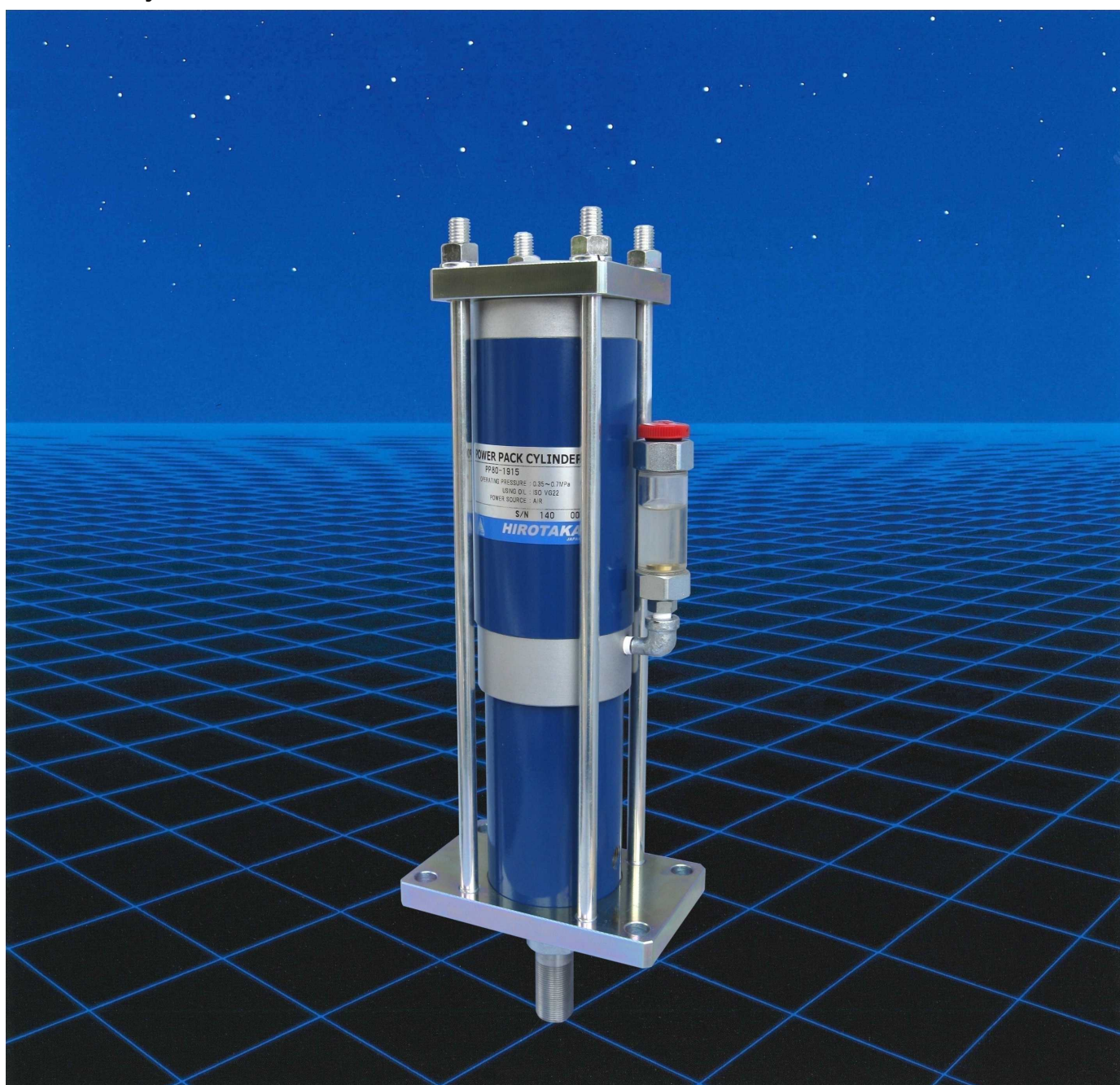




High Thrust Air Cylinder

# POWER PACK CYLINDER

Air cylinder that compactly integrates the hydraulic cylinder and the air-hydro booster.



**HIROTAKA MFG. CO.,LTD.**

Only air pressure

Generates high thrust of 7 tons or more !

Compact air cylinder

## POWER PACK CYLINDER

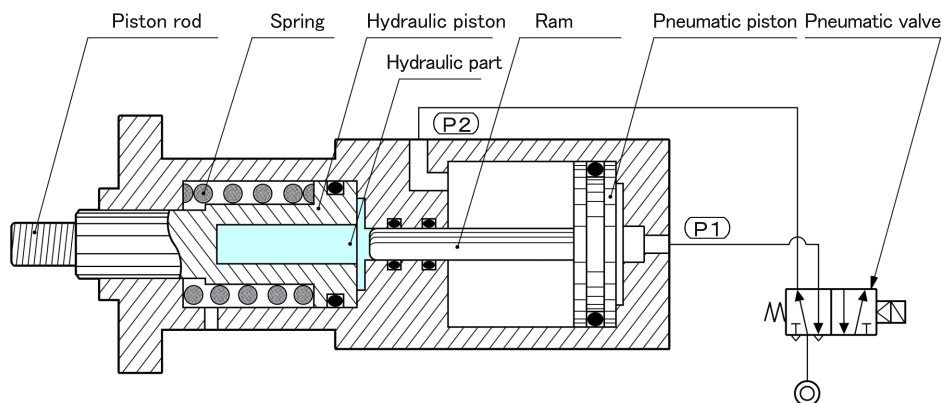
### Overview

The power pack cylinder is a high thrust air cylinder that compactly integrates an air-hydro booster and a hydraulic cylinder.

### Feature

- 1 High thrust of 0.5 to 7.9 tons is generated only by air pressure.
- 2 It can output 1 ton with the same inner diameter as a  $\phi 50$  air cylinder.
- 3 As with pneumatic cylinders, control can be done with an one pneumatic valve.
- 4 The thrust can be changed steplessly by changing the air pressure.
- 5 It can reciprocate more than 50 times per minute.

### Operating principle



When the pneumatic valve is energized, the pneumatic piston advances, the oil in the hydraulic part becomes high pressure, and the piston rod advances with high thrust. When the pneumatic valve is de-energized, the pneumatic piston return and the piston rod return due to the built-in spring.

How to order

# PP 80 - 1324

Series	Symbol	Bore size	Symbol	Nominal thrust	Symbol	Stroke
Power Pack Cylinder	50	φ 50	05	0.5 ton	05	5 mm
	80	φ 80	10	1.0 ton	08	8 mm
	100	φ 100	13	1.3 ton	10	10 mm
			19	1.9 ton	14	14 mm
			21	2.1 ton	15	15 mm
			27	2.7 ton	20	20 mm
			29	2.9 ton	24	24 mm
			36	3.6 ton	27	27 mm
			55	5.5 ton	35	35 mm
			79	7.9 ton		

Example for model	
PP 80 - 1324	
Bore size	: φ 80
Nominal thrust	: 1.3 ton
Stroke	: 24 mm

Standard model

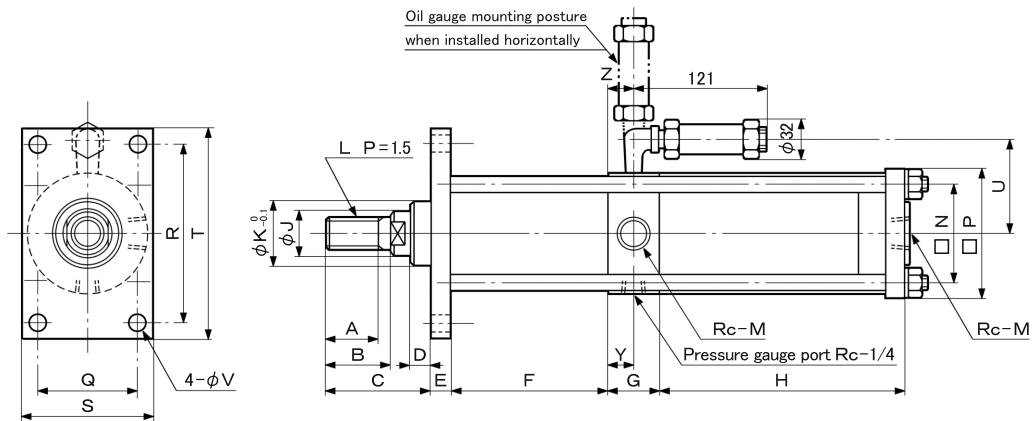
Mounting type : Rod flange  
 The following combinations of bore size, nominal thrust and stroke are standard models.

Bore size	Standard models combination
φ 50	PP 50 - 0510
	- 1005
	- 1324
φ 80	PP 80 - 1915
	- 2910
	- 2135
	- 2727
φ 100	PP100 - 3620
	- 5514
	- 7908

Specification

Model	PP50-0510	PP50-1005	PP80-1324	PP80-1915	PP80-2910	PP100-2135	PP100-2727	PP100-3620	PP100-5514	PP100-7908		
Bore size (mm)	φ 50		φ 80			φ 100						
Nominal thrust (kN)	05	10	13	19	29	21	27	36	55	79		
Stroke (mm)	10	5	24	15	10	35	27	20	14	8		
Advance thrust (kN)	Air pressure (MPa)	0.4	2.6	6.0	7.0	10.5	17.0	12.0	15.3	21.0	31.0	49.0
		0.5	3.4	7.6	9.0	13.5	21.0	15.0	19.3	26.0	39.0	59.0
		0.6	4.2	9.2	11.0	16.5	25.0	18.0	23.3	31.0	47.0	69.0
		0.7	5.0	10.8	13.0	19.5	29.0	21.0	27.3	36.0	55.0	79.0
Return thrust (N)	340		670			670						
Fluid	Air											
Hydraulic fluid	Standard mineral hydraulic fluid ISO viscosity grade : VG22 or 32											
Proof pressure	1.5MPa											
Operating pressure	0.35~0.7MPa											
Mass (kg)	6.0		14.5			19.5						

Dimension



Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	Y	Z
PP 50	30	35	55	10	12	71	38	107	φ25	φ35	M20	1/4	53	75	53	110	75	135	60	11	26	26
PP 80	40	50	80	15	16	120	38	192	φ35	φ50	M24	1/2	75	100	75	135	100	160	65	13	25	27
PP100	50	55	95	20	22	139	45	250	φ55	φ70	M30	1/2	95	130	90	180	130	220	75	19	25	31

※ Only PP100-7908 has a F value of 137.



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## ●LINE UP●

**PNEUMATIC POWER CYLINDER**

**PNEUMATIC BOOSTER**

**POWER PACK CYLINDER**

**RUSH BOOSTER**

**HYDRAULIC CYLINDER**

**FREE LOCK PAD**

**SELLOCK CYLINDER**

**FLOATING CONNECTOR**

**AUTO CLAMPER**

**SEL NUT**

**LINEA BRAKE**

**PNEUMATIC AND HYDRAULIC**

**EQUIPMENT**