

薄型带导杆气缸

Compact Guide Cylinder

TMGP(Ø12~Ø100) Series

1



Features(特征)

- Small and light.
- High resistance to lateral loads.
- High resistance to torsioning force.
- High precision in terms of non-swiveling.
- Guide-rod bearing is slide bearing or ball guide bearing.
- Easy to install and use.
- Optional nozzle positions on two sides.
- 体积小 轻巧;
- 侧面负载抵抗力强;
- 不摇转精度高;
- 导向杆的轴承可选择滑动轴承或滚珠导向轴承;
- 方便安装使用;
- 二面接管位置可供选择.

Common Specification (共同规格)

Bore(缸径)	121620253240506380100									
Fluid(流体)	Clean Air(洁净空气)									
Action(动作形式)	Double-acting (双动)									
Proof Press.(耐压试验压力)	1.5Mpa									
Max. Press.(最高使用压力)	1.0Mpa									
Min. Press.(最低使用压力)	0.12Mpa									
Amb.Temp(环境和流体温度)	-10~+60℃(未冻结)									
Piston Speed(活塞速度)	50~500mm/s					50~400mm/s				
Cushion(缓冲)	两侧橡胶缓冲									
Stroke Tolerance(行程调整范围)	+1.5 0									
*Lubrication(润滑)	Not Required(不需要)									
Bearing(轴承)	滑动轴承/滚珠导向轴承									
Rod Non-Rotary Allow ance(活塞杆不回转精度)	Slide Bearing(滑动轴承)	+0.08℃	+0.07℃	+0.06℃	+0.05℃	+0.04℃				
	Ball Guide Bearing(滚珠导向轴承)	+0.10℃	+0.09℃	+0.08℃	+0.06℃	+0.05℃				
Size(接管口径)Rc(PT)	M5x0.8		1/8"			1/4"		3/8"		

*Please Use Turbine Oil 1st-Grade ISOVG32, If Necessary.(如需要润滑, 请用透平1号油ISOVG32)

Stroke(行程)

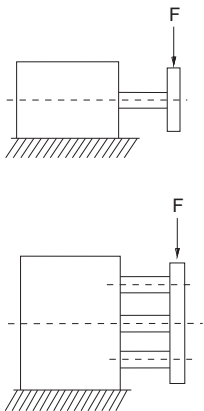
Bore Size(缸径)	Standard Stroke(标准行程)
Ø12, Ø16	10, 20, 30, 40, 50, 75, 100, 125, 150, 175, 200
Ø20, Ø25	20, 30, 40, 50, 75, 100, 125, 150, 175, 200
Ø32, Ø40, Ø50 Ø63, Ø80, Ø100	25, 50, 75, 100, 125, 150, 175, 200

How To Order (型号表示方法)

TMGP M 20 - 30 - M9B S

Bearing Type 轴承类型	Bore 缸径	Stroke 行程	*Auto Switch 磁性开关	No. of Auto Switch 磁性开关数量	*Auto Switch (磁性开关) 引线长度表示记号: 无记号-1m(标准) L-3m Z-5m
M Slide Bearing(滑动轴承)	Please refer to the table.请参考行程表	Please refer to the table.请参考行程表	Nil(空) None (无磁性开关)	Nil(空) 2 (个)	
L Ball Guide Bearing(滚珠导向轴承)			M9B Reed Switch(带有接点磁性开关)	S 1 (个)	
			M9NP Contactless Switch(无接点磁性开关)	3 3 (个)	

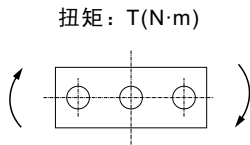
Load And Force (负载与扭力)



Bore Size (缸径)	Model (型号)	F(N)(最大侧面负载)												
		Stroke(行程)												
		10	20	25	30	40	50	75	100	125	150	175	200	
Ø12	TMGPM	24	19	—	17	14	13	26	22	19	17	15	13	
	TMGPL	37	27	—	22	35	30	23	18	15	12	11	10	
Ø16	TMGPM	38	31	—	27	23	21	37	32	27	24	22	20	
	TMGPL	54	40	—	32	54	47	35	28	23	20	17	15	
Ø20	TMGPM	—	49	—	43	38	35	87	75	66	59	54	49	
	TMGPL	—	58	—	48	101	90	70	58	62	54	48	43	
Ø25	TMGPM	—	69	—	60	54	49	116	100	88	79	71	65	
	TMGPL	—	82	—	68	32	118	93	77	80	70	62	55	
Ø32	TMGPM	—	—	203	—	—	164	182	159	142	127	116	106	
	TMGPL	—	—	113	—	—	78	130	107	130	114	101	90	
Ø40	TMGPM	—	—	203	—	—	164	182	159	142	127	116	106	
	TMGPL	—	—	113	—	—	78	129	106	130	114	101	90	
Ø50	TMGPM	—	—	296	—	—	245	273	241	216	195	179	164	
	TMGPL	—	—	120	—	—	83	178	148	148	129	114	102	
Ø63	TMGPM	—	—	296	—	—	245	273	241	216	195	179	164	
	TMGPL	—	—	117	—	—	81	176	145	145	126	111	99	
Ø80	TMGPM	—	—	352	—	—	297	368	329	298	272	251	232	
	TMGPL	—	—	125	—	—	99	281	240	208	184	163	147	
Ø100	TMGPM	—	—	515	—	—	445	498	450	410	377	349	325	
	TMGPL	—	—	138	—	—	108	395	340	297	263	235	211	

薄型带导杆气缸 Compact Guide Cylinder

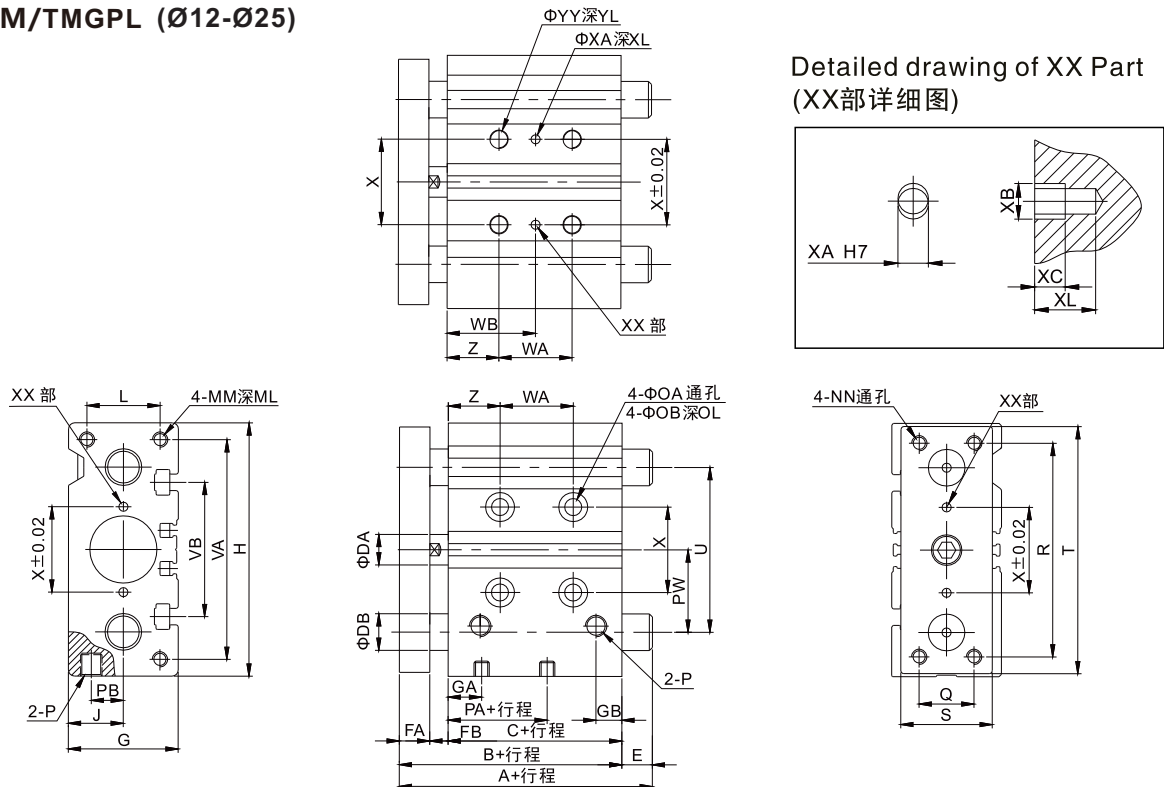
TMGP(Ø12~Ø100) Series



Bore Size (缸径)	Model (型号)	T(N·m)最大扭矩 Stroke(行程)											
		10	20	25	30	40	50	75	100	125	150	175	200
Ø12	TMGPM	0.39	0.32	—	0.27	0.24	0.21	0.43	0.36	0.31	0.27	0.24	0.22
	TMGPL	0.78	0.66	—	0.57	0.93	0.85	0.69	0.58	0.24	0.20	0.18	0.16
Ø16	TMGPM	0.69	0.58	—	0.49	0.43	0.38	0.69	0.58	0.50	0.44	0.40	0.36
	TMGPL	1.23	1.06	—	0.92	1.53	1.40	1.16	0.99	0.43	0.37	0.32	0.28
Ø20	TMGPM	—	1.05	—	0.93	0.83	0.75	1.88	1.63	1.44	1.28	1.16	1.06
	TMGPL	—	1.70	—	1.52	3.06	2.87	2.47	2.17	2.38	2.16	1.98	1.82
Ø25	TMGPM	—	1.76	—	1.55	1.38	1.25	2.96	2.57	2.26	2.02	1.83	1.67
	TMGPL	—	2.80	—	2.53	4.67	4.39	3.81	3.36	3.65	3.31	3.02	2.78
Ø32	TMGPM	—	—	6.35	—	—	5.13	5.69	4.97	4.42	3.98	3.61	3.31
	TMGPL	—	—	4.76	—	—	3.86	6.53	5.57	7.10	6.46	5.92	5.47
Ø40	TMGPM	—	—	7.00	—	—	5.66	2.27	5.48	4.87	4.38	3.98	3.65
	TMGPL	—	—	5.24	—	—	4.25	7.19	6.33	7.81	7.11	6.52	6.02
Ø50	TMGPM	—	—	13.00	—	—	10.8	12.0	10.6	9.50	8.60	7.86	7.24
	TMGPL	—	—	7.03	—	—	5.76	12.3	10.9	11.2	10.2	9.40	8.69
Ø63	TMGPM	—	—	14.70	—	—	12.1	13.5	12.0	10.7	9.69	8.86	8.16
	TMGPL	—	—	7.77	—	—	6.35	13.7	12.2	12.5	11.4	10.5	9.65
Ø80	TMGPM	—	—	22.00	—	—	18.6	22.9	20.5	18.6	17.0	15.6	14.5
	TMGPL	—	—	10.30	—	—	9.35	24.8	22.7	20.9	19.4	18.0	16.9
Ø100	TMGPM	—	—	38.80	—	—	33.5	37.5	33.8	30.9	28.4	26.2	24.4
	TMGPL	—	—	13.60	—	—	12.2	41.1	37.9	35.1	32.7	30.5	28.6

Dimensions(mm)(外形尺寸图(毫米))

TMGPM/TMGPL (Ø12-Ø25)



st=Stroke (行程)

Bore Size (缸径)	Standard Stroke (标准行程)	B	C	DA	FA	FB	G	GA	GB	H	HA	J	K	L	MM	ML	NN	OA	OB	OL	HA	P	PA	PB	PW	Q
Ø12	10,20,30,40,50, 75,100,125,150, 175,200	42	29	6	8	5	26	11	7.5	58	M4	13	13	18	M4X0.7	10	M4X0.7	4.3	8	4.5	M4	M5X0.8	13	8	18	14
Ø16		46	33	8	8	5	30	11	8	64	M4	15	15	22	M5X0.8	12	M5X0.8	4.3	8	4.5	M4	M5X0.8	15	10	19	16
Ø20	20,30,40,50,75,100, 125,150,175,200,2 50,300,350,400	53	37	10	10	6	36	10.5	8.5	83	M5	18	18	24	M5X0.8	13	M5X0.8	5.6	9.5	5.5	M5	RC1/8	12.5	10.5	25	18
Ø25		53.5	37.5	12	10	6	42	11.5	9	93	M5	21	21	30	M6X1.0	15	M6X1.0	5.6	9.5	5.5	M5	RC1/8	12.5	13.5	28.5	26

薄型带导杆气缸
Compact Guide Cylinder

TMGP(Ø12~Ø100) Series

1

Bore Size (缸径)	Standard Stroke (标准行程)	R	S	T	U	VA	VB	WA						WB					X	XA	XB	XC	XL	YY	YL	Z
								< 30st	30st ~100st	100st ~200st	200st ~300st	>300st	< 30st	30st ~100st	100st ~200st	200st ~300st	>300st									
Ø12	10,20,30,40,50, 75,100,125,150	48	22	56	41	50	37	20	40	110	200	-	15	25	60	105	-	23	3	3.5	3	6	M5×0.8	10	5	
Ø16	175,200	54	25	62	46	56	38	24	44	110	200	-	17	27	60	105	-	24	3	3.5	3	6	M5×0.8	10	5	
Ø20	20,30,40,50, 75,100,125, 150,175,200	70	30	81	54	72	44	24	44	120	200	300	29	39	77	117	167	28	3	3.5	3	6	M6×1.0	12	17	
Ø25		78	38	91	64	82	50	24	44	120	200	300	29	39	77	117	167	34	4	4.5	3	6	M6×1.0	12	17	

TMGPM Slide Bearing(滑动轴承)

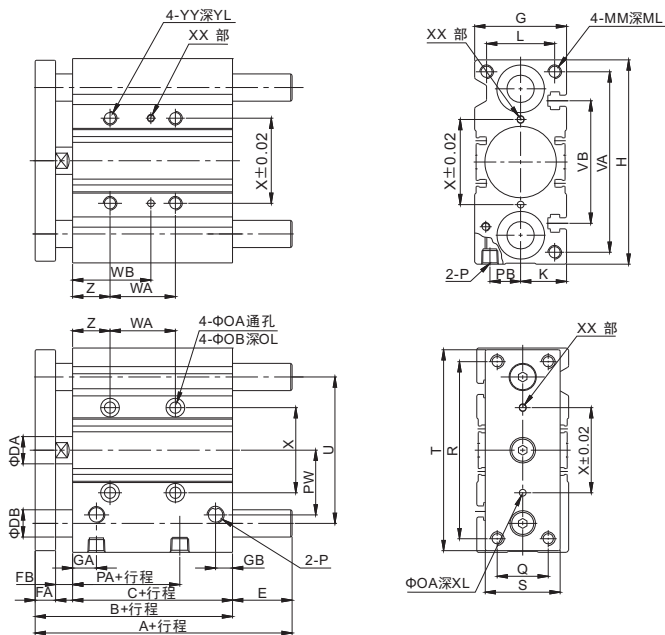
Bore Size (缸径)	A			DB	E		
	<50st	50~100st	>100st		<50st	50~100st	>100st
Ø12	42	60.5	85	8	0	18.5	43
Ø16	46	64.5	95	10	0	18.5	49
	<50st	50~200st	>200st		<50st	50~200st	>200st
Ø20	53	84.5	122	12	0	31.5	69
Ø25	53.5	85	122	16	0	31.5	68.5

TMGPL Ball Guide Bearing(滚珠导向轴承)

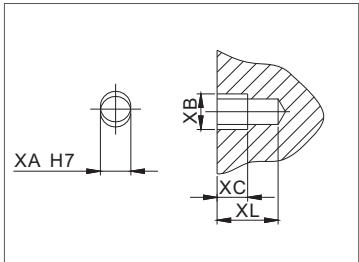
Bore Size (缸径)	A			DB	E		
	<30st	30~100st	>100st		<30st	30~100st	>100st
Ø12	43	55	-	6	1	13	-
Ø16	49	65	-	8	3	19	-
Ø20	63	80	104	10	10	27	51
Ø25	69.5	85.5	104.5	13	16	32	51

Dimensions(外形尺寸图)(mm)

TMGPM/TMGPL (Ø32-Ø63)



Detailed drawing of XX Part
(XX部详细图)



st=Stroke (行程)

Bore Size (缸径)	Standard Stroke (标准行程)	B	C	DA	FA	FB	G	GA	GB	GC	H	HA	K	L	MM	ML	NN	OA	OB	OL	P	PA	PB	PW	Q
Ø32	20,50,75,100,125, 150,175,200	59.5	37.5	16	12	10	48	12.5	9	12.5	112	M6	24	34	M8X1.25	20	M8X1.25	6.6	11	7.5	RC1/8	7	15	34	30
Ø40		66	44	16	12	10	54	14	10	14	120	M6	27	40	M8X1.25	20	M8X1.25	6.6	11	7.5	RC1/8	13	18	38	30
Ø50		72	44	20	16	12	64	14	11	12	148	M8	32	46	M10X1.5	22	M10X1.5	8.6	14	9	RC1/4	9	21.5	47	40
Ø63		77	49	20	16	12	78	16.5	13.5	16.5	162	M10	39	58	M10X1.5	22	M10X1.5	8.6	14	9	RC1/4	14	28	55	50

Bore Size (缸径)	R	S	T	U	VA	VB	WA					WB					X	XA	XB	XC	XL	YY	YL	Z
							≦25st	25st ~100st	100st ~200st	200st ~300st	>300st	≦25st	25st ~100s	100st 200st~	200st ~300st	>300st								
Ø32	96	44	110	78	98	63	24	48	124	200	300	33	45	83	121	171	42	4	4.5	3	6	M8x1.25	16	21
Ø40	104	44	118	86	106	72	24	48	124	200	300	34	46	84	122	172	50	4	4.5	3	6	M8x1.25	16	22
Ø50	130	60	146	110	130	92	24	48	124	200	300	36	48	86	124	174	66	5	6	4	8	M10x1.5	20	24
Ø63	130	70	158	124	142	110	28	52	128	200	300	38	50	88	124	174	80	5	6	4	8	M10x1.5	20	24

薄型带导杆气缸 Compact Guide Cylinder

TMGPM(Ø12~Ø100) Series

TMGPM Slide Bearing(滑动轴承)

Bore Size (缸径)	A		DB	E	
	<50st	50~200st		<50st	50~200st
Ø32	97	102	20	37.5	42.5
Ø40	97	102	20	31	36.5
Ø50	106.5	118	25	34.5	46.5
Ø63	106.5	118	25	29.5	41

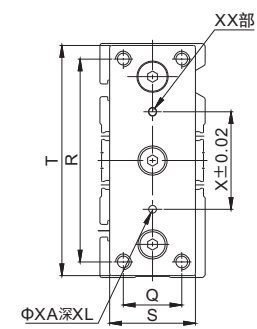
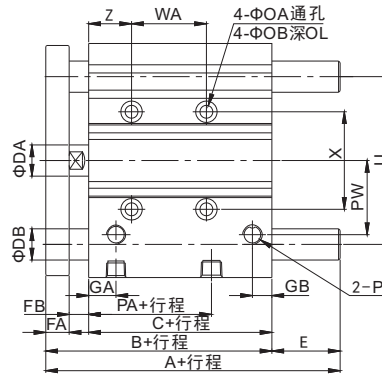
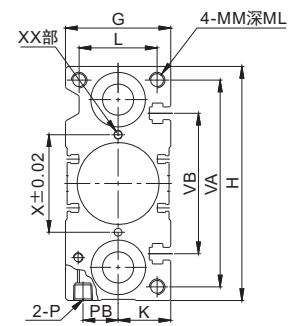
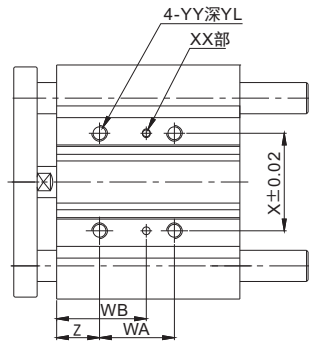
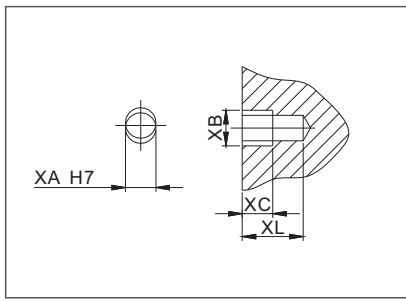
TMGPL Ball Guide Bearing(滚珠导向轴承)

Bore Size (缸径)	A			DB	E		
	<50st	50~100st	100~200st		<50st	50~100st	100~200st
Ø32	81	98	118	16	21.5	38.5	58.5
Ø40	81	98	118	16	15	32.5	52
Ø50	93	114	134	25	21	42.5	62
Ø63	93	114	134	25	16	37	57

Dimensions(外形尺寸图)(mm)

TMGPM/TMGPL (Ø80-Ø100)

Detailed drawing of XX Part
(XX部详细图)



st=Stroke (行程)

Bore Size (缸径)	Standard Stroke (标准行程)	B	C	DA	FA	FB	G	GA	GB	GC	H	HA	J	JA	JB	K	L	MM	ML	NN	OA	OB	OL	P	PA	PB	PW
Ø80	25,50,75,100,	96.5	56.5	25	22	18	91.5	19	15.5	14.5	202	M12	45.5	38	7.5	46	54	M12X1.75	30	M12X1.75	10.6	17.5	8	RC3/8	14.5	25.5	74
Ø100	125,150,175,200	116	66	30	25	25	111.5	23	19	18	240	M14	55.5	45	10.5	56	62	M14X2.0	32	M14X2.0	12.5	20	8	RC3/8	17.5	32.5	89

Bore Size (缸径)	Q	R	S	T	U	VA	VB	WA					WB					X	XA	XB	XC	XL	YY	YL	Z
								25st	50,75,100st	100~200	200~300	≥300	25st	50,75,100st	100~200	200~300	≥300								
ø80	52	174	75	198	156	180	140	28	52	128	200	300	42	54	92	128	178	100	6	7	5	10	M12X1.75	24	28
ø100	54	210	90	236	188	210	166	48	72	148	220	320	35	47	85	121	171	124	6	7	5	10	M14X2.0	28	11

TMGPM Slide Bearing(滑动轴承)

Bore Size (缸径)	A		DB	E	
	<50st	50~200st		<50st	50~200st
Ø80	115	142	30	18.5	45.5
Ø100	137	162	36	21	46

TMGPL Ball Guide Bearing(滚珠导向轴承)

Bore Size (缸径)	A			DB	E		
	<25st	25~50st	50~200st		<25st	25~50st	50~200st
Ø80	109.5	130	160	25	13	33.5	63.5
Ø100	121	147	180	30	5	31	64