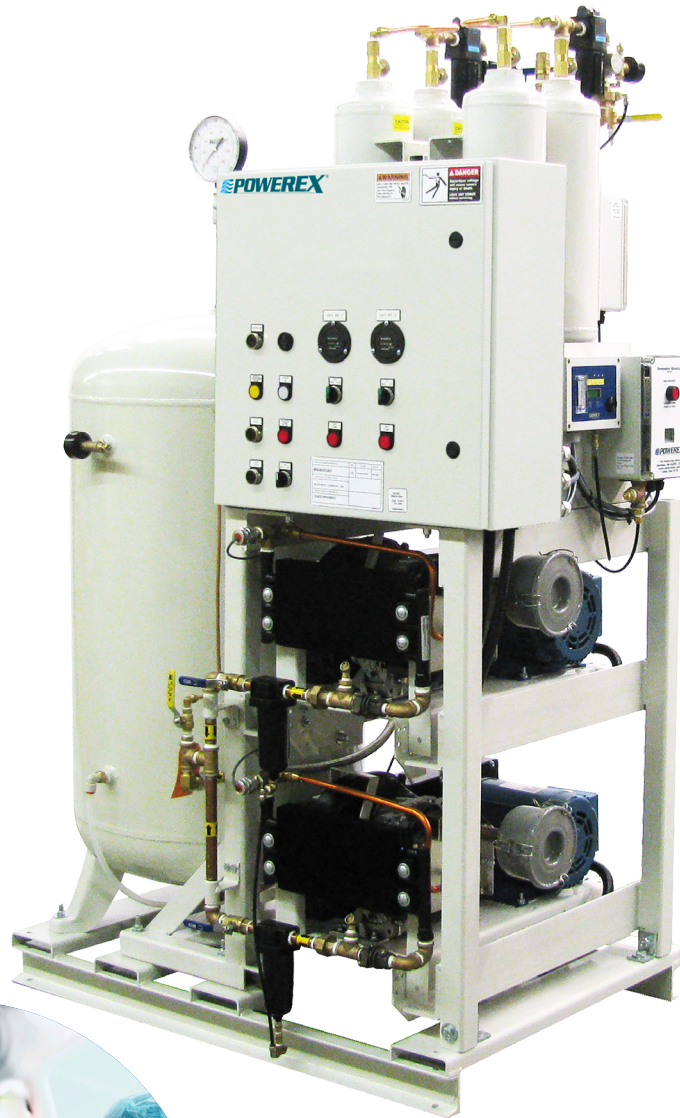
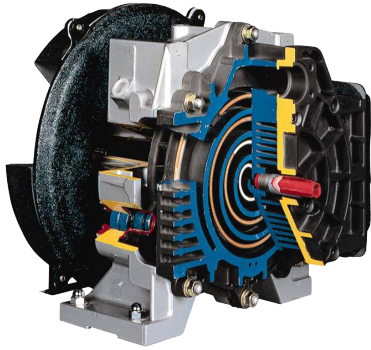


# **POWEREX**<sup>®</sup>



**Medical Air Compressor Systems**



## OIL-LESS SCROLL

Our innovative scroll technology is completely oil-less, extremely quiet, and energy efficient. The scroll pump has few moving parts, making it reliable and easier to maintain. The self lubricating tip seals and absence of a gearbox means the pump is 100% oil free.

**How It Works:** As the scroll orbits, a crescent-shaped cavity is gradually reduced, compressing the air and exhausting it through the final discharge point at the center. During operation, all the gas passages are in various stages of compression at all times, resulting in nearly continuous compression and discharge.

## SYSTEMS SPECIFICATIONS

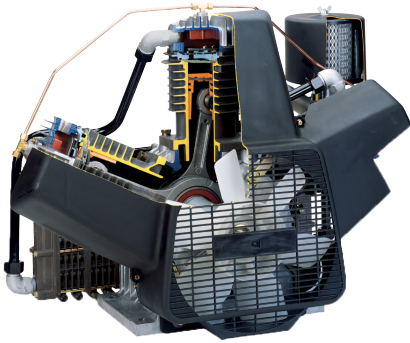
| Medical Enclosed Scroll Systems |                 |        |             |
|---------------------------------|-----------------|--------|-------------|
| Model                           | SCFM @ 50 PSIG* | HP     | Tank (Gal.) |
| Duplex Systems                  |                 |        |             |
| MSED1003                        | 33.2            | 10 (2) | 80          |
| MSED1503                        | 49.8            | 15 (2) | 80          |
| MSED2005                        | 66.4            | 20 (2) | 200         |
| MSED3006                        | 99.6            | 30 (2) | 240         |
| MSED4006                        | 132.8           | 40 (2) | 240         |
| Triplex Systems                 |                 |        |             |
| MSET1003                        | 66.4            | 10 (3) | 80          |
| MSET1505                        | 99.6            | 15 (3) | 200         |
| MSET2006                        | 132.8           | 20 (3) | 240         |
| MSET3006                        | 199.2           | 30 (3) | 240         |
| MSET4006                        | 265.6           | 40 (3) | 240         |
| Quadplex Systems                |                 |        |             |
| MSEQ1506                        | 149.4           | 15 (4) | 240         |
| MSEQ2006                        | 199.2           | 20 (4) | 240         |
| MSEQ3007                        | 298.8           | 30 (4) | 400         |
| MSEQ4007                        | 398.4           | 40 (4) | 400         |

| Medical Scroll Multiplex Systems |                 |         |             |                   |                 |         |             |
|----------------------------------|-----------------|---------|-------------|-------------------|-----------------|---------|-------------|
| Model                            | SCFM @ 50 PSIG* | HP      | Tank (Gal.) | Model             | SCFM @ 50 PSIG* | HP      | Tank (Gal.) |
| Duplex Systems                   |                 |         |             | Quadplex Systems  |                 |         |             |
| MTSD0303                         | 9.5             | 3 (2)   | 80          | MSQ0504°          | 49.8            | 5 (4)   | 120         |
| MTSD0503                         | 16.6            | 5 (2)   | 80          | MSQ0755†          | 71.4            | 7.5 (4) | 200         |
| MSD0203°                         | 6.0             | 2 (2)   | 80          | MSQ10B5†          | 94.8            | 10 (4)  | 200         |
| MSD0303°                         | 9.5             | 3 (2)   | 80          | MSQ1005°          | 99.6            | 10 (4)  | 200         |
| MSD0503°                         | 16.6            | 5 (2)   | 80          | MSQ15B5/6†        | 142.8           | 15 (4)  | 200/240     |
| MSD0754†                         | 23.8            | 7.5 (2) | 120         | MSQ1505°          | 149.4           | 15 (4)  | 200         |
| MSD10B4†                         | 31.6            | 10 (2)  | 120         | MSQ20B5/6†        | 189.6           | 20 (4)  | 200/240     |
| MSD1004°                         | 33.2            | 10 (2)  | 120         | Pentaplex Systems |                 |         |             |
| MSD15B4†                         | 47.6            | 15 (2)  | 120         | MSP1505°          | 199.2           | 15 (5)  | 200         |
| MSD1504                          | 49.8            | 15 (2)  | 120         | Hexaplex Systems  |                 |         |             |
| MSD2004†                         | 63.2            | 20 (2)  | 120         | MSH0504°          | 83.0            | 5 (6)   | 120         |
| Triplex Systems                  |                 |         |             | MSH1506°          | 249.0           | 15 (6)  | 240         |
| MST0503°                         | 33.2            | 5 (3)   | 80          | Nine Pump Systems |                 |         |             |
| MST0755†                         | 47.6            | 7.5 (3) | 200         | MSN0505°          | 132.8           | 5 (9)   | 200         |
| MST10B5†                         | 63.2            | 10 (3)  | 200         |                   |                 |         |             |
| MST1005°                         | 66.4            | 10 (3)  | 200         |                   |                 |         |             |
| MST15B5/6†                       | 95.2            | 15 (3)  | 200/240     |                   |                 |         |             |
| MST1505°                         | 99.6            | 15 (3)  | 200         |                   |                 |         |             |
| MST20B5/6†                       | 126.4           | 20 (3)  | 200/240     |                   |                 |         |             |

\*SCFM @ 50 PSIG is shown with one compressor in reserve per NFPA 99 guidelines.

°System is OSHPD (seismic) certified; Certification No. OSP-3080-10.

†System includes our new 7.5 or 10 HP pumps.



## OIL-LESS RECIPROCATING PISTON

Our reciprocating piston systems feature self-lubricating composite piston technology which increases ring life and reduces temperature, providing reliability for years to come. The dual cooling pistons reduce operating temperatures, while the corrosion-resistant components and coatings extend ring and valve life.

**How It Works:** The oil-less composite piston slides up and down within a low friction, wear-resistant aluminum cylinder, compressing air on the upstroke. The discharge air is cooled via an air to air after cooler, while the multi-finned compressor cylinder is cooled by a dedicated fan (2 through 15 hp) along with the fan blades on the flywheel.

## SYSTEMS SPECIFICATIONS

| Medical Reciprocating Skidmount Systems |                 |         |             |
|---|-----------------|---------|-------------|
| Model                                   | SCFM @ 50 PSIG* | HP      | Tank (Gal.) |
| Duplex Package Systems                  |                 |         |             |
| MPD0308                                 | 11.3            | 3 (2)   | 80          |
| MPD0508                                 | 18.6            | 5 (2)   | 120         |
| MPD0608†                                | 21.4            | 7.5 (2) | 120         |
| MPD0758†                                | 29.0            | 7.5 (2) | 120         |
| MPD1008                                 | 36.2            | 10 (2)  | 200         |
| MPD1508                                 | 50.9            | 15 (2)  | 200         |
| Triplex Package Systems                 |                 |         |             |
| MPT0508                                 | 37.2            | 5 (3)   | 200         |
| MPT0608†                                | 42.8            | 7.5 (3) | 200         |
| MPT0758†                                | 58.0            | 7.5 (3) | 200         |
| MPT1008                                 | 72.4            | 10 (3)  | 240         |
| MPT1508                                 | 101.8           | 15 (3)  | 240         |
| Quadplex Package Systems                |                 |         |             |
| MPQ0508                                 | 55.8            | 5 (4)   | 240         |
| MPQ0608†                                | 64.2            | 7.5 (4) | 240         |
| MPQ0758†                                | 87.0            | 7.5 (4) | 240         |
| MPQ1008                                 | 108.6           | 10 (4)  | 240         |
| MPQ1508                                 | 152.7           | 15 (4)  | 240         |

| Medical Reciprocating Tankmount Systems |                 |         |             |
|---|-----------------|---------|-------------|
| Model                                   | SCFM @ 50 PSIG* | HP      | Tank (Gal.) |
| Duplex Tankmount Systems                |                 |         |             |
| MTD0103                                 | 3.4             | 1 (2)   | 80          |
| MTD0203                                 | 8.3             | 2 (2)   | 80          |
| MTD0303                                 | 11.3            | 3 (2)   | 80          |
| MTD0304                                 | 11.3            | 3 (2)   | 120         |
| MTD0504                                 | 18.6            | 5 (2)   | 120         |
| MTD0505                                 | 18.6            | 5 (2)   | 200         |
| MTD0756†                                | 29.0            | 7.5 (2) | 240         |
| MTD1006                                 | 36.2            | 10 (2)  | 240         |
| MTD1506                                 | 50.9            | 15 (2)  | 240         |

\*SCFM @ 50 PSIG is shown with one compressor in reserve per NFPA 99 guidelines.

†System includes our new 7.5 or 10 HP pumps.

# MEDICAL AIR SYSTEMS PACKAGE ACCESSORIES

## DESICCANT AIR DRYERS

- Pressure swing adsorption technology with a repressurization cycle.
  - In fixed-cycle mode, total cycle time is four minutes, or two minutes per tower.
  - In variable-cycle mode, the total cycle time can be increased up to 120 minutes.
- Manufactured in-house.
- Dryer includes:
  - Self-cleaning ceramic switching valve.
  - Automatic purge saver – dew point dependent.
  - Differential pressure indicators for both inlet and outlet filters.
  - Purge muffler.
  - Tower pressure gauges.
  - Regulators with gauges.
  - Isolation ball valves.



Medical Desiccant Dryer Package includes air dryer, CO monitor, and dew point monitor

## CARBON MONOXIDE MONITOR

- Compact design.
- Digital display.
- User programmable alarms and relays.
- Visual and audible alarms.
- High capacity relays.
- Flow meter for confirmation of airflow.
- Integrated on systems with PBMI controls.



## DEW POINT MONITOR

- Auto calibration.
- Polymer sensor technology.
- Visual and audible alarms.
- Dew point purge control.
- Integrated on systems with PBMI controls.



## MEDICAL GAS PIPELINE

Powerex offers a comprehensive line of medical gas pipeline to complete your medical air system, including:

- Outlets
- Alarm Panels
- Manifolds
- Zone Valve Boxes
- Integra Area Alarm / Zone Valve Box
- Hyperbaric Valve, Outlets, & Vent Box
- Conversion kits
- Gas Control Panels
- Sleep Lab O<sub>2</sub> Control Panel
- Pressure Switches and Gauges
- Emergency Oxygen Inlet Boxes
- Check Valves
- Butterfly Valves
- Ball Valves



MedTouch™ LCD Alarm Panel



Recessed Frontal™ DISS outlets



Gas Control Panel



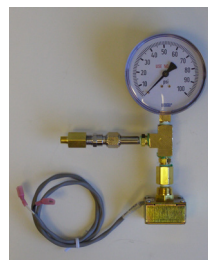
Outlet Conversion Kits



Emergency Oxygen Inlet Box



MedTouch™ Integra Panel



Pressure Gauge



Genesys™ manifold system

## MEDICAL AIR SYSTEMS OPTIONS

All systems are fully compliant with the latest edition of NFPA 99 and are manufactured in ISO 9001 certified facilities.

### SYSTEM DESIGN FEATURES

- Multiple compressors.
- ASME receiver.
- UL listed control panel (PBMI or Basic).
- Air purification system.
- Carbon monoxide monitor.
- Dew point monitor.
- All interconnecting piping and wiring.
- Vibration isolation pads and flex connectors.
- Most of our multiplex scroll packages now OSHPD certified!



Medical Enclosed Scroll

### CONFIGURATION TYPES



Horizontal Tankmount



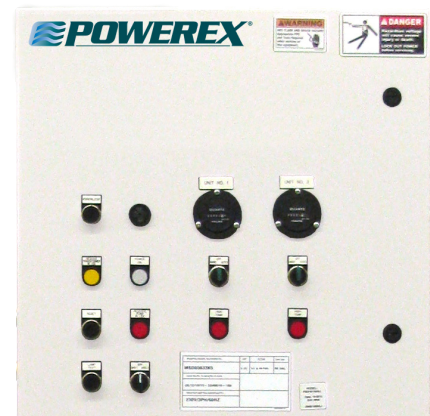
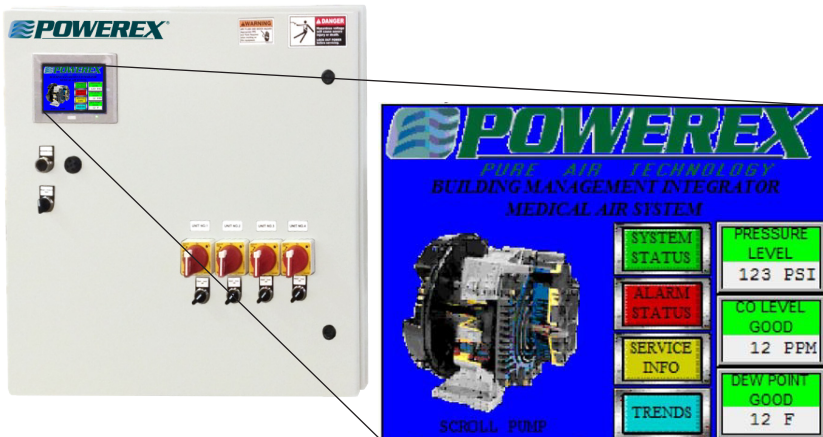
Skidmount

### 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.
  - High dew point and CO levels.
- Panel door includes:
  - Visual and audible alarms.
  - HOA switch for each pump.
  - 3-position dryer switch.
- Integrated dew point and carbon monoxide monitors.
- Building automation gateway with BacNet® protocol.
- Email notifications for alarms and service alerts.

### OPTIONAL NON-HMI CONTROL PANEL

- UL508A listed and labeled, NEMA 4/12 enclosure.
- Timed lead/lag compressor alternation.
- Visual and audible reserve compressor in use alarm.
- Redundant control circuit transformers.
- Dry contacts for remote alarm monitoring.
- Each compressor provided with:
  - Hand/Off/Auto selector switch.
  - Magnetic starter with 3 leg overload protection.
  - Visual and audible high temperature shut down.
  - Hour meter.
  - Compressor run light.
- Dew point monitor with LCD dew point display.
- Carbon monoxide monitor with LCD display of CO concentrations.



Powerex designs and manufactures industry-leading comprehensive medical air and vacuum systems, from source equipment to pipeline

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



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Medical Gas  
Solutions**



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