

PC Series Slurry Pump for CMP Process



Best suited for CMP process/ slurry applications



■ Features

Original flow path design

The flow path is designed to allow smooth liquid flow without stagnation, making it possible to significantly reduce liquid trapping inside the pump. This product can handle silica-based slurries, and it can also cope with metal-based slurries with fast settling velocities.

Low pulsation achieved with the dedicated accumulator

Separately arranging an accumulator dedicated to the PC series makes it possible to achieve low-pulsation discharge.

■ Specifications

[Applicable fluids: Liquid slurries used in CMP processes, such as silica, alumina, and cerium slurries
For liquid slurries for copper wiring CMP and liquid slurries for applications other than CMP processes, please consult with us separately.]

Pump model		PC-10MB			PC-20MB			PC-40MB		
Pump connection size*1	mm	IN ϕ 19/OUT ϕ 12			IN ϕ 25/OUT ϕ 19			IN ϕ 1-1/2"/OUT ϕ 25		
Pump connector*2		Super 300 Type PILLAR Fitting™								
Max discharge capacity	L/min	12			24			48		
Operating temperature	°C	10 to 40	41 to 70	71 to 100	10 to 40	41 to 70	71 to 100	10 to 40	41 to 70	71 to 100
Supply air pressure	MPaG	0.2 to 0.5	0.2 to 0.4	0.2 to 0.3	0.2 to 0.5	0.2 to 0.4	0.2 to 0.3	0.2 to 0.5	0.2 to 0.4	0.2 to 0.3
Max discharge pressure	MPaG	0.45	0.35	0.25	0.45	0.35	0.25	0.45	0.35	0.25
Allowable differential pressure of bellows*3	MPa	0.3	0.25	0.2	0.3	0.25	0.2	0.3	0.25	0.2
Discharge capacity per stroke*4	L	0.12			0.24			0.48		
Air consumption	L/min (Normal)	25 to 110			55 to 250			100 to 350		
Ambient temperature	°C	10 to 50								
Air inlet ports		2-Rc1/4			2-Rc3/8			2-Rc1/2		
Weight	kg	Approx. 10			Approx. 18			Approx. 38		
Pump size (excluding piping)*5	mm	148 ^L × 202 ^W × 271 ^H			192 ^L × 245 ^W × 293 ^H			255 ^L × 315 ^W × 338 ^H		

*1: To obtain performance with this pump, pipes with the pump connection size shown above are required. Install the pump so that the length of the suction pipe does not exceed two meters.

*2: The pump connector model differs according to the fitting type. Therefore, be sure to indicate the fitting type when placing an order.

*3: Allowable differential pressure of bellows = Air supply pressure - Discharge pressure

*4: This is a reference value. Make sure that the stroke speed is always 100 spm or lower.

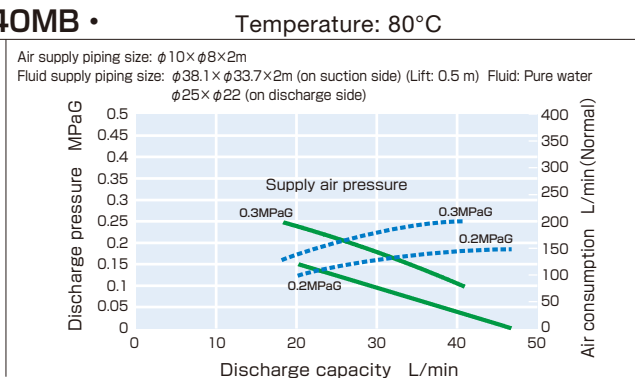
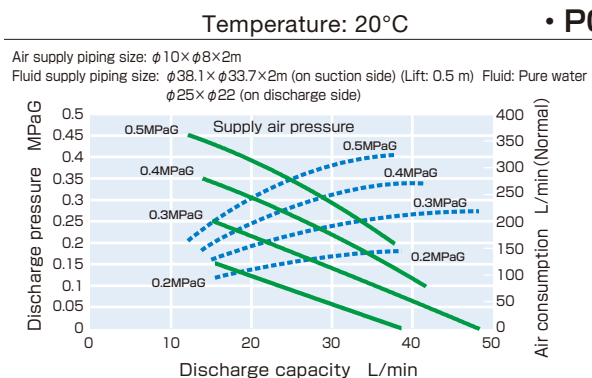
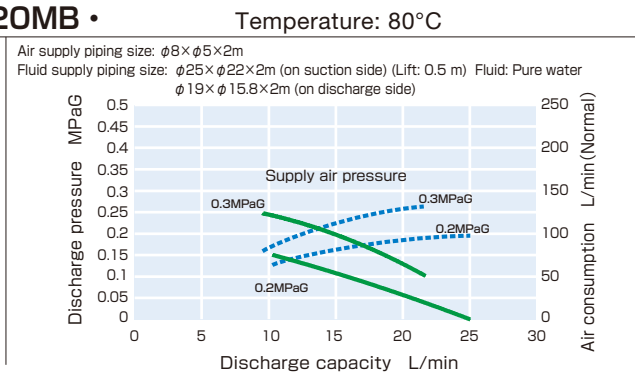
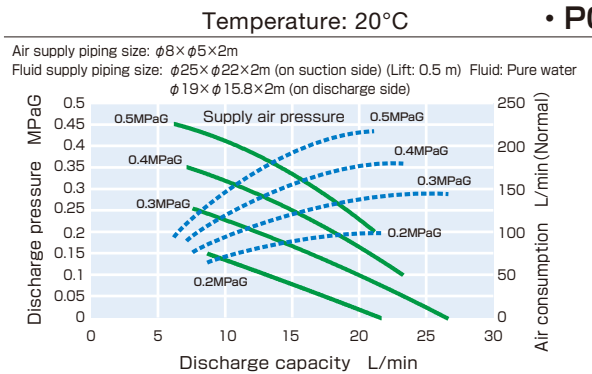
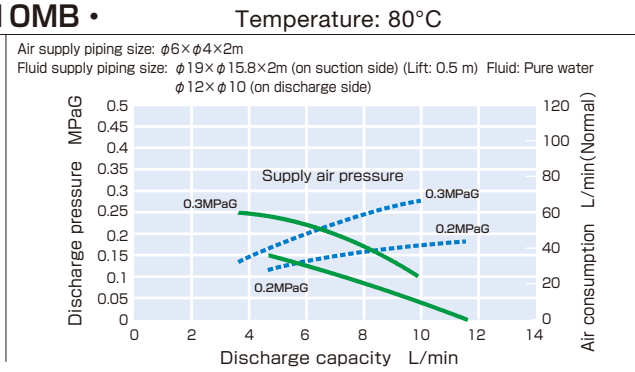
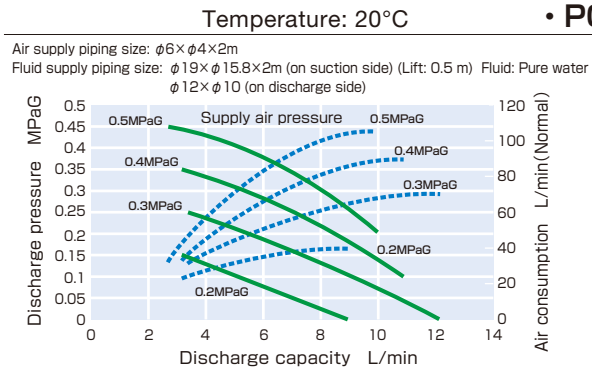
*5: The pump size is a reference value.

Notes 1) If the fluid to be used requires anti-explosion treatment because it is an organic or similar liquid, anti-explosive pumps with proximity sensors are available. Please consult with us separately for more information.

2) We also provide a flange type of inlet-side connectors for the PC-40MB. Please contact us for more information.

Performance curve

H-Q characteristics — Air consumption - - - - -



PA-C series auto accumulator dedicated to PC series slurry pumps

If the PC series slurry pump requires smooth liquid flow, please use this PA-C series auto accumulator in combination with the pump.



Auto accumulator model		PA-C10MB	PA-C20MB	PA-C40MB
Applicable pump		PC-10MB	PC-20MB	PC-40MB
Auto accumulator connection diameter	mm	IN $\phi 19$ /OUT $\phi 12$	IN $\phi 25$ /OUT $\phi 19$	IN $\phi 25$ /OUT $\phi 25$
Auto accumulator connector		Super 300 Type PILLAR Fitting™		
Pulsation pressure range		Within $\pm 12.5\%$ of the pump discharge pressure when it is 0.1 MPaG or more 0.04 MPa or lower when the pump discharge pressure is less than 0.1 MPaG		
Air inlet ports		Rc 1/4	Rc 1/4	Rc 1/4
Weight	kg	Approx. 8	Approx. 14	Approx. 28
Accumulator size (excluding piping)*1	mm	148 ^h × 202 ^w × 286 ^d	192 ^h × 245 ^w × 322 ^d	255 ^h × 315 ^w × 350 ^d

*1: The size is a reference value.

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Safety precaution

● When using this product, please use correctly and pay sufficient attention to safety.

* Please understand that this catalog may change without prior notice.
 * The values shown on this catalog are reference values, not guaranteed values.