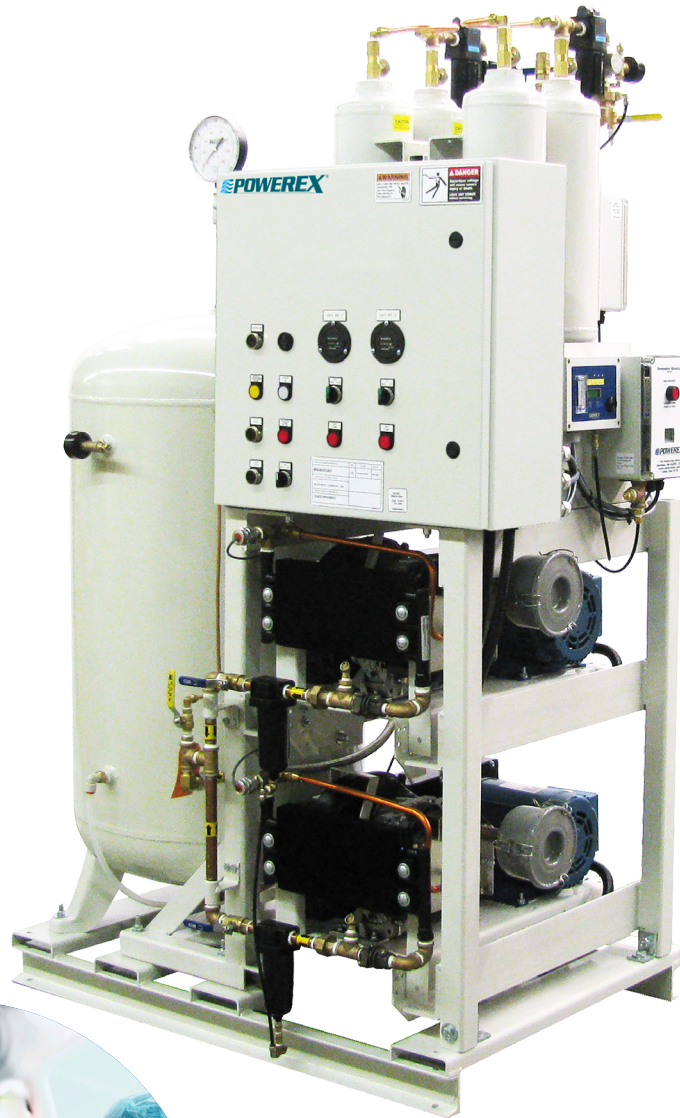
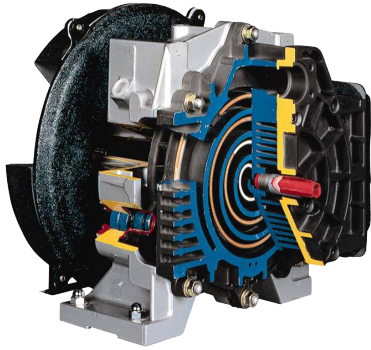


# **POWEREX**<sup>®</sup>



**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

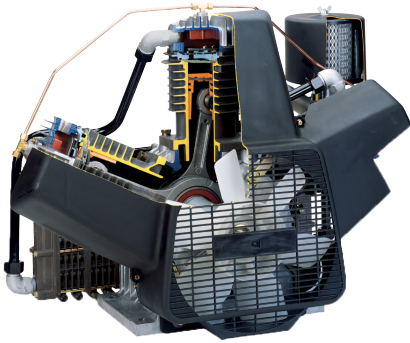
Medical Enclosed Scroll Systems			
Model	SCFM @ 50 PSIG*	HP	Tank (Gal.)
Duplex Systems			
MSED1003	33.2	10 (2)	80
MSED1503	49.8	15 (2)	80
MSED2005	66.4	20 (2)	200
MSED3006	99.6	30 (2)	240
MSED4006	132.8	40 (2)	240
Triplex Systems			
MSET1003	66.4	10 (3)	80
MSET1505	99.6	15 (3)	200
MSET2006	132.8	20 (3)	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



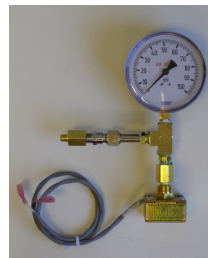
Outlet Conversion Kits



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



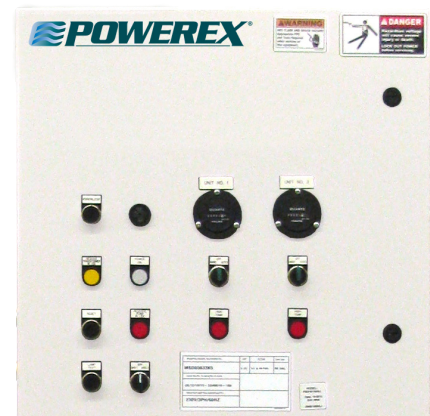
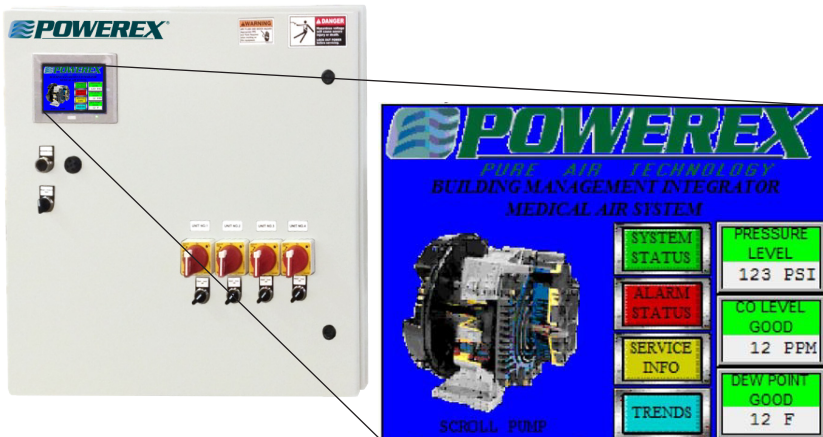
Skidmount

### 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*



The leader in  
Medical Gas  
Solutions



**POWEREX**<sup>®</sup>