

PNEUMATIC CYLINDERS

As Per ISO CETOP RP43P VDMA / 24562
As Per ISO 6431 & CETOP RP43, RP - 53P





Features

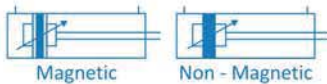
- » Type : Single Acting & Double Acting Cylinder / Double Ended / Magnetic & Non Magnetic
- » Bore : 12mm to 500mm
- » Stroke : Upto 2000mm
- » Barrel : Aluminium Hard Anodized, Stainless Steel, Steel Honed & Hard Chrome Plated
- » End Cover : Aluminium Pressure Die Cast / C.I.
- » Pressure : Upto 10 Bar
- » Temp. : Buna - N 80 °C / P.U. 100 °C / High Nitrile 120 °C / Viton 180 °C





Features

- ▶▶ Hard Anodized Aluminum profile (square) type cylinder barrel.
- ▶▶ Bore Size 32 to 125 mm.
- ▶▶ Adjustable cushioning at both ends with elastomer pads.
- ▶▶ Magnetic and Non-Magnetic cylinder.
- ▶▶ Wide range of mountings as per VDMA 24562 standards.
- ▶▶ Magnetic sensor common for all sizes.
- ▶▶ Modern design and consistent engineering.
- ▶▶ Double slots on 3 sides of cylinder position sensors.
- ▶▶ An extensive range of mounting accessories make it possible to install the solution virtually anywhere.
- ▶▶ Allen screws with internal thread for mounting components.
- ▶▶ Additional cushioning rings in the end-positions for absorbing residual energy from high speeds and fast machine cycles.



Technical Specifications

Bore Size (mm)	32	40	50	63	80	100	125
Cushion Stroke (mm)	21	23	23	23	28	28	40
Standard Stroke* (mm)	25, 50, 80, 100, 125, 160, 200, 250, 300, 350, 400, 450, 500 (Upto 2000)						
Media	Compressed Air - Filtered - Lubricated						
Working Pressure	0.5 ~ 10 Bar						
Temperature	-20 °C ~ 80 °C max. (For Viton 0 to 180 °C)						
Material of Construction	Aluminum, Brass, Nitrile, Steel, Acetal, Polyurethane, Viton						
Mounting & Accessories	Male Clevis Female Clevis Clevis Foot Bracket Rod End Fork	Foot Mounting Front Trunnion Wall Bracket Mounting Rod End Aligner	Front Flange Rear Trunnion Trunnion Bracket Rod End Spherical Eye	Rear Flange Adjustable Center Trunnion Mounting			

Output Force

(force in N : 1N = 0.1 kgf)

Bore dia in mm	Rod dia in mm	Action	Working Pressure in Bar								
			2	3	4	5	6	7	8	9	10
32	12	Extend	145	217	289	362	434	507	579	651	724
		Retract	124	187	249	311	373	435	498	559	621
40	16	Extend	226	339	452	565	678	792	905	1018	1130
		Retract	190	285	380	475	570	665	760	855	950
50	20	Extend	353	530	706	884	1060	1237	1414	1590	1767
		Retract	297	445	594	742	891	1039	1187	1336	1484
63	20	Extend	561	842	1122	1403	1683	1964	2244	2525	2805
		Retract	505	757	1009	1261	1514	1766	2018	2270	2523
80	25	Extend	905	1357	1809	2262	2714	3167	3619	4072	4524
		Retract	816	1225	1633	2041	2449	2857	3266	3674	4082
100	25	Extend	1414	2120	2828	3534	4241	4948	5655	6362	7069
		Retract	1325	1988	2650	3313	3976	4640	5300	5965	6625
125	32	Extend	2209	3313	4417	5522	6626	7731	8835	9940	11045
		Retract	2064	3096	4128	5160	6192	7224	8256	9288	10320

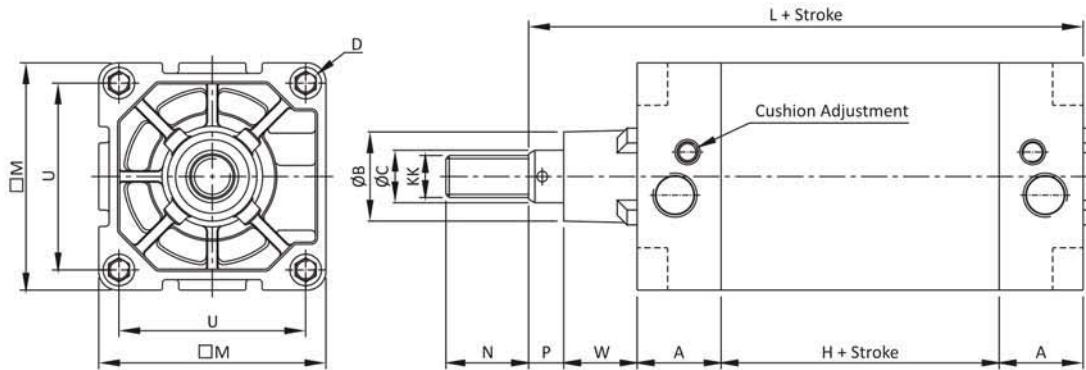
PNEUMATIC CYLINDERS

As per ISO 15552 & VDMA 24562 Std. Profile (Square Type)



Model : ANC
Series : S10

Basic Cylinder Dimensions For ANC



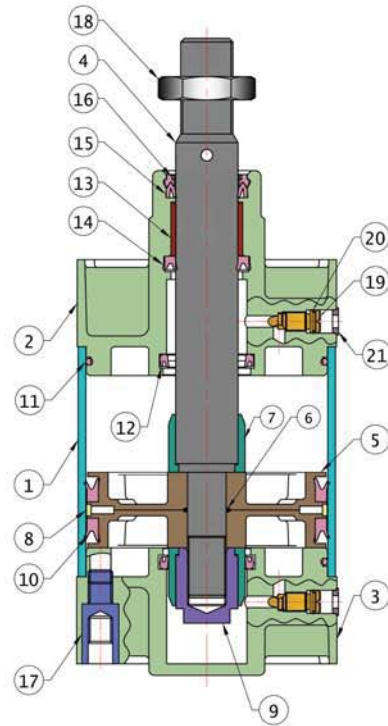
Bore die	KK	H	A	W	P	N	U	□M	ØB	ØC	L	D	K*	Port Size
32	M10X1.25P.	43	25.5	18.5	7.5	22	32.5	45	30	12	120	M6	40	G1/8"
40	M12X1.25P.	47	29	20.5	9.5	24	38	51	35	16	135	M6	63	G1/4"
50	M16X1.5P.	48	29	28	9	32	46.5	64	40	20	143	M8	98	G1/4"
63	M16X1.5P.	51	35	27.5	9.5	32	56.5	74	45	20	158	M8	165	G3/8"
80	M20X1.5P.	56	36	34	12	40	72	94	45	25	174	M10	220	G3/8"
100	M20X1.5P.	58	40	35	16	40	89	111	55	25	189	M10	360	G1/2"
125	M27X2P.	70	45	46	19	50	110	134	60	32	225	M12	613	G1/2"

*K = Psh Force at 5 Kg/cm²

Manufacturing Standard : ISO 15552

Testing Standard : ISO 10099

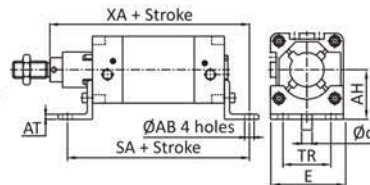
No.	Item Name	Material
1	Sq. Pipe	Aluminium Alloy HE9WP (6063-T6) (IS : 733)
2	Top Cover	Aluminium Alloy ALSi 132 (BS 1490)
3	Bottom Cover	Aluminium Alloy ALSi 132 (BS 1490)
4	Piston Rod	BS - 970-90, EN-8, (080M40)
5	Piston	Aluminium Alloy ALSi 132 (BS 1490)
6	O - Ring	Nitrile Buna - N Gr, 80
7	Delrin Collar	Delrin Acetal Copolymer
8	Delrin Ring	Delrin Acetal Copolymer
9	Piston Lock Nut	BS-970-90, EN-8, (080M40)
10	V - Seal For Piston	Hi - Nitrile
11	Diameter Ring	Nitrile Buna - N Gr, 80
12	Cushion Seal	Nitrile Buna - N Gr, 80
13	D. U. Bush	Brass / Gun Metal
14	Shaft V - Seal	Nitrile Buna - N Gr, 80
15	V - Seal (Nut Ring)	Nitrile Buna - N Gr, 80
16	Wiper Ring	P.U. Gr, 96
17	Allen Key	BS-970-90, EN-8, (080M40)
18	Nut For Shaft	BS-970-90, EN-8, (080M40)
19	Cushion Pin	Brass (CuZn39Pb3)
20	O - Ring For Cushion Pin	Nitrile Buna - N Gr, 80
21	Bush For Cushion Pin	Nylon Gr. 66



Note : Since, constant worldwide advancement in technology, We keep our rights reserved to make changes time to time in Technical Specification and Dimensions without prior notice.



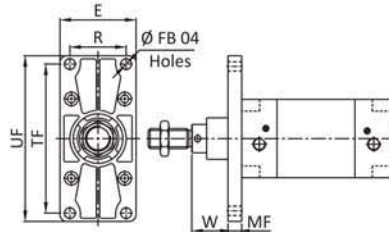
Foot Mounting (NCML) - L



Bore die	TR ±0.3	AB H13	AH Js15	AT	E	Ød*	SA	TOL	XA	Recommended Bolt Size
32	32	6.5	32	3	46	5.8	142	±1.25	144	M6
40	36	9	36	4	52	7.8	159		163	M8
50	45	9	45	6	65	7.8	170		175	M8
63	50	9	50	5	80	7.8	197		190	M8
80	63	12	63	5	95	9.8	210	±1.6	215	M10
100	75	14	71	7	126	11.8	220		230	M12
125	90	16	90	8	157	----	253		270	M12

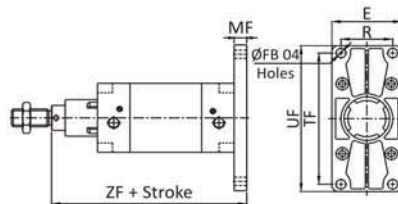
*Suitable for reaming

Front Trunnion Mounting (NCMT) - M



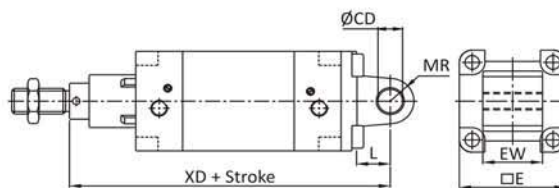
Bore die	TF ±0.3	R ±0.3	FB H13	MF	UF	E	W	TOL	Recommended Bolt Size
32	64	32	7	10	80	50	16	±1.25	M6
40	72	36	9	10	90	53	20		M8
50	90	45	9	12	110	64	25		M8
63	100	50	9	12	125	80	25		M8
80	126	63	12	16	155	95	30	±1.5	M10
100	150	75	14	16	185	120	35		M12
125	180	90	16	20	224	134	45		M12

Rear Flange Mounting (NCRM) - R



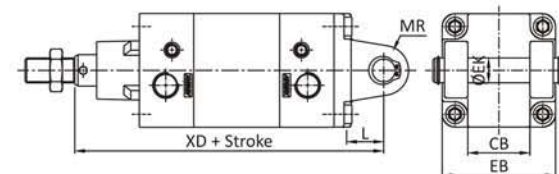
Bore die	TF ±0.3	R ±0.3	FB H13	MF	UF	E	ZF	TOL	Recommended Bolt Size
32	64	32	7	10	80	50	130	±1.25	M6
40	72	36	9	10	90	53	145		M8
50	90	45	9	12	110	64	155		M8
63	100	50	9	12	125	80	170		M8
80	126	63	12	16	155	95	190	±1.5	M10
100	150	75	14	16	185	120	205		M12
125	180	90	16	20	224	134	245		M12

Male Clevis Mounting (NCMS) - S



Bore die	CD H9	EW ±0.2 ±0.6	L	MR	E max.	XD	TOL
32	10	26	12	11	45	142	±1.25
40	12	25.5	15	13	51	160	
50	12	31.5	15	13	64	170	
63	16	38	20	17	74	190	
80	16	48.5	20	17	94	210	±1.5
100	20	59	25	21	111	230	
125	25	70	30	26	135	275	

Female Clevis Mounting (NCMD) - D



Bore die	EK e8	CB H14	L	MR	EB max.	XD	TOL
32	10	26	12	11	56	142	±1.25
40	12	28	15	13	65	160	
50	12	32	15	13	73	170	
63	16	40	20	17	86	190	
80	16	50	20	17	106	210	±1.5
100	20	60	25	21	129	230	
125	25	70	30	26	157	275	

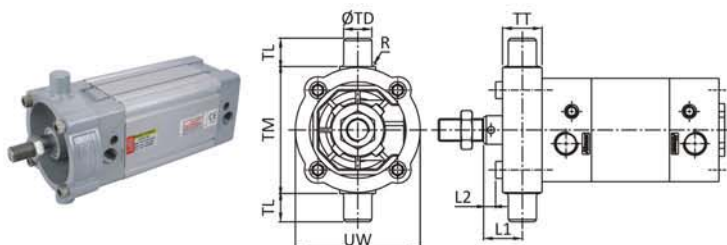
PNEUMATIC CYLINDERS

As per ISO 15552 & VDMA 24562 Std. Profile (Square Type)



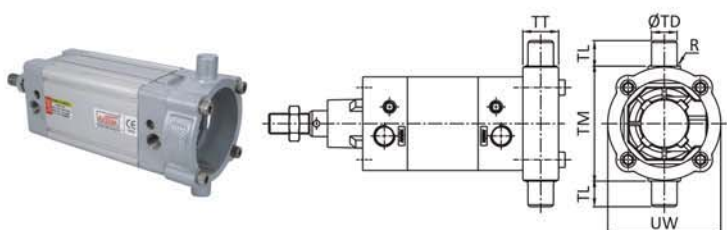
Model : ANC
Series : S10

Front Trunnion Mounting (NCMT) - M



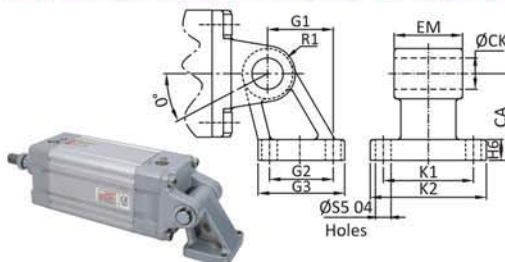
Bore die	ØTD e9	TL h14	TM h14	UW	TT	R	L1	TOL	L2 Appr.
32	12	12	50	50	16	1	18		2
40	16	16	63	55	22	1.5	19	±1.5	0
50	16	16	75	75	24	1.6	25		3
63	20	20	90	86	28	1.6	23		-1
80	20	20	110	110	32	1.6	30	±1.8	1.8
100	25	25	132	135	40	2	31		-1.2
125	25	25	160	131	50	2	40	±2.0	---

Front Trunnion Mounting (NCMT) - M



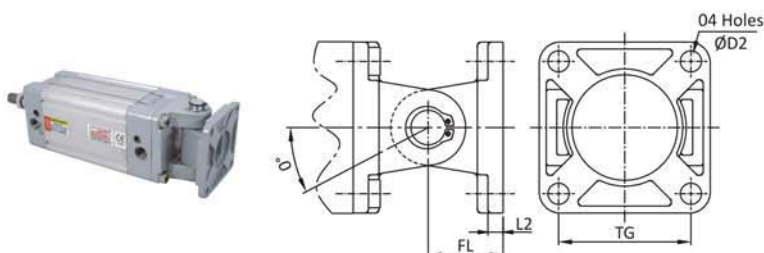
Bore die	TD e9	TL h14	TM h14	UW	TT	R	L3	TOL	L4 Appr.
32	12	12	50	50	16	1	128		16
40	16	16	63	55	22	1.5	146	±1.5	19
50	16	16	75	75	24	1.6	155		22
63	20	20	90	86	28	1.6	172		24
80	20	20	110	110	32	1.6	190	±1.8	29
100	25	25	132	135	40	2	209		33
125	25	25	160	131	50	2	250	±2.0	33

Swivel Flange Clevis Foot Bracket Mounting (NCAV) - DC



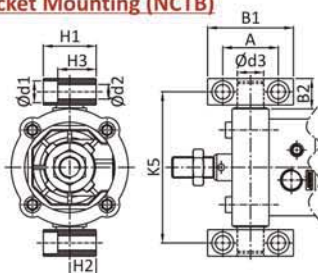
Bore die	K1 Js14	G2 Js14	S5 H13	CA Js15	CK H9	EM -0.2 -0.6	G1 Js14	H6	R1 max.	K2	G3	Recommended Bolt Size
32	38	18	6.6	32	10	26	21	8	10	51	31	M6
40	41	22	6.6	36	12	28	24	10	11	54	35	M6
50	50	30	9	45	12	32	33	12	13	65	45	M8
63	52	35	9	50	16	40	37	12	15	67	50	M8
80	66	40	11	63	16	49	47	14	15	86	60	M10
100	76	50	11	71	20	59	55	15	19	96	70	M10
125	94	60	14	90	30	70	70	20	22.5	124	90	M12

Wall Bracket Mounting (NCAW) - DS



Bore die	TG	D2	L2	FL	0°	Recommended Bolt Size
32	32.5	6.6	5.5	22	90	M6
40	38	6.6	5.5	25	90	M6
50	46.5	9	6.5	27	90	M8
63	56.5	9	6.5	32	90	M8
80	72	11	10	36	60	M10
100	89	11	10	41	60	M10
125	110	14	10	50	60	M12

Trunnion Bracket Mounting (NCTB)

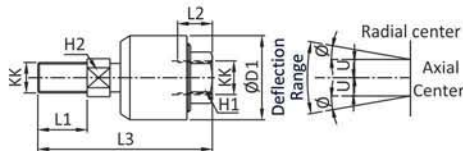


Bore die	B1	B2	A ±0.2	d1	d2 H13	d3 H9	H1	H2 ±0.2	H3	K5 Js14
32	46	18	32	11	6.6	12	30	15	23	71
40	55	21	36	15	9	16	36	18	27	87
50	55	21	36	15	9	16	36	18	27	99
63	65	23	42	16.5	11	20	40	20	29	116
80	65	23	42	16.5	11	20	40	20	29	136
100	75	28.5	50	20	14	25	50	25	37	164
125	75	28.5	50	20	14	25	50	25	37	192

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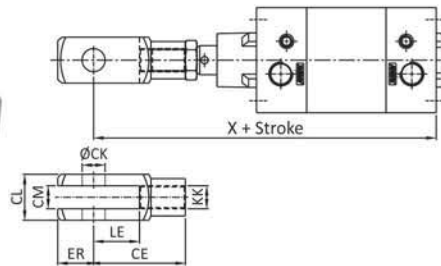


Rod End Alinger Mounting (NCRA)



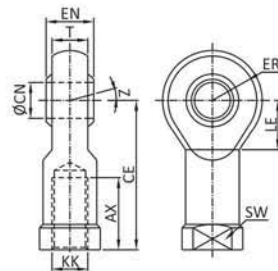
Bore die	KK	L1	L2	L3	H1	H2	ØD1	U	±Ø°
32	M10X1.25P	20	14	65	17	8	28	0.75	5
40	M12X1.25P	22	18	75	19	10	32	1	5
50 / 63	M16X1.50P	25	22	91	27	13	41	1	5
80 / 100	M20X1.50P	30	28	112	32	16	50	1.5	5
125	M27X2.00P	ON REQUEST							

Rod End Fork Mounting (NCAF) - A



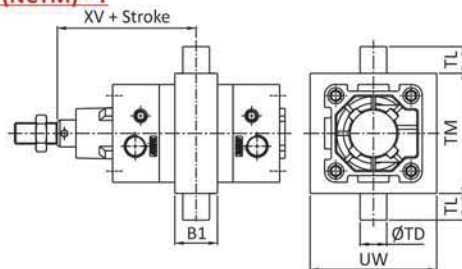
Bore die	KK	CE	CK f8	CM B12	LE	ER max.	CL	X
32	M10X1.25P	40	10	10	20	16	20	165
40	M12X1.25P	48	12	12	24	19	25	190
50	M16X1.50P	64	16	16	32	25	33	215
63	M16X1.50P	64	16	16	32	25	33	230
80	M20X1.50P	80	20	20	40	32	38	264
100	M20X1.50P	80	20	20	40	32	38	279
125	M27X2.00P	110	30	30	54	38	55	347

Rod End Spherical Eye Mounting (NCAP) - G



Bore die	KK	CN H9	T	EN h12	CE	LE min	ER max	AX	SW	Z
32	M10X1.25P	10	10.5	14	43	15	14	20	17	13°
40	M12X1.25P	12	12	16	51	17	16	22	19	
50 / 63	M16X1.50P	16	15	21	64	22	21	28	22	15°
80 / 100	M20X1.50P	20	18	25	77	26	25	33	30	
125	M27X2.00P	30	25	37	110	---	35	51	36	

Center Trunnion Mounting (NCTM) - T



Bore die	B1	TD	UW	TM	TL	R	XV
32	30	12	65	48	12	1	73
40	32	16	75	63	16	2	82.5
50	34	16	95	75	16	2	90
63	41	20	105	90	20	2	98
80	44	20	130	105	20	2	110
100	48	25	145	122	25	2	120
125	50	25	175	160	25	2	145

PNEUMATIC CYLINDERS

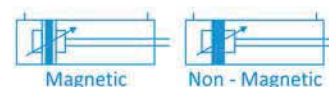
As per ISO 15552 & VDMA 24562 Std. Profile (Round Type)



Model : VNC
Series : S20

Features

- ▶▶ Hard Anodized Aluminum profile (round) type cylinder barrel.
- ▶▶ Bore Size 32 to 250 mm.
- ▶▶ Adjustable cushioning at both ends with elastomer pads.
- ▶▶ Magnetic and Non-Magnetic cylinder.
- ▶▶ Wide range of mountings as per VDMA 24562 standards.
- ▶▶ Magnetic sensor common for all sizes.
- ▶▶ Modern design and consistent engineering.
- ▶▶ Double slots on 3 sides of cylinder position sensors.
- ▶▶ An extensive range of mounting accessories make it possible to install the solution virtually anywhere.
- ▶▶ Allen screws with internal thread for mounting components.
- ▶▶ Additional cushioning rings in the end-positions for absorbing residual energy from high speeds and fast machine cycles.



Technical Specifications

Bore Size (mm)	32	40	50	63	80	100	125	160	200	250	
Cushion Stroke (mm)	21	23	23	23	28	28	40	40	40	50	
Standard Stroke* (mm)	25, 50, 80, 100, 125, 160, 200, 250, 300, 350, 400, 450, 500										
Media	Compressed Air - Filtered - Lubricated										
Working Pressure	0.5 ~ 10 Bar										
Temperature	-20 °C ~ 80 °C max. (For Viton O to 180 °C)										
Material of Construction	Aluminum, Brass, Nitrile, Steel, Acetal, Polyurethane, Viton										
Mounting & Accessories	Male Clevis Female Clevis Clevis Foot Bracket Rod End Fork	Foot Mounting Front Trunnion Wall Bracket Mounting Rod End Aligner	Front Flange Rear Trunnion Trunnion Bracket Rod End Spherical Eye	Rear Flange Adjustable Center Trunnion Mounting							

* For Non Standard or longer stroke cylinders, available on request.

Output Force

(force in N : 1N = 0.1 kgf)

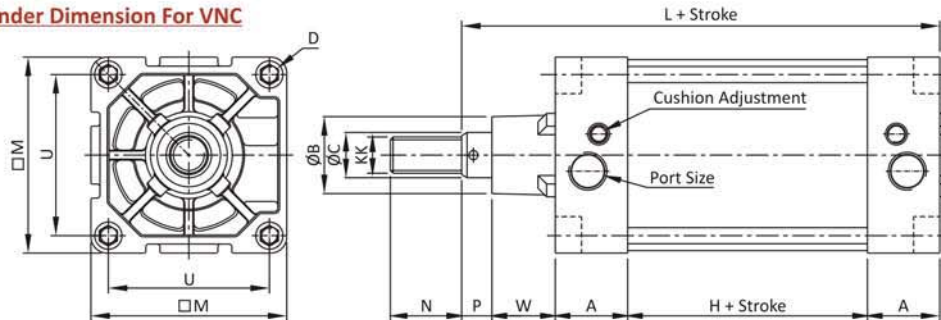
Bore dia in mm	Rod dia in mm	Action	Working Pressure in Bar									
			2	3	4	5	6	7	8	9	10	
32	12	Extend	145	217	289	362	434	507	579	651	724	
		Retract	124	187	249	311	373	435	498	559	621	
40	16	Extend	226	339	452	565	678	792	905	1018	1130	
		Retract	190	285	380	475	570	665	760	855	950	
50	20	Extend	353	530	706	884	1060	1237	1414	1590	1767	
		Retract	297	445	594	742	891	1039	1187	1336	1484	
63	20	Extend	561	842	1122	1403	1683	1964	2244	2525	2805	
		Retract	505	757	1009	1261	1514	1766	2018	2270	2523	
80	25	Extend	905	1357	1809	2262	2714	3167	3619	4072	4524	
		Retract	816	1225	1633	2041	2449	2857	3266	3674	4082	
100	25	Extend	1414	2120	2828	3534	4241	4948	5655	6362	7069	
		Retract	1325	1988	2650	3313	3976	4640	5300	5965	6625	
125	32	Extend	2209	3313	4417	5522	6626	7731	8835	9940	11044	
		Retract	2064	3096	4128	5160	6192	7224	8256	9288	10320	
160	40	Extend	3619	5428	7238	9047	10857	12666	14476	16286	18095	
		Retract	3392	5089	6785	8482	10178	11875	13571	15268	16964	
200	40	Extend	5654	8482	11309	14137	16964	19792	26619	25446	28274	
		Retract	5428	8143	10857	13571	16266	19000	21714	24429	27143	
250	50	Extend	9817	14726	19635	24544	29452	34361	39270	44179	49087	
		Retract	9425	14137	18850	23562	28274	32987	37699	42412	47124	

(Above values have been worked out taking frictional loss into consideration)

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Basic Cylinder Dimension For VNC



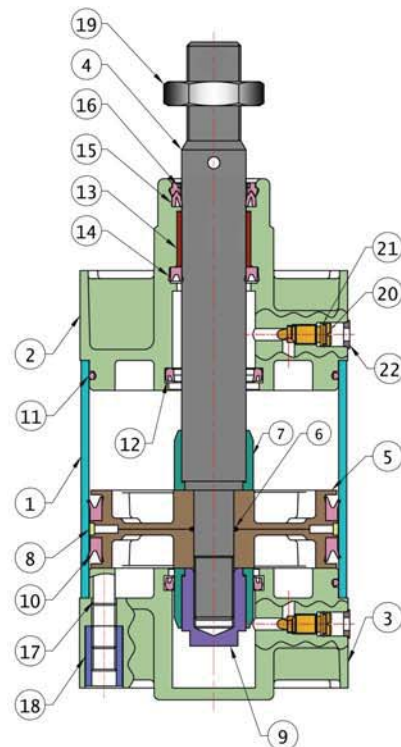
Bore dia	KK	H	A	W	P	N	U	M	ØB	ØC	L	D	K*	Port Size
32	M10X1.25P.	43	25.5	18.5	7.5	22	32.5	45	30	12	120	M6	40	G1/8"
40	M12X1.25P.	47	29	20.5	9.5	24	38	51	35	16	135	M6	63	G1/4"
50	M16X1.5P.	48	29	28	9	32	46.5	64	40	20	143	M8	98	G1/4"
63	M16X1.5P.	51	35	27.5	9.5	32	56.5	74	45	20	158	M8	165	G3/8"
80	M20X1.5P.	56	36	34	12	40	72	94	45	25	174	M10	220	G3/8"
100	M20X1.5P.	58	40	35	16	40	89	111	55	25	189	M10	360	G1/2"
125	M27X2P.	70	45	46	19	50	110	134	60	32	225	M12	613	G1/2"
160	M36X2P.	78	51	38	20	72	140	182	65	40	238	M16	1000	G3/4"
200	M36X2P.	88	46	55	20	72	175	222	75	40	255	M16	1570	G3/4"
250	M42X2P.	85	56	75	25	84	220	272	90	50	297	M20	2450	G1"

*K = Psh Force at 5 Kg/cm²

Manufacturing Standard : ISO 15552

Testing Standard : ISO 10099

No.	Item Name	Material
1	Round Pipe	Aluminium Alloy HE9WP (6063-T6) (IS : 733)
2	Top Cover	Aluminium Alloy ALSi 132 (BS 1490)
3	Bottom Cover	Aluminium Alloy ALSi 132 (BS 1490)
4	Piston Rod	BS-970-90, EN-8, (080M40)
5	Piston	Aluminium Alloy ALSi 132 (BS 1490)
6	O-Ring For Piston	Nitrile Buna - N Gr. 80
7	Delrin Collar	Delrin Acetal copolymer
8	Delrin Ring	Delrin Acetal copolymer
9	Piston Lock Nut	BS-970-90, EN-8, (080M40)
10	V-Seal For Piston	Hi - Nitrile
11	Diameter Ring	Nitrile Buna - N Gr.80
12	Cushion Seal	Nitrile Buna - N Gr.80
13	D. U. Bush	M. S.
14	Shaft V-Seal	Nitrile Buna - N Gr.80
15	V-Seal (Nut Ring)	Nitrile Buna - N Gr.80
16	Wiper Ring	P.U. Gr. 96
17	Stud	BS-970-90, EN-8, (080M40)
18	Allen Key	BS-970-90, EN-8, (080M40)
19	Nut For Shaft	BS-970-90, EN-8, (080M40)
20	Cushion Pin	Brass (CuZn39Pb3)
21	O-Ring For Cushion Pin	Nitrile Buna - N Gr. 80
22	Bush For Cushion Pin	Nylon Gr. 66



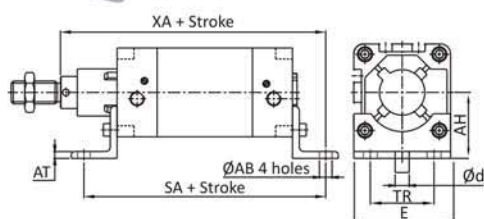
PNEUMATIC CYLINDERS

As per ISO 15552 & VDMA 24562 Std. Profile (Round Type)



Model : VNC
Series : S20

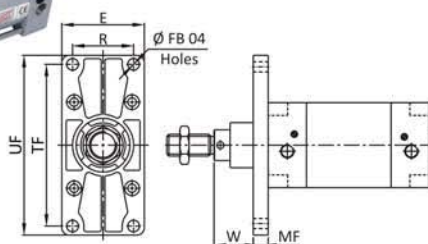
Foot Mounting (NCML) - L



Bore die	TR ± 0.3	AB H13	AH Js15	AT	E	d*	SA	TOL	XA	Recommended Bolt Size
32	32	6.5	32	3	46	5.8	142	±1.25	144	M6
40	36	9	36	4	52	7.8	159		163	M8
50	45	9	45	6	65	7.8	170		175	M8
63	50	9	50	5	80	7.5	197	±1.6	190	M8
80	63	12	63	5	95	9.8	210		215	M10
100	75	14	71	7	126	11.8	220		230	M12
125	90	16	90	8	157	---	253	±1.6	272	M12
160	115	18.5	115	10	180	11.8	300		320	M16
200	135	24	135	12	220	11.8	320		345	M16
250	165	28	165	12	274	---	347	375	M20	

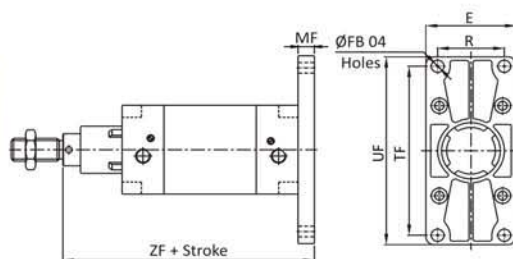
* Suitable for reaming

Front Flange Mounting (NCMF) - F



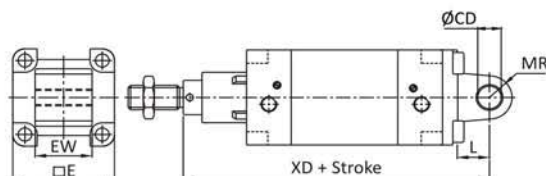
Bore die	TF ± 0.3	R ± 0.3	FB H13	MF	UF	E	W	TOL	Recommended Bolt Size
32	64	32	7	10	80	50	16	±1.25	M6
40	72	36	9	10	90	53	20		M8
50	90	45	9	12	110	64	25		M8
63	100	50	9	12	125	80	25	±1.5	M8
80	126	63	12	16	155	95	30		M10
100	150	75	14	16	185	120	35		M12
125	180	90	16	20	224	134	45	±2.5	M12
160	230	115	18	20	280	178	60		M16
200	270	135	22	25	320	221	70		M16
250	330	165	26	25	395	275	75	M20	

Rear Flange Mounting (NCMR) - R



Bore die	CD H9	EW ± 0.3 / ± 0.6	L	MR	E max.	XD	TOL
32	10	26	12	11	45	142	±1.25
40	12	25.5	15	13	51	160	
50	12	31.5	15	13	64	170	
63	16	38	20	17	74	190	±1.5
80	16	48.5	20	17	94	210	
100	20	59	25	21	111	230	
125	25	70	30	26	135	275	±2
160	30	90	35	31	180	293	
200	30	90	35	31	220	320	
250	40	110	45	41	272	367	

Male Clevis Mounting (NCMS) - S

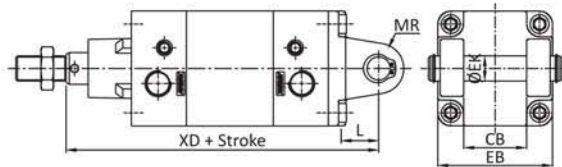


Bore die	CD H9	EW ± 0.2 / ± 0.6	L	MR	E max.	XD	TOL
32	10	26	12	11	45	142	±1.25
40	12	25.5	15	13	51	160	
50	12	31.5	15	13	64	170	
63	16	38	20	17	74	190	±1.5
80	16	48.5	20	17	94	210	
100	20	59	25	21	111	230	
125	25	70	30	26	135	275	±2
160	30	90	35	31	180	315	
200	30	90	35	31	220	340	
250	40	110	45	41	272	367	

Note : Since, constant worldwide advancement in technology, We keep our rights reserved to make changes time to time in Technical Specification and Dimensions without prior notice.

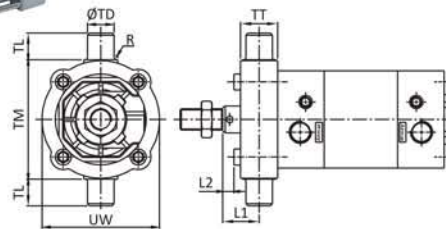


Female Clevis Mounting (NCMD) - D



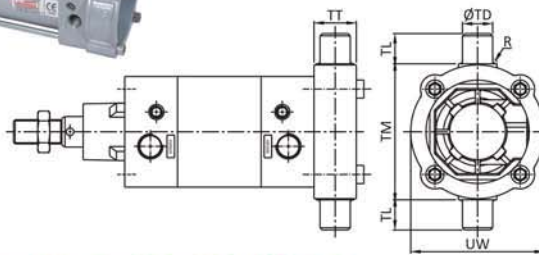
Bore die	EK e8	CB H14	L	MR	EB max.	XD	TOL
32	10	26	12	11	56	142	±1.25
40	12	28	15	13	65	160	
50	12	32	15	13	73	170	
63	16	40	20	17	86	190	±1.5
80	16	50	20	17	106	210	
100	20	60	25	21	129	230	
125	25	70	30	26	157	275	
160	30	90	35	31	191	293	±2
200	30	90	35	31	191	320	
250	40	110	45	41	221	367	

Front Trunnion Mounting (NCMT) - M



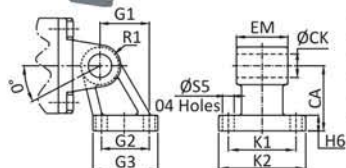
Bore die	ØTD e9	TL h14	TM h14	UW	TT	R	L1	TOL	L2 Approx.
32	12	12	50	50	16	1	18	±1.5	2
40	16	16	63	55	22	1.5	19		0
50	16	16	75	75	24	1.6	25		3
63	20	20	90	86	28	1.6	23	±1.8	-1
80	20	20	110	110	32	1.6	30		1.8
100	25	25	132	135	40	2	31	±2.0	-1.2
125	25	25	160	131	50	2	40		---
160	32	32	200	195	49	2.5	55.5	±2.5	11.5
200	32	32	250	248	49	2.5	70.5		26.5
250	40	40	320	320	60	---	70		---

Rear Trunnion Mounting (NCMT) - N



Bore die	TD e9	TL h14	TM h14	UW	TT	R	L3	TOL	L4 Approx.
32	12	12	50	50	16	1	128	±1.5	16
40	16	16	63	55	22	1.5	146		19
50	16	16	75	75	24	1.6	155		22
63	20	20	90	86	28	1.6	172	±1.8	24
80	20	20	110	110	32	1.6	190		29
100	25	25	132	135	40	2	209	±2	33
125	25	25	160	131	50	2	250		33
160	32	32	200	195	49	2.5	262.5		29
200	32	32	250	248	49	2.5	279.5	±2	33
250	40	40	320	320	60	---	327		33

Swivel Flange Clevis Foot Bracket (NCVA) - DC



Bore die	K1 Js14	G2 Js14	S5 H13	CA Js15	CK H9	EM 0.2 ± 0.6	G1 Js14	H6	R1 max.	K2	G3	Recommended Bolt Size
32	38	18	6.6	32	10	26	21	8	10	51	31	M6
40	41	22	6.6	36	12	28	24	10	11	54	35	M6
50	50	30	9	45	12	32	33	12	13	65	45	M8
63	52	35	9	50	16	40	37	12	15	67	50	M8
80	66	40	11	63	16	49	47	14	15	86	60	M10
100	76	50	11	71	20	59	55	15	19	96	70	M10
125	94	60	14	90	30	70	70	20	22.5	124	90	M12
160	118	88	14	115	30	90	97	25	31.5	156	126	M16
200	122	90	18	135	30	90	105	30	31.5	162	130	M16
250	150	110	22	165	40	110	128	35	40	200	160	M20

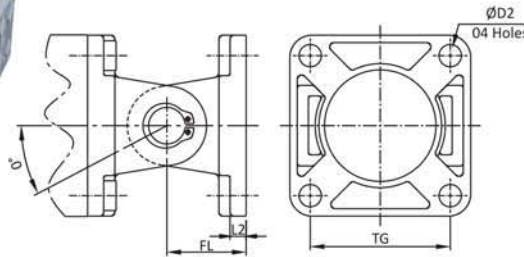
PNEUMATIC CYLINDERS

As per ISO 15552 & VDMA 24562 Std. Profile (Round Type)



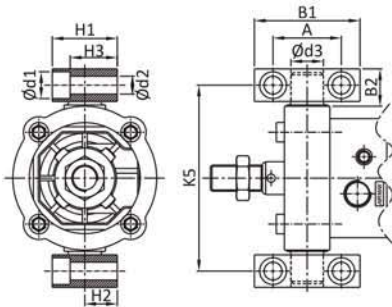
**Model : VNC
Series : S20**

Wall Bracket Mounting (NCAW) - DS



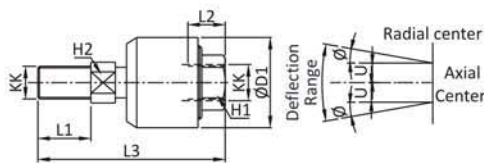
Bore die	TG	D2	L2	FL	Ø°	Recommended Bolt Size
32	32.5	6.6	5.5	22	90	M6
40	38	6.6	5.5	25	90	M6
50	46.5	9	6.5	27	90	M8
63	56.5	9	6.5	32	90	M8
80	72	11	10	36	60	M10
100	89	11	10	41	60	M10
125	110	14	10	50	60	M12
160	140	17	10	55	80	M16
200	175	17	14	65	90	M16
250	220	22	---	70	90	M20

Trunnion Bracket Mounting (NCTB)



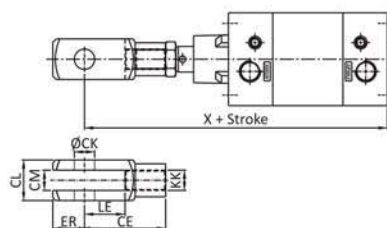
Bore die	B1	B2	A ±0.2	d1	d2 H13	d3 H9	H1	H2 ±0.2	H3	K5 Js14
32	46	18	32	11	6.6	12	30	15	23	71
40	55	21	36	15	9	16	36	18	27	87
50	55	21	36	15	9	16	36	18	27	99
63	65	23	42	16.5	11	20	40	20	29	116
80	65	23	42	16.5	11	20	40	20	29	136
100	75	28.5	50	20	14	25	50	25	37	164
125	75	28.5	50	20	14	25	50	25	37	192
160	92	40	60	25	18	32	60	30	43	245
200	92	40	60	25	18	32	60	30	43	295
250	140	50	90	30	22	40	70	35	43	375

Rod End Aligner Mounting (NCRA)



Bore die	KK	L1	L2	L3	H1	H2	D1	U	±Ø°
32	M10X1.25P	20	14	65	17	8	28	0.75	5
40	M12X1.25P	22	18	75	19	10	32	1	5
50 / 63	M16X1.50P	25	22	91	27	13	41	1	5
80 / 100	M20X1.50P	30	28	112	32	16	50	1.5	5
125	M27X2.00P	ON REQUEST							

Rod End Fork Mounting (NCAF) - A

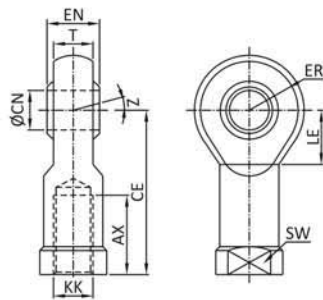


Bore die	KK	CE	CK f8	CM B12	LE	ER max.	CL	X
32	M10X1.25P	40	10	10	20	16	20	165
40	M12X1.25P	48	12	12	24	19	24	190
50	M16X1.50P	64	16	16	32	25	32	215
63	M16X1.50P	64	16	16	32	25	32	230
80	M20X1.50P	80	20	20	40	32	40	264
100	M20X1.50P	80	20	20	40	32	40	279
125	M27X2.00P	110	30	30	54	38	55	347
160	M36X2.00P	144	35	35	72	44	70	396
200	M36X2.00P	144	35	35	72	44	70	413
250	M42X2.00P	128	35	35	---	39	70	441

Note : Since, constant worldwide advancement in technology, We keep our rights reserved to make changes time to time in Technical Specification and Dimensions without prior notice.

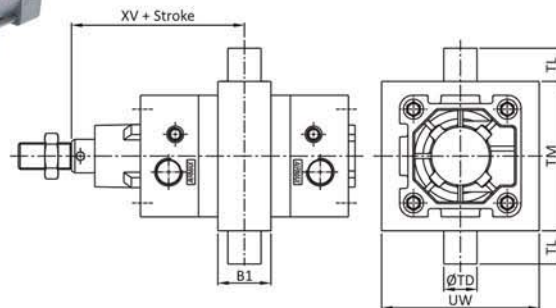


Rod End Spherical Mounting (NCAP) - G



Bore die	KK	CN H9	T	EN h12	CE	LE min	ER max	AX	SW	Z
32	M10X1.25P	10	10.5	14	43	15	14	20	17	13°
40	M12X1.25P	12	12	16	50	17	16	22	19	
50 / 63	M16X1.50P	16	15	21	64	22	21	28	22	15°
80 / 100	M20X1.50P	20	18	25	77	26	25	33	30	
125	M27X2.00P	30	25	37	110	---	35	51	36	
160 / 200	M36X2.00P	35	28	43	125	41	40	56	50	
250	M42X2.00P	35	30	44	133.5	45.5	45.5	60	60	

Center Trunnion Mounting (NCTM) - T



Bore die	B1	TD	UW	TM	TL	R	XV
32	30	12	65	48	12	1	73
40	32	16	75	63	16	1.6	82.5
50	34	16	95	75	16	1.6	90
63	41	20	105	90	20	1.6	97.5
80	44	20	130	105	20	1.6	110
100	48	25	145	122	25	2	120
125	50	25	175	160	25	2	145
160	49	32	195	200	32	2.5	148
200	49	32	248	250	32	2.5	165
250	60	40	320	320	40	---	198.5

PNEUMATIC CYLINDERS

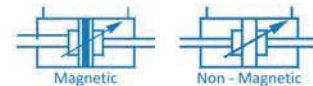
As per ISO 15552 & VDMA 24562 Std. Profile (Round & Round Type)



Model : DNC / DVC
Series : S12 / S22

Features

- ▶▶ Hard Anodized Aluminum profile (square & round) type cylinder barrel.
- ▶▶ Bore Size 32 to 250 mm.
- ▶▶ Adjustable cushioning at both ends with elastomer pads.
- ▶▶ Magnetic and Non-Magnetic cylinder.
- ▶▶ Wide range of mountings as per VDMA 24562 standards.
- ▶▶ Magnetic sensor common for all sizes.



Technical Specifications

Bore Size (mm)	32	40	50	63	80	100	125	160	200	250
Cushion Stroke (mm)	21	23	23	23	28	28	40	40	40	50
Standard Stroke* (mm)	25, 50, 80, 100, 125, 160, 200, 250, 300, 350, 400, 450, 500									
Media	Compressed Air - Filtered - Lubricated									
Working Pressure	0.5 ~ 10 Bar									
Temperature	-20 °C ~ 80 °C max. (For Viton O to 180 °C)									
Material of Construction	Aluminum, Brass, Nitrile, Steel, Acetal, Polyurethane, Viton									
Mounting & Accessories	Rod End Fork Foot Mounting	Rod End Aligner Front Flange			Rod End Spherical Eye Female Clevis			Adjustable Center Trunnion Mounting		

* For Non Standard or longer stroke cylinders, available on request.

Output Force

(force in N : 1N = 0.1 kgf)

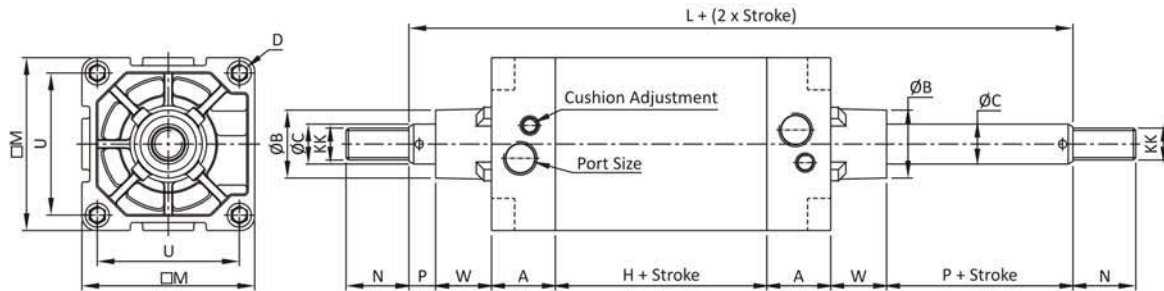
Bore dia in mm	Rod dia in mm	Action	Working Pressure in Bar								
			2	3	4	5	6	7	8	9	10
32	12	Extend	145	217	289	362	434	507	579	651	724
		Retract	124	187	249	311	373	435	498	559	621
40	16	Extend	226	339	452	565	678	792	905	1018	1130
		Retract	190	285	380	475	570	665	760	855	950
50	20	Extend	353	530	706	884	1060	1237	1414	1590	1767
		Retract	297	445	594	742	891	1039	1187	1336	1484
63	20	Extend	561	842	1122	1403	1683	1964	2244	2525	2805
		Retract	505	757	1009	1261	1514	1766	2018	2270	2523
80	25	Extend	905	1357	1809	2262	2714	3167	3619	4072	4524
		Retract	816	1225	1633	2041	2449	2857	3266	3674	4082
100	25	Extend	1414	2120	2828	3534	4241	4948	5655	6362	7069
		Retract	1325	1988	2650	3313	3976	4640	5300	5965	6625
125	32	Extend	2209	3313	4417	5522	6626	7731	8835	9940	11044
		Retract	2064	3096	4128	5160	6192	7224	8256	9288	10320
160	40	Extend	3619	5428	7238	9047	10857	12666	14476	16286	18095
		Retract	3392	5089	6785	8482	10178	11875	13571	15268	16964
200	40	Extend	5654	8482	11309	14137	16964	19792	26619	25446	28274
		Retract	5428	8143	10857	13571	16266	19000	21714	24429	27143
250	50	Extend	9817	14726	19635	24544	29452	34361	39270	44179	49087
		Retract	9425	14137	18850	23562	28274	32987	37699	42412	47124

(Above values have been worked out taking frictional loss into consideration)

Note : Since, constant worldwide advancement in technology, We keep our rights reserved to make changes time to time in Technical Specification and Dimensions without prior notice.



Basic Cylinder Dimension for DNC



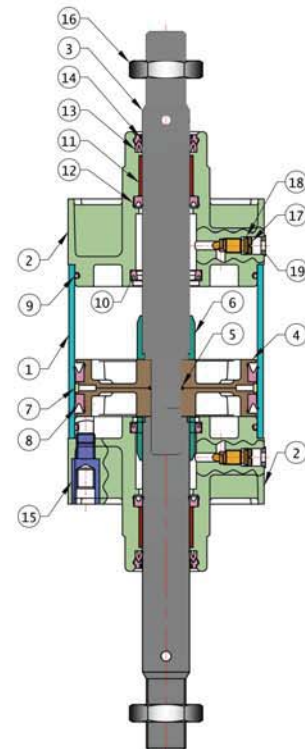
Bore die	KK	H	A	W	P	N	U	M	ØB	ØC	L	D	K*	Port Size
32	M10X1.25P.	43	25.5	18.5	7.5	22	32.5	45	30	12	146	M6	40	G1/8"
40	M12X1.25P.	47	29	20.5	9.5	24	38	51	35	16	165	M6	63	G1/4"
50	M16X1.5P.	48	29	28	9	32	46.5	64	40	20	180	M8	98	G1/4"
63	M16X1.5P.	51	35	27.5	9.5	32	56.5	74	45	20	195	M8	165	G3/8"
80	M20X1.5P.	56	36	34	12	40	72	94	45	25	220	M10	220	G3/8"
100	M20X1.5P.	58	40	35	16	40	89	111	55	25	240	M10	360	G1/2"
125	M27X2P.	70	45	46	19	50	110	134	60	32	290	M12	613	G1/2"

*K = Psh Force at 5 Kg/cm²

Manufacturing Standard : ISO 15552

Testing Standard : ISO 10099

No.	Item Name	Material
1	SQ. Pipe	Aluminium Alloy HE9WP (6063-T6) (IS : 733)
2	Top Cover	Aluminium Alloy ALsi 132 (BS 1490)
3	Piston Rod	BS-970-90, EN-8, (080M40)
4	Piston	Aluminium Alloy ALsi 132 (BS 1490)
5	O-Ring For Piston	Nitrile Buna - N Gr. 80
6	Delrin Collar	Delrin Acetal copolymer
7	Delrin Ring	Delrin Acetal copolymer
8	V-Seal For Piston	Hi - Nitrile
9	Diameter Ring	Nitrile Buna - N Gr.80
10	Cushion Seal	Nitrile Buna - N Gr.80
11	Bush	Delrin
12	Shaft V-Seal	Nitrile Buna - N Gr.80
13	V-Seal (Nut Ring)	Nitrile Buna - N Gr.80
14	Wiper Ring	P.U. Gr. 96
15	Allen Key	BS-970-90, EN-8, (080M40)
16	Nut For Shaft	BS-970-90, EN-8, (080M40)
17	Cushion Pin	Brass (CuZn39Pb3)
18	O-Ring For Cushion Pin	Nitrile Buna - N Gr. 80
19	Bush For Cushion Pin	Nylon Gr. 66



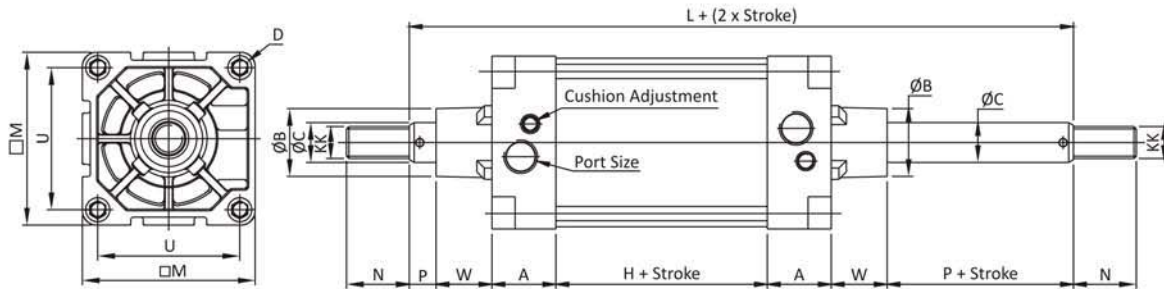
PNEUMATIC CYLINDERS

As per ISO 15552 & VDMA 24562 Std. Profile (Round & Round Type)



Model : DNC / DVC
Series : S12 / S22

Basic Cylinder Dimension For DVC



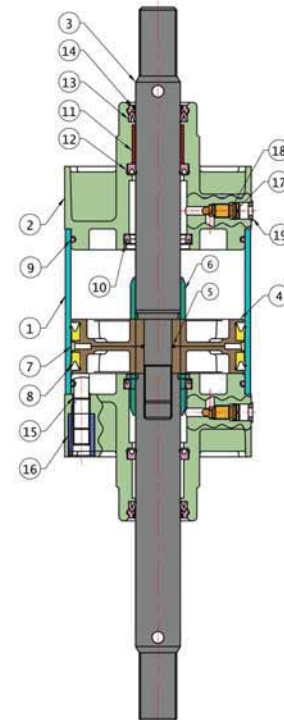
Bore die	KK	H	A	W	P	N	U	ØM	ØB	ØC	L	D	K*	Port Size
32	M10X1.25P.	43	25.5	18.5	7.5	22	32.5	45	30	12	146	M6	40	G1/8"
40	M12X1.25P.	47	29	20.5	9.5	24	38	51	35	16	165	M6	63	G1/4"
50	M16X1.5P.	48	29	28	9	32	46.5	64	40	20	180	M8	98	G1/4"
63	M16X1.5P.	51	35	27.5	9.5	32	56.5	74	45	20	195	M8	165	G3/8"
80	M20X1.5P.	56	36	34	12	40	72	94	45	25	220	M10	220	G3/8"
100	M20X1.5P.	58	40	35	16	40	89	111	55	25	240	M10	360	G1/2"
125	M27X2P.	70	45	46	19	50	110	134	60	32	290	M12	613	G1/2"
160	M36X2P.	78	51	38	20	72	140	182	65	40	296	M16	1000	G3/4"
200	M36X2P.	88	46	55	20	72	175	222	75	40	330	M16	1570	G3/4"
250	M42X2P.	85	56	75	25	84	220	272	90	50	397	M20	2450	G1"

*K = Psh Force at 5 Kg/cm²

Manufacturing Standard : ISO 15552

Testing Standard : ISO 10099

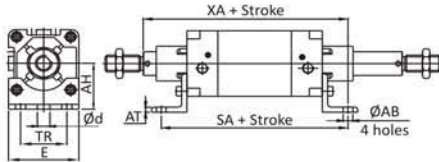
No.	Item Name	Material
1	Round Pipe	Aluminium Alloy HE9WP (6063-T6) (IS : 733)
2	Top Cover	Aluminium Alloy ALsi 132 (BS 1490)
3	Piston Rod	BS-970-90, EN-8, (080M40)
4	Piston	Aluminium Alloy ALsi 132 (BS 1490)
5	O-Ring For Piston	Nitrile Buna-N Gr. 80
6	Delrin Collar	Delrin Acetal copolymer
7	Delrin Ring	Delrin Acetal copolymer
8	V-Seal For Piston	Hi - Nitrile
9	Diameter Ring	Nitrile Buna-N Gr.80
10	Cushion Seal	Nitrile Buna-N Gr.80
11	Bush	Nitrile Buna-N Gr.80
12	Shaft V-Seal	Nitrile Buna-N Gr.80
13	V-Seal (Nut Ring)	Nitrile Buna-N Gr.80
14	Wiper Ring	P.U. Gr. 96
15	Stud	BS-970-90, EN-8, (080M40)
16	Allen Key	BS-970-90, EN-8, (080M40)
17	Lock Nut	BS-970-90, EN-8, (080M40)
18	Cushion Pin	Brass (CuZn39Pb3)
19	O-Ring For Cushion Pin	Nitrile Buna - N Gr.80
20	Bush For Cushion Pin	Nylon Gr.66



Note : Since, constant worldwide advancement in technology, We keep our rights reserved to make changes time to time in Technical Specification and Dimensions without prior notice.



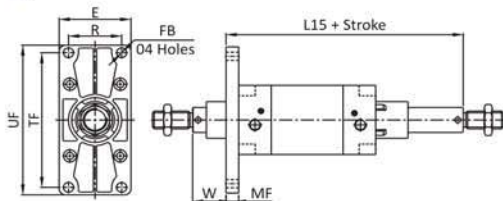
Foot Mounting (NCML) - L



Bore die	TR ±0.3	ØAB H13	AH J515	AT	E	d*	SA	TOL	XA	Recommended Bolt Size
32	32	6.5	32	3.5	46	5.8	142	±1.25	144	M6
40	36	9	36	4	55	7.8	159		162	M8
50	45	9	45	6	65	7.8	170		175	M8
63	49	9	50	5	80	7.8	197	±1.6	196	M8
80	63	12	63	5	95	9.8	210		215	M10
100	75	14	71	7	126	11.8	220		230	M12
125	90	16	90	8	157	---	253	±1.6	272	M12
160	115	18.5	115	10	180	11.8	300		320	M16
200	135	24	135	12	220	11.8	320		345	M16
250	165	28	165	12	274	---	347	372	M20	

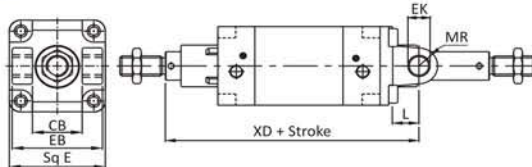
* Suitable for reaming

Flange Mounting (NCRA) - F



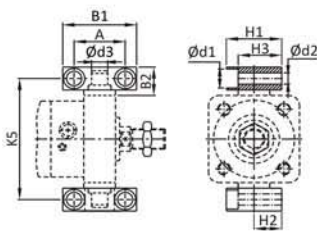
Bore die	TF ±0.3	R ±0.3	FB H13	MF	UF	E	W	TOL	L15	Recommended Bolt Size
32	64	32	7	10	80	50	16	±1.25	130	M6
40	72	36	9	10	90	53	20		145	M8
50	90	45	9	12	110	64	25		155	M8
63	100	50	9	12	125	80	25	±1.6	170	M8
80	126	63	12	16	155	95	30		190	M10
100	150	75	14	16	185	120	35		205	M12
125	180	90	16	20	224	134	45	±2.5	245	M12
160	230	115	18	20	280	178	60		258	M16
200	270	135	22	25	320	221	70		280	M16
250	330	165	26	25	395	275	75	322	M20	

Female Clevis Mounting (NCMD) - D



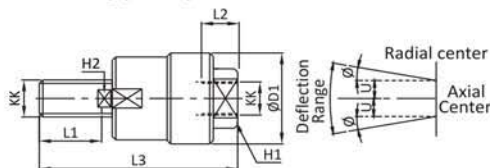
Bore die	EK e8	CB H14	L	MR	EB max.	XD	TOL	Sq. E
32	10	26	12	11	45	142	±1.25	45
40	12	28	15	13	50	160		51
50	12	32	15	13	60	170		64
63	16	40	20	17	70	190	±1.5	74
80	16	50	20	17	90	210		94
100	20	60	25	21	109	230		111
125	25	70	30	26	132	275	±2	135
160	30	90	35	31	170	293		180
200	30	90	35	31	170	320		220
250	40	110	45	41	200	367	272	

Trunnion Bracket Mounting (NCTB)



Bore die	B1	B2	A ±0.2	Ød1	Ød2 H13	Ød3 H9	H1	H2	H3	K5 J514
32	46	18	32	11	6.6	12	30	15	23	71
40	55	21	36	15	9	16	36	18	27	87
50	55	21	36	15	9	16	36	18	27	99
63	65	23	42	16.5	11	20	40	20	29	116
80	65	23	42	16.5	11	20	40	20	29	136
100	75	28.5	50	20	14	25	50	25	37	164
125	75	28.5	50	20	14	25	50	25	37	192
160	92	40	60	25	18	32	60	30	43	245
200	92	40	60	25	18	32	60	30	43	295
250	140	50	90	30	22	40	70	35	43	375

Rod End Alinger Mounting (NCRA)



Bore die	KK	L1	L2	L3	H1	H2	D1	U	±Ø°
32	M10X1.25P	20	14	65	17	8	28	0.75	5
40	M12X1.25P	22	18	75	19	10	32	1	5
50 / 63	M16X1.50P	25	22	91	27	13	41	1	5
80 / 100	M20X1.50P	30	28	112	32	16	50	1.5	5
125	M27X2.00P	ON REQUEST							

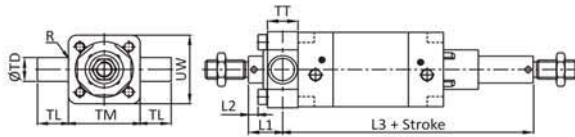
PNEUMATIC CYLINDERS

As per ISO 15552 & VDMA 24562 Std. Profile (Round & Round Type)



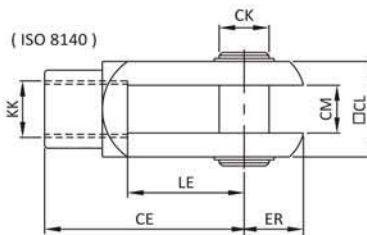
**Model : DNC / DVC
Series : S12 / S22**

Front Trunnion Mounting (NCMT)



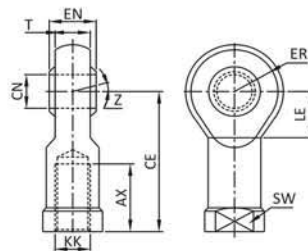
Bore die	ØTD e9	TL h14	TM h14	UW	TT	R	L1	TOL	L2 Approx.	L3
32	12	12	50	16	1	18			2	128
40	16	16	63	55	22	1.5	19	±1.5	0	146
50	16	16	75	75	24	1.6	25		3	155
63	20	20	90	86	28	1.6	23		-1	172
80	20	20	110	110	32	1.6	30	±1.8	1.8	190
100	25	25	132	135	40	2	31		-1.2	209
125	25	25	160	131	50	2	40	±2.0	----	250
160	32	32	200	195	49	2.5	55.5		11.5	262.5
200	32	32	250	248	49	2.5	70.5	±2.5	26.5	279.5
250	40	40	320	320	60	----	70		----	327

Rod End Fork Mounting (NCAF) - A



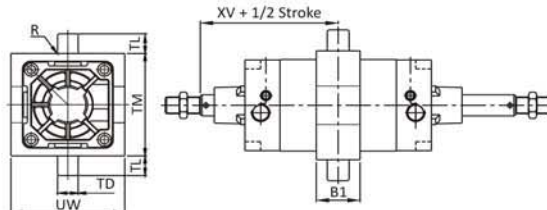
Bore die	KK	CE	CK f8	CM B12	LE	ER max.	CL
32	M10X1.25P	40	10	10	20	16	20
40	M12X1.25P	48	12	12	24	19	24
50	M16X1.50P	64	16	16	32	25	32
63	M16X1.50P	64	16	16	32	25	32
80	M20X1.50P	80	20	20	40	32	40
100	M20X1.50P	80	20	20	40	32	40
125	M27X2.00P	110	30	30	54	38	55
160	M36X2.00P	144	35	35	72	44	70
200	M36X2.00P	144	35	35	72	44	70
250	M42X2.00P	128	35	35	----	39	70

Rod End Spherical Eye Mounting (NCAP) - G



Bore die	KK	CN H9	T	EN h12	CE	LE min	ER max	AX	SW	Z
32	M10X1.25P	10	10.5	14	43	15	14	20	17	13°
40	M12X1.25P	12	12	16	51	17	16	22	19	
50 / 63	M16X1.50P	16	15	21	64	22	21	28	22	15°
80 / 100	M20X1.50P	20	18	25	77	26	25	33	30	
125	M27X2.00P	30	25	37	110	----	35	51	36	
160 / 200	M36X2.00P	35	28	43	125	41	40	56	50	
250	M42X2.00P	35	30	44	133.5	45.5	45.5	60	60	

Adjustable Center Trunnion Mounting (NCMT) - T



Bore die	B1	TD	UW	TM	TL	R	XV
32	30	12	65	48	12	1	73
40	32	16	75	63	16	2	82.5
50	34	16	95	75	16	2	90
63	41	20	105	90	20	2	98
80	44	20	130	105	20	2	110
100	48	25	145	122	25	2	120
125	50	25	175	160	25	2	145
160	49	32	195	200	32	3	148
200	49	32	248	250	32	3	165
250	60	40	320	320	40	----	198.5

Note : Since, constant worldwide advancement in technology, We keep our rights reserved to make changes time to time in Technical Specification and Dimensions without prior notice.





PNEUMATIC CYLINDERS

As per ISO 6431 & CETOP RP43P Std.

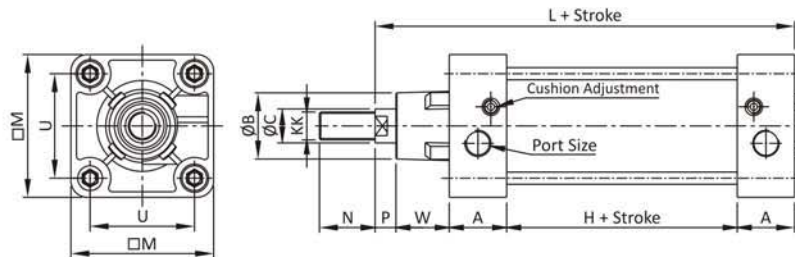
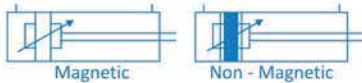
Model : AX 102
Series : A50

Features

- ▶▶ Adjustable cushioning at both ends
- ▶▶ Wide varieties of mounting
- ▶▶ Low Friction
- ▶▶ Long Life

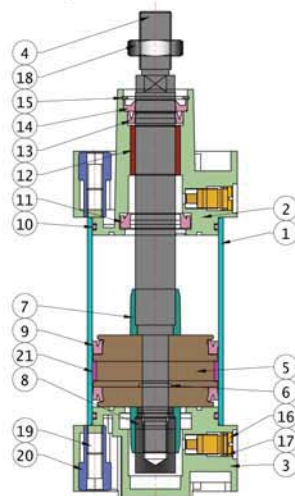
Technical Specification

Bore Die	32	40	50	63	80	100	125
Stroke	Standard in Multiplication of 25 mm						
Cushion	Available at both ends						
Barrel	Aluminium, Hard Anodized						
Piston Rod	EN 8 with hard chrome plated						
Piston Rod Dia	12	16	20	20	25	25	32
End Cover	Aluminium Pressure Die Cast						
Sales	Polyurethane, Nitrile <i>(Viton seal available on request for high temperature)</i>						
Surface Treatment	Auto finish enameling end cover & cylinder barrel						
Mounting	Std. Mounting available (for more details see dimension)						



Bore die	KK	H	A	W	P	N	U	M	ØB	ØC	L	D	K*	Port Size
32	M10 X 1.25P.	44	25	20	6	22	32	44	30	12	120	M6	40	G1/8"
40	M12 X 1.25P.	50	28	24	6.5	24	40	55	35	16	136.5	M6	63	G1/4"
50	M16 X 1.5P.	47	30	30	8	32	48	63	40	20	145	M6	98	G1/4"
63	M16 X 1.5P.	55	33	31	8	32	60	82	45	20	160	M8	165	G3/8"
80	M20 X 1.5P.	56	36	34	12	40	72	94	45	25	174	M10	220	G3/8"
100	M20 X 1.5P.	58	40	35	16	40	89	111	55	25	189	M10	360	G1/2"
125	M20 X 2P.	70	45	46	19	50	110	134	60	32	225	M12	613	G1/2"

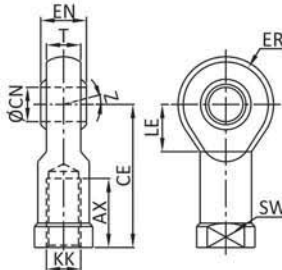
K* = Push Force at 5 Kg/cm²



No.	Item Name	Material
1	Pipe	Aluminum Alloy
2	Top Cover	Aluminum Pressure Die Cast
3	Bottom Cover	Aluminum Pressure Die Cast
4	Piston Rod (Shaft)	EN - 8
5	Piston Machining	Aluminum
6	Piston 'O' Ring	NBR
7	Collar	Delrin
8	Piston Lock Nut	M. S.
9	Piston 'V' Seal	NBR
10	Diameter 'O' Ring	NBR
11	Cushion Seal	P. U.
12	Bearing Bush	Brass
13	Shaft 'V' Seal	NBR
14	Metal Bonded Shaft 'V' Seal	NBR
15	Circlip	Stud
16	Cushion Pin	S. S.
17	Cushion 'O' Ring	NBR
18	Shaft Lock Nut	M. S. / S. S.
19	Stud	M. S. (Silver Zinc Plated)
20	L. N. Bolt	M. S. (Silver Zinc Plated)
21	Delrin Ring	MOS2 (Blank)

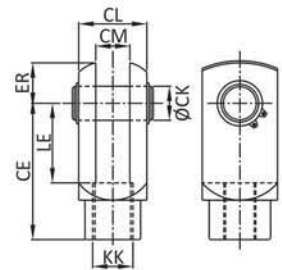
Model : AX 102
Series : A50

Rod End Spherical Eye Mounting



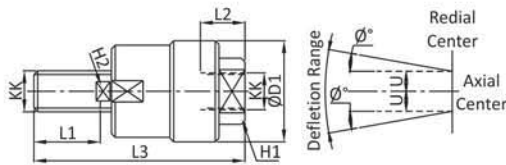
Bore die	KK	CN H9	T	EN h12	CE	LE min	ER max	AX	SW	Z
32	M10 X 1.25P.	10	10.5	14	43	15	14	20	17	13°
40	M12 X 1.25P.	12	12	16	50	17	16	22	19	
50	M16 X 1.5P.	16	15	21	64	22	21	28	22	
63	M16 X 1.5P.	16	15	21	64	22	21	28	5	15°
80	M20 X 1.5P.	20	18	25	77	26	25	33	30	
100	M20 X 1.5P.	20	18	25	77	26	25	33	30	
125	M27 X 2P.	30	25	37	110	36	35	51	36	

Rod End Fork Mounting



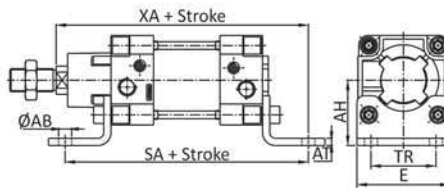
Bore die	KK	CE	CK f8	CM B12	LE	ER	CL
32	M10 X 1.25P.	40	10	10	20	16	20
40	M12 X 1.25P.	48	12	12	24	19	24
50	M16 X 1.5P.	64	16	16	32	25	32
63	M16 X 1.5P.	64	16	16	32	25	32
80	M20 X 1.5P.	80	20	20	40	32	40
100	M20 X 1.5P.	80	20	20	40	32	40
125	M27 X 2P.	110	30	30	54	38	55

Rod End Aligner Mounting



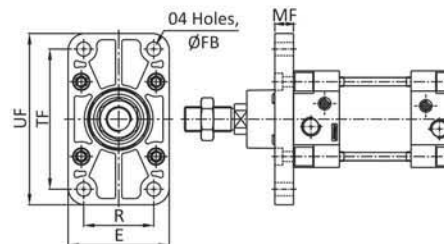
Bore die	KK	L1	L2	L3	H1	H2	D1	U	Ø°
32	M10 X 1.25P.	20	14	65	17	8	28	0.75	5
40	M12 X 1.25P.	22	18	75	19	10	32	1	5
50	M16 X 1.5P.	25	22	91	27	13	41	1	5
63	M16 X 1.5P.	25	22	91	27	13	41	1	5
80	M20 X 1.5P.	30	28	112	32	16	50	1.5	5
100	M20 X 1.5P.	30	28	112	32	16	50	1.5	5
125	M27 X 2P.	ON REQUEST							

Foot Mounting



Bore die	TR ±0.3	AB H13	AH Js15	AT	E	SA	TOL	XA
32	32	7	32	4	46	142		144
40	40	9	36	4	52	161	±1.25	163
50	48	9	45.3	5	64.5	169.5		174.8
63	60	8.7	49.5	6	82	187		191
80	63	12	63	6	95	210	±1.6	215
100	75	14	71	6	115	220		230
125	ON REQUEST							

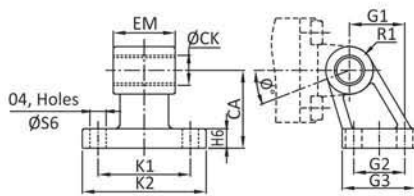
Front Flange Mounting



Bore die	TR ±0.3	AB H13	AH Js15	AT	E	SA	TOL	XA
32	32	7	32	4	46	142		144
40	40	9	36	4	52	161	±1.25	163
50	48	9	45.3	5	64.5	169.5		174.8
63	60	8.7	49.5	6	82	187		191
80	63	12	63	6	95	210	±1.6	215
100	75	14	71	6	115	220		230
125	ON REQUEST							

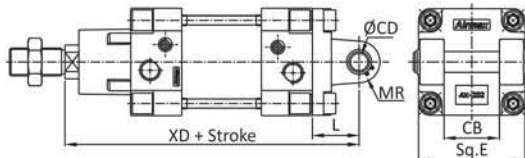
Note : Since, constant worldwide advancement in technology, We keep our rights reserved to make changes time to time in Technical Specification and Dimensions without prior notice.

Clevis Foot Bracket Mounting



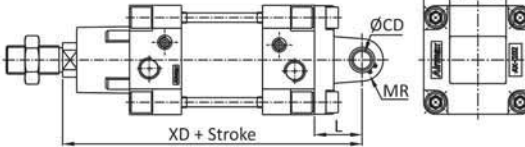
Bore die	K1 Js14	G2 Js14	S6	CA Js16	CK H9	EM	TOL	G1 ±0.2	H6	R1 max	K2	G3	Ø*
32	38	18	5.5	32	10	26	-0.2 -0.6	21	17	10	51	32	17
40	41	22	5.5	36	12	28		24	19	13	54	36	17
50	50	30	6.6	45	12	32		33	22	13	65	45	17
63	52	35	6.6	50	16	40		37	5	17	49	53	17
80	66	40	11	63	16	50		47	30	15	86	60	---
100	76	50	11	71	20	60		55	30	19	96	70	---
125	94	60	14	90	30	70	70	36	22.5	124	90	---	

Female Clevis Mounting



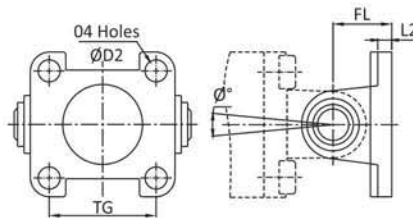
Bore die	ØCD	CB H14	L	MR	Sq. E	XD
32	10	26	22	10	44	142
40	12	28.5	25	12	53.5	160
50	12	32	27	12	61.5	170
63	16	40	32	16	81.5	190
80	16	50	36	16	93	210
100	20	60	41	21	110	230
125	ON REQUEST					

Male Clevis Mounting



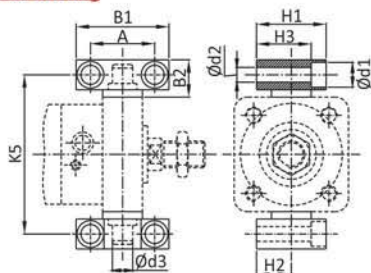
Bore die	ØCD	EM	L	MR	Sq. E	XD
32	10	25.5	22	10	44	142
40	12	28	25	12	53.5	160
50	12	32	27	12	61.5	170
63	16	40	32	16	81.5	190
80	16	49.5	36	16	93	210
100	20	59	41	20.5	110	230
125	ON REQUEST					

Wall Bracket Mounting



Bore die	TG	D2	L2	FL	Ø*
32	32	6.6	5.5	22	50
40	40	6.6	5.5	25	50
50	48	6.6	6.5	27	40
63	60	9	10.5	32	50
80	72	11	10	36	60
100	89	11	10	41	60
125	110	14	10	50	60

Trunnion Bracket Mounting



Bore die	B1	B2	A ±0.2	d1	d2 H13	d3 H9	H1	H2 ±0.1	H3	K5 Js14
32	46	18	32	11	6.6	12	30	15	23	71
40	55	21	36	15	9	16	36	18	27	87
50	55	21	36	15	9	16	36	18	27	99
63	65	23	42	16.5	11	20	40	20	29	116
80	65	23	42	16.5	11	20	40	20	29	136
100	75	28.5	50	20	14	25	50	25	37	164
125	75	28.5	50	20	14	25	50	25	37	192

PNEUMATIC CYLINDERS

Heavy Duty with Adjustable Cushioning at both Ends



Model : FMK
Series : K-05

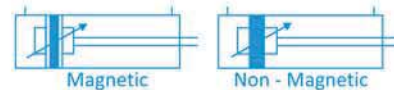
Features

- ▶▶ Large range of bore size
- ▶▶ Stroke available up to 1000 mm
- ▶▶ Available on request upto 3000 mm stroke cylinder
- ▶▶ Long established tie rod design, proven ruggedness & reliability
- ▶▶ Adjustable cushioning at both end
- ▶▶ Aluminum barrel / Hard anodized aluminum barrel for 1000 mm + Above Stroke
- ▶▶ Available in both magnetic & Non - Magnetic version



Technical Specification

Bore Dia	25	40	50	65	75	100	125	150	200	250
Stroke	Standard in Multiplication of 25 mm									
Cushion	Available at both ends									
Barrel	Aluminium, Hard Anodized									
Piston Rod	EN 8 with hard chrome plated									
Piston Rod Dia	10	16	20	25	32	40	50			
End Cover	Aluminium Pressure Die Cast									
Sales	Polyurethane, Nitrile (Viton seal available on request for high temperature)									
Surface Treatment	Auto finish enameling end cover & cylinder barrel									
Mounting	Std. Mounting available (for more details see dimension)									



Output Force

(force in N : 1N = 0.1 kgf)

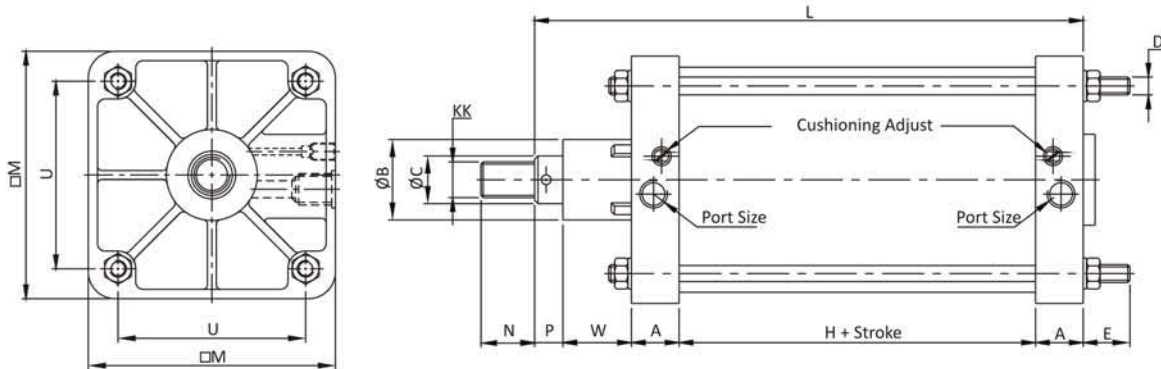
Bore dia in mm	Rod dia in mm	Action	Working Pressure in Bar								
			2	3	4	5	6	7	8	9	10
25	10	Extend	90	135	175	220	273	308	352	394	442
		Retract	79	117	148	189	234	264	302	335	380
40	16	Extend	226	339	452	565	678	792	905	1018	1130
		Retract	190	285	380	475	570	665	760	855	950
50	16	Extend	393	589	785	982	1178	1374	1571	1767	1963
		Retract	352	529	705	881	1057	1234	1410	1586	1762
65	20	Extend	561	842	1122	1403	1683	1964	2244	2525	2805
		Retract	505	757	1009	1261	1514	1766	2018	2270	2523
80	25	Extend	905	1357	1809	2262	2714	3167	3619	4072	4524
		Retract	816	1225	1633	2041	2449	2857	3266	3674	4082
100	25	Extend	1414	2120	2828	3534	4241	4948	5655	6362	7069
		Retract	1325	1988	2650	3313	3976	4640	5300	5965	6625
125	32	Extend	2209	3313	4417	5522	6626	7731	8835	9940	11044
		Retract	2064	3096	4128	5160	6192	7224	8256	9288	10320
150	32	Extend	3534	5301	7069	8836	10603	12370	14137	15904	17671
		Retract	3373	5060	6747	8434	10120	11807	13494	15180	16867
200	40	Extend	5654	8482	11309	14137	16964	19792	26619	25446	28274
		Retract	5428	8143	10857	13571	16286	19000	21714	24429	27143
250	50	Extend	9817	14726	19635	24544	29452	34361	39270	44179	49087
		Retract	9425	14137	18850	23562	28274	32987	37699	42412	47124

(Above values have been worked out taking frictional loss into consideration)

Note : Since, constant worldwide advancement in technology, We keep our rights reserved to make changes time to time in Technical Specification and Dimensions without prior notice.



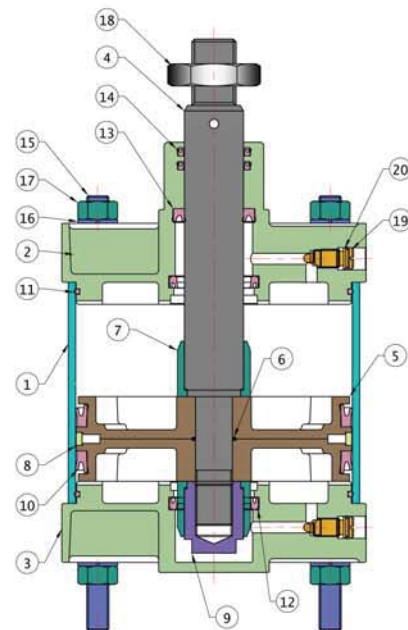
Basic Cylinder Dimensions For FMK Model



Bore die	KK	H	A	W	P	N	E	U	□M	∅B	∅C	L	D	K*	Port Size
25	M8X1.25P.	28	18	20	9	15	16	25	41	25	10	91	M5	24	G1/8"
40	M12X1.75P.	43	21	19	11	20	19	36.5	57	35	16	115	M6	63	G1/4"
50	M12X1.75P.	43	21	19	11	20	19	47.5	67	35	16	115	M6	98	G1/4"
65	M16X1.50P.	51	25	23	17	24	24	60	82	45	20	141	M8	165	G1/4"
75	M20X2.50P.	47	32	35	16	30	29	70	94	45	25	162	M10	220	G1/2"
100	M20X2.50P.	47	32	35	16	30	29	88	116	45	25	162	M10	360	G1/2"
125	M24X3P.	64	32	44	19	36	35	112	138	60	32	191	M12	613	G1/2"
150	M24X3P.	71	32	44	19	36	35	126	165	60	32	198	M12	880	G1/2"
200	M30X3.5P.	87	46	55	20	50	45	175	220	70	40	254	M16	1570	G3/4"
250	M42X4.5P.	85	56	75	26	57	55	210	272	90	50	298	M20	2450	G1"

*K = Push Force at 5 Kg/cm²

No.	Item Name	Material
1	Round Pipe	Aluminium Alloy HE9WP (6063-T6) (IS : 733)
2	Top Cover	Aluminium Alloy ALsi 132 (BS 1490)
3	Bottom Cover	Aluminium Alloy ALsi 132 (BS 1490)
4	Piston Rod	BS-970-90, EN-8, (080M40)
5	Piston	Aluminium Alloy ALsi 132 (BS 1490)
6	O-Ring For Piston	Nitrile Buna - N Gr. 80
7	Delrin Collar	Delrin Copolymer
8	Delrin Ring	Delrin Copolymer
9	Piston Lock Nut	BS-970-90, EN-8, (080M40)
10	V-Seal For Piston	Hi - Nitrile
11	Diameter Ring	Nitrile Buna - N Gr.80
12	Cushion Seal	Nitrile Buna - N Gr.80
13	Shaft V - Seal	Nitrile Buna - N Gr.80
14	Duster V - Seal	Nitrile Buna - N Gr.80
15	Stud	BS - 970 - 90, EN - 8, (080M40)
16	Washer	M.S.
17	Nut For Stud	M.S.
18	Nut For Shaft	M.S.
19	Cushion Pin	Brass
20	O-Ring For Cushion Pin	Nitrile Buna - N Gr. 80



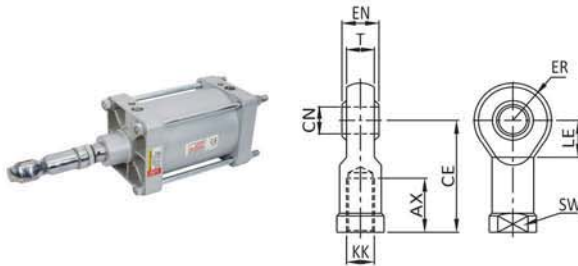
PNEUMATIC CYLINDERS

Heavy Duty with Adjustable Cushioning at both Ends



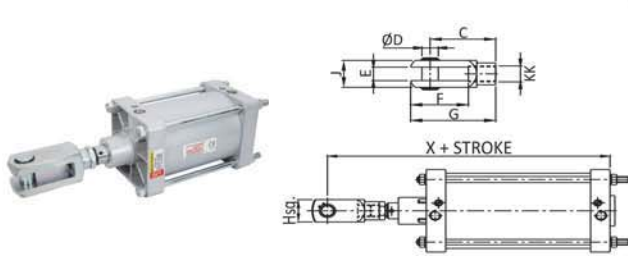
Model : FMK
Series : K-05

Rod End Spherical Eye Mounting (AR) - G



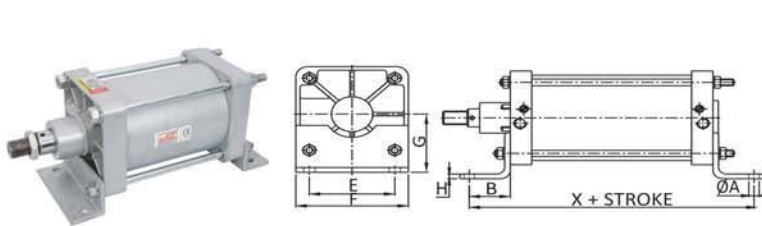
Bore die	KK	EN h12	T	CN H9	AX	CE	ER max.	LE min.	SW
25	M8X1.25P	12	9	8	23.5	37	11	13.5	14
40	M12X1.75P	16	12	12	25	50	15.75	16	19
50	M12X1.75P	16	12	12	25	50	15.75	16	19
65	M16X1.5P	21	15	16	25	65.5	20	20	24
75	M20X2.5P	25	18	20	35	77.5	23	22	30
100	M20X2.5P	25	18	20	35	77.5	23	22	30
125	M24X3P	30	23	25	40	101	30	33.5	36
150	M24X3P	30	23	25	40	101	30	33.5	36
200	M30X3.5P	44	30	35	50	133.5	45.5	45.5	60
250	M42X4.5P	43	31	35	60	144	45.5	45.5	55

Rod End Fork Mounting (ARC) - A



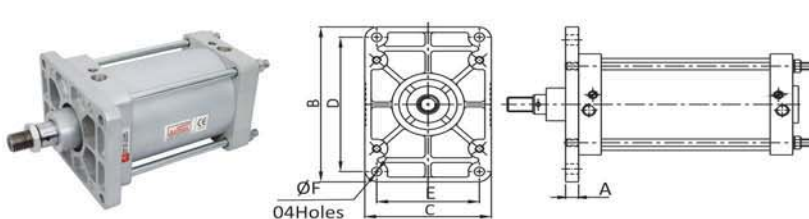
Bore die	KK	C	ØD	E	F	G	J	X	Hsq.
25	M8X1.25P	39.5	10	10	30	51	19	132	19
40	M12X1.75P	52.5	12	12.5	47	64	25	173	25
50	M12X1.75P	52.5	12	12.5	47	64	25	173	25
65	M16X1.5P	64	16	17	61.5	80	32	213	32
75	M20X2.5P	80	20	21	76	99	38	253	38
100	M20X2.5P	80	20	21	76	99	38	253	38
125	M24X3P	100	25	25	93	124	50	301	50
150	M24X3P	100	25	25	93	124	50	308	50
200	M30X3.5P	111	30	32	100	142	63	377	63
250	M42X4.5P	128	35	33	108	167	70	443	70

Foot Mounting (AFB) - L



Bore die	ØA	B	E	F	G	H	X
25	5.5	14.5	25	38	25	3	91
40	6.5	23	38	55	35.5	4	131
50	6.5	27	46	66	38	5	139
65	9	26	60	80	55	5	153
75	10.5	30	70	98.5	57	6	171
100	10.5	30	88	122	70	6	171
125	12.5	33	112	140	78	6	194
150	12.5	33	126	156	88	6	201
200	16.5	44	175	225	120	8	267
250	21	50	210	275	150	8	297

Front Flange Mounting (FM) - F

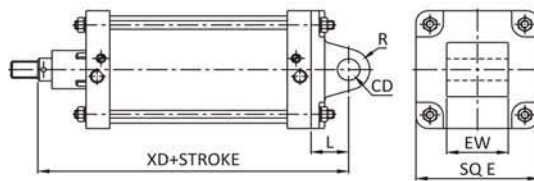


Bore die	A	B	C	D	E	ØF
25	6	72.6	40	56	25	6.5
40	10	97	60	77	36.5	8.5
50	10	108	75	82	47.5	8.5
65	10	138	85	105	60	10.5
75	16	153	102	125	70	13
100	16	175	120	145	88	13
125	19	202	141	170	112	12.5
150	23	218	166	190	126	12.5
200	25	320	225	259	175	22
250	25	395	275	325	210	25.5

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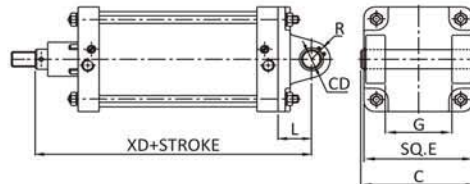


Male Clevis Mounting (ACL) - S



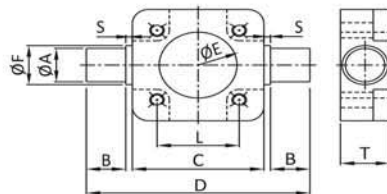
Bore die	CD	EW ±1.2	L	R	E max.	XD
25	8	14.5	22	---	41	113
40	12	27	25	10	57	140
50	12	31	25	12	67	140
65	16	39.5	30	16	82	171
75	16	49.5	32	17	94	194
100	20	58	38	17	116	200
125	25	70	45	25	138	236
150	25	90	45	25	165	243
200	30	90	65	30	220	319
250	40	110	70	41	272	368

Female Clevis Mounting (ACL) - D



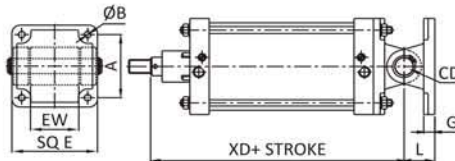
Bore die	CD H9	G	C	L	R	E max.	XD
25	8	15	46	13	---	41	104
40	12	28.5	66	25	10	57	140
50	12	32.5	72	25	12	67	140
65	16	40.5	86	30	16	82	171
75	16	50	105	32	17	94	194
100	20	60.5	129	38	17	116	200
125	25	72	130	45	25	138	236
150	25	92	150	45	25	165	243
200	30	92	177	65	30	220	319
250	40	110	221	70	41	272	368

Front & Rear Trunnion Mounting (FM) - M



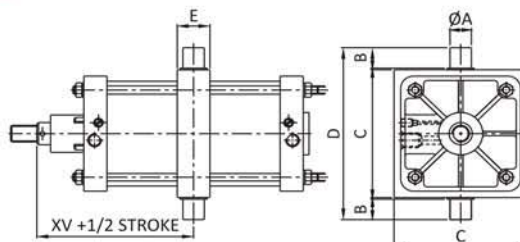
Bore die	ØA	B	ØE	C	D	T	L	S	ØF
25	12	12	26	40	68	15	25	2	14
40	18	18	36	55	95	20	36.5	2	20
50	18	18	36	67	107	20	47.5	2	20
65	20	25	46	80	134	24	60	2	24
75	35	29	70	93	156	40	70	2.5	40
100	35	29	75	115	178	40	88	2.5	40
125	25	25	64	132	210	50	112	---	---
150	32	32	64	163	264	50	126	1.8	45
200	45	36	75	230	302	45	175	2.5	---
250	50	60	90	277	397	50	210	2.5	---

Pivot Bracket & Pin Mounting (PB-P) - DS



Bore die	CD	EW ±1.2	L	G	ØB	A	E max.	XD
25	8	22	13	9	5.5	25	41	104
40	12	25	25	9	6.5	36.5	57	140
50	12	25	25	11	6.5	47.5	67	140
65	16	39.5	30	11	8.5	60	82	171
75	16	32	32	14	10.5	70	94	194
100	20	58	38	15	10.5	88	116	200
125	25	45	45	25	12.5	112	138	236
150	25	45	45	25	12.5	126	165	243
200	30	65	65	30	17	175	220	319
250	40	70	70	25	22	210	272	368

Center Trunnion Mounting (NCTM) - T



Bore die	ØA	B	C	D	E	XV ±2.5
25	12	12	57	85	24	60
40	18	20	78	112	35	72.5
50	18	20	84	128	35	72.5
65	28	28	115	175	45	90.5
75	35	29	130	193	45	106.5
100	35	29	158	221	45	106.5
125	40	33.5	180	252	50	127
150	40	33.5	207	279	50	130.5
200	48	36	266	343	80	164.5
250	60	60	335	461	95	199.5

PNEUMATIC CYLINDERS

Heavy Duty with Adjustable Cushioning at both Ends



Model : ASC Series : 2414

Features

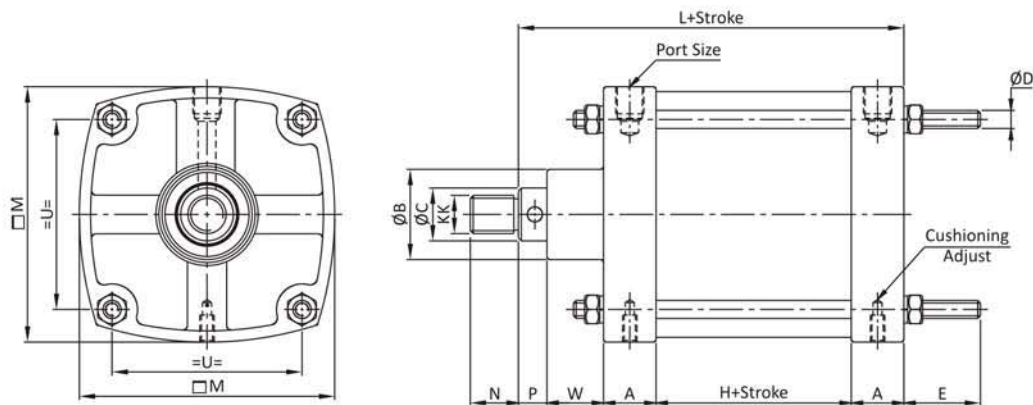
- ▶▶ Extremely Rugged and Heavy Duty
- ▶▶ Ideal for use in Tough Industrial Environments
- ▶▶ Large range of bore sizes and mountings
- ▶▶ Stroke available upto 3000 mm
- ▶▶ Upto 10 Ton Load Capacity
- ▶▶ Option : Bellows, Viton Seals, Hollow Shaft, Rod Extension and Rod Threading.
- ▶▶ Special : Single Acting, Stroke Adjustable, Double Ended, Duplex and Large Port
- ▶▶ Available in both Magnetic & Non - magnetic Version
- ▶▶ Extensive choice of mounting
- ▶▶ Stainless Steel barrel up to 3000 mm
- ▶▶ Adjustable cushioning at both end
- ▶▶ Long Established tie rod design, Proven ruggedness & Reliability



Technical Specification

Bore Die	50	65	75	100	125	150	200
Stroke	Upto 3000 mm						
Cushion	Available at both ends						
Piston Rod Dia	19.3	25.6	35.1	38.1			
Surface Treatment	Auto finish enameling end cover & cylinder barrel						
Pressure	7 to 150 PSI (0.5 to 10 BAR)						
Temperature	-10 °C to 80 °C, (Upto 180 °C with Viton Seals)						
Design	Piston Cylinder with Cushion / Non - Cushion Version)						
Mounting	Std. Mounting available (for more details see dimensions)						

Basic Cylinder Dimensions for ASC



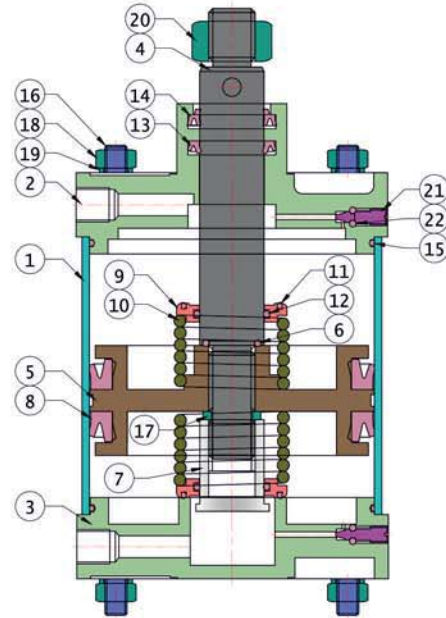
Bore die	KK	H	A	W	P	N	E	U	$\square M$	ϕB	ϕC	L	D	K*	Port Size
50	1/2" BSW.	54	22	25	15	19	25	48	65	43	19.3	138	1/4" BSW	107	1/4" BSP
65	1/2" BSW.	57	22	25	15	19	25	59	79	43	19.3	141	1/4" BSW	165	1/4" BSP
75	1/2" BSW.	61	26	32	15	19	30	70	94	47	19.3	160	3/8" BSW	248	1/4" BSP
100	3/4" BSW.	61	29	25	15	25	30	88.5	120	48	25.3	159	3/8" BSW	433	3/8" BSP
125	1" BSW.	86	36	38	19	32	40	108	147	60	35.1	215	1/2" BSW	665	1/2" BSP
150	1" BSW.	79	35	38	19	32	40	126.5	170	60	35.1	206	1/2" BSW	949	1/2" BSP
200	1.1/4" BSW.	86	38	57	19	45	45	170.5	230	65	38.1	238	3/4" BSW	1682	3/4" BSP

*K = Push Force at 5 Kg/cm²

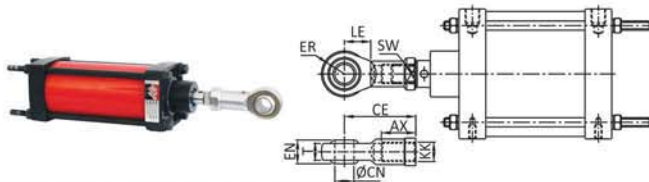
Note : Since, constant worldwide advancement in technology, We keep our rights reserved to make changes time to time in Technical Specification and Dimensions without prior notice.



No.	Item Name	Material
1	Round Pipe	Aluminum Alloy HE9WP
2	Top Cover	ASTM A 536 Gr. 65-45-12
3	Bottom Cover	ASTM A 536 Gr. 65-45-12
4	Piston Rod (Shaft)	BS-970-90, En-8, (080M40)
5	Piston	Aluminum
6	Shaft 'O' Ring	Nitrile Buna - N Gr.80
7	Piston Lock Nut	Mild Steel
8	Piston V - Seal	Nitrile Buna - N Gr. 80
9	Spring Guide	Aluminum
10	Spring	Standard
11	Guide 'O' Ring - 1	Nitrile Buna - N Gr. 80
12	Guide 'O' Ring - 2	Nitrile Buna - N Gr. 80
13	Shaft V - Seal	Nitrile Buna - N Gr. 80
14	Duster V - Seal	Nitrile Buna - N Gr. 80
15	Dia Meter 'O' Ring	Nitrile Buna - N Gr. 80
16	Stud	Mild Steel
17	Washer For Piston	Mild Steel
18	Stud Nut	Mild Steel
19	Stud Washer	Mild Steel
20	Shaft Nut	Mild Steel
21	Cushion Pin	Brass
22	Cushion Pin 'O' Ring	Nitrile Buna - N Gr. 80

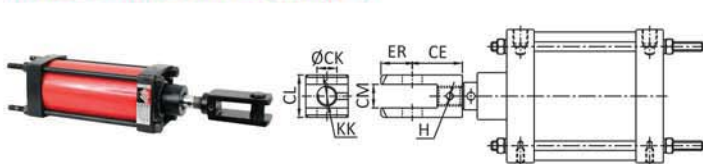


Rod End Spherical Eye Mounting (AR) - G



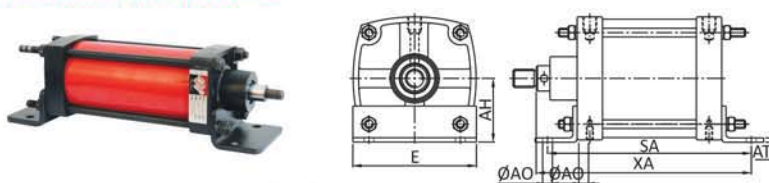
Bore die	KK	EN	T	ØCN	AX	CE	ER	LE	SW
50	1/2" BSW	16	12	12	25	50	15	16	19
65	1/2" BSW	21	15	16	25	64	19	20	21.6
75	1/2" BSW	25	18	20	35	77.5	23	22	30
100	3/4" BSW	25	18	20	35	77.5	23	22	30
125	1" BSW	30	22	25	40	93.5	30	34.5	36
150	1" BSW	30	22	25	40	93.5	30	34.5	36
200	1.1/4" BSW	43	30	35	50	137.5	45.5	45.5	60

Rod End Fork Mounting (ARC) - A



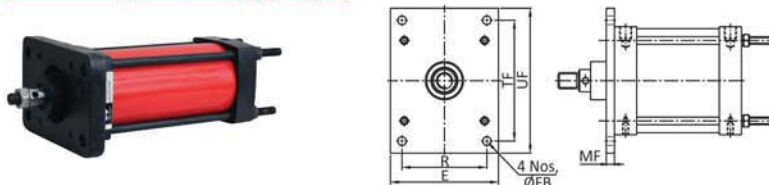
Bore die	KK	CL	CE	LE	ER	CM	CK	H
50	1/2" BSW	28	40	20	19	15	12	M6
65	1/2" BSW	28	40	20	19	15	12	M6
75	1/2" BSW	35	42	22	24	17	16	M6
100	3/4" BSW	45	54	28	30	25	19	M6
125	1" BSW	54	64	32	40	30	25.4	M8
150	1" BSW	54	64	32	40	30	25.4	M8
200	1.1/4" BSW	64	81	36	50	32	31.8	M8

Foot Mounting (AFB) - L



Bore die	XA	SA	AT	AH	TR	AO	E
50	163	148	3.5	36.8	38	10	62.5
65	166	151	5	42.3	56.5	10	77
75	197	187	6	57	66	13.5	92
100	197	195	6	66.7	95	13.5	121
125	257	242	6	79	114.5	13.5	146
150	248	233	6	88	141	13.5	171
200	296	287	8	120.4	176	20	222

Front Flange Mounting (FM) - F



Bore die	MF	UF	TF	E	R	FB
50	9.5	108	86	64	42	10
65	9.5	121	98.5	77	54	10
75	12.5	152	120.5	92	63.5	13.5
100	12.5	178	146	120	89	13.5
125	13	203	168	146	118	13.5
150	13	228	190	170	133.5	13.5
200	19	324	268	222	159	20

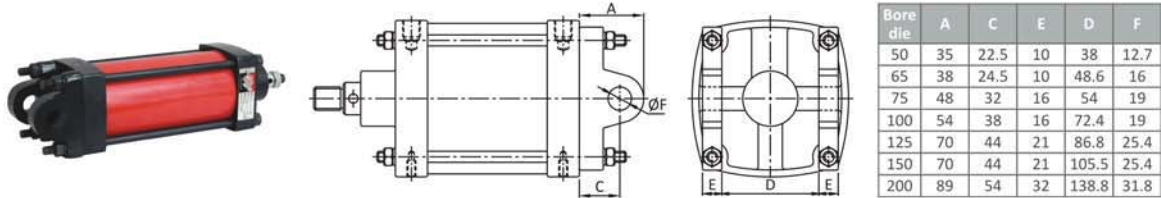
PNEUMATIC CYLINDERS

Heavy Duty with Adjustable Cushioning at both Ends

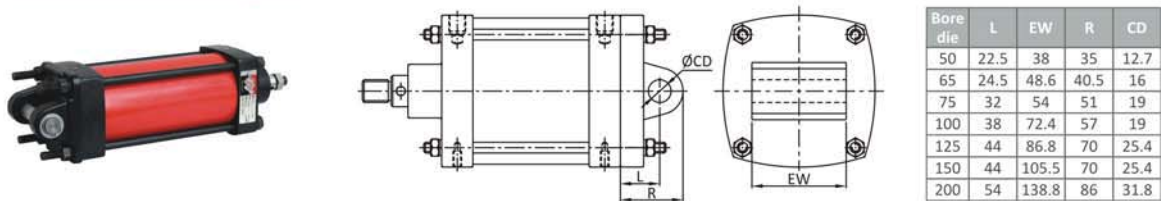


Model : ASC
Series : 2414

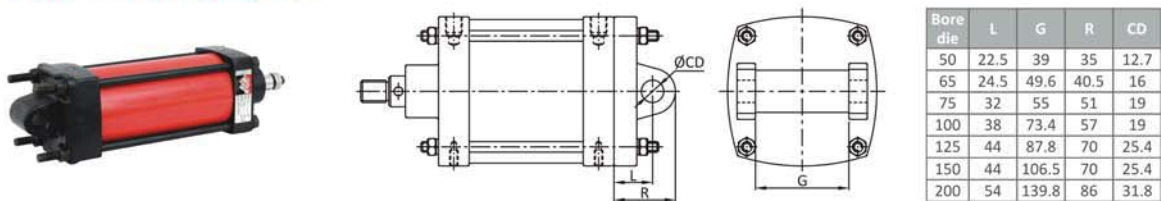
Pivot Mounting (AP) - S03



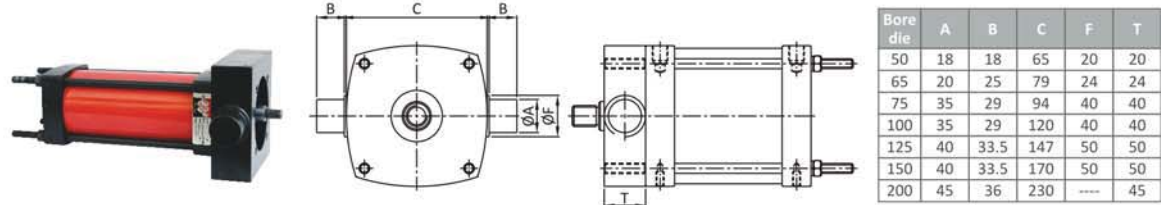
Male Clevis Mounting - MC



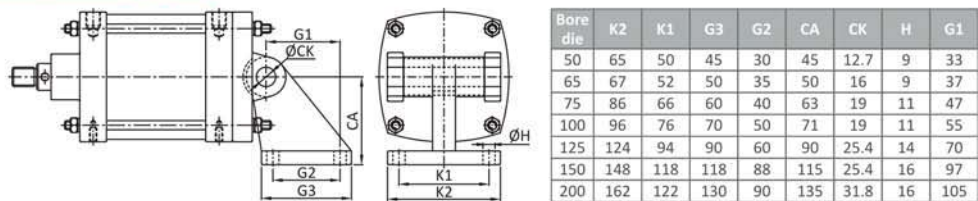
Female Clevis Mounting - FC



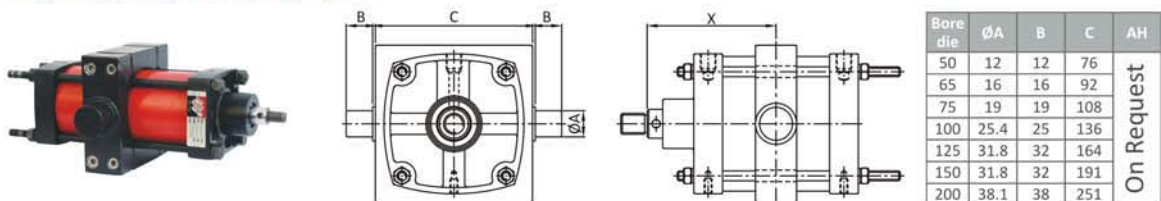
Front & Rear Trunnion Mounting (FT / RT)



Clevis Foot Bracket Mounting - (CF)



Center Trunnion Mounting - (CT)



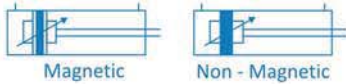
Note : Since, constant worldwide advancement in technology, We keep our rights reserved to make changes time to time in Technical Specification and Dimensions without prior notice.





Features

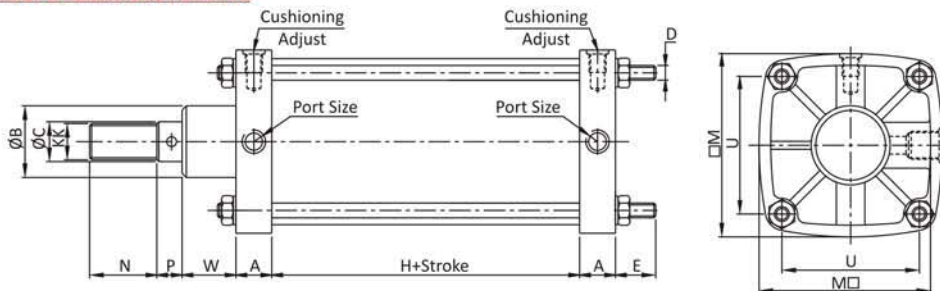
- ▶▶ Large range of bore size
- ▶▶ Stroke available up to 2500 mm
- ▶▶ Long established tie rod design, proven ruggedness & reliability
- ▶▶ Adjustable cushioning at both end
- ▶▶ Extensive choice of mounting
- ▶▶ Stainless Steel barrel upto 2500 mm
- ▶▶ Available in both magnetic & non - magnetic version



Technical Specifications

Bore Dia	125	150	200	250	300	350	400	450
Stroke	Upto 2500 mm							
Cushion	Available at both ends							
Barrel	Stainless Steel							
Piston Rod	EN 8 with hard chrome plated (25 microns around the shaft)							
Piston Rod Dia	32	38	51	56	70			
End Cover	Aluminium Pressure Die Cast							
Sales	Polyurethane, Nitrile (Viton seal available on request for high temperature)							
Surface Treatment	Auto finish enameling end cover & cylinder barrel							
Mounting	Std. Mounting available (for more details see dimension)							

Basic Cylinder Dimensions For ANC



Bore die	KK	H	A	W	P	N	E	U	M	ØB	ØC	D	K*	Port Size
125	M24X3P.	57	32	44	19	36	35	110	144	54	32	M12	613	G1/2"
150	M24X3P.	57	32	44	19	36	35	126	167	54	32	M12	880	G1/2"
200	M30X3.5P.	70	45	50	20	45	50	175	230	70	38	M16	1797	G3/4"
250	M42X4.5P.	100	50	55	26	57	60	210	277	90	51	M20	2450	G1"
300	M42X4.5P.	100	50	55	26	57	60	250	335	90	51	M20	3770	G1"
350	M42X4.5P.	90	55	75	25	65	60	290	385	110	56	M24	4800	G1"
400	M42X4.5P.	90	55	75	25	65	60	325	435	120	56	M24	6280	G1"
450	M56X5P.	90	55	75	30	65	60	357	485	120	70	M24	7950	G1"

*K = Push Force at 5 Kg/cm²

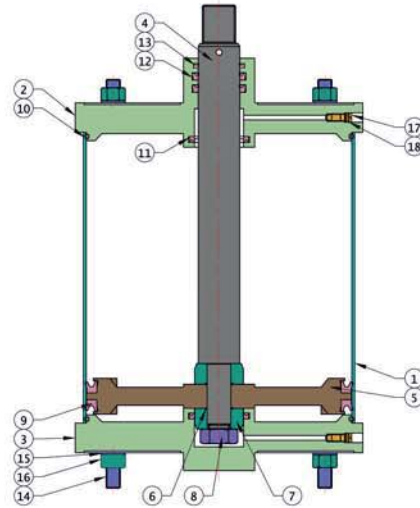
PNEUMATIC CYLINDERS

with STAINLESS STEEL Barrel Adjustable Cushioning at Both Ends

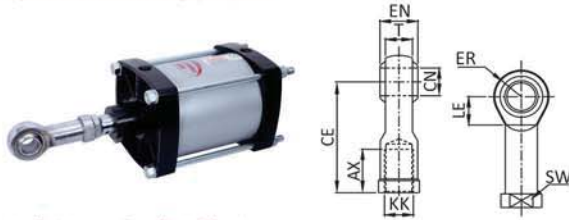


Model : RMS
Series : R50

No.	Item Name	Material
1	Round Pipe	Stainless Steel
2	Top Cover	C.I. (IS:210 FG:220)
3	Bottom Cover	C.I. (IS:210 FG:220)
4	Piston Rod	BS-970-90,EN-8,(080M40)
5	Piston	C.I. (IS:210 FG:220)
6	O-Ring For Piston	NITRILE BUNA-N,
7	Collar	BS-970-90,EN-8, (080M40)
8	Piston Lock Nut	BS-970-90,EN-8, (080M40)
9	V-Seal For Piston	Hi - Nitrile
10	Diameter Ring	NITRILE BUNA-N,
11	Cushion Seal	NITRILE BUNA-N,
12	Shaft V-Seal	NITRILE BUNA-N,
13	Duster V-Seal	NITRILE BUNA-N,
14	Stud	BS-970-90,EN-8, (080M40)
15	Washer	BS-970-90,EN-8, (080M40)
16	Nut For Stud	BS-970-90,EN-8, (080M40)
17	Cushion Pin	BS-970-90,EN-8, (080M40)
18	O-Ring For Cushion Pin	NITRILE BUNA-N,



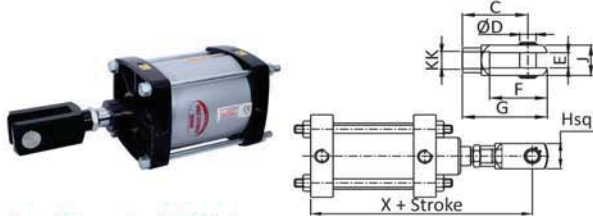
Eye Rod Mounting (AR) - G



Bore die	KK	EN	T	CN	AX	CE	ER	LE	SW	CE
125	M24X3P	30	22	25	40	93.5	30	33.5	36	----
150	M24X3P	30	22	25	40	93.5	30	33.5	36	----
200	M30X3.5P	44	30	35	50	133.5	45.5	45.5	60	137.5
250	M42X4.5P	44	30	35	60	145.5	45.5	45.5	55	142.5
300	M42X4.5P	44	30	35	60	145.5	45.5	45.5	55	142.5
350										
400										
450										

ON REQUEST

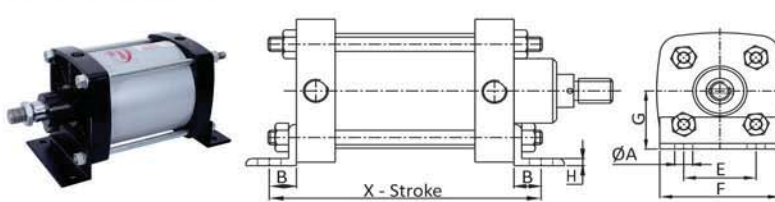
Fork Mounting (ARC) - A



Bore die	KK	C	ØD	E	F	G	J	X	Hsq.
125	M24X3P	100	25	25	93	124	50	295	50
150	M24X3P	100	25	25	93	124	50	295	50
200	M30X3.5P	111	30	32	100	142	63	353	63
250	M42X4.5P	128	35	35	108	167	70	425	70
300	M42X4.5P	128	35	35	108	167	70	425	70
350	M42X4.5P	128	35	35	108	167	70	434	70
400	M42X4.5P	128	35	35	108	167	70	434	70
450									

ON REQUEST

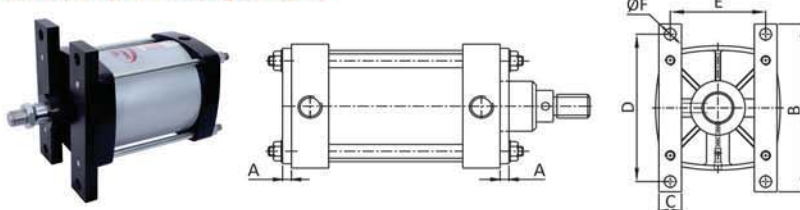
Foot Mounting (AFB) - L



Bore die	ØA	B	E	F	G	H	X
125	12.5	33	110	140	78	6	187
150	12.5	33	126	156	88	6	187
200	16.5	44	175	225	120	8	248
250	21	50	210	275	150	8	300
300	21	50	250	340	180	10	300
350	25	60	290	385	205	10	310
400	25	60	325	435	230	12	310
450							

ON REQUEST

Front Flange Mounting (AFB) - L

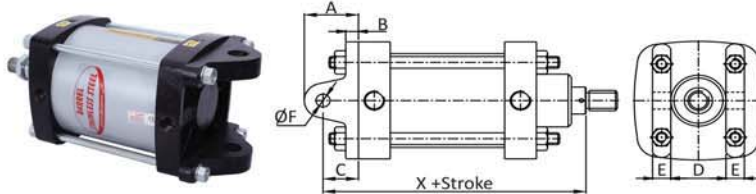


Bore die	A	B	C	D	E	ØF
125	20	215	45	178	110	17
150	18	235	50	200	126	17
200	20	315	50	259	175	22
250	25	370	50	325	210	25.5
300	25	443	50	393	250	25.5
350	30	494	70	420	290	28
400	30	555	70	470	325	28
450	30	587	----	504	357	28

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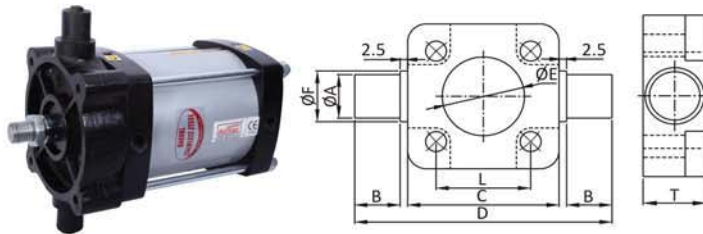


Pivot Mounting (AP) - S



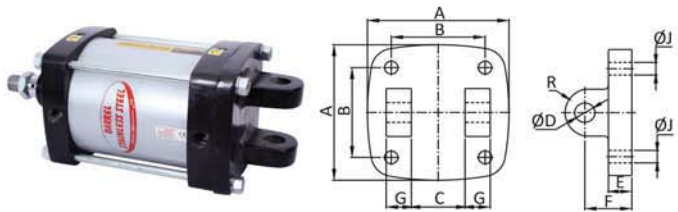
Bore die	A	B	C	D	E	ØF	X
125	63	18	35	88	22	25	219
150	63	18	35	102	24	25	219
200	80	22	48	139	36	30	278
250	94	25	57	170	40	36	338
300	94	25	57	208	42	36	338
350	135	30	90	248	42	40	380
400	120	40	80	283	42	40	370
450	ON REQUEST						

Front & Rear Trunnion Mounting (TM) - M



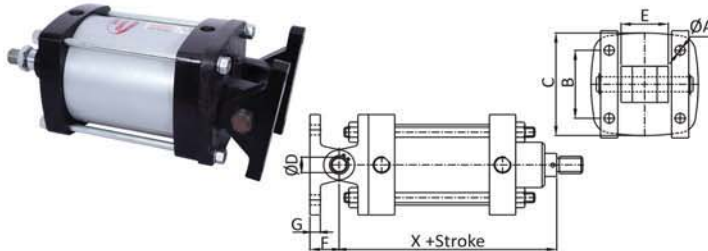
Bore die	ØA	B	ØE	C	D	T	L	ØF
125	25	25	63	133	210	50	110	50
150	32	32	63	166	264	50	126	50
200	45	36	70	230	302	45	175	ON REQUEST
250	50	60	90	277	397	50	210	ON REQUEST
300	50	60	90	335	455	50	250	ON REQUEST
350	50	65	120	385	515	50	290	ON REQUEST
400	50	65	120	435	565	50	325	ON REQUEST
450	ON REQUEST							

Center Lug Mounting (ACL) - D



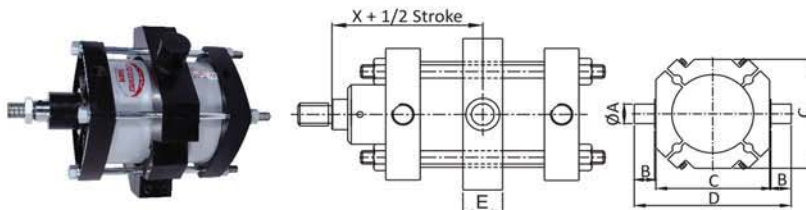
Bore die	A	B	C	R	ØD	ØJ	E	F	G
125	149	110	40	31	25	12.5	20	57	24
150	167	126	50	29	25	12.5	20	57	26
200	233	175	72	33	30	16.5	22	64	33
250	277	210	92	40	36	21	26	70	39
300	335	250	123	47	36	21	25	85	40
350	387	290	ON REQUEST						
400	438	325	ON REQUEST						
450	ON REQUEST								

Pivot Bracket & Pin Mounting (AB - P) - S



Bore die	ØA	B	C	ØD	E	F	G	X
125	12.5	110	149	25	88	35	18	241
150	12.5	126	167	25	102	35	18	241
200	16.5	175	233	30	138	48	22	294
250	21	210	277	36	170	57	25	351
300	21	250	335	36	203	57	25	366
350	25	290	ON REQUEST					
400	25	325	ON REQUEST					
450	ON REQUEST							

Center Trunnion Mounting (NCTM) - T



Bore die	ØA	B	C	D	E	X
125	40	33.5	180	252	50	123.5
150	40	33.5	207	279	50	123.5
200	48	36	266	343	80	150
250	60	60	335	461	95	181
300	60	60	390	516	95	181
350	65	65	ON REQUEST	110	ON REQ.	
400	ON REQUEST					
450	ON REQUEST					

PNEUMATIC CYLINDERS

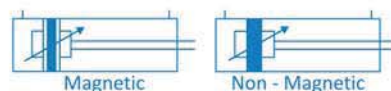
Compact Design As Per ISO 21287 Standard Profile (Square Type)



Model : CCF / CCM
Series : S-40 / S-30

Features

- ▶▶ Hard Anodized Aluminium Profile (Square) Cylinder Barrel.
- ▶▶ Bore size Ø32 to Ø100mm.
- ▶▶ Compact Design.
- ▶▶ Magnetic and Non Magnetic Cylinders.
- ▶▶ Wide Range Of Mounting.
- ▶▶ Magnetic Sensor Common For all sizes.
- ▶▶ 50% Less installation Space.
- ▶▶ Cost effective.
- ▶▶ High Performance.
- ▶▶ Safe & reliable.



Technical Specification

Bore Dia	32	40	50	63	80	100
Standard Stroke (mm)	5, 10	15, 20	25, 30	40, 50	60, 70	80
Material of Construction	Aluminium					
Selas	Polyurethane, Nitrile (Viton seal available on request for high temperature)					
Pressure	0.5 ~ 10 Bar					
Temperature	5° ~ 60 °C max.					
Mountings	Std. Mounting available (for more details see dimension)					

Output Force

(force in N : 1N = 0.1 kgf)

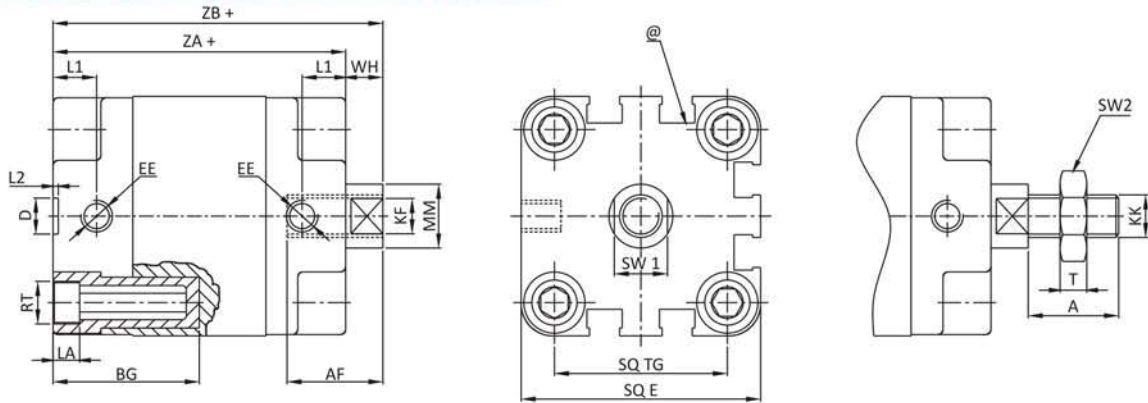
Bore die in mm	Rod dia in mm	Action	Working Pressure in Bar								
			2	3	4	5	6	7	8	9	10
32	12	Extend	145	217	289	362	434	507	579	651	724
		Retract	124	187	249	311	373	435	498	559	622
40	12	Extend	226	339	452	565	678	792	905	1018	1130
		Retract	206	309	411	514	617	720	823	926	1029
50	16	Extend	353	530	707	883	1060	1237	1413	1590	1767
		Retract	317	476	634	793	952	1110	1269	1427	1586
63	16	Extend	561	842	1122	1403	1683	1964	2244	2525	2805
		Retract	525	787	1050	1312	1575	1837	2099	2362	2624
80	20	Extend	905	1357	1809	2262	2714	3167	3619	4071	4524
		Retract	848	1272	1696	2120	2544	2969	3393	3817	4241
100	20	Extend	1414	2120	2827	3534	4241	4948	5655	6362	7068
		Retract	1357	2036	2714	3393	4071	4750	5429	6107	6786

(Above values have been worked out taking frictional loss into consideration)

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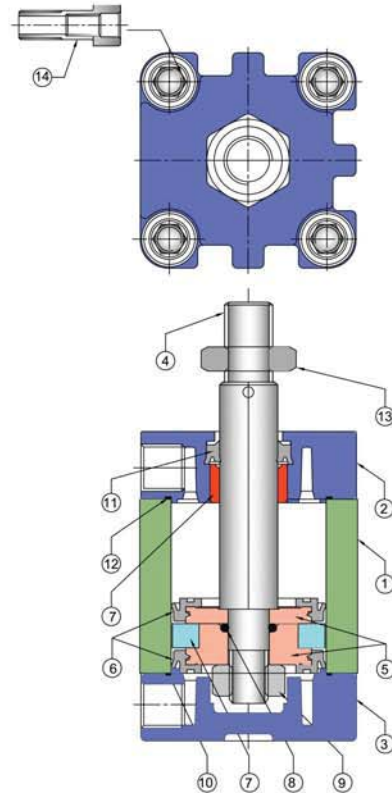
Basic Cylinder Dimensions For Model : CCF / CCM



Bore die	KF	KK	MM	AF	RT	SW1	L1	LA	BG min	EE	TG	E max	D M10	L2	ZA	TOL	ZB	TOL	WH	TOL	A -0.5	SW2	T	STROKE TOL
32	M8X1.25P.	M10X1.25P.	12	12	M6	10	7.5	5.5	15	G1/8	32.5	45	10	2	44	±0.5	51	±1.6	7	±1.6	19	17	5	±2 0
40	M8X1.25P.	M10X1.25P.	12	12	M6	10	7.5	5.5	15	G1/8	38	51			45	±0.7	52		7		19	17	5	
50	M10X1.5P.	M12X1.25P.	16	16	M8	13	7.5	5.5	16	G1/8	46.5	64	12	3	49	±0.8	57	±2	8	±2	22	19	7	±2.5 0
63	M10X1.5P.	M12X1.25P.	16	16	M8	13	7.5	5.5	16	G1/8	56.5	74			49		57		8		22	19	7	
80	M12X1.75P.	M16X1.5P.	20	20	M10	17	8	5.5	17	G1/8	72	94	12	3	54	±1	64	±2	10	±2	28	24	8	±2.5 0
100	M12X1.75P.	M16X1.5P.	20	20	M10	17	12.5	5.5	17	G1/8	89	111			54		64		10		28	24	8	

@ - T Groove for magnetic sensor

No.	Item Name	Material	Qty
1	SQ. Pipe	Aluminium Alloy HE9WP (6063-T6) (IS : 733)	01
2	Top Cover	Aluminium Alloy Alsi 132 (BS 1490)	01
3	Bottom Cover	Aluminium Alloy Alsi 132 (BS 1490)	01
4	Piston Rod	BS-970-90, EN-8, (080M40)	01
5	Piston - A	Aluminium Alloy Alsi 132 (BS 1490)	01
	Piston - B	Aluminium Alloy Alsi 132 (BS 1490)	01
6	V-Seal For Piston	P.U. Gr. 96	02
7	Delrin Ring	Delrin Acetal copolymer	01
8	O-Ring For Piston	Nitrile Buna-N Gr. 80	01
9	Piston Lock Nut	BS-970-90, EN-8, (080M40)	01
10	Diameter Ring	Nitrile Buna-N Gr. 80	02
11	V-Seal (Nut Ring)	Nitrile Buna-N Gr. 80	01
12	Bearing Bush	Brass (CZ 121)	01
13	Lock Nut	BS-970-90, EN-8, (080M40)	01
14	End Cover Bolt	BS-970-90, EN-8, (080M40)	08



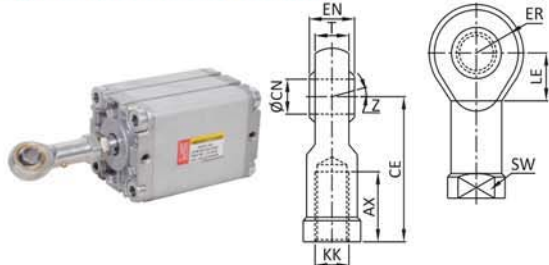
PNEUMATIC CYLINDERS

Compact Design As Per ISO 21287 Standard Profile (Square Type)



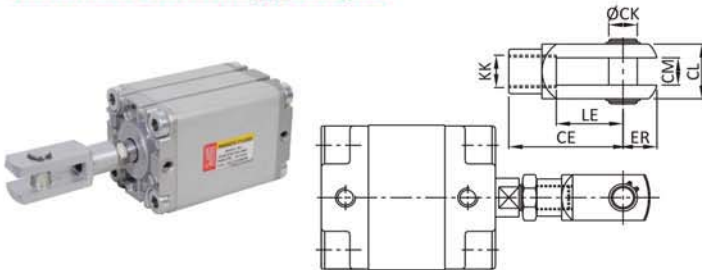
Model : CCF / CCM
Series : S-40 / S-30

Eye Rod Mounting (NCAP) - G



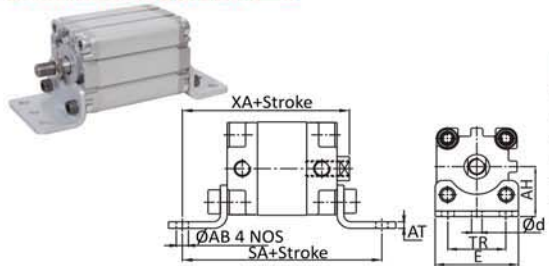
Bore die	KK	CN H9	T	EN h12	CE	LE min.	ER max.	AX	SW	Z
32 / 40	M10X1.25P	10	10.5	14	43	15	14	20	17	13°
50 / 63	M12X1.25P	12	12	16	50	17	16	22	19	
80 / 100	M16X1.5P	16	15	21	64	22	21	28	22	15°

Rod End Fork Mounting (NCAF) - A



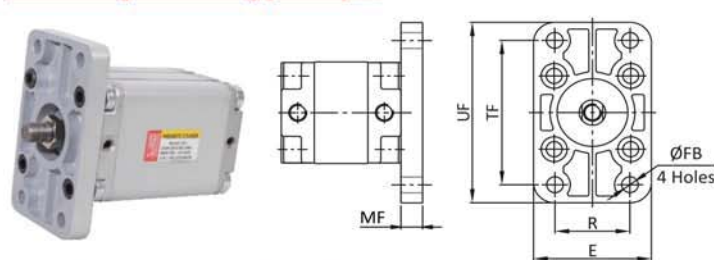
Bore die	KK	CE	CK f9	CM B12	LE	ER max.	CL
32	M10X1.25P	40	10	10	20	16	20
40	M10X1.25P	40	10	10	20	16	20
50	M12X1.25P	48	12	12	24	19	25
63	M12X1.25P	48	12	12	24	19	25
80	M16X1.5P	64	16	16	32	25	32
100	M16X1.5P	64	16	16	32	25	32

Foot Mounting (NCML) - L



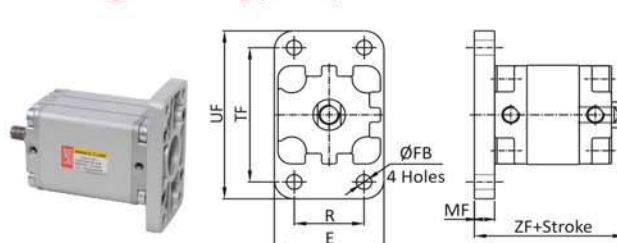
Bore die	AB H14	AT	AH Js16	d*	TR Js14	E	SA	TOL	XA	TOL	Recommended Bolt Size
32	6.5	3.5	32	5.8	32	46	92	±1.25	75	±1.25	M6
40	9	4	36	7.8	36	55	99	±1.6	85	±1.5	M8
50	9	6	45	7.8	45	65	109		95		M10
63	9	5	50	7.8	50	80	125	105	M10		
80	12	5	63	9.8	63	95	136	118	M12		
100	14	7	71	11.8	75	126	149				M12

Front Flange Mounting (NCMF) - F



Bore die	TF ±0.3	R ±0.3	FB H13	MF	UF	E	Recommended Bolt Size
32	64	32	7	10	80	50	M6
40	72	36	9	10	90	53	M8
50	90	45	9	12	110	64	M8
63	100	50	9	12	125	80	M8
80	126	63	12	16	155	95	M10
100	150	75	14	16	185	120	M12

Rear Flange Mounting (NCMF) - R

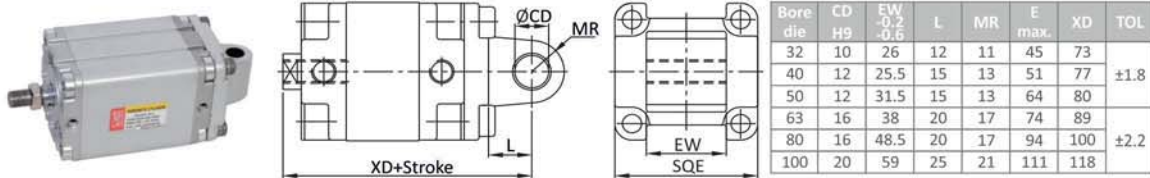


Bore die	TF ±0.3	R ±0.3	FB H13	MF	UF	E	ZF	TOL	Recommended Bolt Size
32	64	32	7	10	80	50	61	±1.8	M6
40	72	36	9	10	90	53	62		M8
50	90	45	9	12	110	64	65		M8
63	100	50	9	12	125	80	69	±2.2	M8
80	126	63	12	16	155	95	80		M10
100	150	75	14	16	185	120	93		M12

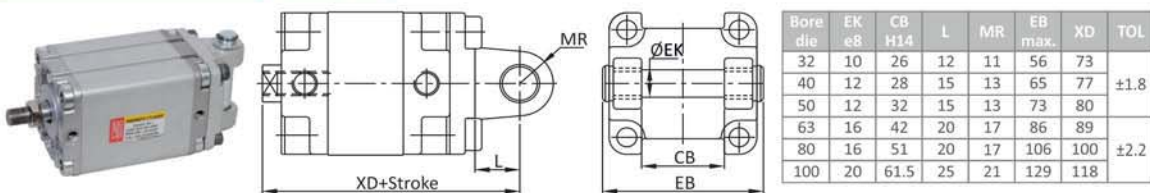
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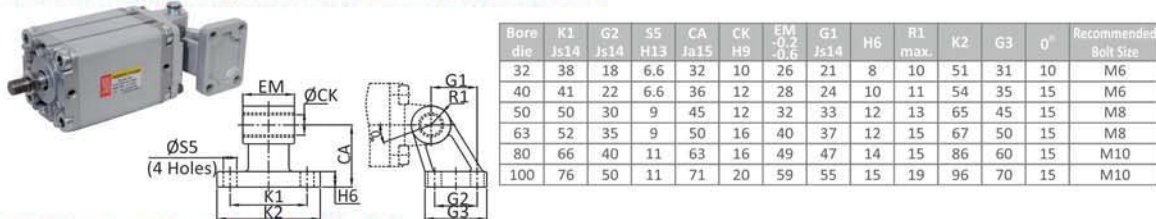
Male Clevis Mounting (NCMS) - S



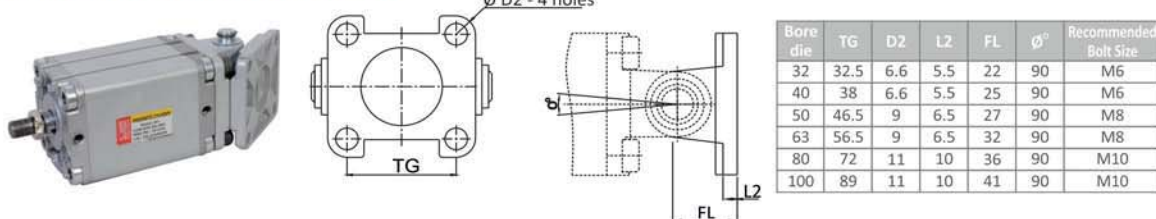
Female Clevis Mounting (NCMS) - D



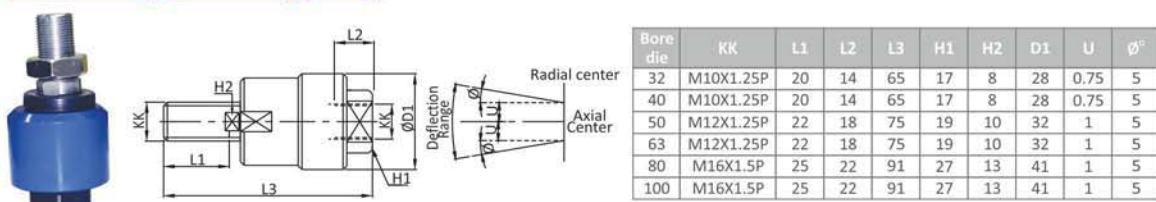
Swivel Flange Clevis Foot Bracket Mounting (NCAA) - C



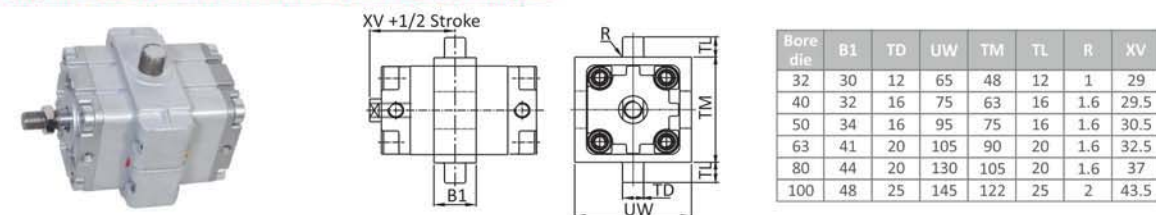
Wall Bracket Mounting (NCAV) - DS



Rod End Alinger Mounting (NCRA)



Adjustable Center Trunnion Mounting (NCTM) - T



PNEUMATIC CYLINDERS

Double Ended Compact Design As Per ISO 21287 Standard Profile (Square Type)



Model : CCF D/E & CCM D/E
Series : S-42 / S-32

Features

- » Elastomer end cushioning.
- » Bore size Ø32 to Ø100mm.
- » Compact Design.
- » Wide Range Of Mounting.
- » Space saving
- » Magnetic and Non Magnetic Cylinders.
- » Aluminium sensor common for all sizes



Magnetic



Non - Magnetic

Technical Specification

Bore Dia	32	40	50	63	80	100				
Standard Stroke (mm)	10	15	20	25	30	40	50	60	70	80
Material of Construction	Aluminium									
Selas	Polyurethane, Nitrile (Viton seal available on request for high temperature)									
Pressure	0.5 ~ 10 Bar									
Temperature	5° ~ 60 °C max.									
Mountings	Std. Mounting available (for more details see dimension)									

Output Force

(force in N : 1N = 0.1 kgf)

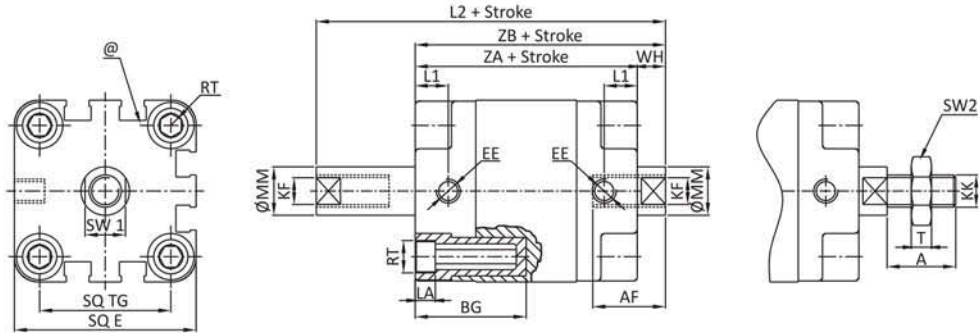
Bore dia in mm	Rod dia in mm	Action	Working Pressure in Bar								
			2	3	4	5	6	7	8	9	10
32	12	Extend	124	187	249	311	373	435	498	599	622
40	12	Retract	206	309	411	514	617	720	823	926	1029
50	16	Extend	317	476	634	793	952	1110	1269	1427	1586
63	16	Retract	525	787	1050	1312	1575	1837	2099	2362	2624
80	20	Extend	848	1272	1696	2120	2544	2969	3393	3817	4241
100	20	Retract	1357	2036	2714	3393	4071	4750	5429	6107	6786

(Above values have been worked out taking frictional loss into consideration)

Note : Since, constant worldwide advancement in technology, We keep our rights reserved to make changes time to time in Technical Specification and Dimensions without prior notice.



Basic Cylinder Dimensions For Model : CCF D/E / CCM D/E

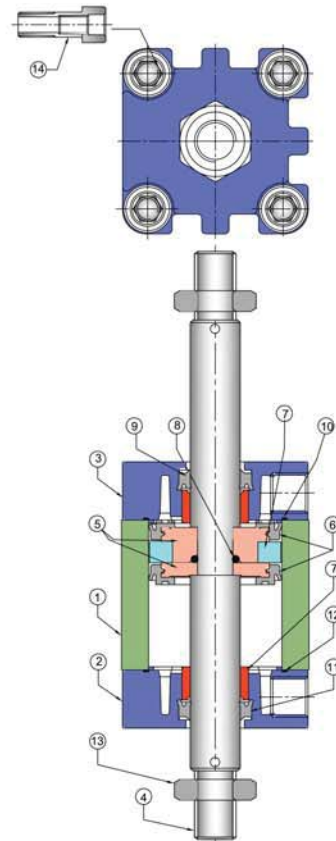


+ Add Stroke
++ Add Stroke Twice

Bore die	KF	KK	MM	AF	RT	SW1	L1	LA	BG min	EE	TG	E max	L2	TOL	ZA	TOL	ZB	TOL	WH	TOL	A -0.5	SW2	T	STROKE TOL
32	M8X1.25P	M10X1.25P	12	12	M6	10	7.5	5.5	15	G1/8	32.5	45	59.5	±1	44	±0.5	51		7		19	17	5	±2
40	M8X1.25P	M10X1.25P	12	12	M6	10	7.5	5.5	15	G1/8	38	51	60		45	±0.7	52	±1.6	7	±1.6	19	17	5	0
50	M10X1.5P	M12X1.25P	16	16	M8	13	7.5	5.5	16	G1/8	46.5	64	62	±1.2	45		53		8		22	19	7	
63	M10X1.5P	M12X1.25P	16	16	M8	13	7.5	5.5	16	G1/8	56.5	74	66		49	±0.8	57		8		22	19	7	
80	M12X1.75P	M16X1.5P	20	20	M10	17	8	5.5	17	G1/8	72	94	75	±1.5	54		64	±2	10	±2	28	24	8	±2.5
100	M12X1.75P	M16X1.5P	20	20	M10	17	12.5	5.5	17	G1/8	89	111	88		67	±1	77		10		28	24	8	0

@ - T Groove for magnetic sensor

No.	Item Name	Material	Qty
1	SQ. Pipe	Aluminium Alloy HE9WP (6063-T6) (IS : 733)	01
2	Top Cover	Aluminium Alloy Alsi 132 (BS 1490)	01
3	Bottom Cover	Aluminium Alloy Alsi 132 (BS 1490)	01
4	Piston Rod	BS-970-90, EN-8, (080M40)	01
5	Piston - A	Aluminium Alloy Alsi 132 (BS 1490)	01
	Piston - B	Aluminium Alloy Alsi 132 (BS 1490)	01
6	V-Seal For Piston	P.U. Gr. 96	02
7	Delrin Ring	Delrin Acetal copolymer	01
8	O-Ring For Piston	Nitrile Buna-N Gr. 80	01
9	Piston Lock Nut	BS-970-90, EN-8, (080M40)	01
10	Diameter Ring	Nitrile Buna-N Gr. 80	02
11	V-Seal (Nut Ring)	Nitrile Buna-N Gr. 80	01
12	Bearing Bush	Brass (CZ 121)	01
13	Lock Nut	BS-970-90, EN-8, (080M40)	01
14	End Cover Bolt	BS-970-90, EN-8, (080M40)	08



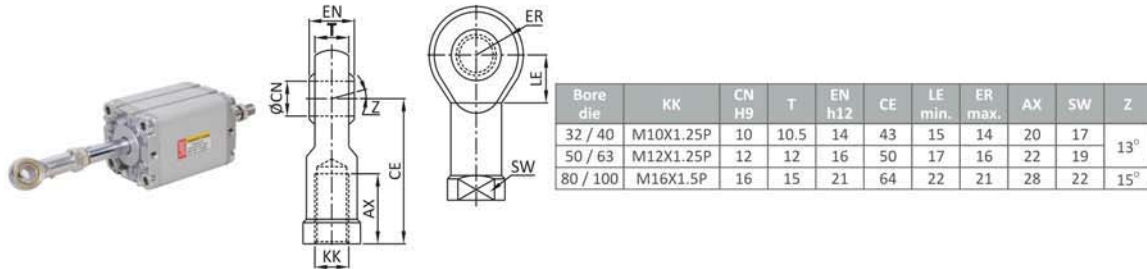
PNEUMATIC CYLINDERS



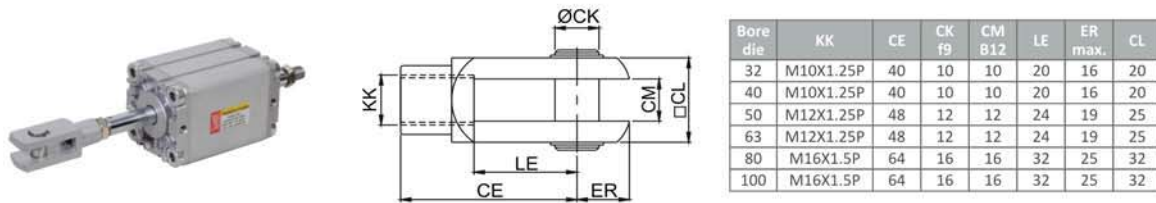
Double Ended Compact Design As Per ISO 21287 Standard Profile (Square Type)

Model : CCF D/E & CCM D/E
Series : S-42 / S-32

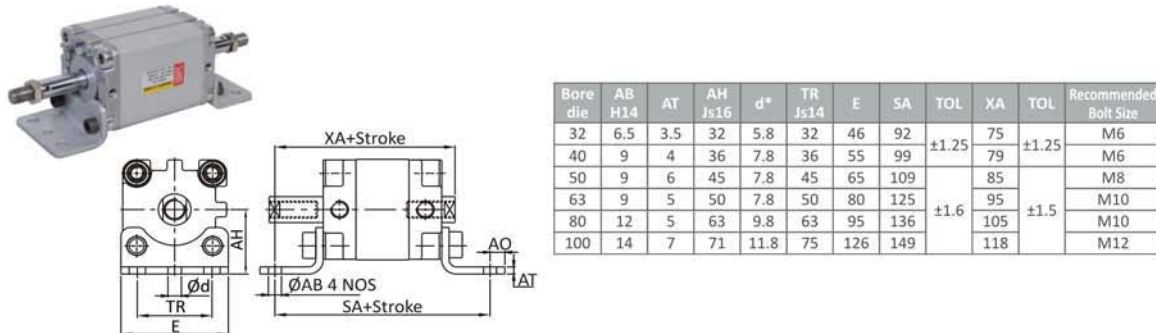
Eye Rod Mounting (NCAP) - G



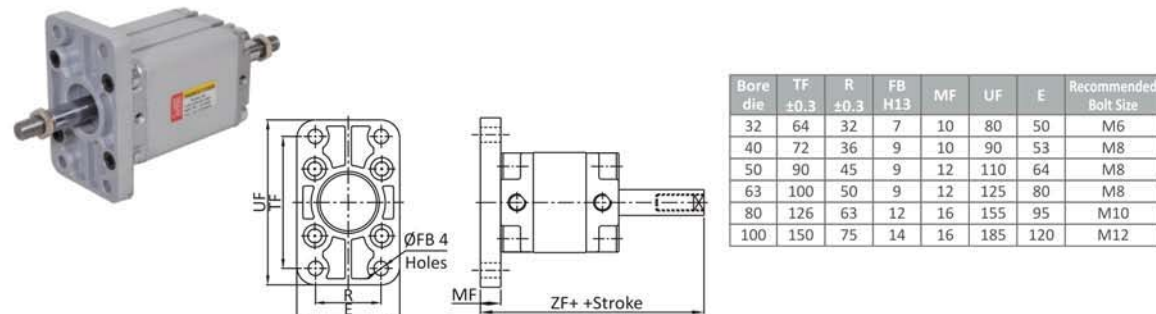
Rod End Fork Mounting (NCAF) - A



Foot Mounting (NCML) - L



Rear Front Flange Mounting (NCMF) - R



Note : Since, constant worldwide advancement in technology, We keep our rights reserved to make changes time to time in Technical Specification and Dimensions without prior notice.



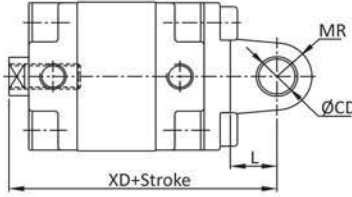
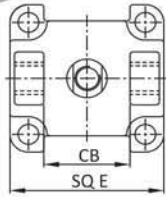


PNEUMATIC CYLINDERS

Double Ended Compact Design As Per ISO 21287 Standard Profile (Square Type)

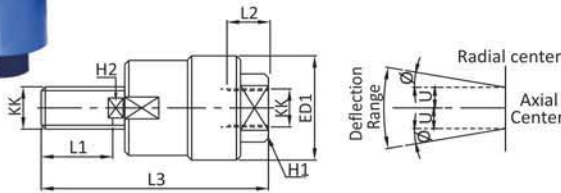
Model : CCF D/E & CCM D/E
Series : S-42 / S-32

Female Clevis Mounting (NCMD) - D



Bore die	CD e8	CB H14	L	MR	Sq. E	XD	TOL
32	10	26	12	11	45	73	±1.8
40	12	28	15	13	51	77	
50	12	32	15	13	64	80	
63	16	42	20	17	74	89	±2.2
80	16	51	20	17	94	100	
100	20	61.5	25	21	111	118	

Rod End Aligner (NCRA)

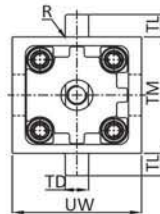
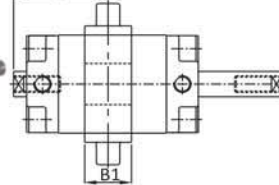


Bore die	KK	L1	L2	L3	H1	H2	D1	U	φ°
32	M10X1.25P	20	14	65	17	8	28	0.75	5
40	M10X1.25P	20	14	65	17	8	28	0.75	5
50	M12X1.25P	22	18	75	19	10	32	1	5
63	M12X1.25P	22	18	75	19	10	32	1	5
80	M16X1.5P	25	22	91	27	13	41	1	5
100	M16X1.5P	25	22	91	27	13	41	1	5

Adjustable Center Trunnion Mounting (NCMD) - D



XV + 1/2 Stroke

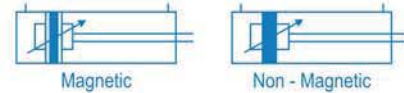


Bore die	B1	TD	UW	TM	TL	R	XV
32	30	12	65	48	12	1	29
40	32	16	75	63	16	1.6	29.5
50	34	16	95	75	16	1.6	30.5
63	41	20	105	90	20	1.6	32.5
80	44	20	130	105	20	1.6	37
100	48	25	145	122	25	2	43.5

Model : DGS / Series : G-01
As Per ISO 6432 Standard Profile (Round Type)

Features

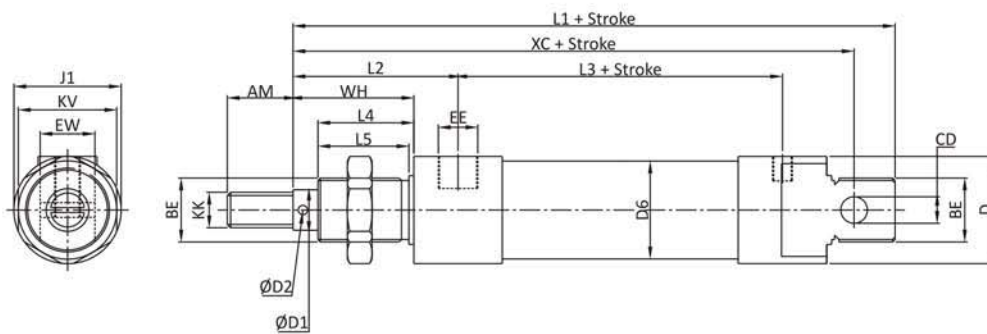
- ▶▶ As Per ISO 6432 Std.
- ▶▶ Slim & Compact Design
- ▶▶ Smooth running performance Long Established design
- ▶▶ Piston rod with external thread
- ▶▶ Extensive choice of mounting
- ▶▶ Available in both magnetic & non-magnetic version (DGS / MDGS)



Technical Specification

Bore Dia	12				16				20				25			
Stroke	25	50	80	100	125	150	160	200	250	300	350	400	450	500	550	600
Cushion	12mm to 20mm bore cylinders are fixed cushioning & 25mm bore cylinders are adjustable cushioning at both ends															
Barrel	Aluminum															
Piston Rod	EN 8 with hard chrome plated															
Piston Rod Dia	6				8				8				10			
End Cover	Aluminium															
Sales	Polyurethane, Nitrile (Viton seal available on request for high temperature)															
Surface Treatment	Auto finish enameling end cover & cylinder barrel															
Mounting	Std. Mounting available (for more details see dimension)															

Basic Cylinder Dimensions For Model : DGS



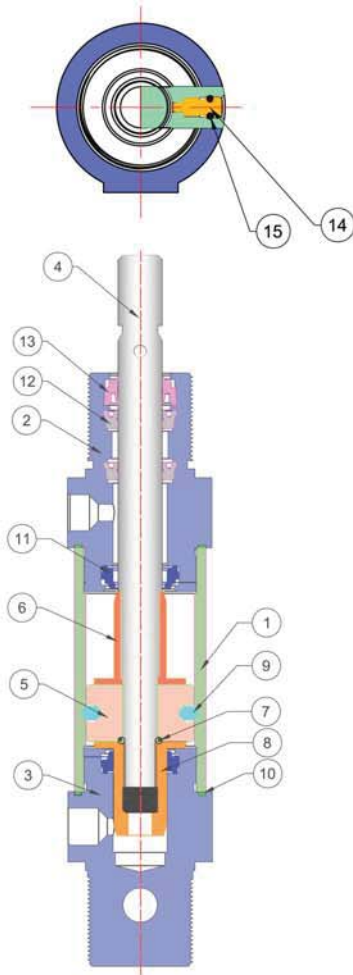
Bore die	KK	BE	AM	CD	D	D1	D2	D6	EE	EW	J1	KV	L1	L2	L3	L4	L5	WH	XC	KG
12	M6X1.00P	M16X1.5P.	10	6.5	20	6	2	16	MSX0.8P.	12	20	24	106	27	55	16	14	19	99	6
16	M8X1.25P.	M20X1.5P.	13	6.5	27	8	2	21	1/8" BSP	12	27	30	123	41	57	22	18	32	114	10
20	M8X1.25P.	M22X1.5P.	13	8	27	8	3	24	1/8" BSP	16	27	32	113	36	50	20	18	30	95	16
25	M10X1.50P.	M24X1.5P.	17	8	33	10	3	30	1/8" BSP	16	33	31	127	43	53.1	24	22	34	112.5	24

32, 40 & 50 Available On Request

*K = Push Force at 5 Kg/cm² Pressure

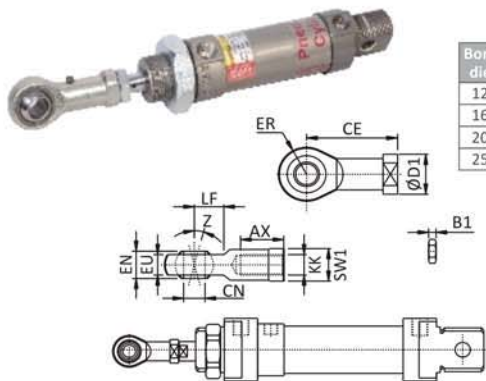
Note : Since, constant worldwide advancement in technology, We keep our rights reserved to make changes time to time in Technical Specification and Dimensions without prior notice.





No.	Item Name	Material
1	Round Pipe	LM-2 / ALSI-132 Aluminum Alloy
2	Top Cover	LM-2 / ALSI-132 Aluminum Alloy
3	Bottom Cover	LM-2 / ALSI-132 Aluminum Alloy
4	Piston Rod	BS-970-90,EN-8, (080M40)
5	Piston	LM-2 / ALSI-132 Aluminum Alloy
6	Collar	Nylon-66 (With 30% GF)
7	'O' Ring For Piston	Nitrile Buna-N Gr. 80
8	Thread Collar	Nylon-66 (With 30% GF)
9	V-Seal For Piston	Nitrile Buna-N Gr. 80
10	Gasket	Delrine
11	Cushion Seal	Nitrile Buna-N Gr. 80
12	Shaft V-Seal	Nitrile Buna-N Gr. 80
13	Duster Ring	P.U
14	Cushion Pin	Brass
15	'O' Ring For Cushion Pin	Nitrile Buna-N Gr. 80

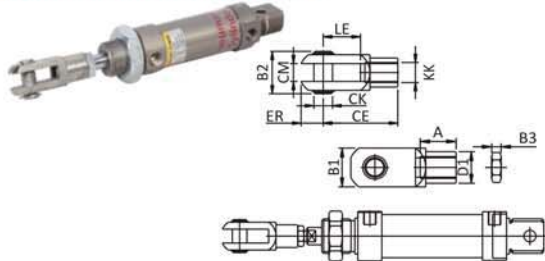
Eye Rod Mounting (SGS) - M



Bore die	KK	EN	EU	ER	D1	CN	CE	LF	SW1	SW2	AX	Z	B1
12	M6X1P.	9	6.8	10	13	6	30	11	11	10	12	13	3.2
16	M8X1.25P.	12	9	12	16	8	36	13	14	13	16	13	4
20	M8X1.25P.	12	9	12	16	8	36	13	14	13	16	13	4
25	10X1.5P.	14	10.5	14	19	10	43	15	16	17	20	13	5

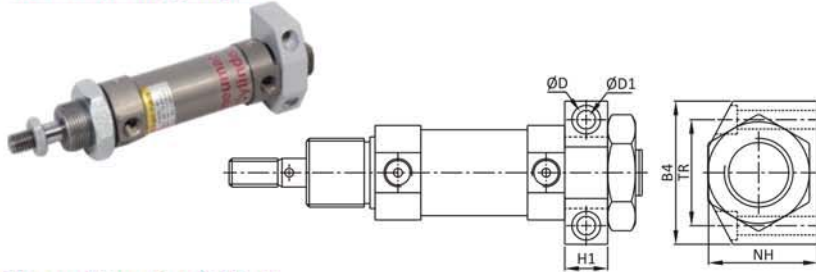
Model : DGS / Series : G-01
As Per ISO 6432 Standard Profile (Round Type)

Rod Clevis Mounting (SG) - K



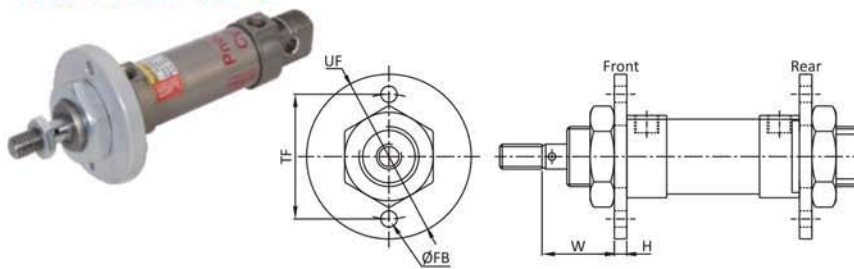
Bore die	KK	B1	B2	B3	CE	CK	CM	D1	ER	LE	A
12	M6X1P.	12	16	3.2	24	6	6	10	7	12	22
16	M8X1.25P.	16	21.5	4	32	8	8	14	10	16	22
20	M8X1.25P.	16	21.5	4	32	8	8	14	10	16	22
25	10X1.5P.	19	26	5	40	10	10	18	12	19	22

Foot Mounting (HB) - A



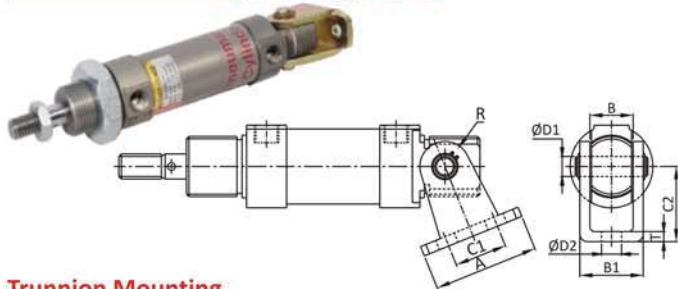
Bore die	ØD	ØD1	H1	B4	TR	NH
12	8	5.5	10	40	29	29
16	8	5.5	10	40	29	29
20	10	6.5	15	50	37	38
25	10	6.5	15	50	37	38

Flange Mounting (FB) - B



Bore die	FB	H	TF	UF	W
12	5.5	4	40	53	---
16	5.5	4	40	53	28
20	6.5	5	50	66	25
25	6.5	5	50	66	29

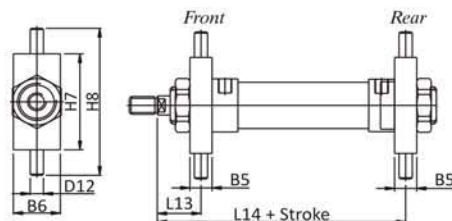
Clevis Foot Mounting with King (LB) - H



Bore die	C1	A	ØD2	T	C2	ØD1	B	B1	R
12	15	25	5.5	3	27	6	12.1	18.1	7
16	15	25	5.5	3	27	13	12.1	18.1	7
20	21	42	6.6	4	30	8	17.3	25.3	10
25	21	42	8	4	30	8	17.3	25.3	10

Trunnion Mounting

On Request



Bore die	H8	H7	D12	B6	L13	B5	L14
12	58	38	6	25	18	8	76
16	58	38	6	25	18	8	82
20	66	46	6	30	21	8	96
25	66	46	6	30	24	8	101.5

Note : Since, constant worldwide advancement in technology, We keep our rights reserved to make changes time to time in Technical Specification and Dimensions without prior notice.



PNEUMATIC CYLINDERS
with STAINLESS STEEL Inbuilt Magnet

Model : AX 502 / Series : A05
As per ISO 6432 & CETOP RP52P Std.



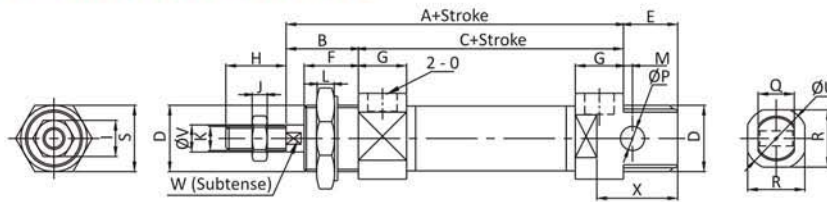
Features

- ▶▶ Adjustable cushioning at both ends
- ▶▶ Wide varieties of mounting
- ▶▶ Low Friction
- ▶▶ Long Life

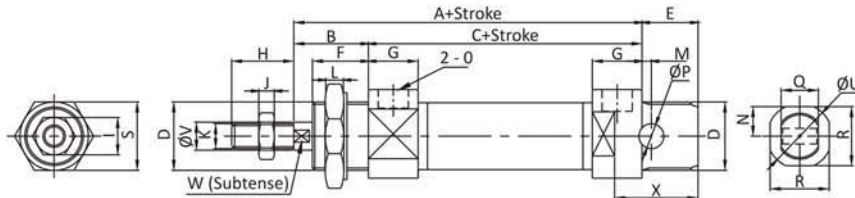
Technical Specification

Bore Die	16	20	25
Stroke	10, 20, 50, 80, 100, 125, 160, 175, 200, 250, 300		
Port Size	M5	1/8"	
Type	Double Acting		
Pressure	0.5 to 9 Kg		
Operating Speed	50 ~ 500 (mm / sec)		
Ambient Temperature	-10 °C to 70 °C		
Air	Air		

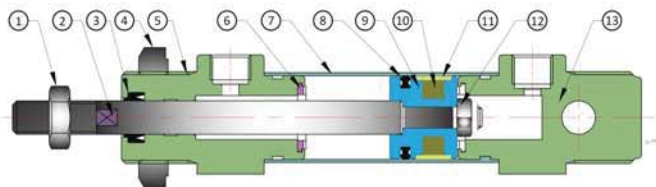
Basic Cylinder Dimension for AX502 Ø16 & Ø20



Basic Cylinder Dimension for AX502 Ø25



Bore die	A	B	C	D	E	F	G	H	I	J	K	O	L	M	N	P	Q	R	S	U	V	W	X
16	79	22	57	M16X1.5	16	17	12	16	10	4	M6	M5	6	5	---	6	12	19	22	21	6	---	23
20	92	24	68	M22X1.5	18	18	16	20	13	5	M8	G1/8"	8	3	15	8	16	27	27	30	8	7	27
25	96	27	68	M22X1.5	20	20	16	22	17	6	M10X1.25	G1/8"	8	8	15	8	16	27	27	30	10	9	---

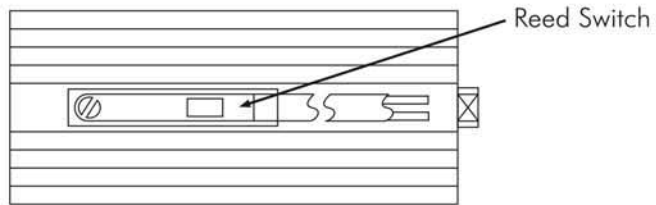
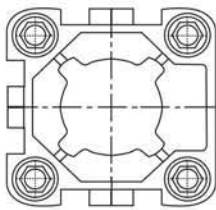


No.	Item Name	Material
1	Hexagon Nut	EN - 8 Hardchrome Plated
2	Piston Ring	EN - 8 Hardchrome Plated
3	Dust Sealing	NBR
4	Hexagon Nut	EN - 8 Hardchrome Plated
5	Front Cover	Aluminum
6	Crashworthy Washer	P. U.
7	Tube	SUS 304
8	C - Sealing	NBR
9	Piston	Aluminum
10	Magnet	Plastic Cement
11	Guard Seals	Teflon
12	Hexagon Nut	EN - 8 Hardchrome Plated
13	Read Cover	Aluminum



Reed Switch

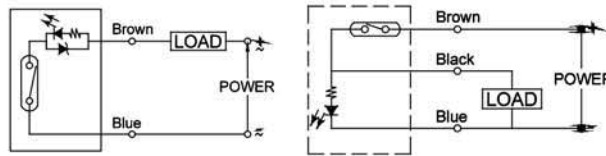
Function : The reed switch is mounted on the Air cylinder ANC/DNC for proximity sensing. The Piston of the cylinder is equipped with a permanent magnet which activates the reed switch on approaching it. The reed switch closes the circuit giving an electrical signal, which could be used further as required. The accuracy of the sensing distance depends on the speed of operation of the piston.



Technical Specification

Function : The reed switch is mounted on the Air cylinder ANC/DNC for proximity sensing. The Piston of the cylinder is equipped with a permanent magnet which activates the reed switch on approaching it. The reed switch closes the circuit giving an electrical signal, which could be used further as required. The accuracy of the sensing distance depends on the speed of operation of the piston.

Technical Specification



Switching logic	SPST Normally Open	
Sensor	2 Wire reed switch	3 Wire reed switch
Operating voltage	5 - 220V AC / DC	
Switching current	100mA max.	
Switching rating	10W max	25mA @24V max.
Current consumption	25 mA @24V max	0.05V max.
Voltage drop	3.5V max	0.01 mA max
Leakage current	----	
Colour of LED	Red	Yellow
Cable	3.3, 2C, PVC	
Temperature range	-10° to 70 °C	
Shock	30 G	
Vibration	9 G	
Type of protection	IEC 529	IP 67
Protection circuit	None	

Power Cylinder consists basically of a double acting pneumatic cylinder with positioner, Filter + Regulator Fitting Accessories. Power Cylinder has been designed to operate as an actuator in a pneumatic control system, to position the final control element in accordance with the controller signal (3 to 15 psi or 0.2 to 1.0 Kg/cm² or 4 to 20 mAmp.) Examples Dampers, Butterfly valves, Furnace burner nozzles, ID & FD Fans, etc.

Design Features

- ▶▶ Wide range of sizes & strokes
- ▶▶ Trunnion mounting or end mounting option
- ▶▶ Easy reversal of action
- ▶▶ Linear or special characterised can available
- ▶▶ Choices of rod ends, ball socket joint or fork end with knuckle rod joint
- ▶▶ Low air consumption
- ▶▶ Various accessories option available
- ▶▶ Materials of construction selected to ensure long life

Associated Benefits

- ▶▶ Proven Design
- ▶▶ Reduced Maintenance
- ▶▶ Assured Product Quality



Consumption of Cylinders

Theoretical consumption of cylinders in litres

$$P \times \frac{\pi}{4} (2D^2 - d^2) \times 10^{-6} \times \text{Stroke}$$

- D = Diameter of cylinder in mm
- d = Diameter of piston rod in mm
- p = Gauge pressure in bar

To Convert litres to CFM divided litres by 28.32

$$\text{e.g.} = \frac{500 \text{ litres.}}{28.32} = 17.7 \text{ CFM}$$

Thrusts of Cylinders

Theoretical thrust and pulls of cylinders

The thrust which may be obtained from an air cylinder is a function of both the area of the piston and the pressure.

$$\text{Thrust} = \left(\frac{\pi D^2}{40} \times P \right) \text{ Newtons}$$

where • D = Diameter of piston in mm • P = Gauge pressure in bar

The Pull obtained will be less than the thrust due to the area occupied by the piston rod, and

$$\text{Pull} = \left(\frac{\pi}{40} (D^2 - d^2) \times P \right) \text{ Newtons}$$

Where d = Diameter of piston rod in mm

In practice an allowance should be made the frictional losses, etc., and therefore the figures shown should only be taken as a guide.

To convert Newtons to Kg/cm² divide Thrust N by 10

$$\text{e.g.} = \frac{100 \text{ N}}{10} = 10 \text{ Kg / cm}^2$$

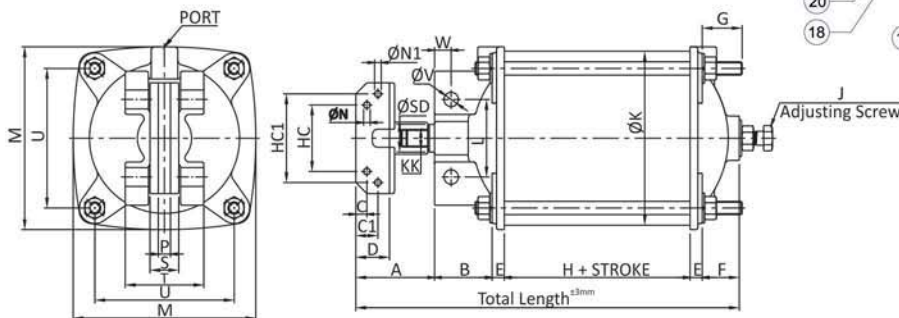
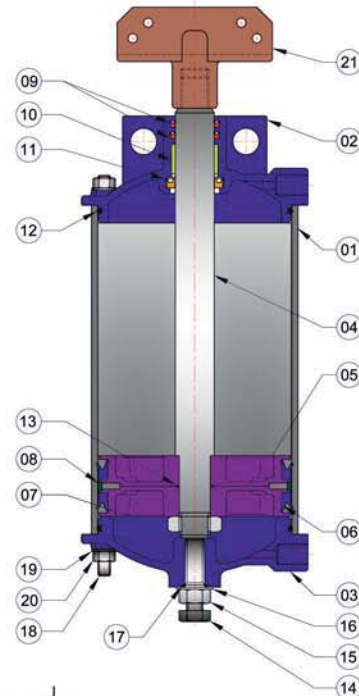
Model : CAV
For Gate / Knife / Pulp Valve (Liner Actuator)

Technical Specification

Model	CAV
Stroke	Upto 2500mm
Surface Treatment	Auto finish enameling on end cover & barrel
Temperature Range	-20 °C to +85 °C
Pressure Range	Upto 12 Bar
Stroke Adjustment	Provide for small adjustment of travel



No.	Item Name	Material
1	Round Pipe	Stainless Steel / Aluminum Alloy HE9WP (6063-T6) (IS : 733)
2	Top Cover	Aluminum Alloy Alsi 132 (BS 1490) / C. I.
3	Bottom Cover	Aluminum Alloy Alsi 132 (BS 1490) / C. I.
4	Piston Rod	Stainless Steel
5	Piston	Aluminum Alloy Alsi 132 (BS 1490) / C. I.
6	V - Seal for Piston	Hi - Nitrile
7	Lock Nut	BS-970-90, EN-8, (080M40)
8	Delrin Ring	Delrin copolymer (H. R120 - Gr. M270 Natural)
9	Duster V-Seal	Nitrile Buna-N, (SHORE-A, 70 to 75. Gr. 80 CEMI. N684B)
10	Bering Bush	D. U. Bush (PTFE COATED)
11	Shaft V-Seal	Nitrile Buna-N, (SHORE-A, 70 to 75. Gr. 80 CEMI. N684B)
12	Diameter Ring	Nitrile Buna-N, (SHORE-A, 70 to 75. Gr. 80 CEMI. N684B)
13	O-Ring for Piston	Nitrile Buna-N, (SHORE-A, 70 to 75. Gr. 80 CEMI. N684B)
14	Adjusting Bolt	ABS-970-90, EN-8 (080M40)
15	Adjusting Nut	BS-970-90, EN-8, (080M40)
16	Washer	BS-970-90, EN-8, (080M40)
17	O- Ring	Nitrile Buna-N, (SHORE-A, 70 to 75. Gr. 80 CEMI. N684B)
18	Stud	BS-970-90, EN-8, (080M40)
19	Washer for Stud	BS-970-90, EN-8, (080M40)
20	Nut for Stud	BS-970-90, EN-8, (080M40)
21	Clamp	ASTM A 351 Gr. CF8



Size	MM		Inch		A	B	C	C1	D	E	F	G	H	ØSD	J (Ad. Screw)	ØK	L	M	ØN	ØN1	P	S	KK	ØV	W	T	U	PORT	HC1	HC2	Total Length
	MM	Inch	MM	Inch																											
63	2.1/2"	60	32	09	---	19	08	16.75	20	55	16	1/2" BSW	68	47.5	80	06	---	6	18	M16	12.5	10	27.5	60	1/4" BSP	30	---	179.75			
80	3"	60	34	09	---	19	08	16.5	20	60	20	1/2" BSW	84	47.5	93	06	---	6	18	M16	12.5	11	30	70	1/4" BSP	30	---	186.5			
100	4"	60	38.5	09	---	19	11.5	19.5	27.5	62	20	1/2" BSW	104	55	115	06	---	6	18	M16	13.5	14.75	58	88	1/4" BSP	30	---	203			
125	5"	70	46	10	20	29	11.5	22	28	62	25	1/2" BSW	129	66	146	06	06	9	21	M16	17	16.5	58	110	1/4" BSP	60	80	223			
150	6"	70	50	10	20	29	13	31.5	28	71	25	1/2" BSW	154	70	165	06	06	9	21	M16	17	15	71	126	1/4" BSP	60	80	248.5			
200	8"	70	96	10	18	29	15	44	40	100	32	3/4" BSW	210	85.5	230	12	8.5	12	27	M30	17	16.5	105	175	3/8" BSP	65	100	340			
250	10"	70	86.5	10	18	29	15	37.5	40	85	38	1" BSW	260	97.5	274	12	8.5	12	27	M30	17	23.5	80.5	210	1/2" BSP	65	100	309			
300	10"	94	85	---	25	50	20	37	40	100	38	1" BSW	316	97.5	335	---	16	12	30	M30	17	23.5	80.5	250	1/2" BSP	---	100	356			
350	14"	94	86	---	25	50	22	44	40	90	51	1" BSW	356	120	385	---	16	12	30	M30	17	23.5	144	290	3/4" BSP	---	100	358			

Note : Since, constant worldwide advancement in technology, We keep our rights reserved to make changes time to time in Technical Specification and Dimensions without prior notice.

