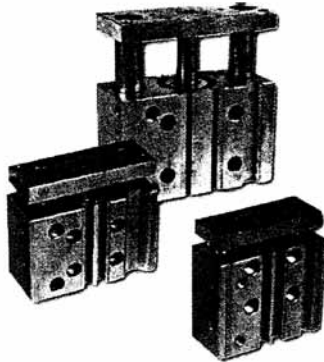


TAN AIR PNEUMATICS

TPMGP SERIES (Ø 12 - Ø 100)



Small and light

High resistance to lateral loads

High resistance to torsioning force

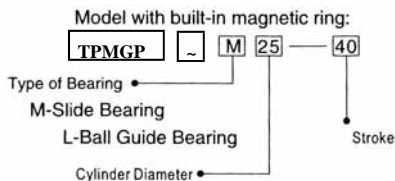
High precision in terms of non-swivelling

Guide-rod bearing is slide bearing or ball guide bearing

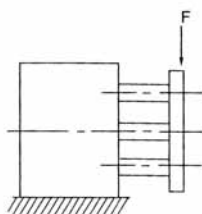
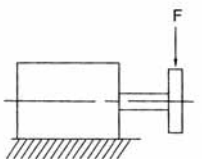
Easy to install and use

Optional nozzle positions on two sides

Model Selection



- 12- φ 12mm
- 16- φ 16mm
- 20- φ 20mm
- 25- φ 25mm
- 32- φ 32mm
- 40- φ 40mm
- 50- φ 50mm
- 63- φ 63mm
- 80- φ 80mm
- 100- φ 100mm



STANDARD SPECIFICATIONS

CYLINDER DIAMETER (mm)	12	16	20	25	32	40	50	63	80	100
FLUID	Air									
ACTING MODE	Double-acting									
ENSURED PRESSURE RESISTANCE	1.5Mpa(15.3kgf/cm ²)									
MAXIMUM WORKING PRESSURE	1.0Mpa(10.2kgf/cm ²)									
MINIMUM WORKING PRESSURE	0.12Mpa(1.2kgf/cm ²)									
AMBIENT AND MEDIUM TEMPERATURE	-10-+60°C									
PISTON SPEED	50-500mm/s								50-40mm/s	
CUSHION	Buffer type standard									
TOLERANCE OF STROKE	+1.5 0 mm									
LUBRICATION	Not Required									
BEARING	M = Standard					L = Linear				
PRECISION OF PISTON WITH NO SWIVELLING	SLIDE BEARING		±0.08 °	±0.07 °	±0.06 °	±0.05 °	±0.04 °			
	BALL GUIDE BEARING		±0.10 °	±0.09 °	±0.08 °	±0.06 °	±0.05 °			
Rc(PT) / Joint Tube Caliber		M5x0.8		1 / 8		1 / 4		3 / 8		

* ISOVG32'

* PLEASE USE TURBINE OIL #1 ISOVG32 IF LUBRICATION IS NECESSARY

ORDER EXAMPLE:

- 1) 12mm Bore X 50mm Stroke = TPMGPM12-50
1) Required cylinder diameter: 12; Stroke: 50, with slide bearing
Correct Type: TPMGPM12-50
- 2) 40mm Bore X 100mm Stroke = TPMGPL40-100
2) Required cylinder diameter: 40; Stroke: 100; with ball guide Bearing, and rubber buffer
Correct Type: TPMGPL40-100

STROKE / MAGNETIC SWITCH SELECTION

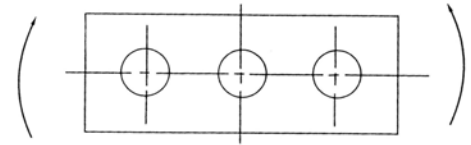
CYLINDER DIAMETER (mm)	STROKE RANGE (mm)	REED SWITCH OPTIONS
12, 16	10, 20, 30, 40, 50, 75, 100	D-Z73L D-Z76L D-Z80L
20, 25	20, 30, 40, 50, 75, 100, 150, 175, 200	D-Y59AL D-Y59BL
32, 40, 50, 63, 80, 100	25, 50, 75, 100, 125, 150, 175, 200	

Note: For strokes not listed as standard (refer next page).Dimensions should be used for next standard stroke. i.e.: For 40mm stroke use 50mm stroke dimensions.

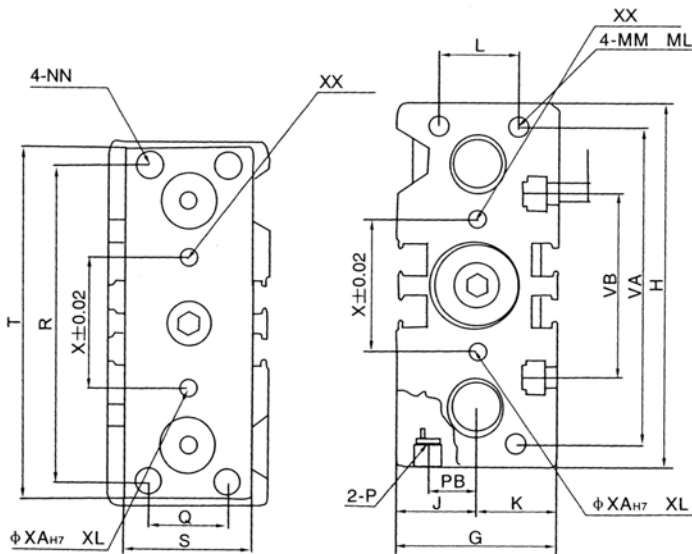
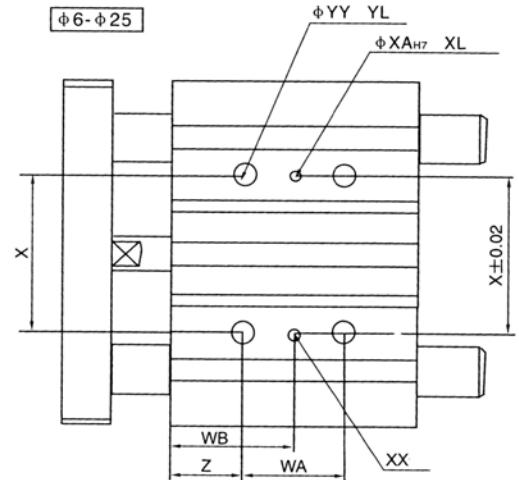
CYLINDER DIAMETER (mm)	MODEL	MAXIMUM LOAD FORCE (Refer drawing on left of page)											
		STROKE (mm)											
		10	20	25	30	40	50	75	100	125	150	175	200
12	TPMGPM	24	19	-	17	14	13	26	22	-	-	-	-
	TPMGPL	37	27	-	22	35	30	23	18	-	-	-	-
16	TPMGPM	38	31	-	27	23	21	37	32	-	-	-	-
	TPMGPL	54	40	-	32	54	47	35	28	-	-	-	-
20	TPMGPM	-	49	-	43	38	35	87	75	66	59	54	49
	TPMGPL	-	58	-	48	101	90	70	58	62	54	48	43
25	TPMGPM	-	69	-	60	54	49	116	100	88	79	71	65
	TPMGPL	-	82	-	68	132	118	93	77	80	70	62	55
32	TPMGPM	-	-	203	-	-	164	182	159	142	127	116	106
	TPMGPL	-	-	113	-	-	78	130	107	130	114	101	90
40	TPMGPM	-	-	203	-	-	164	182	159	142	127	116	106
	TPMGPL	-	-	113	-	-	78	129	106	130	114	101	90
50	TPMGPM	-	-	296	-	-	245	273	241	216	195	179	164
	TPMGPL	-	-	120	-	-	83	178	148	148	129	114	102
63	TPMGPM	-	-	296	-	-	245	273	241	216	195	179	164
	TPMGPL	-	-	117	-	-	81	176	145	145	126	111	99
80	TPMGPM	-	-	352	-	-	297	368	329	298	272	251	232
	TPMGPL	-	-	125	-	-	99	281	240	208	184	163	147
100	TPMGPM	-	-	515	-	-	445	498	450	410	377	349	325
	TPMGPL	-	-	138	-	-	108	395	340	297	263	235	211

TAN AIR PNEUMATICS

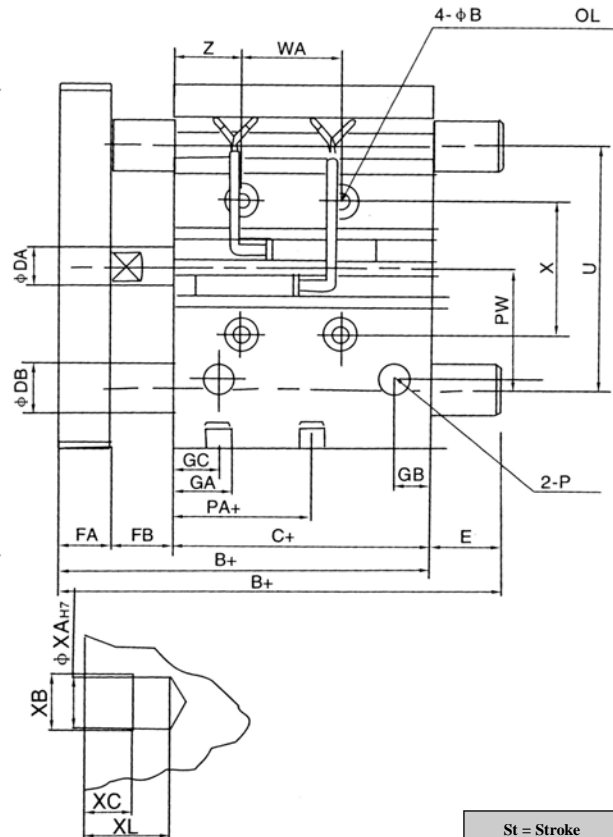
CYLINDER DIAMETER (mm)	TYPE	MAXIMUM TWISTING FORCE											
		STROKE (mm)											
		10	20	25	30	40	50	75	100	125	150	175	200
12	TPMGPM	0.39	0.32	-	0.27	0.24	0.21	0.43	0.36	-	-	-	-
	TPMGPL	0.78	0.66	-	0.57	0.93	0.85	0.69	0.58	-	-	-	-
16	TPMGPM	0.69	0.58	-	0.49	0.43	0.38	0.69	0.58	-	-	-	-
	TPMGPL	1.23	1.06	-	0.92	1.53	1.40	1.16	0.99	-	-	-	-
20	TPMGPM	-	1.05	-	0.93	0.83	0.75	1.88	1.63	1.44	1.28	1.16	1.06
	TPMGPL	-	1.70	-	1.52	3.06	2.87	2.47	2.17	2.38	2.16	1.98	1.82
25	TPMGPM	-	1.76	-	1.55	1.38	1.25	2.96	2.57	2.26	2.02	1.83	1.67
	TPMGPL	-	2.80	-	2.53	4.67	4.39	3.81	3.36	3.65	3.31	3.02	2.78
32	TPMGPM	-	-	6.35	-	-	5.13	5.69	4.97	4.42	3.98	3.61	3.31
	TPMGPL	-	-	4.76	-	-	3.86	6.53	5.75	7.10	6.46	5.92	5.47
40	TPMGPM	-	-	7.00	-	-	5.66	2.27	5.48	4.87	4.38	3.98	3.65
	TPMGPL	-	-	5.24	-	-	4.25	7.19	6.33	7.81	7.11	6.52	6.02
50	TPMGPM	-	-	13.00	-	-	10.8	12.0	10.6	9.50	8.60	7.86	7.24
	TPMGPL	-	-	7.03	-	-	5.76	12.3	10.9	11.2	10.2	9.40	8.69
63	TPMGPM	-	-	14.70	-	-	12.1	13.5	12.0	10.7	9.69	8.86	8.16
	TPMGPL	-	-	7.77	-	-	6.35	13.7	12.2	12.5	11.4	10.5	9.65
80	TPMGPM	-	-	22.00	-	-	18.6	22.9	20.5	18.6	17.0	15.6	14.5
	TPMGPL	-	-	10.30	-	-	9.35	24.8	22.7	20.9	19.4	18.0	16.9
100	TPMGPM	-	-	38.80	-	-	33.5	37.5	33.8	30.9	28.4	26.2	24.4
	TPMGPL	-	-	13.60	-	-	12.2	41.1	37.9	35.1	32.7	30.5	28.6



Overall Dimension Drawing(mm)



Detailed drawing of XX Part



TPMGPM, TPMGPL / Common dimension (φ12 - φ15)

St = Stroke

CYLINDER DIAMETER (mm)	STANDARD STROKE	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
12	10,20,30,40,50,75,100	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
16	20,30,40,50,75,100,125,150,175,200	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
20		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	Rc ^{1/8}	12.5	10.5	25	18
25		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	Rc ^{1/8}	12.5	13.5	28.5	26