DZ Cylinder

Specifications

Characteristics according to VDI 3294							
Characteristics	Symbol	Unit	Description				
General Features							
Type			Piston rod cylinder				
Series			DZ1, DZ5				
System			Double acting with cushioning				
Mounting			See drawing				
Tube connection			Thread				
Ambient temperature range	ϑ_{min} ϑ_{max}	°C °C	-20 +80	Note: When using below freezing point (°C) it is necessary to consult us			
Medium temperature range	ϑ_{min}	°C	+80				
Weight (mass)		kg	See table				
Installation			In any position				
Medium			Filtered and lubricated or filtered and unlubricated compressed air				
Lubrication			Oil mist lubrication compatible with Buna N				
Material: Cylinder tube			Aluminum				
Material: Front/Rear covers			Aluminum				
Material: Piston rod			Steel, hard-chrome plated				
Pneumatic Characteristics							
Nominal pressure	p_n	bar	6				
Operating pressure range	p_{min} p_{max}	bar bar	1 10				
Piston diameter		mm	125	160	200	250	
Port size			G 1/2	G 3/4	G 3/4	G 1	
Piston rod diameter		mm	32	40	40	50	
Piston rod thread			M27x2**	M36x2	M36x2	M42x2	
Stroke length		mm	For max. stroke length see load diagram 2.05.002E				
Cushioning			At both ends, infinitely variable				
Cushioning stroke		Cyl.	125	160	200	250	
		mm	42	52	52	52	

Weight (mass) kg								
Mounting	Cylinder-Ø 125		160		200		250	
	*1	*2	1	2	1	2	1	2
Basic cylinder	7.2	1.3	12.5	2.05	20	2.2	35	4
A	9.3		16.1		25		on request	
B	8.5		14.9		24			
BA	8.7		15.0		24			
BAS	8.6		14.9		24			
C	8.7		15.0		30			
D	8.7		15.0		30			
EN	10.5		18.3		32			

*1 = Weight for cylinder with 100mm stroke
*2 = Weight for every additional 10mm stroke length

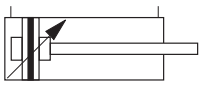
Series DZ

Ø125 - 250mm

ISO 6431
CETOP RP53P**

DZ 1: Double Acting, Cushions

DZ 5: Double Acting, Magnets, Cushions



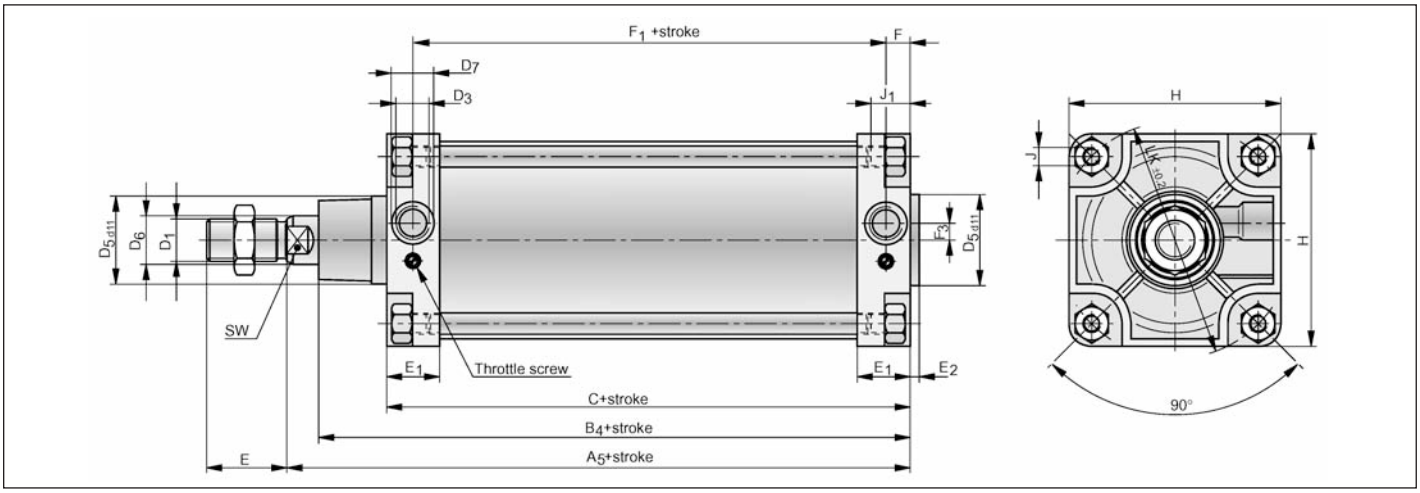
Features:

Hard-Chrome Plated Rod
Magnetic Piston
Adjustable Cushions
Pre-Lubricated Design

DZ Cylinder

Dimensional Data

Basic Cylinder

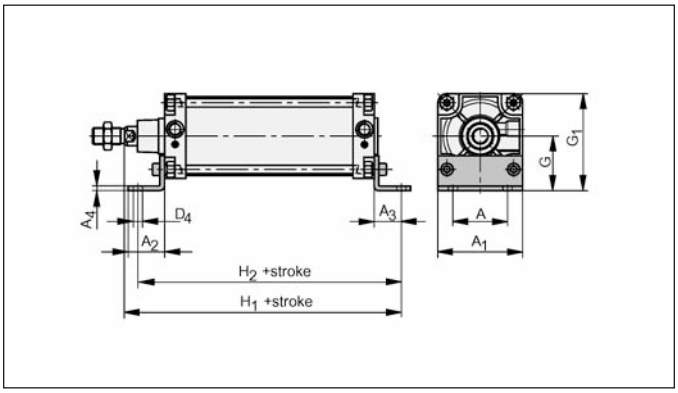


Dimension Table (mm) for Basic Cylinder

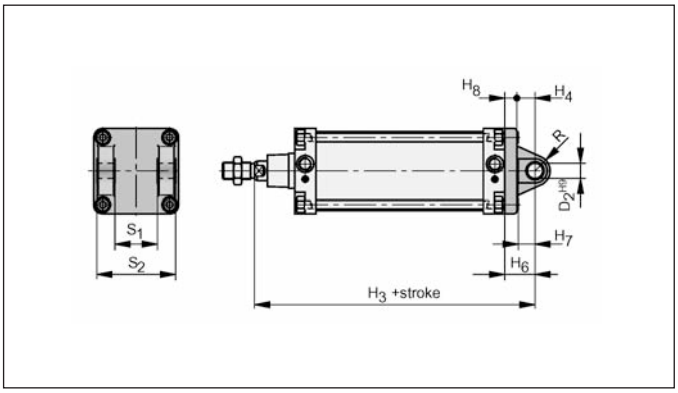
Cyl. Ø	A_5+ stroke	B_4+ stroke	C+ stroke	D_1	D_3	ØD_5	ØD_6	ØD_7	E	E_1	E2	F	F_1+ stroke	F_3	J	J_1 max.	H	ØLK	SW
125	225	205	160	M27x2*	G1/2	60	32	28	54	35	6	19	122	11	M12	18	140	156	27
160	260	230	180	M36x2	G3/4	65	40	33	72	45	6	25	130	11	M16	23	180	198	36
200	275	240	180	M36x2	G3/4	75	40	33	72	45	6	25	130	11	M16	23	220	248	36
250	305	270	200	M42x2	G1	90	50	40	84	53	10	32	136	21	M20	27	280	311	48

*Standard piston rod thread M27x2 - on request M24x2 to CETOP RP53P can also be delivered.

Foot Bracket - Type A



Rear Double Clevis - Type B



Dimension Table (mm) for Mounting A

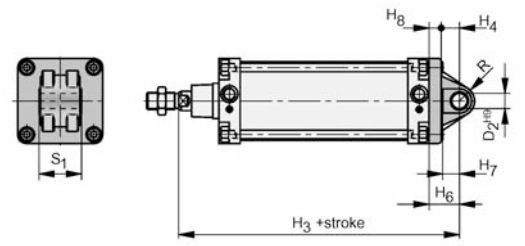
Cyl. Ø	A	A_1	A_2	A_3	A_4	ØD_4	G	G_1	H_1+ stroke	H_2+ stroke
125	90	140	60	45	8	16	90	160	270	250
160	115	180	80	60	8	18	115	205	320	300
200	135	220	100	70	9	22	135	245	345	320
250	165	280	110	75	12	26	165	305	380	360

Dimension Table (mm) for Mounting B

Cyl. Ø	D_2^{H9}	H_3+ stroke	H_4	H_6	H_7	H_8	R	S_1	S_2
125	25	275	30	50	29	20	25	70	130
160	30	315	35	55	34	20	30	90	170
200	30	335	35	60	35	25	31	90	170
250	40	375	45	70	44	25	41	110	200

Cylinder Mounts

Rear Single Clevis - Type BA

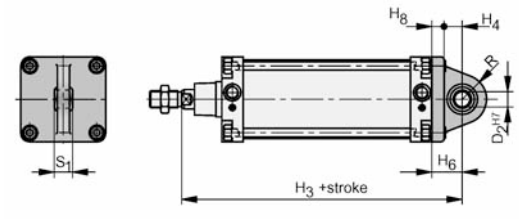


Material: cast aluminum

Dimension Table (mm) for Mounting BA

Cyl. Ø	ØD2H9	H3+ stroke	H4	H6	H7	H8	R	S1
125	25	275	30	50	29	20	25	70
160	30	315	35	55	34	20	30	90
200	30	335	35	60	35	25	31	90
250	40	375	45	70	44	25	41	110

Rear Single Clevis - Type BAS

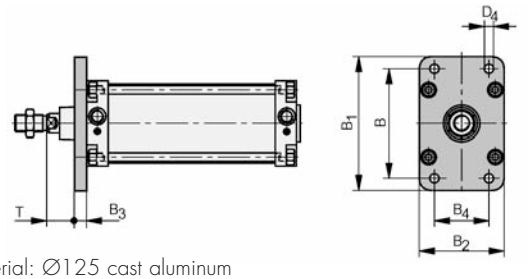


Material: cast aluminum

Dimension Table (mm) for Mounting BAS

Cyl. Ø	ØD2H7	H3+ stroke	H4	H6	H8	R	S1
125	25	275	30	50	20	40	31
160	30	315	35	55	20	48	37
200	on request						
250	on request						

Front Flange - Type C

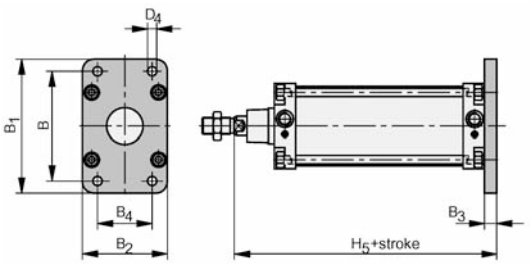


Material: Ø125 cast aluminum
Ø160 - Ø250 steel, passivated

Dimension Table (mm) for Mounting C

Cyl. Ø	B	B1	B2	B3	B4	ØD4	T
125	180	220	140	20	90	16	45
160	230	280	180	20	115	18	60
200	270	315	220	25	135	22	70
250	330	380	280	25	165	26	80

Rear Flange - Type D

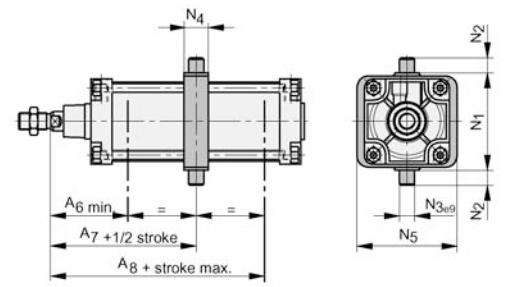


Material: Ø125 cast aluminum
Ø160 - Ø250 steel, passivated

Dimension Table (mm) for Mounting BA

Cyl. Ø	B	B1	B2	B3	B4	ØD4	H5+ stroke
125	180	220	140	20	90	16	245
160	230	280	180	20	115	18	280
200	270	315	220	25	135	22	300
250	330	380	280	25	165	26	330

Adjustable Trunnion - Type EN



Material: nodular graphite cast iron, passivated

Dimension Table (mm) for Mounting EN

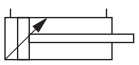
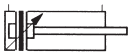
Cyl. Ø	A6 min	A7+ 1/2stroke	A8+ stroke	N1	N2	N3eg	N4	N5
125	125	145	165	160	25	25	40	165
160	150	170	190	200	32	32	45	210
200	165	185	205	250	32	32	50	260
250	195	205	210	320	40	40	55	320

Note:
When ordering please give exact dimension A_7.
Mounting is assembled when delivered.

Instructions for mounting EN:
In order to avoid faulty operation of the reed switches, a min. distance of 10 to 20mm has to be kept between switch and EN-mounting when fastening them to the cylinder.

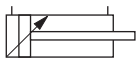
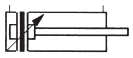
DZ Cylinder

Ordering Information

Basic Cylinder (Without Mounting)					
Series	Symbol	Standard	Bore Ø	Order Instructions Type #	Order #
Double acting with adjustable end cushioning		ISO	125	DZ1125/....	PA 53530-....
		CETOP	125	DZ1125/....	PA 53500-....
		ISO	160	DZ1160/....	PA 54000-....
		ISO	200	DZ1200/....	PA 54500-....
		ISO	250	DZ1250/....	PA 55000-....
Double acting with adjustable end cushioning, for contactless position sensing		ISO	125	DZ5125/....	PA 53540-....
		CETOP	125	DZ5125/....	PA 53510-....
		ISO	160	DZ5160/....	PA 54010-....
		ISO	200	DZ5200/....	PA 54510-....
		ISO	250	DZ5250/....	PA 55010-....

Complete type designation and order no. with stroke length in mm (4 digits)

Standard stroke length: 0025, 0050, 0080, 0100, 0125, 0160, 0200, 0250, 0320, 0400, 0500

Cylinder with Mounting EN					
Series	Symbol	Standard	Bore Ø	Order Instructions Type #	Order #
Double acting with adjustable end cushioning		ISO	125	DZ1125EN/.../...	PA 53536-....
		CETOP	125	DZ1125EN/.../...	PA 53506-....
		ISO	160	DZ1160EN/.../...	PA 54006-.../...
		ISO	200	DZ1200EN/.../...	PA 54506-.../...
		ISO	250	DZ1250EN/.../...	PA 55006-.../...
Double acting with adjustable end cushioning, for contactless position sensing		ISO	125	DZ5125EN/.../...	PA 53546-.../...
		CETOP	125	DZ5125EN/.../...	PA 53516-.../...
		ISO	160	DZ5160EN/.../...	PA 54016-.../...
		ISO	200	DZ5200EN/.../...	PA 54516-.../...
		ISO	250	DZ5250EN/.../...	PA 55016-.../...

Complete type designation and order no. with stroke length in mm (3 digits)

Give dimension A_Z with type designation and order no.

Cylinder Mountings				
Description	Order # Ø125	Ø160	Ø200	Ø250
Foot Bracket - Type A	PD 22026	PD 22027	PD 24792	PD 25758
Rear Double Clevis - Type B	PD 22034	PD 22035	PD 24990	PD 25710
Rear Single Clevis - Type BA	PD 23418	PD 22628	PD 24999	PD 25759
Rear Single Clevis - Type BAS	PD 23849	PD 23850	PD 25766	PD 25760
Front Flange - Type C	PD 23409	PD 23410	PD 24924	PD 25761
Rear Flange - Type D	PD 23409	PD 23410	PD 24924	PD 25761
Center Trunnion - Type EN	PD 23591	PD 23592	PD 24923	PD 25762

Proximity Sensors/Brackets: See Page 73

AZV Twin Rod Cylinder

Specifications

Features	
Type	Twin Rod
Series	AZV
Configurations	AZV: Double Acting, Double Rod, Magnetic Piston, Cushions AZV 3D: Double Acting, 3 Rods, Magnetic Piston, Cushions AZV 4D: Double Acting, 4 Rods, Magnetic Piston, Cushions
Construction Materials	
Barrel	Extruded Aluminum, Anodized (10µ)
End Caps	Die Cast Aluminum
Piston Rod	Steel Hard Chrome Plated (Optional: Stainless Steel)
Rod Bearing	Teflon Impregnated Bronze
Piston	Brass
Piston Bearing	Fiber Reinforced Nylon
Captive Cushion Screw	Brass (Optional: Stainless)
Seals	NBR (Optional: Viton)
End Cap Screws	Steel, Zinc Plated (Optional: Stainless)
Tooling Plate	Bore: 32, 40, 50 Steel, Black Oxide Treated Bore: 63, 80, 100 Aluminum, Black Oxide Treated
Characteristics	
Operating Temperature	Min: -5° F (-20°C) Max: +176 °F (+80°C)
Operating Pressure	Min: 15 PSI (1 bar) Max: 145 PSI (10 bar)
Normal Operating Pressure	90 PSI (6 bar)
Lubrication	Pre-lubricated at factory. If additional lubrication is required, use oil compatible for NBR seal and designed for use in pneumatic systems.
Media	Filtered and Regulated Compressed Air
Installation	In any Position
Weight	See Page 44
Stroke Length	Up to 20 inches–Longer Contact Factory
Theoretical Forces	See Technical Information Section
Load Capacity	See Technical Information Section

Specifications

Piston Diameter			**RDV 25**	**32**	**40**	**50**	**63**	**80**	**100**
Port Sizes		**NPT**	**- -**	**1/8**	**1/4**	**1/4**	**3/8**	**3/8**	**1/2**
		Metric (G)	1/8	1/8	1/4	1/4	3/8	3/8	1/2
Rod Diameter									
AZV (RDV)	(2 Pcs)	mm	6	8	10	12	16	20	20
AZV 3D	(2 Pcs)	mm	- -	8	10	12	16	20	20
	(1 Pc)	mm	- -	12	16	20	20	25	25
AZV 4D	(4 Pcs)	mm	- -	8	10	12	16	20	20
Cushion Lengths		**Inch**	**0.67**	**0.78**	**0.98**	**0.98**	**0.98**	**1.10**	**1.18**
All Cylinders		mm	17	20	25	25	25	28	30

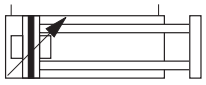
Series AZV

Ø32mm - 100mm

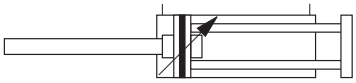
Series RDV

Ø25mm

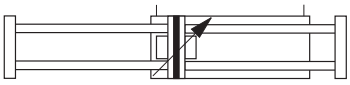
AZV 5: Double Acting, Double Rod, Magnets, Cushions



AZV3D 5: Double Acting, 3 Rods, Magnets, Cushions



AZV4D 5: Double Acting, 4 Rods, Magnets, Cushions



Features:

Magnetic Piston
Adjustable Cushions
Pre-Lubricated Design
Inch or Metric Construction

AZV Twin Rod Cylinder

Ordering Information

Example: AZV3D - U5050/10-V
Twin Rod Cylinder
Single Set of Twin Rods w/Single Rod
U.S. Option
Double Acting, Magnets, Cushions
50mm Bore
10" Stroke
Viton Seals

A Z V 3 D - U 5 0 5 0 / 1 0 - V

Versions:

RDV – Ø 25mm Bore Only (Metric Only)

AZV Series

AZV – Single Set Twin Rods

AZV 3D – Single Set Twin Rods with Single Rod

AZV 4D – Double Set Twin Rods

Design:

– – Metric Construction

-U – US Construction: Inch Stroke, NPT Ports, & UNC Threads

Actuation:

5 – Double Acting, Magnets, Cushions

1 – Double Acting, Cushions

6 – Double Acting, Magnets

2 – Double Acting

Options:

— – Standard

V – Viton

EN – Trunnion, Adjustable

R – Ø32 Piston Rods Tapped 10•32

3D Version Only

T – Rod Thread: Ø32 - 5/16•18
Ø40,50,63 - 7/16•20

Stroke:

INCH:

- any inch increment up to 20" standard
- contact factory for special stroke lengths

MM:

- any mm increment up to 500mm standard
- contact factory for special stroke lengths

Bore:

025 – 25mm (nom. 1")
(Available Only in Metric Construction)
032 – 32 mm (nom. 1 1/4")
040 – 40 mm (nom. 1 1/2")
050 – 50 mm (nom. 2")
063 – 63 mm (nom. 2 1/2")
080 – 80 mm (nom. 3 1/8")
100 – 100 mm (nom. 4")

Proximity Sensors/Brackets: See Page 73

AZV Twin Rod Cylinder

Cylinder Mounts

Body Mounts		Bore Ø 25mm	32mm	40mm	50mm	63mm	80mm	100mm
Foot Mounting Type: A-	**INCH**	- -	**4170-0352**	**4170-0452**	**4170-0552**	**4170-0652**	**4170-0852**	**4170-1052**
	Metric	KK 29.302	PD 27917	PD 27918	PD 28072	PD 28073	PD 28074	PD 28075
Rear Double Clevis Type: B-	**INCH**	- -	**4172-0351**	**4172-0451**	**4172-0551**	**4172-0651**	**4172-0851**	**4172-1051**
	Metric	- -	PD 22704	PD 22705	PD 22706	PD 22707	PD 22708	PD 22709
Rear Single Clevis Type: BA-	**INCH**	- -	**4174-0351**	**4174-0451**	**4174-0551**	**4174-0651**	**4174-0851**	**4174-1051**
	Metric	KB 28.303	PD 23412	PD 23413	PD 23414	PD 23415	PD 23416	PD 23417
Rear Clevis w/Spherical Bearing Type: BAS-	**INCH**	- -	**4173-0351**	**4173-0451**	**4173-0551**	**4173-0651**	**4173-0851**	**4173-1051**
	Metric	- -	PD 23843	PD 23844	PD 23845	PD 23846	PD 23847	PD 23848
Front Flange Type: CA for AZV 5/3D/4D	**INCH**	- -	**4175-0351**	**4175-0451**	**4175-0551**	**4175-0651**	**4175-0851**	**4175-1051**
	Metric	- -	PD 57042	PD 57043	PD 57044	PD 57045	PD 57046	PD 57047
Rear Flange Type: D	**INCH**	- -	**4176-0351**	**4176-0451**	**4176-0551**	**4176-0651**	**4176-0851**	**4176-1051**
	Metric	- -	PD 23403	PD 23404	PD 23405	PD 23406	PD 23407	PD 23408
Trunnion Type: EN	**INCH**/mm	- -	PD 39195	PD 39196	PD 39197	PD 39198	PD 39199	PD 39200
Trunnion Blocks Type: EL (Pair) (See Page 76)	**INCH**/mm	- -	PD 23381	PD 23382	PD 23382	PD 23383	PD 23383	PD 23384
Pivot Mount (w/o Bolts)	**INCH**/mm	- -	PD 25621	PD 25622	PD 25623	PD 25624	PD 25625	PD 25626

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

Rod Accessories		Bore Ø 25mm	32mm	40mm	50mm	63mm	80mm	100mm
Rod Nut	**INCH**	- -	**ZP-U 1810**	**ZP-U 2189**	**ZP-U 0178**	**ZP-U 0178**	**ZP-U 0185**	**ZP-U 0185**
	Metric	ZP 3848	ZP 1810	ZP 2189	ZP 0178	ZP 0178	ZP 0185	ZP 0185
Rod Clevis	**INCH**	- -	- -	- -	- -	- -	- -	- -
	Metric	- -	KY 6135	KY 6136	KY 6139	KY 6139	KY 6141	KY 6141
Rod Eye	**INCH**	- -	- -	- -	- -	- -	- -	- -
	Metric	- -	KY 6147	KY 6148	KY 6150	KY 6150	KY 6151	KY 6151
Clevis Pin	**INCH**/mm	- -	KY 6153	KY 6154	KY 6157	KY 6156	KY 6158	KY 6159
Rod Alignment Coupling	**INCH**	- -	- -	- -	- -	- -	- -	- -
	Metric	- -	KY 1129	KY 1131	KY 1133	KY 1133	KY 1134	KY 1134

NOTES:

* Body Nut for RDV type cylinder

** Items in **BOLD** type either include Inch mounting hardware or indicate Inch threads.

Proximity Sensors/Brackets: See Page 73

AZV Twin Rod Cylinder

Weights

AZV

Weight		Bore Ø 25mm 1	25mm 2	32mm *1	32mm *2	40mm 1	40mm 2	50mm 1	50mm 2	63mm 1	63mm 2	80mm 1	80mm 2	100mm 1	100mm 2
Basic Cylinder	**lbs**	**1.01**	**0.18**	**1.76**	**0.55**	**2.21**	**0.77**	**3.75**	**1.10**	**5.73**	**1.32**	**9.26**	**1.98**	**13.67**	**2.21**
	kg	0.46	0.08	0.8	0.25	1.0	0.35	1.7	0.5	2.6	0.6	4.2	0.9	6.2	1.0
Type A (RA)	**lbs**	**0.22**	**- -**	**2.21**		**2.76**		**4.41**		**6.62**		**11.03**		**15.66**	
	kg	0.10	--	1.0		1.25		2.0		3.0		5.0		7.1	
Type B (RA)	**lbs**	**- -**	**- -**	**1.98**		**2.43**		**4.08**		**6.17**		**10.14**		**14.99**	
	kg	--	--	0.9		1.1		1.85		2.8		4.6		6.8	
Type BA	**lbs**	**- -**	**- -**	**2.21**		**2.65**		**4.19**		**6.62**		**11.03**		**16.10**	
	kg	--	--	1.0		1.2		1.9		3.0		5.0		7.3	
Type BAS	**lbs**	**- -**	**- -**	**2.09**		**2.65**		**4.19**		**6.39**		**10.36**		**15.44**	
	kg	--	--	0.95		1.2		1.9		2.9		4.7		7.0	
Type D	**lbs**	**- -**	**- -**	**1.98**		**2.43**		**4.08**		**6.28**		**10.36**		**15.44**	
	kg	--	--	0.9		1.1		1.85		2.85		4.7		7.0	
Type EN	**lbs**	**- -**	**- -**	**2.65**		**3.75**		**5.73**		**8.60**		**13.23**		**19.18**	
	kg	--	--	1.2		1.7		2.6		3.90		6.0		8.7	

*1 = Weight for cylinder with 4" (100 mm) stroke
*2 = Weight for every additional 4" (100 mm) stroke length

AZV 3D

Weight		Bore Ø 32mm *1	32mm *2	40mm 1	40mm 2	50mm 1	50mm 2	63mm 1	63mm 2	80mm 1	80mm 2	100mm 1	100mm 2
Basic Cylinder	**lbs**	**2.21**	**0.66**	**3.31**	**0.99**	**5.51**	**1.54**	**7.06**	**1.87**	**11.69**	**2.87**	**16.54**	**3.31**
	kg	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 A	**lbs**	**2.65**		**3.97**		**6.17**		**8.38**		**13.23**		**18.74**	
	kg	1.2		1.8		2.8		3.8		6.0		8.5	
Type C	**lbs**	**2.43**		**3.53**		**5.84**		**7.61**		**12.79**		**18.08**	
	kg	1.1		1.6		2.65		3.45		5.8		8.2	
Type EN	**lbs**	**3.09**		**4.85**		**7.5**		**9.92**		**15.88**		**22.05**	
	kg	1.4		2.2		3.4		4.5		7.2		10.0	

*1 = Weight for cylinder with 4" (100 mm) stroke
*2 = Weight for every additional 4" (100 mm) stroke length

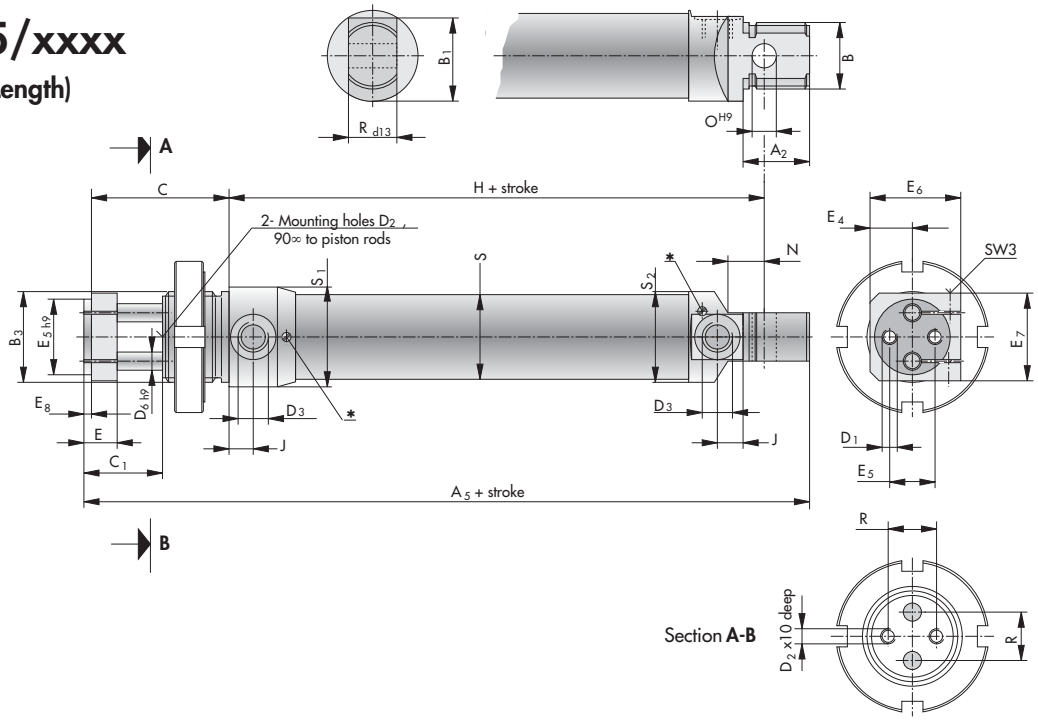
AZV 4D

Weight		Bore Ø 32mm *1	32mm *2	40mm 1	40mm 2	50mm 1	50mm 2	63mm 1	63mm 2	80mm 1	80mm 2	100mm 1	100mm 2
Basic Cylinder	**lbs**	**2.21**	**0.66**	**3.09**	**0.88**	**5.07**	**1.32**	**7.06**	**1.98**	**12.35**	**3.09**	**16.32**	**3.31**
	kg	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 A	**lbs**	**2.65**		**3.75**		**5.73**		**7.94**		**13.89**		**18.30**	
	kg	1.2		1.70		2.6		3.6		6.3		8.3	
Type EN	**lbs**	**3.09**		**4.63**		**7.06**		**9.92**		**16.54**		**22.05**	
	kg	1.4		2.1		3.2		4.5		7.5		10.0	

AZV Twin Rod Cylinder

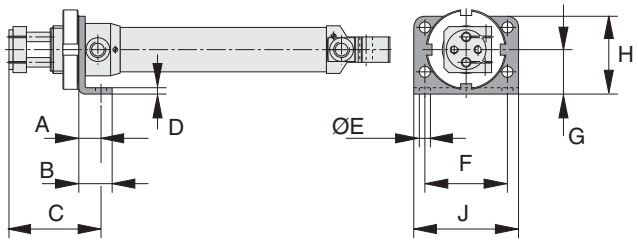
Dimensional Data

Basic Cylinder
RDV 5025/xxxx
(xxxx= Stroke Length)

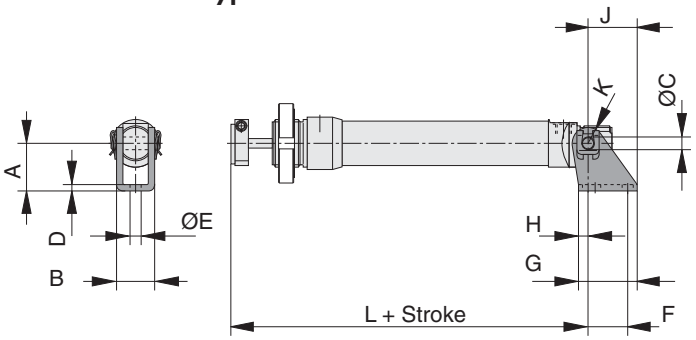


A2	A5+ stroke	B	B1	B3	C	D1	D3 h9	øD6	E	E4 h9	øE5	E6
0.87 22	**6.16** 156.5	- - M22 x 1.5	**1.1** 28	- - M30x1.5	**1.81** 46	- - M5	- - G1/8	**0.24** 6	**0.43** 11	**0.59** 15	**0.98** 25	**1.14** 29
E7	**E8**	**F3 stroke**	**H+**	**N H9**	**øO**	**øS**	**øS1**	**øS2 d13**	**R**	**SW**	*	
1.18 30	**0.08** 2	**0.31** 8	**3.76** 95.5	**0.47** 12	**0.31** 8	**1.1** 28	**1.3** 33	**1.18** 30	**0.63** 16	M3	M8x.75	

Foot Mount - Type RA



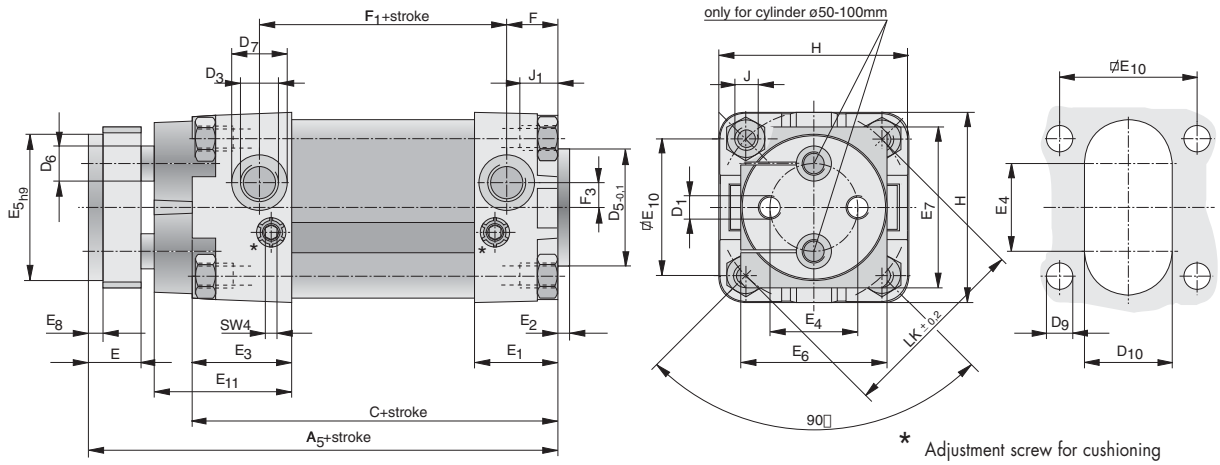
Rear Clevis - Type RB



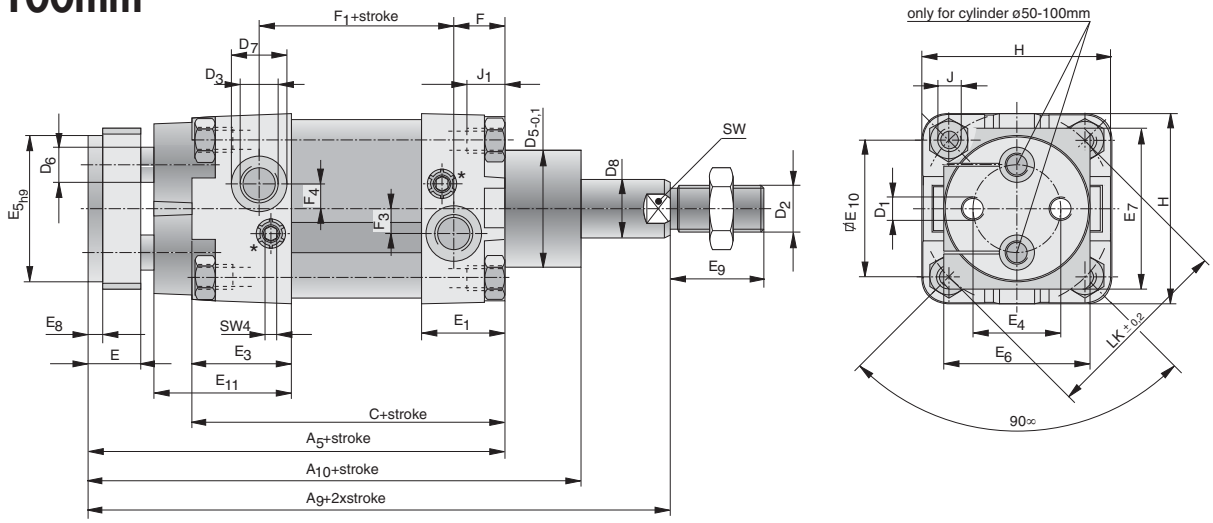
	A	B	C	D	E	F	G	H	J	K	L+
RA	**.55** 14	**.83** 21	**2.20** 56	**0.16** 4	**0.26** 6.6	**2.05** 52	**1.10** 28	**1.93** 49	**2.60** 66		
RB	**1.18** 30	**0.63** 16.1	**0.31** 8	**0.16** 4	**0.26** 6.6	**0.98** 25	**1.46** 37	**0.24** 6	**1.14** 29	**0.39** 10	**5.65** 143.5

Dimensions: Bold Type= INCH, Standard= mm

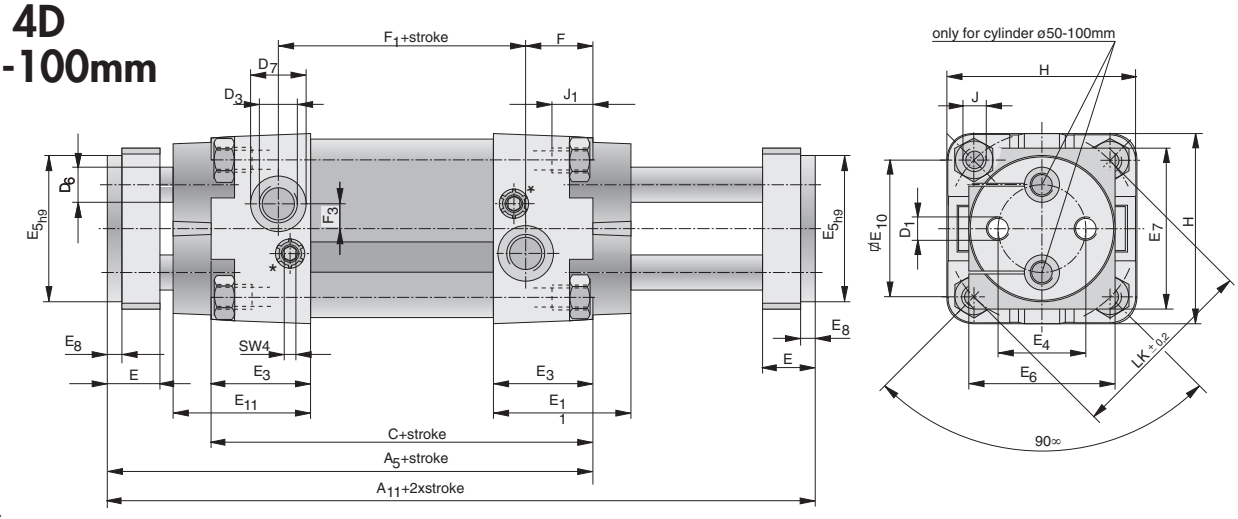
AZV
Ø32-100mm



AZV 3D
Ø32-100mm



AZV 4D
Ø32-100mm



AZV Twin Rod Cylinder

Dimensional Data

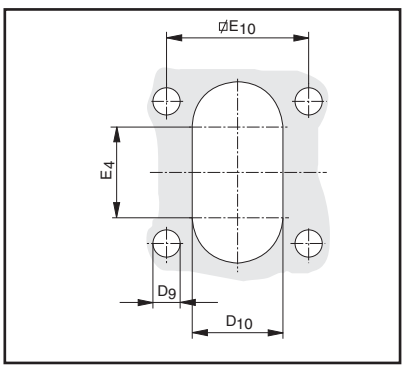
Bore Ø	A_5+ Stroke	A_9+ Stroke	A_{10}+ Stroke	A_{11}+ Stroke	C+ Stroke	D_1	D_2	D_3	ØD_5	ØD_6	ØD_7
32	**5.04** 128	**6.06** 154	**5.75** 146	**6.06** 154	**4.02** 102	**1/4•20** M 6	**3/8 •24** M10x1.25	**1/8 NPT** G 1/8	**1.18** 30	**0.31** 8	**0.59** 15
40	**5.59** 142	**6.77** 172	**6.42** 163	**6.77** 172	**4.41** 112	**5/16•18** M 8	**7/16 •20** M12x1.25	**1/4 NPT** G 1/4	**1.38** 35	**0.39** 10	**0.75** 19
50	**5.94** 151	**7.40** 188	**6.97** 177	**7.28** 185	**4.61** 117	**5/16•18** M 8	**5/8 •18** M16x1.5	**1/4 NPT** G 1/4	**1.57** 40	**0.47** 12	**0.75** 19
63	**6.34** 161	**7.80** 198	**7.36** 187	**7.76** 197	**4.92** 125	**3/8•16** M 10	**5/8 •18** M16x1.5	**3/8 NPT** G 3/8	**1.77** 45	**0.63** 16	**0.91** 23
80	**6.85** 174	**8.66** 220	**8.11** 206	**8.35** 212	**5.35** 136	**1/2•13** M 12	**3/4•16** M20x1.5	**3/8 NPT** G 3/8	**1.77** 45	**0.79** 20	**0.91** 23
100	**7.13** 181	**9.13** 232	**8.58** 218	**8.62** 219	**5.63** 143	**1/2•13** M 12	**3/4•16** M20x1.5	**1/2 NPT** G 1/2	**2.17** 55	**0.79** 20	**1.1** 28

Bore Ø	D_8	D_{10}	E	E_1	E_2	E_3	ØE_4	$E_{5\ h9}$	E_6	E_7	E_8
32	**0.47** 12	**0.91** 23	**0.59** 15	**1.14** 29	**0.20** 5	**1.02** 26	**0.75** 19	**1.26** 32	**1.26** 32	**1.57** 40	**0.16** 4
40	**0.63** 16	**0.98** 25	**0.59** 15	**1.06** 27	**0.20** 5	**1.18** 30	**0.89** 22.5	**1.57** 40	**1.57** 40	**1.77** 45	**0.16** 4
50	**0.79** 20	**1.18** 30	**0.71** 18	**1.14** 29	**0.26** 6.5	**1.34** 34	**1.18** 30	**1.97** 50	**1.97** 50	**2.17** 55	**0.2** 5
63	**0.79** 20	**1.34** 34	**0.87** 22	**1.18** 30	**0.24** 6	**1.34** 34	**1.5** 38	**2.48** 63	**2.48** 63	**2.76** 70	**0.2** 5
80	**0.98** 25	**1.5** 38	**0.87** 22	**1.34** 34	**0.32** 8	**1.54** 39	**1.97** 50	**3.15** 80	**3.15** 80	**3.74** 95	**0.2** 5
100	**0.98** 25	**1.5** 38	**0.87** 22	**1.38** 35	**0.32** 8	**1.57** 40	**2.76** 70	**3.94** 100	**3.94** 100	**4.53** 115	**0.2** 5

Bore Ø	E_{11}	F	F_1+ Stroke	F_2+ Stroke	F_3	F_4	J	J_1max	H	ØLK	SW
32	**1.34** 34	**0.57** 14.5	**2.91** 74	**2.95** 75	**0.24** 6	**0.22** 5.5	**1/4•20** M 6	**0.43** 11	**1.85** 47	**1.81** 46	10
40	**1.65** 42	**0.63** 16	**3.05** 77.5	**2.95** 75	**0.28** 7	**0.26** 6.5	**1/4•20** M 6	**0.43** 11	**2.09** 53	**2.13** 54	14
50	**1.85** 47	**0.69** 17.5	**3.03** 77	**2.83** 72	**0.37** 9.5	**0.33** 8.5	**5/16•18** M 8	**0.47** 12	**2.56** 65	**2.6** 66	17
63	**1.77** 45	**0.69** 17.5	**3.43** 87	**3.27** 83	**0.39** 10	**0.31** 8	**5/16•18** M 8	**0.47** 12	**2.95** 75	**3.15** 80	17
80	**2.05** 52	**0.81** 20.5	**3.54** 90	**3.35** 85	**0.35** 9	**0.35** 9	**3/8•16** M 10	**0.63** 16	**3.74** 95	**4.02** 102	22
100	**2.09** 53	**0.75** 19	**3.94** 100	**3.74** 95	**0.51** 13	**0.51** 13	**3/8•16** M 10	**0.63** 16	**4.53** 115	**4.96** 126	22

Tolerance Chart-

Bore Ø	h_9 Inch	mm
32	**0** **-0.002**	0 -0.062
40	**0** **-0.002**	0 -0.062
50	**0** **-0.003**	0 -0.074
63	**0** **-0.003**	0 -0.074
80	**0** **-0.003**	0 -0.087
100	**0** **-0.003**	0 -0.087



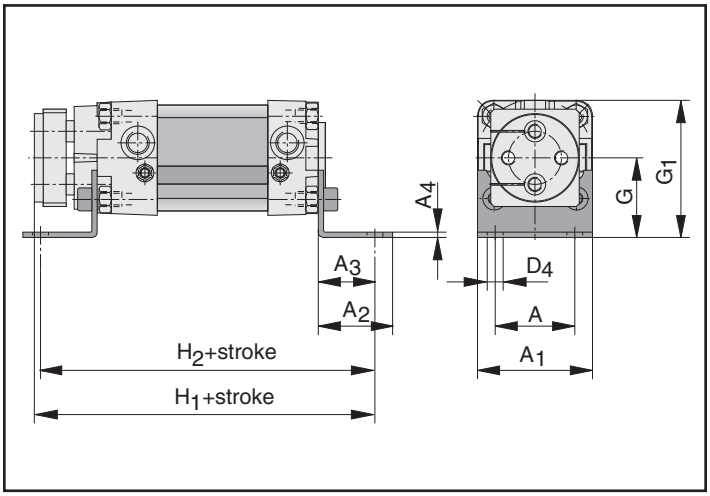
Dimensions for Front Mounted Installations

Bore Ø	D_9	D_{10}	E_4	E_{10}
32	**0.28** 7	**0.91** 23	**0.75** 19	**1.28** 32.5
40	**0.28** 7	**0.98** 25	**0.89** 22.5	**1.52** 38.5
50	**0.35** 9	**1.18** 30	**1.18** 30	**1.83** 46.6
63	**0.35** 9	**1.34** 34	**1.50** 38	**2.23** 56.6
80	**0.39** 10	**1.50** 38	**1.97** 50	**2.84** 72.1
100	**0.39** 10	**1.50** 38	**2.76** 70	**3.50** 89

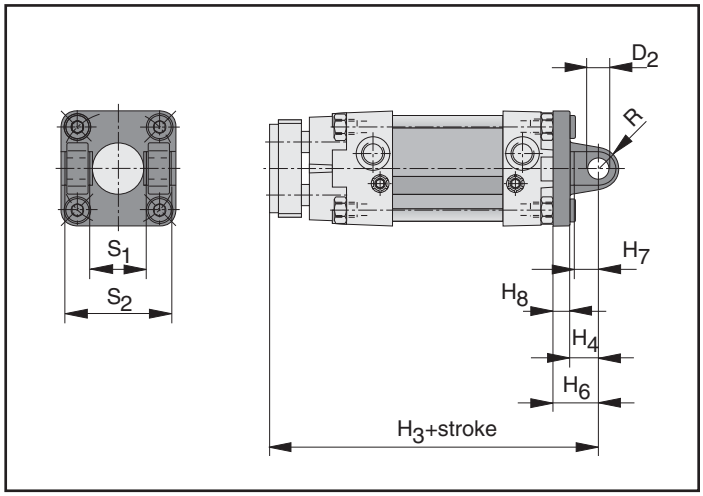
AZV Twin Rod Cylinder

Cylinder Mounts

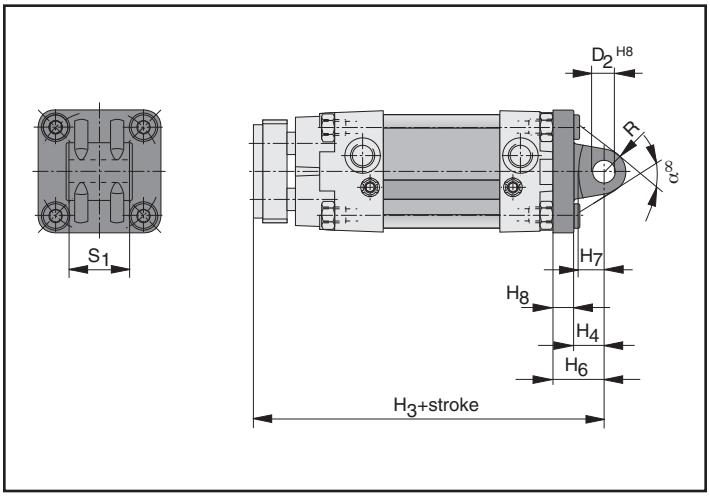
Foot Bracket - Type A



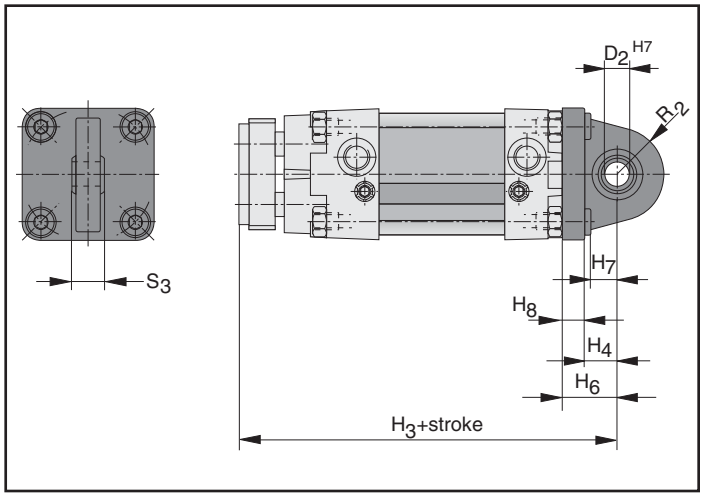
Rear Double Clevis - Type B



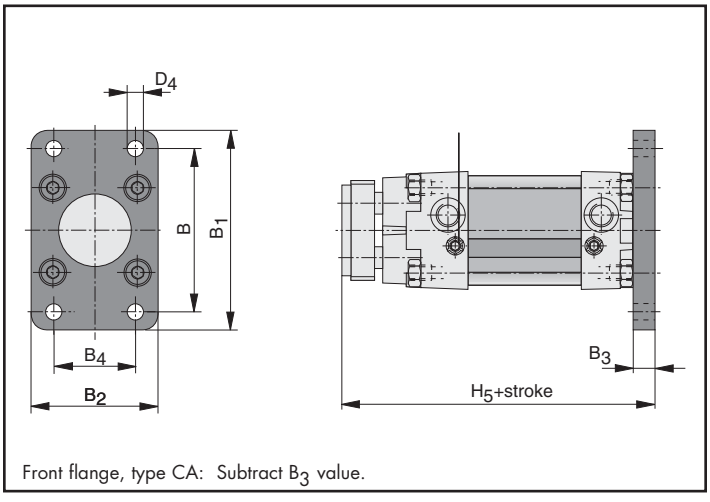
Rear Single Clevis - Type BA



Rear Single Clevis with Spherical Bearing - Type BAS

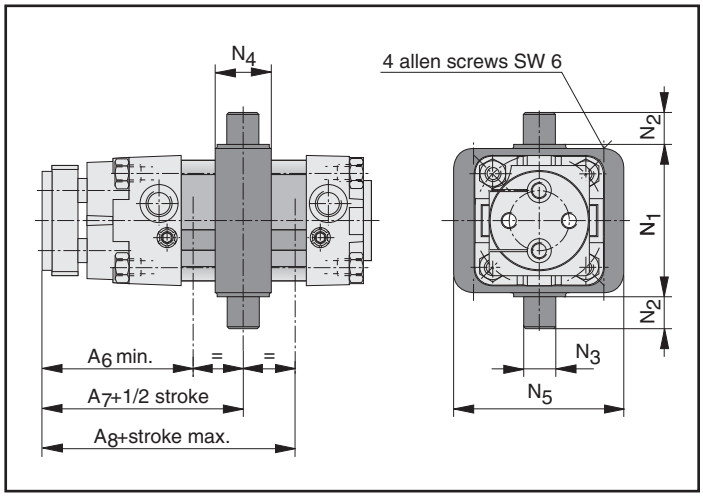


Rear Flange - Type D



Front flange, type CA: Subtract B_3 value.

Adjustable Trunnion - Type EN



AZV Twin Rod Cylinder

Cylinder Mounts

Bore Ø	A	A_1	A_2	A_3	A_4	A_6min	A_7+ 1/2 Stroke	A_8max + Stroke	α°	B	B_1	B_2
32	**1.26**	**1.85**	**1.26**	**0.94**	**0.12**	**2.52**	**2.99**	**3.43**	**2.36**	**2.52**	**3.11**	**1.97**
	32	47	32	24	3	64	76	87	60	64	79	50
40	**1.42**	**2.09**	**1.5**	**1.1**	**0.12**	**2.95**	**3.43**	**3.9**	**2.36**	**2.83**	**3.54**	**2.20**
	36	53	38	28	3	75	87	99	60	72	90	56
50	**1.77**	**2.56**	**1.65**	**1.26**	**0.12**	**3.31**	**3.74**	**4.17**	**2.76**	**3.54**	**4.33**	**2.76**
	45	65	42	32	3	84	95	106	70	90	110	70
63	**1.97**	**2.95**	**1.65**	**1.26**	**0.12**	**3.5**	**3.98**	**4.41**	**2.36**	**3.94**	**4.72**	**3.03**
	50	75	42	32	3	89	101	112	60	100	120	77
80	**2.48**	**3.74**	**2.17**	**1.61**	**0.16**	**3.78**	**4.29**	**4.76**	**2.76**	**4.96**	**6.02**	**3.94**
	63	95	55	41	4	96	109	121	70	126	153	100
100	**2.95**	**4.53**	**2.2**	**1.61**	**0.16**	**3.9**	**4.41**	**4.92**	**2.76**	**5.91**	**7.01**	**4.72**
	75	115	56	41	4	99	112	125	70	150	178	120

Bore Ø	B_3	B_4	$ØD_2$	$ØD_4$	G	G_1	H_1+ Stroke	H_2+ Stroke	H_3+ Stroke	H_4	H_5+ Stroke	H_6
32	**0.39**	**1.26**	**0.39**	**0.28**	**1.26**	**2.19**	**5.98**	**5.91**	**5.91**	**0.47**	**5.43**	**0.87**
	10	32	10	7	32	55.5	152	150	150	12	138	22
40	**0.39**	**1.42**	**0.47**	**0.35**	**1.42**	**2.46**	**6.69**	**6.61**	**6.57**	**0.59**	**5.98**	**0.98**
	10	36	12	9	36	62.5	170	168	167	15	152	25
50	**0.47**	**1.77**	**0.47**	**0.35**	**1.77**	**3.05**	**7.2**	**7.13**	**7.01**	**0.63**	**6.42**	**1.06**
	12	45	12	9	45	77.5	183	181	178	16	163	27
63	**0.47**	**1.97**	**0.63**	**0.35**	**1.97**	**3.44**	**7.6**	**7.44**	**7.6**	**0.83**	**6.81**	**1.26**
	12	50	16	9	50	87.5	193	189	193	21	173	32
80	**0.63**	**2.48**	**0.63**	**0.47**	**2.48**	**4.35**	**8.46**	**8.58**	**8.27**	**0.83**	**7.48**	**1.42**
	16	63	16	12	63	110.5	215	218	210	21	190	36
100	**0.63**	**2.95**	**0.79**	**0.55**	**2.8**	**5.06**	**8.74**	**8.86**	**8.74**	**0.98**	**7.76**	**1.61**
	16	75	20	14	71	128.5	222	225	222	25	197	41

Bore Ø	H_7	H_8	N_1	N_2	$N_{3\ e9}$	N_4	N_5	R	R_2	S_1	S_2	S_3	T+ Stroke
32	**0.43**	**0.39**	**1.97**	**0.47**	**0.47**	**0.99**	**2.56**	**0.41**	**0.71**	**1.02**	**1.77**	**0.55**	**0.63**
	11	10	50	12	12	25	65	10.5	18	26	45	14	16
40	**0.55**	**0.39**	**2.48**	**0.63**	**0.63**	**1.18**	**2.76**	**0.51**	**0.83**	**1.1**	**2.05**	**0.63**	**0.79**
	14	10	63	16	16	30	70	13	21	28	52	16	20
50	**0.59**	**0.43**	**2.95**	**0.63**	**0.63**	**1.18**	**3.54**	**0.51**	**0.91**	**1.26**	**2.36**	**0.63**	**0.98**
	15	11	75	16	16	30	90	13	23	32	60	16	25
63	**0.79**	**0.43**	**3.54**	**0.79**	**0.79**	**1.57**	**3.94**	**0.67**	**1.06**	**1.57**	**2.76**	**0.83**	**0.98**
	20	11	90	20	20	40	100	17	27	40	70	21	25
80	**0.83**	**0.59**	**4.33**	**0.79**	**0.79**	**1.77**	**5.51**	**0.67**	**1.14**	**1.97**	**3.54**	**0.83**	**1.18**
	21	15	110	20	20	45	140	17	29	50	90	21	30
100	**0.94**	**0.63**	**5.2**	**0.98**	**0.98**	**1.97**	**5.94**	**0.83**	**1.34**	**2.36**	**4.33**	**0.98**	**1.38**
	24	16	132	25	25	50	151	21	34	60	110	25	35

Tolerance Chart-

Bore	e9		H_7		H_8	
Ø	Inch	mm	Inch	mm	Inch	mm
32	**-0.001**	-0.032	**+0.001**	+0.018	**+0.001**	+0.027
	-0.003	-0.075	**0**	0	**0**	0
40	**-0.001**	-0.032	**+0.001**	+0.018	**+0.001**	+0.027
	-0.003	-0.075	**0**	0	**0**	0
50	**-0.001**	-0.032	**+0.001**	+0.018	**+0.001**	+0.027
	-0.003	-0.075	**0**	0	**0**	0
63	**-0.002**	-0.040	**+0.001**	+0.018	**+0.001**	+0.027
	-0.004	-0.092	**0**	0	**0**	0
80	**-0.002**	-0.040	**+0.001**	+0.018	**+0.001**	+0.027
	-0.004	-0.092	**0**	0	**0**	0
100	**-0.002**	-0.040	**+0.001**	+0.021	**+0.001**	+0.033
	-0.004	-0.092	**0**	0	**0**	0

Dimensions: Bold Type: INCH, Standard: mm

DZB Blocking Cylinder

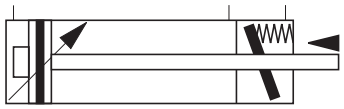
Specifications

Features								
Type	Blocking Cylinder							
Series	DZB							
Configurations	DZB Double Acting, Retract Lock, Magnetic Piston, Cushions Rear DZBA Double Acting, Extend Lock, Magnetic Piston, Cushions Rear							
Construction Materials								
Barrel	Aluminum, Anodized (10µ)							
Front End Cap	Machined Aluminum, Anodized (10µ)							
Rear End Cap	Die-Cast Aluminum							
Piston Rod	Case Hardened Steel, Hard Chrome Plated							
Rod Bearing	Teflon Impregnated Brass							
Piston	Molded NBR, (Optional: Viton)							
Seals	NBR (Optional: Viton)							
Tie Rod Nuts	Steel, Zinc Plated							
Tie Rods	Steel, Zinc Plated							
Characteristics								
Operating Temperature	NBR: -5°F (-20°C) to +176°F (+80°C)							
Operating Pressure	30 PSI (2 bar) to 120 PSI (8 bar)							
Normal Operating Pressure	90 PSI (6 bar)							
Lock Release Pressure	≥ 60 PSI (4 Bar)							
Lubrication	Pre-lubricated at factory. If additional lubrication is required use oil compatible with NBR seals and designed for use in pneumatic systems.							
Media	Filtered and Regulated Compressed Air							
Installation	In any Position							
Weight	See Page 48							
Stroke Length	Up to 20 inches–Longer Lengths Contact Factory							
Theoretical Forces	See Technical Information Section							
Load Holding Capacity	Equal to the Potential Thrust in Direction of Lock							
Specifications								
Piston Diameter		32	40	50	63	80	100	125
Port Sizes	Metric (G)	1/8	1/4	1/4	3/8	1/2	1/2	1/2
Control Port	Metric (G)	M5	1/8	1/8	1/4	1/4	1/4	1/4
Rod Diameter DZB	mm	12	16	20	20	25	25	32
Cushion Length (Rear Only)	mm	20	25	25	25	28	30	42

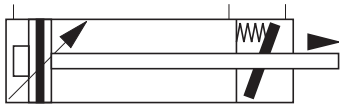
Series DZB & DZBA

Ø32mm - 125mm

DZB: Double Acting, Retract Lock, Magnets, Cushions



DZBA: Double Acting, Extend Lock, Magnets, Cushions



Features:

Retract Rod Lock Control
Extend Rod Lock Control
Magnetic Piston
Adjustable Rear Cushion
Pre-Lubricated Design
Inch or Metric Construction

DZB Blocking Cylinder

Ordering Information

Example:

DZBA 5050/20-V
Blocking Cylinder
Extended Lock
Double Acting, Magnets, Cushions
50mm Bore
20mm Stroke
Viton Seals

D Z B A - 5 0 5 0 / 2 0 - V

Versions:

DZB — Retract Lock Control
DZBA — Extend Lock Control

Actuation:

5 – Double Acting, Magnets, Rear Cushions

Options:

— – Standard
V – Viton
EN – Trunnion

Stroke:

MM: (standard)

- any mm increment up to 500mm standard
- contact factory for special stroke lengths

Bore:

032 – 32mm (nom. 1-1/4")
040 – 40mm (nom. 1-1/2")
050 – 50mm (nom. 2")
063 – 63mm (nom. 2-1/2")
080 – 80mm (nom. 3-1/8")
100 – 100mm (nom. 4")
125 – 125mm (nom. 5")

Proximity Sensors/Brackets: See Page 73

Weights

Bore Ø		32mm *1	32mm *2	40mm *1	40mm *2	50mm *1	50mm *2	63mm *1	63mm *2	80mm *1	80mm *2	100mm *1	100mm *2	125mm *1	125mm *2
Basic Cylinder	**lbs.**	**2.34**	**0.14**	**3.20**	**0.31**	**5.40**	**0.37**	**8.16**	**0.41**	**13.23**	**0.64**	**20.95**	**0.77**	**26.24**	**0.72**
	kg	1.06	0.26	1.45	0.56	2.45	0.67	3.70	0.75	6.00	1.15	9.50	1.40	11.90	1.30
Mount Types:															
Type B	**lbs**	**2.56**		**3.42**		**5.51**		**8.60**		**14.11**		**22.27**		**29.11**	
	kg	1.16		1.55		2.50		3.90		6.40		10.10		13.20	
Type BA	**lbs**	**2.78**		**3.64**		**5.62**		**9.04**		**14.99**		**23.37**		**29.55**	
	kg	1.26		1.65		2.55		4.10		6.80		10.60		13.30	
Type BAS	**lbs**	**2.67**		**3.64**		**5.62**		**8.82**		**14.33**		**22.71**		**29.33**	
	kg	1.21		1.65		2.55		4.00		6.50		10.30		13.40	
Type D	**lbs**	**2.67**		**3.42**		**5.51**		**8.71**		**14.33**		**22.71**		**29.55**	
	kg	1.21		1.55		2.50		3.95		6.50		10.30		13.40	
Type EN	**lbs**	**3.22**		**4.74**		**7.17**		**11.03**		**17.20**		**26.68**		**33.52**	
	kg	1.46		2.15		3.25		5.00		7.80		12.10		15.20	

*1 = Weight for cylinder with **4"** (100 mm) stroke
*2 = Weight for every additional **4"** (100 mm) stroke length.

DZB Blocking Cylinder

Cylinder Accessories

Body Mounts	32mm	40mm	50mm	Bore Ø 63mm	80mm	100mm	125mm
Foot Mounting Type: A-	PD 27917	PD 27918	PD 28072	PD 28073	PD 28074	PD 28075	PD 22026
Rear Double Clevis Type: B-	PD 22704	PD 22705	PD 22706	PD 22707	PD 22708	PD 22709	PD 22034
Rear Single Clevis Type: BA-	PD 23412	PD 23413	PD 23414	PD 23415	PD 23416	PD 23417	PD 23418
Rear Clevis w/Spherical Bearing Type: BAS-	PD 23843	PD 23844	PD 23845	PD 23846	PD 23847	PD 23848	PD 23849
Front Flange Type: C	PD 23403	PD 23404	PD 23405	PD 23406	PD 23407	PD 23408	PD 23409
Rear Flange Type: D	PD 23403	PD 23404	PD 23405	PD 23406	PD 23407	PD 23408	PD 23409
Trunnion Type: EN	PD 24039	PD 24040	PD 24041	PD 24042	PD 24043	PD 24044	- -
Trunnion Blocks (Pair)	PD 23381	PD 23382	PD 23382	PD 23383	PD 23383	PD 23384	PD 23384
Pivot Mount (w/o Bolts)	PD 40844	PD 40845	PD 40846	PD 40847	PD 40848	PD 40849	

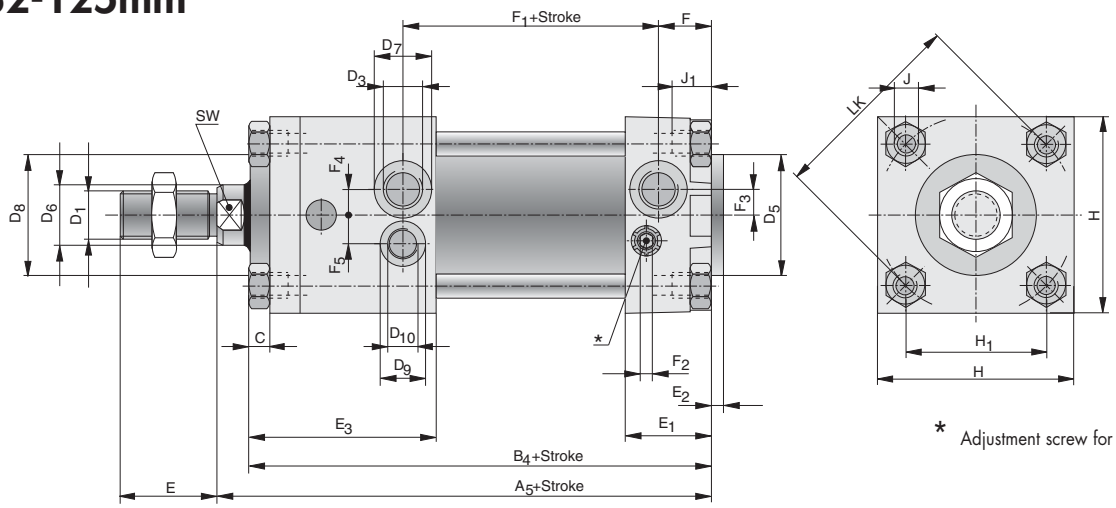
Delivery information: Mounts are sold separately and shipped detached from the cylinder with the exception of the Trunnion Mount which must be attached to the cylinder during the assembly process.

Rod Accessories	32mm	40mm	50mm	Bore Ø 63mm	80mm	100mm	125mm
Rod/Body Nut	ZP 1810	ZP 2189	ZP 0178	ZP 0178	ZP 0185	ZP 0185	ZP 2190 (M24x2) ZP 2039 (M27x2)
Rod Clevis	KY 6135	KY 6136	KY 6139	KY 6139	KY 6141	KY 6141	KY 6142 (M24x2) KY 6866 (M27x2)
Rod Eye w/Bearing	KY 6147	KY 6148	KY 6150	KY 6150	KY 6151	KY 6151	KY 6152 (M24x2) KY 6862 ((M27x2)
Clevis Pin	KY 6153	KY 6154	KY 6157	KY 6156	KY 6158	KY 6159	PD 22598
Rod Alignment Coupling	KY 1129	KY 1131	KY 1133	KY 1133	KY 1134	KY 1134	- -

DZB Blocking Cylinder

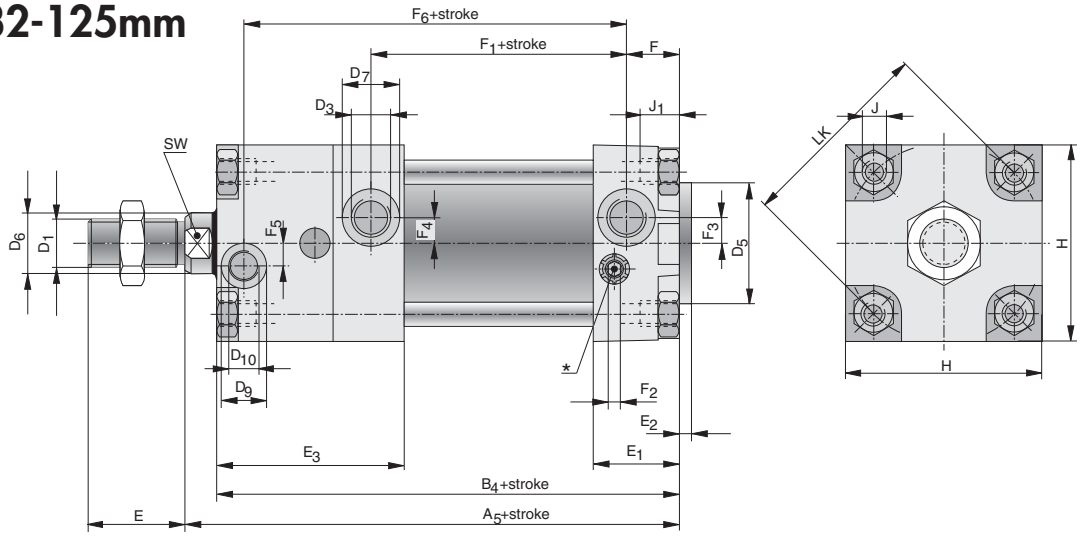
Dimensional Data

DZB
Ø32-125mm



* Adjustment screw for cushioning, rear only

DZBA
Ø32-125mm



NOTE:

D3	Cylinder Port
D10	Lock Control Port

DZB Blocking Cylinder

Dimensional Data

Bore Ø		A_5+	B_4+ Stroke	C Stroke	D_1	D_3	Ø D_5	Ø D_6	Ø D_7	Ø D_8
32	ISO**	**4.72**	**4.41**	**0.2**	**3/8•24**	**NPT 1/8**	**1.18**	**0.47**	**0.59**	**1.18**
		120	112	5	M 10x1.25	G1/8	30	12	15	30
40	ISO**	**5.31**	**4.96**	**0.24**	**1/2•20**	**NPT 1/4**	**1.38**	**0.63**	**0.75**	**1.38**
		135	126	6	M 12x1.25	G1/4	35	16	19	35
50	ISO**	**5.63**	**5.2**	**0.26**	**5/8•18**	**NPT 1/4**	**1.57**	**0.79**	**0.75**	**1.57**
		143	132	6.5	M 16x1.5	G1/4	40	20	19	40
63	*	**6.69**	**6.26**	**0.26**	**5/8•18**	**NPT 3/8**	**1.77**	**0.79**	**0.91**	**2.24**
		170	159	6.5	M 16x1.5	G3/8	45	20	23	57
80	*	**7.4**	**6.85**	**0.33**	**3/4•16**	**NPT 3/8**	**1.77**	**0.98**	**0.91**	**3.07**
		188	174	8.5	M 20x1.5	G3/8	45	25	23	78
100	*	**7.99**	**7.44**	**0.33**	**3/4•16**	**NPT 1/2**	**2.17**	**0.98**	**1.1**	**3.94**
		203	189	8.5	M 20x1.5	G1/2	55	25	28	100
125	ISO**	**10.04**	**8.23**	**0.59**	**1•14**	**NPT 1/2**	**2.36**	**1.26**	**1.1**	**4.76**
		255	209	15	M 27x2	G1/2	60	32	28	121
125	CETOP**	**10.04**	**8.23**	**0.59**			**2.36**	**1.26**	**1.1**	**4.76**
		255	209	15	M 24x2	G1/2	60	32	28	121

Bore Ø	Ø D_9	D_{10}	E	E_1	E_2	E_3	F	F_1+	F_2 Stroke	F_3
32	**0.31**	**10 • 32**	**0.79**	**1.14**	**0.16**	**1.81**	**0.55**	**2.36**		**0.22**
	8	M 5	20	29	4	46	14	60	SW 4	5.5
40	**0.59**	**NPT 1/8**	**0.94**	**1.06**	**0.16**	**2.22**	**0.63**	**2.5**		**0.28**
	15	G1/8	24	27	4	56.5	16	63.5	SW 4	7
50	**0.59**	**NPT 1/8**	**1.26**	**1.14**	**0.16**	**2.4**	**0.69**	**2.54**		**0.33**
	15	G1/8	32	29	4	61	17.5	64.5	SW 4	8.5
63	**0.75**	**NPT 1/4**	**1.26**	**1.18**	**0.16**	**3.19**	**0.67**	**2.87**		**0.31**
	19	G1/4	32	30	4	81	17	73	SW 4	8
80	**0.75**	**NPT 1/4**	**1.57**	**1.34**	**0.16**	**3.31**	**0.81**	**3.25**		**0.35**
	19	G1/4	40	34	4	84	20.5	82.5	SW 4	9
100	**0.75**	**NPT 1/4**	**1.57**	**1.38**	**0.16**	**3.64**	**0.75**	**3.66**		**0.51**
	19	G1/4	40	35	4	92.5	19	93	SW 4	13
125	**0.75**	**NPT 1/4**	**1.89**	**1.38**	**0.16**	**4.09**	**0.75**	**3.94**		**0.43**
	19	G1/4	48	40	4	104	19	100	-	11
125	**0.75**		**1.89**	**1.38**	**0.16**	**4.09**	**0.75**	**3.94**		**0.43**
	19	G1/4	48	40	4	104	19	100	-	11

Bore Ø	F_4	F_5	F_6	F_7	J	J_1	H max	H_1	LK Ø	SW
32	**0.24**	**0.28**	**3.70**	**0.28**	**1/4•20**	**0.43**	**1.85**	**1.28**	**1.81**	**0.39**
	6	7	94	7	M 6	11	47	32.5	46	10
40	**0.31**	**0.37**	**4.07**	**0.30**	**1/4•20**	**0.43**	**2.09**	**1.52**	**2.13**	**0.55**
	8	9.5	103.5	7.5	M 6	11	53	38.5	54	14
50	**0.31**	**0.37**	**4.21**	**0.30**	**5/16•18**	**0.47**	**2.56**	**1.83**	**2.6**	**0.67**
	8	9.5	107	7.5	M 8	12	65	46.6	66	17
63	**0.47**	**0.43**	**5.12**	**0.33**	**5/16•18**	**0.47**	**2.95**	**2.23**	**3.15**	**0.67**
	12	11	130	8.5	M 8	12	75	46.6	80	17
80	**0.49**	**0.59**	**5.65**	**0.35**	**3/8•16**	**0.63**	**3.74**	**2.84**	**4.02**	**0.87**
	12.5	15	143.5	9	M 10	16	95	72.1	102	22
100	**0.59**	**0.59**	**6.28**	**0.65**	**3/8•16**	**0.63**	**4.53**	**3.50**	**4.96**	**0.87**
	15	15	159.5	16.5	M 10	16	115	89	126	22
125	**0.59**	**0.59**	**7.05**	**1.10**	**1/2•13**	**0.71**	**5.51**	**4.33**	**6.14**	**1.06**
	15	15	179	28	M 12	18	140	110	156	27
125	**0.59**	**0.59**	**7.05**	**1.10**		**0.71**	**5.51**	**4.33**	**6.14**	**1.06**
	15	15	179	28	M 12	18	140	110	156	27

* Dimensions not according to ISO standards
** Dimensions B_4 & A_5 are ISO/CETOP

DZB Blocking Cylinder

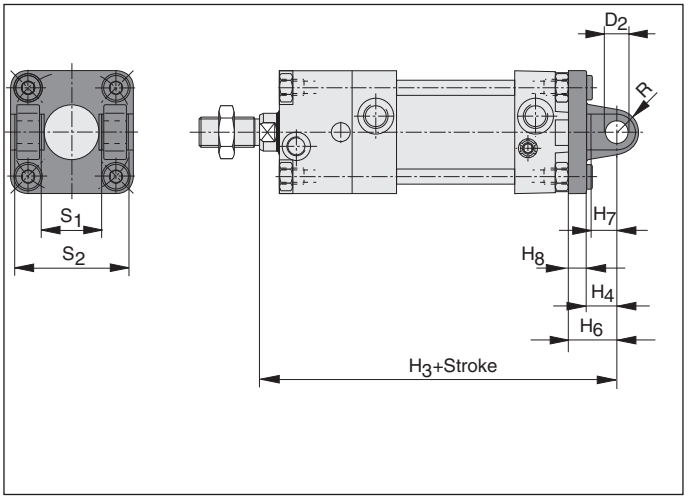
Cylinder Mounts

Foot Bracket- Type A

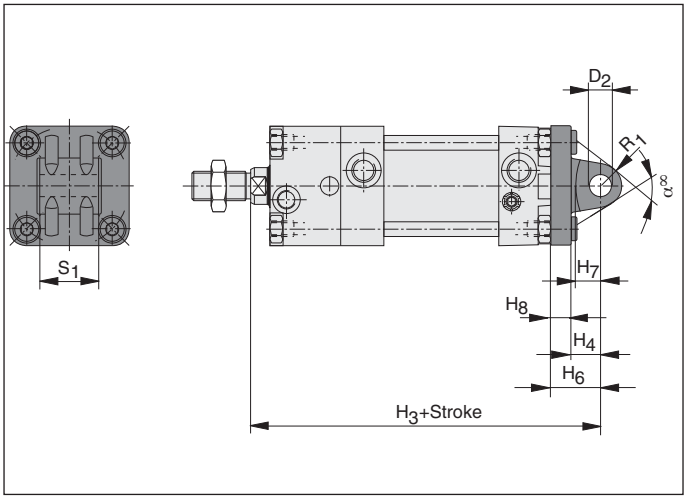
Contact the Factory
for Further Information

The standard "A" type foot brackets are available. There is the possibility of interference with the Piston Rod. A Rod Extension Option eliminates the problem.

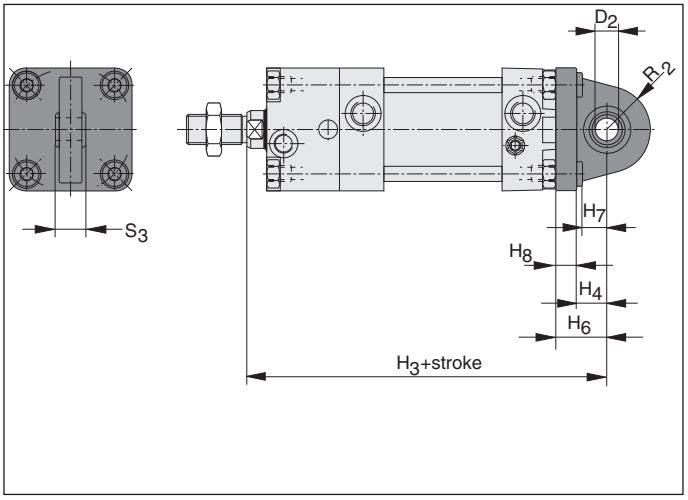
Rear Double- Clevis Type B



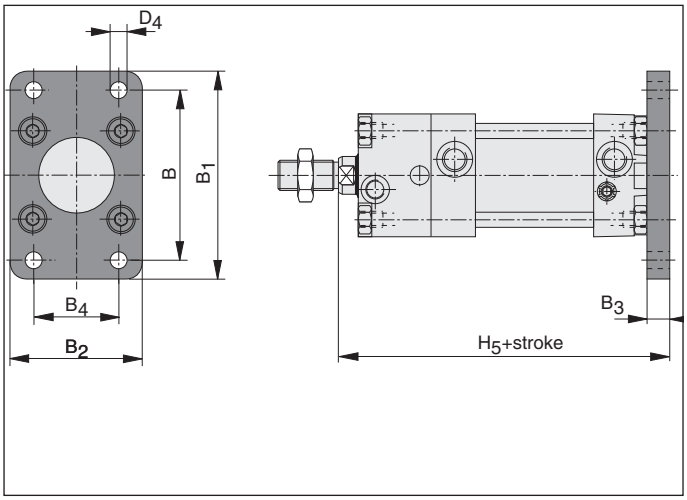
Rear Single Clevis- Type BA



Rear Single Clevis with Spherical Bearing- Type BAS

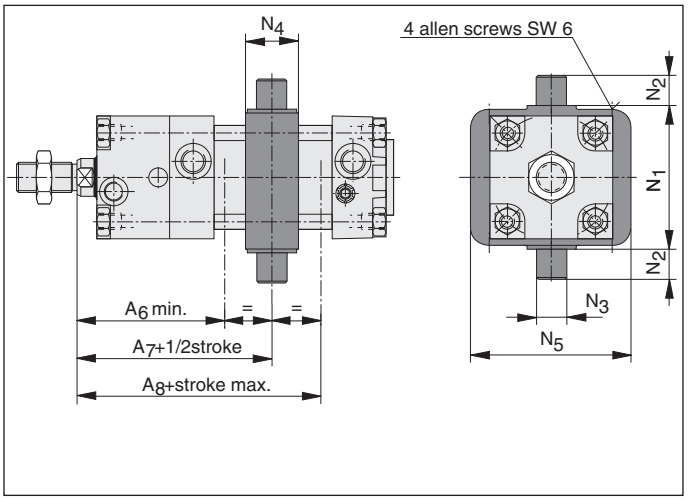


Rear Flange- Type D



Trunnion*- Type EN

*** Bore32 to 100 Adjustable**
Bore 125 Fixed



* Design: Allows mount to be adjusted between A_7 and A_8 for all units except the 125mm which requires the factory to set the position. When ordering, please supply the required mounting distance

DZB Blocking Cylinder

Cylinder Mounts

Bore Ø	A_6 min	A_7+ 1/2 Stroke	A_8 max Stroke	α°	B	B_1	B_2	B_3	B_4	D_2 H7**
32	**2.64**	**2.87**	**3.11**	**2.36**	**2.52**	**3.11**	**1.97**	**0.39**	**1.26**	**0.39**
	67	73	79	60	64	79	50	10	32	10*
40	**2.83**	**3.27**	**3.66**	**2.36**	**2.83**	**3.54**	**2.20**	**0.39**	**1.42**	**0.47**
	72	83	93	60	72	90	56	10	36	12*
50	**3.19**	**3.54**	**3.90**	**2.76**	**3.54**	**4.33**	**2.76**	**0.47**	**1.77**	**0.47**
	81	90	99	70	90	110	70	12	45	12*
63	**4.51**	**4.53**	**4.55**	**2.36**	**3.94**	**4.72**	**3.03**	**0.47**	**1.97**	**0.63**
	114.5	115	115.5	60	100	120	77	12	50	16
80	**4.80**	**4.96**	**5.12**	**2.76**	**4.96**	**6.02**	**3.94**	**0.63**	**2.48**	**0.63**
	122	126	130	70	126	153	100	16	63	16
100	**5.24**	**5.39**	**5.55**	**2.76**	**5.91**	**7.01**	**4.72**	**0.63**	**2.95**	**0.79**
	133	137	141	70	150	178	120	16	75	20
125	**5.51**	**5.98**	**6.46**	**2.36**	**7.09**	**8.66**	**5.51**	**0.79**	**3.54**	**0.98**
	140	152	164	60	180	220	140	20	90	25

Bore Ø	D_4	H_3+ Stroke	H_4	H_5+ Stroke	H_6	H_7	H_8	N_1	N_2
32	**0.28**	**5.59**	**0.47**	**5.12**	**0.87**	**0.43**	**0.39**	**1.97**	**0.47**
	7	142	12	130	22	11	10	50	12
40	**0.35**	**6.30**	**0.59**	**5.71**	**0.98**	**0.55**	**0.39**	**2.48**	**0.63**
	9	160	15	145	25	14	10	63	16
50	**0.35**	**6.69**	**0.63**	**6.10**	**1.06**	**0.59**	**0.43**	**2.95**	**0.63**
	9	170	16	155	27	15	11	75	16
63	**0.35**	**7.95**	**0.83**	**7.17**	**1.26**	**0.79**	**0.43**	**3.54**	**0.79**
	9	202	21	182	32	20	11	90	20
80	**0.47**	**8.82**	**0.83**	**8.03**	**1.42**	**0.79**	**0.59**	**4.33**	**0.79**
	12	224	21	204	36	20	15	110	20
100	**0.55**	**9.61**	**0.98**	**8.62**	**1.61**	**0.94**	**0.63**	**5.20**	**0.98**
	14	244	25	219	41	24	16	132	25
125	**0.63**	**10.83**	**1.18**	**9.65**	**1.97**	**1.14**	**0.79**	**6.30**	**0.98**
	16	275	30	245	50	29	20	160	25

Bore Ø	N_3 e9	N_4	N_5	R	R_1	R_2	S_1	S_2	S_3
32	**0.47**	**0.87**	**2.56**	**0.35**	**0.41**	**0.71**	**1.02**	**1.77**	**0.55**
	12	22	65	9	10.5	18	26	45	14
40	**0.63**	**1.10**	**2.95**	**0.43**	**0.51**	**0.83**	**1.10**	**2.05**	**0.63**
	16	28	75	11	13	21	28	52	16
50	**0.63**	**1.10**	**3.35**	**0.47**	**0.51**	**0.91**	**1.26**	**2.36**	**0.63**
	16	28	85	12	13	23	32	60	16
63	**0.79**	**1.38**	**3.94**	**0.59**	**0.67**	**1.06**	**1.57**	**2.76**	**0.83**
	20	35	100	15	17	27	40	70	21
80	**0.79**	**1.38**	**4.72**	**0.63**	**0.67**	**1.14**	**1.97**	**3.54**	**0.83**
	20	35	120	16	17	29	50	90	21
100	**0.98**	**1.57**	**5.31**	**0.79**	**0.83**	**1.34**	**1.97**	**4.33**	**0.98**
	25	40	135	20	21	34	50	110	25
125	**0.98**	**1.57**	**6.50**	**0.98**	**0.98**	**1.57**	**2.76**	**5.12**	**1.22**
	25	40	165	25	25	40	70	130	31

DZB Blocking Cylinder

Technical Information

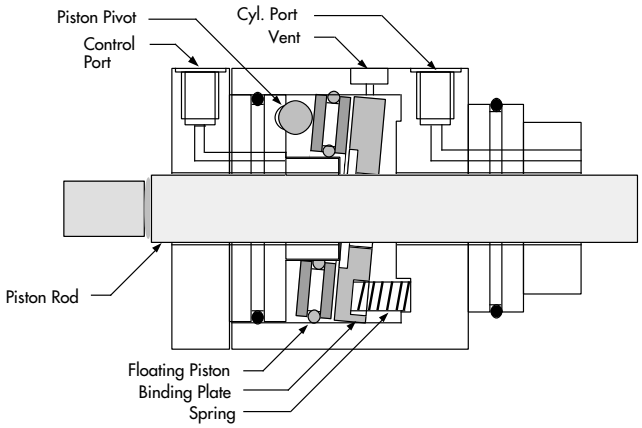
HOW A BLOCKING CYLINDER WORKS:

When pressure is supplied to the Control Port, the Floating Piston pivots on the ball positioning the Binding Plate perpendicular to the piston rod. This action releases the piston rod allowing the rod to move freely.

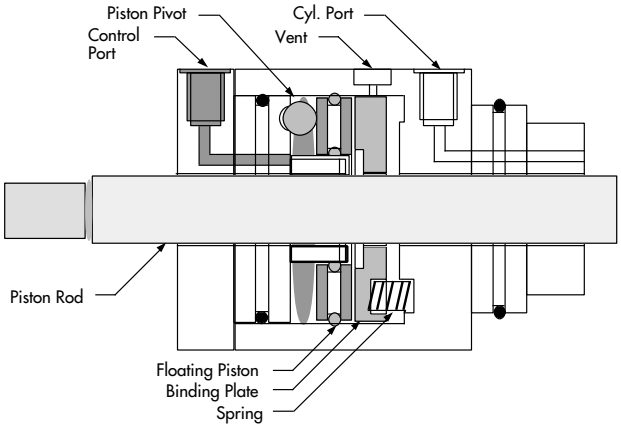
Caution:

1. The piston rod should not be allowed to rotate while in the locked position.
2. The Piston Rod should be stopped before operating the locking mechanism.

DZBA: Extend Lock Control Without Pressure to Control Port



DZBA: Extend Lock Control Pressurized Control Port



TYPICAL INSTALLATIONS

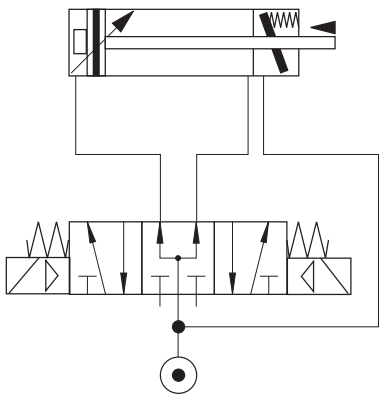
Example 1:

Compressed air from the main supply line is connected to both the valve and the control port of the cylinder. If the main supply pressure is lost, the control port releases the binding plate, locking the cylinder rod. The cylinder stays in this position until the main supply pressure returns to both the valve and the control port.

Example 2:

A 3-Way, Normally Open Valve independently supplies pressure to the control port. When the valve is energized the piston rod moves freely. De-energizing the valve locks the piston rod in position.

EXAMPLE: #1



EXAMPLE: #2