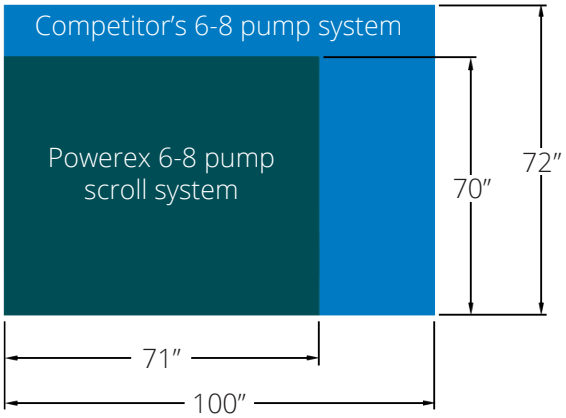
POWEREX®
MEDICAL



Medical Air Compressors

Designed & Manufactured in the USA
with U.S. and Imported Components

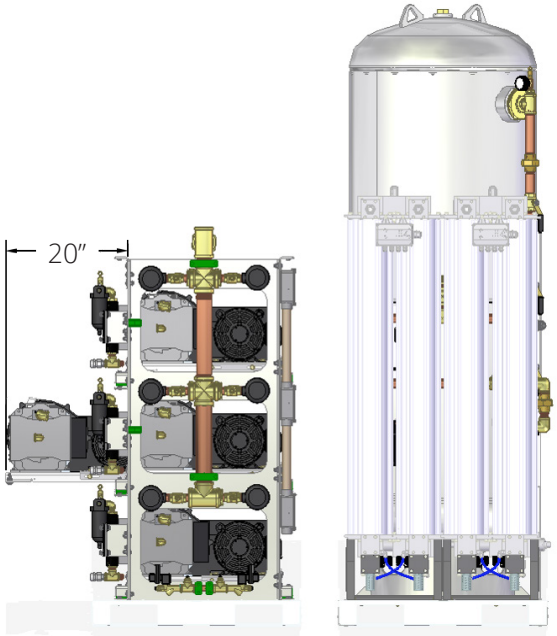
The Powerex Advantage



Best-in-Class Footprint

Our newly redesigned and upgraded space-saving scroll compressors feature the smallest available footprint on the market, allowing for flexibility of hospital design and ease of installation.

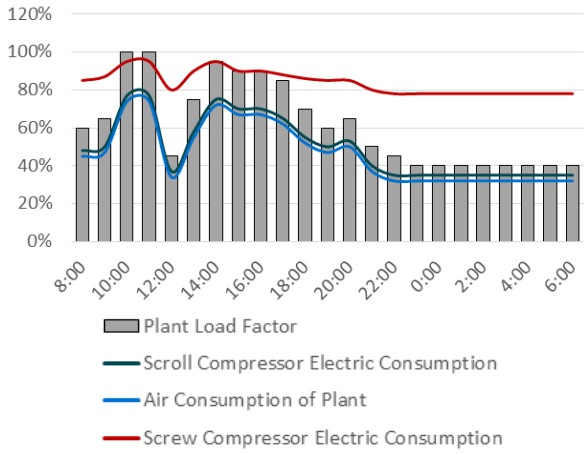
- Up to 39% less footprint than leading competitor
- Systems designed to fit through 36″ door



Easily Serviceable

Our compressors are low maintenance, energy efficient, and easily serviceable.

- Patented Service Slide
- Common service items easily accesible
- Basemount extends 20″ from rack



Energy Efficient

With the Powerex Variable Pump Drive system, each compressor pump is automatically staged on/off individually based on actual system demand, maximizing energy efficiency at all usage levels. Lead compressor status will alternate every time a pump is called for – or every 10 minutes, whichever comes first – which maintains equal run hours and extends maintenance intervals.

Redundancy is built into our system with our multiple pump design.

NFPA 99 Medical Air Systems







All systems are fully compliant with the latest edition of NFPA 99 and are manufactured in ISO 9001:2015 certified facilities. Powerex has become a leader in vacuum and air systems through our foundation built on engineering, innovation, quality, and service. We are a highly integrated operation, not only assembling systems, but also designing and manufacturing many of the major components. We are proud to say our systems are made in the U.S.A.!

Design Features

Each medical system includes:

- Multiple compressors
- ASME receiver
- UL508A control panel
- 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

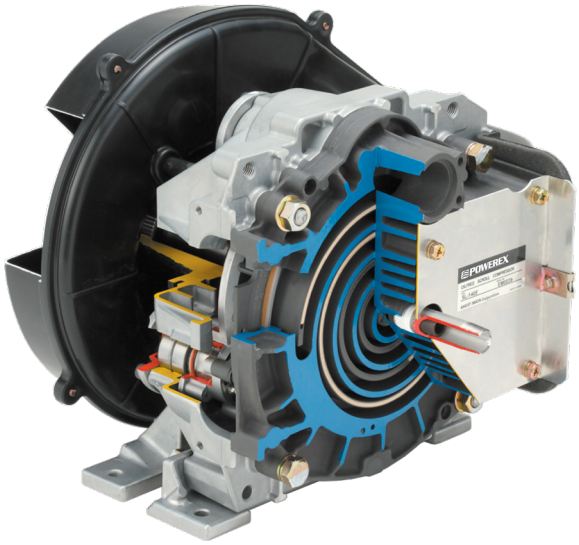
Configuration Types

Medical air systems are available in a variety of configuration types, allowing you the flexibility to choose the product that best fits your space. Choose between a skid mount, enclosed, or tankmounted package.

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with U.S. and Imported Components

Oil-less Scroll Technology

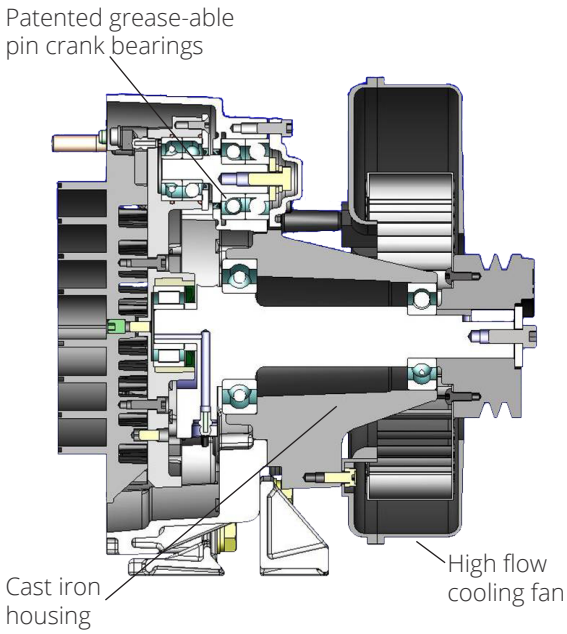


Our innovative scroll technology is completely oil-less, extremely quiet, and energy efficient.

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 truly 100% oil free.

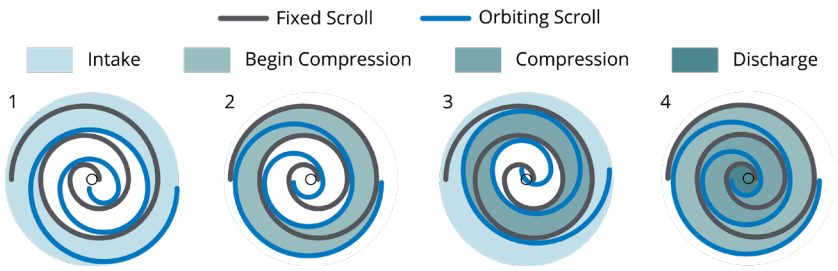
As the leaders in scroll pump technology, our latest design incorporates several innovative features:

- Main bearings are housed in durable cast iron instead of aluminum which prevents fretting and premature failure of the bearing race
  - This pump can be operated at 100% duty with confidence
- The patented bearing re-grease feature has been improved to allow maintenance from the front side of the pump, cutting service time in half
- The patented tip seal design yields the highest flow rates and longevity of any other dry scroll compressor
- The improved efficiency and cooling results in lower operating temperatures
- Extremely low vibration
- Industry first 10hp scroll pump improves system efficiency by producing more output using fewer pumps



Compression Principle

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.



Open Scroll Compressor Systems

Model	SCFM @ 50 PSIG*	HP	Tank (gal)
Duplex Systems – Tankmount			
MTSD0303	9.5	3 (2)	80
MTSD0503	16.6	5 (2)	80
Duplex Systems			
MSD02A3	6	2 (2)	80
MSD03A3	9.5	3 (2)	80
MSD05A3	16.6	5 (2)	80
MSD0754	23.8	7.5 (2)	120
MSD10C4	31.6	10 (2)	120
MSD10A4/5/6	33.2	10 (2)	120/200/240
MSD15C4	47.6	15 (2)	120
MSD15A4/5/6	49.8	15 (2)	120/200/240
MSD20C4	63.2	20 (2)	120
Triplex Systems			
MST03A3	19	3 (3)	80
MST05A3/4	33.2	5 (3)	80/120
MST07C5	47.6	7.5 (3)	200
MST10C5	63.2	10 (3)	200
MST10A4/5	66.4	10 (3)	120/200
MST15C5/6	95.2	15 (3)	200/240
MST15A4/5/6	99.6	15 (3)	120/200/240
MST20C5/6	126.4	20 (3)	200/240

* SCFM listed with one pump in reserve per NFPA 99

Model	SCFM @ 50 PSIG*	HP	Tank (gal)
Quadplex Systems			
MSQ05A4	49.8	5 (4)	120
MSQ07C5	71.4	7.5 (4)	200
MSQ10C5	94.8	10 (4)	200
MSQ10A5/6	99.6	10 (4)	200/240
MSQ15C5/6	142.8	15 (4)	200/240
MSQ15A5/6	149.4	15 (4)	200/240
MSQ20C5/6	189.6	20 (4)	200/240
Pentaplex Systems			
MSP15C5	190.4	15 (5)	200
MSP15A5/6	199.2	15 (5)	200/240
Hexaplex Systems			
MSH05A4/5	83	5 (6)	120/200
MSH10C6	158	10 (6)	240
MSH10A6	166	10 (6)	240
MSH15A5/6	249	15 (6)	200/240
Octoplex Systems			
MSO10C6	221.2	10 (8)	240
Nonaplex Systems			
MSN05A5	132.8	5 (9)	200

* SCFM listed with one pump in reserve per NFPA 99



WhisperAIR™ Enclosure Cabinet



Powerex's trademarked oil-free enclosure systems offer the lowest noise levels in the industry. Each system is packaged in a rigid steel frame with powder coated panels and lined with sound-deadening insulation. The low noise levels are unmatched in the industry and allow greater flexibility of installation location, while the small footprint simultaneously maximizes floor space.

WhisperAIR™
PATENT NO. 10072673
OIL-LESS SCROLL

Hearing Loss Prevention

Occupational hearing loss is the most commonly recorded occupational illness, accounting for 1 in 9 recordable illnesses. Powerex WhisperAIR™ technology provides a real solution for workers operating in loud mechanical rooms, as well as any facility employees who are ever in close proximity to the compressor system.

Hearing loss is a significant cost that is preventable!

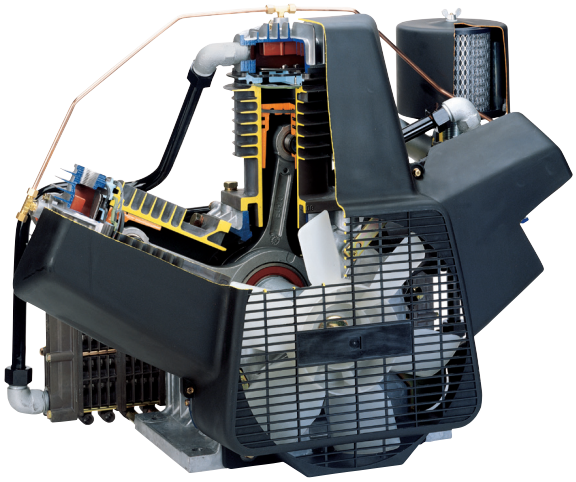


Enclosed Scroll Compressor Systems

Model	System HP	Pump HP	SCFM @ 50 PSIG*	Tank (gal)	dB(A) Level
Duplex Systems					
MSED1003	10 (2)	5	33.2	80	53
MSED15B4	15 (2)	7.5	47.6	120	62
MSED1504	15 (2)	5	49.8	120	56
MSED20B4	20 (2)	10	63.2	120	63
MSED2004	20 (2)	5	66.4	120	58
MSED2254	22.5 (2)	7.5	71.4	120	64
MSED30B5	30 (2)	10	94.8	200	65
MSED3006	30 (2)	5	99.6	240	59
MSED4006	40 (2)	5	132.8	240	60
MSED50B6	50 (2)	10	158	240	66
Triplex Systems					
MSET1004	10 (3)	5	66.4	120	56
MSET1505	15 (3)	5	99.6	200	59
MSET20B6	20 (3)	10	126.4	240	65
MSET2006	20 (3)	5	132.8	240	61
MSET2256	22.5 (3)	7.5	142.8	240	66
MSET30B6	30 (3)	10	189.6	240	67
MSET3006	30 (3)	5	199.2	240	62
MSET40B6	40 (3)	10	252.8	240	67
MSET4006	40 (3)	5	265.6	240	63
MSET50B7	50 (3)	10	316	400	68
MSET60B7	60 (3)	10	379.2	400	72
Quadplex Systems					
MSEQ1506	15	5	149.4	240	61
MSEQ2006	20	5	199.2	240	63
MSEQ2256	22.5	7.5	214.2	240	68
MSEQ30B6	30	10	284.4	240	69
MSEQ3007	30	5	298.8	400	64
MSEQ40B7	40	10	379.2	400	69
MSEQ4007	40	5	398.4	400	65
MSEQ45B8	45	7.5	428.4	660	69
MSEQ50B8	50	10	474	660	70
MSEQ60B8	60	10	568.8	660	73

* SCFM listed with one pump in reserve per NFPA 99

Oil-less Reciprocating Piston Technology



Our oil-less 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.

- No oil anywhere
- Composite piston reduces bearing heat
- Dual cooling flywheel and fan
- Corrosion resistant coating extends valve and ring life

Reciprocating Piston Compressor Systems

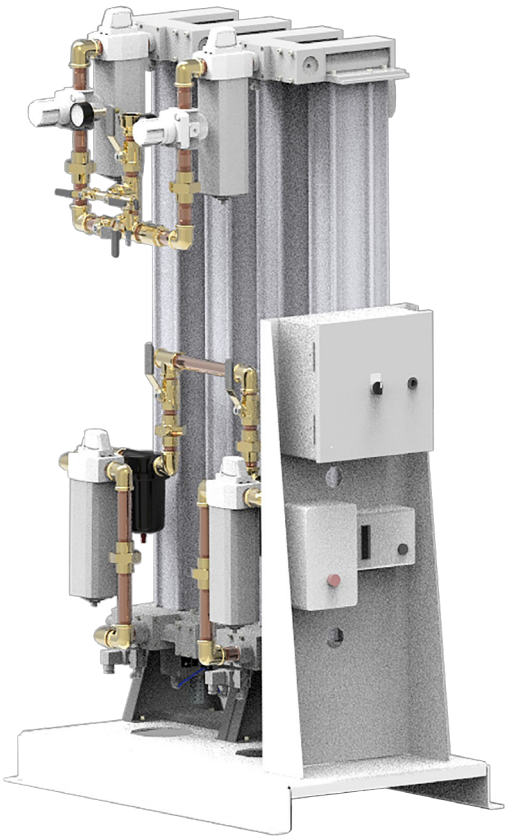
Model	SCFM @ 50 PSIG*	HP	Tank (gal)
Duplex Systems – Skidmount			
MPD0308	11.3	3 (2)	80
MPD0508	18.6	5 (2)	120
MPD0608	21.4	7.5 (2)	120
MPD0758	27.3	7.5 (2)	120
MPD1008	34.8	10 (2)	200
MPD1508	50.9	15 (2)	200
Triplex Systems – Skidmount			
MPT0508	37.2	5 (3)	200
MPT0608	42.8	7.5 (3)	200
MPT0758	54.6	7.5 (3)	200
MPT1008	69.9	10 (3)	240
MPT1508	101.8	15 (3)	240
Quadplex Systems – Skidmount			
MPQ0508	55.8	5 (4)	240
MPQ0608	64.2	7.5 (4)	240
MPQ0758	81.9	7.5 (4)	240
MPQ1008	104.4	10 (4)	240
MPQ1508	152.7	15 (4)	240

* SCFM listed with one pump in reserve per NFPA 99

Model	SCFM @ 50 PSIG*	HP	Tank (gal)
Duplex Systems – Tankmount			
MTD0103	3.4	1 (2)	80
MTD0203	8.3	2 (2)	80
MTD0303/4	11.3	3 (2)	80/120
MTD0504/5	18.6	5 (2)	120/200
MTD0756	27.3	7.5 (2)	240
MTD1006	34.8	10 (2)	240
MTD1506	50.9	15 (2)	240

* SCFM listed with one pump in reserve per NFPA 99

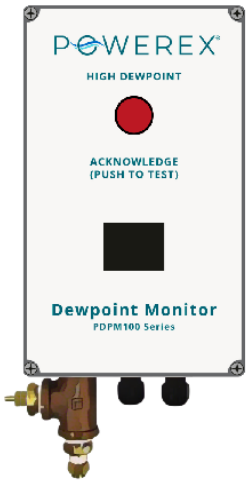
Medical Air Package Accessories



Our NFPA 99 compliant medical systems are packaged with desiccant air dryers, dew point monitor, and carbon monoxide monitor.

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
- Dryer includes:
  - 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



Dew Point Monitor

- Auto calibration
- Polymer sensor technology
- Visual and audible alarms
- Dew point purge control



Carbon Monoxide Monitor

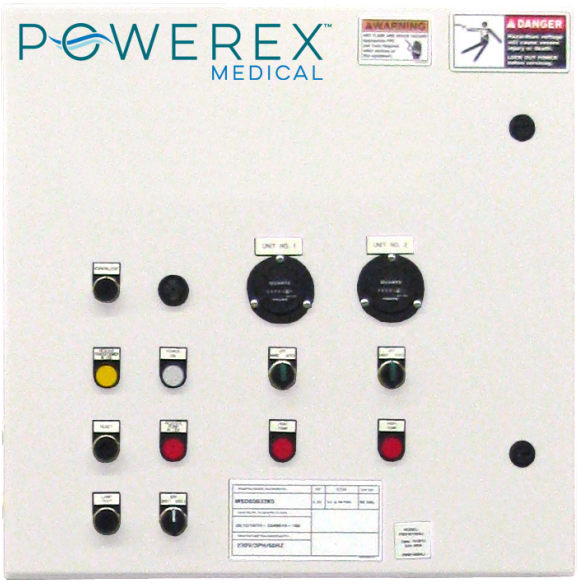
- Compact design
- Digital display
- User programmable alarms and relays
- Visual and audible alarms
- High capacity relays
- Flow meter for confirmation of airflow

Control Panel Options



Standard Premium Control Panel

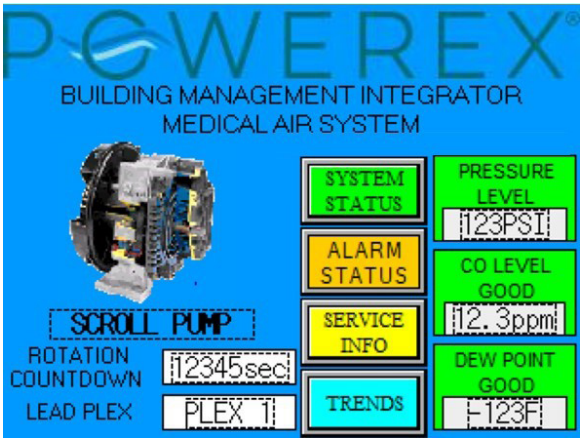
- PLC controller and 6" color HMI touch screen displays the operating status of the unit
- Building automation gateway with BACnet over IP protocol
- UL508A listed and labeled, NEMA 4/12 enclosure
- Visual and audible alarms for:
  - System overload trip
  - High temperature conditions
  - Service intervals
  - 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
- Side Door Disconnects
  - Allows for each plex to be electrically isolated from system when servicing



Optional Non-HMI Control Panel

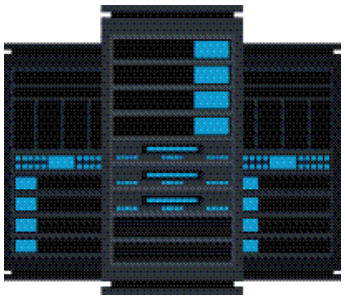
- UL508A listed and labeled, NEMA 4/12 enclosure
- Timed lead/lag compressor alternation
- Visual and audible reserve compressor in use alarm
- Redundant control circuit transformers
- Dry contacts for remote alarm monitoring
- Each compressor provided with:
  - Hand/Off/Auto selector switch
  - Magnetic 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

BACnet



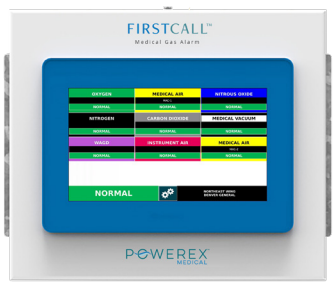
Standard in Powerex's premium control panel.

- Seamlessly connect to your building management system via Ethernet using BACnet over IP protocol
- Centrally monitor medical gas equipment along with all other facility equipment



Building Automation System

BACnet over IP



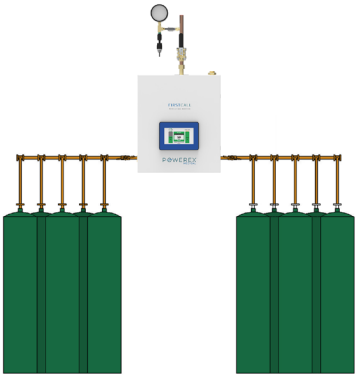
Medical Gas Alarm



Medical Air Compressor System



Medical Vacuum System



Medical Gas Manifold



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