

# Vacuum Pumps, Compact

## PX-52/137/202

Ultimate pressure 0.67Pa

Effective pumping speed 50/135/200 (50Hz, L/min)

- Usage of vacuum pumps to suction special gases has been increasing for using such gases in the chemical industry, the semiconductor industry, or general science applications. Conventional vacuum pumps will suffer significant shortening of service life due to corrosion or excessive wear on parts contact with such special gases causing troubles. PX series vacuum pumps are of chemical type and employ corrosion proof and wear-resistant materials for parts that may contact with gases.
- Surfaces of pump casing and major structural parts are specially finished. O-rings and other chemical parts are made of fluorine-based material and other parts employ corrosion proof materials.
- The exhaust port employs a KF-25 quick coupling flange (ISO type) and its connection/removal to and from a pipe necessary for exhausting toxic and other gasses is easy. A KF-25 quick coupling flange can be installed onto the exhaust port as well. (Optional)



PX-52

PX-137

PX-202

### Specifications

Product code	242296	242297	242298
Model	PX-52	PX-137	PX-202
Effective pumping speed (50/60Hz)	50/60L/min	135/162L/min	200/240L/min
AUltimate pressure*1	0.67Pa		
Motor	Single phase, 100V, 200W, 4P	Single phase, 100V, 400W, 4P	Three phase, 200V, 700W, 4P
Full load current (50/60Hz)	5.6/4.8A	5.6/5.4A*2	3.6/3.3A
Oil capacity	650mL	1,000mL	1,100mL
Recommended oil	SO-M		
Oil mist trap (sold separately)	OMC050	OMC200	
Suction pipe diameter	O.D.18mm×I.D.14mm	O.D.30mm×I.D.22mm	
Ambient temperature	7 to 40°C		
Power source	AC115V/220V Single phase with step-down transformer		AC220/380V Three phase with step-down transformer
External dimensions	W165.5×L419×H233mm	W170×L493×H262.5mm	W170×L509.5×H262.5mm
Weight	Approx. 14.1kg	Approx. 25.4kg	Approx. 26.6kg

\*1 The attainable vacuum is measured by a Pillani gauge.

(In the case of measurement by macleod vacuum gauge, the value is one order of magnitude lower for pumps with an attainable vacuum of 1.3 Pa or less.)

\*2 Products manufactured before April 2020 have the following specifications.

100V 50/60Hz : 7.7A/6.1A

# Vacuum Pumps Oil

## SO-M



### SO-M

- The vapor pressure is low, and the attainable pressure can be expected to the limit of the pump.
- It has heat resistance and oxidation resistance that cannot be obtained with mineral oils.
- It suppresses the generation of oxide degradation in the active gas.

### Specifications

	Unit	SO-M
Composition	-	Synthetic oil
Density (15°C)	g/cm <sup>3</sup>	0.906
Collar (ASTM)	-	L1.0>
Flash point (COC)	°C	250<
Kinematic viscosity (40°C)	mm <sup>2</sup> /s	63.7
Pour point	°C	-20>

No.	Product name	Model	Contents	Product code
①	Vacuum pumps oil (for PX series)	SO-M	1L/can	242388
②			4L/can	242387
③			18L/can	242386

**Optional items (Trap, Flexible tube, Clamp, Center ring)**

No.	Description	Model	Vacuum pump model	Product code
F	Oil mist separator*1 (corrosion-proof)	OMC-200	PX137/202	242377
G		OMC-050	PX52	242376
H	Forline trap*3	OFI-050C*2	PX52	242354
I		OFI-050V*2		242355
J		OFI-200C*2	PX137/202	242356
K		OFI-200V*2		242357
J	Flexible tube KF25	STK-025-1000		242333
K	Clamp KF25	SCK-1025		242358
L	Center ring KF25	SCK-2025		242359

\*1 A clamp is required when installing the oil mist separator.

\*2 A KF-25 suction pipe is required. A long fitting or an L-shaped fitting may be required when changing.

\*3 A separate part is required to install the fore-line trap on the suction side.

PX52 : Suction adapter (40mm sq. flange×M20×P1)+KF-25 suction pipe

PX 137/202 : Suction adapter (50mm sq. flange×M20×P1)+KF-25 suction pipe

**Mounting example**



**Oil Mist Separator (Corrosion-proof)**



The body is made of stainless steel, and the filter element is a special oil mist separator made of glass wool. By attaching it to the exhaust port of the corrosion-resistant oil rotary vacuum pump, oil mist is removed and clean exhaust is achieved.

**Forline Trap**



This is installed on the air intake side of the oil rotary vacuum pump.

Two types are available: one to prevent reverse diffusion of oil into the vacuum system (OFI-050C, 200C) and the other to prevent powder or liquid from entering the vacuum pump (OFI-050V, 200V). For installation, A KF25 clamp coupling and center ring are required. Since this is a sealed type, the filter cannot be replaced.

**Optional items (Suction/Exhaust pipe)**

No.	Description	Standard	PX52	PX137 PX202	Material	Product code
①	Hose port suction pipe	O.D. φ 8×M20	●	●	Brass with plated	242194
②		O.D. φ 12×M20	●	●	Brass with plated	242195
③		O.D. φ 15×M20	●	●	Brass with plated	242196
④		O.D. φ 18×M20	●	●	Brass with plated	242197
⑤		O.D. φ 22×M20	●	●	Brass with plated	242198
⑥		O.D. φ 27×40mm sq. flange	●	●	Zinc die-casting with plated	242360
⑦		O.D. φ 27×50mm sq. flange	●	●	Zinc die-casting with plated	242361
⑨	KF-25 suction pipe	KF-25×40mm sq. flange	●	●	Poly Phenylene Sulfide Resin	242364
⑩		KF-25×50mm sq. flange	●	●	Poly Phenylene Sulfide Resin	242365
⑪	Suction adapter	40mm sq. flange×M20×P1	●	●	Zinc die-casting with plated	242190
⑫		50mm sq. flange×M20×P1	●	●	Zinc die-casting with plated	242189
⑬	A-type suction pipe	R1/4-L20 male thread×M20	●	●	Brass with plated	242366
⑭	B-type suction pipe	R1/4 female thread×M20	●	●	Brass with plated	242367
⑮	C-type suction pipe	R1/4-L10 male thread×M20	●	●	Brass with plated	242368
⑯	KF-25 exhaust pipe	KF-25×G3/4	●	●	Poly Phenylene Sulfide Resin	242381
⑰		KF-25×G1	●	●	Poly Phenylene Sulfide Resin	242382
⑱		O.D. φ 27×G1	●	●	Brass with plated	242380
⑲	Hose port exhaust pipe	O.D. φ 15×G3/4	●	●	Brass with plated	242371
⑳		O.D. φ 18×G3/4	●	●	Brass with plated	242372

● : Standard type ● : Can be installed as is (no Adapters necessary)

● : Suction adapter (40mm sq. flange×M20×P1) is required.

**Suction pipe**



**Exhaust pipe**

