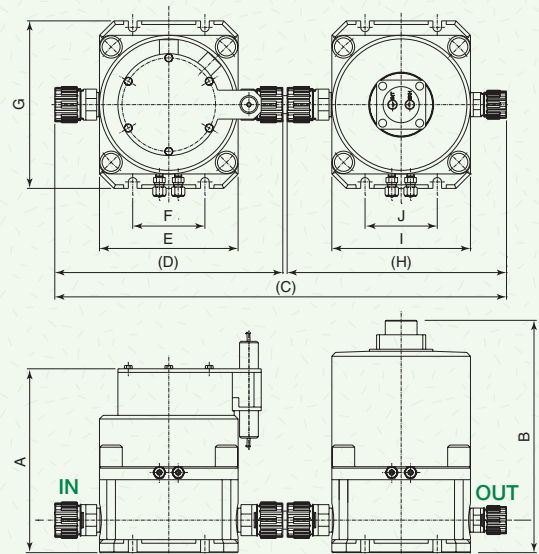


# PILLAR BELLOWS PUMP PC SERIES



## CMP Slurry Pump

PC-10MB & PA-C10MB, PC-20MB & PA-C20MB, PC-40MB & PA-C40MB



DIMENSIONS (mm)

	A	B	(C)		(D)		E	F	G	(H)			I	J		
			SUPER FITTING	SUPER 300 FITTING	SUPER FITTING	SUPER 300 FITTING				SUPER FITTING	SUPER 300 FITTING	SUPER FITTING			SUPER 300 FITTING	
																J
PC-10MB & PA-C10MB	232.3	286	499	481	489	254	244	248	147.6	80	190	242	234	238	147.6	80
PC-20MB & PA-C20MB	254.6	321.7	635	618	626	320	312	316	192	100	232	309	300	304	192	100
PC-40MB & PA-C40MB	299.6	349.3	803	791	797	413	409	411	255	120	310	384	376	380	255	120

### Features

- 1 Unique bellows design insures an excellent drainage – no fluid entrapment.
- 2 Optimized for both silica-based and metal-based rapid sedimentation slurries.
- 3 Extended-life bellows design benefits from Pillar's vast materials experience.
- 4 All wetted parts are molded fluororesin and suitable for use in high-purity and corrosive chemical handling applications.
- 5 Coupled with a dedicated accumulator, allows low pulsation slurry discharges.

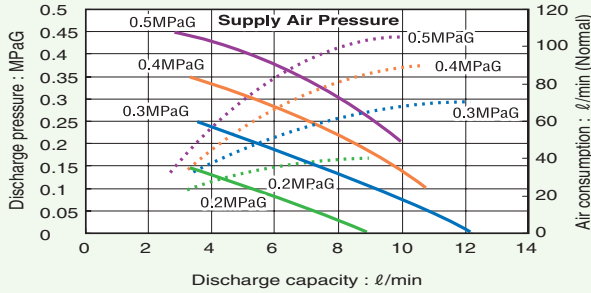
Type	PC- 10MB	PC- 20MB	PC- 40MB	
Pump connections mm (inch)	IN $\phi$ 19 / OUT $\phi$ 12 ( IN $\phi$ 3/4" / OUT $\phi$ 1/2" )	IN $\phi$ 25 / OUT $\phi$ 19 ( IN $\phi$ 1" / OUT $\phi$ 3/4" )	IN $\phi$ 38.1 / OUT $\phi$ 25 ( IN $\phi$ 1 1/2" / OUT $\phi$ 1" )	
Pump connectors	SUPER 300 TYPE PILLARFITTING or SUPER TYPE PILLARFITTING			
Max discharge capacity $\ell$ /min (GPM)	12 (3.17)	24 (6.34)	48 (12.7)	
Pulsation pressure range	Within $\pm$ 12.5% of the pump discharge pressure when the pressure is over 0.1MPaG. Less than 0.04MPaG when pump discharge pressure is under 0.1MPaG.			
Operating temp. $^{\circ}$ C ( $^{\circ}$ F)	10~40 (50~104)	41~70 (105~158)	71~100 (160~212)	
Supply air pressure MPaG (PSIG)	0.2~0.5 (29.0~72.6)	0.2~0.4 (29.0~58.0)	0.2~0.3 (29.0~43.5)	
Max discharge pressure MPaG (PSIG)	0.45 (65.3)	0.35 (50.8)	0.25 (36.3)	
Allowable differential Pressure of Bellows MPa (PSIG)	0.3 (43.5)	0.25 (36.3)	0.2 (29.0)	
Discharge capacity per stroke $\ell$ /stroke (IN <sup>3</sup> ) [※1]	0.12 (7.32)		0.48 (29.30)	
Air consumption $\ell$ /min [Normal] (SCFM)	25~110 (0.9~3.9)		100~350 (3.5~12.3)	
Ambient temperature $^{\circ}$ C ( $^{\circ}$ F)	10~50 (50~122)			
Air inlet ports (inch)	For pump operation	2-Rc 1/4" ( 2-NPT 1/4" )	2-Rc 3/8" ( 2-NPT 3/8" )	2-Rc 1/2" ( 2-NPT 1/2" )
	For master valve	2-Rc 1/4" ( 2-NPT 1/4" )	2-Rc 1/4" ( 2-NPT 1/4" )	2-Rc 1/4" ( 2-NPT 1/4" )
weight kg (lb)	10 (22)		38 (84)	
Pump size mm (inch) [※2]	148L x 202W x 271H ( 5.8L x 8.0W x 10.7H )		192L x 245W x 293H ( 7.6L x 23.8W x 11.5H )	255L x 315W x 338H ( 10.0L x 12.4W x 13.3H )

· Different size of pump connections may vary the above figure. The length of the suction pipe does not exceed 2m.  
 · Specify type of end connection when ordering.  
 · We have also explosionproof pumps that are suitable for pumping an explosive organic solution.  
 · Flange type is also available about the suction connection of PC-40MB pump.  
 · PC-Pump can not be achieved the specified discharge rate rarely if you use special piping design. Contact us.  
 · At time of order, please note that the pump model is different if you use the pumps together with accumulators.  
 [※1] The value applies when the standard stroke is selected. Be sure to run the pump at a pumping speed of 100spm or lower.  
 [※2] The reference value of the pump size(cast metal size) is designed under the JIS standard tolerance.

## Performance Curves for PC-10MB

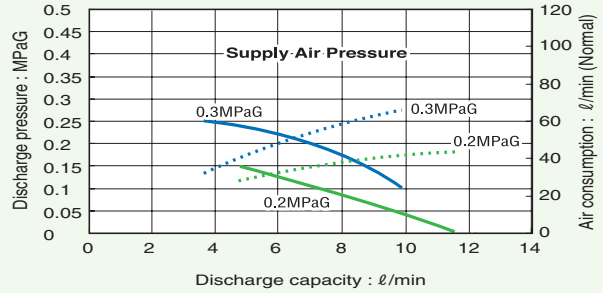
Performance Curves for PC-10MB (at 20°C)

PIPING SIZE FOR AIR:  $\phi 6 \times \phi 4 \times 2M$  PIPING SIZE FOR FLUID: IN  $\phi 19 \times \phi 15.8$  OUT  $\phi 12 \times \phi 10$  FLUID: PURE WATER



Performance Curves for PC-10MB (at 80°C)

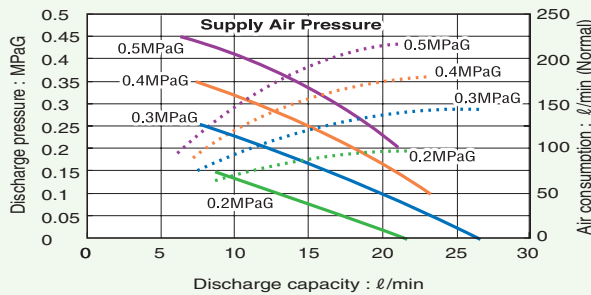
PIPING SIZE FOR AIR:  $\phi 6 \times \phi 4 \times 2M$  PIPING SIZE FOR FLUID: IN  $\phi 19 \times \phi 15.8$  OUT  $\phi 12 \times \phi 10$  FLUID: PURE WATER



## Performance Curves for PC-20MB

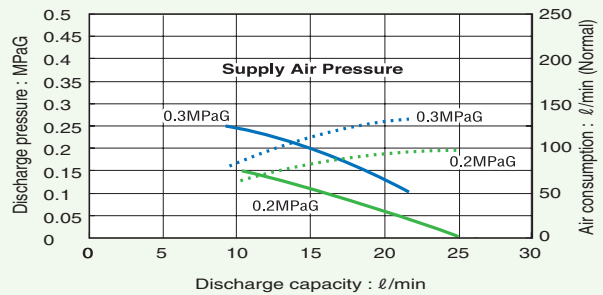
Performance Curves for PC-20MB (at 20°C)

PIPING SIZE FOR AIR:  $\phi 8 \times \phi 5 \times 2M$  PIPING SIZE FOR FLUID: IN  $\phi 25 \times \phi 22$  OUT  $\phi 19 \times \phi 15.8$  FLUID: PURE WATER



Performance Curves for PC-20MB (at 80°C)

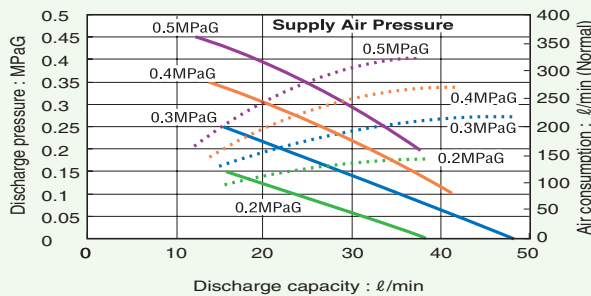
PIPING SIZE FOR AIR:  $\phi 8 \times \phi 5 \times 2M$  PIPING SIZE FOR FLUID: IN  $\phi 25 \times \phi 22$  OUT  $\phi 19 \times \phi 15.8$  FLUID: PURE WATER



## Performance Curves for PC-40MB

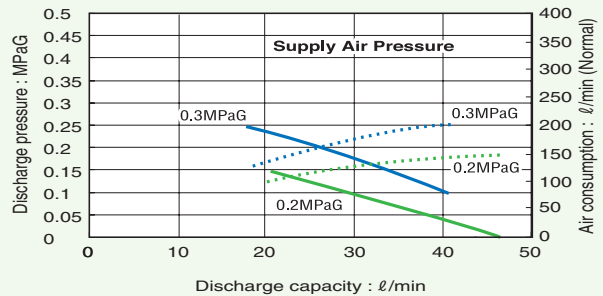
Performance Curves for PC-40MB (at 20°C)

PIPING SIZE FOR AIR:  $\phi 10 \times \phi 8 \times 2M$  PIPING SIZE FOR FLUID: IN  $\phi 38.1 \times \phi 33.7$  OUT  $\phi 25 \times \phi 22$  FLUID: PURE WATER



Performance Curves for PC-40MB (at 80°C)

PIPING SIZE FOR AIR:  $\phi 10 \times \phi 8 \times 2M$  PIPING SIZE FOR FLUID: IN  $\phi 38.1 \times \phi 33.7$  OUT  $\phi 25 \times \phi 22$  FLUID: PURE WATER



\*The above performance curves assume the use of an auto-accumulator.  
\*Fluid for : Silica, alumina, ceria slurry of CMP process.

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\*Specifications and dimensions are subject to change without prior notice.  
\*The data on this catalogue are solely for your reference and are not to be construed as constituting a warranty.



**CAUTION**

• Follow the instructions, before installation and operation, for your safety.