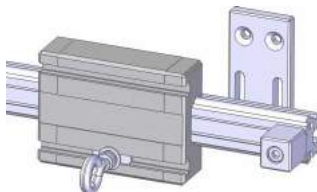
Code 4-5200307



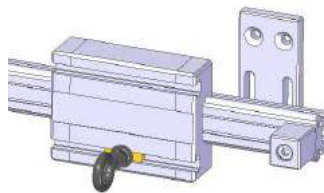
## Single trolley

To mount additional tools on the same rail.

- Single trolley Code 4-5200165



- Trolley for additional balancer Code 4-5200166



## Additional safety hook

To secure balancer.

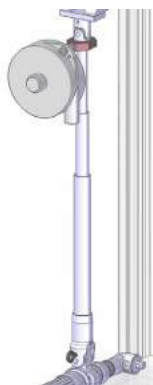
Code 4-5200309



## Balancing kit for DMF 12/30/300

For	Tool (Kg)	Code
DMF12	1 to 2	4-5200303
DMF30	1 to 2,5	4-5200304
DMF30	2 to 4	4-5200305
DMF300	4 to 8	4-5200704
DMF300	6 to 10	4-5200705

Balancer attachment kit for DMF30 Code 4-5201143



## Balancing kit for DMFi 70/120/200

For	Capacity (Kg)	Code
DMFi 70/120/200	2 - 4	4-5200701
DMFi 70/120/200	4 - 6	4-5200702
DMFi 70/120/200	6 - 8	4-5200703

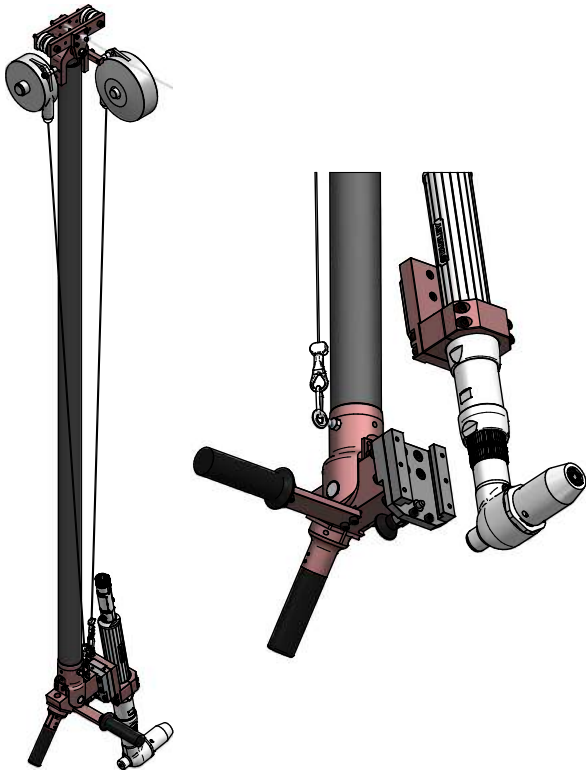
Delivered with balancer attachment kit.

## Cable extension for balancer for DMFi max 3000

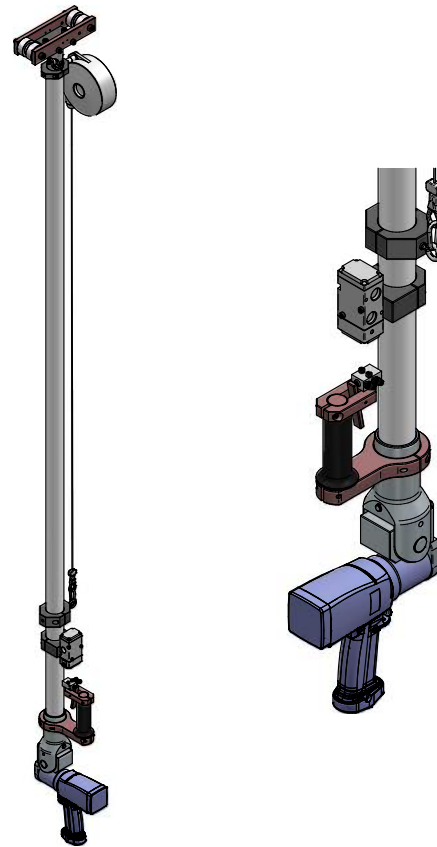
For	Length	Code
Extension	0,5 m	4-1212220
Extension	1,0 m	4-1222205

# Special arms on request

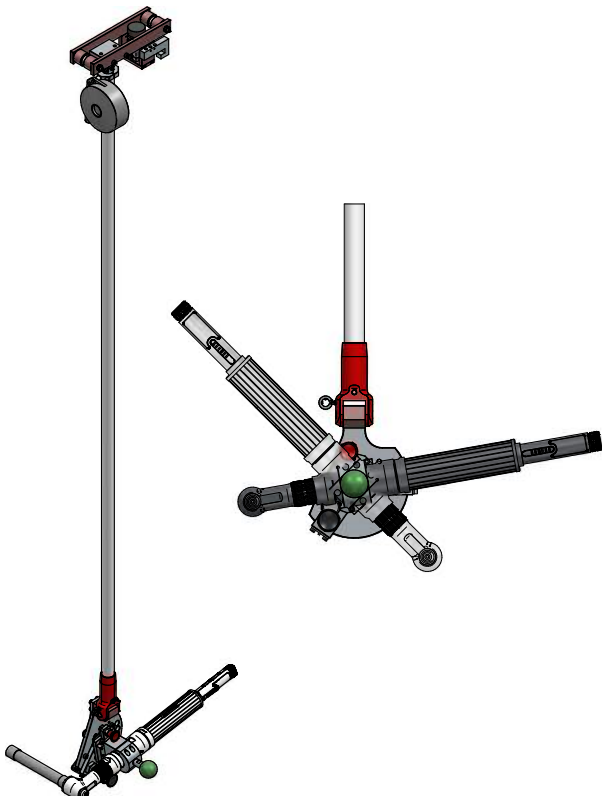
## Special applications



DMF 400 with quick release tool clamp



DMF 300 with air pistol tool+remote start lever



DMFi 200 with swivel and indexable tool clamp



DMFi 600 with air locker + special tool holder for pistol tools



# Suspended arms

## Slider



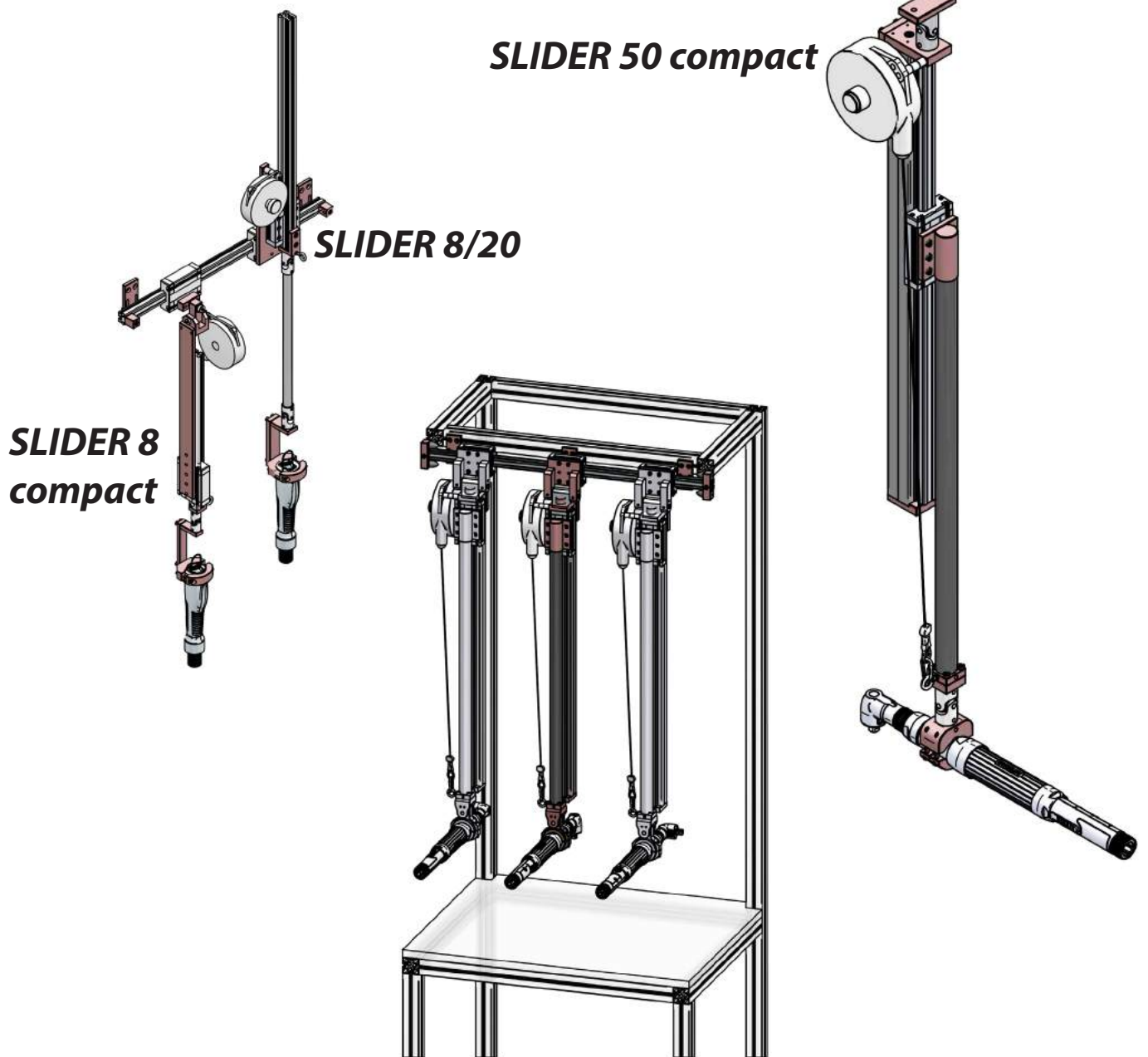
*SLIDER Series : Erase your torque reaction until 300 Nm.*

- **IMPROVE YOUR COMFORT AND PRODUCTIVITY**

Easy to install and smart-sized the SLIDER arms improve the comfort of the operator and the productivity clearing the work area.

- **IMPROVE YOUR ERGONOMY**

Mounted with horizontal stroke the SLIDER becomes the ideal ergonomical solution on conveyor line.



**SLIDER 50 compact**

**SLIDER 8/20**

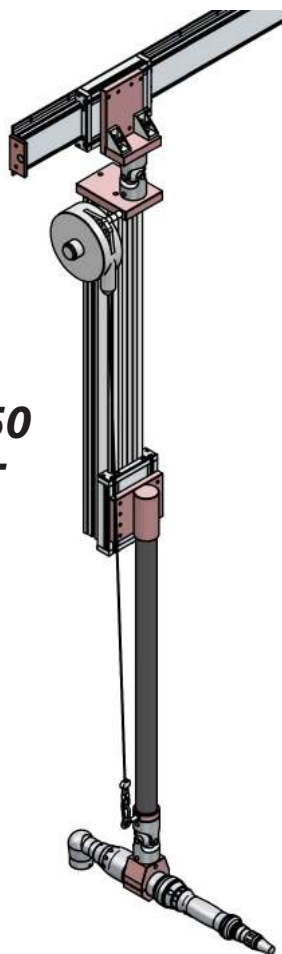
**SLIDER 8 compact**

**SLIDER 50 COMPACT**  
**Vertical/horizontal tightening**

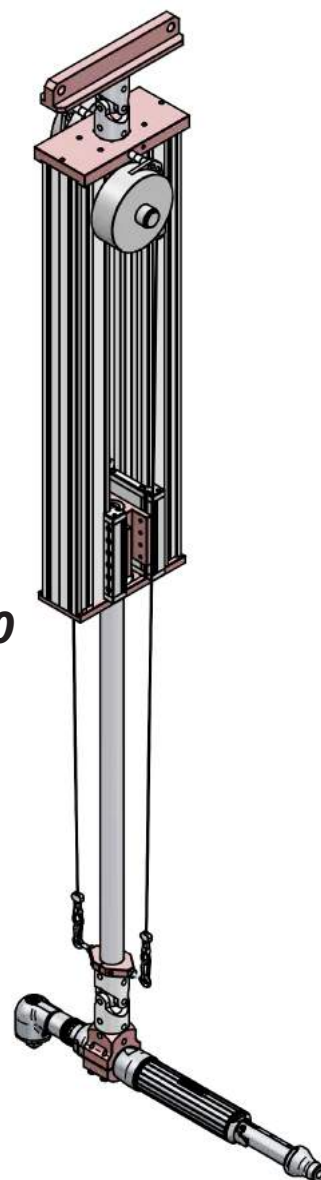
# Suspended arms

## Slider

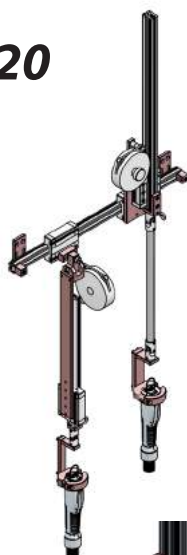
**SLIDER 150  
COMPACT**



**SLIDER 300  
COMPACT**



► **SLIDER 8/20**



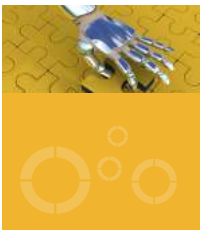
### **SLIDER with clamp for electric tool**

Désignation	Max torque (Nm)	Max load (kg)	Clamp (ø)	Stroke Z	Code
Slider 8	8	1,2	28/52	450	4-5283148
Slider 20	20	2,2	28/52	450	4-5283149
Slider 8 Compact/270	8	1,2	28/52	270	4-5283150
Slider 8 Compact/470	8	1,2	28/52	470	4-5283151



### **Interface for air tool**

Model	Code
Interface 1/4" SLIDER 8 et 8 COMPACT	4-5283171
Interface 1/4" SLIDER 20	4-5283172

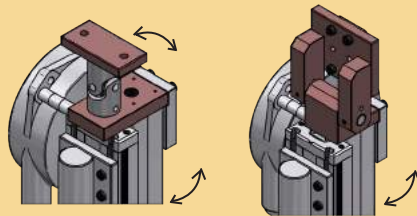


# Suspended arms

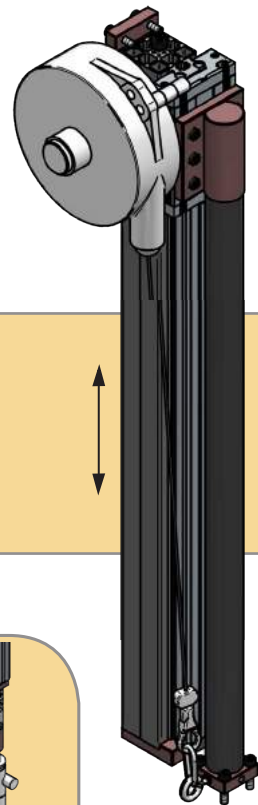
## Slider

### ► Modular system SLIDER 20/50 Compact

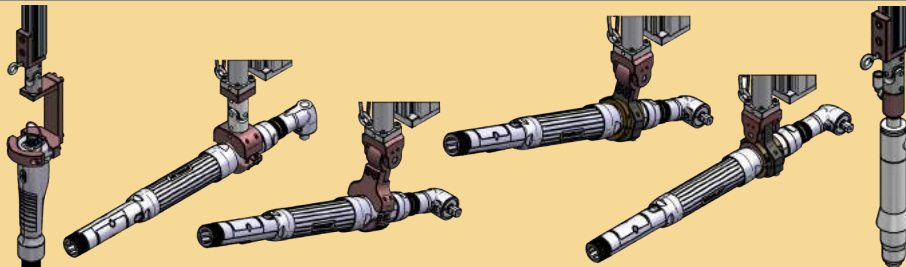
Upper Interface



Vertical guide



Tool clamps



### Vertical guide

Model	Max torque (Nm)	Vertical stroke (mm)	Charge maxi (kg)	Code
SLIDER 20 Compact/470	20	470	2,2	4-5283152
SLIDER 20 Compact/670	20	670	2,2	4-5283153
SLIDER 50 Compact/470	50	470	3	4-5283154
SLIDER 50 Compact/670	50	670	3	4-5283155
SLIDER 50 Compact/870	50	870	3	4-5283156

### Upper 2 axes interface



Model	Code
SLIDER 20	4-5283159
SLIDER 50	4-5283160

### Upper 1 axis interface



Model	Code
SLIDER 20	4-5283157
SLIDER 50	4-5283158



# Suspended arms

## Options SLIDER 8/20/50



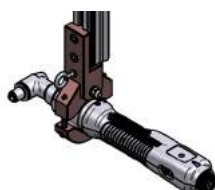
### Clamp for electric screwdrivers/Slider 20 compact

Model	Capacity (mm)	Code
Clamp SLIDER 20	28/52	4-5283161



### Cardan clamp for angle nutrunners

Model	Capacity (mm)	Code
SLIDER 20	28/52	4-5283162
SLIDER 50	32/52	4-5283163



### Fixed clamp

Model	Capacity (mm)	Code
SLIDER 20	28/52	4-5283164



### Tilt interface

Model	Code
15° SLIDER 20	4-5283168
30° SLIDER 20	4-5283169



### Tilting clamp

Model	Capacity (mm)	Increment	Code
SLIDER 50	32/52	18°	4-5283165



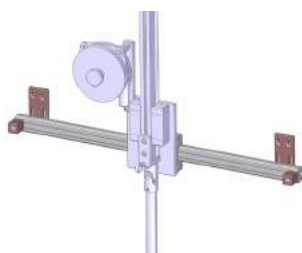
### Rotating clamp

Model	Max capacity (mm)	Code
SLIDER 20	43	4-5283166
SLIDER 50	50	4-5283167



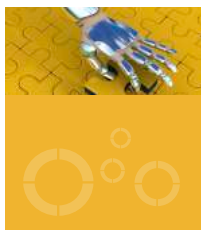
### Tilting and rotating clamp

Model	Max capacity (mm)	Increment	Code
SLIDER50	50	18°	4-5283170



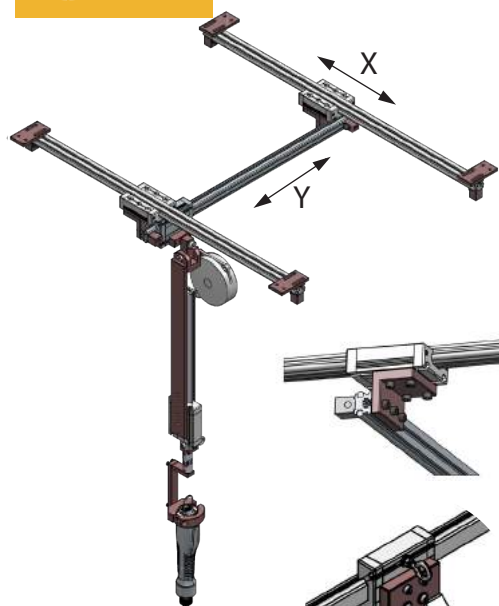
### Rails SLIDER 8/20/50

Length	Stroke	Bracket number	Code
600	450	2	4-5200132
800	650	2	4-5200160
1000	850	2	4-5200161
1200	1050	3	4-5200162
1500	1350	3	4-5200163
2000	1850	4	4-5200164



# Suspended arms

## Options SLIDER 8/20/50



### Cross-rails Slider 8 et 20 compact (delivered with rail interface)

Select your cross-rails choosing p.33 :  
 - 2 Rails en X  
 - 1 Rails en Y  
 (Y max length : 1000 mm)



Model	Code
Set of 2 brackets	4-5283173

### Interface Slider 50

Model	Code
Interface	4-5200708

### Rail link

To link two rails together. **Code : 4-5200307.**

### Additional bracket

To reinforce the rail structure. **Code : 4-5200873.**

### Set of 2 absorbing stops

Recommended in case of repeatable side shocks. **Code : 4-5201121.**

### Adjustable stops

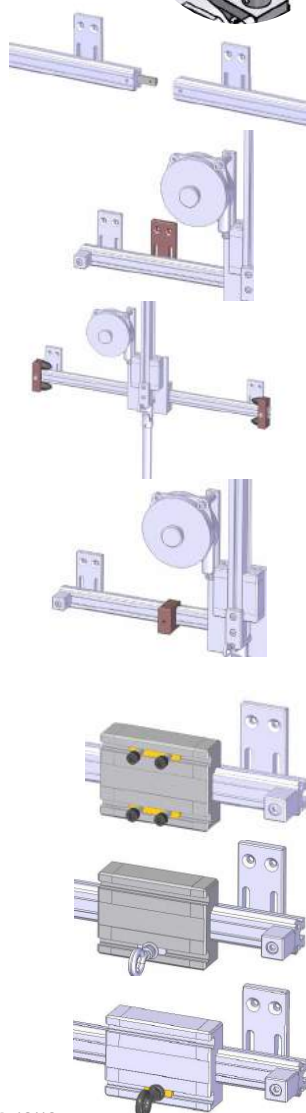
To limit the slide of the arm on the rail.  
 For slider 8/20/50 rail **Code : 4-5200167**  
 For slider 150/300 rail **Code : 4-5283201**

### Additional trolley

To mount additional tools on the same rail.  
 - Single trolley **Code : 4-5200165.**  
 - Trolley for additional balancer **Code : 4-5200166.**

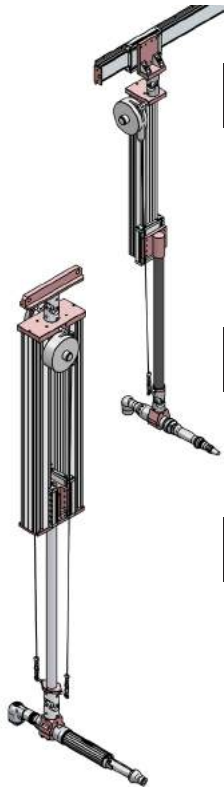
### Additional safety hook

To secure the balancer. **Code : 4-5200309.**



# Suspended arms

## SLIDER 150/300 COMPACT



Model	Max torque (Nm)	Ø Clamping (mm)	Vertical stroke (mm)	Mini	Maxi	Load (kg)	Code
SLIDER 150 COMPACT 600	150	Max 63	600	1100	1700	5	4-5283113
SLIDER 150 COMPACT 800	150	Max 63	800	1300	2100	5	4-5283114
SLIDER 150 COMPACT 1000	150	Max 63	1000	1500	2500	5	4-5283115

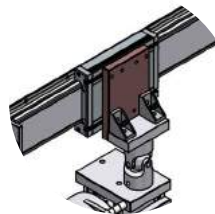
### Rotating clamp

Model	Ø Clamping (mm)	Code
SLIDER 150	Max 63	4-1283117
SLIDER 300	On demand	NC

Model	Max torque (Nm)	Ø Clamping (mm)	Vertical stroke (mm)	Load (kg)	Code
SLIDER 300 COMPACT	300	On demand	On demand	On demand	On demand

### SLIDER 150 rail

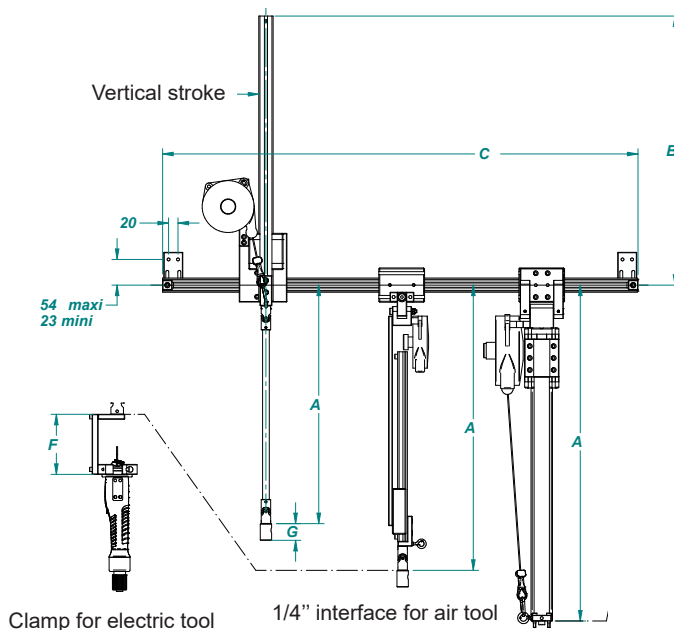
Length (mm)	Stroke (mm)	Code
600	420	4-5200294
1000	820	4-5200295
1500	1320	4-5200296
2000	1820	4-5200297



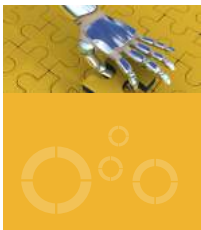
### SLIDER 150 rail

For	Code
Interface	4-5200009

## Dimensions SLIDER 8/20/50



Model	A	B	D	F
SLIDER 8	500	565	450	120
SLIDER 20	599	599	450	120
SLIDER 8 COMPACT 270	550 à 600		270	120
SLIDER 8 COMPACT 470	750 à 800		470	120
SLIDER 20 COMPACT 270	488 à 538		270	
SLIDER 20 COMPACT 470	688 à 738		470	
SLIDER 50 COMPACT 470	705		470	
SLIDER 50 COMPACT 670	905		670	
SLIDER 50 COMPACT 870	1005		870	

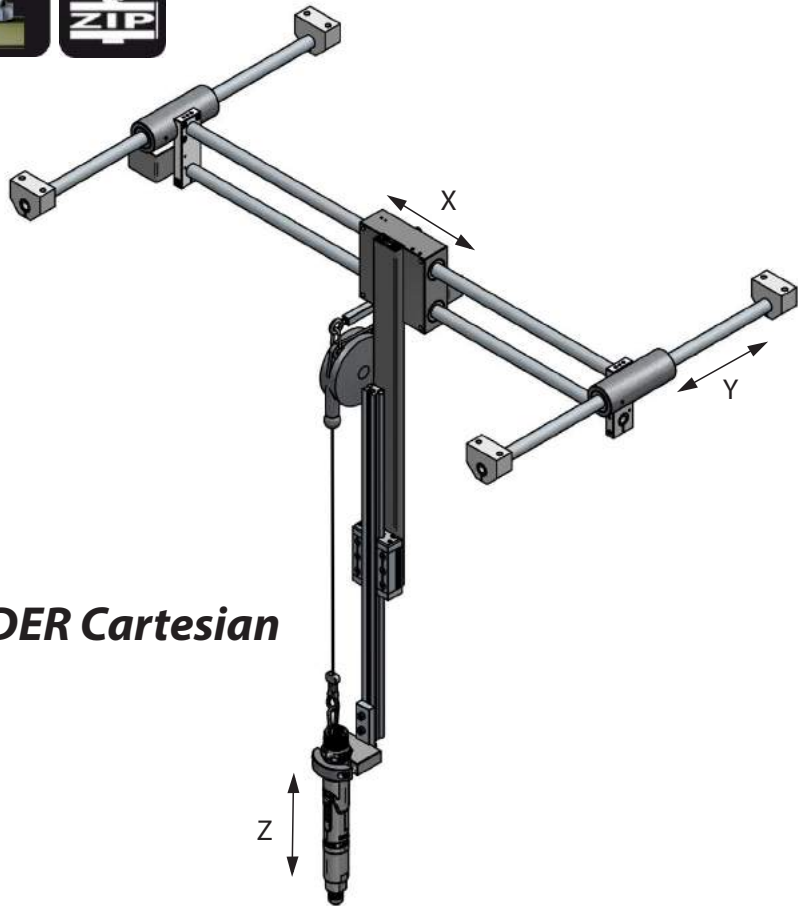


# Suspended arms

## SLIDER Cartesian

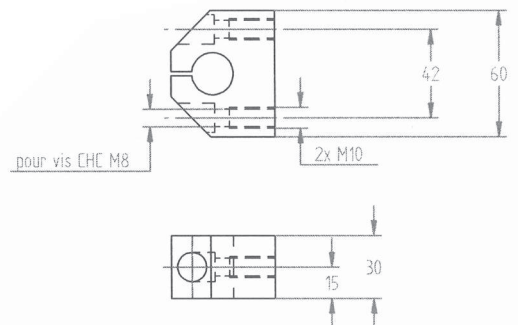
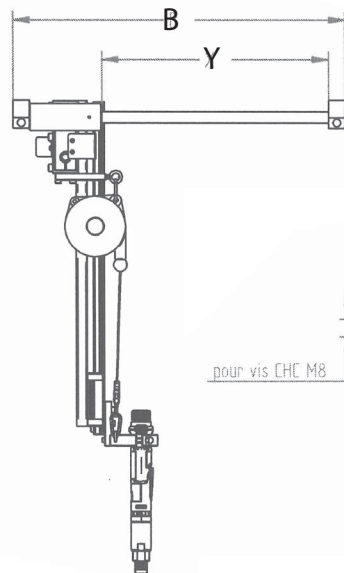
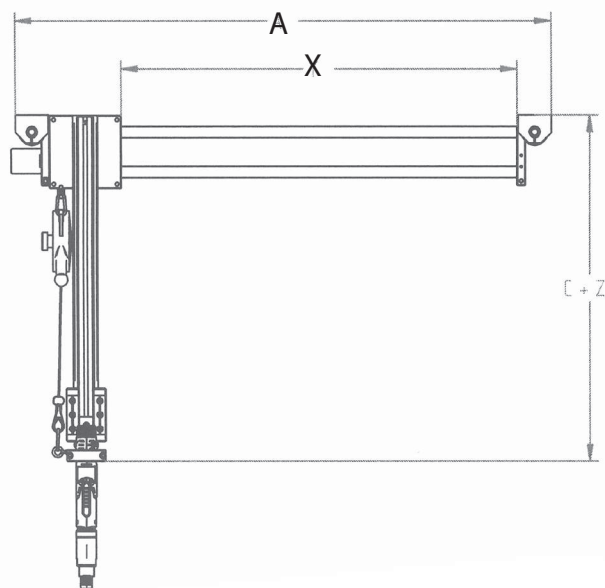


- Cartesian arm to fix on your structure
- Free your workstation



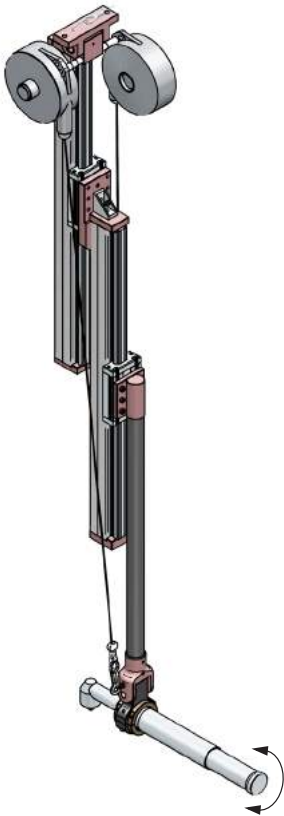
### SLIDER Cartesian

Model	Max torque (Nm)	X	Y	Z	A	B	C	Clamp Ø	Max load	Code
SLIDER 15 CART 300	15	300	400	472	573	600	621	28/52	2 kg	4-5283198
SLIDER 15 CART 500	-	500	400	472	773	600	621	-	-	4-5283199
SLIDER 15 CART 700	-	700	400	472	973	600	621	-	-	4-5283200



# Suspended arms

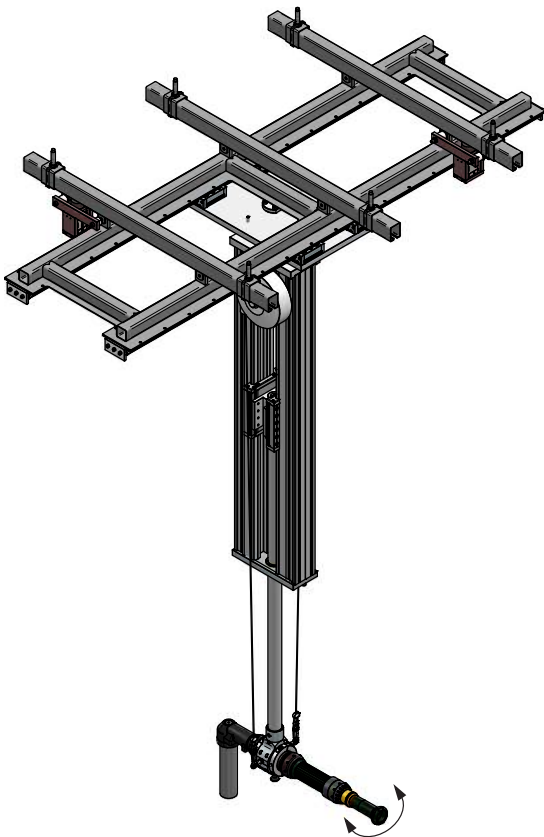
## Special applications



SLIDER 50 double stroke with rotating clamp



SLIDER 50 compact PC with inclinometer + lazer coders on horizontal rail



SLIDER 300 on cross rails with rotating clamp

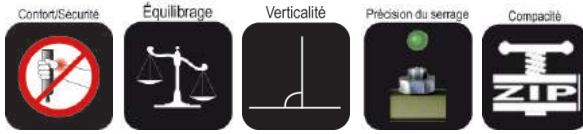


SLIDER 300 rotating on vertical axis with brake + rotating clamp

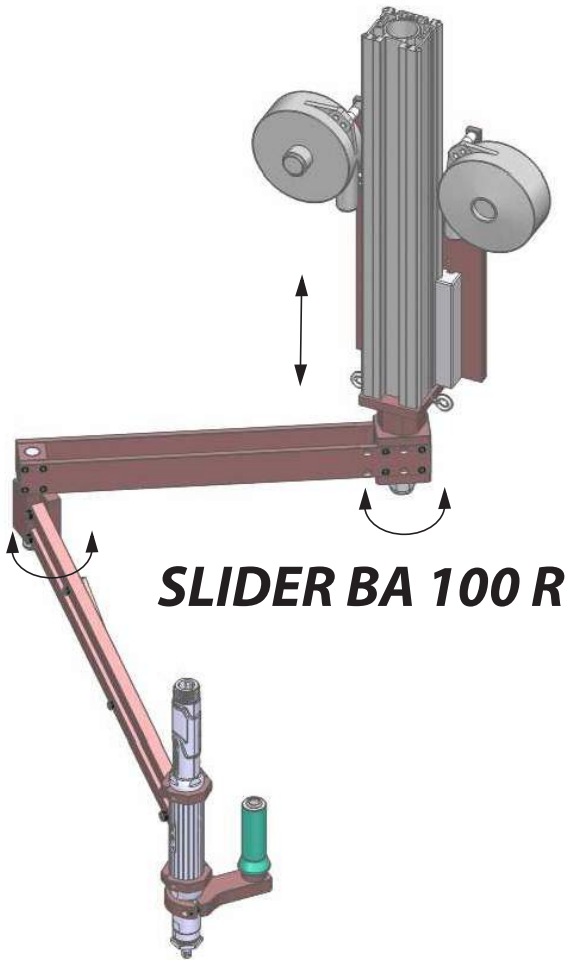


# Suspended arms

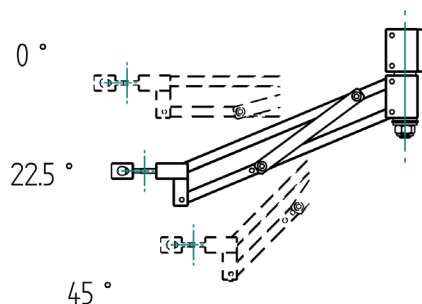
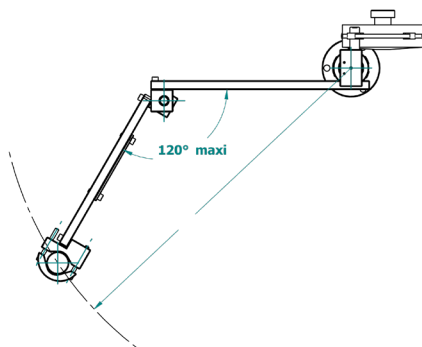
## SLIDER BA / SLIDER BA...R



Mounted on the top, the working area remains free. The SLIDER Series can be installed on rail. Then a pneumatic locker is necessary to counter react.

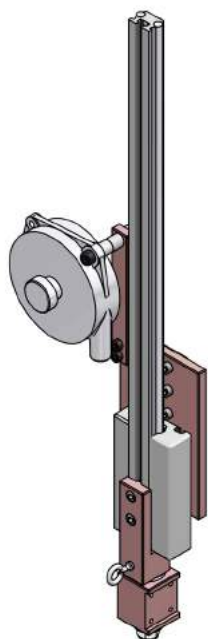


### SLIDER BA 12/25/40 R



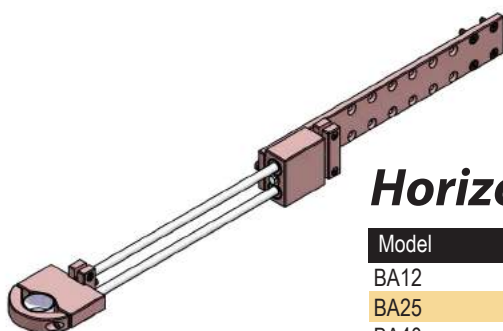
# Suspended arms

Série SLIDER BA / SLIDER BA...R



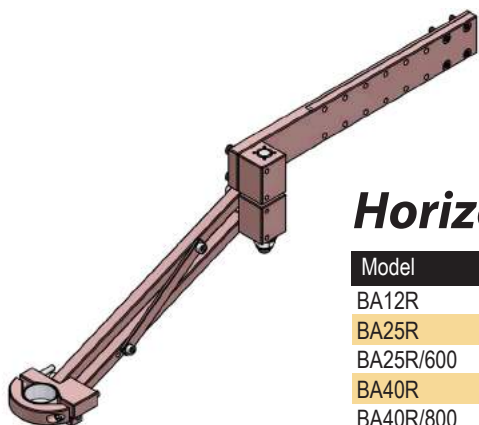
## Vertical slide

Model	Vertical stroke (mm)	Max load (kg)	Code
BA12/12R course 440	440	1,2	4-5283124
BA12/12R course 640	640	1,2	4-5283126
BA12/12R course 840	840	1,2	4-5283127
BA25/25R course 440	440	2,2	4-5283128
BA25/25R course 640	640	2,2	4-5283129
BA25/25R course 840	840	2,2	4-5283130
BA40/40R course 440	440	3	4-5283131
BA40/40R course 640	640	3	4-5283132
BA40/40R course 840	840	3	4-5283133
BA100/100R course 440	440	5	4-5283134
BA100/100R course 640	640	5	4-5283135
BA100/100R course 840	840	5	4-5283136



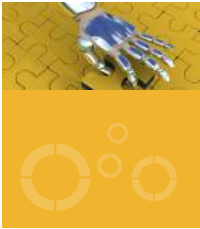
## Horizontal linear slides

Model	Stroke (mm)	Clamp Ø	Code
BA12	225	27/50	4-5283137
BA25	250	28/52	4-5283138
BA40	295	28/52	4-5283139
BA100	330	28/52	4-5283140



## Horizontal articulation

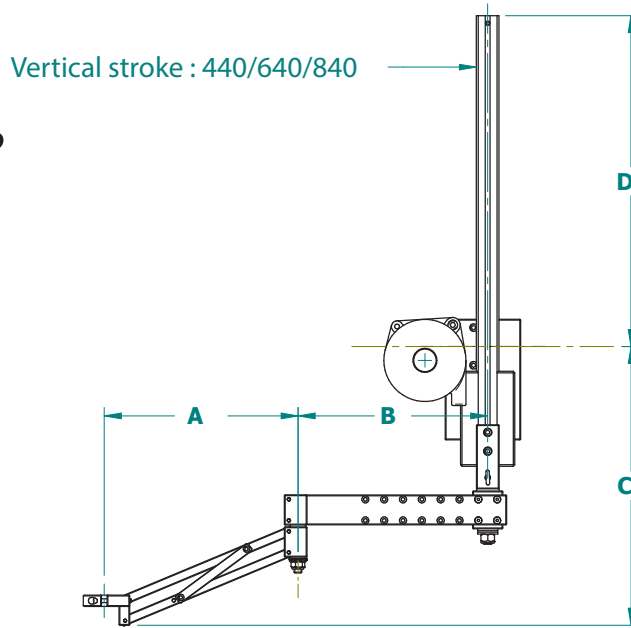
Model	Max radius (mm)	Clamp Ø	Code
BA12R	450	27/50	4-5283141
BA25R	460	28/52	4-5283142
BA25R/600	600	28/52	4-5283143
BA40R	650	28/52	4-5283144
BA40R/800	800	28/52	4-5283145
BA100R	730	28/52	4-5283146
BA100R/900	900	28/52	4-5283147



# Suspended arms

## SLIDER BA / SLIDER BA...R

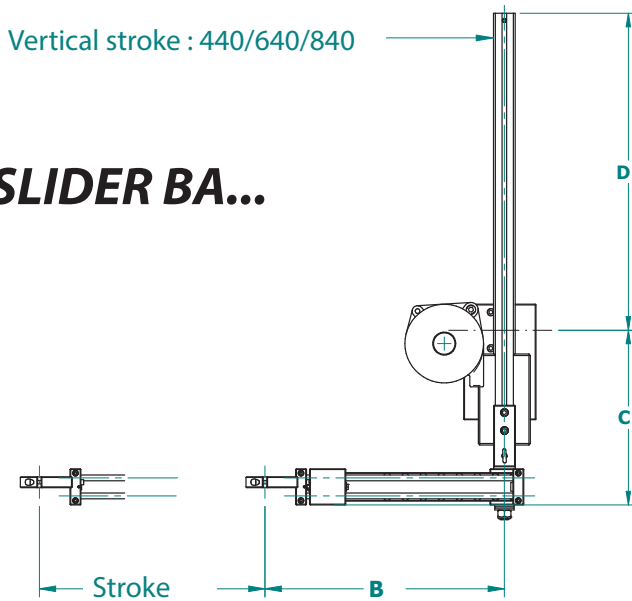
### SLIDER BA...R



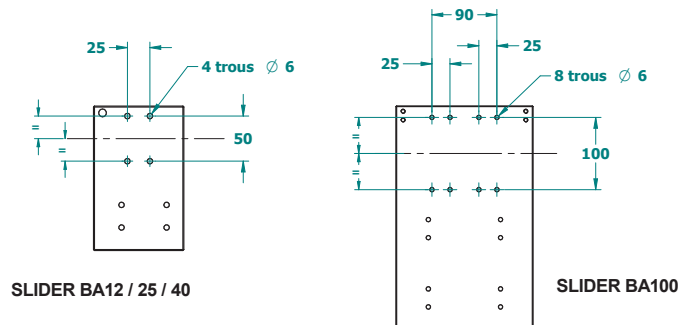
22.5°

	A	B mini	B maxi	Operating radius at 120°	C	D
SLIDER BA 12 R	261	102	252	450	370	440
SLIDER BA 25 R	278	95	245	460	394	425
SLIDER BA 25 R/600	336	305	330	600	417	425
SLIDER BA 40 R	387,5	150	350	650	482	419
SLIDER BA 40 R/800	470	415	415	800	496	419
SLIDER BA 100 R	433	205	405	730	597	358
SLIDER BA 100 R/900	528	470	520	900	634	358

### SLIDER BA...



#### Mounting dimensions

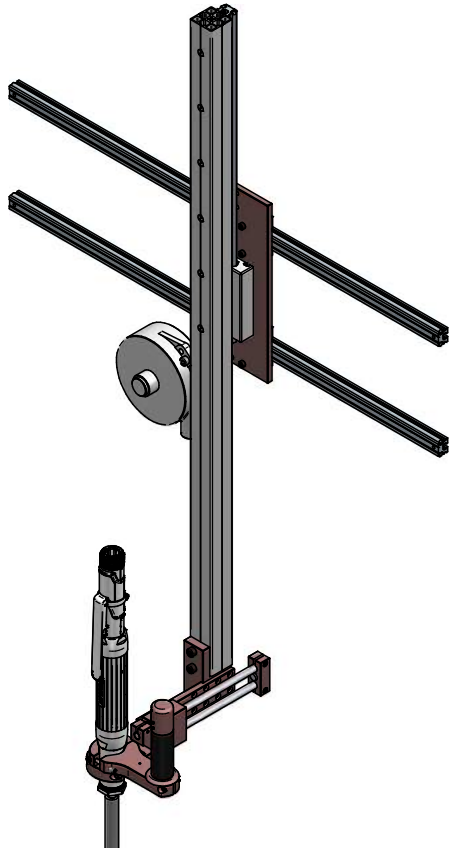


	A	B mini	B maxi	C	D
SLIDER BA 12	225	186	336	246	436
SLIDER BA 25	250	221	396	250	436
SLIDER BA 40	295	260	460	314	419
SLIDER BA 100	330	315	515	395	358

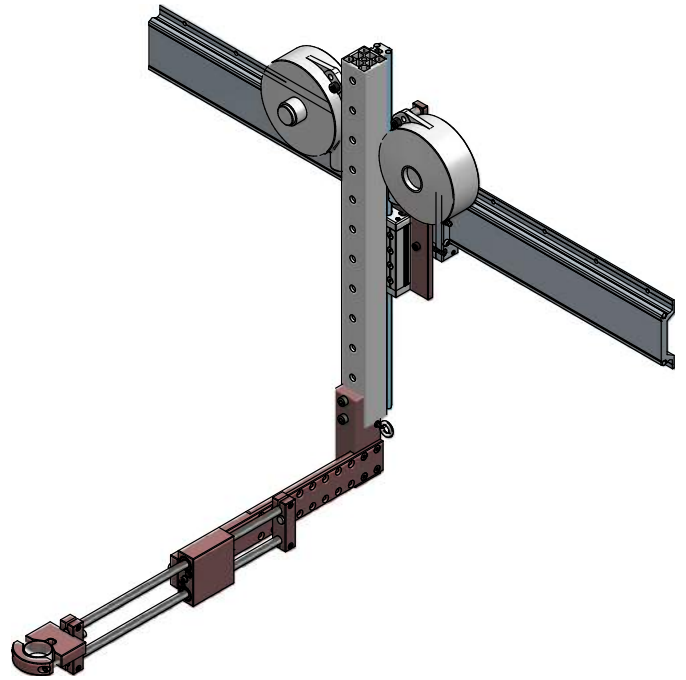


# Suspended arms

## Special applications



SLIDER BA25C on double rail



SLIDER 40C on large rail



SLIDER BA12C on large rail

# Position control system

Improve your manufacturing quality with zero fault process. DOGA Posi Control system is the ideal Sequencing, Error proofing and positioning unit. Compatible with your air, electric and DC tools, your assembly process remains under control regardless operator's qualification.

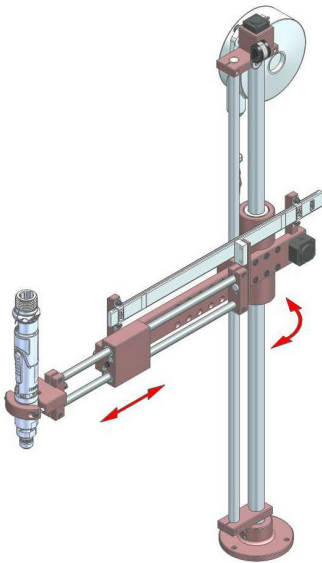
- Page 43 • Posi-control arms
- Page 44 to 45 • Controller DPC-Touch
- Page 46 to 47 • Linear arms BA...PC series
- Page 48 to 49 • Articulated arms BA...RPC, BA...GPC
- Page 50 to 53 • Telescoping carbon arms
- Page 54 to 56 • Suspended arms



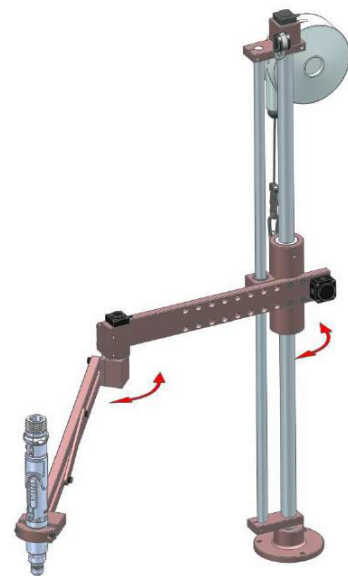
*DPC-Touch Controller*

# POSI-CONTROL System

Position control



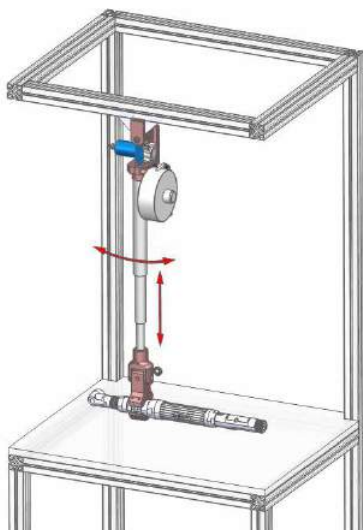
Linear arms BA...PC series



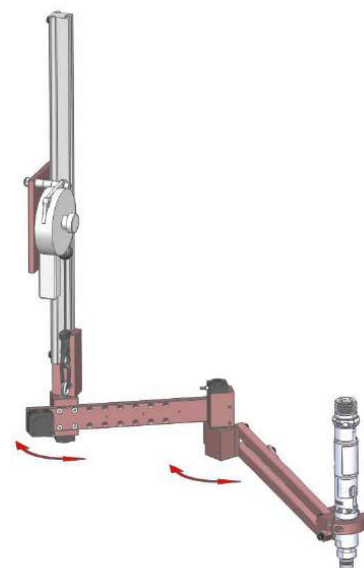
Articulated arms BA...RPC series



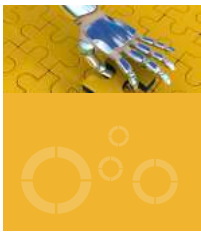
- Zero fault process
- Error proofing
- Sequencing
- Suitable with air and electric tools
- Automation device management



Telescoping arms DMF...PC series

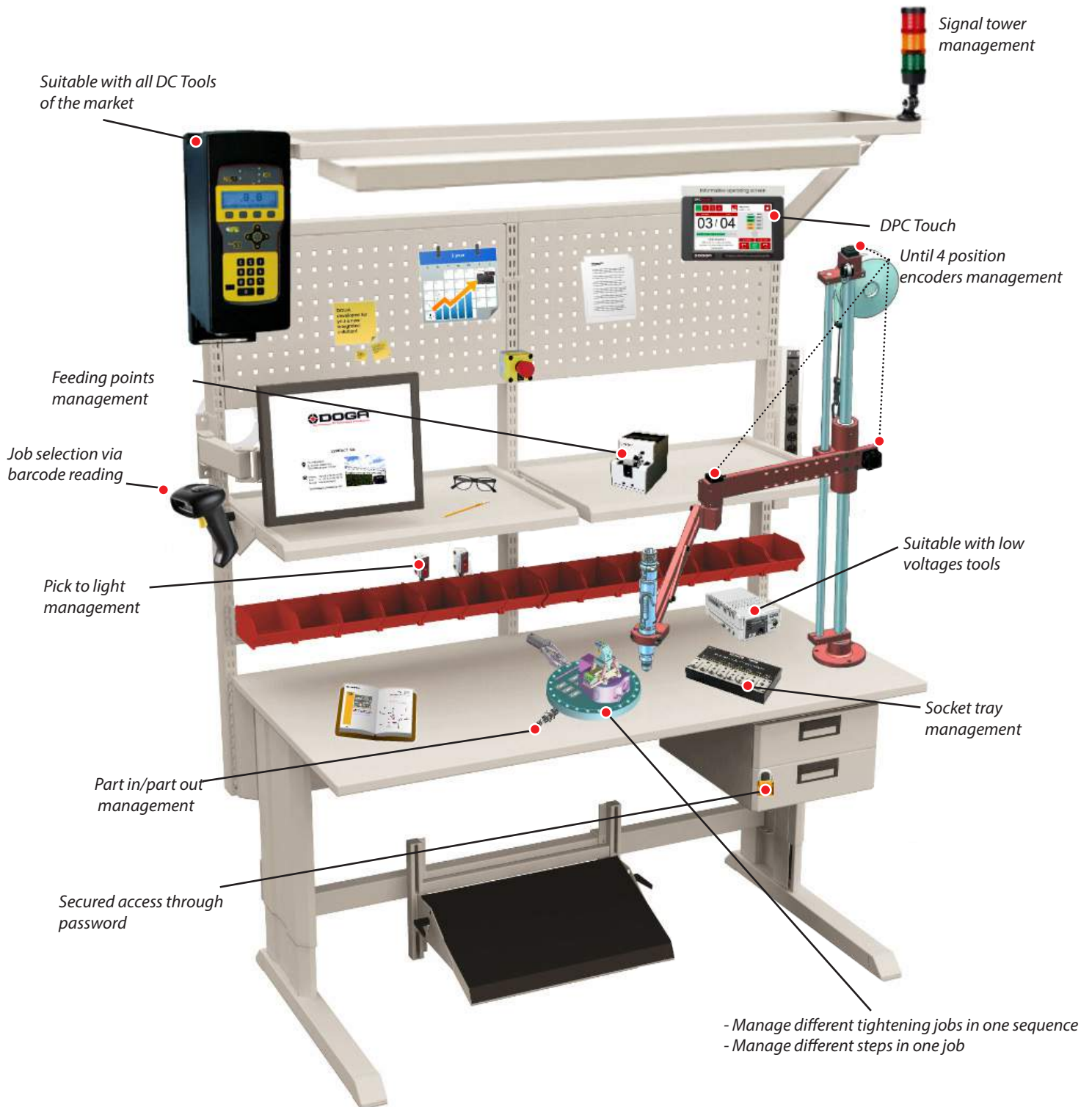


Suspended arms Slider BA...RPC series



# POSI-CONTROL System

- Open job structure allows set up of customized logical sequences of fastenings, messages and I/O's.



- More than a sequencing and Poka-Yoke controller the DPC Touch may easily manage the automation devices of your workstation on assembly line.

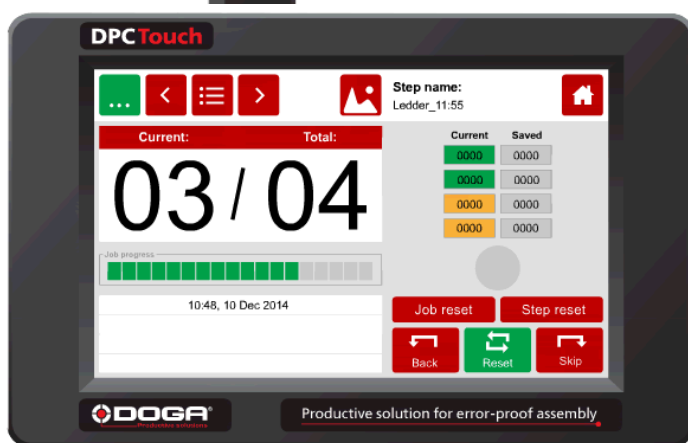
# POSI-CONTROL DPC-Touch

Powerful - user friendly - versatile



## TECHNICAL FEATURES :

Dimensions : 202 x 127 x 38 mm  
 Weight : 550 gr  
 I/O's : 12 inputs, 12 outputs, 24 Volts  
 LCD screen : 7" touch screen (800 x 480 m/m)  
 Encoders : until 4 encoders, (0 - 5 V)



Power supply

2 ports for low voltage DOGA screwdrivers

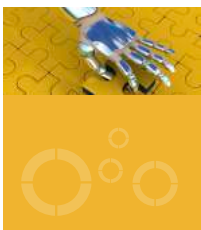
12 inputs/12 outputs (assignable)

Encoders port

RS232 port (firmware upgrade and bar code reading/Job selection)

- Fast and powerful :
  - In house operating system
  - Until 255 programable jobs !
  - Until 255 steps per jobs !
  - Until 99 positions per step !
  - Until 4 position encoders
- User friendly :
  - Embedded soft
  - Touch screen
  - Self teaching sequencing
  - Smart tolerance detection
  - Process and sequencing visualization - operator instructions guidance
- Versatile :
  - Suitable with all DC Tools - low voltage and air tools
  - Poka-Yoke or/and sequencing controller
  - Assignable I/O's
  - Suitable with screwfeeders pick up
  - Opened job structure enables customized logical sequences
  - Management of your automation devices

Model	Code
DPC Touch	4-1290016
DPC Touch / GX, GY, DO, GA cable	4-1290008
DPC Touch / DOGA HD, SD cable	4-1290013
DPC Touch / Stanley TAU/THETA cable	4-5241036
DPC Touch / Stanley KAPPA ALPHA IV cable	4-5241050
DPC Touch / Stanley ALPHA V cable	4-5241051
DB9 3m/free wires (4 outputs/3 inputs) cable	4-5200542
DB25 3m/free wires (9 outputs/12 inputs) cable	4-5200770
DB44 3m/free wires (12 outputs/12 inputs) cable	4-1290009
Air kit for pneumatic tool / DPC Touch	4-5200771
Firmware upgrade kit	4-1290023
DPC Touch cable/2 arms	4-5200012
DPC Touch cable/MDC	4-1252006
Adapter cable I/O44P/25P+9P	4-1290007



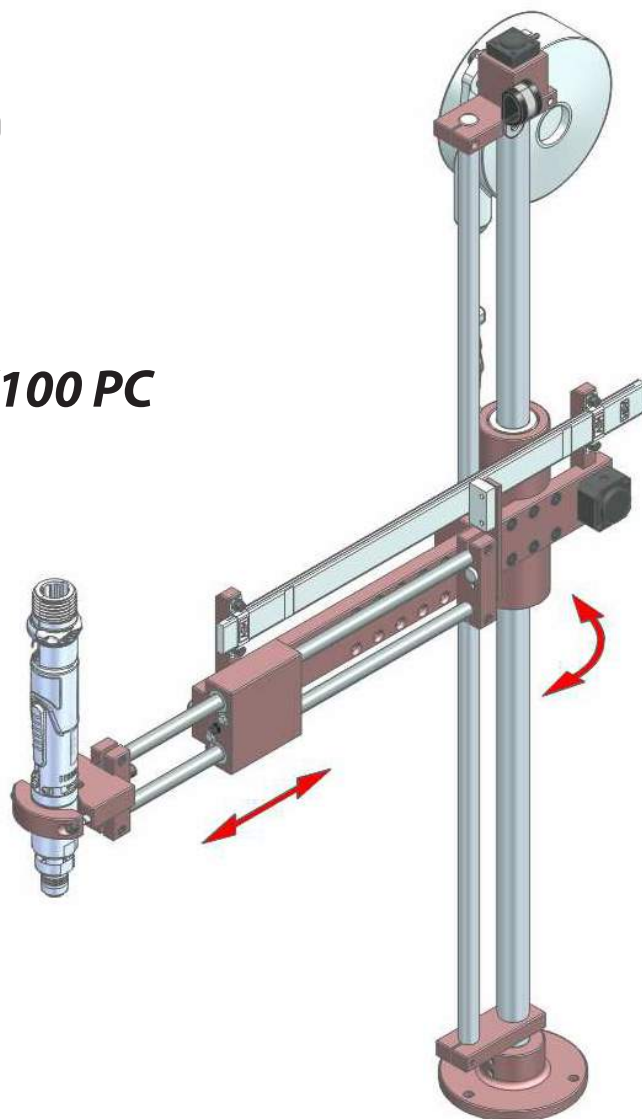
# Linear arms

## BA...PC Series



- Torque up to 100 Nm
- Equipped with absolute angle encoders (12 bits)
- Higher torque is available on request

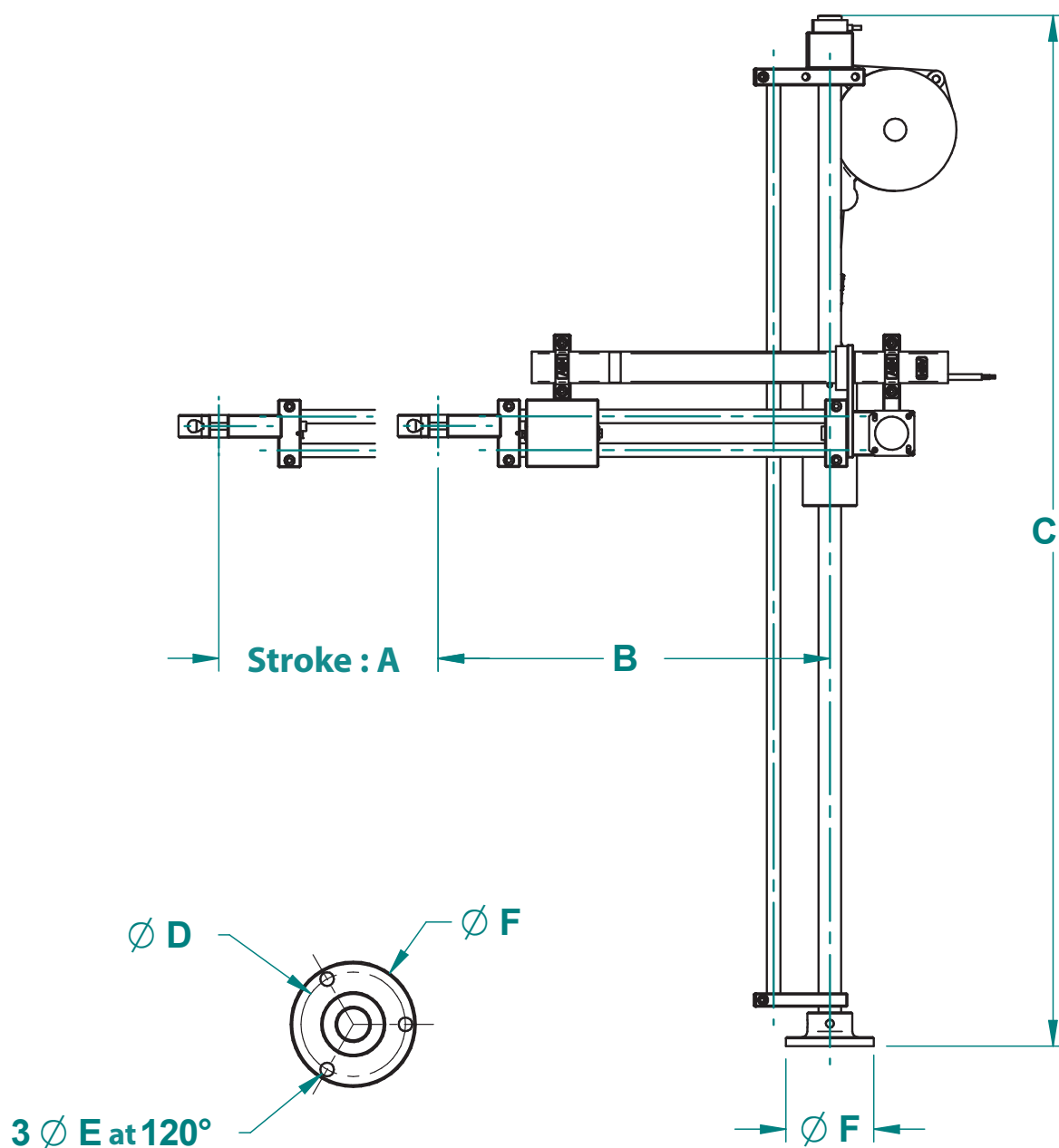
### BA 12/25/40/100 PC



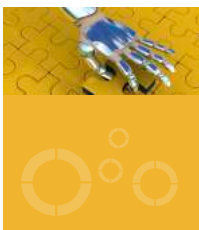
Model	Max torque (Nm)	Tool Ø (mm)	Stroke (mm)	Max load (Kg)	Code
BA 12 PC	12	27 - 50	195	1,2	4-5201009
BA 25 PC	25	28 - 52	195	2,2	4-5201086
BA 40 PC	40	28 - 52	295	3	4-5201087
BA 40 PC/400	40	28 - 52	395	3	4-5201088
BA 100 PC	100	28 - 52	295	4	4-5201089
BA 100 PC/400	100	28 - 52	395	4	4-5201091

# Linear arms

## BA...PC Dimensions



Model	Stroke A	B mini	B maxi	C	D	E	F
BA 12 PC	195	186	336	816	65	8,5	78
BA 25 PC	195	201	351	916	65	8,5	78
BA 40 PC/300	295	320	470	1016	100	8,5	118
BA 40 PC/400	395	420	570	1016	100	8,5	118
BA 100 PC/300	295	335	485	1016	126	10,5	148
BA 100 PC/400	395	435	585	1016	126	10,5	148

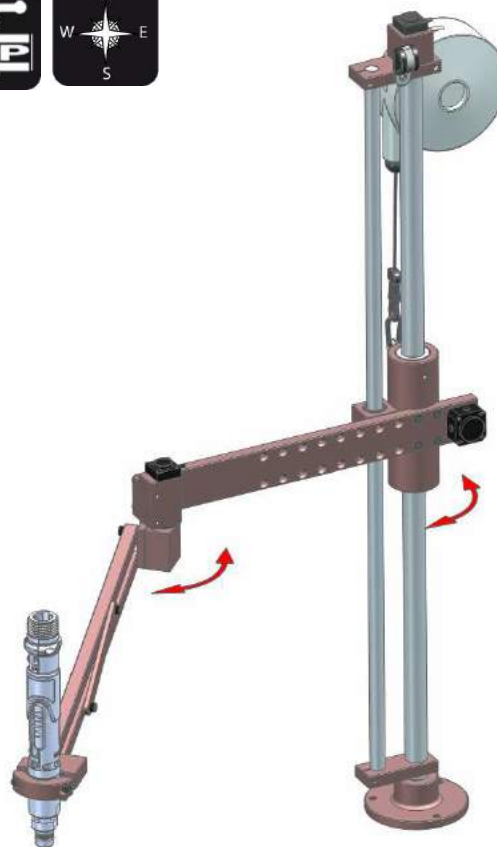


# Articulated arms

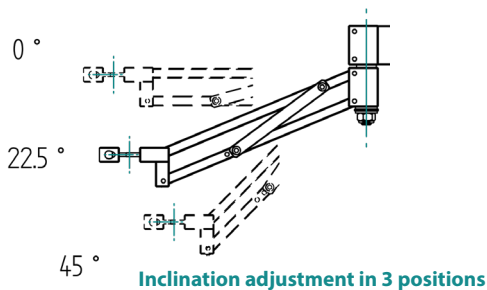
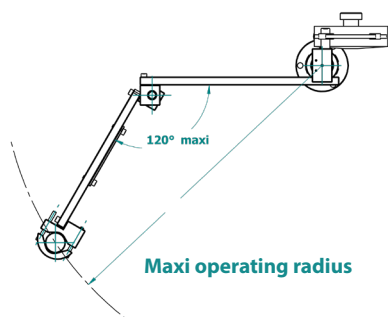
## BA...RPC Series



- Torque up to 100 Nm
- Operating range up to 1100 mm
- Equipped with two absolute angle encoders 12 bits (0,1°)
- Higher torque is available on request



### BA 12/25/40/100 RPC



Model	Max torque (Nm)	Tool Ø (mm)	Operating range (mm)	Max load (Kg)	Code
BA 12 RPC	12	27 - 50	450	1,2	4-5201010
BA 25 RPC	25	28 - 52	460	2,2	4-5200472
BA 25 RPC/600	25	28 - 52	600	2,2	4-5200475
BA 40 RPC	40	28 - 52	650	3	4-5200473
BA 40 RPC/800	40	28 - 52	800	3	4-5200476
BA 100 RPC	100	28 - 52	730	4	4-5200474
BA 100 RPC/900	100	28 - 52	900	4	4-5200477
BA 100 RPC/1100	100	28 - 52	1100	3	4-5200478



### Option

Z encoder / BA RPC. **Code : 4-5283125.**  
Encoder cable Z. **Code 4-5200725.**



# Articulated arms

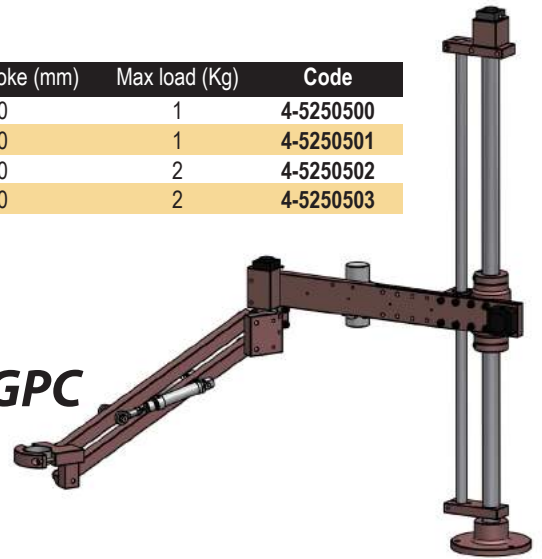
## BA...RPC Series

### Softly air balanced

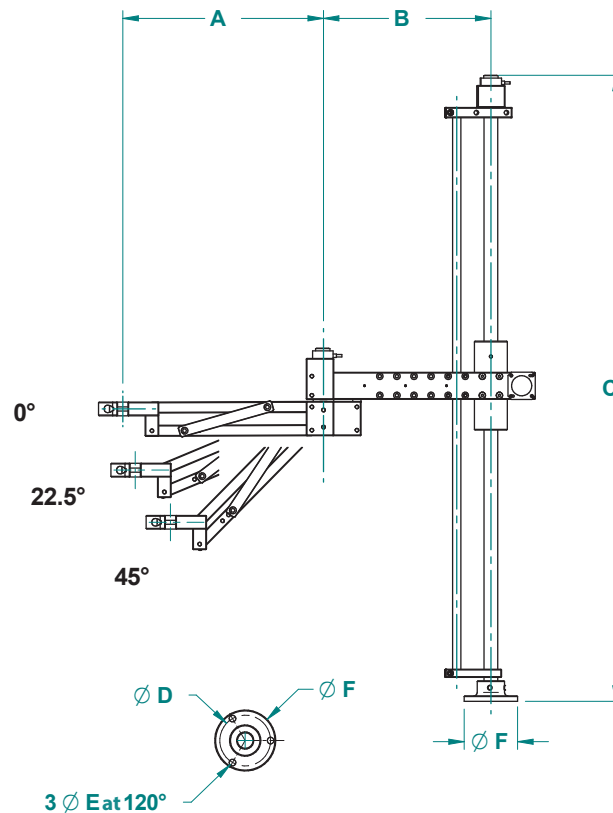
For	Stroke max (Nm)	Tool Ø (mm)	Operating radius (mm)	Vertical stroke (mm)	Max load (Kg)	Code
BA 10 GPC	10	27/50	470	170	1	4-5250500
BA 10 GPC/600	10	27/50	600	170	1	4-5250501
BA 30 GPC	30	28/52	670	220	2	4-5250502
BA 30 GPC/800	30	28/52	800	220	2	4-5250503

Drawing : see page 21.

### BA 10/30 GPC



## Dimensions BA...RPC



Model	At 0°	At 22,5°	At 45°	B min	B max	C	Operating radius at 22,5°
BA 12 RPC	279	261	209	145	245	816	450
BA 25 RPC	296	278	227	145	245	916	460
BA 25 RPC/600	358	336	271	330	330	916	600
BA 40 RPC	414	387,5	310,5	200	350	1016	650
BA 40 RPC/800	503	470	374	415	415	1016	800
BA 100 RPC	462	433	351	255	405	1016	730
BA 100 RPC/900	564	528	425	520	520	1016	900
BA 100 RPC/1100	694	648	517	635	635	1016	1100

D, E, F similar to BA...R

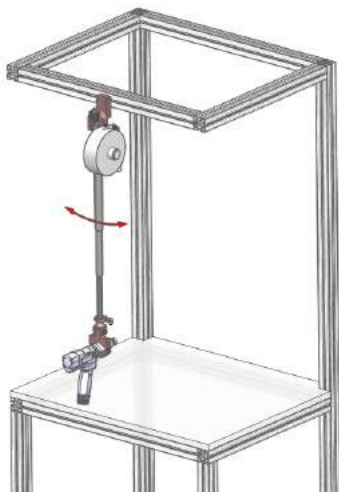


# Carbon telescoping arms

## DMF...PC Series

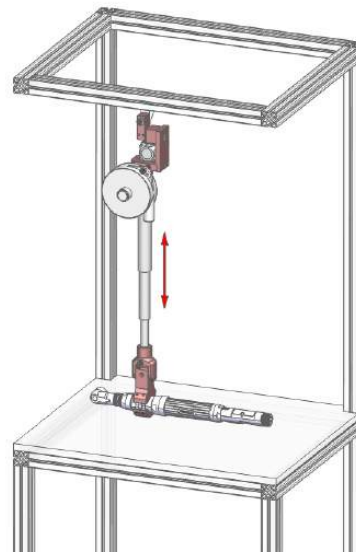


- Torque up to 140 Nm
  - Equipped with absolute angle encoders 12 bits (0,1°)
- ↔ Monitored movement



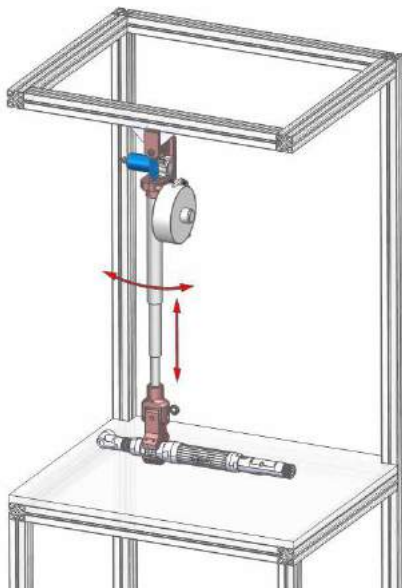
**DMF APC**

Equipped with one angle encoder



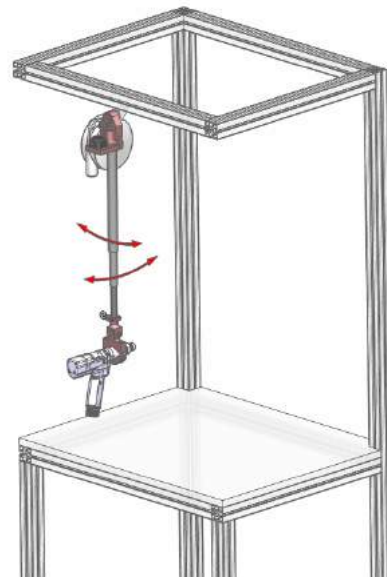
**DMF LPC**

Equipped with one length encoder



**DMF LAPC**

Equipped with one length encoder and one angle encoder



**DMF AAPC**

Equipped with two angle encoders (inclinometer)

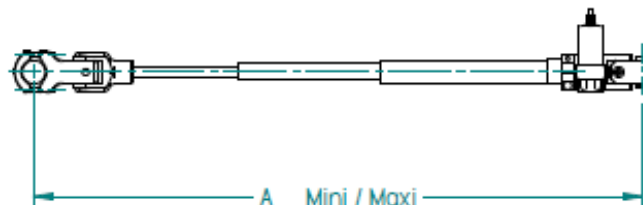
# Carbon telescoping arms

## DMF...PC Series

### DMF APC

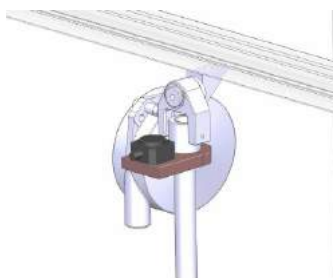


### DMF LPC/LAPC



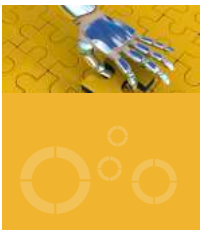
Model	Torque (Nm)	Clamp	Tool Ø	Min	Max	Code without clamp	Code with clamp
DMF 30 APC/960	30	P1	28-52	560	960	4-5200574	4-5200564
DMF 30 APC/1500	30	P1		706	1500	4-5200575	4-5200565
DMF 30 APC/2000	30	P1		873	2000	4-5200576	4-5200566
DMF 80 APC/1500	80	P2/P3	35-52	764	1500	4-5200577	4-5200567
DMF 80 APC/2000	80	P2/P3		930	2000	4-5200578	4-5200568
DMF 140 APC/1500	140	P2/P3		978	1500	4-5200579	4-5200569
DMF 140 APC/2000	140	P2/P3		1228	2000	4-5200580	4-5200572
DMF 30 LPC/960	30	P1	28-52	560	960	4-5200588	4-5200581
DMF 30 LPC/1500	30	P1		727	1500	4-5200589	4-5200582
DMF 30 LPC/2000	30	P1		894	2000	4-5200590	4-5200583
DMF 80 LPC/1500	80	P2/P3	35-52	780	1500	4-5200591	4-5200584
DMF 80 LPC/2000	80	P2/P3		947	2000	4-5200592	4-5200585
DMF 140 LPC/1500	140	P2/P3		991	1500	4-5200593	4-5200586
DMF 140 LPC/2000	140	P2/P3		1241	2000	4-5200594	4-5200587
DMF 30 LAPC/960	30	P1	28-52	560	960	4-5200662	4-5200595
DMF 30 LAPC/1500	30	P1		727	1500	4-5200663	4-5200596
DMF 30 LAPC/2000	30	P1		894	2000	4-5200664	4-5200597
DMF 80 LAPC/1500	80	P2/P3	35-52	780	1500	4-5200665	4-5200598
DMF 80 LAPC/2000	80	P2/P3		947	2000	4-5200666	4-5200599
DMF 140 LAPC/1500	140	P2/P3		991	1500	4-5200667	4-5200660
DMF 140 LAPC/2000	140	P2/P3		1241	2000	4-5200668	4-5200661

## AAPC Option



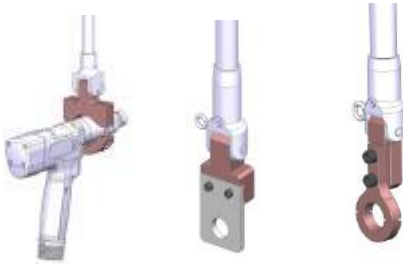
*Inclinometer may be installed on standard DMF arms (DMF30, DMFi 70/120/200) to monitor angular position.*

For	Code
DMF 30	4-5200809
DMFi 70/120/200	4-5200810



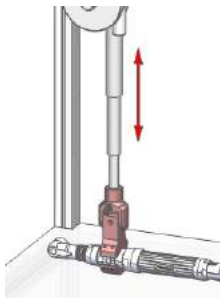
# Carbon telescoping arms

## Clamps for DMF...PC



### P1 clamp

For	P1	Tool Ø
DMF 30	Standard	28/52
DMF 80/140	Mounting plate interface	<b>On request</b>



### P2 clamp

For	Tool Ø	Code
DMF 30	28/52	<b>4-5200300</b>
DMF 80/140	35/52	<b>Standard</b>



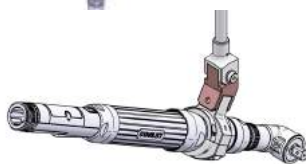
### P3 clamp

For	Tool Ø	Code
DMF 30	28/52	<b>4-5200301</b>
DMF 80/140	35/52	<b>Standard</b>



### P4 clamp

For	Tool Ø	Code
DMF 30	28/52	<b>4-5200302</b>
DMF 80/140	35/52	<b>4-5200343</b>



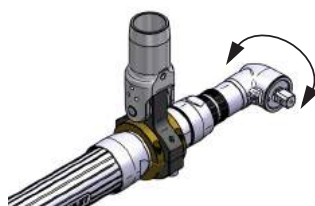
### Tilting interface DMF30

For	Code
15°	<b>4-5283168</b>
30°	<b>4-5283169</b>



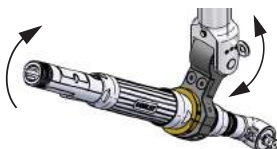
### Tilting clamp

For	Tool Ø	Increment	Code
DMF 80/140	35-52	15°	<b>Sur demande</b>



### P2 Rotating clamp

For	Tool Ø	Code
DMF 30	43	<b>4-5201134</b>
DMF 80/140	50	<b>4-5244035</b>
DMF 300	70	<b>4-5201136</b>

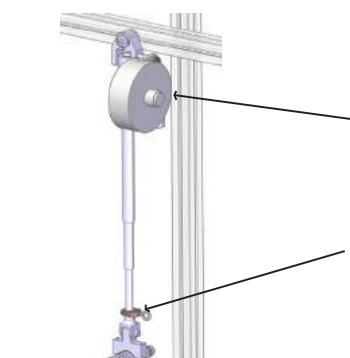


### Tilting and rotating clamp

For	Tool Ø	Increment	Code
DMF 80/140	50	18°	<b>4-5201206</b>

# Carbon telescoping arms

## DMF...PC Accessories



### Balancing kit for DMF...PC

Max load tool (kg)	For	Code
1/2,5	DMF 30	4-5200304
2/4	DMF 30/80	4-5200305
4/6	DMF 80/140	4-5200306

Balancer attachment kit for DMF30 **Code 4-5201143.**

### Rails

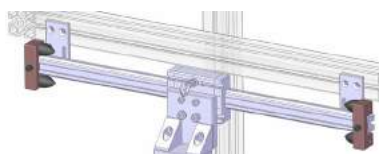
Length	Stroke (mm)	Number of flanges	Code
600	450	2	4-5200132
800	650	2	4-5200160
1000	850	2	4-5200161
1200	1050	3	4-5200162
1500	1350	3	4-5200163
2000	1850	4	4-5200164

### Rail interface

Allows installation of DMF on rail.

For	Code
DMF 30/80/140	4-5200341
DMF 300	4-5200342

NOTE : delivered without safety hook (**Code 4-5200309**)



### Absorbing stop

Recommended in case of repeatable side shocks.

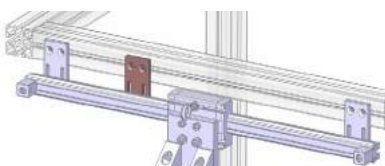
**Code 4-5201121** Set of 2



### Adjustable stop

To limit the slide of the arm on the rail.

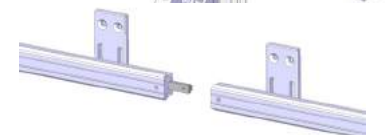
**Code 4-5200167**



### Additional flange

To reinforce the rail installation for high torque applications.

**Code 4-5200873**



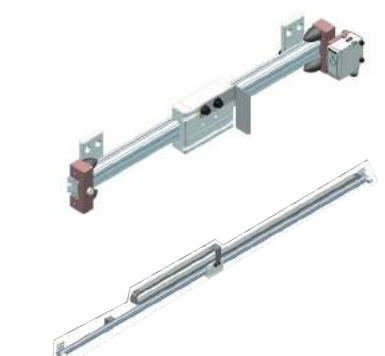
### Rail link

To link two rails together.

**Code 4-5200307**

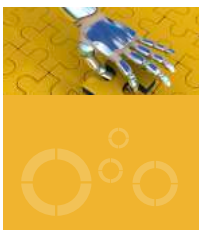
### Laser encoder

Model	Code
Laser encoders on rail	4-5250506
DPC Touch Y cable	4-5283174



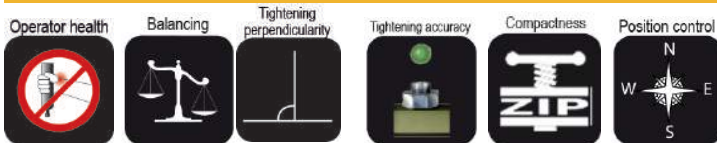
### Cable chain

Model	Code
Max stroke 1200 mm	4-5250504
Max stroke 2000 mm	4-5250505



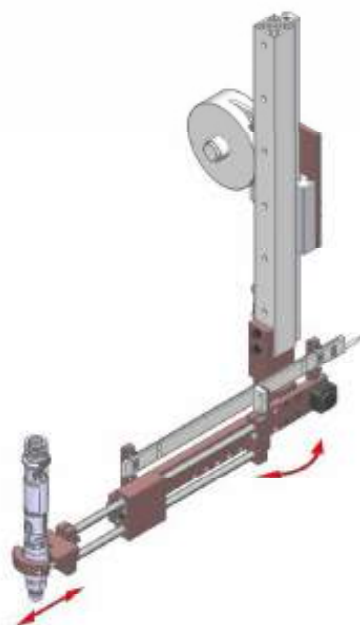
# Suspended arms

## SLIDER BA...PC/RPC

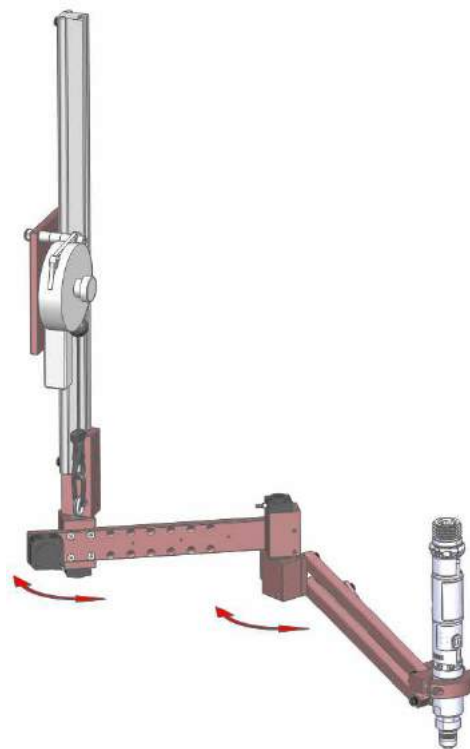


- Torque up to 100 Nm
- Operating range up to 900 mm
- Equipped with 2 absolute encoders 12 bits (0,1°)
- Higher torque available on request

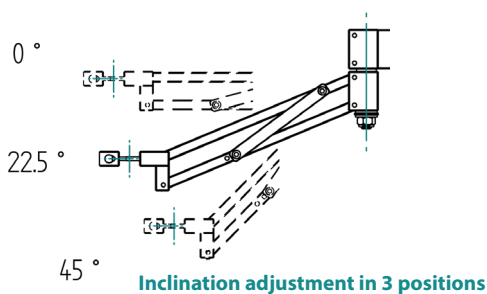
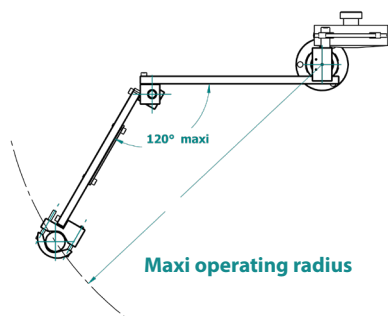
↔ Monitored movement



**SLIDER BA 12/25/40 PC**



**SLIDER BA 12/25/40/100 RPC**

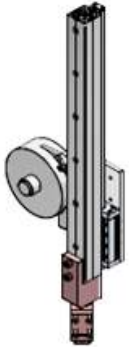


Model	Max torque (Nm)	Tool Ø (mm)	Operating range (mm)	Stroke (mm)	Operating range (mm)	Max load (Kg)	Code
SLIDER BA 12 PC	12	27/50	420	195		1,2	4-5283120
SLIDER BA 25 PC	25	28/52	420	195		2,2	4-5283121
SLIDER BA 40 PC	40	28/52	420	295		3	4-5283122
SLIDER BA 12 RPC	12	27/50	420		450	1,2	4-5201078
SLIDER BA 25 RPC	25	28/52	420		460	2,2	4-5201079
SLIDER BA 25 RPC/600	25	28/52	420		600	2,2	4-5201080
SLIDER BA 40 RPC	40	28/52	420		650	3	4-5201081
SLIDER BA 40 RPC/800	40	28/52	420		800	3	4-5201082
SLIDER BA 100 RPC	100	28/52	420		730	4	4-5201083
SLIDER BA 100 RPC/900	100	28/52	420		900	4	4-5201084

# Suspended arms

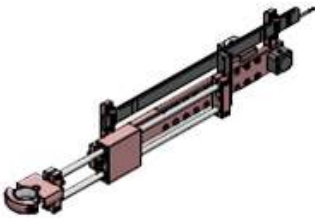
## SLIDER BA...PC/RPC

### Vertical slide



Model	Stroke (mm)	Vertical stroke (mm)	Max load (Kg)	Code
BA12PC/12RPC	440	440	1,2	4-5283175
BA12PC/12RPC	640	640	1,2	4-5283176
BA12PC/12RPC	840	840	1,2	4-5283177
BA25PC/25RPC	440	440	2,2	4-5283178
BA25PC/25RPC	640	640	2,2	4-5283179
BA25PC/25RPC	840	840	2,2	4-5283180
BA40PC/40RPC	440	440	3	4-5283181
BA40PC/40RPC	640	640	3	4-5283182
BA40PC/40RPC	840	840	3	4-5283183
BA100RPC	440	440	3	4-5283184
BA100RPC	640	640	3	4-5283185
BA100RPC	840	840	3	4-5283186

### Horizontal linear slides



Model	Stroke (mm)	Tool Ø (mm)	Code
BA12PC	225	27/50	4-5283187
BA25PC	250	28/52	4-5283188
BA40PC	295	28/52	4-5283189

### Horizontal articulation

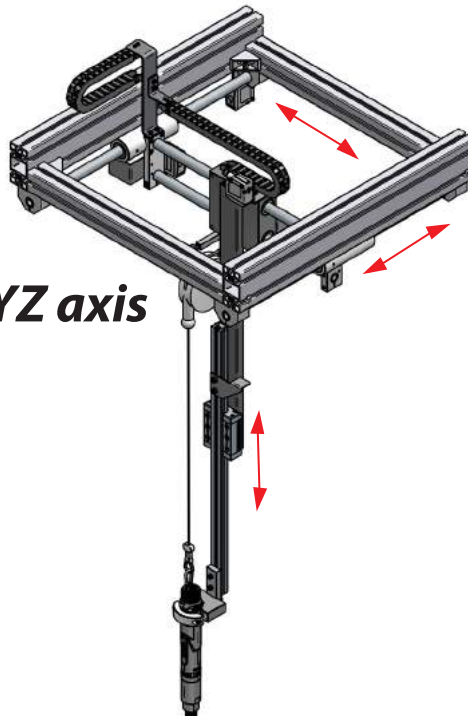


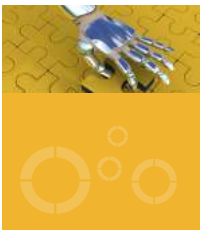
Model	Stroke (mm)	Tool Ø (mm)	Code
BA12RPC	450	27/50	4-5283191
BA25RPC	460	28/52	4-5283192
BA25RPC/600	600	28/52	4-5283193
BA40RPC	650	28/52	4-5283194
BA40RPC/800	800	28/52	4-5283195
BA100RPC	730	28/52	4-5283196
BA100RPC/900	900	28/52	4-5283197

## SLIDER CARTESIAN PC

Our cartesian slider may be equipped with position encoders on X, Y, Z axis.  
Dimensions on request

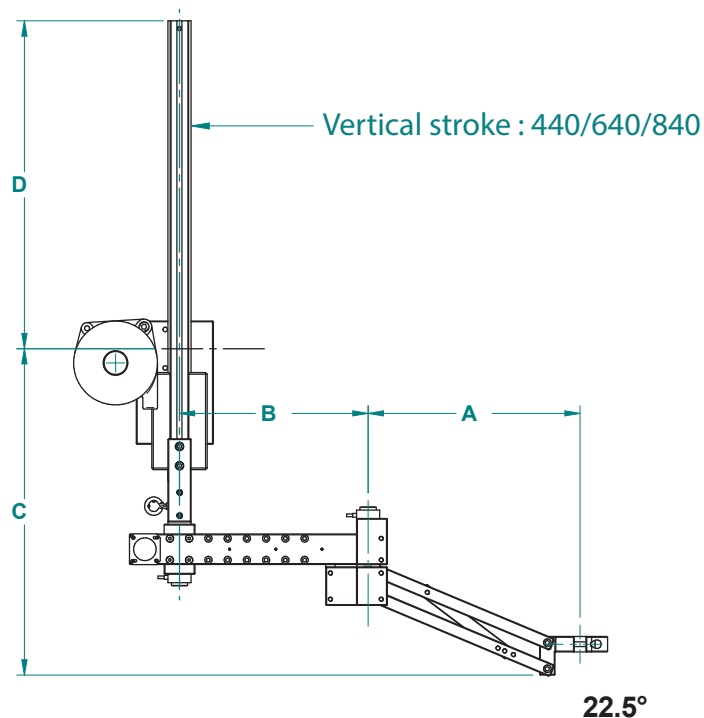
### Laser encoders on XYZ axis



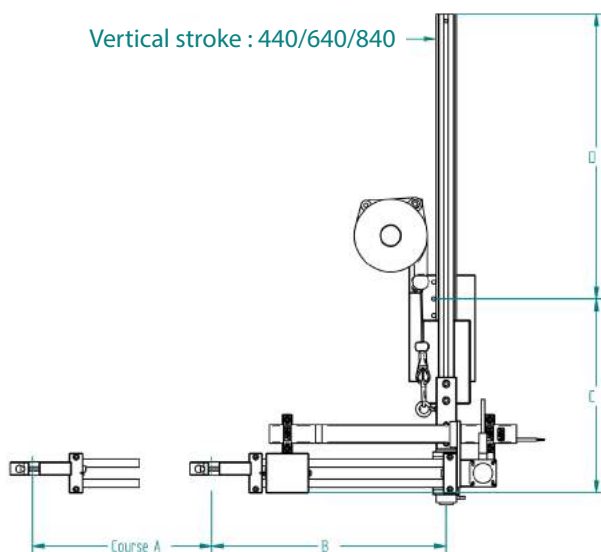


# Suspended arms

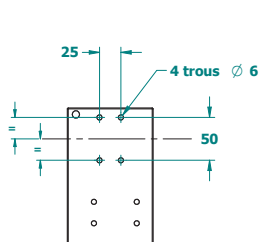
## SLIDER BA...PC/RPC Series



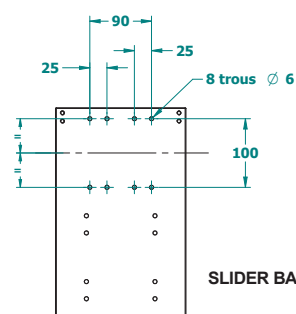
	A	B min	B max	Max radius at 22,5°	C	D
SLIDER BA 12 RPC	261	102	252	450	380	440
SLIDER BA 25 RPC	278	95	245	460	424	425
SLIDER BA 25 RPC/600	336	305	330	600	447	425
SLIDER BA 40 RPC	387,5	150	350	650	482	419
SLIDER BA 40 RPC/800	470	415	415	800	496	419
SLIDER BA 100 RPC	433	205	405	730	597	358
SLIDER BA 100 RPC/900	528	470	520	900	634	358



### Mounting plate details



SLIDER BA12 / 25 / 40

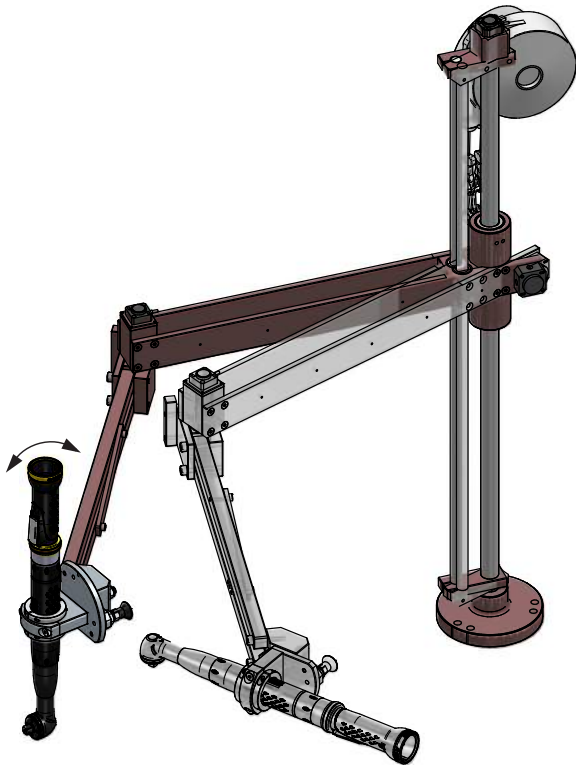


SLIDER BA100

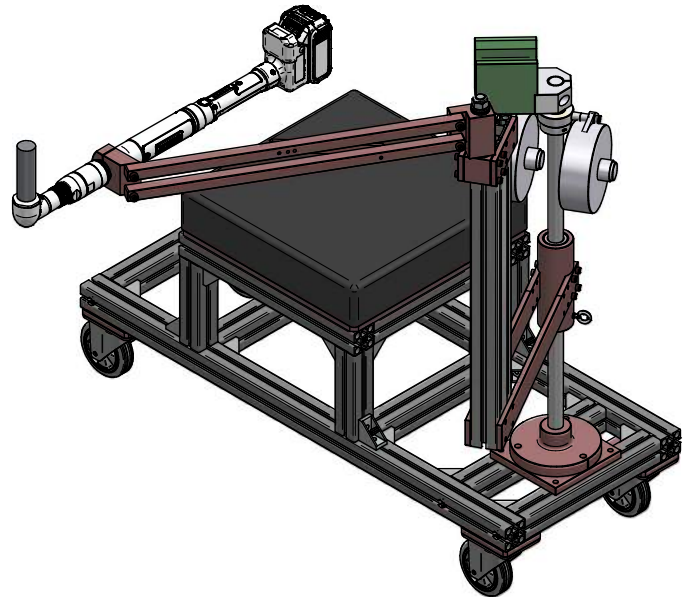
	A	B min	B max	C	D
SLIDER BA 12 PC	195	335	530	273	439 / 639 / 839
SLIDER BA 25 PC	195	350	545	290	426 / 626 / 826
SLIDER BA 40 PC	295	470	765	310	423 / 623 / 823



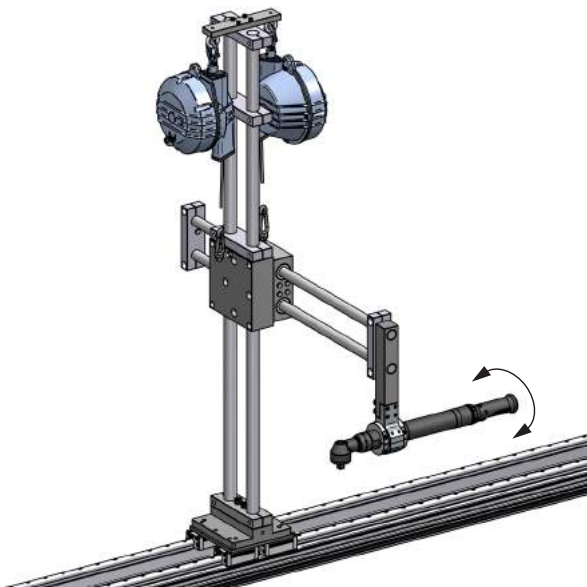
# Special arms



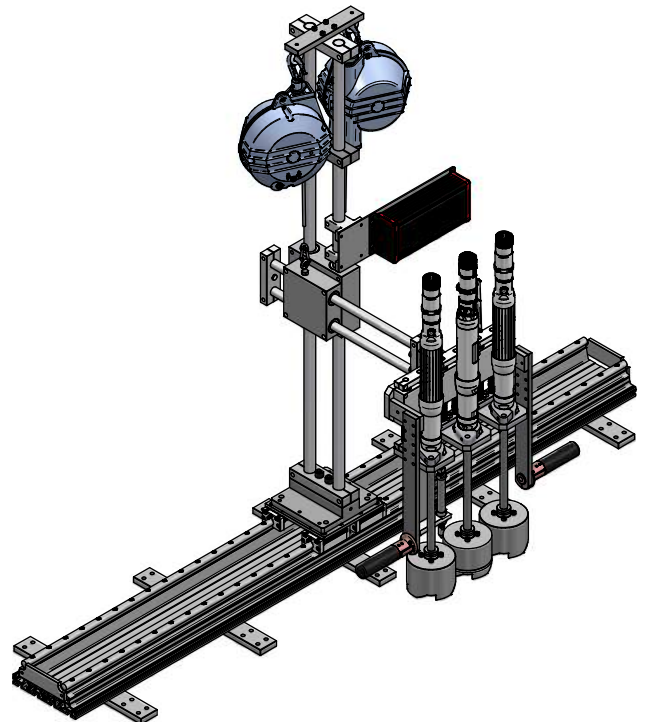
BA 100 RPC with tiltable rotating clamp



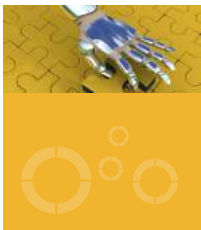
BA 100 R on roller carriage (under body tightening)



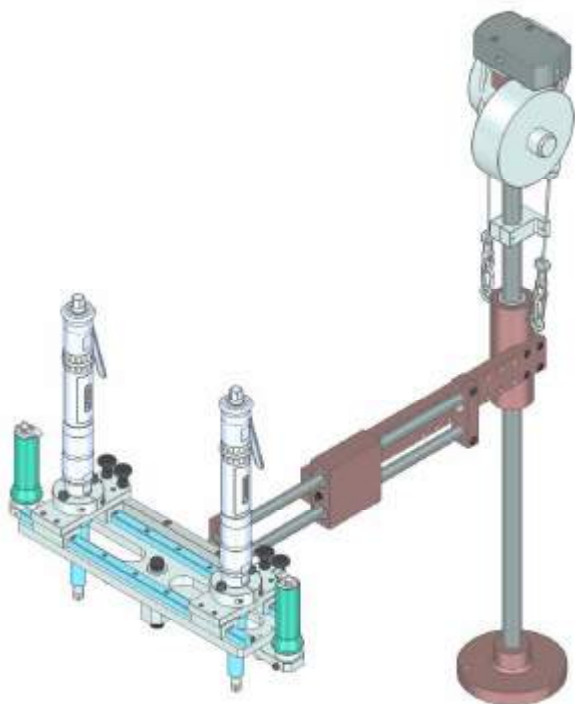
BA 200 C on rail with rotary clamp



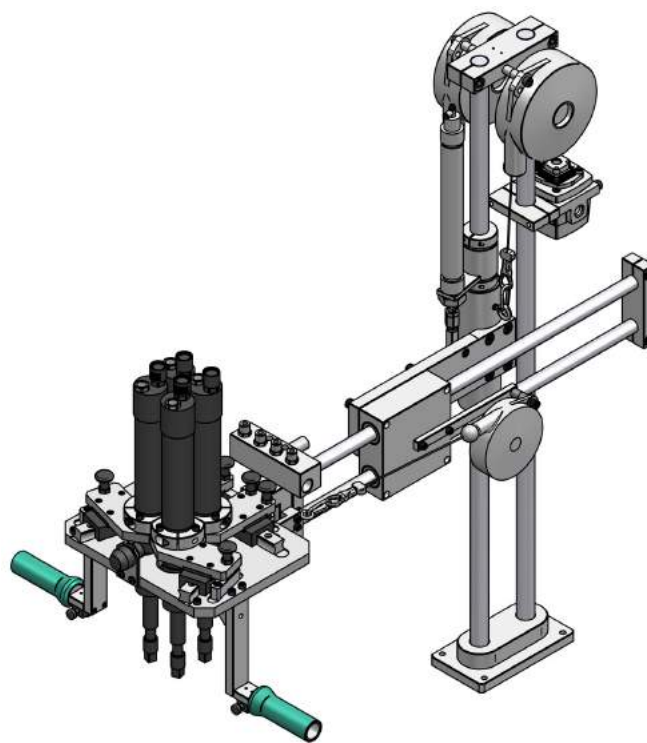
BA 200 C tri spindles on rail



# Special arms



BA for double spindle with variable pitch

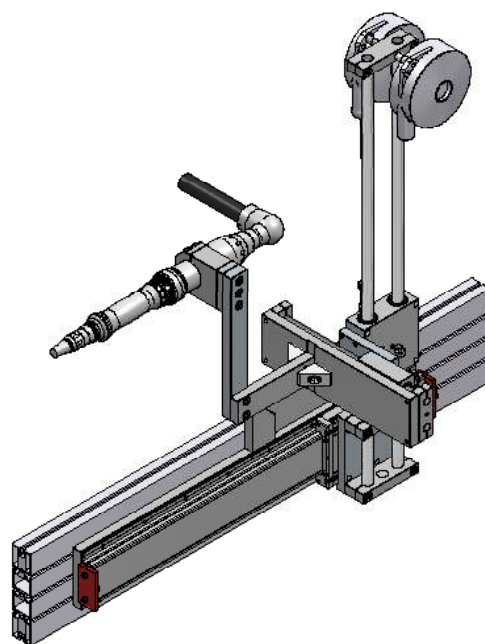


BA 200 with 4 spindles + easy push kit



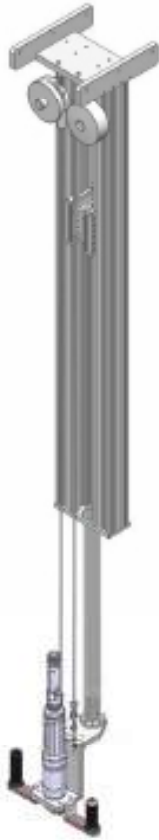
## SLIDER 50 COMPACT :

- With rail
- With air locker
- With rotative clamp

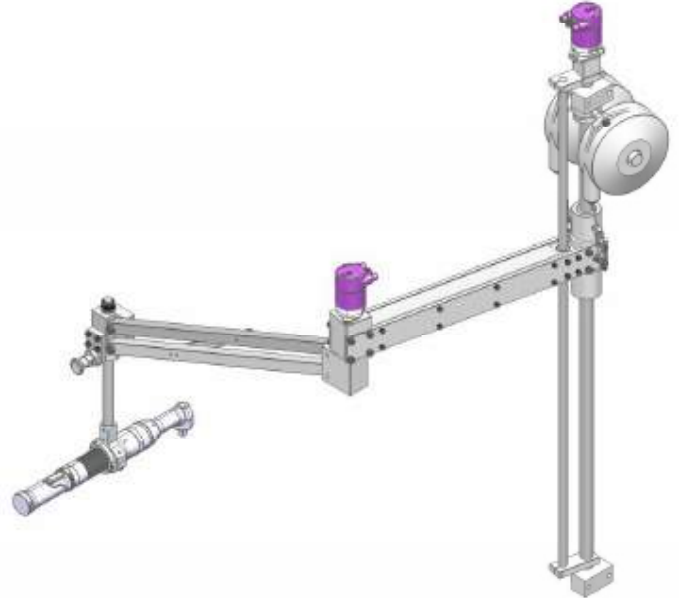


Cartesian arm, 3 axes

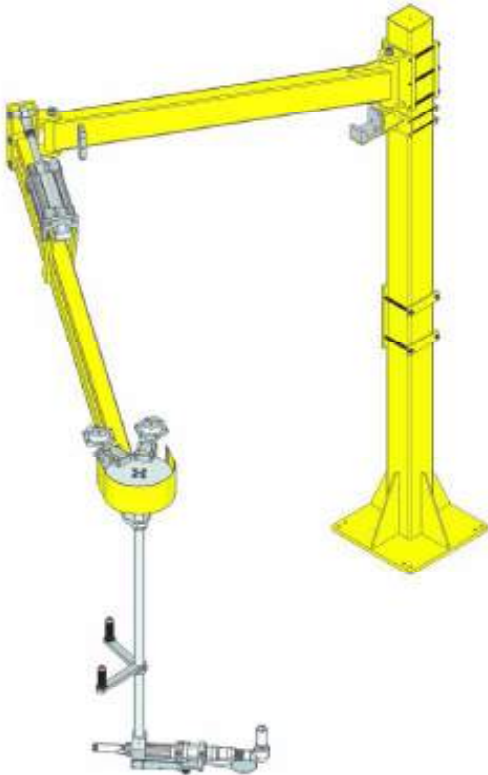
# Special arms



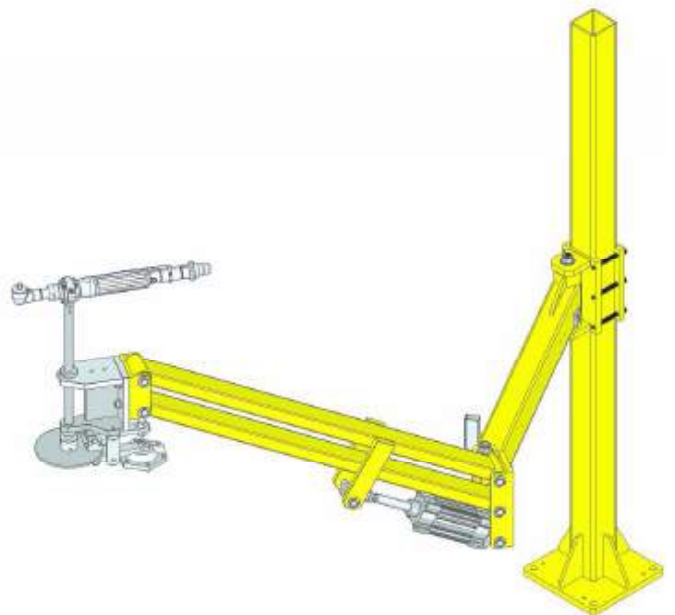
**SLIDER 300 COMPACT for straight nutrunner**



**BA 180 R with :**  
- Profinet coders  
- Rotative and swivelling clamp



**BA 500R/3000 with :**  
- Disk break  
- Rotative clamp



**BA 200 R for under body tightening :**  
- With disk break  
- Rotative clamp

