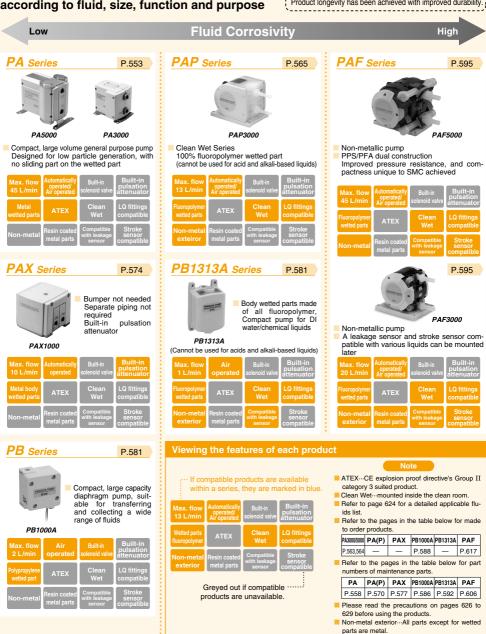# Series Variations

Diaphragm type process pump — chose according to fluid, size, function and purpose

Modified PTFE used as diaphragm material.
Product longevity has been achieved with improved durability.

Low ← **Fluid Corrosivity** → High

PA Series   P.553

PA5000   **PA3000**

■ Compact, large volume general purpose pump
Designed for low particle generation, with no sliding part on the wetted part

Max. flow 45 L/min	Automatically operated/ Air operated	Built-in solenoid valve	Built-in pulsation attenuator
Metal wetted parts	ATEX	Clean Wet	LQ fittings compatible
Non-metal	Resin coated metal parts	Compatible with leakage sensor	Stroke sensor compatible

PAP Series   P.565

PAP3000

■ Clean Wet Series
100% fluoropolymer wetted part
(cannot be used for acid and alkali-based liquids)

Max. flow 13 L/min	Automatically operated/ Air operated	Built-in solenoid valve	Built-in pulsation attenuator
Fluoropolymer wetted parts	ATEX	Clean Wet	LQ fittings compatible
Non-metal exterior	Resin coated metal parts	Compatible with leakage sensor	Stroke sensor compatible

PAF Series   P.595

PAF5000

■ Non-metallic pump
■ PPS/PFA dual construction
Improved pressure resistance, and compactness unique to SMC achieved

Max. flow 45 L/min	Automatically operated/ Air operated	Built-in solenoid valve	Built-in pulsation attenuator
Fluoropolymer wetted parts	ATEX	Clean Wet	LQ fittings compatible
Non-metal	Resin coated metal parts	Compatible with leakage sensor	Stroke sensor compatible

PAX Series   P.574

PAX1000

■ Bumper not needed
Separate piping not required
Built-in pulsation attenuator

Max. flow 10 L/min	Automatically operated	Built-in solenoid valve	Built-in pulsation attenuator
Metal body wetted parts	ATEX	Clean Wet	LQ fittings compatible
Non-metal	Resin coated metal parts	Compatible with leakage sensor	Stroke sensor compatible

PB1313A Series   P.581

PB1313A
(Cannot be used for acids and alkali-based liquids)

■ Body wetted parts made of all fluoropolymer, Compact pump for DI water/chemical liquids

Max. flow 1 L/min	Air operated	Built-in solenoid valve	Built-in pulsation attenuator
Fluoropolymer wetted parts	ATEX	Clean Wet	LQ fittings compatible
Non-metal exterior	Resin coated metal parts	Compatible with leakage sensor	Stroke sensor compatible

   P.595

PAF3000

■ Non-metallic pump
■ A leakage sensor and stroke sensor compatible with various liquids can be mounted later

Max. flow 20 L/min	Automatically operated/ Air operated	Built-in solenoid valve	Built-in pulsation attenuator
Fluoropolymer wetted parts	ATEX	Clean Wet	LQ fittings compatible
Non-metal exterior	Resin coated metal parts	Compatible with leakage sensor	Stroke sensor compatible

PB Series   P.581

PB1000A

■ Compact, large capacity diaphragm pump, suitable for transferring and collecting a wide range of fluids

Max. flow 2 L/min	Air operated	Built-in solenoid valve	Built-in pulsation attenuator
Polypropylene wetted part	ATEX	Clean Wet	LQ fittings compatible
Non-metal	Resin coated metal parts	Compatible with leakage sensor	Stroke sensor compatible

Viewing the features of each product

If compatible products are available within a series, they are marked in blue.

Max. flow 13 L/min	Automatically operated/ Air operated	Built-in solenoid valve	Built-in pulsation attenuator
Wetted parts fluoropolymer	ATEX	Clean Wet	LQ fittings compatible
Non-metal exterior	Resin coated metal parts	Compatible with leakage sensor	Stroke sensor compatible

Greyed out if compatible products are unavailable.

Note

■ ATEX···CE explosion proof directive's Group II category 3 suited product.
■ Clean Wet···mounted inside the clean room.
■ Refer to page 624 for a detailed applicable fluids list.
■ Refer to the pages in the table below for made to order products.

PA3000/5000	PA(P)	PAX	PB1000A	PB1313A	PAF
P.563,564	—	—	P.588	—	P.617

■ Refer to the pages in the table below for part numbers of maintenance parts.

PA	PA(P)	PAX	PB1000A	PB1313A	PAF
P.558	P.570	P.577	P.586	P.592	P.606

■ Please read the precautions on pages 626 to 629 before using the products.
■ Non-metal exterior···All parts except for wetted parts are metal.
■ All metal parts coated in resin···Metal parts are coated in resin and are not exposed.

SMC

Series Variations

■ PA Series/Double acting pump

Series	Model	Actuation		Discharge rate	Material		Details
				L/min	Body	Diaphragm	
PA3000	**PA3□□0**	Automatically operated type	AIR SUP / FLUID OUT / AIR EXH / FLUID IN	1 to 20	ADC12 (Aluminum) SCS14 (Stainless steel)	PTFE NBR	P.554
	PA3□13	Air operated type	P1 / P2 / FLUID OUT / FLUID IN	0.1 to 12			
PA5000	**PA5□□0**	Automatically operated type	AIR SUP / FLUID OUT / AIR EXH / FLUID IN	5 to 45			P.555
	PA5□13	Air operated type	P1 / P2 / FLUID OUT / FLUID IN	1 to 24			
PAP3000	**PAP3310**	Automatically operated type	AIR SUP / FLUID OUT / AIR EXH / FLUID IN	1 to 13	NewPFA (Fluororesin)	PTFE	P.568
	PAP3313	Air operated type	P1 / P2 / FLUID OUT / FLUID IN	0.1 to 9			
PAX1000	**PAX1□12**	Automatically operated type, built-in pulsation attenuator	AIR SUP / FLUID OUT / AIR EXH / FLUID IN	0.5 to 10	ADC12 (Aluminum) SCS14 (Stainless steel)	PTFE	P.575

■ PB Series/Single acting pump

Series	Model	Actuation		Discharge rate	Material		Details
				L/min	Body	Diaphragm	
PB1000A	**PB1011A**	Built-in solenoid valve type	AIR EXH / AIR SUP / FLUID OUT / FLUID IN	0.008 to 2	Polypropylene Stainless steel 316 (Stainless steel)	PTFE	P.584
	PB1013A	Air operated type	AIR SUP / FLUID OUT / FLUID IN	0.008 to 1			
	PB1313A	Air operated type	AIR SUP / FLUID OUT / FLUID IN	0.008 to 1	NewPFA (Fluororesin)	PTFE	P.589

■ PAF Series/Double acting pump

Series	Model	Actuation		Discharge rate	Material		Details
				L/min	Body	Diaphragm	
PAF3000	**PAF3410**	Automatically operated type	AIR SUP / FLUID OUT / AIR EXH / FLUID IN	1 to 20	NewPFA (Fluororesin)	PTFE	P.598
	PAF3413	Air operated type	P1 / P2 / FLUID OUT / FLUID IN	1 to 15			
PAF5000	**PAF5410**	Automatically operated type	AIR SUP / FLUID OUT / AIR EXH / FLUID IN	5 to 45			P.599
	PAF5413	Air operated type	P1 / P2 / FLUID OUT / FLUID IN	5 to 38			

Application Examples

Transferring liquid by suction

Atomizing liquid

Transferring liquid by pressure

Stirring liquid

• Prevents sticking of liquids

SMC