

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 \varnothing 25mm
- Non rotating
- Double acting
- Adjustable cushioning
- Magnetic piston as standard

Operating information

Working pressure: Max 10 bar
Working temperature: -10°C to $+70^{\circ}\text{C}$

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

AZ Series:



- Available as bore \varnothing 32mm - \varnothing 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 $+80^{\circ}\text{C}$

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

Order key - RDV

R	D	V	5	0	2	5	0	1	0	0					
Version			Function			Bore mm					Stroke (mm) e.g. 0100 = 100mm				
RDV Ø25mm bore only			5 Double acting with magnetic function, Adjustable cushioning			025					Stroke lengths up to 500mm. Other sizes on request				
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
Version			Function										Bore mm			Stroke (mm) e.g. 0100 = 100mm								
5	AZV	Single set twin rods	1	Double acting, No magnetic function, Adjustable cushioning										K	032	Stroke lengths up to 500mm. Other sizes on request								
6	AZ4	Double set twin rods	2	Double acting, No magnetic function, No adjustable cushioning										L	040	Note: Standard option specified. Other options available Maximum 2000mm								
7	AZ3	Single set twin rods with single rod	5	Double acting, With magnetic function, Adjustable cushioning										M	050									
			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	KK28.302	PD27917	PD27918	PD28072	PD28073	PD28074	PD28075
Rear Double Clevis - AB3 / MP2	KZ1420	PD22704	PD22705	PD22706	PD22707	PD22708	PD22709
Rear Single Clevis - MP4	-	PD23412	PD23413	PD23414	PD23415	PD23416	PD23417
Front Flange - Type MF1 for AZV / AZ3 / AZ4	-	PD57042	PD57043	PD57044	PD57045	PD57046	PD57047
Rear Flange - MF2	-	PD23403	PD23404	PD23405	PD23406	PD23407	PD23408
Trunnion - MT4	-	PD39195	PD39196	PD39197	PD39198	PD39199	PD39200
Trunnion Blocks - MT4	-	PD23381	PD23382	PD23382	PD23383	PD23383	PD23384
Pivot Mount - (w / o Bolts)	-	PD25621	PD25622	PD25623	PD25624	PD25625	PD25626
Groove Nut - for RDV5	ZP2125						

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	ZP 1810	ZP 2189	ZP 0178	ZP 0178	ZP 0185	ZP 0185
Rod Clevis AP2	KY 6135	KY 6136	KY 6139	KY 6139	KY 6141	KY 6141
Rod Eye AP6	KY 6147	KY 6148	KY 6150	KY 6150	KY 6151	KY 6151
Clevis Pin	KY 6153	KY 6154	KY 6157	KY 6156	KY 6158	KY 6159
Flexo coupling	KY 1129	KY 1131	KY 1133	KY 1133	KY 1134	KY 1134

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
Basic Cylinder	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
Type MS3 / MS1	0.10		0.95		1.19		2.04		2.99		4.99		7.20	
Type AB3 / MP2	0.08		0.87		1.09		1.87		2.82		4.69		6.94	
Type MP4			0.90		1.13		1.91		2.90		4.77		7.11	
Type MP6			0.90		1.15		1.92		2.92		4.76		7.06	
Type MF1 / MF2			0.90		1.15		1.92		2.92		4.76		7.06	
Type MT4			0.91		1.18		1.93		3.25		5.03		7.76	

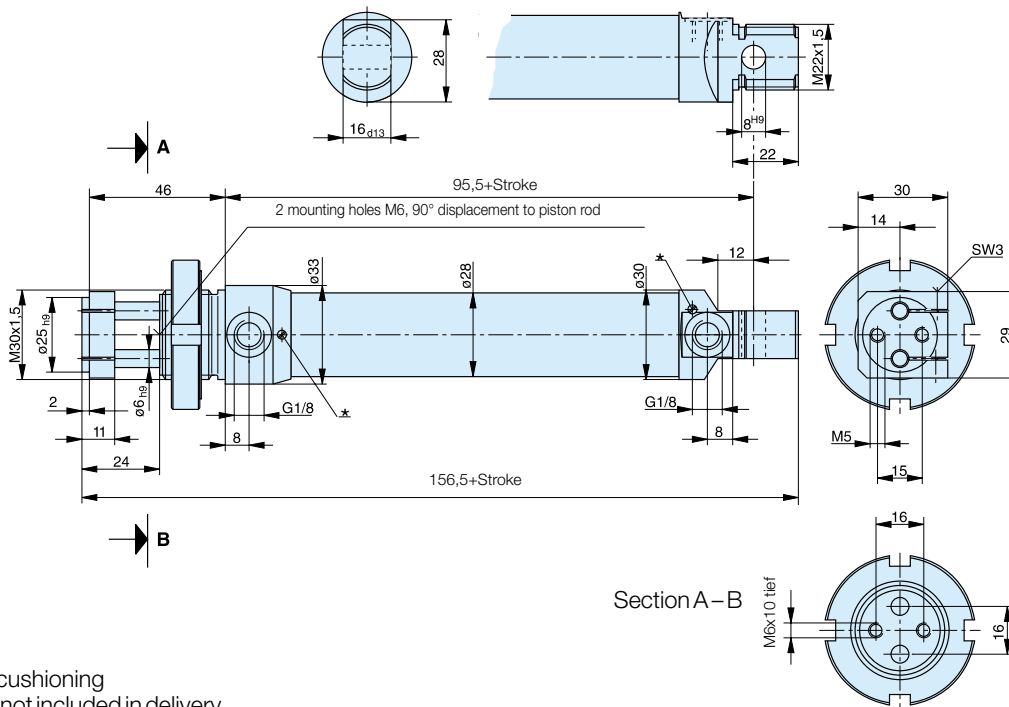
AZ3														
Basic Cylinder	1.0	0.30	1.5	0.45	2.5	0.7	3.2	0.85	5.3	1.3	7.5	1.5		
Type MS1	0.95		1.19		2.04		2.99		4.99		7.20			
Type MF1 / MF2	0.90		1.15		1.92		2.92		4.76		7.06			
Type MT4	0.91		1.18		1.93		3.25		5.03		7.76			

AZ4														
Basic Cylinder	1.0	0.30	1.4	0.40	2.3	0.6	3.2	0.9	5.6	1.4	7.4	1.50		
Type MS1	1.15		1.59		2.64		3.59		6.39		8.40			
Type MT4	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...



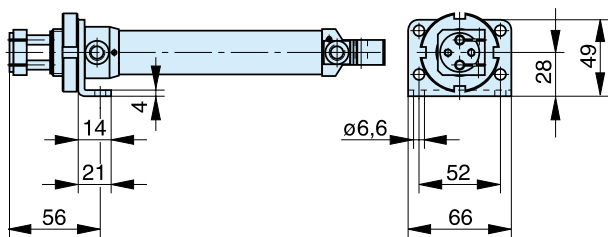
* adjustable end cushioning
 Mounting nut is not included in delivery

Mounting instruction:

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

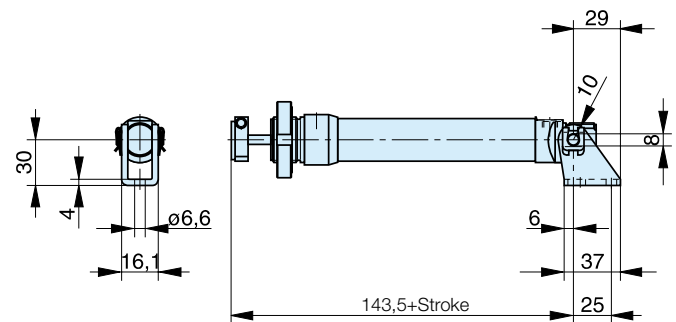
Mountings – Series RDV...., Ø 25 mm

Dimensions (mm) – Foot mounting type MS3



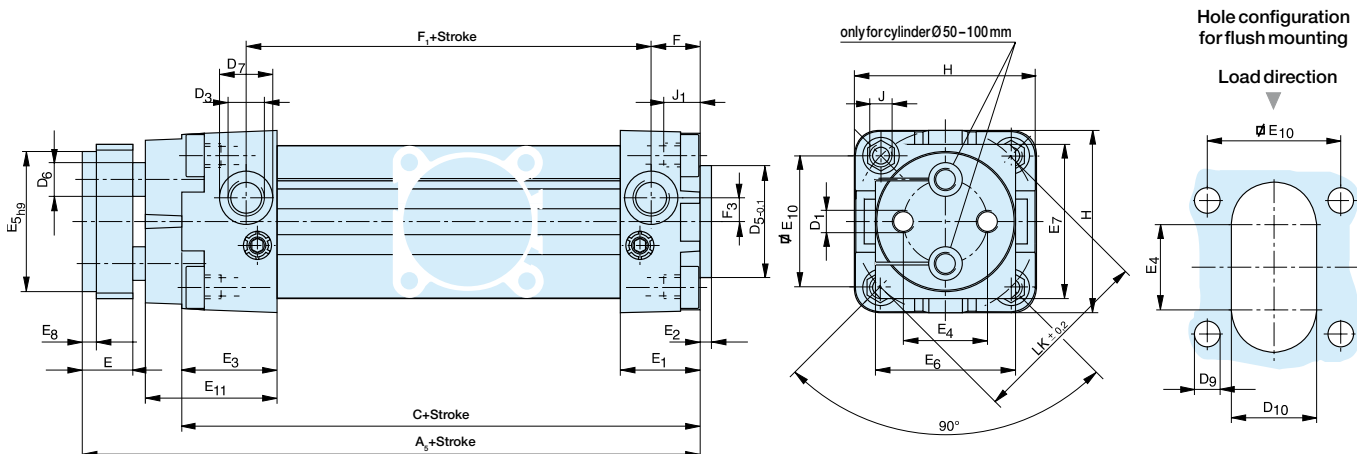
Material: steel, passivated

Dimensions (mm) – Clevis bracket type AB3



Material: steel, passivated

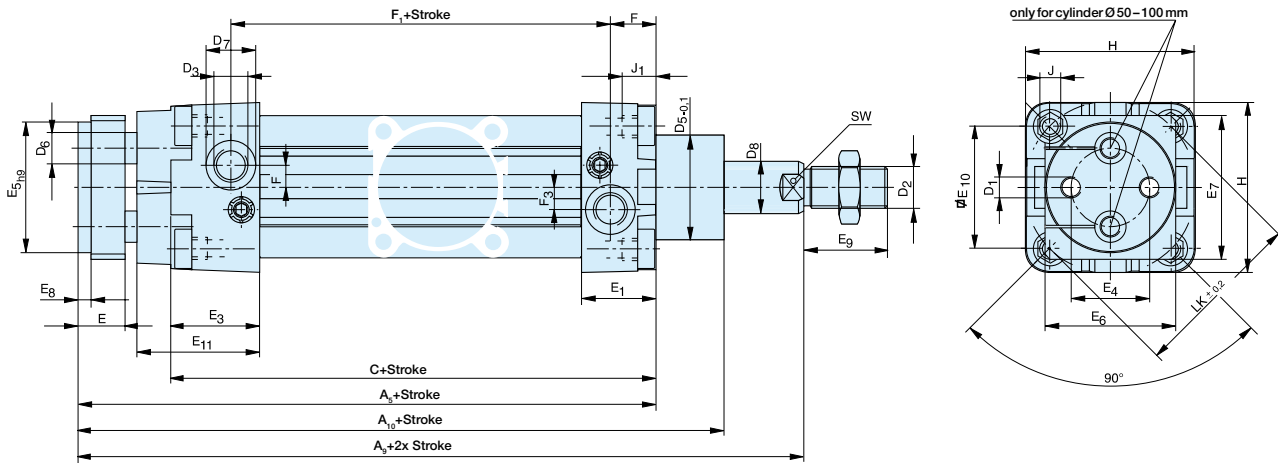
Dimensions – Basic Cylinder, non-rotating, Series AZV..., Ø32 – 100 mm



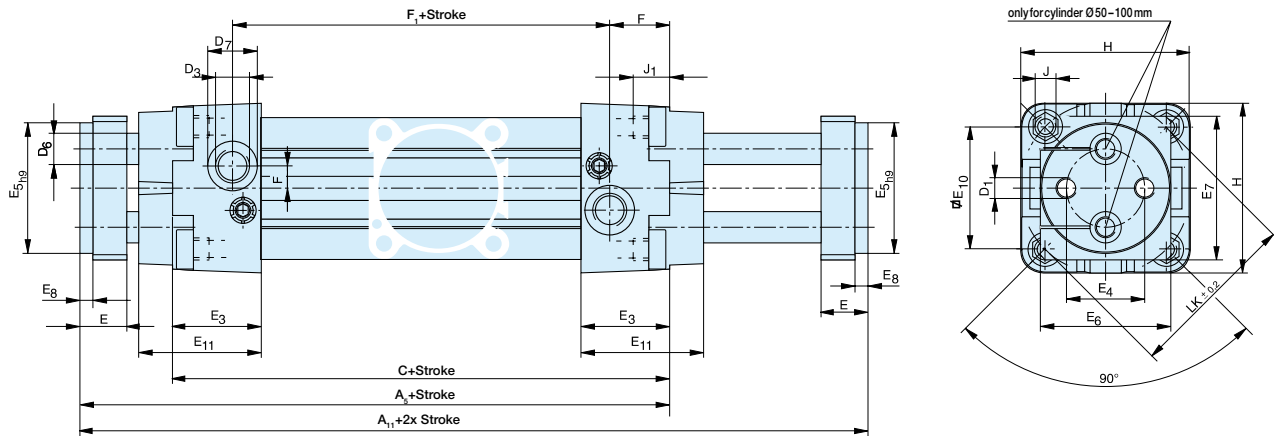
Dimension Table (mm) – Basic Cylinder AZV..., AZ3..., AZ4...

Cyl. Ø	A ₅ + Stroke	A ₉ + 2X Stroke	A ₁₀ + Stroke	A ₁₁ + 2X Stroke	C + Stroke	D ₁	D ₂	D ₃	ØD ₅	ØD ₆	ØD ₇	ØD ₈	ØD ₉	D ₁₀	E	E ₁	E ₂	E ₃
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



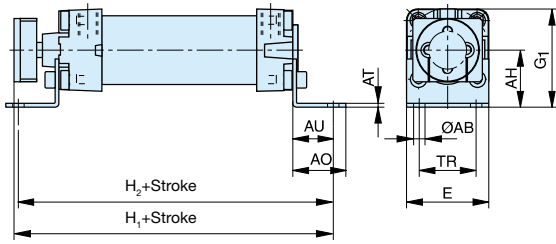
Dimension Table (mm) – Basic Cylinder AZV...., AZ3...., AZ4....

Cyl. Ø	A ₅ + Stroke	A ₉ + 2X Stroke	A ₁₀ + Stroke	A ₁₁ + 2X Stroke	C + Stroke	D ₁	D ₂	D ₃	ØD ₅	ØD ₆	ØD ₇	ØD ₈	ØD ₉	D ₁₀	E	E ₁	E ₂	E ₃
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 ₄	E _{5h9}	E ₆	E ₇	E ₈	E ₉	E ₁₀	E ₁₁	F AZV, AZ3	F AZ4	F ₁ +Stroke AZV, AZ3	F ₁ +Stroke AZ4	F ₃ AZV, AZ4	F ₃ AZ3	F ₄	J	J _{1max}	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



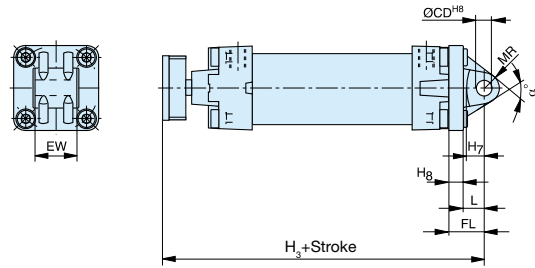
Material: steel, passivated

Dimension Table (mm)

Cyl. Ø	E	G ₁	H ₁ + Stroke	H ₂ + 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



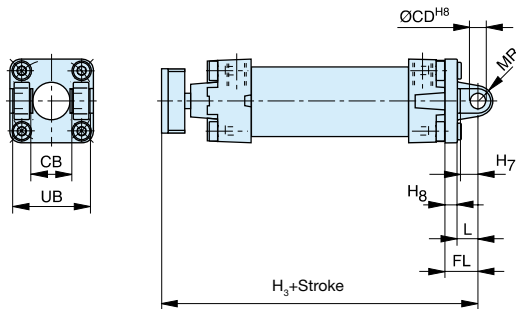
Material: cast aluminium

Dimension Table (mm)

Cyl. Ø	H ₃ + Stroke	H ₇	H ₈	L	ØCD ^{H8}	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



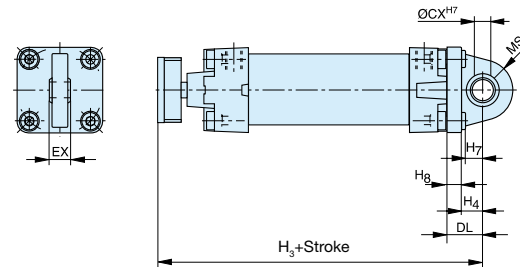
Material: cast aluminium

Dimension Table (mm)

Cyl. Ø	H ₃ + Stroke	H ₇	H ₈	L	CB	ØCD ^{H8}	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

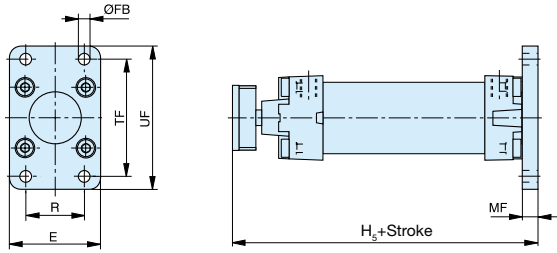
Dimension Table (mm)

Cyl. Ø	H ₃ + Stroke	H ₄	H ₇	H ₈	ØCX ^{H7}	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

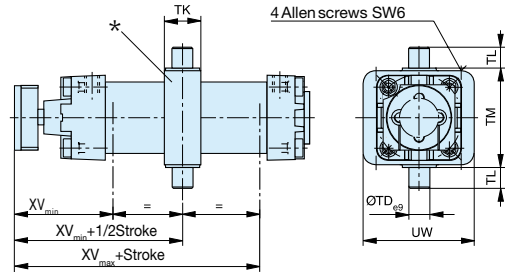
Mountings – Series AZV, AZ3....., AZ4....., Ø 32 – 100 mm

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 ₅ + Stroke	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 _{eg}	TK	TL	TM	UW	XV _{min}	XV + 1/ Stroke	XV _{max} + 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_{min} and XV_{max}.

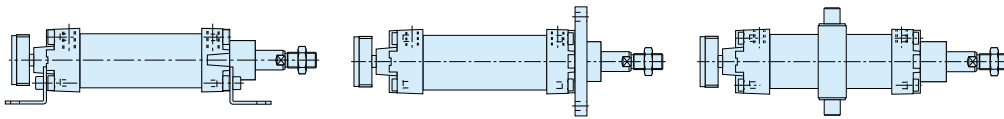
As standard, the position of the T-slots and dovetail slots is on the same side as the air connections. Exception: Ø 32 has only T-slots on the same side as the air connections, with a dovetail slot on the underside.

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

