POWEREX®

Laboratory Vacuum Systems

Powerex provides the best available laboratory vacuum systems for any lab application you require

Extremely reliable and proven pump technologies are essential for your peace of mind

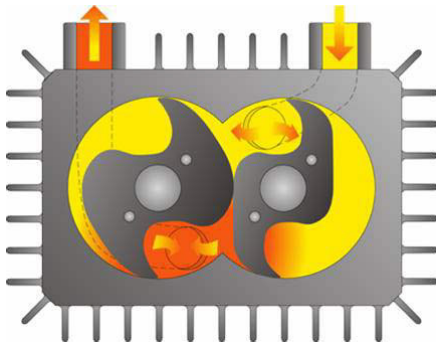**Built to the same standards as our medical air and vacuum life support systems**

Perfect for research applications

DRY CLAW

Inside the pump housing, two claw shaped rotors take in air as they rotate in opposite directions. The air is compressed by the rotors, then discharged through a silencer to atmosphere. The pumping chamber is dry. There is no contact between the rotors or the cylinder wall, eliminating internal wear and parts to replace. The rotors are synchronized by gears requiring a small amount of oil in the gear housing. Gear oil change requirements are minimal at approximately 20,000 hours.

FEATURES

- 2-15 HP
- Compact design
- Capability to isolate each pump safely
- Premium Touch Screen Powerex Building Management Integrator (PBMI) controls
- UL508A Listed controls
- Alarms with dry contacts for remote monitoring
- Inlet filtration
- Low maintenance
- High temperature alarm
- Lined tank

AVAILABLE OPTIONS

- Basic controls
- Air or electric auto purge (with Premium controls only)
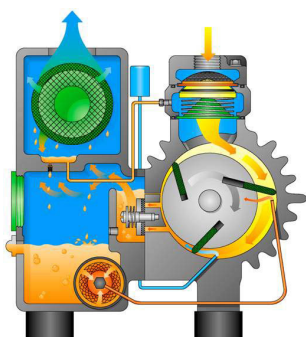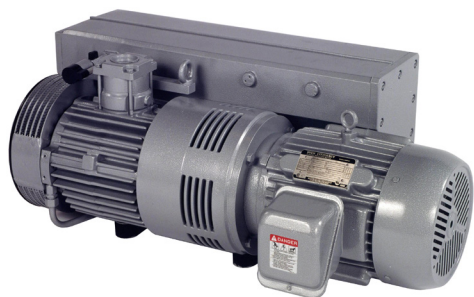- Carbon filters
- Liquid separators
- Premium warranty

SYSTEMS SPECIFICATIONS

Model	SCFM @ 19" Hg	HP	Tank (Gal.)
Duplex Skidmount			
LCPD1005	174	10 (2)	200 V
LCPD1505	258	15 (2)	200 V
Triplex Skidmount			
LCPT0505	87	4 (3)	200 V
LCPT0605	114	5 (3)	200 V
LCPT0705	156	6.4 (3)	200 V
LCPT0905	195	7.5 (3)	200 V
LCPT1005	261	10 (3)	200 V
LCPT1505	387	15 (3)	200 V
Quadplex Skidmount			
LCPQ0505	116	4 (4)	200 V
LCPQ0605	152	5 (4)	200 V
LCPQ0705	208	6.4 (4)	200 V
LCPQ0905	260	7.5 (4)	200 V
LCPQ1005	348	10 (4)	200 V
LCPQ1505	516	15 (4)	200 V

Model	SCFM @ 19" Hg	HP	Tank (Gal.)
Duplex Tank Over Skidmount			
LCPDT0502	58	4 (2)	60 H*
LCPDT0602	76	5 (2)	60 H*
LCPDT0702	104	6.4 (2)	60 H*
LCPDT0902	130	7.5 (2)	60 H*

Model	SCFM @ 19" Hg	HP	Tank (Gal.)
Duplex Vertical Tankmount			
LCVD0203	32	2 (2)	80
LCVD0303	42	3 (2)	80
Duplex Horizontal Tankmount			
LCD0203	32	2 (2)	80 H
LCD0303	42	3 (2)	80 H
LCD0503	58	4 (2)	80 H
LCD0603	76	5 (2)	80 H

*Receiver is frame-mounted on top of the two pumps

OIL-SEALED ROTARY VANE

A rotor is mounted eccentrically in the pump cylinder and contains several sliding vanes. As the rotor turns, centrifugal force causes the vanes to slide outward against the cylinder wall. Oil is injected into the pumping chamber to create a seal between the vanes and the cylinder wall and to lubricate the vanes for reduced wear. As a result of the offset rotor, a succession of variable volumes is formed in the cylinder housing creating the flow of air through the pump. Air is pulled into the pump inlet which is then compressed and discharged into the exhaust box. At this point oil is mixed with the air and is passed through several stages of internal oil and mist eliminators to remove 99.9% of the lubricating oil before the exhaust is released to atmosphere. The separated oil is then returned to the oil reservoir.

FEATURES

- 2-25 HP
- Compact design
- Capability to isolate each pump safely
- Premium Touch Screen Powerex Building Management Integrator (PBMI) controls
- UL508A Listed controls
- Alarms with dry contacts for remote monitoring
- Inlet filtration
- Low maintenance
- High temperature alarm
- Lined tank
- Tank sight gauge

AVAILABLE OPTIONS

- Basic controls
- Air or electric auto purge (with Premium controls only)
- Carbon filters
- 100% synthetic oil
- Liquid separators
- Premium warranty

SYSTEMS SPECIFICATIONS

Model	SCFM @ 19" Hg	HP	Tank (Gal.)
Duplex Skidmount			
LVPD1005	154	10 (2)	200 V
LVPD1505	222	15 (2)	200 V
LVPD2005	274	20 (2)	200 V
LVPD2505	336	25 (2)	200 V
Triplex Skidmount			
LVPT0505	111	5 (3)	200 V
LVPT0755	156	7.5 (3)	200 V
LVPT1005	231	10 (3)	200 V
LVPT1505	333	15 (3)	200 V
LVPT2005	411	20 (3)	200 V
LVPT2505	504	25 (3)	200 V
Quadplex Skidmount			
LVPQ0505	148	5 (4)	200 V
LVPQ0755	208	7.5 (4)	200 V
LVPQ1005	308	10 (4)	200 V
LVPQ1505	444	15 (4)	200 V
LVPQ2005	548	20 (4)	200 V
LVPQ2505	672	25 (4)	200 V

Model	SCFM @ 19" Hg	HP	Tank (Gal.)
Duplex Tank Over Skidmount			
LVPDT0402	50	5 (2)	60 H*
LVPDT0502	74	5 (2)	60 H*
LVPDT0752	104	7.5 (2)	60 H*

Model	SCFM @ 19" Hg	HP	Tank (Gal.)
Duplex Vertical Tankmount			
LVVD0203	22	2 (2)	80 V
LVVD0303	34	3 (2)	80 V
Duplex Horizontal Tankmount			
LVD0203	22	2 (2)	80 H
LVD0303	34	3 (2)	80 H
LVD0404	50	5 (2)	120 H
LVD0504	74	5 (2)	120 H

*Receiver is frame-mounted on top of the two pumps

LABORATORY VACUUM SYSTEMS OPTIONS

SYSTEM DESIGN FEATURES

All Systems include:
- Vacuum pumps
- ASME receiver
- Control panel
  - Premium Touch Screen Powerex Building Management Integrator (PBMI) controls
  - Basic controls
- All interconnecting piping and wiring
- Vibration isolation pads and flex connectors
- Built in redundancy in multiplex systems
- Manufactured in ISO9001 UL certified facilities
- Optional auto purge feature (air or electric) on systems with premium controls

CONFIGURATION TYPES

Skidmount

Tank Over Skidmount

Vertical Tankmount

Horizontal Tankmount

STANDARD PREMIUM CONTROL PANEL

- PLC controller and 6" color HMI (Human Machine Interface) touch screen displays the operating status of the unit.
- UL508A listed and labeled, NEMA 4/12 enclosure.
- Visual and audible alarms for:
  - System overload trip.
  - High temperature conditions.
  - Service intervals.
- Panel door includes:
  - Visual and audible alarms.
  - HOA switch for each pump.
- Building automation gateway with BacNet® protocol.
- Email notifications for alarms and service alerts.

OPTIONAL BASIC CONTROL PANEL

- UL508A listed and labeled, NEMA 4/12 enclosure.
- Timed lead/lag alternation.
- Visual and audible reserve in use alarm.
- Redundant control circuit transformers.
- Dry contacts for remote alarm monitoring.
- Each vacuum pump provided with:
  - Hand/Off/Auto selector switch.
  - Magnetic starter with 3 leg overload protection.
  - Visual and audible high temperature shut down.
  - Hour meter.

OPTIONAL AUTO PURGE CONTROLS

- Provides extra protection for pumps by performing a fresh air flush before shutting down.
- Air or electric auto purge control options available.
- 15 minute purge cycle per pump.
- Pump will be put away clean (after complete purge cycle) when it is not needed to meet demand.
- Low vacuum alarm which indicates high uage or service requirement for other pump(s).

NOTE: This option is available for systems with standard premium controls. It is not available on systems with basic controls.

For more information contact your local Powerex distributor or Powerex sales representative today

The leader in oil-free air technology

POWEREX®

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CLASS ZERO

ISO 8573-1

Powerex is a proud manufacturer of ISO8573-1 "Class Zero" Oil-free compressed air systems using oil-less scroll and oil-free rotary tooth technology. Powerex is located just outside of Cincinnati, OH, and is a leading manufacturer of oil-less compressed air and vacuum systems for medical gas, laboratory, and critical-process industrial applications. We are an ISO 9001 manufacturing facility that is able to provide complete air systems including tanks, UL508A control panels, and dryers. Contact Powerex today to match you with the right compressor for your application.