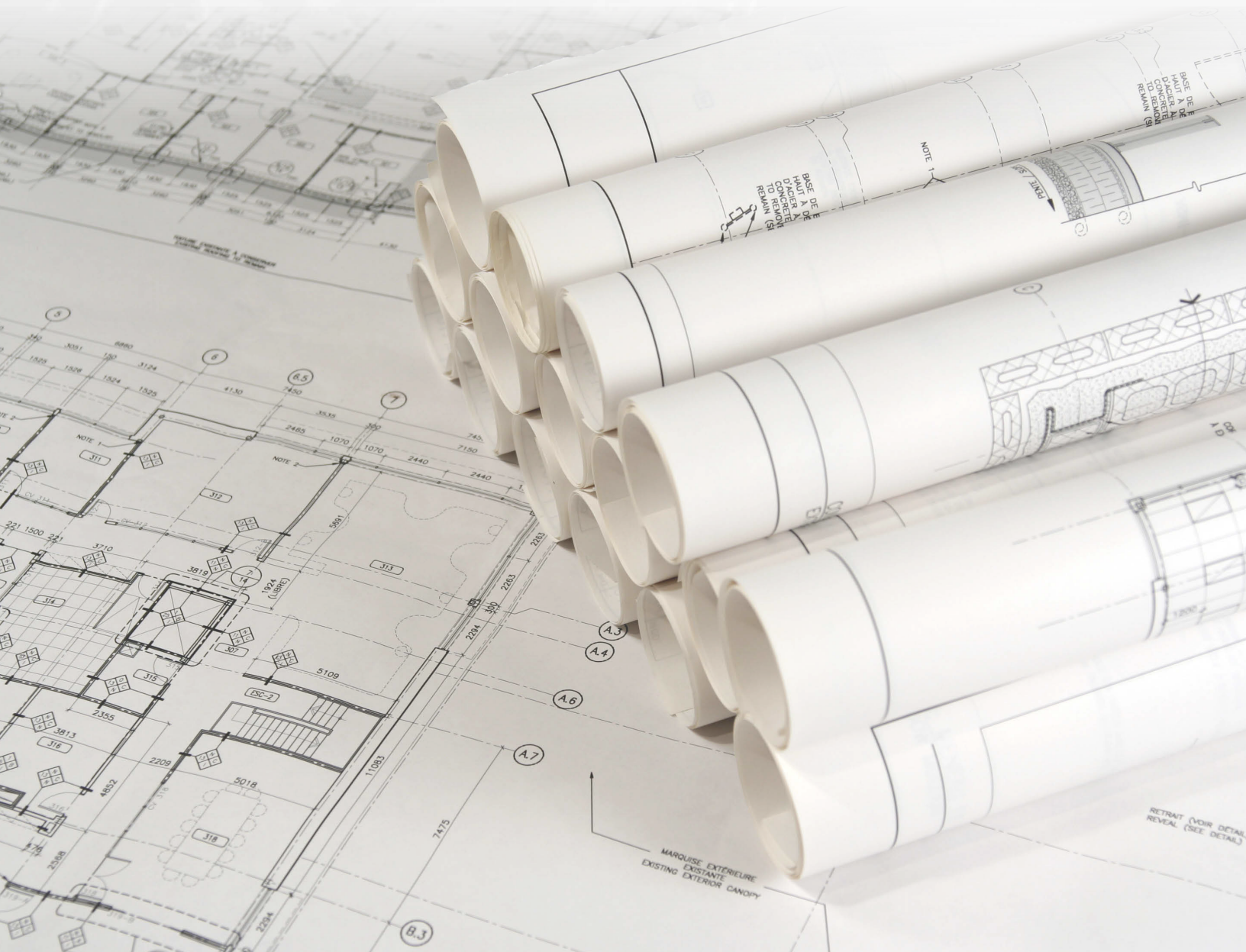


# Desk Reference

## Medical Gas Design Guide



## OHIO MEDICAL LLC

Ohio Medical is a global leader of medical air and vacuum pumping systems and medical suction and oxygen therapy devices. Our trusted brands include Ohio Medical and Amvex medical suction regulators, Ohio Medical and Amvex air and oxygen flow meters, medical air and vacuum pumping systems, and portable suction equipment.

Ohio Medical meets applicable regulatory requirements in the countries where we make and sell our products. Ohio Medical operates in a registered FDA regulated medical device manufacturing facility and complies with ISO 13485 and ISO 9001 standards. All Ohio Medical medical gas products are produced to comply with NFPA® 99 standards.

With a dedicated team of industry experts, Ohio Medical takes great pride in providing our customers with high quality, innovative solutions to meet the challenges of today's marketplace.

The history of the "Ohio" name dates back more than 100 years ago to the Ohio Chemical and Manufacturing Company founded in Cleveland, Ohio. In 1910 the company began manufacturing one of the first anesthesia gas machines, The Ohio Monovalve, which was used extensively during World War I.

Squire-Cogswell, founded in Chicago, Illinois in 1916, was a vital contract manufacturer for Ohio Chemical. They developed and manufactured medical gas, suction and oxygen therapy equipment, including hospital vacuum regulators, custom vacuum pumping systems, and medical air compressor systems for healthcare applications. Squire-Cogswell achievements include inventing and patenting the "Diamond 1" (also known as the "Ohio Diamond") medical gas adapter in 1951, inventing the first wall mounted intermittent suction device used for patient drainage in 1964, and introducing the first portable suction pump in 1975.

In 2005, Ohio Medical LLC was formed. The foundation of the newly formed company included the acquisitions of the Ohmeda® suction and oxygen therapy business from GE Healthcare, and the Squire-Cogswell/Aeros company which manufactured portable suction equipment, medical and industrial pumping systems, and medical gas pipeline products.

In 2007, Ohio Medical LLC acquired Amvex. This greatly expanded the portfolio of suction and oxygen therapy products by including a global market leadership position for medical gas hoses, patented technologies for digital gauge suction regulators and dual port wall mounted integrated air and oxygen flow meters.

The next technological breakthrough came with the introduction of the Ohio Medical Push-To-Set™ (PTS) suction regulator. The PTS Regulator is the first suction regulator to address a potential national healthcare concern regarding inadvertent "over-suctioning" by incorporating the patented technology of an automated occlude-to-set feature, critical in setting appropriate vacuum pressure levels.

In 2010, Ohio Medical acquired MiniOX®, a long-standing leader of oxygen monitoring and analyzing products. MiniOX has a long history of serving the medical community and its rich history continues at Ohio Medical.

In 2016, Tenex Capital Management completed the acquisition of Ohio Medical. We are proud of the "Ohio" name and the significant impact our products have had on the medical industry and the patients we serve. Our brands stand proudly for patient safety, innovation, and quality products and have done so for more than 100 years!

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## OUTLETS

### FEATURES:

- Accepts Chemetron®, Ohmeda/Diamond, Puritan Bennett® and DISS specific adapters
- Available for Wall/Ceiling, Console and Ceiling Column
- Pin indexed to prevent interchangeability of gas services
- NFPA® 99 Compliant
- Inlet pipe can be rotated 360 degrees for ease of installation
- Gas specific back bodies can accept either Quick Connect or DISS front latch valves
- Outlet can accommodate various finished wall thicknesses from 3/8" (10 mm) to 1-1/4" (32 mm)
- Chrome trim plates available



Diamond/Ohmeda  
Compatible Wall Outlet



Chemetron  
Compatible Wall Outlet



Puritan-Bennett  
Compatible Wall Outlet



DISS Wall Outlet  
DISS Ceiling Outlet

	Wall Compatible				Ceiling Compatible
	Ohmeda/Diamond	Chemetron	Puritan-Bennett	DISS	DISS
<b>Oxygen</b>	261010-1	261020-1	261040-1	261000-1	261000-3
<b>Vacuum</b>	261010-5	261020-5	261040-5	261000-5	261000-7
<b>Air</b>	261010-13	261020-13	261040-13	261000-13	261000-15
<b>Nitrous Oxide</b>	261010-9	261020-9	261040-9	261000-9	261000-11
<b>WAGD</b>	261010-17	261020-17	261040-17	261000-21	261000-23
<b>Nitrogen</b>	N/A	N/A	N/A	261000-17	261000-19
<b>Instrument Air</b>	N/A	N/A	N/A	261000-29	261000-31
<b>Carbon Dioxide</b>	N/A	N/A	N/A	261000-25	261000-27
<b>Slide</b>	261690	261690	261690	261690	N/A

## ADAPTERS



Ohmeda/Diamond



Chemetron



Puritan-Bennett



DISS

Ohio Medical manufactures a wide variety of quick connect medical gas adapters, including Diamond/Ohmeda, Chemetron, Puritan Bennett, MedStar, Oxequip and Schrader styles to suit your needs. Available options include 1/8" & 1/4" MNPT and FNPT, 1/4" & 5/16" Hose Barb and much more.





## INTEGRATED FLOWMETER

**The Integrated Flowmeter Outlet combines a Flowmeter and a Medical Gas Outlet into a single compact design.** The Integrated Flowmeter saves space, reduces construction costs and ensures that health care providers will always have a Flowmeter when they need one. The right side port connection has a traditional tube style flowmeter which allows the user to adjust the flow setting. The left side port is a direct connection to the gas supply.

### FEATURES:

- Compliant with the requirements of National Fire Protection Association® (NFPA) and Canadian Standards Association® (CSA)
- Indexed to eliminate interchangeability of gas services
- Easy to read flow indicator
- Five year warranty
- A large color coded front plate is used for ease of gas identification and aesthetic appeal
- Available for Oxygen or Air service
- Available configurations to fit various rough-in suppliers



Diamond/Ohmeda Coupler (Oxygen)



Chemtron Coupler (Oxygen)



Diamond/Ohmeda Coupler (Medical Air)



DISS Male Fitting (Oxygen)

## Part Configurators

### New Construction

# 261XXX-Y(Y)-TZZ

AUXILIARY PORT	GAS/OUTLET TYPE	FLOWRATE
DISS <b>000</b>	Oxygen/Wall <b>1</b>	200 cc/min <b>2C</b>
Diamond/Ohmeda <b>010</b>	Oxygen/Console <b>2</b>	1 L/min <b>01</b>
Chemtron <b>020</b>	Medical Air/Wall <b>13</b>	3.5 L/min <b>03</b>
	Medical Air/Console <b>14</b>	8 L/min <b>08</b>
		15 L/min <b>15</b>

Medical Air is only available in 0-15 L/min

### Retrofit Applications

# FI-TXXYZ-WN-S

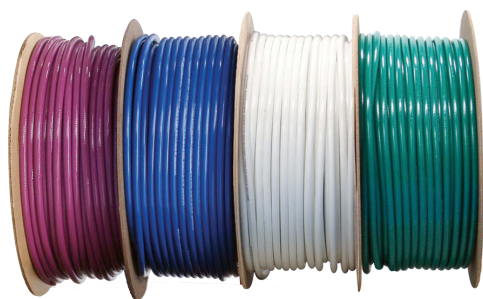
FLOWRATE	COLOR CODE	GAS TYPE	LINE FITTING	OUTLET COMPATIBILITY
200 cc/min <b>2C</b>	USA <b>U</b>	Oxygen <b>O</b>	DISS Male <b>D</b>	Diamond 1 <b>A*</b>
1 L/min <b>01</b>	ISO <b>I</b>	Medical Air <b>A</b>	Diamond/Ohmeda <b>O</b>	Diamond 2 & 3 (Gemini) <b>B</b>
3.5 L/min <b>03</b>			Chemtron <b>C</b>	Hill-Rom BeaconMedaes DiamondCare (Extended Barrel Version) <b>C†</b>
8 L/min <b>08</b>				Ohio Medical Amico <b>E</b>
15 L/min <b>15</b>				BeaconMedaes Series B Gentec
				Chemtron Series 500, 560 (NCG) <b>F*</b>
				Chemtron Series 148, 400, 460 (NCG) <b>G*</b>
				Tri-Tech (Ohmeda Style) <b>T*</b>

\*Requires a Retrofit Kit | †For Wall Mount Only

## MEDICAL GAS HOSES

### Bulk Hose

- Available in custom lengths and configurations
- Available in a variety of gases
- Available in USA and ISO colors



Gas	Conductive	Non-Conductive
OXYGEN	HS-01U-OC4	HS-01U-ON4
MEDICAL AIR	HS-01U-AC4	HS-01U-AN4
VACUUM 1/4"	HS-01U-VC4	HS-01U-VN4
VACUUM 5/16"	HS-01U-VC5	N/A
N <sub>2</sub> O	HS-01U-2C4	HS-01U-2N4
CO <sub>2</sub>	HS-01U-CC4	HS-01U-CN4
WAGD 1/4"	HS-01U-WC4	N/A
WAGD 5/16"	HS-01U-WC5	HS-01U-WN5
NITROGEN	HS-01U-NC4	HS-01U-NN4
INSTRUMENT AIR	HS-01U-IC4	N/A
GENERAL PURPOSE	N/A	HS-01U-GN4

For ISO options, please replace "U" with "I".

### Bulk Hose Accessories



#### Heavy Duty Hose Retractor

HS-RET-HD



#### Hose Clamp

HS-CLAMP-500



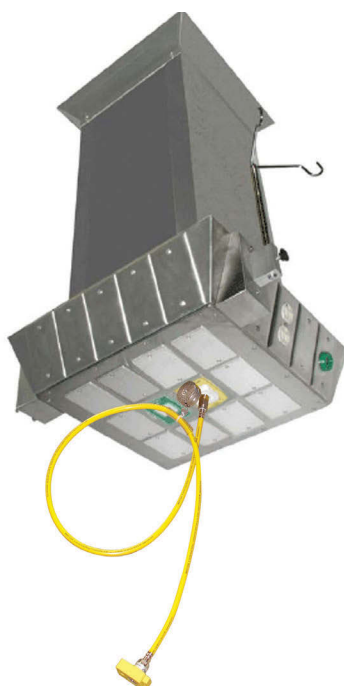
#### Ferrules for 1/4" Hose

HS-FER562                      3/4" Long  
HS-FER-562-1                1" Long

#### Ferrules for 5/16" Hose

HS-FER-VAC                    3/4" Long  
HS-FER-VAC-1                1" Long

### Hose Drops



### Hose Drop Assembly Part Numbers

#### DISS Female to Male DISS Male - 5' Hose Length

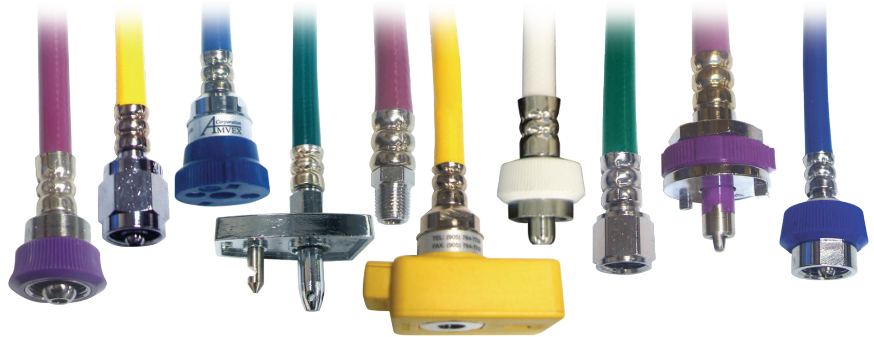
HS-05UO-DFDCC4	Oxygen
HS-05UV-DFDCC5	Vacuum
HS-05U2-DFDCC4	Nitrous Oxide
HS-05UA-DFDCC4	Medical Air
HS-05UN-DFDCC4	Nitrogen
HS-05UW-DFDCC5	WAGD
HS-05UC-DFDCC4	Carbon Dioxide

#### Chemetron Quick Connects - 5' Hose Length

HS-05UO-CFDFC4	Oxygen
HS-05UV-CFDFC5	Vacuum
HS-05U2-CFDFC4	Nitrous Oxide
HS-05UA-CFDFC4	Medical Air
HS-05UW-CFDFC5	WAGD

#### Diamond/Ohmeda Quick Connects - 5' Hose Length

HS-05UO-DFOFC4	Oxygen
HS-05UV-DFOFC5	Vacuum
HS-05U2-DFOFC4	Nitrous Oxide
HS-05UA-DFOFC4	Medical Air
HS-05UW-DFOFC5	WAGD



## Medical Hose Assemblies:

- CSA medical hose assemblies available
- CE marked medical hose assemblies available
- Available in custom lengths (one foot increments) and configurations to suit your requirements
- Available for a variety of gases in USA and ISO colors

## Part Configurator

For correct hose matrix follow these rules when selecting inlet and outlet connections:

1. Female fittings first
2. Numbers before letters
3. In alphabetical order

HS-LLCG-XXYYZZ(U)									
LENGTH (in feet)		GAS TYPE		HOSE TYPE				OTHER	
COLOR CODE		Nitrous Oxide <b>2</b>		O <sub>2</sub> He <b>J</b>				Bracket Clamp <b>C</b>	
USA <b>U</b>		Medical Air <b>A</b>		Nitrogen <b>N</b>				Brass Fitting <b>B</b>	
ISO <b>I</b>		Carbon Dioxide <b>C</b>		Oxygen <b>O</b>				DIN Rail Clamp <b>D</b>	
Pin Stripe (ISO Air) <b>P</b>		Heliox <b>H</b>		Medical Vacuum <b>V</b>				MR Conditional <b>M</b>	
Stripe <b>S</b>		Instrument Air <b>I</b>		WAGD <b>W</b>					

## ALARMS



### Digital Area Alarm

#### FEATURES:

- Pressure Sensitive LCD Touch Screen
- Fully complies with NFPA® 99
- UL/CSA Certifications Standard
- Adjustable Gas to Zone Locations
- Auto Detection of Gas to Zone Locations
- Communicates to BMS
- NFPA or ISO colors - Adjustable
- psi/KpA; inHg/mmHg - Adjustable
- English/Spanish Adjustable
- Assembled in the USA in ISO 9001 & ISO 13485 Facility

## ORDERING INFORMATION (PART NUMBERS)

To configure an area alarm, select the alarm type, then select gas type(s).

#### EXAMPLE:

263853,O, A, V =

Remote Area Alarm  
with 3 gases:  
Oxygen, Air, Vacuum

#### Example:

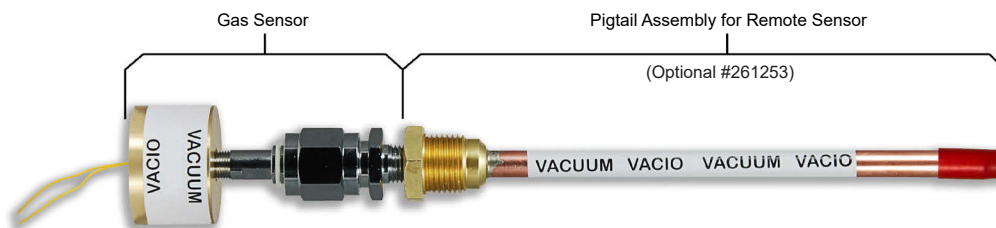
263868,O, A, V, N2, N, C,  
IA, W = Local Area Alarm  
using all 8 gases

**2 6 3 8 5 3 , O , A , V**

Local Area Alarm		Remote Area Alarm		Gas Type (enter Gas Type after part number)	
1 Gas	263861	1 Gas	263851	O	Oxygen
2 Gases	263862	2 Gases	263852	N2	Nitrogen
3 Gases	263863	3 Gases	263853	IA	Instrument Air
4 Gases	263864	4 Gases	263854	A	Air
5 Gases	263865	5 Gases	263855	N	Nitrous Oxide
6 Gases	263866	6 Gases	263856	W	WAGD
7 Gases	263867	7 Gases	263857	V	Vacuum
8 Gases	263868	8 Gases	263858	C	Carbon Dioxide

**NOTE:** Sensors shipped separately for connection at site. Order of sensor/gas types in part number not required. For retrofit, please contact your sales representative.

## AREA ALARM CONFIGURATION



Remote Sensors are mounted outside the alarm enclosure and wiring is run from a specific sensor to the alarm. As with the local set-up, remote sensors are wired directly into the terminal strips. For remote installations where codes require electrical conduit, a sensor may be outfitted with a sensor enclosure having standard 7/8" knockouts. Remote sensor enclosures are available for purchase from Ohio Medical or an Ohio Medical Representative.

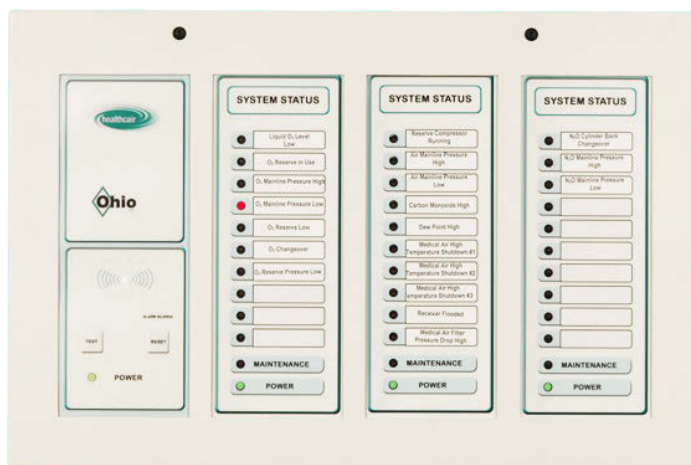




## FEATURES:

- Adjustable audible alarm repeat
- Field adjustable pressure settings
- High visibility LED readouts
- Dry Contacts available for connection to BMS or other.
- Underwriters Laboratories Inc® (UL) listed
- Normally open or closed contacts (Master/Combo)

## Master Alarm

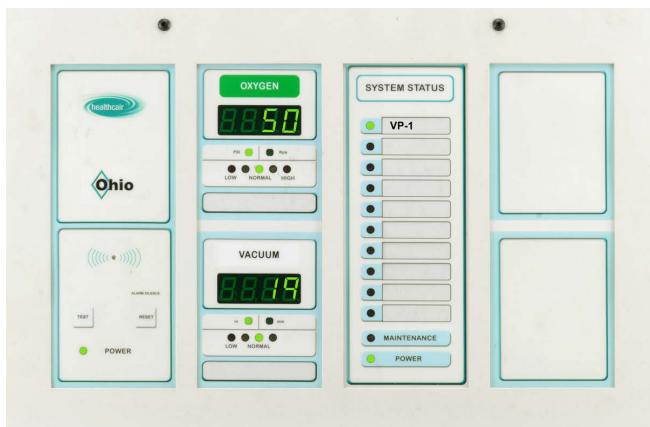


261890-XX\*

POINT	
10	<b>10</b>
20	<b>20</b>
30	<b>30</b>
40	<b>40</b>
50	<b>50</b>

\*If Dry Contacts are required, add 'C' to the end of part number. Example 261890-20C

## Combo Alarm (Local or Remote)



Note: The combination alarm is available in two sizes; 4 and 6 bay. The 4 bay box can accommodate up to a combination of 4 gasses and 10 master alarm points or 1 gas and 20 master alarm points with an overall frame size of 19" L x 11.5" H. The 6 bay can accommodate up to 8 gasses with 10 master alarm points or 1 gas and 40 master alarm points with an overall frame size of 26" L x 11.5" H.

26189X-XXX

GAS SENSOR		MASTER ALARM POINTS*		GASES*	
Local	<b>6</b>	10	<b>10</b>	Oxygen	<b>1</b>
Remote	<b>5</b>	20	<b>20</b>	Vacuum	<b>2</b>
		30	<b>30</b>	Nitrous Oxide	<b>3</b>
		40	<b>40</b>	Air	<b>4</b>
				Nitrogen	<b>5</b>
				WAGD	<b>6</b>
				Carbon Dioxide	<b>7</b>

\*30 and 40 points may only be ordered with 6 bay

\*choose all that are required

## ZONE VALVE BOXES

### FEATURES:

- Full port design
- Blow-out proof stem
- Cleaned for medical gas service
- Teflon seats
- Dual gauge port on pipe extension

### Single Zone Valve Box For 1/2", 2", 2-1/2" and 3" Valves



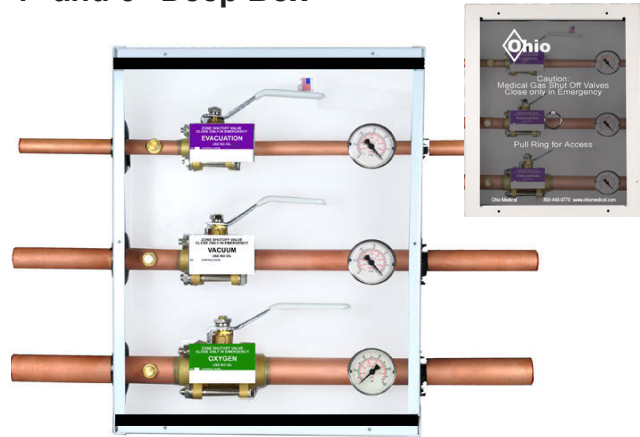
#### Part Numbers:

261901-05	1/2"	Single Zone Valve Box
261901-07	3/4"	Single Zone Valve Box
261901-10	1"	Single Zone Valve Box
261901-12	1-1/4"	Single Zone Valve Box
261901-15	1-1/2"	Single Zone Valve Box

#### The following require a 6-1/2" deep box

261901-20	2"	Single Zone Valve Box
261901-25	2-1/2"	Single Zone Valve Box
261901-30	3"	Single Zone Valve Box

### Multiple Zone Valve Box 4" and 6" Deep Box



#### Part Numbers:

261902-XXXX	Double Zone Valve Box
261903-XXXXXX	Triplex Zone Valve Box
261904-XXXXXXXX	Quadruplex Zone Valve Box
261905-XXXXXXXXXX	Quintuplex Zone Valve Box

**Replace XX with:** 05 = 1/2"  
 07 = 3/4"  
 10 = 1"  
 12 = 1-1/4"  
 15 = 1-1/2"  
 20 = 2" (Requires a 6-1/2" deep box)

## VALVES WITH EXTENSIONS

### FEATURES:

- Full port design
- Blow-out proof stem
- Sizes range from 1/2" (13mm) to 4" (76.2mm)
- Cleaned for medical gas service
- Teflon seats

#### Valve with Extensions

- 1/2" through 4" - Dual gauge ports on pipe extensions
- 4" - Single gauge port on pipe extension



#### Non-Locking Valves Part Number

261630-05  
 261630-07  
 261630-10  
 261630-12  
 261630-15  
 261630-20  
 261630-25  
 261630-30  
 261630-40

#### Locking Valves Part Number

261600-05  
 261600-07  
 261600-10  
 261600-12  
 261600-15  
 261600-20  
 261600-25  
 261600-30  
 261600-40

#### Gauge Part Number

Vacuum (0-30 in Hg)  
 223017  
 Pressure Gas (0-100 psi)  
 223018  
 High-Pressure Gas (0-300 psi)  
 223016



## CEILING COLUMNS AND PEDESTALS



- Available Stationary or Retractable (Electrical Powered or Manual)
- Custom configurations of gas and services
- Complies with NFPA® 99

## EMERGENCY OXYGEN SUPPLY STATION

### Part Numbers:

261825	Emergency Oxygen Supply Station
261701-EXT	Check Valve, 3/4"
261702-EXT	Check Valve, 1"
261703-EXT	Check Valve, 1-1/4"
261704-EXT	Check Valve, 1-1/2"
261705-EXT	Check Valve, 2"
232600	Relief Valve, 1/2" NPT, Set at 75 psiG
232602	Relief Valve Pipeaway Adapter, 1/2" NPT



## GAS CONTROL PANEL

- Nitrogen, Instrument Air, CO<sub>2</sub>
- Pressure Range: 0-300 PSIG
- Pull to Lock
- Push to Adjust
- One DISS Outlet on Unit

### Part Numbers:

261760	Nitrogen Control Panel
263280	CO <sub>2</sub> Control Panel
261911-1A	Instrument Air Control Panel

## MANIFOLDS



- Digital LCD Pressure Display
- NEMA 4X Enclosure
- Automatic Leak Detection
- Automatic Transducer Diagnostic Testing

## Manifold Ordering Matrix

# 2634XX-XX-(X)\*

ALL OTHER VOLTAGES	
Oxygen	<b>33</b>
Nitrous Oxide	<b>35</b>
Nitrogen	<b>37</b>
Medical Air	<b>39</b>
Carbon Dioxide	<b>41</b>

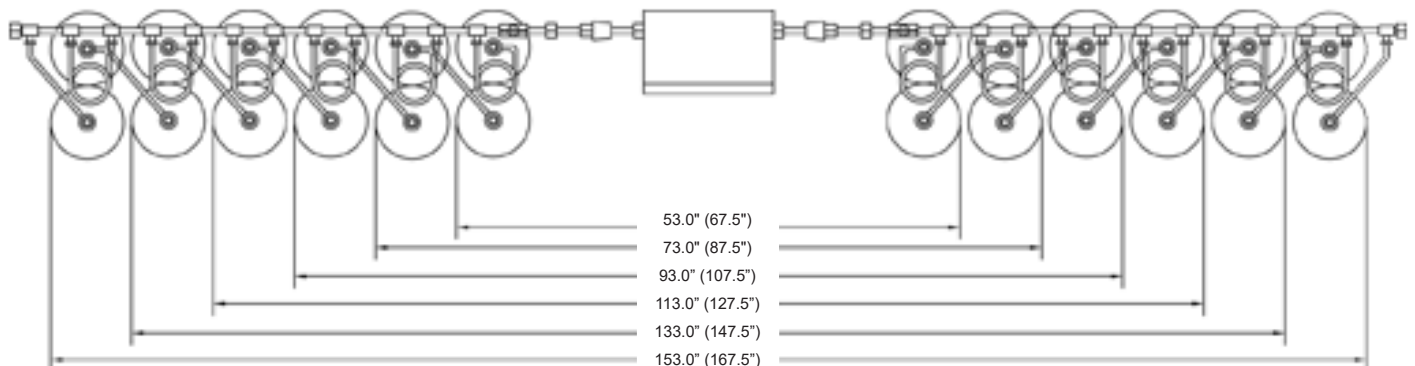
Control Unity Only	
1 × 1	<b>01</b>
2 × 2	<b>02</b>
3 × 3	<b>03</b>
4 × 4	<b>04</b>
5 × 5	<b>05</b>
6 × 6	<b>06</b>
7 × 7	<b>07</b>
8 × 8	<b>08</b>
9 × 9	<b>09</b>
10 × 10	<b>10</b>

HEATER KIT  
(if required)  
Heater Kit **H**

\*Add to the end of the part number if heater kit is required.  
**HEATERS:** 263431 (120V), 263409 (220V)

## High Pressure Gas Manifold Dimensions

Dimensions in parentheses are with optional Heaters.





## Medical Air Manifold

Cylinders Per Bank	=	400 Ft <sup>3</sup>	×	# of beds	×	12	÷	52	÷	234	÷	2
		(cubic ft of gas used per month per bed)				(months per year)		(# of weeks per year)		(Cubic ft per cylinder)		(Cylinders per bank)

## Surgery Center Oxygen Cylinder Manifolds

Where usage is not known

Cylinders Per Bank	=	400 Ft <sup>3</sup>	×	# of beds	×	12	÷	52	÷	244	÷	2
		(cubic ft of gas used per month per bed)				(months per year)		(# of weeks per year)		(Cubic ft per cylinder)		(Cylinders per bank)

## Hospital Oxygen Cylinder Manifolds

Where usage is not known

Cylinders Per Bank	=	700 Ft <sup>3</sup>	×	# of beds	×	12	÷	52	÷	244	÷	2
		(cubic ft of gas used per month per bed)				(months per year)		(# of weeks per year)		(Cubic ft per cylinder)		(Cylinders per bank)

\*With a monthly demand of 30,000 ft, bulk O<sub>2</sub> should be used.

Where usage is known:

Usage, Ft <sup>3</sup> per Month	Duplex Manifold Size Divide by 2 for each Bank
5850	6
9750	10
13650	14
17600	18
21500	22
25350	26
29250	30

## N<sub>2</sub>O Cylinder Manifold

Divide total by 2 for each Bank

Number of Operating Rooms	Total Number of Cylinders
1 to 4	4
5 to 8	8
9 to 12	12
13 to 16	16
17 to 20	20

## N<sub>2</sub> Cylinder Manifold

Divide total by 2 for each Bank

Number of Operating Rooms	Total Number of Cylinders
1 to 2	4
3 to 4	8
5 to 6	12
7 to 8	16
9 to 10	20
11 to 12	24
13 to 14	28

## CO<sub>2</sub> Cylinder Manifold

Divide total by 2 for each Bank

Number of Operating Rooms	Total Number of Cylinders
1 to 8	4
9 to 16	8
17 to 32	12

## VACUUM REGULATORS

### Digital:

- Easy to read display
- No moving parts means no calibration required
- Accuracy is  $\pm 1\%$  of full scale

### Analog:

- Analog gauge designed for clarity
- Accuracy of  $\pm 3\%$  of full scale

### Features:

- Available in Continuous and Cont/Intermittent
- Available in Adult, Pediatric, and Neonatal Models
- Color cases available for inventory management
- Various inlet and wall connection configurations
- Optional inlet filters and overflow safety traps available



## FLOWMETERS

Pressure Compensated Flowmeters are designed to meet strict standards of durability and precision. The base is constructed of solid chromed brass. Flowmeters are available with a wide variety of options including DISS power outlets and twin flowmeter configurations. They are also available with an optional plastic DISS tubing nipple and a multitude of wall adapters.

## PORTABLE SUCTION



Instavac® / is a multipurpose portable suction unit which produces both constant and intermittent suction with high vacuum and high flow levels to meet various clinical applications.

IDEAL FOR: Hospitals and extended care facilities requiring exceptional portable vacuum performance for Nasogastric, Thoracic, Oral, and Tracheal suctioning procedures.



Care-e-vac®3 is a high vacuum and high flow AC/DC powered suction unit. It provides constant suction when wall outlets are unavailable. The unit is compact and very

lightweight. Optional floor stand and crash cart mount are available.

IDEAL FOR: Code carts, patient transportation or wherever a powerful suction unit with battery power is required.

## EQUIPMENT RAIL SYSTEMS

Equipment Rail Systems offer health care professionals many advantages in the use of critical care equipment.

### Work Flow Optimization

- Improve clinical proficiency and productivity
- Mount regularly used equipment where it is needed so it is easily accessible

### Cost Savings

- Reduces construction and installation costs
- Helps eliminate damage to the wall and outlets, reducing the cost of maintenance and repairs

### Flexibility

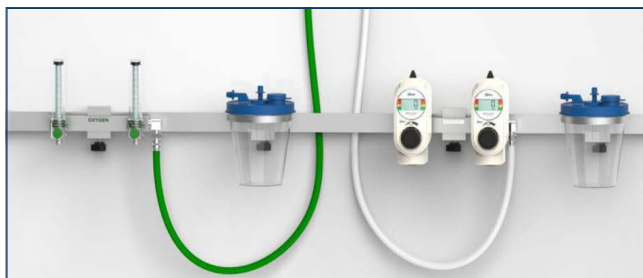
- Change out equipment and devices quickly, with minimal disruption
- Provides proper workflow for staff in order to adapt to changing needs

### Space Saving

- Keep devices and equipment safely mounted to the wall and off the floor
- Manage supplies without the use of carts, cabinets or shelves

### Medical Gas Expansion

- Easily add and/or relocate medical gas outlets in any hospital room.
- Effortlessly convert one patient room into a two patient occupancy room with the addition of moveable gas blocks



## MINIOX

MiniOX oxygen monitors, analyzers and sensors quickly and accurately measure oxygen concentrations.

### Health Care Applications:

- Neonatal care
- Respiratory therapy
- Home respiratory care
- Anesthesia



### MiniOX 3000 Oxygen Monitor

This monitor is portable, easy to use, and is designed for in-line oxygen monitoring in a hospital, home ventilator, NICU and anesthesia delivery equipment applications. It is powered by one 9-volt battery and provides up to 1500 hours of use.

## OHIO MEDICAL BLENDERS

Our blenders are suitable for respiratory applications including routine therapy, ventilator gas supply, sophisticated life support and critically-limited NICU procedures. Most models can be customized to include a flowmeter attachment with a variety of flow rates available. The blenders contain an audible alarm which warns the use if either of the gas sources changes by more than 20 psi from the other. Some models are equipped with a unique gas bleed ON/OFF switch to increase accuracy when needed, conserve gas and reduce worries.



# COLOR LCD TOUCH SCREEN CONTROL PANEL



The Ohio Medical LCD Touch Screen Control Panel offers quick and easy set up as well as crystal clear monitoring of medical system conditions. A user defined password leads the system operator through all necessary set-up procedures.

This is the new standard for all Ohio Medical vacuum and air compressor systems.

## Features and Benefits

### Color LCD Touch Screen

- Crystal clear identification of gases and alarm conditions via a vivid 5.7" color LCD touch screen (10" LCD display optional)
- Screen brightness is field adjustable for enhanced visibility in all lighting conditions
- Highly reliable - pressure activated touch-screen
- Easy set-up - No push buttons or hidden toggle switches to mess with, allowing for quick and easy set-up via the front touch screen panel

### UL 508A Certified

### Meets NFPA® 99 Health Care Facilities Code

### Connection to Building Management Systems (BMS) via Dry Contacts

- Dry contacts identify alarm conditions for high temperature, lag, high dew point and carbon monoxide (CO) gas status

### Modbus Communications

- Modbus communications include alarm conditions for: system pressure, dew point, and CO gas status
- Optional communication protocols include Ethernet and BacNet

### User Defined, Password Protected Options

- English or Spanish
- Security – individual set-up and maintenance screen passwords protect user/installer settings
- Date and time settings
- System pressure settings for Lead/Lag functions
- Pump alternation time

### Maintenance Menu & Alerts

- Streamlined Maintenance Menu listing replacement items and maintenance durations
- Visual maintenance warnings (flashing red/white) when items are past due for service

## System Status/Settings

### System Status

- Alarm conditions clearly identified via audible and visual indicators
- Easy monitoring of system pressure (psiG, inHg), Dew Point (°F) and CO concentration (PPM)
- Battery life with indicator
- CO, Dew Point and pressure tracking over time (Trending Capabilities)
- System operational status and accumulated run-time monitoring

### System Settings

- Adjustable start and stop pressure (lead and lag) minimum run time (MRT), and alternation time

### Input / Output Status

- Monitoring of inputs/outputs for troubleshooting purposes

### Alarm Status

- Advanced alarm condition monitoring
- Easy access to the reset function to deactivate an alarm and return to normal condition once the condition is corrected

### Alarm History

- Alarm log with dates and times

### Information

- Easy access to system information: Model Number, Sales Order Number, Program Name and Shipping Date.





## OIL-SEALED ROTARY VANE VACUUM SYSTEM



- Continuous on demand
- Oil-sealed or Oil-Less running
- Available in Simplex, Duplex, Triplex or Quad
- Configurations:
  - Tank Mounted: Up to 10 hp
  - Stack Mounted: Up to 25 hp
  - Space Saver Vertical Tank Mount, Simplex or Duplex, up to 5 hp
- Warranty: 30/24 Months
- Vibration Free
- Quick Connect motor leads at the panel
- Modular frames
- Oil sealed systems feature synthetic oil, reducing maintenance and oil changes
- Oil-Less are suitable for dedicated WAGD
- NFPA® 99 compliant
- UL Listed Electrical Control Panel

VACUUM SYSTEMS



LCD Color Touch Screen  
Available

# OIL-SEALED ROTARY VANE MEDICAL VACUUM SYSTEM

The Ohio Medical Oil-Sealed Rotary Vane Medical Vacuum System is NFPA® 99 compliant for use in medical vacuum and dual Medical/Surgical applications. The unit consists of electric motor driven pumps, vacuum receiver, electrical control system, and interconnection piping and wiring. The components are modularly assembled to accommodate most existing doorways and designed for serviceability. The packaged unit is factory tested prior to shipment and warranted for a period of (30) months from date of shipment or (24) months from date of start-up.

## VACUUM PUMP MODULE

The total recirculating oil sealed Rotary Vane Vacuum Pump is single stage air cooled, and capable of producing a maximum vacuum level of 29.1" Hg. The pump assembly includes an integral anti-suck back valve, exhaust oil separator delivering 99.9% oil-free air, oil level sight glass, and an exhaust pressure gauge. Each pump is protected by a temperature switch, check valve, and includes pump isolation valve, source isolation valve and flexible connector.

## VACUUM RECEIVER

The Vacuum Receiver is constructed to ASME® (American Society of Mechanical Engineers) standards, rated for full vacuum, and include a valved by-pass, manual drain valve, vacuum gauge and the National Board label.

## SYSTEM CONTROLS

The UL® listed electrical motor control system is of a fuseless design in a NEMA 12 enclosure. The "Continuous On Demand" feature stops the operation of the motor(s) during periods of low or no demand. The controls include individual self protected combination motor control(s) with short circuit, single phase and thermal overload protection, individual 120 volt control circuit transformers with fuseless primary and secondary protection, pressure sensors, and an electronic controller to automatically switch the operating sequence of the vacuum pumps, on multiplex systems only. The cabinet door has an HMI (Human Machine Interface) Color Touch Screen system status display to include system pressure, pump operation, accumulated time, maintenance interval, fault conditions and silence button; lighted Hand-Off-Automatic selector switches and safety disconnect operating handles.

All required local alarm functions are integrated into the packaged system. The circuitry is designed so the audible signal can be silenced and the visual indicator will remain until the fault has been cleared and the reset button actuated. Local alarm functions are provided for reserve pump in use (lag alarm). Dry contacts and/or remote communication protocols provided for remote alarm signals or BMS.

## ACCESSORIES

Accessories included for job site installation are inlet and discharge flexible connectors, source isolation valve, vibration mounting pads and touch-up paint.

## OIL-SEALED ROTARY VANE MEDICAL VACUUM SYSTEM SELECTION CHART

Design Capacity SCFM 60HZ @ 19" Hg / capacity of each pump	Design Capacity SCFM 50HZ @ 19" Hg / capacity of each pump	hp (each pump)	Tank Size (gallons)	Length (A)	Width (B)	Height (C)	Weight	System Model Number
<b>Vertical Tank Mounted Simplex*</b>								
7.7 / 7.7	6.4 / 6.4	2	60	26	44	74	570	S200B-T1-V60
11.3 / 11.3	9.4 / 9.4	2	60	26	43	74	630	S300LB-T1-V60
16.1 / 16.1	13.4 / 13.4	3	60	26	45	75	470	S300B-T1-V60
25.6 / 25.6	21.3 / 21.3	5	60	29	52	75	470	S500LB-T1-V60
43.2 / 43.2	36 / 36	5	80	29	52	81	650	S500B-T1-V80
60.1 / 60.1	50 / 50	7.5	80	37	50	81	650	S750B-T1-V80
71 / 71	59.1 / 59.1	10	80	29	48	81	700	S1000B-T1-V80
<b>Vertical Tank Mounted Duplex</b>								
7.7 / 7.7	6.4 / 6.4	2	80	45	31	79	550	S200B-T2-V80
11.3 / 11.3	9.4 / 9.4	3	80	45	34	81	650	S300LB-T2-V80
16.1 / 16.1	13.4 / 13.4	3	80	52	34	82	750	S300B-T2-V80
25.6 / 25.6	21.3 / 21.3	5	80	52	42	81	750	S500LB-T2-V80
43.2 / 43.2	36 / 36	5	120	61	50	84	1350	S500B-T2-V120
<b>Horizontal Tank Mounted Duplex</b>								
43.2 / 43.2	36 / 36	5	120	86	43	66	1100	S500B-T2-H120
60.1 / 60.1	50 / 50	7.5	120	86	47	66	1100	S750B-T2-H120
71 / 71	59.1 / 59.1	10	120	86	46	59	1300	S1000B-T2-H120
<b>Stack Mounted Duplex</b>								
112.1 / 112.1	93.4 / 93.4	20	240	80	76	95	4800	S2000B-ST2-V240
172.2 / 172.2	143.4 / 143.4	25	240	108	65	74	3800	S2500B-ST2-V240
<b>Stack Mounted Triplex</b>								
120.2 / 60.1	100 / 50	7.5	240	113	64	74	3600	S750B-ST3-V240
142 / 71	118.2 / 59.1	10	240	108	65	74	3800	S1000B-ST3-V240
224.2 / 112.1	186.8 / 93.4	20	240	117	73	94	5800	S2000B-ST3-V240
344.4 / 172.2	286.8 / 143.4	25	240	116	72	94	9000	S2500B-ST3-V240
<b>Stack Mounted Quadruplex</b>								
180.3 / 60.1	150.0 / 50	7.5	240	113	65	74	3200	S750B-ST4-V240
213.0 / 71.0	177.2 / 59.1	10	240	113	65	74	4800	S1000B-ST4-V240
336.3 / 112.1	280.2 / 93.4	20	240	138	81	92	7500	S2000B-ST4-V240
516.6 / 172.2	430.2 / 143.4	25	240	131	82	90	8800	S2500B-ST4-V240

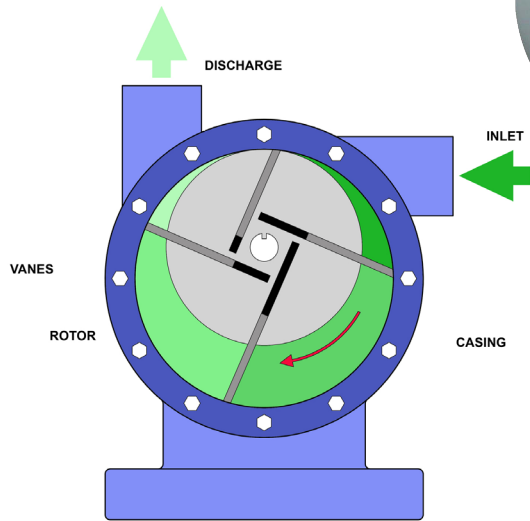
\*Category 3

\*Add "IND" suffix to any Simplex system for a non-NFPA, economy control panel

# OIL-LESS ROTARY VANE VACUUM SYSTEM



LCD Color Touch Screen Available



Design Capacity SCFM 60HZ @ 19" Hg / capacity of each pump	Design Capacity SCFM 50HZ @ 19" Hg / capacity of each pump	System Configuration	hp	Tank Size (gallons)	Length (A)	Width (B)	Height (C)	Weight	System Model Number
3.3 / 3.3	2.7 / 2.7	Vertical Tank Mounted Duplex	1	80	63	30	78	740	D100-T2-V80
8.4 / 8.4	7 / 7	Vertical Tank Mounted Duplex	2	80	63	30	80	810	D200B-T2-V80
11.7 / 11.7	9.7 / 9.7	Vertical Tank Mounted Duplex	3	80	63	32	83	940	D300B-T2-V80
14.3 / 14.3	11.9 / 11.9	Vertical Tank Mounted Duplex	5	80	63	32	83	980	D500LB-T2-V80
20.5 / 20.5	17.1 / 17.1	Vertical Tank Mounted Duplex	5	80	63	34	83	1000	D500B-T2-V80
28.6 / 28.6	23.8 / 23.8	Horizontal Tank Mounted Duplex	7.5	120	90	42	77	1670	D750B-T2-H120
42.5 / 42.5	35.4 / 35.4	Horizontal Tank Mounted Duplex	7.5	120	90	42	77	1810	D750HB-T2-H120
54.5 / 54.5	45.4 / 45.4	Horizontal Tank Mounted Duplex	10	120	102	60	77	2820	D1000B-T2-H120



## OIL-LESS ROTARY VANE VACUUM SYSTEM

Ohio Medical Oil-Less Rotary Vane, NFPA® 99 compliant vacuum system consists of electric motor driven pumps, vacuum receiver, and an electrical control system. The components are modularly assembled to accommodate most existing doorways. The system includes interconnecting piping and wiring to provide a functional operating package with applicable electrical and plumbing connections at the installation site. The packaged unit is factory tested prior to shipment and warranted for a period of 30 months from date of shipment or 24 months from date of start-up.

### VACUUM PUMP MODULE

The Oil-Less Rotary Vane Vacuum pumps are single stage, air cooled, with self lubricating graphite vanes. The vacuum pump assembly includes an integral inlet filter, vacuum regulating valve, check valve, pump isolation valve, a source isolation valve and flexible connector.

### VACUUM RECEIVER

The Vacuum Receiver is constructed to ASME standards, rated for full vacuum, and include a valved by-pass, manual drain valve, vacuum gauge and the National Board label.

### SYSTEM CONTROLS

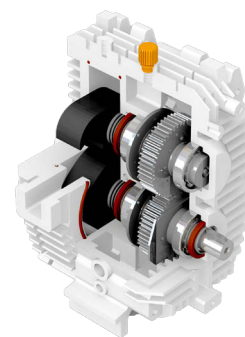
The UL listed electrical motor control system contains a fuseless design in a NEMA 12 enclosure. The “Continuous On Demand” feature stops the operation of the motors during periods of low or no demand. The controls include individual self protected combination motor controls with short circuit, single phase and thermal overload protection, Soft Start Technology, individual 120 volt control circuit transformers with fuseless primary and secondary protection, pressure sensors, and an electronic controller to automatically switch the operating sequence of the vacuum pumps. The cabinet door has an HMI (Human Machine Interface) Color Touch Screen system status display to include system pressure, pump operation, accumulated time, maintenance interval, fault conditions, and a silence button; lighted Hand-Off-Automatic selector switches and safety disconnect operating handles.

All required local alarm functions are integrated into the packaged system. The circuitry is designed so the audible signal can be silenced and the visual indicator will remain until the fault has been cleared and the reset button actuated. Local alarm functions are provided for reserve pump in use (lag alarm). Dry contacts are furnished for remote (master) alarm signals.

### ACCESSORIES

Included for job site installation are inlet and discharge flexible connectors, source isolation valve, vibration mounting pads, and touch-up paint.

## ROTARY CLAW VACUUM SYSTEMS



Pump Cut Away



LCD Color Touch Screen Available

- Oil-Less, non-contacting pump chamber design
- No friction (or wearing parts) in pumping chamber
- Low maintenance
- Long life
- Reliability
- High efficiency (cfm/hp)
- Low cost of ownership
- Clean air
- Warranty: 30/24 months
- NFPA® 99 compliant
- UL Listed Electrical Control Panel

Design Capacity SCFM 60HZ @ 19" Hg / capacity of each pump	Design Capacity SCFM 50HZ @ 19" Hg / capacity of each pump	hp	Tank Size (gallons)	Length (A)	Width (B)	Height (C)	Weight	System Model Number
<b>Tank Mounted Duplex</b>								
23 / 23	19.2 / 19.2	3	120	83	37	60	1000	C300B-T2-H120
39 / 39	32.5 / 32.5	5	120	86	42	62	1500	C500B-T2-H120
53 / 53	44.1 / 44.1	7.5	120	86	46	64	2000	C750LB-T2-H120
69 / 69	57.5 / 57.5	7.5	120	88	49	64	2100	C750B-T2-H120
<b>Stack Mounted Duplex</b>								
92 / 92	76.6 / 76.6	10	120	70	60	80	2100	C1000B-ST2-V120
<b>Stack Mounted Triplex</b>								
78 / 39	65 / 32.5	5	120	114	62	96	2750	C500B-ST3-V120
106 / 53	88.2 / 44.1	7.5	240	106	68	74	2800	C750LB-ST3-V240
138 / 69	115 / 57.5	7.5	240	100	65	74	3000	C750B-ST3-V240
184 / 92	153.2 / 76.6	10	240	117	72	91	3800	C1000B-ST3-V240
240 / 120	200 / 100	15	240	117	74	91	4400	C1500B-ST3-V240
<b>Stack Mounted Quadruplex</b>								
117 / 39	97.5 / 32.5	5	240	113	65	74	4000	C500B-ST4-V240
159 / 53	132.3 / 44.1	7.5	240	113	65	78	4500	C750LB-ST4
207 / 69	172.5 / 57.5	7.5	240	113	65	78	4700	C750B-ST4-V240
276 / 92	230 / 76.6	10	240	116	71	91	5000	C1000B-ST4-V240
360 / 120	300 / 100	15	240	142	81	91	6000	C1500B-ST4-V240

## ROTARY CLAW VACUUM SYSTEMS

The Ohio Medical Oil-Less Rotary Claw Medical Vacuum System is fully NFPA® 99 compliant for use in medical vacuum and WAGD applications. The unit consists of electric motor driven pumps, vacuum receiver, electrical control system, and interconnection piping and wiring. The components are modularly assembled to accommodate most existing doorways and designed for serviceability. The packaged unit is factory tested prior to shipment and warranted for a period of 30 months from date of shipment or 24 months from date of start-up.

### VACUUM PUMP MODULE

The Rotary Claw Vacuum Pumps are single stage, and air cooled. The pump design utilizes two ductile iron claw type rotors rotating in opposite direction inside a cast iron housing. The timing of the rotors are maintained by a precision gear set which is separated from the oil free pumping chamber by a combination of lip seals. The vacuum pump assembly also includes a 5 micron particulate inlet vacuum filter, vacuum regulator/relief valve, and exhaust silencer. The assembly also includes high temperature switch, check valves, pump isolation valves, a source isolation valve and flexible connectors.

### VACUUM RECEIVER

The Vacuum Receiver is constructed to ASME standards, rated for full vacuum, and include a valved by-pass, manual drain valve, vacuum gauge and the National Board label.

### SYSTEM CONTROLS

The UL listed electrical motor control system contains a fuseless design in a NEMA 12 enclosure. The “Continuous On Demand” feature stops the operation of the motors during periods of low or no demand. The controls include individual self protected combination motor controls with short circuit, single phase and thermal overload protection, Soft Start Technology, individual 120 volt control circuit transformers with fuseless primary and secondary protection, pressure sensors, and an electronic controller to automatically switch the operating sequence of the vacuum pumps.

The cabinet door has an HMI (Human Machine Interface) Color Touch Screen system status display to include system pressure, pump operation, accumulated time, maintenance interval, fault conditions, and silence button; lighted Hand-Off-Automatic selector switches and safety disconnect operating handles.

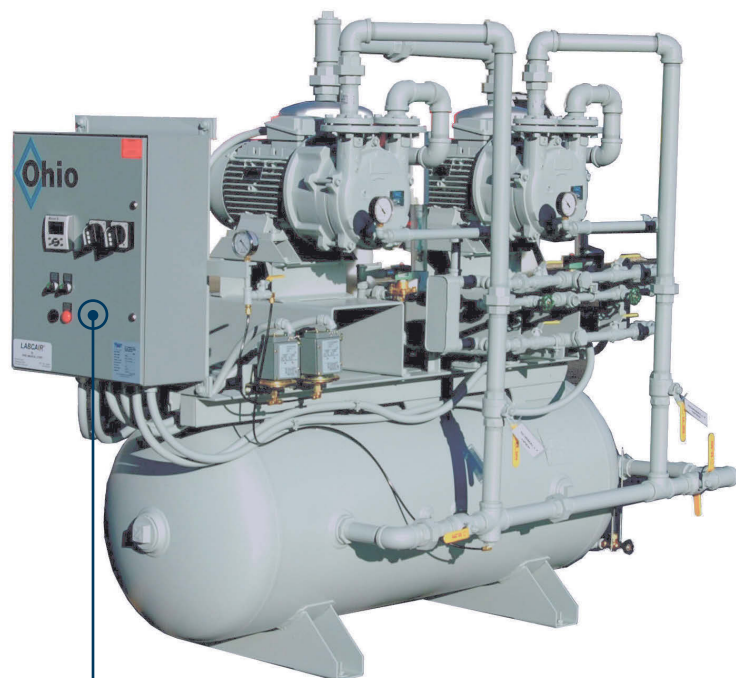
All required local alarm functions are integrated into the packaged system. The circuitry is designed so the audible signal can be silenced and the visual indicator will remain until the fault has been cleared and the reset button actuated. Local alarm functions are provided for reserve pump in use (lag alarm). Dry contacts are furnished for remote (master) alarm signals.

### ACCESSORIES

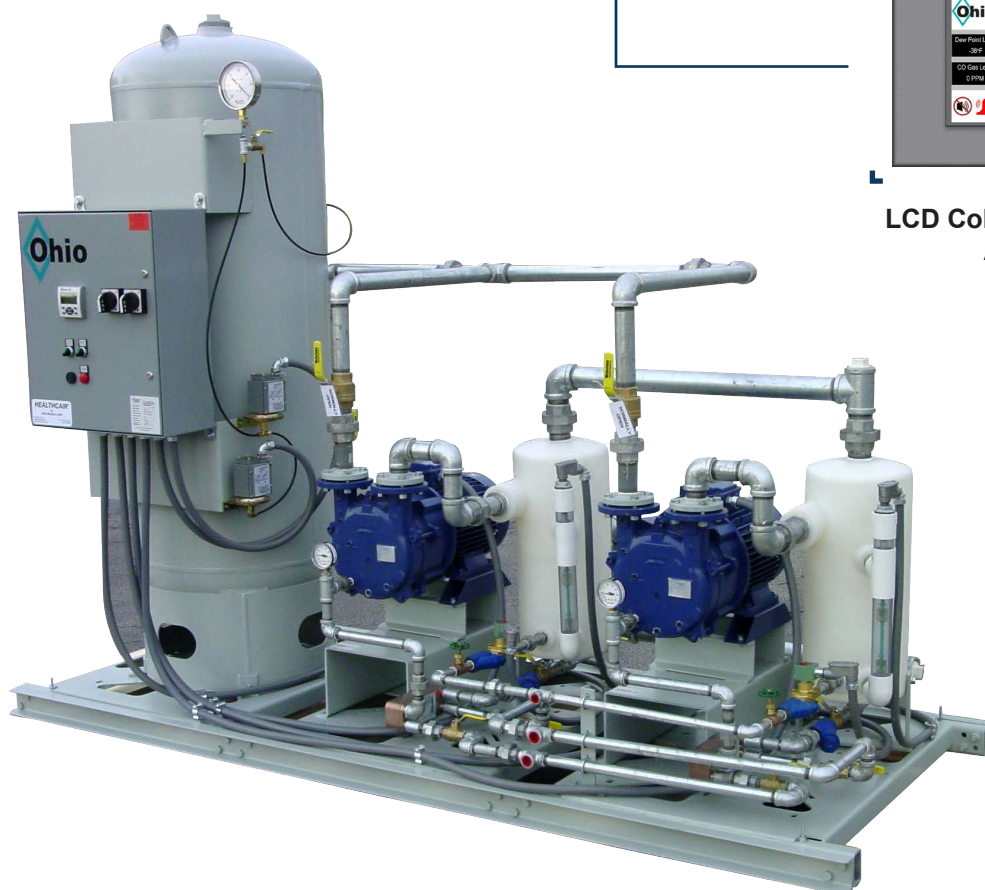
Included for job site installation are inlet and discharge flexible connectors, source isolation valve, vibration mounting pads, and touch-up paint.

## LIQUID RING VACUUM SYSTEMS

- Water Sealed
- Available in Simplex, Duplex, Triplex or Quad
- Configurations: Tank, Base or Stack Mounted
- Medical or Laboratory Applications
- Minimal maintenance, Maximum Durability
- No contacting parts in pumping chamber
- Cool running and long wearing
- Optional Heat Exchanger shown below for optimal seal fluid conservation
- Total recirculation
- NFPA® 99 compliant
- UL Listed Electrical Control Panel
- Suitable for dedicated WAGD



LCD Color Touch Screen  
Available





## LIQUID RING CONTINUOUS ON DEMAND VACUUM SYSTEM, PARTIAL RECIRCULATION

Ohio Medical partial recirculating, NFPA® 99 compliant vacuum system consists of electric motor driven positive displacement non-pulsating liquid ring vacuum pumps, ASME vacuum receiver, electrical control system, and interconnection piping and wiring. The components are modularly assembled to accommodate most existing doorways and designed for serviceability. The packaged unit is factory tested prior to shipment and warranted for a period of 30 months from date of shipment or 24 months from date of start-up.

### VACUUM PUMP MODULE

Each Liquid Ring Vacuum Pump has a cast iron body, stainless steel impeller, and mechanical seals to be direct driven by a TEFC motor. Pump suction accessories include an inlet check valve, isolation valve and inlet flexible connector. Pump discharge accessories include a discharge air/water separator constructed of high density polyethylene that also serves as the partial recirculation reservoir tank. The recirculation reservoir has a two station, combination level sensor/sight glass to maintain proper liquid level. The pump discharge separator vents are manifolded, and a flexible connector is provided for job site installation to facilitate connection of vent piping to the exterior of the building.

Recirculation liquid control is interactive through a temperature sensor, with a range of 75°F to 90°F. Each recirculation liquid line will include a strainer and isolation/flow regulation valve.

The make-up water lines include a strainer, regulating valve, solenoid valve with manual priming valve and flexible connector.

### VACUUM RECEIVER

The Vacuum Receiver is constructed to ASME standards, rated for full vacuum, and include a valved by-pass, manual drain valve, sight window, vacuum gauge and the National Board label.

### SYSTEM CONTROLS

The UL listed electrical motor control system includes a fuseless design in a NEMA 12 enclosure. The “Continuous On Demand” feature stops the operation of the motors during periods of low or no demand. The controls include individual self protected combination motor controls with short circuit, single phase and thermal overload protection, individual 120 volt control circuit transformers with fuseless primary and secondary protection, pressure sensors, and an electronic controller to automatically switch the operating sequence of the vacuum pumps. The cabinet door has an HMI (Human Machine Interface) Color Touch Screen system status display to include system pressure, pump operation, accumulated time, maintenance interval, fault conditions and silence button; lighted Hand-Off-Automatic selector switches and safety disconnect operating handles.

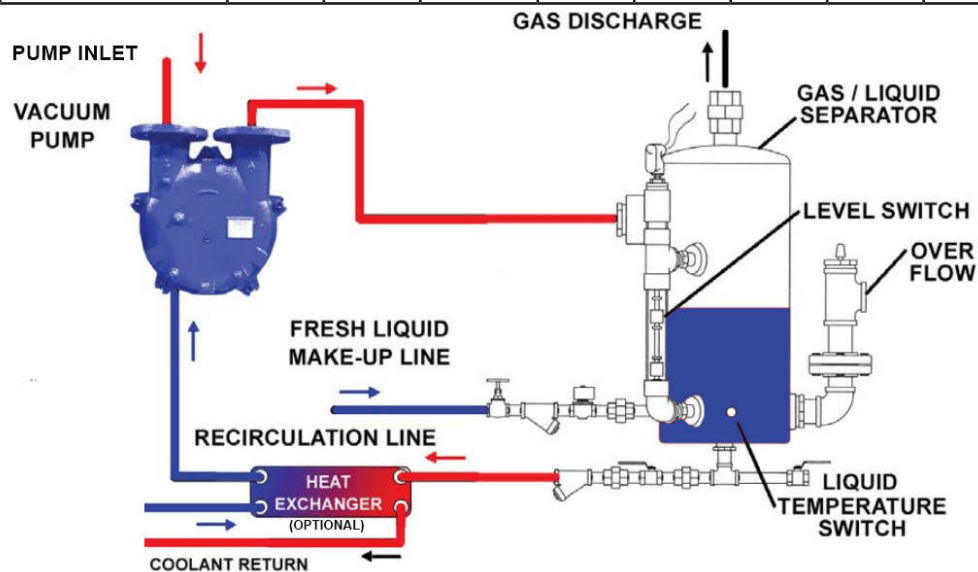
All required local alarm functions are integrated into the packaged system. The circuitry is designed so the audible signal can be silenced and the visual indicator will remain until the fault has been cleared and the reset button actuated. Local alarm functions are provided for reserve pump in use (lag alarm). Dry contacts are furnished for remote (master) alarm signals.

### ACCESSORIES

Accessories included for job site installation are inlet and discharge flexible connectors, source isolation valve, vibration mounting pads and touch-up paint.

## LIQUID RING CONTINUOUS ON DEMAND VACUUM SYSTEMS SELECTION CHART, PARTIAL RECIRCULATION

Design Capacity SCFM 60HZ @ 19" Hg / capacity of each pump	Design Capacity SCFM 50HZ @ 19" Hg / capacity of each pump	hp	Tank Size (gallons)	Average make-up water required @ 19" Hg (GPM per pump)	Length (A)	Width (B)	Height (C)	Weight	System Model Number
<b>Tank Mounted Duplex</b>									
11.7 / 11.7	9.7 / 9.7	3	120	0.7	83	44	69	1300	LP3B-T2
26.4 / 26.4	22 / 22	5	120	1.1	83	44	71	1500	LP5B-T2
33.7 / 33.7	28.1 / 28.1	7.5	200	1.6	89	47	77	1700	LP75B-T2
47.6 / 47.6	39.7 / 39.7	10	200	2.0	98	63	80	2800	LP10B-T2
75.4 / 75.4	62.8 / 62.8	15	200	2.9	98	63	80	2800	LP15B-T2
<b>Base Mounted Duplex</b>									
137.4 / 137.4	114.5 / 114.5	30	240	4.9	130	70	100	4300	LP30B-B2
<b>Base Mounted Triplex</b>									
201.4 / 100.7	168 / 84	20	240	3.3	150	64	86	4600	LP20B-B3
348 / 174	289.8 / 144.9	30	240	4.9	176	70	100	6260	LP30B-B3
<b>Stack Mounted Duplex</b>									
100.7 / 100.7	83.9 / 83.9	20	120	3.3	71	63	95	3200	LP20B-ST2
<b>Stack Mounted Triplex</b>									
95.2 / 47.6	79.4 / 39.7	10	240	2.0	126	65	96	3800	LP10B-ST3
150.8 / 75.4	125.6 / 62.8	15	240	2.9	126	65	96	4100	LP15B-ST3
<b>Stack Mounted Quadruplex</b>									
101.1 / 33.7	84.3 / 28.1	7.5	240	1.6	114	64	92	4200	LP75B-ST4
142.8 / 47.6	119 / 39.7	10	240	2.0	114	64	92	4900	LP10B-ST4
226.2 / 75.4	188.4 / 62.8	15	240	2.9	114	64	94	5500	LP15B-ST4



# CALCULATED PEAK DEMAND FOR A MEDICAL SURGICAL VACUUM SYSTEM IN A TYPICAL SHORT TERM GENERAL HOSPITAL

Project Name: \_\_\_\_\_ Date: \_\_\_\_\_  
 Engineer Name: \_\_\_\_\_

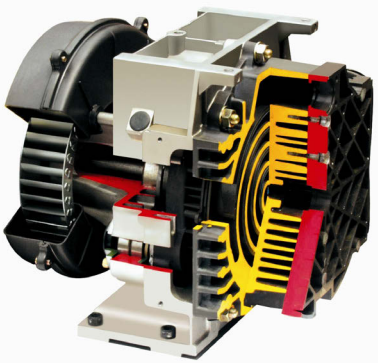
Qty	Medical Gas Vacuum Outlet Locations	Design Flow in SCFM (Free Air)			Simultaneous Use Factor %	Total
		Per Room	Per Bed	Per Inlet		
ANESTHETIZING LOCATIONS:						
	Specialized Surgeries (Open Heart, Organ Transplant)	4.0			100	
	Major / Outpatient OR	3.5			100	
	Cystoscopy / Endoscopy	2.0			100	
	Delivery Room	1.0			100	
	Emergency Operating Room	3.0			100	
	Cardiac Catheterization	1.0			10	
	Other Anesthetizing Areas (Minor O.R., Induction Rooms, etc.)	1.0			50	
	Waste Anesthetizing Gas Evacuation (WAGD)	2.0			100	
ACUTE CARE (NON-ANESTHETIZING LOCATIONS):						
	Post Operative Recovery Room		3.0		50	
	O.B. Recovery Room		2.0		50	
	Intensive Care Units (Except Cardiac)		2.0		75	
	Emergency Room (Trauma, Cardiac)		1.0		100	
	Cardiac Intensive Care		2.0		50	
	Neonatal I.C.U.		1.0		50	
	Special Procedure (X-Ray,Dialysis, Radiology)		1.5		25	
	Surgical Excision Room	1.0			10	
SUBACUTE PATIENT CARE AREAS:						
	Patient Room (Surgery)		1.5		50	
	Patient Room (Medical)		1.0		10	
	Exam & Treatment Rooms			1.0	10	
	Normal Nursery			1.0	10	
	Premature Nursery		1.0		25	
	Respiratory Care			1.5	10	
	Labor/Birthing		1.0		10	
	ER (Cast Room, OB/GYN)		1.0		10	
	Pre-Op Holding		1.0		10	
	Stress Test EKG & EEG		1.0		10	
OTHER AREAS:						
	Autopsy / Morgue			2.0	20	
	Central Supply / Sterile			1.5	10	
	Equipment Repair,Calibration & Teaching			1.5	10	
	Medical Lab / Pharmacy			1.0	10	
	Respiratory Care Department			1.5	10	
	Total Estimated Peak Flow (In SCFM @ 19" Hg)					
Total Estimated Peak Flow (in SCFM @ 19" Hg)						

## OIL-LESS ROTARY SCROLL COMPRESSED AIR SYSTEMS



LCD Color Touch Screen  
Available

- Ohio Medical Scroll Systems feature a dedicated pump to motor design. This ensures optimal design safety and energy efficiency by cycling on fewer motors during low demand in lieu of starting multi pump modules.
- Quiet
- Low vibration
- 10,000 hour maintenance interval for tip seals
- 5,000 hour maintenance interval for shaft bearing
- Dew point dependent switching cycles on desiccant dryers
- NFPA® 99 compliant
- UL Listed Electrical Control Panel
- Warranty: 30/24



## OIL-LESS ROTARY SCROLL COMPRESSED AIR SYSTEMS

Ohio Medical Oil-Less Rotary Scroll Compressed Air System is fully NFPA® 99 compliant. The unit consists of electric motor driven single stage Oil-Less rotary scroll air compressor module(s), electrical control system, ASME air receiver, air cooled aftercooler(s) with individual drains, inline intake air filters, air treatment module, interconnection copper/brass piping, and wiring. The components are modularly assembled to accommodate most existing doorways and designed for serviceability. The packaged unit is factory tested prior to shipment and warranted for a period of 30 months from date of shipment or 24 months from date of start-up.

### AIR COMPRESSOR MODULES

The compressor(s) have PTFE composite tip seals and be rated for 10,000 hours of operation. Compressors bearings are external to the compression chamber and serviceable. Compressors with bearings that are not accessible for service and have limited life span are not accepted. Each belt driven compressor module inlet include an inline filter with particle retention of 5 microns, inlet isolation valve and flex connector. The compressor discharge piping includes air cooled after cooler with moisture separator and automatic drain, isolation valves, ASME safety pressure relief valve, thermal malfunction shutdown device.

### AIR RECEIVER

The corrosion resistant coated receiver is equipped with an ASME safety pressure relief valve, sight glass pressure gauge, automatic drain, three-valve by-pass and source isolation valve.

### AIR TREATMENT MODULE

The Air Treatment Module includes dual dryers, dual filtration system, and a CO and Dew Point monitoring device with local audible and visual signals and dry contacts for remote monitoring. The components are mounted on a common base with interconnecting copper/brass piping and upstream and downstream isolation valves. The isolation valves allow either set of components to be serviced without shutting down the system.

The dryer system are duplexed and provide a pressure dew point of 10°F. Dryers are heatless desiccant design, selected and sized to provide for the peak-calculated demand. The desiccant dryer is equipped with a Dewpoint Dependent Switching feature to minimize the need for purge air.

The dual filtration system is designed to remove liquids and particulate matter, and consists of one micron coalescing filters with differential pressure indicators and automatic drain, air line pressure regulators with gauges, final pressure relief valve, and sampling valve.

### SYSTEM CONTROLS

The UL listed electrical motor control system contains a fuseless design in a NEMA 12 enclosure. The “Continuous On Demand” feature stops the operation of the motors during periods of low or no demand. The controls include individual self protected combination motor controls with short circuit, single phase and thermal overload protection, individual 120 volt control circuit transformers with fuseless primary and secondary protection, pressure sensors, temperature switches with reset button, and an electronic controller to automatically change the operating sequence of the compressors. The cabinet door has an HMI (Human Machine Interface) Color Touch Screen system status display to include system pressure, dewpoint, pump operation, accumulated time, maintenance interval, fault conditions, and silence button; lighted Hand-Off-Automatic selector switches and safety disconnect operating handles. All required local alarm functions are integrated into the packaged system.

### ACCESSORIES

Accessories included for job site installation are inlet and discharge flexible connectors, vibration mounting pads, and source isolation valve.



## OIL-LESS ROTARY SCROLL COMPRESSED AIR SYSTEMS

Design Capacity SCFM 60HZ @ 50 psiG / capacity of each pump	Design Capacity SCFM 50HZ @ 50 psiG / capacity of each pump	System Configuration	hp per pump	Quantity of pumps	Length (A)	Width (B)	Height (C)	System Model Number
9.9 / 9.9	8.2 / 8.2	Tank Mounted Simplex	3	1	72	26	56	AS300B-T1-DD-LAB
16.4 / 16.4	13.7 / 13.7	Tank Mounted Simplex	5	1	74	31	76	AS500B-T1-DD-LAB
22.2 / 22.2	18.5 / 18.5	Tank Mounted Simplex	7.5	1	81	43	86	AS750B-T1-DD-LAB
31 / 31	25.8 / 25.8	Tank Mounted Simplex	10	1	81	43	70	AS1000B-T1-DD-LAB
9.9 / 9.9	8.2 / 8.2	Tank Mounted Duplex	3	2	85	37	66	AS300B-T2-DD
16.4 / 16.4	13.7 / 13.7	Tank Mounted Duplex	5	2	83	38	80	AS500B-T2-DD
22.2 / 22.2	18.5 / 18.5	Tank Mounted Duplex	7.5	2	81	43	86	AS750B-T2-DD
31 / 31	25.8 / 25.8	Tank Mounted Duplex	10	2	87	44	73	AS1000B-T2-DD
9.9 / 9.9	8.2 / 8.2	Stack Mounted Duplex	3	2	62	48	75	AS300B-ST2-DD
16.4 / 16.4	13.7 / 13.7	Stack Mounted Duplex	5	2	73	38	94	AS500B-ST2-DD
22.2 / 22.2	18.5 / 18.5	Stack Mounted Duplex	7.5	2	64	50	98	AS750B-ST2-DD
31 / 31	25.8 / 25.8	Stack Mounted Duplex	10	2	63	50	98	AS1000B-ST2-DD
19.8 / 9.9	16.4 / 8.2	Tank Mounted Triplex	3	3	86	40	69	AS300B-T3-DD
32.8 / 16.4	27.4 / 13.7	Tank Mounted Triplex	5	3	86	40	69	AS500B-T3-DD
44.4 / 22.2	37 / 18.5	Tank Mounted Triplex	7.5	3	91	51	69	AS750B-T3-DD
62 / 31	51.6 / 25.8	Tank Mounted Triplex	10	3	91	51	69	AS1000B-T3-DD
19.8 / 9.9	16.5 / 8.2	Stack Mounted Triplex	3	3	73	52	80	AS300B-ST3-DD
32.8 / 16.4	27.4 / 13.7	Stack Mounted Triplex	5	3	73	52	80	AS500B-ST3-DD
44.4 / 22.2	37 / 18.5	Stack Mounted Triplex	7.5	3	88	80	80	AS750B-ST3-DD
62 / 31	51.6 / 25.8	Stack Mounted Triplex	10	3	88	80	80	AS1000B-ST3-DD
29.7 / 9.9	24.7 / 8.2	Tank Mounted Quadruplex	3	4	88	41	72	AS300B-T4-DD
49.2 / 16.4	41.1 / 13.7	Tank Mounted Quadruplex	5	4	88	41	72	AS500B-T4-DD
29.7 / 9.9	24.6 / 8.2	Stack Mount Quadruplex	3	4	73	50	80	AS300B-ST4-DD
49.2 / 16.4	41.1 / 13.7	Stack Mounted Quadruplex	5	4	73	50	80	AS500B-ST4-DD
66.6 / 22.2	55.5 / 18.5	Stack Mounted Quadruplex	7.5	4	88	80	80	AS750B-ST4-DD
93 / 31	77.4 / 25.8	Stack Mounted Quadruplex	10	4	91	80	80	AS1000B-ST4-DD

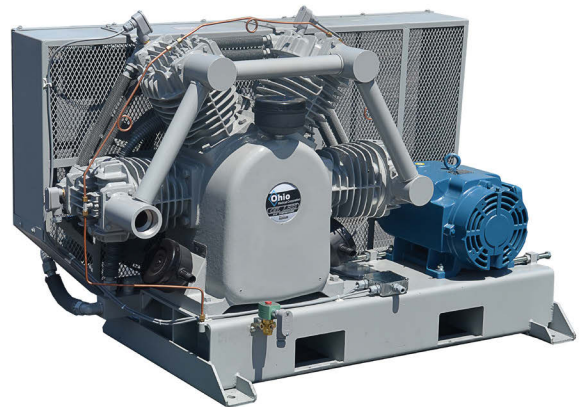
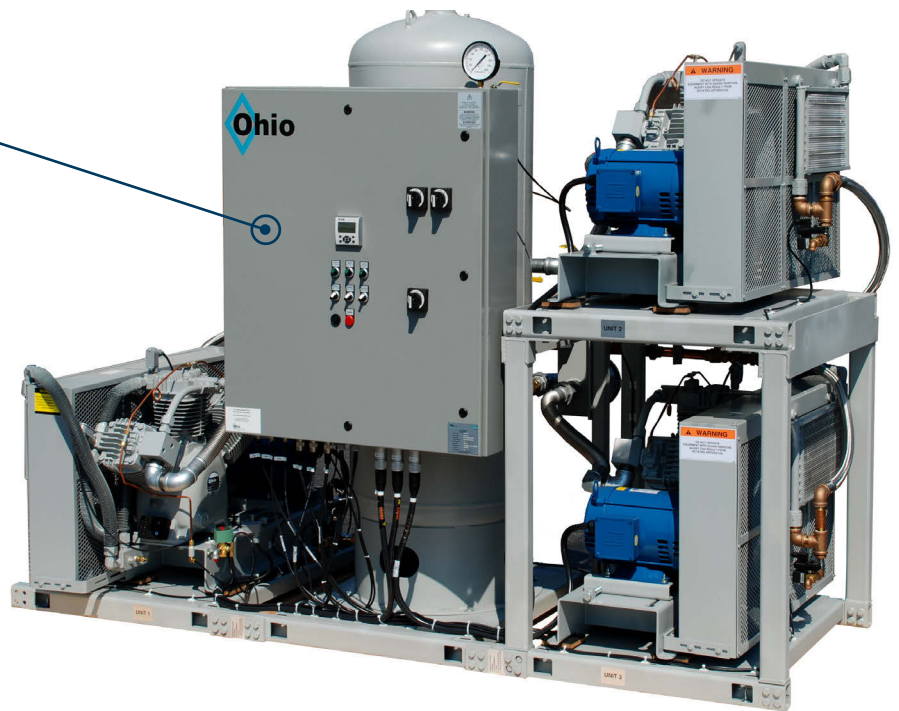
\*Category 3

# OIL-LESS RECIPROCATING PISTON AIR COMPRESSOR SYSTEMS



LCD Color Touch Screen  
Available

- Oil-Less Air Compressors
- Available in Simplex, Duplex, Triplex and Quadruplex
- Configurations: Tank, Base or Stack Mounted
- Medical and Laboratory Configurations
- NFPA® 99 compliant
- UL Listed Electrical Control Panel
- Warranty: 30/24 months



## OIL-LESS RECIPROCATING CONTINUOUS ON DEMAND COMPRESSED AIR SYSTEMS SELECTION CHART

Design Capacity SCFM 60HZ @ 50 psig / capacity of each pump	Design Capacity SCFM 50HZ @ 50 psig / capacity of each pump	hp pump	Tank Size (gallons)	Quantity of Motors	Length (A)	Width (B)	Height (C)	Weight	System Model Number
<b>Oil-Less Reciprocating, Tank Mounted Simplex</b>									
12 / 12	10 / 10	3	80	1	75	32	54	770	A300B-T1-H80
23 / 23	19.2 / 19.2	5	80	1	75	32	54	962	A500B-T1-H80
31.2 / 31.2	26 / 26	7.5	80	1	75	32	54	1045	A750B-T1-H80
38 / 38	31.7 / 31.7	10	80	1	75	32	54	1156	A1000B-T1-H80
<b>Oil-Less Reciprocating, Tank Mounted Duplex (with Desiccant Dryer)</b>									
12 / 12	10 / 10	3	120	2	82	47	72	1300	A300B-T2-DD-H120
23 / 23	19.2 / 19.2	5	120	2	82	47	72	1350	A500B-T2-DD-H120
31.2 / 31.2	26 / 26	7.5	120	2	83	51	71	1400	A750B-T2-DD-H120
38 / 38	31.7 / 31.7	10	120	2	83	51	71	1500	A1000B-T2-DD-H120
<b>Oil-Less Reciprocating, Stack Mounted Duplex (with Desiccant Dryer)</b>									
60 / 60	50 / 50	15	120	2	75	61	85	2400	A1500B-ST2-DD-V120
75 / 75	62.5 / 62.5	20	120	2	94	94	93	5900	A2000B-ST2-DD-V120
90 / 90	75 / 75	25	120	2	94	94	93	6200	A2500B-ST2-DD-V120
106 / 106	88.3 / 88.3	30	240	2	94	94	93	6400	A3000B-ST2-DD-V240
<b>Oil-Less Reciprocating, Stack Mounted Triplex (with Desiccant Dryer)</b>									
62.4 / 31.2	52 / 26	7.5	120	3	107	56	80	2800	A750B-ST3-DD-V120
76 / 38	63.4 / 31.7	10	120	3	114	52	80	2800	A1000B-ST3-DD-V120
120 / 60	100 / 50	15	240	3	107	67	74	3900	A1500B-ST3-DD-V240
150 / 75	125 / 62.5	20	240	3	130	94	93	6800	A2000B-ST3-DD-V240
180 / 90	150 / 75	25	240	3	130	94	93	7000	A2500B-ST3-DD-V240
212 / 106	176.6 / 88.3	30	240	3	130	94	93	7100	A3000B-ST3-DD-V240
<b>Oil-Less Reciprocating, Stack Mounted Quadruplex (with Desiccant Dryer)</b>									
93.6 / 31.2	78 / 26	7.5	240	4	122	64	74	3200	A750B-ST4-DD-V240
114 / 38	95.1 / 31.7	10	240	4	116	71	74	4800	A1000B-ST4-DD-V240
180 / 60	150 / 50	15	240	4	122	64	72	5000	A1500B-ST4-DD-V240
225 / 75	187.5 / 62.5	20	240	4	130	94	93	8500	A2000B-ST4-DD-V240
270 / 90	225 / 75	25	240	4	130	96	93	9500	A2500B-ST4-DD-240
318 / 106	264.9 / 88.3	30	240	4	130	96	93	9800	A3000B-ST4-DD-4240

\*Category 3

## OIL-LESS RECIPROCATING PISTON AIR COMPRESSOR SYSTEMS

Ohio Medical reciprocating NFPA® 99 compliant air compressor systems consist of electric motor driven Oil-Less air compressor(s), an Underwriters Laboratories listed electrical control mounted in a NEMA 12 enclosure, ASME air receiver, air cooled aftercooler(s) with individual drain(s), inline intake air filter(s) and an air treatment module. The components are modularly assembled to accommodate most existing doorways. The system includes interconnecting copper/brass piping and wiring to provide a functional operating package with applicable electrical and plumbing connections at the installation site. The packaged unit is factory tested prior to shipment and warranted for a period of 30 months from date of shipment or 24 months from date of start-up.

### COMPRESSOR MODULES

The compressor(s) consists of a crankcase, connecting rods, integral counterweights for smooth operation, and cylinders and heads designed for efficient heat dissipation. Piston rings are provided to reduce wear and have a life span of 10,000 hours. Each compressor cylinder is protected by a temperature switch, which will stop the drive motor and provide an alarm signal in the event of abnormal discharge air temperature. Each belt driven compressor module includes an inline filter with a particle retention of 5 microns, inlet isolation valve discharge isolation valve, and ASME safety pressure relief valve.

### AIR RECEIVER

The corrosion resistant coated receiver is equipped with an ASME safety pressure relief valve, sight glass pressure gauge, automatic drain, three-valve by-pass and source isolation valve.

### AIR TREATMENT MODULE

The air treatment module includes dual dryers, dual filtration system, and a CO and Dew Point monitoring device with local audible and visual signals and dry contacts for remote monitoring. The components are mounted on a common base with interconnecting copper/brass piping and upstream and downstream isolation valves. The isolation valves allow either set of components to be serviced without shutting down the system.

The dryer system is duplexed and provide a pressure dew point of 10°F. Dryers are heatless desiccant design selected and sized to provide for the peak-calculated demand. The desiccant dryer is equipped with a Dew point Dependent Switching feature to minimize the need for purge air.

The dual filtration system is designed to remove liquids and particulate matter, and consists of one micron coalescing filters with differential pressure indicators and automatic drain, air line pressure regulators with gauges, final pressure relief valve, and sampling valve.

### SYSTEM CONTROLS

The UL listed electrical motor control system contains a fuseless design in a NEMA 12 enclosure. The “Continuous On Demand” feature stops the operation of the motor(s) during periods of low or no demand. The controls include individual self protected combination motor control(s) with short circuit, single phase and thermal overload protection, individual 120 volt control circuit transformer(s) with fuseless primary and secondary protection, pressure sensors, temperature switches with reset button, and an electronic controller to automatically change the operating sequence of the compressor(s). The cabinet door has an HMI (Human Machine Interface) Color Touch Screen system status display to include system pressure, dewpoint, pump operation, accumulated time, maintenance interval, fault conditions, and silence button; lighted Hand-Off-Automatic selector switch(es) and safety disconnect operating handles.

All required local alarm functions are integrated into the packaged system. The circuitry is designed so the visual indicator will remain until the fault has been cleared and the reset button actuated. Local alarm functions are provided for high air discharge temperature and thermal overload.

### ACCESSORIES

Included for job site installation are inlet and discharge flexible connectors, vibration mounting pads, source isolation valve, and touch-up paint.

# CALCULATED PEAK DEMAND FOR A MEDICAL AIR SYSTEM IN A TYPICAL SHORT TERM GENERAL HOSPITAL

Project Name: \_\_\_\_\_ Date: \_\_\_\_\_  
Engineer Name: \_\_\_\_\_

Qty	Medical Air Outlet Locations	Design Flow in SCFM (Free Air)				Simultane- ous Use Factor %	Totals
		Per Unit	Per Room	Per Bed	Per Outlet		
ANESTHETIZING LOCATIONS:							
	Special Surgery (Open Heart, Organ Transplant, Ortho)		0.5			100	
	Major / Outpatient Surgery		0.5			100	
	Minor Surgery		0.5			75	
	Emergency Surgery		0.5			50	
	Cardiac Catheterization		0.5			50	
	Endoscopy / Cytoscopy		1.0			10	
	Delivery Room / C-Section		0.5			100	
ACUTE CARE LOCATIONS:							
	Recovery Room/Surgical			2.0		50	
	Recovery Room - OB			0.5		25	
	ICU/CCU & Pediatric I.C.U.			2.0		50	
	Emergency Room (Trauma, Cardiac)			2.0		50	
	Anesthesia Workroom		1.5			10	
	Neonatal ICU			1.5		75	
	Pre-Op Holding				1.5	10	
	Dialysis Unit, Radiology				0.5	10	
	Ventilators Adult*	3.5				50	
	Ventilators Infants*	3.5				50	
SUBACUTE CARE LOCATIONS:							
	Patient Rooms (Medical & Surgical)			0.5		10	
	Exam & Treatment		1.0			10	
	Birthing & LDRP			1.0		50	
	Pediatric Croup Tents**	2.0				50	
	Nursery Full Term & Isolation				0.5	25	
	ER (Cast Room, OB/GYN)		1.0			10	
	EEG & EKG				1.0	50	
	Respiratory Care			1.0		50	
	Pulmonary Function Lab				1.0	50	
OTHER:							
	Respiratory Care Workroom		1.5			10	
	Autopsy / Morgue		1.5			10	
	Equipment Repair				1.5	10	
Total Estimated Peak Flow (In SCFM @ 50 psiG)							

\* Important! You must consult with respiratory therapy personnel concerning the maximum number of ventilators that could be used at one time and the average flow rates for each ventilator. DO NOT CALCULATE your total peak requirements without this information.

\*\* If powered by Medical Air



## REPLACEMENT DESICCANT DRYER PACKAGES

The air treatment module includes dual dryers, a dual filtration system, and a CO and Dew Point monitoring device with local audible and visual signals and dry contacts for remote monitoring. The components are mounted on a common base with interconnecting copper/brass piping and upstream and downstream isolation valves. The isolation valves allow either set of components to be serviced without shutting down the system.

The dryer system is duplexed and provides a pressure dew point of 10°F. Dryers are heatless desiccant design selected and sized to provide for the peak-calculated demand. The desiccant dryer is equipped with an economiser Dependent Switching feature to minimize the need for purge air.

The dual filtration system is designed to remove liquids and particulate matter, and consists of one micron coalescing filters with differential pressure indicators and automatic drain, air line pressure regulators with gauges, final pressure relief valve, and sampling valve.

- Ohio Medical compressor control panel provides highly efficient purge and switching control
- The advanced design provides clean, dry air for many different applications
- Has a compact, lightweight design and can be wall mounted to save space
- Perfect solution for a field upgrade on older existing air compressor systems
- NFPA® 99 compliant
- UL Listed Electrical Control Panel



Model Number	SCFM @ 100 psiG	Dimensions (L x W x H)
HCTM-C-DDS-15	15	28 x 25 x 47
HCTM-C-DDS-10	10	31 x 24 x 38
HCTM-C-DDS-24	24	31 x 25 x 59
HCTM-C-DDS-34	34	36 x 25 x 38
HCTM-C-DDS-41	41	35 x 25 x 43
HCTM-C-DDS-53	53	36 x 25 x 44
HCTM-C-DDS-66	66	38 x 25 x 44
HCTM-C-DDS-88	88	41 x 28 x 51
HCTM-C-DDS-106	106	38 x 25 x 56
HCTM-C-DDS-132	132	39 x 25 x 66
HCTM-C-DDS-177	177	36 x 25 x 80
HCTM-C-DDS-212	212	65 x 44 x 75
HCTM-C-DDS-276	276	65 x 44 x 75
<b>Carbon Monoxide Monitor</b>		
233028	CO Monitor	

## UTILITY SCROLL AIR COMPRESSORS SYSTEM SIMPLEX ENCLOSED SCROLL

- Oil-Less Scroll Air Compressor
- High-quality cabinetry with steel-insulated panels and extruded aluminum framework on a rugged steel base
- Quiet operation as low as 49 dB(A)
- Across-the-line magnetic motor starter (UL® Listed)
- 3-phase, 208-230/460
- 10-gallon ASME air receiver with safety relief valve and drain valve
- Manual drain valve for receiver (½" NPT)
- Pressure switch online/offline control
- Main line shut off valve (½" NPT)
- Microprocessor controls (See details below)
- Optional integrated dryer with on/off switch and temperature control and CO and/or dewpoint monitor



Model	hp	Outlet Connection	dBA	Dimensions L x W x H	lbs.	Maximum Pressure (psi)	System Capacity 60 Hz (100 psiG)	System Capacity 50 Hz (100 psiG)	Tank Capacity (gallons)	Refrig. Dryer
AES300	3	½" NPT	49	21.7 x 24.5 x 30.5	255	115	8.5	7.1	N/A	N/A
AES500	5	½" NPT	50	21.7 x 24.5 x 30.5	265	115	14.5	12.1	N/A	N/A
AES300-V10	3	½" NPT	49	27.5 x 29.2 x 42.2	272	115	8.5	7.1	10	N/A
AES500-V10	5	½" NPT	50	27.5 x 29.2 x 42.2	331	115	14.5	12.1	10	N/A
AES300-V10-RD	3	½" NPT	49	27.5 x 25.3 x 54.3	397	115	8.5	7.1	10	Yes
AES500-V10-RD	5	½" NPT	50	27.5 x 25.3 x 54.3	412	115	14.5	12.1	10	Yes

Model	hp	Outlet Connection	dBA	Dimensions L x W x H	lbs.	Maximum Pressure (psi)	System Capacity 60 Hz (140 psiG)	System Capacity 50 Hz (140 psiG)	Tank Capacity (gallons)	Refrig. Dryer
AES300-HP	3	½" NPT	49	21.7 x 24.5 x 30.5	255	140	7.2	6	N/A	N/A
AES500-HP	5	½" NPT	50	21.7 x 24.5 x 30.5	265	140	12	10	N/A	N/A
AES300-V10-HP	3	½" NPT	49	27.5 x 29.2 x 42.2	272	140	7.2	6	10	N/A
AES500-V10-HP	5	½" NPT	50	27.5 x 29.2 x 42.2	331	140	12	10	10	N/A
AES300-V10-RD-HP	3	½" NPT	49	27.5 x 25.3 x 54.3	397	140	7.2	6	10	Yes
AES500-V10-RD-HP	5	½" NPT	50	27.5 x 25.3 x 54.3	412	140	12	10	10	Yes

## UTILITY MULTIPLEX ENCLOSED SCROLL

- Oil-Less Scroll Air Compressor
- High-quality cabinetry with steel-insulated panels and extruded aluminum framework on a rugged steel base
- Quiet operation as low as 49 dB(A)
- Across-the-line magnetic motor starter (UL® Listed)
- 3-phase, 208-230/460
- Main line shut off valve (½" NPT)
- Microprocessor controls (See details below)
- Optional 120 gallon tank
- Optional single desiccant dryer with temperature monitor
- Optional CO and/or Dewpoint monitor
- Energy saving compressor sequencing - can be run as a simplex or multiplex unit in all configurations



Model	hp	Outlet Connection	dBA	Dimensions L x W x H	lbs.	Maximum Pressure (psi)	System Capacity 60 Hz / 50 Hz (100 psiG)	120-Gal. Tank	Dessicant Dryer	Carbon Monoxide Monitor	Dew Point Monitor
AES800	8	½" NPT	52	25.6 x 45.7 x 51.2	563	115	23.0 / 19.2	-T	-D	-C	-D
AES1000	10	½" NPT	53	25.2 x 45.3 x 40.2	587	115	29.0 / 24.2	-T	-D	-C	D
AES1500	15	½" NPT	56	29.6 x 50.4 x 49.6	1,003	115	43.5 / 36.2	-T	-D	-C	D
AES2000	20	½" NPT	58	63.0 x 50.4 x 64.0	1,169	115	58.0 / 48.3	-T	-D	-C	D
AES3000	30	½" NPT	62	63.0 x 50.4 x 49.6	1,985	115	87.0 / 72.5	-T	-D	-C	D
AES4000	40	½" NPT	63	67.8 x 50.4 x 64.0	2,205	115	116 / 96.7	-T	-D	-C	D

Model	hp	Outlet Connection	dBA	Dimensions L x W x H	lbs.	Maximum Pressure (psi)	System Capacity 60 Hz / 50 Hz (140 psiG)	120-Gal. Tank	Dessicant Dryer	Carbon Monoxide Monitor	Dew Point Monitor
AES800-HP	8	½" NPT	52	25.6 x 45.7 x 51.2	563	140	19.2 / 16	-T	-D	-C	-D
AES1000-HP	10	½" NPT	53	25.2 x 45.3 x 40.2	587	140	24.0 / 20	-T	-D	-C	D
AES1500-HP	15	½" NPT	56	29.6 x 50.4 x 49.6	1,003	140	36.0 / 30	-T	-D	-C	D
AES2000-HP	20	½" NPT	58	63.0 x 50.4 x 64.0	1,169	140	48.0 / 40	-T	-D	-C	D
AES3000-HP	30	½" NPT	62	63.0 x 50.4 x 49.6	1,985	140	72.0 / 60	-T	-D	-C	D
AES4000-HP	40	½" NPT	63	67.8 x 50.4 x 64.0	2,205	140	96.0 / 80	-T	-D	-C	D

## ENCLOSED SCROLL PANEL & ACCESSORIES



### MICROPROCESSOR CONTROL PANEL

- Start / stop control buttons
- Microprocessor logic to cascade compressors as needed
- Power on light & run light
- Pressure gauge - digital
- Hour meter - digital
- High discharge temperature shutdown alarm indication light (error codes)
- Discharge temperature reading - digital
- Time indication for alarms indication
- High air temp shutdown
- Over current shutdown
- Dry contact for remote alarm



### After Filter

- 1 micron particulate filtration
- Element Replacement Gauge
- Moisture Drain Valve



### CO/Dewpoint

- LCD Display
- CO: 0-100 PPM
- Dewpoint: -112°F + 68°F
- Visual and Audible Alarms
- Available as CO, Dewpoint, or Combo



### Dessicant Dryer

- -40°F Dewpoint
- Integrated Inlet & Outlet filtration
- Energy Saving Dewpoint depending switching
- Dessicant Cartridges for Ease of Maintenance



### Receiver

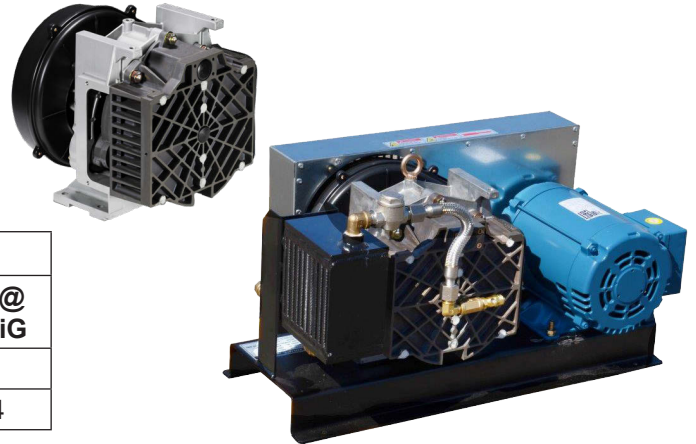
- ASME® Certified
- 200 psi Working Pressure
- Corrosion Resistant Lining

## REPLACEMENT COMPRESSORS

Ohio Medical Parts and Service Department offers pumps for most brands.

### OIL-LESS SCROLL COMPRESSORS

The Oil-Less Scroll Air Compressor can be operated at either 3, 5, 7.5, or 10 hp. Choose between low pressure (110 psi) and high pressure (140 psi) models. Compare to *Powerex* and *Atlas Copco* scrolls.



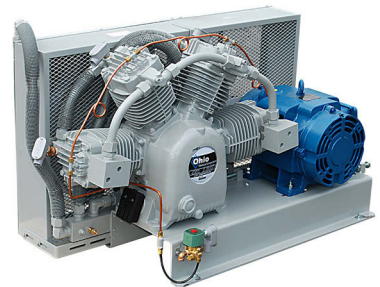
Bare Compressor Scroll Air Ends (without motor)				
Part Number	Description	hp	Max Pressure	CFM @ 50 psiG
230074	Low Pressure	3 or 5	115	9.9
230075	High Pressure	3 or 5	145	16.4

Base Mounted Scroll Modules (with motor)							
Part Number	Description	hp	RPM	SCFM @ 50 psiG 60 Hz / 50 Hz	SCFM @ 100 psiG 60 Hz / 50 Hz	SCFM @ 140 psiG 60 Hz / 50 Hz	Max Pressure
230072	Low Pressure	3	2200	9.9 / 8.2	8.5 / 7.1	-	115
230073	Low Pressure	5	3150	9.9 / 8.2	14.5 / 12.1	-	115
230082	High Pressure	3	2000	16.4 / 13.7	-	7.2 / 6	145
230083	High Pressure	5	2900	16.4 / 13.7	-	12 / 10	145
230145	Low Pressure	7.5	2900	23.8 / 19.8	21.6 / 18	15.5 / 12.9	120
230146	Low Pressure	10	2900	32.0 / 26.7	30.2 / 25.2	24.0 / 20	116
230145-HP	High Pressure	7.5	2900	23.8 / 19.8	21.6 / 18	15.5 / 12.9	145
230146-HP	High Pressure	10	2900	32.0 / 26.7	30.2 / 25.2	24.0 / 20	145

### OIL-LESS RECIPROCATING COMPRESSOR MODULES

These compressor modules are ideal for hospitals and laboratories. Ranging in size from 3 to 30 hp, the modules include the compressor, motor, belt, guard, aftercooler, temperature switches, and unloader solenoid.

Model	P3-M	P5-M	P7-M	P10-M	P15-M
Part Number	100-0220	100-0221	100-0222	100-0223	100-0224
Motor hp	3	5	7.5	10	15
Capacity @ 50 psi (CFM)	11	23	31.2	38	60
Capacity @ 100 psi (CFM)	9.8	19.5	25.9	33.5	57
Max Pressure (psi)	115	115	115	115	115
Operating Speed (RPM)	700	700	700	850	950



### PISTON COMPRESSOR MODULES

Model	PT5-M	PT7-M	PT10-M	PT15-M	PT20-M	PT25-M	PT30-M
Motor hp (60 Hz)	5	7.5	10	15	20	25	30
Capacity @ 100 psi 60 Hz / 50 Hz (CFM)	14 / 11.7	25 / 20.8	30 / 25	45 / 37.5	55 / 45.8	67 / 55.8	78 / 65
Capacity @ 150 psi 60 Hz / 50 Hz (CFM)	13.5 / 11.2	24 / 20	29 / 24.2	44 / 36.7	54 / 45	66 / 55	76 / 63.3
Max Pressure (psi)	170	170	170	170	170	170	170
Operating Speed (RPM)	980	860	1050	1050	690	820	960
Weight (lbs)	620	650	650	700	1615	1640	1665



## REPLACEMENT VACUUM PUMPS



### OIL SEALED ROTARY VANE VACUUM PUMPS

These pumps are available in a variety of sizes from 3/4 to 25 hp. Pumps compare to Busch®, Becker® and Rietschle® models.

Model	S1L*	S2	S3L	S3	S5L-N	S5C-N	S7L-N	S7C-N
Pump w/ motor installed	262325	264370	264371	264372	264373	264374	264369	264375
Pump w/o motor	N / A	262065-LM	262066-LM	262067-LM	262068-LM	262294-LM	262297-LM	262296-LM
Motor hp	3/4	2	2	3	5	5	7.5	7.5
Motor RPM	1750	1750	1750	1750	1750	1750	1750	1750
Inlet/Discharge Connections	1"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	2"/1 1/2"	2"/2"	2"/1 1/2"
Oil Capacity (gallons)	0.2	0.25	0.25	0.5	0.5	1.5	1.5	1.5
SCFM @ 25" 60 Hz / 50 Hz	1.2 / 1	3.5 / 2.9	5.1 / 4.2	7.3 / 6.1	11.7 / 9.7	19.7 / 16.4	21.7 / 18.1	27.3 / 22.7
SCFM @ 19" Hg 60 Hz / 50 Hz	2.6 / 2.2	7.7 / 6.4	11.3 / 9.4	16.1 / 13.4	25.6 / 21.3	43.2 / 36	47.6 / 39.7	60 / 50

Model	S10B-N	S12-N	S20-N	S22-N	S25-N
Pump w/ motor installed	264376	262994	264377	262995	264378
Pump w/o motor	262925-LM	262994-LM	262926-LM	262995-LM	262928-LM
Motor hp	10	10	15	20	25
Motor RPM	1750	1750	1200	1200	1200
Inlet/Discharge Connections	2"	2"	3"	3"	3"
Oil Capacity (gallons)	2	2	5	5	5
SCFM @ 25" Hg 60 Hz / 50 Hz	32.3 / 26.9	35.2 / 29.3	51 / 42.5	58.8 / 49	76.7 / 63.9
SCFM @ 19" Hg 60 Hz / 50 Hz	71 / 59.2	77 / 64.2	112.1 / 93.4	129.3 / 107.7	172.2 / 143.5

### LIQUID RING VACUUM PUMPS

#### Compact, Motor Mounted (A Series)

Motor mounted SM pumps are compact, which make them ideal for laboratory and medical applications. Standard motors are 230/460 volt, 3 ph. All models feature stainless steel impellers and mechanical seals.



Model Number	SM30A	SM55A	SM75A	SM100A	SL150A	SL200A
Part Number	263300	263302	263303	263308	264405	264406
hp	3	5	7.5	10	15	20
RPM	3500	1750	1750	1750	1750	1750
Inlet/Discharge Connection	1"	1 1/2"	1 1/2"	2 1/2"	2 1/2"	2 1/2"
Average Service Liquid (GPM)	1.5	3.2	3.2	3.8	5.5	5.5
SCFM @ 25" Hg 60 Hz / 50 Hz	4.6 / 3.8	11.6 / 9.7	14.2 / 11.8	20.3 / 16.9	33.3 / 27.7	41.3 / 34.4
SCFM @ 19" Hg 60 Hz / 50 Hz	11.7 / 9.7	26.4 / 22	33.7 / 28.1	47.6 / 39.7	75.4 / 62.8	100.7 / 83.9

## REPLACEMENT VACUUM PUMPS

### OIL-LESS ROTARY VANE VACUUM PUMPS

These pumps are available in a variety of sizes from 3/4 to 25 hp. Pumps compare to Busch®, Becker® and Rietschle® models.



Model	D1	D15	D2	D3	D5L	D5	D7	D7H	D10
Pump w/ motor installed	262678	262680	262682	262684	262686	262688	262690	262691	262692
Pump w/o motor	INC.	INC.	INC.	244251	244252	244252	244253	INC.	244263
Motor hp	1	1.5	2	3	5	5	7.5	7.5 HP	10
Motor RPM	1750	1750	1750	1750	1750	1750	1750	850	1200
Inlet/Discharge Connections	1/2"/1"	3/4"/1"	3/4"/1"	1"	1"	1 1/2"	1 1/2"	2"	2"
SCFM @ 25" Hg 60 Hz / 50 Hz	1 / .83	1.6 / 1.3	2.4 / 2	3.6 / 3	4.4 / 3.7	6.2 / 5.2	27.3 / 22.7	N.A.	22 / 18.3
SCFM @ 19" Hg 60 Hz / 50 Hz	3.3 / 2.8	5.5 / 4.6	8.4 / 7	11.7 / 9.7	14.3 / 11.9	20.5 / 17.1	28.6 / 23.8	42.5 / 35.4	54.5 / 45.4



### OIL-LESS ROTARY CLAW VACUUM PUMPS

Pumps range from 2 to 15 hp, and are available for both vacuum and compressor applications.

Model	C2	C3B	C5B	C7LB	C7B	C10B	C15B
Part Number	264341	264330	264331	264332	264333	264340	264334
Motor HP, 60 Hz	2	3	5	7.5	7.5	10	15
RPM 60/50 Hz	3450/2850	3450/2850	3450/285	3450/2850	3450/2850	3450/2850	3450/2850
Inlet/Discharge connection	1"	1 1/2"	1 1/2"	2"	2"	3"	3"
Gear Box Oil Capacity (quarts)	0.8	0.8	0.8	1.2	1.2	1.2	1.2
SCFM @ 19"Hg 60 Hz / 50 Hz	12 / 10	23 / 19.2	39 / 32.5	53 / 44.2	69 / 57.5	92 / 76.7	120 / 100

## ACCESSORIES



### PRESSURE & VACUUM SWITCH

Pressure and vacuum switches are available for all medical gases. They are enclosed in a Nema 4 water tight housing and feature normally open or normally closed contacts.



### NITROGEN PRESSURE SWITCH

Nitrogen pressure switches are mounted in a Nema 4 water tight enclosure. They have a pressure range of 10 to 250 psi.



### GAUGES

Dual scale gauges are offered for vacuum and positive pressure gases. The gauge diameter is 2" and has a 1/8" NPT connection.



### GAS SPECIFIC QUICK CONNECT

Medical gas check valves are of the dual port 3 piece design for ease of maintenance. They are fitted with K copper extensions.



### INLET LIQUID SEPARATOR

See through liquid separators are ideal for protecting vacuum pumps from liquids and large particulates.



### INTEGRATED LIQUID SEPARATORS

Combination Liquid Separator/Vacuum Filters are designed for challenging applications with liquids in the process stream. They serve the dual purposes of knocking out liquids and filtering particulates.



### CLEAR HOUSING FILTER

Compact "T" style filters feature cast aluminum tops with machined FPT connections and integrated baffles. All models have polyester elements and clear collection buckets for easy filter monitoring. Paper elements are also available.



### HEAVY DUTY FILTERS

Larger inlet vacuum filters have high dirt-holding capacity. Standard models have paper elements; polyester and high heat (to 385°F) versions also available.



### MEDICAL LABORATORY FILTERS

Medical/Laboratory filters remove liquids, solids, and sub-micron particles. The ULPA media complies with HTM2022 & BS3928: 1969 efficiency levels.

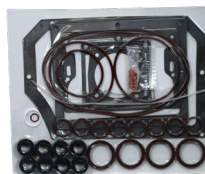
The clear bucket includes a brass valve and fitting for contaminated liquid release and a removable and sterilizable drain flask.

Part Number	233909	233911	233912	233913	233914
FPT Inlet/Outlet Connections	1 1/2"	2"	2 1/2"	3"	4"
Nominal Rating SCFM	41	102	102	200	200
Approx. Holding Capacity (gallons)	14 lb.	17 lb.	16 lb.	31 lb.	27 lb.



### COMPACT FILTERS

These inlet vacuum filters are ideal for a multitude of applications. Standard models include paper filter elements; polyester and high heat elements (to 385°F) are also available.



### REBUILD AND FILTER KITS

Rebuild Filter Kits are also compatible with Busch Rotary Vane Vacuum Pumps.

## FULL LOAD AMPERAGE, THREE PHASE MOTORS

### Rotary Claw Vacuum Systems

Simplex					
Model Number	hp	System Full Load Amps			
		208	230	380	460
C300B	3	11.2	10.2	6.1	5.1
C500B	5	17.3	15.8	9.5	7.9
C750LB	7.5	24.8	22.6	13.6	11.3
C750B	7.5	24.8	22.6	13.6	11.3
C1000B	10	31.4	28.6	17.3	14.3
C1500B	15	46.8	42.6	25.3	21.3

Duplex					
Model Number	hp	System Full Load Amps			
		208	230	380	460
C300B	3	22.4	20.3	12.4	10.2
C500B	5	34.6	31.5	19.2	15.8
C750LB	7.5	49.6	45.1	27.4	22.6
C750B	7.5	49.6	45.1	27.4	22.6
C1000B	10	62.8	57.1	34.8	28.6
C1500B	15	93.6	85.1	50.8	42.6

Triplex					
Model Number	hp	System Full Load Amps			
		208	230	380	460
C300B	3	34.2	31	18.6	15.6
C500B	5	52.5	47.8	28.8	24
C750LB	7.5	75	68.2	41.1	34.2
C750B	7.5	75	68.2	41.1	34.2
C1000B	10	94.8	86.2	52.2	43.2
C1500B	15	141	128.2	76.2	64.2

Quad					
Model Number	hp	System Full Load Amps			
		208	230	380	460
C300B	3	45.4	41.2	24.9	20.7
C500B	5	69.8	63.6	38.5	31.9
C750LB	7.5	99.8	90.8	54.9	45.5
C750B	7.5	99.8	90.8	54.9	45.5
C1000B	10	126.2	114.8	69.7	57.5
C1500B	15	187.8	170.8	101.7	85.5

### Liquid Ring Vacuum Systems

Water Sealed Partial or Total Recirculation

Simplex					
Model Number	hp	System Full Load Amps			
		208	230	380	460
LR3B	3	11.2	10.2	6.1	5.1
LR5B	5	17.3	15.8	9.5	7.9
LR75B	7.5	24.8	22.6	13.6	11.3
LR10B	10	31.4	28.6	17.3	14.3
LR15B	15	46.8	42.6	25.3	21.3
LR20B	20	60	54.6	33.3	27.3
LR25B	25	75.4	68.6	41.3	34.3

Duplex					
Model Number	hp	System Full Load Amps			
		208	230	380	460
LR3B	3	22.4	20.3	12.4	10.2
LR5B	5	34.6	31.5	19.2	15.8
LR75B	7.5	49.6	45.1	27.4	22.6
LR10B	10	62.8	57.1	34.8	28.6
LR15B	15	93.6	85.1	50.8	42.6
LR20B	20	120	109.1	66.8	54.6
LR25B	25	150.8	137.1	82.8	68.6

\*All FLA listed are approximate

## FULL LOAD AMPERAGE, THREE PHASE MOTORS

### Liquid Ring Vacuum Systems

Water Sealed Partial or Total Recirculation

Triplex					
Model Number	hp	System Full Load Amps			
		208	230	380	460
LR5B	5	52.5	47.8	28.8	24
LR75B	7.5	75	68.2	41.1	34.2
LR10B	10	94.8	86.2	52.2	43.2
LR15B	15	141	128.2	76.2	64.2
LR20B	20	180.6	164.2	100.2	82.2
LR25B	25	226.8	206.2	124.2	103.2

Quad					
Model Number	hp	System Full Load Amps			
		208	230	380	460
LR5B	5	69.8	63.6	38.5	31.9
LR75B	7.5	99.8	90.8	54.9	45.5
LR10B	10	126.2	114.8	69.7	57.5
LR15B	15	187.8	170.8	101.7	85.5
LR20B	20	240.6	218.8	133.7	109.5
LR25B	25	302.2	274.8	165.7	137.5

### Scroll Air Compressor Systems

Simplex					
Model Number	hp	System Full Load Amps			
		208	230	380	460
AS200B	2	9.6	8.7	5.3	4.4
AS300B	3	12.7	11.5	7	5.8
AS500B	5	18.8	17.1	10.4	8.6
AS750B	7.5	26.3	23.9	14.5	12
AS1000B	10	32.9	29.9	18.2	15

Duplex					
Model Number	hp	System Full Load Amps			
		208	230	380	460
AS200B	2	19.2	17.4	9.4	8.8
AS300B	3	25.4	23	12.8	11.6
AS500B	5	37.6	34.2	19.6	17.2
AS750B	7.5	52.6	47.8	27.8	24
AS1000B	10	65.8	59.8	35.2	30

Triplex					
Model Number	hp	System Full Load Amps			
		208	230	380	460
AS300B	3	37.8	34.2	19.1	17.2
AS500B	5	56.1	51	29.3	25.6
AS750B	7.5	81	73.6	41.6	37
AS1000B	10	100.8	91.6	52.7	46

Quad					
Model Number	hp	System Full Load Amps			
		208	230	380	460
AS300B	3	51.4	46.4	25.7	23.2
AS500B	5	75.8	68.8	39.3	34.4
AS750B	7.5	107.3	97.5	55.7	49
AS1000B	10	133.7	121.5	70.5	61

\*All FLA listed are approximate



## FULL LOAD AMPERAGE, THREE PHASE MOTORS

### Oil-Less Air Compressor Systems

Simplex					
Model Number	hp	System Full Load Amps			
		208	230	380	460
A200B	2	9.6	8.7	5.3	4.4
A300B	3	12.7	11.5	7	5.8
A500B	5	18.8	17.1	10.4	8.6
A750B	7.5	26.3	23.9	14.5	12
A1000B	10	32.9	29.9	18.2	15
A1500B	15	48.3	43.9		22

Triplex					
Model Number	hp	System Full Load Amps			
		208	230	380	460
A500B	5	58.5	53.2	29.3	26.8
A750B	7.5	81	73.6	41.6	37
A1000B	10	100.8	91.6	52.7	46
A1500B	15	147	133.6	76.7	67
A2000B	20	186.6	169.6	100.7	85
A2500B	25	232.8	211.6	124.7	106
A3000B	30	272.4	247.6	145.7	124

Duplex					
Model Number	hp	System Full Load Amps			
		208	230	380	460
A200B	2	19.2	17.4	9.4	8.8
A300B	3	25.4	23	12.8	11.6
A500B	5	37.6	34.2	19.6	17.2
A750B	7.5	52.6	47.8	27.8	24
A1000B	10	65.8	59.8	35.2	30
A1500B	15	96.6	87.8	51.2	44
A2000B	20	123	111.8	67.2	56
A2500B	25	153.8	139.8	83.2	70
A3000B	30	180.2	163.8	97.2	82

Quad					
Model Number	hp	System Full Load Amps			
		208	230	380	460
A750B	7.5	107.3	97.5	55.7	49
A1000B	10	133.7	121.5	70.5	61
A1500B	15	195.3	177.5	102.5	89
A2000B	20	248.1	225.5	134.5	113
A2500B	25	315.3	274.5	166.5	138.5
A3000B	30	370.5	322.5	194.5	162.5

\*All FLA listed are approximate

## FULL LOAD AMPERAGE, THREE PHASE MOTORS

### Lubricated Rotary Vane Vacuum Pumps

Simplex					
Model Number	hp	System Full Load Amps			
		208	230	380	460
S200B	2	8.1	7.4	4.5	3.7
S300LB	2	8.1	7.4	4.5	3.7
S300B	3	11.2	10.2	6.1	5.1
S500LB	5	17.3	15.8	9.5	7.9
S500B	5	17.3	15.8	9.5	7.9
S750B	7.5	24.8	22.6	13.6	11.3
S1000B	10	31.4	28.4	17.3	14.3

Triplex					
Model Number	hp	System Full Load Amps			
		208	230	380	460
S500B	5	52.5	47.8	28.8	24
S750B	7.5	75	68.2	41.1	34.2
S1000B	10	94.8	86.2	52.2	43.2
S1500B	15	141	128.2	76.2	64.2
S2000B	20	180.6	164.2	100.2	82.2
S2500B	25	226.8	206.2	124.2	103.2

Duplex					
Model Number	hp	System Full Load Amps			
		208	230	380	460
S200B	2	16.2	16.2	9	7.4
S300LB	2	16.2	16.2	9	7.4
S300B	3	22.4	22.4	12.4	10.2
S500LB	5	34.6	34.6	19.2	15.8
S500B	5	34.6	34.6	19.2	15.8
S750B	7.5	49.6	49.6	27.4	22.6
S1000B	10	62.8	62.8	34.8	28.6
S1500B	15	93.6	93.6	50.8	42.6
S2000B	20	120	120	66.8	54.6
S2500B	25	150.8	150.8	82.8	68.6

Quad					
Model Number	hp	System Full Load Amps			
		208	230	380	460
S500B	5	69.8	63.6	38.5	31.9
S750B	7.5	99.8	90.8	54.9	45.5
S1000B	10	126.2	114.8	69.7	57.5
S1500B	15	187.8	170.8	101.7	85.5
S2000B	20	240.6	218.8	133.7	109.5
S2500B	25	302.2	274.8	165.7	137.5

### Oil-less Rotary Vane Vacuum Pumps

Simplex					
Model Number	hp	System Full Load Amps			
		208	230	380	460
D100B	1	5.2	4.8	2.5	2.4
D150B	1.5	7.2	6.6	3.4	3.3
D200B	2	8.1	7.4	4.5	3.7
D300B	3	11.2	10.2	6.1	5.1
D500LB	5	17.3	15.8	9.5	7.9
D500B	5	17.3	15.8	9.5	7.9
D750B	7.5	24.8	22.6	13.6	11.3
D1000B	10	31.4	28.6	17.3	14.3

Duplex					
Model Number	hp	System Full Load Amps			
		208	230	380	460
D100B	1	10.4	9.5	5.2	4.8
D150B	1.5	14.4	13.1	7	6.6
D200B	2	16.2	14.7	9	7.4
D300B	3	22.4	20.3	12.4	10.2
D500LB	5	34.6	31.5	19.2	15.8
D500B	5	34.6	31.5	19.2	15.8
D750B	7.5	49.6	45.1	27.4	22.6
D1000B	10	62.8	57.1	34.8	28.6

\*All FLA listed are approximate

# When You're Making Plans

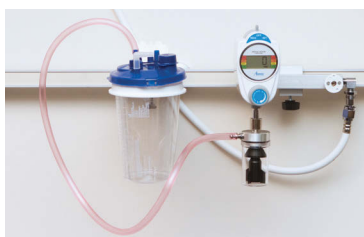


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