

Climax Compact Guided Cylinder

GCC Series Compact Guided Cylinder

How to Order: *Example: GCC32D6050B*

Series GCC

Bore *(in mm)* 12
 16
 20
 25
 32
 40
 50
 63



Sensing Position A No Sensing
 B Single Position Extend
 C Single Position Retract
 D Two Position Sensing

Sensing Type Standard
 A No Sensing
 B Hall Effect - PNP (Sourcing)
 C Hall Effect - NPN (Sinking)
 D Reed Switch

 Quick Connect
 E Hall Effect - PNP (Sourcing)
 F Hall Effect - NPN (Sinking)
 G Reed Switch

Stroke *(in mm)* _ _ _ (Min=10 - Max=100)

Bearing Option B Bronze Bushing
 L Linear Ball Bearing

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Technical Characteristics

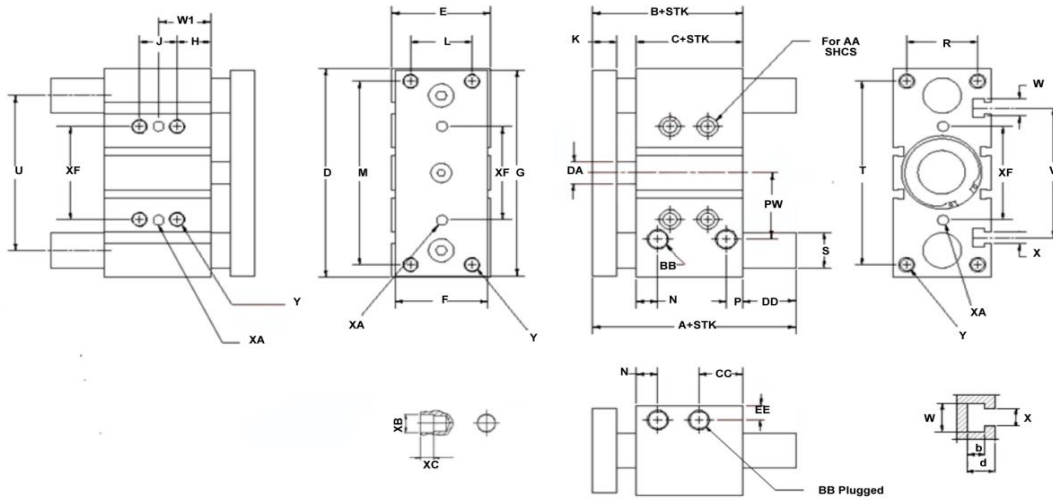
Ambient Temperature	-5 to +60 °C		
Fluid	Filtered Air, with or without Lubrication		
Working Pressure	1 to 10 bar		
Operation	Double Acting		
Cushioning	Elastic Buffers		
Connections	M5	G1/8	G1/4
Bores	12 - 16	20 - 25 - 32 - 40	50 - 63

Constructive Characteristics

Body	Aluminum Alloy		
Shafts	Chromium-Plated Steel		
Piston	Aluminum Alloy		
Piston Rod	Chromium-Plated Steel AISI 303 (Ø12-16-20) Chromium-Plated Steel C45 (Ø25-32-40-50-63)		
Piston Seal	NBR		
Cushion Seals	NBR		
Magnet	Supplied as Standard		
Flange	Steel		

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Bore	B	C	D	E	F	G	H	K	L	M	N	P	R	T	U	V
16	46.0	33.0	64.0	30.0	25.0	62.0	5.0	8.0	16.0	54.0	11.0	8.0	22.0	56.0	46.0	38.0
20	53.0	37.0	83.0	36.0	30.0	81.0	17.0	10.0	18.0	70.0	10.5	8.5	24.0	72.0	54.0	44.0
25	53.5	37.5	93.0	42.0	38.0	91.0	17.0	10.0	26.0	78.0	11.5	9.0	30.0	82.0	64.0	49.7
32	59.5	37.5	112.0	48.0	44.0	110.0	21.0	12.0	30.0	96.0	12.5	9.0	34.0	98.0	78.0	63.0
40	66.0	44.0	120.0	54.0	44.0	118.0	22.0	12.0	30.0	104.0	14.0	10.0	40.0	106.0	86.0	72.0
50	72.0	44.0	148.0	64.0	60.0	146.0	24.0	16.0	40.0	130.0	14.0	11.0	46.0	130.0	110.0	91.5
63	77.0	49.0	162.0	78.0	70.0	158.0	24.0	16.0	50.0	130.0	16.5	13.5	58.0	142.0	124.0	110.0

Bore	W	X	Y	AA	BB	CC	EE	DA	PW	b	d	XA	XB	XC	XF
16	7.4	4.4	M5	4 mm	M5	18.0	5.0	8.0	19.0	3.7	6.2	3mm	3.5	3.0	24.0
20	8.4	5.5	M6	5 mm	G 1/8	24.5	6.5	10.0	25.0	4.5	7.3	3mm	3.5	3.0	28.0
25	8.4	5.5	M6	5 mm	G 1/8	25.0	7.5	10.0	28.5	4.5	7.5	4mm	4.5	3.0	34.0
32	10.5	6.5	M8	6 mm	G 1/8	30.5	9.0	12.0	34.0	5.5	9.0	4mm	4.5	3.0	42.0
40	10.5	6.5	M8	6 mm	G 1/8	31.0	9.0	12.0	38.0	5.5	9.0	4mm	4.5	3.0	50.0
50	13.5	8.5	M10	8 mm	G 1/4	35.0	9.5	16.0	47.0	7.5	12.0	5mm	6.0	4.0	66.0
63	17.8	11.0	M10	8 mm	G 1/4	35.0	11.0	16.0	55.0	10.0	16.5	5mm	6.0	4.0	80.0

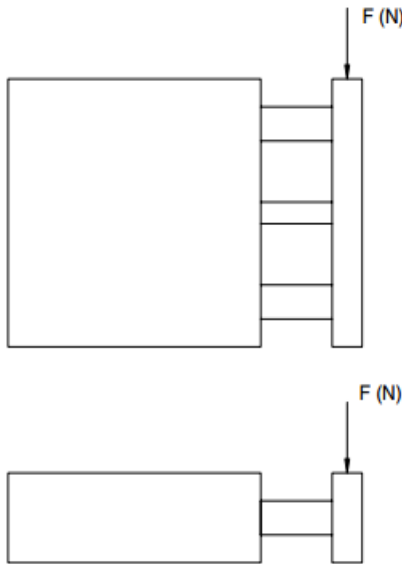
Bore	Stroke with Slide Bearings							Stroke with Ball Bushings							W and W1 Dimensions									
	A	A	A	DD	DD	DD	S	A	A	A	DD	DD	DD	S	J	J	J	J	J	W1	W1	W1	W1	W1
16	46	64.5	95	0	18.5	49	10	46	66	95	0	20	49	8	24	44	110	200		17	27	60	105	

20	53.0	84.5	122	0	31.5	69	12	53	85.5	122	0	32.5	69	12	24	44	120	200	300	29	39	77	117	167
25	53.5	85	122	0	31.5	68.5	16	53.5	86	122	0	32.5	68.5	12	24	44	120	200	300	29	39	77	117	167

32	97	107	140	37.5	47.5	85.5	20	97	97	107	140	37.5	47.5	85.5	20	24	48	124	200	300	33	45	83	121	171	
40	97	107	140	31	41	79	20	97	97	107	140	31	41	79	20	24	48	124	200	300	34	46	84	122	172	
50	106.5	118	161	34.5	46	89	25	106.5	114	118	161	34.5	46	89	25	24	48	124	200	300	36	48	86	124	174	
63	106.5	118	161	29.5	41	84	25	106.5	114	118	161	29.5	37	41	84	25	28	52	128	200	300	38	50	88	124	174

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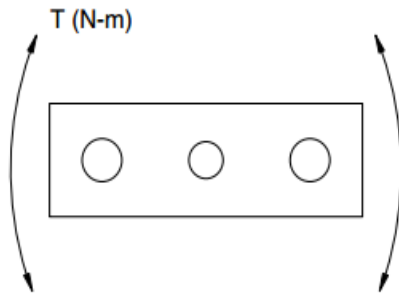


Load vs Stroke

Load Values = N (newtons)

Bore	Bearing Type	Stroke							
		10	20	25	30	40	50	75	100
16	Bronze	28.0	28.0	-	25.0	22.0	19.0	-	-
	Linear Ball	35.0	30.0	-	26.0	37.0	33.0	-	-
20	Bronze	-	51.0	-	44.0	38.0	34.0	53.0	44.0
	Linear Ball	-	55.0	-	47.0	78.0	69.0	57.0	49.0
25	Bronze	-	70.0	-	60.0	53.0	47.0	59.0	51.0
	Linear Ball	-	71.0	-	61.0	77.0	72.0	77.0	65.0
32	Bronze	-	-	88.0	-	-	59.0	137.0	108.0
	Linear Ball	-	-	196.0	-	-	167.0	275.0	216.0
40	Bronze	-	-	88.0	-	-	59.0	137.0	108.0
	Linear Ball	-	-	196.0	-	-	167.0	275.0	216.0
50	Bronze	-	-	137.0	-	-	88.0	215.0	176.0
	Linear Ball	-	-	294.0	-	-	255.0	392.0	313.0

To Convert Newtons to Pounds: newtons x 0.2248 = pounds force



Twisting Moment vs Stroke

Moment Values = N-m (newton-meters)

Bore mm	Bearing Type	Stroke							
		10	20	25	30	40	50	75	100
16	Bronze	0.51	0.43	-	0.35	0.31	0.27	-	-
	Linear Ball	0.75	0.58	-	0.48	0.71	0.64	-	-
20	Bronze	-	0.91	-	0.78	0.71	0.63	1.04	0.88
	Linear Ball	-	1.26	-	1.06	1.77	1.58	1.22	1.01
25	Bronze	-	1.53	-	1.31	1.16	1.03	1.65	1.41
	Linear Ball	-	1.96	-	1.69	2.16	2.00	1.68	1.42
32	Bronze	-	-	1.96	-	-	2.94	2.45	1.96
	Linear Ball	-	-	3.92	-	-	0.98	2.94	2.45
40	Bronze	-	-	2.45	-	-	1.45	2.94	2.45
	Linear Ball	-	-	4.41	-	-	3.43	6.37	5.39
50	Bronze	-	-	3.43	-	-	2.45	4.90	4.41
	Linear Ball	-	-	7.35	-	-	5.88	10.78	8.33

To Convert Newtons-Meters to Inch-Pounds: newton-meters x 8.850 = inch-pounds

Output Force vs Pressure

	16	20	25	32	40	50
Extend Force (N) @ 6 bar	120 (N)	187 (N)	293 (N)	472 (N)	747 (N)	1161 (N)
Retract Force (N) @ 6 bar	91 (N)	141 (N)	247 (N)	406 (N)	624 (N)	974 (N)

Max Operating Pressure: 10 bar (145 psi)
 Operating Temperature: -20°C (-4°F) to 80°C (176°F)

To Convert Newtons to Pounds: newtons x 0.2248 = pounds