

# P1Q Series Compact Cylinders

Ø12mm - 100mm bore size



Parker's P1Q series cylinders provide an economical, compact design suited for a variety of applications. With its modular flexibility, the P1Q will provide the ideal solution machine builders need today. The P1Q series is available in 10 bore sizes from 12 mm to 100 mm and standard strokes from 5 mm to 100 mm. The cylinder is supplied in a choice of magnetic or non-magnetic function, the non-magnetic version offers very short axial dimensions. For optimum compactness the P1Q range is supplied with female piston rod thread.

The P1Q provides quieter operation due to its built in buffer cushioning, which is standard on all bore sizes. Included in bore sizes 40 mm – 100 mm is a piston wear ring providing superior life.



The P1Q compact cylinder is ideal for applications where you need compact dimensions and high over-all performance. The versatile P1Q cylinder range provides a long trouble-free operation in a variety of applications.

- Compact and versatile
- Magnetic or non magnetic options
- Flush fit sensor range
- Buffer cushioning as standard
- Piston wear ring on Ø32 - Ø100mm
- Tapped both ends as standard



### Operating information

Working pressure: Max 10 bar  
Permissible fluid: Air, with or without lubrication

Standard working temperature: -5°C to +60°C

Prelubricated, further lubrication is not normally necessary. If additional lubrication is introduced it must be continued.

For more information see [www.parker.com/euro\\_pneumatic](http://www.parker.com/euro_pneumatic)

### Double acting - Magnetic - Female threaded piston rod

#### Ø12mm

Stroke mm	Order code
5	P1QS012DC7G0005
10	P1QS012DC7G0010
15	P1QS012DC7G0015
20	P1QS012DC7G0020
25	P1QS012DC7G0025
30	P1QS012DC7G0030

#### Ø16mm

Stroke mm	Order code
5	P1QS016DC7G0005
10	P1QS016DC7G0010
15	P1QS016DC7G0015
20	P1QS016DC7G0020
25	P1QS016DC7G0025
30	P1QS016DC7G0030

#### Ø20mm

Stroke mm	Order code
10	P1QS020DC7G0010
15	P1QS020DC7G0015
20	P1QS020DC7G0020
25	P1QS020DC7G0025
30	P1QS020DC7G0030
40	P1QS020DC7G0040
50	P1QS020DC7G0050

#### Ø25mm

Stroke mm	Order code
10	P1QS025DC7G0010
15	P1QS025DC7G0015
20	P1QS025DC7G0020
25	P1QS025DC7G0025
30	P1QS025DC7G0030
40	P1QS025DC7G0040
50	P1QS025DC7G0050

#### Ø32mm

Stroke mm	Order code
10	P1QS032DC7G0010
15	P1QS032DC7G0015
20	P1QS032DC7G0020
25	P1QS032DC7G0025
30	P1QS032DC7G0030
40	P1QS032DC7G0040
50	P1QS032DC7G0050
75	P1QS032DC7G0075
100	P1QS032DC7G0100

#### Ø40mm

Stroke mm	Order code
15	P1QS040DC7G0015
20	P1QS040DC7G0020
25	P1QS040DC7G0025
30	P1QS040DC7G0030
40	P1QS040DC7G0040
50	P1QS040DC7G0050
75	P1QS040DC7G0075
100	P1QS040DC7G0100

#### Ø50mm

Stroke mm	Order code
15	P1QS050DC7G0015
20	P1QS050DC7G0020
25	P1QS050DC7G0025
30	P1QS050DC7G0030
40	P1QS050DC7G0040
50	P1QS050DC7G0050
75	P1QS050DC7G0075
100	P1QS050DC7G0100

#### Ø63mm

Stroke mm	Order code
15	P1QS063DC7G0015
20	P1QS063DC7G0020
25	P1QS063DC7G0025
30	P1QS063DC7G0030
40	P1QS063DC7G0040
50	P1QS063DC7G0050
75	P1QS063DC7G0075

#### Ø80mm

Stroke mm	Order code
15	P1QS080DC7G0015
20	P1QS080DC7G0020
25	P1QS080DC7G0025
30	P1QS080DC7G0030
40	P1QS080DC7G0040
50	P1QS080DC7G0050
75	P1QS080DC7G0075

#### Ø100mm

Stroke mm	Order code
15	P1QS100DC7G0015
20	P1QS100DC7G0020
25	P1QS100DC7G0025
30	P1QS100DC7G0030
40	P1QS100DC7G0040
50	P1QS100DC7G0050
75	P1QS100DC7G0075

## Double acting - Non-magnetic - Female threaded piston rod

**Ø 12 mm**

Stroke mm	Order code
5	P1QS012DC7B0005
10	P1QS012DC7B0010
15	P1QS012DC7B0015
20	P1QS012DC7B0020
25	P1QS012DC7B0025
30	P1QS012DC7B0030

**Ø 16 mm**

Stroke mm	Order code
5	P1QS016DC7B0005
10	P1QS016DC7B0010
15	P1QS016DC7B0015
20	P1QS016DC7B0020
25	P1QS016DC7B0025
30	P1QS016DC7B0030

**Ø 20 mm**

Stroke mm	Order code
10	P1QS020DC7B0010
15	P1QS020DC7B0015
20	P1QS020DC7B0020
25	P1QS020DC7B0025
30	P1QS020DC7B0030
40	P1QS020DC7B0040
50	P1QS020DC7B0050

**Ø 25 mm**

Stroke mm	Order code
10	P1QS025DC7B0010
15	P1QS025DC7B0015
20	P1QS025DC7B0020
25	P1QS025DC7B0025
30	P1QS025DC7B0030
40	P1QS025DC7B0040
50	P1QS025DC7B0050

**Ø 32 mm**

Stroke mm	Order code
10	P1QS032DC7B0010
15	P1QS032DC7B0015
20	P1QS032DC7B0020
25	P1QS032DC7B0025
30	P1QS032DC7B0030
40	P1QS032DC7B0040
50	P1QS032DC7B0050
75	P1QS032DC7B0075
100	P1QS032DC7B0100

**Ø 40 mm**

Stroke mm	Order code
15	P1QS040DC7B0015
20	P1QS040DC7B0020
25	P1QS040DC7B0025
30	P1QS040DC7B0030
40	P1QS040DC7B0040
50	P1QS040DC7B0050
75	P1QS040DC7B0075
100	P1QS040DC7B0100

**Ø 50 mm**

Stroke mm	Order code
15	P1QS050DC7B0015
20	P1QS050DC7B0020
25	P1QS050DC7B0025
30	P1QS050DC7B0030
40	P1QS050DC7B0040
50	P1QS050DC7B0050
75	P1QS050DC7B0075
100	P1QS050DC7B0100

**Ø 63 mm**

Stroke mm	Order code
15	P1QS063DC7B0015
20	P1QS063DC7B0020
25	P1QS063DC7B0025
30	P1QS063DC7B0030
40	P1QS063DC7B0040
50	P1QS063DC7B0050
75	P1QS063DC7B0075

**Ø 80 mm**

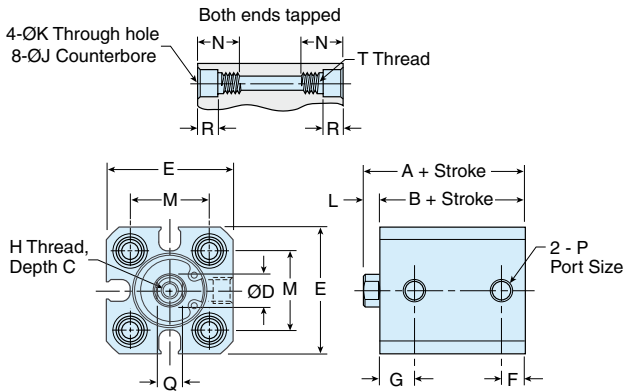
Stroke mm	Order code
15	P1QS080DC7B0015
20	P1QS080DC7B0020
25	P1QS080DC7B0025
30	P1QS080DC7B0030
40	P1QS080DC7B0040
50	P1QS080DC7B0050
75	P1QS080DC7B0075

**Ø 100 mm**

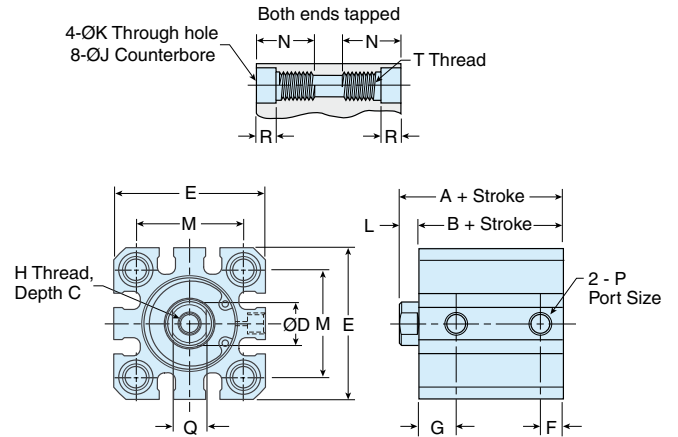
Stroke mm	Order code
15	P1QS100DC7B0015
20	P1QS100DC7B0020
25	P1QS100DC7B0025
30	P1QS100DC7B0030
40	P1QS100DC7B0040
50	P1QS100DC7B0050
75	P1QS100DC7B0075

**Non-magnetic Dimensions**

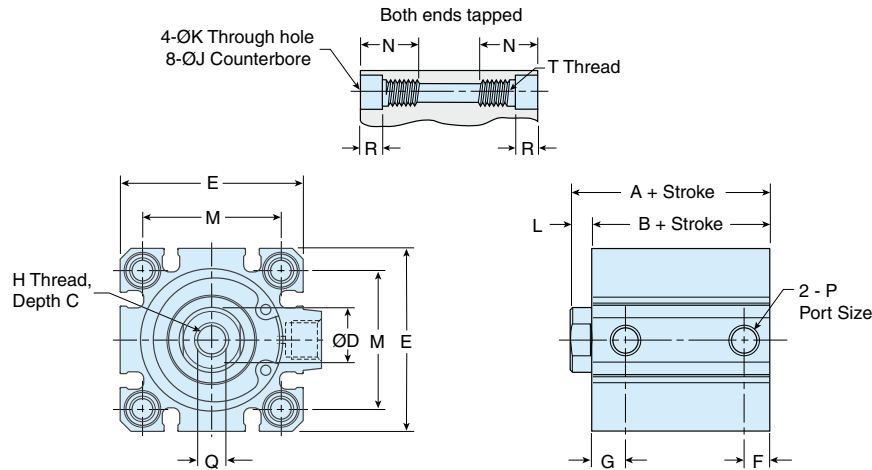
**Ø12 - Ø16**



**Ø20 - Ø25**



**Ø 32 - 100 mm**



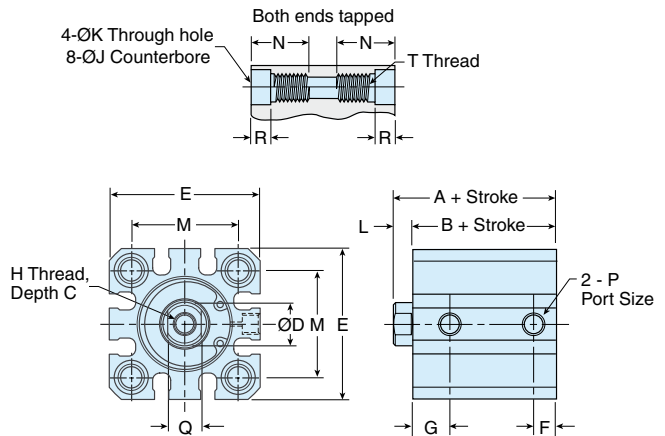
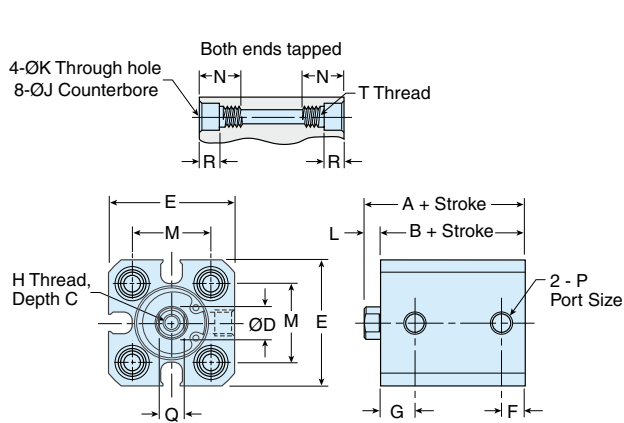
**Dimensions**

Bore size	A		B		C	D	E	F	G	H	J	K	L	M	N	P	Q	R	T
	5 to 50mm	75 to 100mm	5 to 50mm	75 to 100mm															
12	20.5	-	17	-	6	6	25	5	7.5	M3x0.5	6.5	3.5	3.5	15.5	11	M5x0.8	5	4	M4x0.7
16	20.5	-	17	-	8	8	29	5	7.5	M4x0.7	6.5	3.5	3.5	20	11	M5x0.8	6	4	M4x0.7
20	24	-	19.5	-	7	10	36	5.5	9	M5x0.8	9	5.4	4.5	25.5	17	M5x0.8	8	7	M6x1.0
25	27.5	-	22.5	-	12	12	40	5.5	11	M6x1.0	9	5.4	5	28	17	M5x0.8	10	7	M6x1.0
32	30	40	23	33	13	16	45	7.5	10.5	M8x1.25	9	5.5	7	34	17	1/8"	14	7	M6x1.0
40	36.5	46.5	29.5	39.5	13	16	52	8	11	M8x1.25	9	5.5	7	40	17	1/8"	14	7	M6x1.0
50	38.5	48.5	30.5	40.5	15	20	64	10.5	10.5	M10x1.5	11	6.6	8	50	22	1/4"	17	8	M8x1.25
63	44	54	36	46	15	20	77	10.5	15	M10x1.5	14	9	8	60	28.5	1/4"	17	10.5	M10x1.5
80	53.5	63.5	43.5	53.5	21	25	98	12.5	16	M16x2.0	17.5	11	10	77	35.5	3/8"	22	13.5	M12x1.75
100	65	75	53	63	27	30	117	13	23	M20x2.5	17.5	11	12	94	35.5	3/8"	27	13.5	M12x1.75

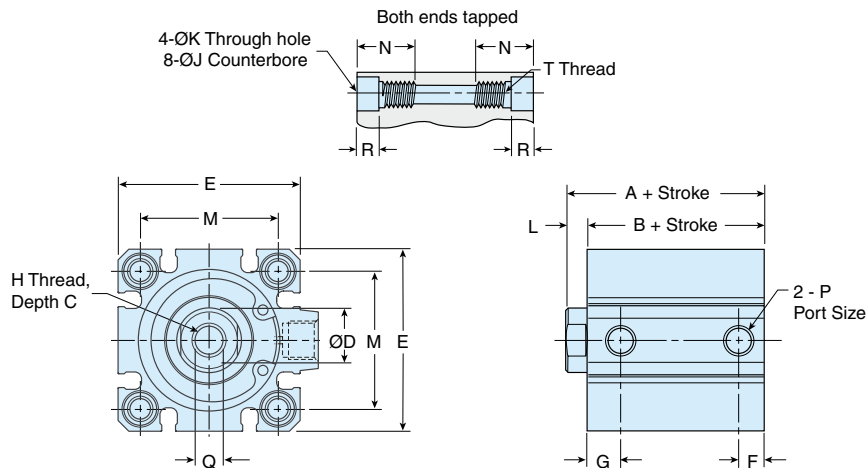
Magnetic Dimensions

Ø12 - Ø16

Ø20 - Ø25



Ø 32 - 100 mm



Dimensions

Bore size	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	T
12	25.5	22	6	6	25	5	7.5	M3x0.5	6.5	3.5	3.5	15.5	11	M5x0.8	5	4	M4x0.7
16	25.5	22	8	8	29	5	7.5	M4x0.7	6.5	3.5	3.5	20	11	M5x0.8	6	4	M4x0.7
20	34	29.5	7	10	36	5.5	9	M5x0.8	9	5.4	4.5	25.5	17	M5x0.8	8	7	M6x1.0
25	37.5	32.5	12	12	40	5.5	11	M6x1.0	9	5.4	5	28	17	M5x0.8	10	7	M6x1.0
32	40	33	13	16	45	7.5	10.5	M8x1.25	9	5.5	7	34	17	1/8"	14	7	M6x1.0
40	46.5	39.5	13	16	52	8	11	M8x1.25	9	5.5	7	40	17	1/8"	14	7	M6x1.0
50	48.5	40.5	15	20	64	10.5	10.5	M10x1.5	11	6.6	8	50	22	1/4"	17	8	M8x1.25
63	54	46	15	20	77	10.5	15	M10x1.5	14	9	8	60	28.5	1/4"	17	10.5	M10x1.5
80	63.5	53.5	21	25	98	12.5	16	M16x2.0	17.5	11	10	77	35.5	3/8"	22	13.5	M12x1.75
100	75	63	27	30	117	13	23	M20x2.5	17.5	11	12	94	35.5	3/8"	27	13.5	M12x1.75

## Cylinder mountings

## Flange MF1

Surface treated steel, black

Cyl. dia.	Order code
12	<b>P1Q-4DMB</b>
16	<b>P1Q-4FMB</b>
20	<b>P1Q-4HMB</b>
25	<b>P1Q-4JMB</b>
32	<b>P1Q-4KMB</b>
40	<b>P1Q-4LMB</b>
50	<b>P1Q-4MMB</b>
63	<b>P1Q-4NMB</b>
80	<b>P1Q-4PMB</b>
100	<b>P1Q-4QMB</b>



## Foot brackets

Surface treated steel, black

Cyl. dia.	Order code
12	<b>P1Q-4DMF</b>
16	<b>P1Q-4FMF</b>
20	<b>P1Q-4HMF</b>
25	<b>P1Q-4JMF</b>
32	<b>P1Q-4KMF</b>
40	<b>P1Q-4LMF</b>
50	<b>P1Q-4MMF</b>
63	<b>P1Q-4NMF</b>
80	<b>P1Q-4PMF</b>
100	<b>P1Q-4QMF</b>



## Clevis mounting

Surface treated steel, black

Cyl. dia.	Order code
12	<b>P1Q-4DMT</b>
16	<b>P1Q-4FMT</b>
20	<b>P1Q-4HMT</b>
25	<b>P1Q-4JMT</b>
32	<b>P1Q-4KMT</b>
40	<b>P1Q-4LMT</b>
50	<b>P1Q-4MMT</b>
63	<b>P1Q-4NMT</b>
80	<b>P1Q-4PMT</b>
100	<b>P1Q-4QMT</b>



## Electronic and Reed Sensors

Size	Description	Order code
<b>Flush mount style</b>		
PNP Type, normally open	0.165 m cable and M8 screw male connector	<b>P8S-EPSUS</b>
PNP Type, normally open	2 m PUR cable without connector	<b>P8S-EPFSX</b>
NPN Type, normally open	0.165 m cable and M8 screw male connector	<b>P8S-ENSUS</b>
NPN Type, normally open	2 m PUR cable without connector	<b>P8S-ENFSX</b>
Reed Type, normally open	0.15 m cable and M8 screw male connector	<b>P8S-ERSUS</b>
Reed Type, normally open	2 m PUR cable without connector	<b>P8S-ERFSX</b>

Compact short stroke cylinders available in single as well as double acting versions. Ideally suited for clamping and locking operations. The compact design with mounting holes through the cylinder body makes the unit easy to install in confined spaces. The main body is machined from one piece thus providing an easy to clean unit. Fitted with stainless steel piston rod as standard for corrosion resistance.



- Short stroke cylinders providing high clamping forces
- Compact dimensions for confined spaces
- Single and double acting versions
- Simple installation and mounting

### Operating information

Working pressure: Max 10 bar  
Working temperature: -20°C to +70°C

Prelubricated, further lubrication is not normally necessary. If additional lubrication is introduced it must be continued.

For more information see [www.parker.com/euro\\_pneumatic](http://www.parker.com/euro_pneumatic)

### C05 Double acting cylinders

Cyl. bore mm	Stroke mm	Port	Order code
12	10	M5	<b>C05-12-5-10</b>
20	10	M5	<b>C05-20-10-10</b>
32	10	G1/8	<b>C05-32-12-10</b>
32	25	G1/8	<b>C05-32-12-25</b>
50	25	G1/4	<b>C05-50-16-25</b>
63	25	G1/4	<b>C05-63-16-25</b>

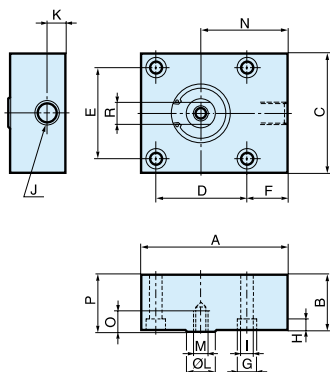
### C05S Single acting cylinders

Cyl. bore mm	Stroke mm	Port	Order code
8	4	M5	<b>C05S-8-4-4</b>
12	4	M5	<b>C05S-12-5-4</b>
20	4	G1/8	<b>C05S-20-10-4</b>
32	5	G1/8	<b>C05S-32-12-5</b>
50	10	G1/4	<b>C05S-50-16-10</b>
63	10	G1/4	<b>C05S-63-16-10</b>

The spring forces in single acting cylinders are sufficient to return the piston without load.

Dimensions (mm), basic cylinder

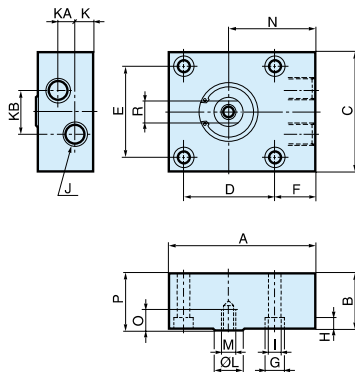
Single acting



Type	A	B	C	D	E	F	G	H	I	J	K	KA	KB	L
C05S-8-4-4	20	16	18	0*	11	5,5	6	3,4	3,4	M5	5,0	-	-	4
C05S-12-5-4	25	16	20	0*	13	7,0	6	3,4	3,4	M5	6,0	-	-	5
C05S-20-10-4	40	20	32	0*	20	9,0	10	5,0	5,5	G1/8	9,5	-	-	10
C05S-32-12-5	55	26	45	0*	32	14,0	10	5,0	5,5	G1/8	9,5	-	-	12
C05S-50-16-10	80	30	65	50	50	22,5	11	6,5	6,5	G1/4	11,0	-	-	16
C05S-63-16-10	90	35	80	62	62	19,0	15	9,0	9,0	G1/4	11,0	-	-	16

Type	M	N	O	P	R
C05S-8-4-4	-	13,5	-	17	-
C05S-12-5-4	-	15,0	-	17	-
C05S-20-10-4	M5	24,0	8	21	-
C05S-32-12-5	M6	32,0	12	27	9
C05S-50-16-10	M8	47,5	12	31	14
C05S-63-16-10	M8	50,0	14	36	14

Double acting



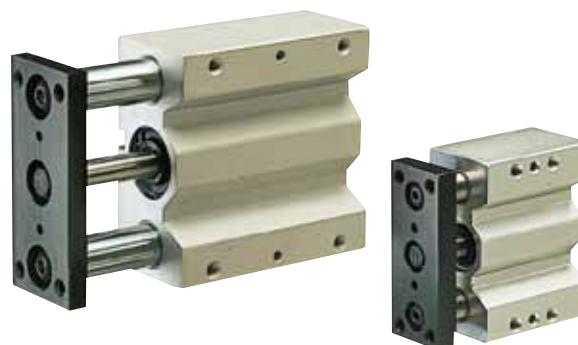
Type	A	B	C	D	E	F	G	H	I	J	K	KA	KB	L
C05-12-5-10	25	27	20	0*	13	7,0	6	3,4	3,4	M5	6,0	13,0	3	5
C05-20-10-10	40	30	32	0*	20	9,0	10	5,0	5,5	M5	6,0	16,0	6	10
C05-32-12-10	55	36	45	0*	32	14,0	10	5,0	5,5	G1/8	9,5	16,5	14	12
C05-32-12-25	55	51	45	0*	32	14,0	10	5,0	5,5	G1/8	9,5	31,5	0**	12
C05-50-16-25	80	50	65	50	50	22,5	11	6,5	6,5	G1/4	11,0	28,0	0**	16
C05-63-16-25	90	55	80	62	62	19,0	15	9,0	9,0	G1/4	11,0	33,0	0**	16

Type	M	N	O	p	R
C05-12-5-10	-	16,0	-	28	-
C05-20-10-10	M5	24,0	8	31	-
C05-32-12-10	M6	32,0	12	37	9
C05-32-12-25	M6	32,0	12	52	9
C05-50-16-25	M8	47,5	12	51	14
C05-63-16-25	M8	50,0	14	56	14

\* Only two mounting holes (F).

\*\* Connections in-line.

P5T cylinders are a modern and versatile range of cylinders with integral guides. The cylinders are double-acting, with end stop cushioning for quiet and vibration free operation. The strong guide shafts make it possible to adsorb considerable thrust forces and torque.



- Complete cylinder function with integral guidance
- Stainless steel guide rods
- Wide range of standard strokes, diameter 16-100 mm
- Flexible porting as standard
- Magnetic piston as standard with drop-in sensor technology
- End stop cushions as standard

### Operating information

Working pressure Max 10 bar  
Working temperature -20 °C to +80 °C

Prelubricated, further lubrication is not normally necessary. If additional lubrication is introduced it must be continued.

For more information see [www.parker.com/euro\\_pneumatic](http://www.parker.com/euro_pneumatic)

### Double acting - Plain bearing and top & rear connections

#### Ø16mm - (M5)

Stroke.mm	Order code
10	P5T-C016DGSN010
25	P5T-C016DGSN025
40	P5T-C016DGSN040
50	P5T-C016DGSN050
75	P5T-C016DGSN075
100	P5T-C016DGSN100

#### Ø20mm - (G1/8)

Stroke.mm	Order code
25	P5T-C020DGSN025
40	P5T-C020DGSN040
50	P5T-C020DGSN050
75	P5T-C020DGSN075
100	P5T-C020DGSN100
125	P5T-C020DGSN125
150	P5T-C020DGSN150

#### Ø25mm - (G1/8)

Stroke.mm	Order code
25	P5T-C025DGSN025
50	P5T-C025DGSN050
75	P5T-C025DGSN075
100	P5T-C025DGSN100
125	P5T-C025DGSN125
150	P5T-C025DGSN150

#### Ø32mm - (G1/8)

Stroke.mm	Order code
25	P5T-C032DGSN025
50	P5T-C032DGSN050
75	P5T-C032DGSN075
100	P5T-C032DGSN100
125	P5T-C032DGSN125
150	P5T-C032DGSN150
175	P5T-C032DGSN175
200	P5T-C032DGSN200

#### Ø40mm - (G1/8)

Stroke.mm	Order code
25	P5T-C040DGSN025
50	P5T-C040DGSN050
75	P5T-C040DGSN075
100	P5T-C040DGSN100
125	P5T-C040DGSN125
150	P5T-C040DGSN150
175	P5T-C040DGSN175
200	P5T-C040DGSN200

#### Ø50mm - (G1/4)

Stroke.mm	Order code
25	P5T-C050DGSN025
50	P5T-C050DGSN050
75	P5T-C050DGSN075
100	P5T-C050DGSN100
125	P5T-C050DGSN125
150	P5T-C050DGSN150
175	P5T-C050DGSN175
200	P5T-C050DGSN200

#### Ø63mm - (G1/4)

Stroke.mm	Order code
25	P5T-C063DGSN025
50	P5T-C063DGSN050
75	P5T-C063DGSN075
100	P5T-C063DGSN100
125	P5T-C063DGSN125
150	P5T-C063DGSN150
175	P5T-C063DGSN175
200	P5T-C063DGSN200

#### Ø80mm - (G3/8)

Stroke.mm	Order code
25	P5T-C080DGSN025
50	P5T-C080DGSN050
75	P5T-C080DGSN075
100	P5T-C080DGSN100
125	P5T-C080DGSN125
150	P5T-C080DGSN150
175	P5T-C080DGSN175
200	P5T-C080DGSN200

#### Ø100mm - (G3/8)

Stroke.mm	Order code
25	P5T-C100DGSN025
50	P5T-C100DGSN050
75	P5T-C100DGSN075
100	P5T-C100DGSN100
125	P5T-C100DGSN125
150	P5T-C100DGSN150
175	P5T-C100DGSN175
200	P5T-C100DGSN200

## Design Variants

In addition to the standard designs, a number of variants of the P5T range are available to special order, to provide effective solutions in a large number of applications.

- Cylinders with special strokes
- Cylinders with two fixing plates
- Cylinders with adjustable stops, with cushioning
- High-temperature cylinders for the temperature range of -10°C to +150°C (not magnetic piston).

### Special design for food industry applications

There is a special version of the P5T for food industry applications and other installation cases where high corrosion resistance and hygiene are required. This version has steel parts and other components in either stainless steel or special treated aluminium. Please contact Customer Service for more information.

### Plain bearing or recirculating ball bearings

The P5T is supplied with plain bearings as standard. This type of bearing has guide rods of greater diameter, providing excellent support for heavy loads, especially static loads. Plain bearings are highly tolerant of vibration and dirt, and are suitable for regular cleaning.

Recirculating ball bearings are used for applications which require high precision and low friction.

The choice should be based on the following factors:

Application requirements	Plain bearing	Recirculating ball bearings
Precision	Good	Excellent
Friction	Higher	Low
Coefficient of friction	Variable	Constant
Precision during service life	Variable	Constant
Static load capacity	Excellent	Good
Dynamic load capacity	Good, but with friction losses	Good
Vibration tolerance	Excellent	Average
Dirt tolerance	Excellent	Poor
Washing tolerance	Excellent	Poor

Double acting, connections on top.



Double acting with two fixing plates, side connections are recommended.



Double acting, connections at rear.



Double acting with two fixing plates and adjustable end stops with cushioning, side connections are recommended.



Double acting, connections on side.



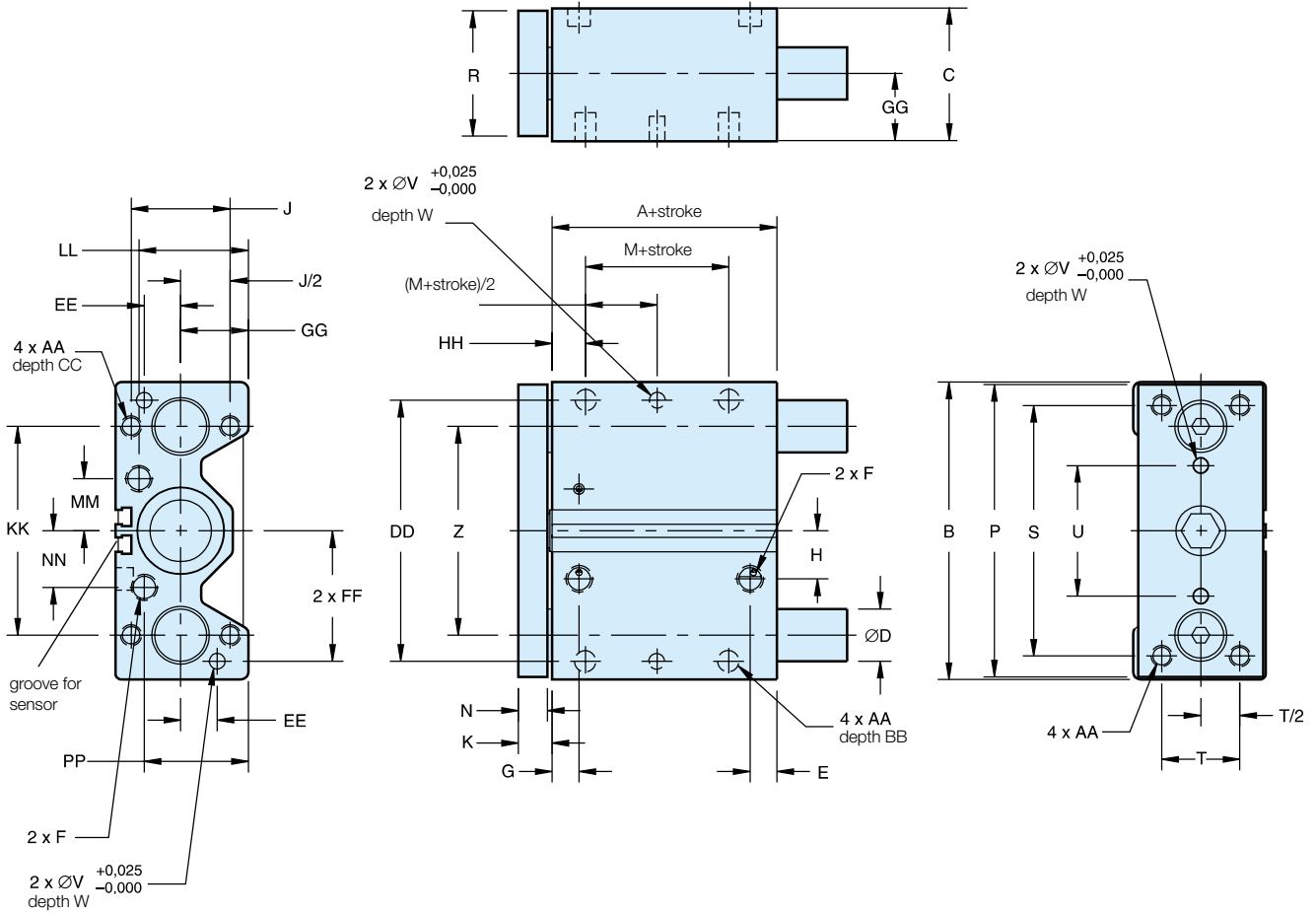
Double acting with one fixing plate adjustable end stops with cushioning, connections on side, on top or at rear.



Dimensions, P5T basic cylinder

Connection option D

(connection from above or rear)



Cylinder diam. mm	A mm	B mm	C mm	D1*) mm	D2*) mm	E mm	F	G mm	H mm	J mm	K mm	M mm	N mm	P mm	R mm	S mm	T mm	U mm	V mm
16	37,8	64	31	8	10	10,1	M5	10,1	7	22	9,9	7	7,9	62	25,4	52	16	20	3
20	35	74	36	10	12	19	G1/8	10	15,8	26	9,9	10	7,9	72	31,8	60	18	30	4
25	38	88	42	12	16	21	G1/8	11,4	15,5	32	9,9	10	7,9	86	38	70	26	34	4
32	36	114	51	16	20	10,3	G1/8	10,4	18,4	38	13,1	5	11,1	112	44,5	96	30	50	6
40	44	124	51	16	20	12,1	G1/8	14,9	22,5	38	13,1	10	11,1	122	44	106	30	60	6
50	44,9	140	62	20	25	14,5	G1/4	16,1	27	44	14,7	10	12,7	138	57	120	40	60	8
63	50,1	150	75	20	25	16,4	G1/4	14,5	33	44	14,7	10	12,7	148	70	130	50	72	8
80	59,5	188	95	25	30	17,5	G3/8	19	37	56	18	15	16	185	88,9	160	60	92	10
100	66**)	224	115	30	35	21,9**)	G3/8	23	40	62	18	15	16	221	108	190	80	114	10

Cylinder diam. mm	W mm	Z mm	AA	BB mm	CC mm	DD mm	EE mm	FF mm	GG mm	HH mm	KK mm	LL mm	MM mm	NN mm	PP mm	Piston rod Ø mm
16	6	42	M5x0,8	7,5	10	54	8	27	15	13,1	42	22,5	11,3	9,7	23	8
20	6	52	M5x0,8	7,5	10	64	10	32	17	13,1	52	26	15,4	15,4	26	10
25	6	62	M6x1,0	10	12	76	11	38	21	14,1	62	33,4	17	17	33,4	10
32	6	80	M8x1,25	11	16	100	14	50	26	12,9	80	42	20	21,7	38	16
40	6	90	M8x1,25	11	16	110	14	55	26	13,9	90	41	24	26,4	37,9	16
50	8	100	M10x1,5	12	20	124	16	62	30	14,3	100	51	29	33	44	20
63	8	110	M10x1,5	15	20	132	18	66	36,5	16,3	110	62	36	37,8	57,8	20
80	10	140	M12x1,75	18	24	166	22	83	46,5	21	140	78	45	48	75,5	25
100	10	170	M14x2,0	21	28	200	24	100	56,5	25	170	91,5	53	51	95,5	25

Length tolerance ± 1 mm

Stroke tolerance + 1.5/0 mm

\*\*) Stroke 25 mm, A=75 mm, E=28 mm

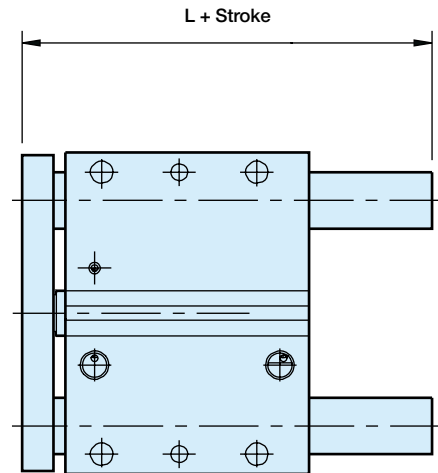
\*) D1 = bearing rod diameter for recirculating ball bearing

\*) D2 = bearing rod diameter for plain bearing

**Dimensions, P5T basic cylinder**

Standard lengths

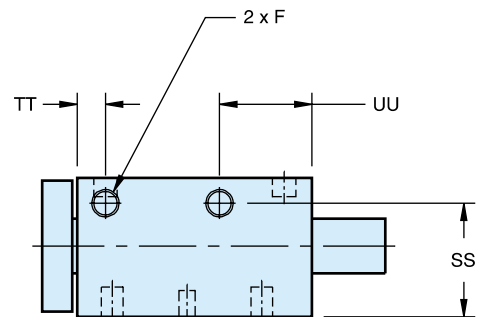
Cylinder diam mm	Stroke mm	L mm
<b>16</b>	10	36,2
	25, 40, 50, 75	60,2
	100	75,2
<b>20</b>	25, 40, 50, 75	66,9
	100, 125	91,9
<b>25</b>	25, 50, 75, 100	69,9
	125, 150	91,9
<b>32</b>	25, 50, 75, 100	77,9
	125, 150, 175, 200	116,0
<b>40</b>	25, 50, 75, 100	77,9
	125, 150, 175, 200	116,0
<b>50</b>	25, 50, 75, 100	84,0
	125, 150, 175, 200	124,1
<b>63</b>	25, 50, 75, 100	84,0
	125, 150, 175, 200	124,1
<b>80</b>	25, 50, 75, 100	101,8
	125, 150, 175, 200	140,0
<b>100</b>	25	122,8
	50, 75, 100	120,3
	125, 150, 175, 200	158,4



**Dimensions, P5T basic cylinder**

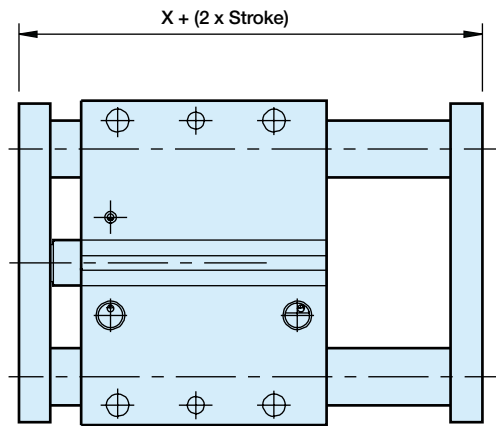
Connection option **S** (side connections)

Cylinder diam. mm	SS mm	TT mm	UU mm	F mm
<b>16</b>	24,1	10	20	M5
<b>20</b>	29,2	10	20	M5
<b>25</b>	35,2	11,4	25	M5
<b>32</b>	41,7	10,4	34	G1/8
<b>40</b>	41,7	14,9	34	G1/8
<b>50</b>	51,3	16,1	38	G1/4
<b>63</b>	60,7	15,6	41,8	G1/4
<b>80</b>	75,5	19	47	G3/8
<b>100</b>	83,7	23	53,3	G3/8



**Dimensions, P5T basic cylinder**

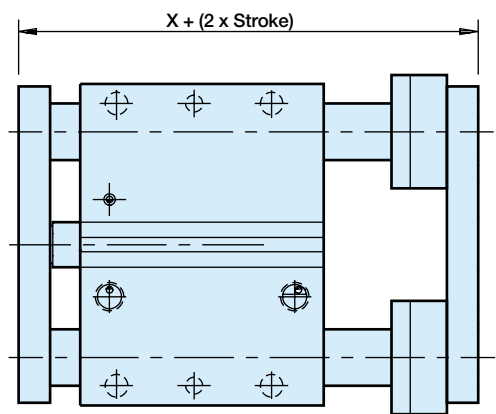
Option D



**Please note that load capacity increases with two fixing plates, due to greater bearing distance.**

**Dimensions, P5T with two fixing plates and adjustable end stop with cushioning**

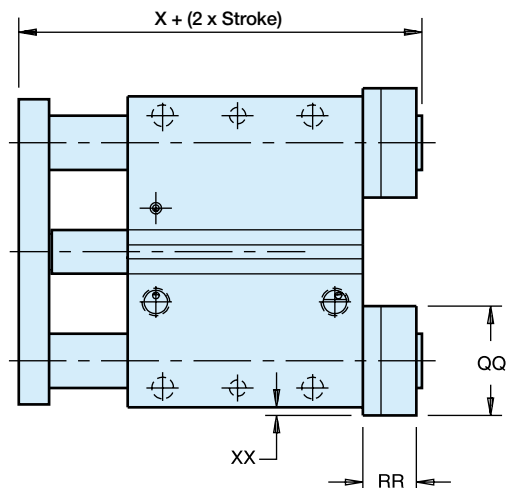
Option A



Cylinder diam. mm	Guide rod dia. mm	X for option			QQ mm	RR mm	XX mm
		D mm	A mm	E mm			
<b>16</b>	8	57,6	70,6	62,7	18,0	13,0	0
	10	57,6	70,6	62,7	24,0	13,0	1
<b>20</b>	10	54,9	67,9	59,9	24,0	13,0	1
	12	54,9	72,6	64,6	28,0	17,7	3
<b>25</b>	12	57,8	75,5	67,6	28,0	17,7	1
	16	57,8	77,5	69,6	34,0	19,7	4
<b>32</b>	16	62,2	81,9	70,8	34,0	19,7	0
	20	62,2	83,9	72,8	41,4	21,7	3,7
<b>40</b>	16	70,2	89,9	78,8	34,0	19,7	0
	20	70,2	91,9	80,8	41,4	21,7	3,7
<b>50</b>	20	74,3	96,0	83,3	41,4	21,7	0,7
	25	74,3	96,0	83,3	50,8	21,7	5,4
<b>63</b>	20	79,5	101,2	88,5	41,4	21,7	0,7
	25	79,5	101,2	88,5	50,8	21,7	5,4
<b>80</b>	25	95,5	117,2	101,2	50,8	21,7	1,4
	30	95,5	117,2	101,2	60,5	21,7	6,3
<b>100</b>	30	102,0	123,7	107,7	60,5	21,7	3,3
	35	102,0	123,7	107,7	65,0	21,7	5,5

**Dimensions, P5T with adjustable end stop with cushioning**

Option E



**Twin Rod Non Rotate Cylinders  
RDV and AZ**

A range of twin rod cylinders designed for use in non rotate applications specially suited to the handling and packaging environments. Offering a range of double acting cylinders with adjustable cushioning and magnetic variants.



**RDV Series:**



- Available as bore Ø 25mm
- Non rotating
- Double acting
- Adjustable cushioning
- Magnetic piston as standard

**Operating information**

Working pressure: Max 10 bar  
 Working temperature: -10°C to +70°C

Prelubricated, further lubrication is not normally necessary. If additional lubrication is introduced it must be continued.

**AZ Series:**



- Available as bore Ø 32mm - Ø 100mm
- Non rotating
- Double acting
- Adjustable cushioning
- Magnetic piston as standard
- Drop in sensors

**Operating information**

Working pressure: Max 10 bar  
 Working temperature: -20°C to +80°C

Prelubricated, further lubrication is not normally necessary. If additional lubrication is introduced it must be continued.

**Order key - RDV**

<b>R</b>	<b>D</b>	<b>V</b>		<b>5</b>		<b>0</b>	<b>2</b>	<b>5</b>		<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>
<b>Version</b>				<b>Bore mm</b>			<b>Stroke (mm) e.g. 0100 = 100mm</b>						
RDV   Ø25mm bore only				025			Stroke lengths up to 500mm. Other sizes on request						
<b>Function</b>													
5   Double acting with magnetic function, Adjustable cushioning													

**Note:**  
 Standard option specified. Other options available  
 Maximum 500mm

**Order key - AZV, AZ3, AZ4**

A	5	5	K	0	1	0	0	/	0	0	0	A	A	A	A	0	0	0	0	A	0	0	0	0
<b>Version</b>		<b>Function</b>				<b>Bore mm</b>		<b>Stroke (mm) e.g. 0100 = 100mm</b>																
5	AZV	1   Double acting, No magnetic function, Adjustable cushioning				K	032	Stroke lengths up to 500mm. Other sizes on request																
6	AZ4	2   Double acting, No magnetic function, No adjustable cushioning				L	040	<b>Note:</b> Standard option specified. Other options available Maximum 2000mm																
7	AZ3	5   Double acting, With magnetic function, Adjustable cushioning				M	050																	
Single set twin rods with single rod		6   Double acting, With magnetic function, No adjustable cushioning				N	063																	
						P	080																	
						Q	100																	

**Twin Rod Cylinder Mounts**

Body Mounts	RDV	AZV / AZ3 / AZ4					
	25mm	32mm	40mm	50mm	Bore Ø 63mm		80mm
Foot mounting - MS3 / MS1	<b>KK28.302</b>	<b>PD27917</b>	<b>PD27918</b>	<b>PD28072</b>	<b>PD28073</b>	<b>PD28074</b>	<b>PD28075</b>
Rear Double Clevis - AB3 / MP2	<b>KZ1420</b>	<b>PD22704</b>	<b>PD22705</b>	<b>PD22706</b>	<b>PD22707</b>	<b>PD22708</b>	<b>PD22709</b>
Rear Single Clevis - MP4	-	<b>PD23412</b>	<b>PD23413</b>	<b>PD23414</b>	<b>PD23415</b>	<b>PD23416</b>	<b>PD23417</b>
Front Flange - Type MF1 for AZV / AZ3 / AZ4	-	<b>PD57042</b>	<b>PD57043</b>	<b>PD57044</b>	<b>PD57045</b>	<b>PD57046</b>	<b>PD57047</b>
Rear Flange - MF2	-	<b>PD23403</b>	<b>PD23404</b>	<b>PD23405</b>	<b>PD23406</b>	<b>PD23407</b>	<b>PD23408</b>
Trunnion - MT4	-	<b>PD39195</b>	<b>PD39196</b>	<b>PD39197</b>	<b>PD39198</b>	<b>PD39199</b>	<b>PD39200</b>
Trunnion Blocks - MT4	-	<b>PD23381</b>	<b>PD23382</b>	<b>PD23382</b>	<b>PD23383</b>	<b>PD23383</b>	<b>PD23384</b>
Pivot Mount - (w / o Bolts)	-	<b>PD25621</b>	<b>PD25622</b>	<b>PD25623</b>	<b>PD25624</b>	<b>PD25625</b>	<b>PD25626</b>
Groove Nut - for RDV5	<b>ZP2125</b>						

**Delivery information:** All mounts are sold separately and are not mounted for shipment, except for the trunnion mount which requires factory installation.

Rod Accessories	AZ3					
	32mm	40mm	50mm	Bore Ø 63mm		80mm
Rod Nut	<b>ZP 1810</b>	<b>ZP 2189</b>	<b>ZP 0178</b>	<b>ZP 0178</b>	<b>ZP 0185</b>	<b>ZP 0185</b>
Rod Clevis AP2	<b>KY 6135</b>	<b>KY 6136</b>	<b>KY 6139</b>	<b>KY 6139</b>	<b>KY 6141</b>	<b>KY 6141</b>
Rod Eye AP6	<b>KY 6147</b>	<b>KY 6148</b>	<b>KY 6150</b>	<b>KY 6150</b>	<b>KY 6151</b>	<b>KY 6151</b>
Clevis Pin	<b>KY 6153</b>	<b>KY 6154</b>	<b>KY 6157</b>	<b>KY 6156</b>	<b>KY 6158</b>	<b>KY 6159</b>
Flexo coupling	<b>KY 1129</b>	<b>KY 1131</b>	<b>KY 1133</b>	<b>KY 1133</b>	<b>KY 1134</b>	<b>KY 1134</b>

**Weights (kg)**

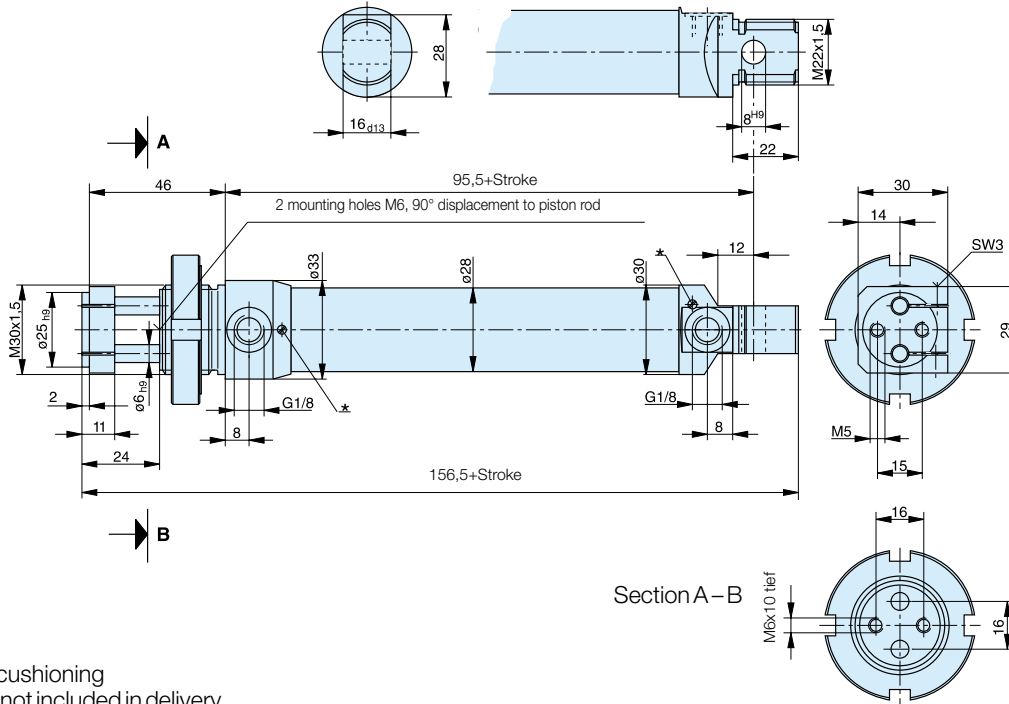
	RDV		AZV											
	25mm		32mm		40mm		50mm		Bore Ø 63mm		80mm		100mm	
	*1	*2	*1	*2	*1	*2	*1	*2	*1	*2	*1	*2	*1	*2
<b>Basic Cylinder</b>	0.46	0.11	0.80	0.25	1.00	0.35	1.70	0.5	2.60	0.6	4.20	0.9	6.20	1.0
<b>Type MS3 / MS1</b>	0.10		0.95		1.19		2.04		2.99		4.99		7.20	
<b>Type AB3 / MP2</b>	0.08		0.87		1.09		1.87		2.82		4.69		6.94	
<b>Type MP4</b>			0.90		1.13		1.91		2.90		4.77		7.11	
<b>Type MP6</b>			0.90		1.15		1.92		2.92		4.76		7.06	
<b>Type MF1 / MF2</b>			0.90		1.15		1.92		2.92		4.76		7.06	
<b>Type MT4</b>			0.91		1.18		1.93		3.25		5.03		7.76	

AZ3													
<b>Basic Cylinder</b>	1.0	0.30	1.5	0.45	2.5	0.7	3.2	0.85	5.3	1.3	7.5	1.5	
<b>Type MS1</b>	0.95		1.19		2.04		2.99		4.99		7.20		
<b>Type MF1 / MF2</b>	0.90		1.15		1.92		2.92		4.76		7.06		
<b>Type MT4</b>	0.91		1.18		1.93		3.25		5.03		7.76		

AZ4													
<b>Basic Cylinder</b>	1.0	0.30	1.4	0.40	2.3	0.6	3.2	0.9	5.6	1.4	7.4	1.50	
<b>Type MS1</b>	1.15		1.59		2.64		3.59		6.39		8.40		
<b>Type MT4</b>	1.11		1.58		2.53		3.59		6.13		8.16		

\*1 = Weight for cylinder with 100mm stroke  
 \*2 = Weight for every additional 100mm stroke length

**Dimensions – Double acting, non-rotating, Ø 25 mm  
Series RDV5...**



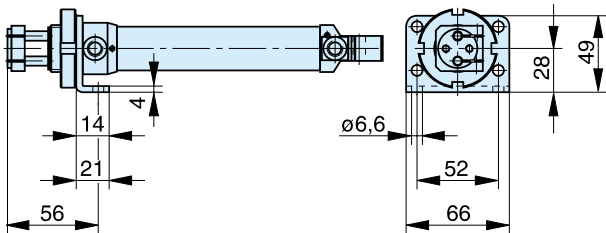
\* adjustable end cushioning  
Mounting nut is not included in delivery

**Mounting instruction:**

When mounting the front plate onto the piston rods tighten the screws with a torque  $M_a = 4 \text{ N}$ .

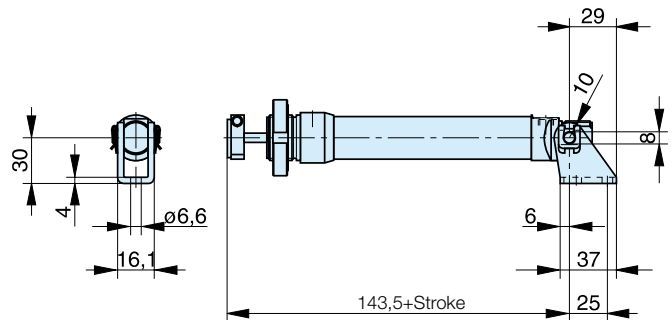
**Mountings – Series RDV...., Ø 25 mm**

**Dimensions (mm) – Foot mounting type MS3**



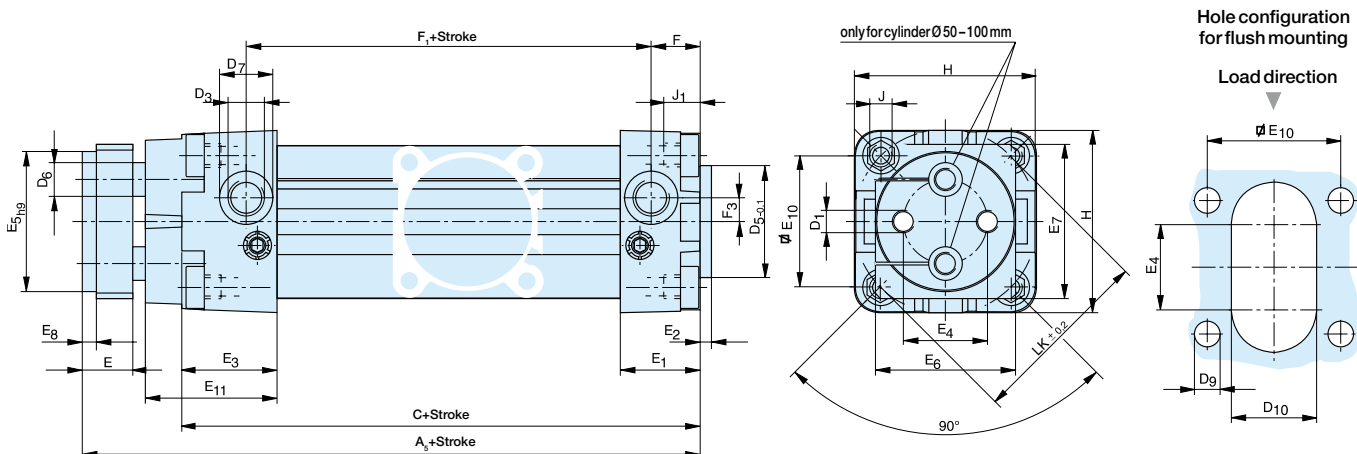
Material: steel, passivated

**Dimensions (mm) – Clevis bracket type AB3**



Material: steel, passivated

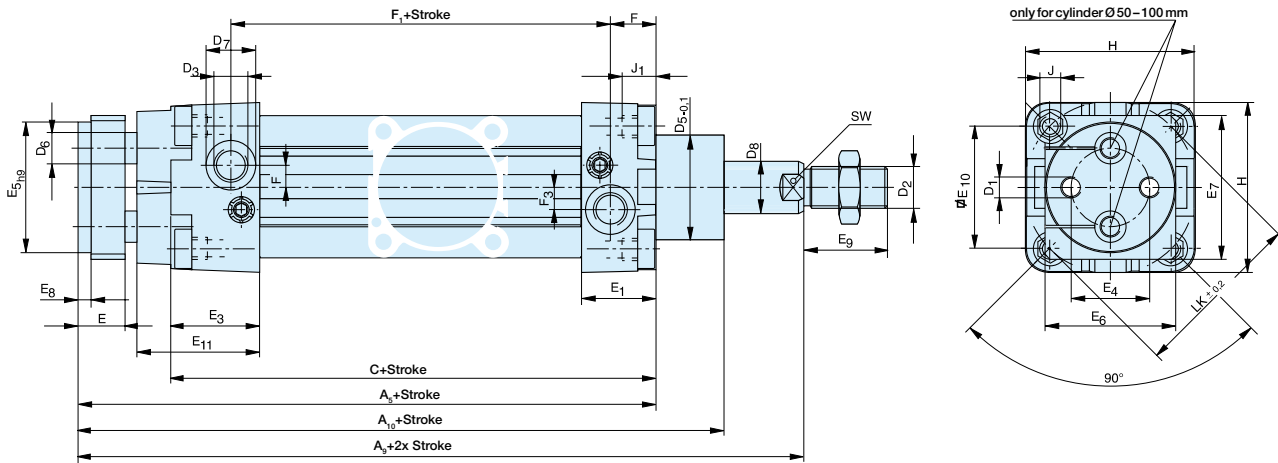
Dimensions – Basic Cylinder, non-rotating, Series AZV..., Ø32 – 100 mm



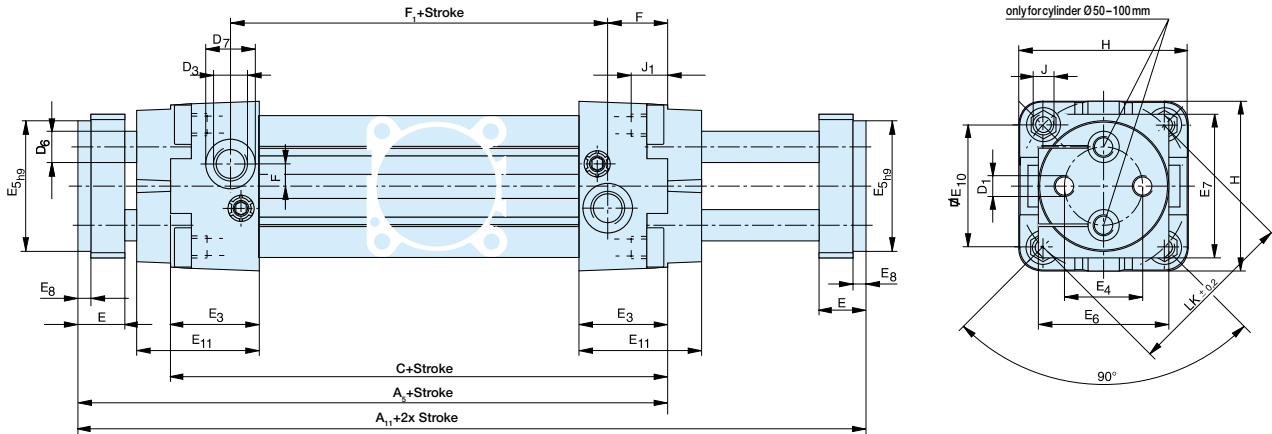
Dimension Table (mm) – Basic Cylinder AZV..., AZ3..., AZ4...

Cyl. Ø	A <sub>5</sub> + Stroke	A <sub>9</sub> + 2X Stroke	A <sub>10</sub> + Stroke	A <sub>11</sub> + 2X Stroke	C + Stroke	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	ØD <sub>5</sub>	ØD <sub>6</sub>	ØD <sub>7</sub>	ØD <sub>8</sub>	ØD <sub>9</sub>	D <sub>10</sub>	E	E <sub>1</sub>	E <sub>2</sub>	E <sub>3</sub>
32	128	154	146	154	102	M6	M10x1.25	G 1/8	30	8	15	12	7	23	15	29	4	26
40	142	172	163	172	112	M8	M12x1.25	G 1/4	35	10	19	16	7	25	15	27	4	30
50	151	188	177	185	117	M8	M16x1.5	G 1/4	40	12	19	20	9	30	18	29	4	34
63	161	198	187	197	125	M10	M16x1.5	G 3/8	45	16	23	20	9	34	22	30	4	34
80	174	220	206	212	136	M12	M20x1.5	G 3/8	45	20	23	25	10	38	22	34	4	39
100	181	232	218	219	143	M12	M20x1.5	G 1/2	55	20	28	25	10	38	22	35	4	40

Dimensions – Basic Cylinder, non-rotating, with through piston rod, series AZ3...., Ø 32 – 100 mm



Dimensions – Basic Cylinder, non-rotating, with through piston rods, series AZ4...., Ø 32 – 100 mm



Dimension Table (mm) – Basic Cylinder AZV...., AZ3...., AZ4....

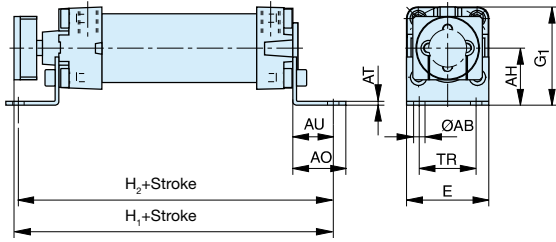
Cyl. Ø	A <sub>5</sub> + Stroke	A <sub>9</sub> + 2X Stroke	A <sub>10</sub> + Stroke	A <sub>11</sub> + 2X Stroke	C + Stroke	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	ØD <sub>5</sub>	ØD <sub>6</sub>	ØD <sub>7</sub>	ØD <sub>8</sub>	ØD <sub>9</sub>	D <sub>10</sub>	E	E <sub>1</sub>	E <sub>2</sub>	E <sub>3</sub>
32	128	154	146	154	102	M6	M10x1.25	G1/8	30	8	15	12	7	23	15	29	4	26
40	142	172	163	172	112	M8	M12x1.25	G1/4	35	10	19	16	7	25	15	27	4	30
50	151	188	177	185	117	M8	M16x1.5	G1/4	40	12	19	20	9	30	18	29	4	34
63	161	198	187	197	125	M10	M16x1.5	G3/8	45	16	23	20	9	34	22	30	4	34
80	174	220	206	212	136	M12	M20x1.5	G3/8	45	20	23	25	10	38	22	34	4	39
100	181	232	218	219	143	M12	M20x1.5	G1/2	55	20	28	25	10	38	22	35	4	40

Cyl. Ø	ØE <sub>4</sub>	E <sub>5h9</sub>	E <sub>6</sub>	E <sub>7</sub>	E <sub>8</sub>	E <sub>9</sub>	E <sub>10</sub>	E <sub>11</sub>	F AZV, AZ3	F AZ4	F <sub>1</sub> +Stroke AZV, AZ3	F <sub>1</sub> +Stroke AZ4	F <sub>3</sub> AZV, AZ4	F <sub>3</sub> AZ3	F <sub>4</sub>	J	J <sub>1max</sub>	H	ØLK	SW
32	19	32	32	40	4	20	32.5	34	14.5	17.5	74	75	6	6	6	M6	16	47	46	10
40	22.5	40	40	45	4	24	38	42	16	19	77.5	75	7	7	7	M6	16	53	54	14
50	30	50	50	55	5	32	46.5	47	17.5	23	77	72	9.5	9.5	9.5	M8	16	65	66	17
63	38	63	63	70	5	32	56.5	45	17.5	21.5	87	83	10	10	10	M8	16	75	80	17
80	50	80	80	95	5	40	72	52	20.5	26	90	85	9	9	9	M10	16	95	102	22
100	70	100	100	115	5	40	89	53	19	24.5	100	95	13	13	13	M10	16	115	126	22

Mountings – Series AZV..., AZ3..., AZ4..., Ø32 – 100 mm

Dimensions for foot mounting MS1



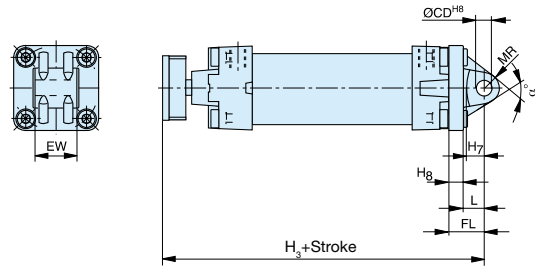
Material: steel, passivated

Dimension Table (mm)

Cyl. Ø	E	G <sub>1</sub>	H <sub>1</sub> + Stroke	H <sub>2</sub> + Stroke	AH	ØAB	AO	AT	AU	TR
32	47	55.5	152	150	32	7	32	4	24	32
40	53	62.5	170	168	36	9	38	4	28	36
50	65	77.5	183	181	45	9	42	5	32	45
63	75	87.5	193	189	50	9	42	5	32	50
80	95	110.5	215	218	63	12	55	6	41	63
100	115	128.5	222	225	71	14	56	6	41	75

Included in delivery: 2 foot brackets, 4 screws

Dimensions for clevis bracket MP4



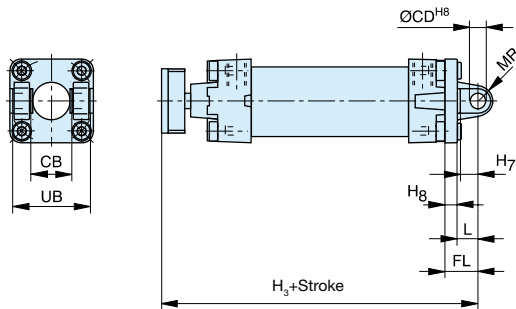
Material: cast aluminium

Dimension Table (mm)

Cyl. Ø	H <sub>3</sub> + Stroke	H <sub>7</sub>	H <sub>8</sub>	L	ØCD <sup>H8</sup>	FL	MR	EW	a°
32	150	10	10	12	10	22	10.5	26	60
40	167	13	10	15	12	25	13	28	60
50	178	12	11	16	12	27	13	32	70
63	193	17	11	21	16	32	17	40	60
80	210	16	15	21	16	36	17	50	70
100	222	20.5	16	25	20	41	21	60	70

Included in delivery: 1 clevis bracket, 4 screws

Dimensions for clevis bracket MP2



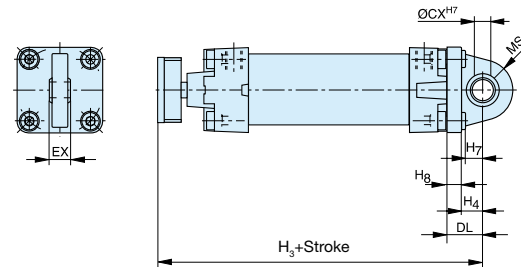
Material: cast aluminium

Dimension Table (mm)

Cyl. Ø	H <sub>3</sub> + Stroke	H <sub>7</sub>	H <sub>8</sub>	L	CB	ØCD <sup>H8</sup>	FL	MR	UB
32	150	10	10	12	26	10	22	9	45
40	167	13	10	15	28	12	25	11	52
50	178	12	11	16	32	12	27	12	60
63	193	17	11	21	40	16	32	15	70
80	210	16	15	22	50	16	36	16	90
100	222	20.5	16	25	60	20	41	20	110

Included in delivery: 1 rear trunnion mounting, 4 screws

Dimensions for Swivel eye bracket MP6  
(Rear mounting with spherical bearing)



Material: cast aluminium

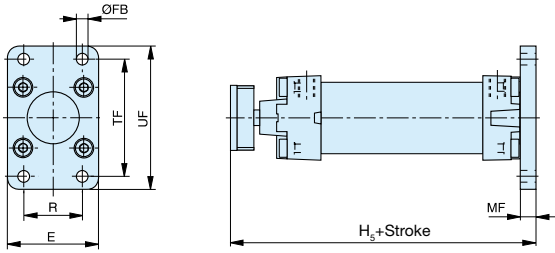
Dimension Table (mm)

Cyl. Ø	H <sub>3</sub> + Stroke	H <sub>4</sub>	H <sub>7</sub>	H <sub>8</sub>	ØCX <sup>H7</sup>	DL	EX	MS
32	150	12	10	10	10	22	14	18
40	167	15	13	10	12	25	16	21
50	178	16	12	11	12	27	16	23
63	193	21	17	11	16	32	21	27
80	210	21	16	15	16	36	21	29
100	222	25	20.5	16	20	41	25	34

Included in delivery: 1 rear trunnion mounting with spherical bearing, 4 screws

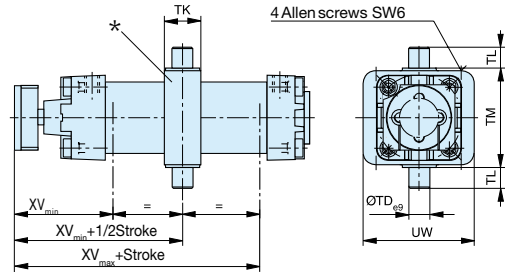
Mountings – Series AZV ....., AZ3....., AZ4....., Ø 32 – 100 mm

Dimensions for flange mouting MF2



Material: cast aluminium

Dimensions for trunnion mounting MT4 (profile cylinder barrel version)



Material: cast aluminium

- \* Position centre trunnion mounting
- Standard position: Type EN1 – The taps of the EN attachment are horizontally aligned to the air supply
- Option: Type EN2 – The taps of the EN attachment are vertically aligned to the air supply

Dimension Table (mm)

Cyl. Ø	E	H <sub>5</sub>	R	ØFB	MF	TF	UF
32	50	138	32	7	10	64	79
40	56	152	36	9	10	72	90
50	70	163	45	9	12	90	110
63	77	173	50	9	12	100	120
80	100	190	63	12	16	126	153
100	120	197	75	14	16	150	178

Included in delivery: 1 flange, 4 screws

Dimension Table (mm)

Cyl. Ø	ØTD <sub>eg</sub>	TK	TL	TM	UW	XV <sub>min</sub>	XV + 1/2 Stroke	XV <sub>max</sub> + Stroke
32	12	25	12	50	65	64	76	87
40	16	28	16	63	75	75	87	99
50	16	28	16	75	85	84	95	106
63	20	36	20	90	100	89	101	112
80	20	36	20	110	120	96	109	121
100	25	48	25	132	135	99	112	125

Included in delivery: 1 rear trunnion mounting

After loosening the locking screws, the trunnion mounting is infinitely variable between XV<sub>min</sub> and XV<sub>max</sub>.

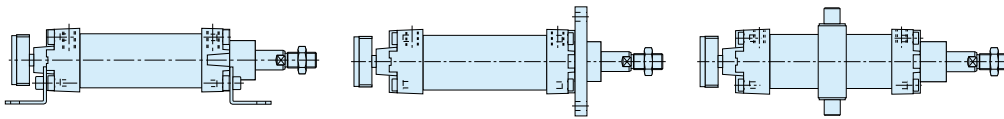
As standard, the position of the T-slots and dovetail slots is on the same side as the air connections. Exception: Ø 32 has only T-slots on the same side as the air connections, with a dovetail slot on the underside.

Mountings – Basic Cylinder, with through piston rod, series AZ3....., Ø 32 – 100 mm

Foot mounting MS1

Rear flange mounting MF2

Trunnion mounting MT4



Mountings – Basic Cylinder, with through piston rods, series AZ4....., Ø 32 – 100 mm

Foot mounting MS1

Trunnion mounting MT4

