

# 增压缸 Booster Cylinder

## TBP(Ø100~Ø300) Series

### Common Specification (共同规格)



Working oil(液压油)		Petroleum based fluid(石油基液压油)
Ambient & fluid temperature (环境及流体温度)		5~60°C
Air pressure (空气压力)	Working fluid (使用流体)	Air(空气)
	Lubrication (润滑)	Not required(不需要)
	Operating pressure (使用压力)	0~7kgf/cm <sup>2</sup> (0~0.7MPa)

### Features(特征)

- System converts air to high oil pressure for high power applications.
- High output of air pressure, up to 8~36 times is available and can be integrated with hydraulic equipment.
- 利用气压源转换为高能量之油压出力。
- 可输出增压至8~36倍空气压力，适于液压设备组合使用。

### How To Order (型号表示方法)

TBP - PP 100 / 125 - 120 H

Type 类型	Bore size 缸径	Oil pressure 油压	Stroke 行程	Magnet 磁环
DI Direct pressure type (直压式)	100 Ø100	40, 50, 70, 80, 90, 125, 180	120 120mm	Nil (空) None (无磁环)
PP Pre-pressure type (预压式)	150 Ø150		200 200mm	H With built-in magnet (有内置磁环)
	180 Ø180		300 300mm	
	300 Ø300			

Bore size(缸径)	Oil pressure(油压)		Stroke(行程)	Output oil capacity(油压吐油量)	Boosting ratio(增压率)
Φ100	80	80kgf/cm <sup>2</sup> (8MPa)	120mm	49cm <sup>3</sup> (cc)	1:16
	55	55kgf/cm <sup>2</sup> (5.5MPa)		71cm <sup>3</sup> (cc)	1:11
	40	40kgf/cm <sup>2</sup> (4MPa)		97cm <sup>3</sup> (cc)	1:8
Φ150	180	180kgf/cm <sup>2</sup> (18MPa)	120mm	44cm <sup>3</sup> (cc)	1:36
	125	125kgf/cm <sup>2</sup> (12.5MPa)		64cm <sup>3</sup> (cc)	1:25
	90	90kgf/cm <sup>2</sup> (9MPa)		87cm <sup>3</sup> (cc)	1:18
	70	70kgf/cm <sup>2</sup> (7MPa)	200mm	114cm <sup>3</sup> (cc)	1:14
	125	125kgf/cm <sup>2</sup> (12.5MPa)		83cm <sup>3</sup> (cc)	1:25
	90	90kgf/cm <sup>2</sup> (9MPa)		120cm <sup>3</sup> (cc)	1:18
Ø180	70	70kgf/cm <sup>2</sup> (7MPa)	300mm	164cm <sup>3</sup> (cc)	1:14
	180	180kgf/cm <sup>2</sup> (18MPa)		188.6cm <sup>3</sup> (cc)	1:36
	125	125kgf/cm <sup>2</sup> (12.5MPa)		271.6cm <sup>3</sup> (cc)	1:25
	80	80kgf/cm <sup>2</sup> (8MPa)	200mm	424.4cm <sup>3</sup> (cc)	1:16
	180	180kgf/cm <sup>2</sup> (18MPa)		118.0cm <sup>3</sup> (cc)	1:36
	125	125kgf/cm <sup>2</sup> (12.5MPa)		169.9cm <sup>3</sup> (cc)	1:25
	80	80kgf/cm <sup>2</sup> (8MPa)	120mm	265.5cm <sup>3</sup> (cc)	1:16
	180	180kgf/cm <sup>2</sup> (18MPa)		61.5cm <sup>3</sup> (cc)	1:36
	125	125kgf/cm <sup>2</sup> (12.5MPa)		88.5cm <sup>3</sup> (cc)	1:25
Φ300	80	80kgf/cm <sup>2</sup> (8MPa)	200mm	138.3cm <sup>3</sup> (cc)	1:16
	180	180kgf/cm <sup>2</sup> (18MPa)		180cm <sup>3</sup> (cc)	1:36
	125	125kgf/cm <sup>2</sup> (12.5MPa)		260cm <sup>3</sup> (cc)	1:25
	70	70kgf/cm <sup>2</sup> (7MPa)	120mm	462cm <sup>3</sup> (cc)	1:14
	180	180kgf/cm <sup>2</sup> (18MPa)		338cm <sup>3</sup> (cc)	1:36
	125	125kgf/cm <sup>2</sup> (12.5MPa)		486cm <sup>3</sup> (cc)	1:25
	70	70kgf/cm <sup>2</sup> (7MPa)		865cm <sup>3</sup> (cc)	1:14

※ Φ300 only available for pre-pressure type. Φ300只适用于预压式。

※ Built-in magnet is inapplicable to Φ300 type. 内置磁环不适用于Φ300的类型。

※ Auto switch is attaching on tie rod of pneumatic cylinder. 磁性开关安装在气缸系杆上。

# 增压缸

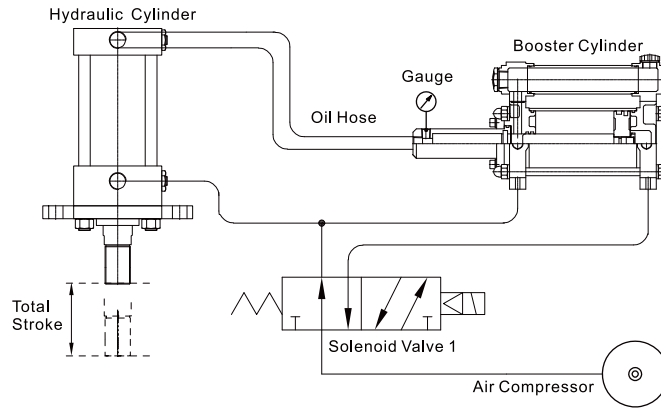
## Booster Cylinder

### TBP(Ø100~Ø300) Series

#### Circuit(线路图)

##### Direct Compressed Type

To be used if the discharge volume is being specified.

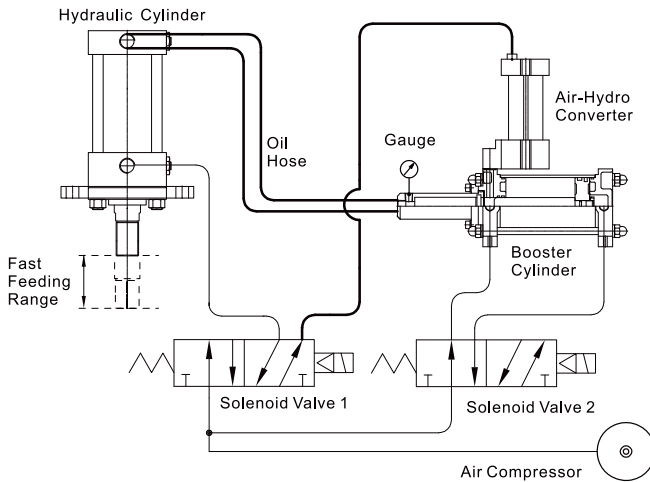


##### Pre-compressed Type

If the stroke of the hydraulic actuator is long, or large flow is required, the pre-compressed type is used to enable rapid movement to the pressure section by air, and then to pressurize using the discharge volume.

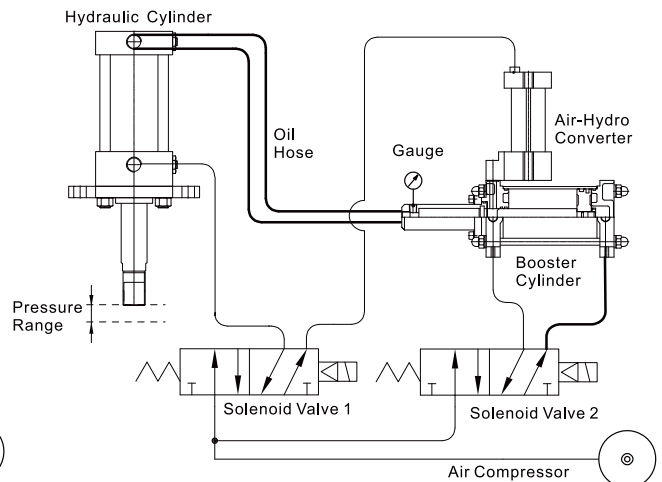
##### 1. Rapid Feed Stroke

The air moves the cylinder rod to a specified point through the solenoid valve 2 by the hydraulic pressure (of the converter) which has the same pressure as the air pressure.



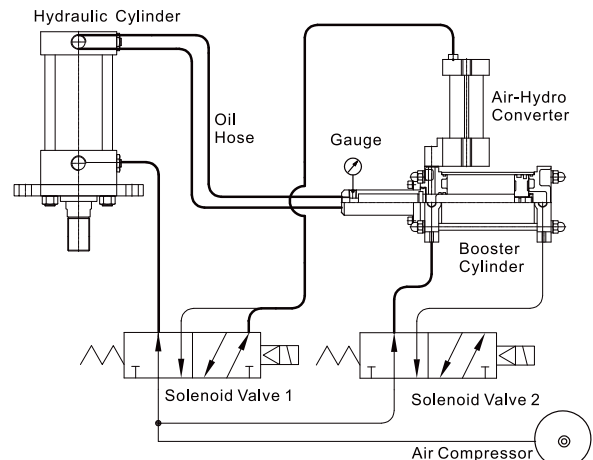
##### 2. Pressure Stroke

The booster pistons are pressurized by the solenoid valve 1 generating high hydraulic pressure required in various processes (clamping, press and etc).



##### 3. Return Stroke

Booster Piston and the cylinder pistons are returned by the solenoid valve 1 and 2.

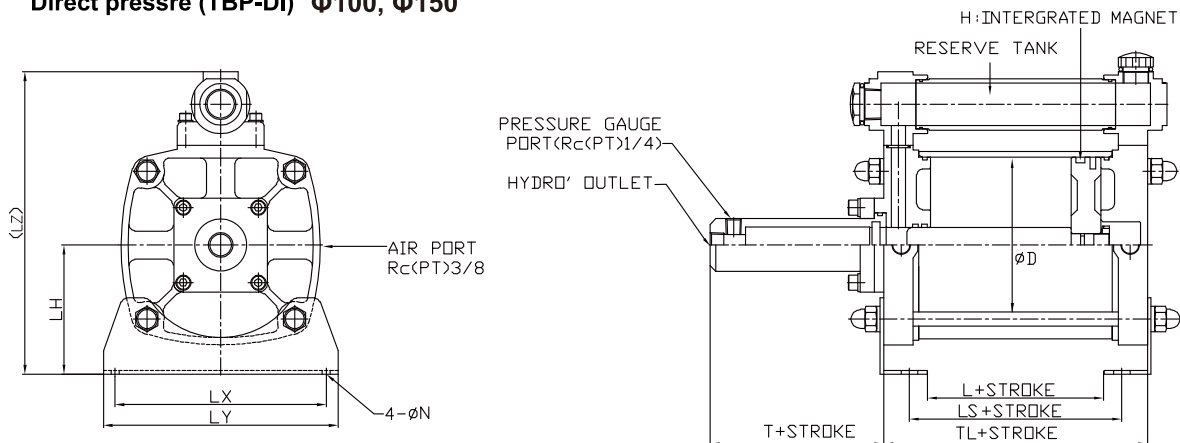


# 增压缸 Booster Cylinder

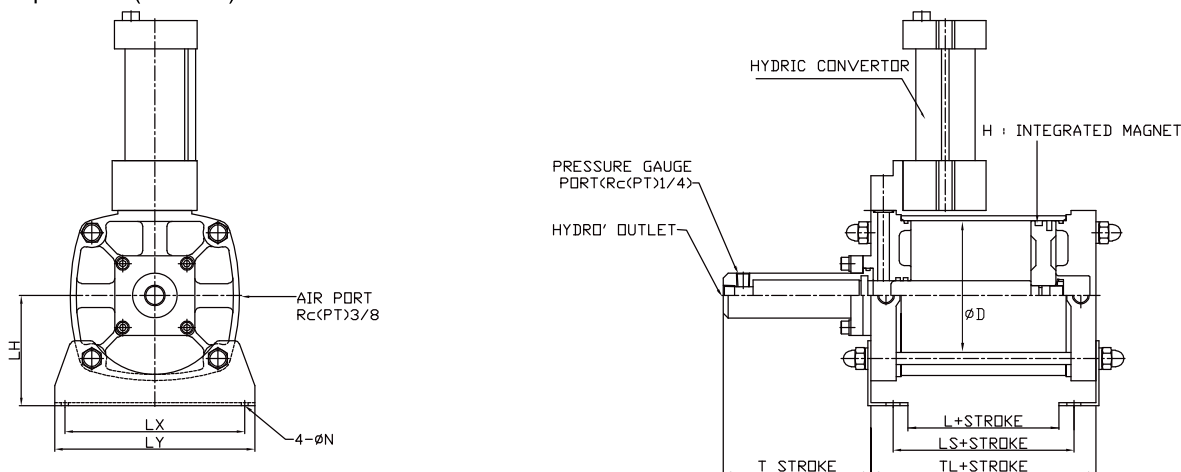
## TBP(Ø100~Ø300) Series

### Dimensions(mm)(外形尺寸图(毫米))

#### Direct pressre (TBP-DI) Ø100, Ø150



#### Pre-pressure (TBP-PP)

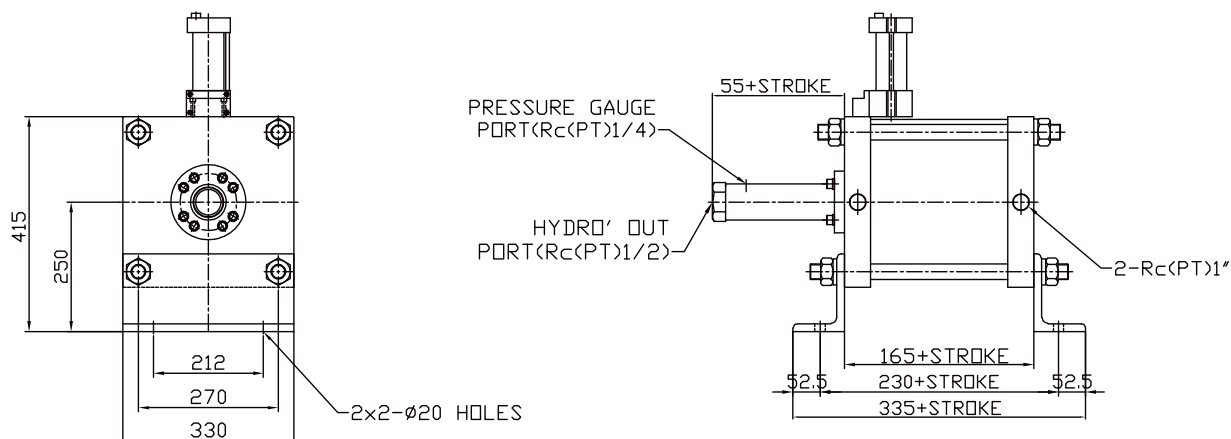


\* Air-hydro convertor is sold separately.

Unit : mm

Bore size	ΦD	L	LH	LS	LX	LY	LZ	N	T	TL
Φ100	Φ100	55	70	80	138	160	(197)	Φ6.5	28	105
Φ150	Φ150	31	110	61	180	200	(258)	Φ7	28	105

#### Pre-pressure Type Ø300



\* Air-hydro convertor is sold separately.