



Laboratory Equipment Manufacturer

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ECONOMY VACUUM PUMPS



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MRC.2.19

Oil Free Vacuum Pump Guide

LABORATORY PUMP

Oil Free Vacuum Pump

	VP-17 Max. vacuum : - 680 mmHg Max. flow rate : 23 (20) l/min
	VP-17-DC Max. vacuum : - 650 mmHg Max. flow rate : 25 l/min
	VP-34 Max. vacuum : - 680 mmHg Max. flow rate : 37 (34) l/min
	VP-19 Max. vacuum : - 735 mmHg Max. flow rate : 23 (20) l/min
	VP-68 Max. vacuum : - 670 mmHg Max. flow rate : 80 (68) l/min
	VP-28 Max. vacuum : - 630 mmHg Max. flow rate : 34 (28) l/min Max. pressure : 80 psi

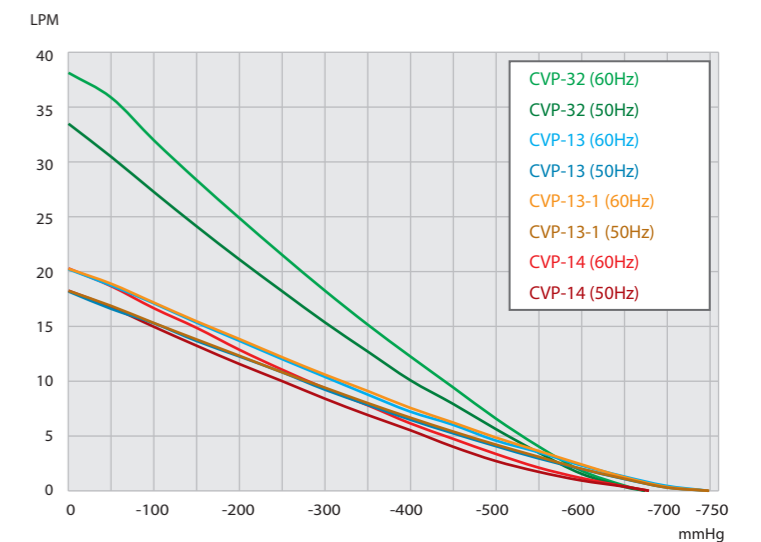
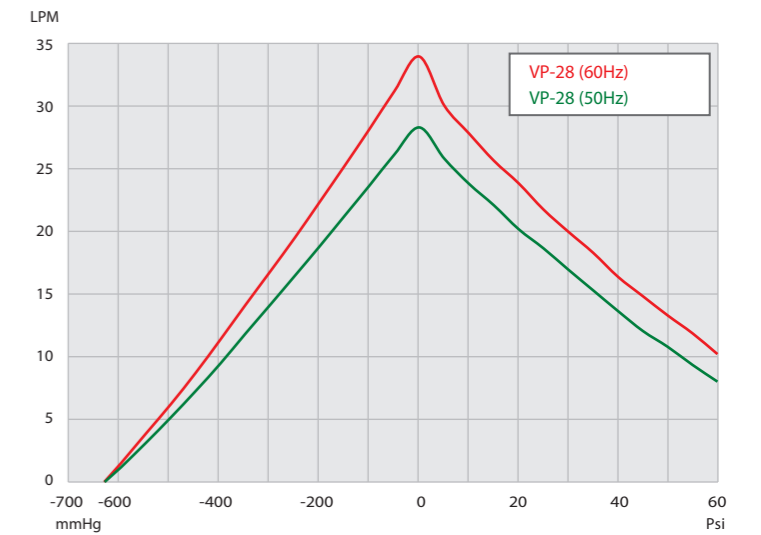
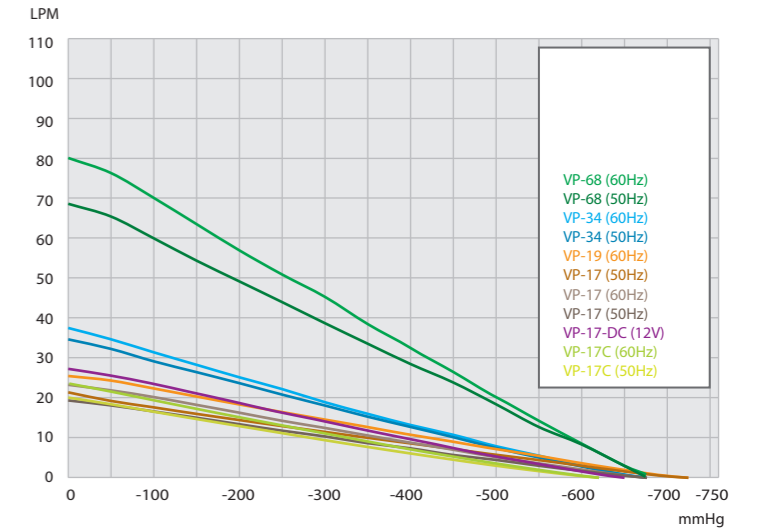
PTFE Coated Chemical Resistant Vacuum Pump

	VP-17C Max. vacuum : - 630 mmHg Max. flow rate : 23 (20) l/min
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Chemical Resistant Vacuum Pump

	CVP-14 Max. vacuum : - 670 mmHg Max. flow rate : 20 (18) l/min
	CVP-32 Max. vacuum : - 670 mmHg Max. flow rate : 38 (33) l/min
	CVP-13 Max. vacuum : - 750 mmHg Max. flow rate : 20 (18) l/min
	CVP-13-1 Max. vacuum : - 750 mmHg Max. flow rate : 20 (18) l/min

Pumping Speed Graph



** The value in () is the max. flow rate at 50Hz

Oil Free Vacuum Pump

Features

- **No air pollution, maintenance free**
VP series pumps are driven by piston, without the need of lubricant, regular oil changes and maintenance; with no oil pollution.
- **Prote™ overflow protection**
VP series pumps are equipped with Prote™ overflow protection which can prevent a large amount of liquid from being sucked into the pump.
- **Moisture trap with filter cartridge**
VP series pumps are equipped with filter cartridge in air inlet to filter particle and moisture to prolong the life of pump.
- **Vacuum regulator**
VP series pumps are equipped with vacuum regulator to adjust vacuum.
- **Thermal protection device**
Every motor of VP series pumps has a built-in thermal protection device to shut off the pump automatically when overheated and then resume working when the temperature cools down.
- **International safety certification**
CE certification
CSA certification
IP 30 protection (VP-17)

Applications

- Filtration for microbiology test
- Air sampling
- Suspended solid test
- Vacuum filtration

Ordering Information

167300-11(22)
VP-17, Vacuum Pump
AC110V, 60Hz (AC220V, 50Hz)

167330-00
VP-17-DC, DC Power Vacuum Pump
(DC12V)



VP-17



VP-17-DC

Specification

Model	VP-17		VP-17-DC
Voltage	110V/60Hz	220V/50Hz	DC 12V
Max. power (W)	65	60	35
Max. current (A)	0.7	0.3	3
Max. vacuum	- 680 mmHg		- 650 mmHg
Max. flow rate	23 l/min	20 l/min	25 l/min
Moisture Trap / Vacuum Regulator	Yes		Yes
Overflow protection	Yes		Yes
Motor rotation	1750 RPM	1450 RPM	1800 RPM
Horse power	1/8 HP		1/8 HP
Noise level	50 dB		50 dB
Port thread	5/16 inch (8 mm)		5/16 inch (8 mm)
Net weight	4.1 Kg		3.5 Kg
Dimension (LxWxH)	26.8 x 13.5 x 20.4 cm		27.2 x 12.1 x 16.5 cm

PS: 1 mmHg \approx 0.1333 kPa \approx 1.333 mbar, 1 l/min \approx 0.035CFM

Oil Free Vacuum Pump

Features

- **No air pollution, maintenance free**
VP series pumps are driven by piston, without the need of lubricant, regular oil changes and maintenance; with no oil pollution.
- **Prote™ overflow protection**
VP series pumps are equipped with Prote™ overflow protection which can prevent a large amount of liquid from being sucked into the pump.
- **Moisture trap with filter cartridge**
VP series pumps are equipped with filter cartridge in air inlet to filter particle and moisture to prolong the life of pump.
- **Vacuum regulator**
VP series pumps are equipped with vacuum regulator to adjust vacuum.
- **Thermal protection device**
Every motor of VP series pumps has a built-in thermal protection device to shut off the pump automatically when overheated and then resume working when the temperature cools down.
- **International safety certification**
CE certification
CSA certification
IP 30 protection (VP-34/19)

Applications

- Filtration for microbiology test
- Air sampling
- Suspended solid test
- Vacuum filtration

Ordering Information

167400-11(22)
VP-34, Vacuum Pump
AC110V, 60Hz (AC220V, 50Hz)

167410-11(22)
VP-19, Vacuum Pump
AC110V, 60Hz (AC220V, 50Hz)



VP-34



VP-19

Specification

Model	VP-34		VP-19	
Voltage	110V/60Hz	220V/50Hz	110V/60Hz	220V/50Hz
Max. power (W)	100	80	100	80
Max. current (A)	1.0	0.4	1.0	0.4
Max. vacuum	- 680 mmHg		- 735 mmHg	
Max. flow rate	37 l/min	34 l/min	23 l/min	20 l/min
Moisture Trap / Vacuum Regulator	Yes		Yes	
Overflow protection	Yes		Yes	
Motor rotation	1750 RPM	1450 RPM	1750 RPM	1450 RPM
Horse power	1/6 HP		1/6 HP	
Noise level	52 dB		52 dB	
Port thread	5/16 inch (8 mm)		5/16 inch (8 mm)	
Net weight	5.2 Kg		5.2 Kg	
Dimension (LxWxH)	31.0 x 13.5 x 20.4 cm		31.0 x 13.5 x 20.4 cm	

PS: 1 mmHg \approx 0.1333 kPa \approx 1.333 mbar, 1 l/min \approx 0.035CFM

Oil Free Vacuum Pump

Features

➤ **No air pollution, maintenance free**

VP series pumps are driven by piston, without the need of lubricant, regular oil changes and maintenance; with no oil pollution.

➤ **Prote™ overflow protection**

VP-68 pump is equipped with Prote™ overflow protection which can prevent a large amount of liquid from being sucked into the pump.

➤ **Moisture trap with filter cartridge**

VP-68 pump is equipped with filter cartridge in air inlet to filter particle and moisture to prolong the life of pump.

➤ **Vacuum regulator**

VP series pumps are equipped with vacuum regulator to adjust vacuum.

➤ **Thermal protection device**

Every motor of VP series pumps has a built-in thermal protection device to shut off the pump automatically when overheated and then resume working when the temperature cools down.

➤ **International safety certification**

CE certification



VP-68

Specification

Model	VP-68	
Voltage	110V/60Hz	220V/50Hz
Max. power (W)	220	200
Max. current (A)	2	0.9
Max. vacuum	- 670 mmHg	
Max. flow rate	80 l/min	68 l/min
Vacuum Regulator	Yes	
Overflow protection	Yes	
Motor rotation	1750 RPM	1450 RPM
Horse power	1/3 HP	
Noise level	68 dB	
Port thread	3/8 inch (10 mm)	
Net weight	7.9 Kg	
Dimension (LxWxH)	34.5 x 17.5 x 20.0 cm	

PS: 1 mmHg ≅ 0.1333 kPa ≅ 1.333 mbar, 1 l/min ≅ 0.035CFM

Applications

- Filtration for microbiology test
- Air sampling
- Suspended solid test
- Vacuum filtration

Oil Free Vacuum Pump

Features

➤ **No air pollution, maintenance free**

VP series pumps are driven by piston, without the need of lubricant, regular oil changes and maintenance; with no oil pollution.

➤ **Prote™ overflow protection**

VP-40 pump is equipped with Prote™ overflow protection which can prevent a large amount of liquid from being sucked into the pump.

➤ **Moisture trap with filter cartridge**

VP-40 pump is equipped with filter cartridge in air inlet to filter particle and moisture to prolong the life of pump.

➤ **Vacuum regulator**

VP series pumps are equipped with vacuum regulator to adjust vacuum.

➤ **Thermal protection device**

Every motor of VP series pumps has a built-in thermal protection device to shut off the pump automatically when overheated and then resume working when the temperature cools down.

➤ **International safety certification**

CE certification

Applications

- Filtration for microbiology test
- Air sampling
- Suspended solid test
- Vacuum filtration

Ordering Information

167811-11(22)

VP-40, Vacuum Pump

AC110V, 60Hz (AC220V, 50Hz)



VP-40

Specification

Model	VP-40	
Voltage	110V/60Hz	220V/50Hz
Max. power (W)	220	200
Max. current (A)	2	0.9
Max. vacuum	- 735 mmHg	
Max. flow rate	48 l/min	40 l/min
Vacuum Regulator	Yes	
Overflow protection	Yes	
Motor rotation	1750 RPM	1450 RPM
Horse power	1/3 HP	
Noise level	68 dB	
Hose barb	3/8 inch (10 mm)	
Net weight	7.9 Kg	
Dimension (LxWxH)	34.5 x 17.5 x 20.0 cm	

PS: 1 mmHg ≅ 0.1333 kPa ≅ 1.333 mbar, 1 l/min ≅ 0.035CFM

Oil Free Vacuum/Pressure Pump

Features

- **No air pollution, maintenance free**
VP series pumps are driven by piston, without the need of lubricant, regular oil changes and maintenance; with no oil pollution.
- **Prote™ overflow protection**
VP-28 pump is equipped with Prote™ overflow protection which can prevent a large amount of liquid from being sucked into the pump.
- **Moisture trap with filter cartridge**
VP-28 pump is equipped with filter cartridge in air inlet and outlet to filter particle and moisture to prolong the life of pump.
- **Vacuum and pressure regulators**
VP-28 pump is equipped with vacuum and pressure regulators to adjust vacuum and pressure.
- **Thermal protection device**
Every motor of VP series pumps has a built-in thermal protection device to shut off the pump automatically when overheated and then resume working when the temperature cools down.
- **International safety certification**
CE certification



VP-28

Specification

Model	VP-28	
Voltage	110V/60Hz	220V/50Hz
Max. power (W)	147	125
Max. current (A)	1.5	0.6
Max. vacuum	- 630 mmHg	
Max. pressure	80 psi	
Max. flow rate	34 l/min	28 l/min
Vacuum Regulator	Yes	
Pressure Regulator	Yes	
Overflow protection	Yes	
Motor rotation	1750 RPM	1450 RPM
Horse power	1/6 HP	
Noise level	52 dB	
Port thread	5/16 inch (8 mm)	
Net weight	5.5 Kg	
Dimension (LxWxH)	24.7x23.5x20.4 cm	

PS: 1 mmHg ≅ 0.1333 kPa ≅ 1.333 mbar , 1 l/min ≅ 0.035CFM

Applications

- Filtration for microbiology test
- Air sampling
- Suspended solid test
- Vacuum filtration

Ordering Information

167430-11(22)
VP-28, Vacuum Pump
AC110V, 60Hz (AC220V, 50Hz)

PTFE Coated Chemical Resistant Vacuum Pump

Features

- **No air pollution, maintenance free**
VP-17C vacuum pumps are driven by diaphragm, without the need of lubricant, regular oil changes and maintenance with no oil pollution.
- **Good chemical resistance**
The diaphragm chamber of VP-17C coated with PTFE and the SS # 316 valve plate can offer good resistance to a wide range of corrosive gases.
- **Thermal protection device**
Every motor of VP series pumps has a built-in thermal protection device to shut off the pump automatically when overheated and then resume working when the temperature cools down.
- **International safety certification**
CE certification



VP-17C

Applications

- Vacuum filtration
- Solid-Phase Extraction (SPE)
- Solvent purification

Ordering Information

189300-11(22)
VP-17C, PTFE Coated Chemical Resistant Vacuum Pump
AC110V, 60Hz (AC220V, 50Hz)

Specification

Model	VP-17C	
Voltage	110V/60Hz	220V/50Hz
Max. power (W)	65	60
Max. current (A)	0.7	0.3
Max. vacuum	- 630 mmHg	
Max. flow rate	23 l/min	20 l/min
Moisture Trap / Vacuum Regulator	Yes	
Overflow protection	No	
Motor rotation	1750 RPM	1450 RPM
Horse power	1/8 HP	
Noise level	50 dB	
Port thread	5/16 inch (8 mm)	
Net weight	4.1 Kg	
Dimension (LxWxH)	28.5x13.5x20.4 cm	

PS: 1 mmHg ≅ 0.1333 kPa ≅ 1.333 mbar , 1 l/min ≅ 0.035CFM

Chemical Resistant Vacuum Pump

Features

- **High chemical resistant**
All wetted parts of CVP series pump are made of PTFE material which can resist most of corrosive gases.
- **No air pollution, maintenance free**
CVP series pumps are driven by Diaphragm, without the need of lubricant, regular oil changes and maintenance; with no oil pollution.
- **Quiet and low vibration**
Driven direct by motor with no additional belt-driven transmission; the quality vibration-proof assembly makes CVP series run at the lowest noise level among all other equivalent pumps.
- **Thermal protection device**
Every motor of CVP series pumps has a built-in thermal protection device to shut off the pump automatically when overheated and then resume working when the temperature cools down. **International safety**
- **certification**
CE certification

Applications

- Vacuum filtration
- Gel electrophoresis
- Solid-Phase Extraction (SPE)
- Solvent purification

Ordering Information

169300-11(22)
CVP-14, Vacuum Pump
AC110V, 60Hz (AC220V, 50Hz)

169400-11(22)
CVP-32, Vacuum Pump
AC110V, 60Hz (AC220V, 50Hz)



CVP-14



CVP-32

Specification

Model	CVP-14		CVP-32	
Voltage	110V/60Hz	220V/50Hz	110V/60Hz	220V/50Hz
Max. power (W)	70	60	90	90
Max. current (A)	0.8	0.32	1.1	0.5
Max. vacuum	- 670 mmHg		- 670 mmHg	
Max. flow rate	20 l/min	18 l/min	38 l/min	33 l/min
Motor rotation	1700 RPM	1450 RPM	1700 RPM	1450 RPM
Horse power	1/8 HP		1/6 HP	
Noise level	50 dB		50 dB	
Port thread	5/16 inch (8 mm)		5/16 inch (8 mm)	
Net weight	5.0 Kg		7.0 Kg	
Dimension (LxWxH)	20.3x11.2x20.9 cm		26.7x11.2x18.1 cm	

PS: 1 mmHg ≅ 0.1333 kPa ≅ 1.333 mbar, 1 l/min ≅ 0.035CFM

Chemical Resistant Vacuum Pump

Features

- **High chemical resistant**
All wetted parts of CVP series pump are made of PTFE material which can resist most of corrosive gases.
- **No air pollution, maintenance free**
CVP series pumps are driven by Diaphragm, without the need of lubricant, regular oil changes and maintenance; with no oil pollution.
- **Quiet and low vibration**
Driven direct by motor with no additional belt-driven transmission; the quality vibration-proof assembly makes CVP series run at the lowest noise level among all other equivalent pumps.
- **Thermal protection device**
Every motor of CVP series pumps has a built-in thermal protection device to shut off the pump automatically when overheated and then resume working when the temperature cools down. **International safety**
- **certification**
CE certification

Applications

- Vacuum filtration
- Gel electrophoresis
- Solid-Phase Extraction (SPE)
- Rotary evaporator
- Solvent purification

Ordering Information

169410-11(22)
CVP-13, Vacuum Pump
AC110V, 60Hz (AC220V, 50Hz)

169411-11(22)
CVP-13-1, Vacuum Pump
AC110V, 60Hz (AC220V, 50Hz)



CVP-13



CVP-13-1

* Glass Moisture Trap / Vacuum Regulator doesn't include filter cartridge

Specification

Model	CVP-13		CVP-13-1	
Voltage	110V/60Hz	220V/50Hz	110V/60Hz	220V/50Hz
Max. power (W)	90	90	90	90
Max. current (A)	1.2	0.5	1.2	0.5
Max. vacuum	- 750 mmHg		- 750 mmHg	
Max. flow rate	20 l/min	18 l/min	20 l/min	18 l/min
Motor rotation	1700 RPM	1450 RPM	1700 RPM	1450 RPM
Horse power	1/6 HP		1/6 HP	
Noise level	50 dB		50 dB	
Port thread	5/16 inch (8 mm)		5/16 inch (8 mm)	
Net weight	7.0 Kg		7.4 Kg	
Dimension (LxWxH)	26.2x14.8x18.2 cm		26.2x23.6x19.3 cm	
Glass vapor trap	—		Yes	
Glass Vapor Trap / Vacuum Regulator	—		Yes	

PS: 1 mmHg ≅ 0.1333 kPa ≅ 1.333 mbar, 1 l/min ≅ 0.035CFM

Rotary Vane Vacuum Pump

Features

- **High vacuum, high flow rate**
ST series pumps are driven by rotary vane, with high flow, vacuum can reach over 0.1 Torr. Suitable for the laboratory that needs high / medium volume and vacuum for experiment.
- **Quiet and low vibration**
ST series pumps feature low noise level, low vibration and long product life.
- **Thermal protection device**
Every motor of ST series pumps has a built-in thermal protection device to shut off the pump automatically when overheated and then resume working when the temperature cools down.
- **International safety certification**
CE certification

Applications

- Vacuum filtration
- Vacuum drying
- Vacuum oven
- Various vacuum applications

Ordering Information

- 187150-11(22)Air**
ST-140, Vacuum Pump
AC110V, 60Hz (AC220V, 50Hz)
- 187215-11(22)**
ST-42, Vacuum Pump
AC110V, 60Hz (AC220V, 50Hz)
- 187230-11(22)**
ST-185 Vacuum Pump
AC110V, 60Hz (AC220V, 50Hz)
- 187100-30** Exhaust Filter
- 187100-25** Oil mist outlet
- 187100-05** Lubricant (500ml / PK)



Exhaust filter (optional)

Exhaust filter with stainless steel housing can be used to prevent oil mist from being sprayed into the room and keep laboratory clean.



Oil mist outlet (optional)

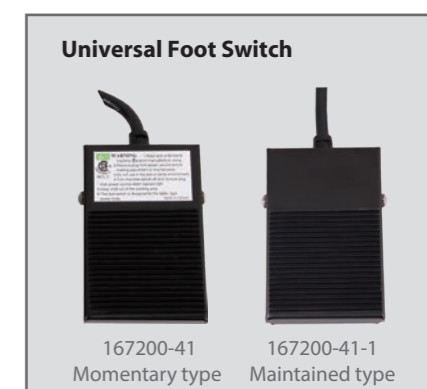
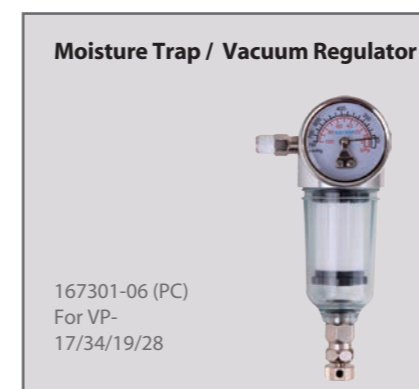
It is used to exhaust the oil mist out of a room by connecting any hose barb (1/8 PT pipe thread) and suitable tubing.

Specification

Model	ST-85		ST-140		ST-42		ST-185	
Power	110V/60Hz	220V/50Hz	110V/60Hz	220V/50Hz	110V/60Hz	220V/50Hz	110V/60Hz	220V/50Hz
Max. power (W)	250	250	375	375	250	250	375	375
Max. current (A)	4.2	2.5	6.5	3	4.2	2.5	6.5	3
Max. vacuum (Torr)	0.1		0.1		0.05		0.05	
Max. flow CFM (L/min)	3 (85)	2.5(70)	5 (142)	4.5(127)	1.5 (42)	1.3(36)	3 (85)	2.5(70)
Motor rotation (RPM)	1725	1440	1725	1440	1725	1440	1725	1440
Horse power	1/3 HP		1/2 HP		1/3 HP		1/2 HP	
Port thread	3/8 inch (9.5 mm)		3/8 inch (9.5 mm)		3/8 inch (9.5 mm)		3/8 inch (9.5 mm)	
Noise level	52 dB		52 dB		52 dB		52 dB	
Net weight	9.6 Kg		13 Kg		11.4 Kg		14 Kg	
Dimension (LxMxH)	31.5x12.0x36 cm		33.5x12.5x37.5 cm		31.5x12.0x36 cm		33.5x12.5x37.5 cm	

PS: 1 mmHg = 0.1333 kPa = 1.333 mbar, 1 l/min = 0.035CFM

Pump Accessories



Oil Free Compressor

Features

- **No pollution, maintenance free**
COMP series pumps are driven by Piston, without the need of lubricant, regular oil changes and maintenance; with no oil pollution.
- **Quiet and low vibration**
Driven direct by motor with no additional belt-driven transmission; the quality vibration-proof assembly makes Rokcer series run at the lowest noise level among all other equivalent pumps.
- **Thermal protection device**
Every motor of COMP series pumps has a built-in thermal protection device to shut off the pump automatically when overheated and then resume working when the temperature cools down.
- **Air outlet filter device**
Every COMP series compressor is equipped with filter cartridge in air outlet to filter particle, moisture and supply clean air.
- **International safety certification**
CE certification
CSA certification



COMP-17

Specification

Model	COMP-17	
Voltage	110V/60Hz	220V/50Hz
Max. power (W)	147	125
Max. current (A)	1.5	0.6
Max. pressure (w/o moisture trap)	100 psi	
Max. pressure (w. moisture trap)	80 psi	
Max. flow rate	27 l/min	25 l/min
Moisture trap	Yes	
Motor rotation	1700 RPM	1400 RPM
Horse power	1/6 HP	
Noise level	52 dB	
Port thread	5/16 inch (8 mm)	
Net weight	5.2 Kg	
Dimension (LxWxH)	29.8x14.3x17.2 cm	

PS: 1 l/min ≅ 0.035 CFM, 1 psi ≅ 0.0698 bar ≅ 0.07 kg/cm²

Applications

- Aeration
- Pressure filtration

Air Supply System

Features

- **No pollution, maintenance free**
COMP series pumps are driven by Piston, without the need of lubricant, regular oil changes and maintenance; with no oil pollution.
- **Quiet and low vibration**
Driven direct by motor with no additional belt-driven transmission; the quality vibration-proof assembly makes Rokcer series run at the lowest noise level among all other equivalent pumps.
- **Thermal protection device**
Every motor of COMP series pumps has a built-in thermal protection device to shut off the pump automatically when overheated and then resume working when the temperature cools down.
- **Air outlet filter device**
Every COMP series compressor is equipped with filter cartridge in air outlet to filter particle, moisture and supply clean air.
- **International safety certification**
CE certification
CSA certification



COMP-25

* Air tank capacity of 2.5 liters, made of SUS304 stainless steel.

Specification

Model	COMP-25		
Voltage	110V/60Hz	220V/50Hz	
Max. power (W)	147	125	
Max. current (A)	1.5	0.6	
Pressure range	40 - 60 psi	40 - 60 psi	
Motor rotation	1700 RPM	1400 RPM	
Max. flow rate (without air tank)	27 l/min	25 l/min	
Max. flow rate with air tank	20 psi	0-15 sec. 40 l/min 15-30 sec. Decreasing after 30 sec. 27 l/min	0-15 sec. 40 l/min 15-30 sec. Decreasing after 30 sec. 25 l/min
	40 psi	0-10 sec. 52 l/min 10-25 sec. Decreasing after 25 sec. 27 l/min	0-10 sec. 50 l/min 10-25 sec. Decreasing after 25 sec. 25 l/min
	60 psi	0-8 sec. 65 l/min 8-22 sec. Decreasing after 22 sec. 27 l/min	0-8 sec. 60 l/min 8-22 sec. Decreasing after 22 sec. 25 l/min
Moisture trap	Yes	Yes	
Horse power	1/6 HP	1/6 HP	
Noise level	52 dB	52 dB	
Port thread	Quick coupling	Quick coupling	
Net weight	8.4 Kg	8.4 Kg	
Dimension (LxWxH)	29.3x31.1x25.1 cm	29.3x31.1x25.1 cm	

PS: The pressure can be changed to 60-80 psi

Applications

- Fermenter
- Bioreactor
- Gas Chromatograph

Ordering Information

167440-11(22)
COMP-25, Air Supply System
AC110V, 60Hz (AC220V, 50Hz)