

- system troubleshooting guide
- vacuum pumps & accessories
- air compressors & accessories
- medical gas equipment

TRUSTED BRANDS OF OHIO MEDICAL



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Note: The information provided in the Troubleshooting guide of this catalogue is general in nature and is not intended to replace any service information provided by the manufacturer of your air or vacuum system. If any of the information in our Troubleshooting guide conflicts with that provided by your manufacturer, we suggest you follow your manufacturer's suggested service recommendations.

TROUBLESHOOTING - Rotary Vane

ROTARY VANE VACUUM SYSTEM

IF YOUR SYSTEM IS DOING THIS:

Providing a low level of performance.

WE SUGGEST YOU CHECK THIS:

- A. If your system is equipped with a **vacuum relief valve**, it **could be stuck open**. The purpose of the relief valve is to open to atmosphere if the vacuum level achieved exceeds the desired level, thereby protecting the pump and other system components. However, if **the vacuum relief valve seat is dirty or stuck open**, the vacuum pump will always pull air from atmosphere, reducing the desired level of vacuum.
- B. The system could also have a **defective inlet check valve**. If it is partially stuck closed, this could impede the amount of flow through the vacuum line, reducing performance. If you have a multiplex system and one of the inlet check valves is stuck open, the other pump could be pulling vacuum through the pump with the bad valve, instead of only evacuating the process line. This situation could also cause reduced vacuum performance.
- C. Your vacuum pump may also have **clogged exhaust filters**. Their purpose is to eliminate oil mist from the discharge line. However, if they become clogged with contaminant's, this could create excessive back pressure, resulting in poor performance.
- D. Your pump could have **worn vanes**. Each time the pump is energized, the vanes slide out of the rotor and contact the cylinder wall. When the vanes become worn, they will contribute to reduced pump performance and will need to be changed. If the vanes become very worn, they could come out of the rotor when energized and create severe pump damage.

IF YOUR SYSTEM IS DOING THIS:

Experiencing oil blowby.

WE SUGGEST YOU CHECK THIS:

- A. The vacuum pump could have a **defective discharge exhaust filter**. For example, the filter could have a broken seam, allowing oil to flow past the filter and into the exhaust line.
- B. The **exhaust filter could be loose or not seated correctly**. A worn or unseated gasket seal could be the

cause. Like situation A above, the oil would be able to escape past the filter and into the exhaust line.

- C. It could be that the vacuum pump is **operating at too low a vacuum level**. In such a situation, the pump could be moving an excessive level of air flow, or CFM, allowing a substantial amount of oil to escape out the discharge.
- D. The pump could have a clogged scavenger line. Most rotary vane pumps have scavenger lines that **scavenge the oil that normally passes the exhaust filters** back to the pumping chamber.

IF YOUR SYSTEM IS DOING THIS:

Generating excessive heat.

WE SUGGEST YOU CHECK THIS:

- A. Your pump may have a **clogged oil to air heat exchanger**. If the **oil to air heat exchanger** is not clean and clear the heat exchanger will not function properly. The heat exchanger must be able to suspend the oil and allow air to pass over the fins to properly cool the oil.
- B. The vacuum system may be subject to **heat generated by other equipment** in the room. This can be the case in mechanical rooms that have a lot of mechanical equipment located close together. Vacuum systems require a minimum amount of open space around them for ventilation and service. Make sure that your vacuum system is not directly in the path of heat rejection from other equipment.
- C. The ambient **temperature in the room may be too high**. Most rotary vane vacuum pumps and systems are air cooled. One of the necessary conditions for effective heat control is proper room temperature. The room where your system is located may require additional ventilation or an external source of cooling brought to the room. Make sure to follow manufacturers recommendations regarding maximum allowable ambient temperatures for your system.
- D. You may consider retrofitting your pumps for **liquid cooling**. If your facility has a source of chilled water, you may be able to liquid cool the pump oil through a liquid to liquid heat exchanger.
- E. You may also consider the **use of synthetic oil** if allowed by the pump manufacturer. Many synthetic oils are more tolerant to high temperatures, resulting in less oil break down and possible longer service intervals.

IF YOUR SYSTEM IS DOING THIS:

Frequent starts and stops.

WE SUGGEST YOU CHECK THIS:

- A. Your system may have a **worn vacuum switch**. This could result in sending signals to the motor to start and stop more frequently than necessary.
- B. If your system is a multiplex system, the pump other than the one starting and stopping excessively could have a **defective check valve** on it. If it is stuck open, the valve may cause the other pump to start and stop excessively, as it is trying to maintain vacuum from a partially open vacuum line.
- C. The system vacuum switches could be set at **differential pressures that are too close** together. The closer the differential pressures are set, the more the pumps will be energized, attempting to meet the switch settings.
- D. **No minimum run timer**. Some systems, particularly larger ones, operate best when equipped with a minimum run timer. Such a device is designed to ensure that the pump, once energized, will run for a specified minimum time before shutting off. This device is used to help save energy due to excessive power inrush and heating of pump motors.

IF YOUR PUMP IS DOING THIS:

Experiencing high amp draw and motor trip out

WE SUGGEST YOU CHECK THIS:

- A. **Low line voltage**. Power consumption is a function of line voltage and amperage draw ($P=I \times E$). If the facility's line voltage dips below required levels, the pump and motor may draw excessive amps, resulting in excessive heat and motor trip out.
- B. The motor starter could have a **worn or pitted contactor**. Such a situation would not allow the contactor to handle the proper level of amperage, causing it to interrupt power to the motor prematurely.
- C. There could be a **loose wire** in the main power feed or the circuit to the pump motor. Loose or inadequate wire connections will cause excessive resistance and subsequent high amp draw.

- D. Your pump could have **restricted discharge filters**. This condition could cause excessive back pressure, resulting in high amp draw and motor trip out.
- E. Your pump could also have highly **contaminated** oil due to the ingestion of particulates. Such oil breakdown could cause the pump's motor to trip.
- F. **A weak motor**. If the pump's motor is old, it could become weak due to numerous occasions of heating and cooling. The motor may need to be replaced.

IF YOUR PUMP IS DOING THIS:

Making a loud chattering noise.

WE SUGGEST YOU CHECK THIS:

- A. The pump's **vaness may be worn** and need replacing. Whether your rotary vane pump is oil sealed or dry running, the vanes will eventually wear. The chattering noise **could be caused by the excessive travel required when vanes are worn past the manufacturer's specifications**.
- B. The pump's **cylinder may be wash boarded** due to contaminated oil or the ingestion of particulates into the pumping chamber. Due to the tight clearance between **the vanes and rotor slots, contaminated oil or particulates in the pump's cylinder could cause the vanes to come out of the rotor slots on an angle, damaging the vanes, cylinder, or both**.

TROUBLESHOOTING - Liquid Ring

LIQUID RING VACUUM SYSTEM

IF YOUR SYSTEM IS DOING THIS:

Making a noise that sounds like marbles rolling around inside

WE SUGGEST YOU CHECK THIS:

A. The pump could be operating at a vacuum level that is too deep for its intended use. To make this determination, please consult a performance curve or chart for your pump model. One way to limit the maximum attainable vacuum level is to use a vacuum relief valve near the inlet of vacuum pump. When the vacuum level exceeds the setting of the relief valve, it will open and bleed in air from atmosphere.

B. It could be that your pump is starved for water or that the sealing water temperature is too high. Remember that a liquid ring vacuum pump needs water to form a "ring" as it pumps water into a progressively smaller cavity. The normal water level in a liquid ring pump is the centerline of the pump's shaft. Do not overfill the pump past the shaft centerline or the pump's impeller and/or shaft could be damaged. The most common method used to determine when a liquid ring vacuum pump is starved for water is to install a compound gauge on the water recirculation line, when operating between the ranges of 0-25" Hg, the compound gauge should read between 0-10" Hg. Any reading deeper than this is a good indication the vacuum pump is starving for water.

C. The check valve at the inlet of the vacuum pump could be defective. This is a mechanical device that opens and closes when the pump turns on and off. Over time, the valve could become defective due to corrosion or the introduction of particulate matter. This should be checked to make sure that it is opening and closing properly.

IF YOUR SYSTEM IS DOING THIS:

Providing Low Performance

WE SUGGEST YOU CHECK THIS:

A. You might have a clogged Y-Strainer in either the makeup water line or supply water line. Y-Strainers are used to filter out particulates in the water lines and can be serviced by twisting off the cap, pulling the screen down from the housing, and cleaning the screen.

B. Your sealing water may be too hot. Keep in mind that the stated capacities of water sealed liquid ring vacuum pumps are dependent upon proper water temperature, usually around 60 degrees F. If your water temperature rises significantly above that, your pump's performance is likely to decrease, especially at deeper vacuum levels. If your system is equipped with a liquid to liquid heat exchanger, such as a plate and frame or shell and tube type, check it to make sure it is not clogged, preventing water flow through it. Depending on the type of heat exchanger you have, it could be cleaned or it may have to be replaced.

C. Your inlet check valve is partially closed, restricting flow. This is a mechanical device that can become contaminated over time and it may not open and close as needed.

D. Your pump may be worn out, needing replacement. Over time, mineral deposits can build up on a liquid ring pump, or the internal parts may become rusted beyond repair. When this happens, performance of the pump will suffer.

IF YOUR SYSTEM IS DOING THIS:

Experiencing excessive water loss

WE SUGGEST YOU CHECK THIS:

A. Your makeup water pressure may be too high. If this is the case, the high pressure water may be forced through the pump, causing excessive water use.

B. The solenoid in the makeup water line may be stuck open. Many systems are equipped with a solenoid valve in the makeup water line that is designed to open and close when the pump needs water, either for more cooling or for basic operation due to low water level. If the solenoid is stuck open, water will continually flow, whether the pump needs it or not, causing a waste of makeup water.

C. Level switch malfunction. Many systems are equipped with a level switch in the water reservoir or separator. Its job is to indicate when the water level is too low, causing the inflow of makeup water. If the switch is defective, it could be triggering the makeup water solenoid to remain open, even if there is an adequate level of water in the reservoir.

D. There could be a restriction in the vacuum discharge line. Such a restriction, such as a plugged vent line or significant water build up in the vent line, could create excessive back pressure, resulting in water loss.

- E. You may be operating your system in too low a vacuum range for its intended operation. This will cause excessive water discharge from the vacuum pump.
- F. System is a once-through configuration. Many older systems are configured for once through operation, but can be converted to either partial recirculation or total recirculation. Partial recirculation uses available city water to join some discharge water to maintain temperature. Total recirculation systems require a source of chilled water to maintain temperature.

IF YOUR SYSTEM IS DOING THIS:

Frequent starts and stops.

WE SUGGEST YOU CHECK THIS:

- A. Your system may have a worn vacuum switch. This could result in sending signals to the motor to start and stop more frequently than necessary.
- B. If your system is a multiplex system, the pump other than the one starting and stopping excessively could have a defective check valve on it. If it is stuck open, the valve may cause the other pump to start and stop excessively, as it is trying to maintain vacuum from a partially open vacuum line.
- C. The system vacuum switches could be set at differential pressures that are too close together. The closer the differential pressures are set, the more the pumps will be energized, attempting to meet the switch settings.
- D. No minimum run timer. Some systems, particularly larger ones, operate best when equipped with a minimum run timer. Such a device is designed to ensure that the pump, once energized, will run for a specified minimum time before shutting off. This device is used to help save energy due to excessive power inrush and heating of pump motors.

IF YOUR PUMP IS DOING THIS:

Experiencing high amp draw and motor trip out

WE SUGGEST YOU CHECK THIS:

- A. Low line voltage. Power consumption is a function of line voltage and amperage draw ($P=I \times E$). If the facility's line voltage dips below required levels, the pump and motor may draw excessive amps, resulting in excessive heat and motor trip out.
- B. The motor starter could have a defective contactor.

Such a situation would not allow the contactor to handle the proper level of amperage, causing it to interrupt power to the motor prematurely.

- C. There could be a loose wire in the main power feed or the circuit to the pump motor. Loose or inadequate wire connections will cause excessive resistance and subsequent high amp draw.
- D. Heavy rust or scale buildup in the pump. If the pump is old or the seal water contains significant mineral deposits, the pump may build up heavy scale or rust. This will present a heavy load on the pump's motor and could cause it to trip out.
- E. A weak motor. If the pump's motor is old, it could become weak due to numerous occasions of heating and cooling. The motor may need to be replaced.
- F. Excessive sealing water in pump or excessive liquid carry over to the pump's inlet. Too much liquid in the pump will cause high amp draw and could damage the pump.

IF YOUR PUMP IS DOING THIS:

Low Performance—Oil Sealed Systems Only

WE SUGGEST YOU CHECK THIS:

- A. Clogged Y Strainer. As mentioned, Y strainers are used to catch contaminant's in sealing and cooling liquid lines. If one of them in the sealing oil line is clogged, the pump will not perform adequately.
- B. Plugged Heat Exchanger. Oil sealed systems can be cooled by either a liquid to liquid or liquid to air heat exchanger. If the heat exchanger is clogged, the pump will not receive adequate sealing oil to perform its work.
- C. Inlet check valve partially stuck closed. Such a condition would restrict inlet air flow, lowering performance considerably.
- D. Clogged exhaust filter. Most oil sealed liquid ring vacuum pumps are equipped with oil mist exhaust filters attached to the oil/air separator. If the filter is clogged, it could create back pressure, restricting air flow through the pump.
- E. Oil scavenger line open too much. The scavenger line is used to route oil trapped by the exhaust filter back to the oil reservoir. If the line is open too much, the pump could be pulling air from atmosphere, resulting in low performance.

TROUBLESHOOTING - Air

AIR SYSTEM

IF YOUR SYSTEM IS DOING THIS:
Experiencing High Dew Point, as indicated
by the Dew Point Monitor

WE SUGGEST YOU CHECK THIS:

- A. If your system has refrigerated dryers, check the condensation trap drain and verify that it is functioning properly. The condensation trap drain should be serviced once a year; if the condensation trap is not draining off the condensed vapor, the down stream dew point could begin to rise. Also, if your dryer is equipped with a mechanical drain, you may consider conversion to an automatic electronic drain.
- B. Check the filter element of the condensation trap. This filter element could be plugged with contaminant's or saturated. The filter element could also have a bad seat, allowing moisture past it, causing a high dew point condition. The condensation trap filter should be replaced once a year.
- C. The refrigerated dryer could be low on freon charge. The refrigerated dryer works by cooling the evaporator coil and allowing air to pass over it. If the dryer is low on freon, it will not cool properly and will reduce the amount of condensation taking place.
- D. The dryer's condenser coils could be clogged, preventing adequate air flow over them. This can be corrected by blowing out the debris and making sure that the coils are clean.
- E. The dryer may be old and beyond economic repair. It may need to be replaced.
- F. In some cases, especially with small compressors on intermittent duty, the load on the dryer may be too low for the dryer to work properly. If that is the case, bleeding air down stream or using a cycling refrigerated dryer may solve the dew point problem.
- G. On multiplex systems, a high dew point condition could be created by operating two dryers at once. Each dryer should be sized to handle 100% system capacity; operating two dryers at once will create a low load condition as described in point F above. Operating a single dryer with adequate air flow across it could solve the problem.
- H. The sensor in the system's dew point monitor could need to be replaced or the entire dew point monitor may need

to be replaced if it is beyond repair.

- I. If your system is equipped with desiccant dryers, the desiccant beads may need to be replaced. Over time the beads lose their ability to absorb water vapor and need to be replaced.

IF YOUR SYSTEM IS DOING THIS:
Providing Low Performance

WE SUGGEST YOU CHECK THIS:

- A. The compressor could have a clogged inlet filter. This is a replacement item that could restrict air flow to the compressor. Less air in means less compressed air out.
- B. The system's inlet isolation valve could be partially closed or fully closed. In order to provide adequate air flow, the isolation valve must be completely open. Restricting the flow through the valve will result in poor performance.
- C. The system's refrigerated dryer could be frozen, restricting air flow through it. To correct the situation, the dryer will need to be brought back to proper operating temperature and the source of the problem corrected.
- E. The compressor itself may have worn compression rings or worn valves. If either components are worn, the compressor will not be able to compress the air to the desired pressure, resulting in unacceptable performance. The compressor will need to be rebuilt or replaced if it is beyond economic repair.

IF YOUR SYSTEM IS DOING THIS:
Experiencing frequent starts and stops

WE SUGGEST YOU CHECK THIS:

- A. The system may be equipped with a storage tank that is too small for the demand. The tank acts as a "buffer" between the compressor and the point of demand. If the tank is too small, the compressor will start and stop excessively to keep up with demand.
- B. The total demand may be more than anticipated for the system design. Similar to point A above, the facility demand may exceed what the compressor and storage tank were designed to provide. This may be corrected by upsizing existing compressors or adding another compressor and larger storage tank.
- C. The system's pressure switches may be set too close together. The wider the pressure switch settings, the longer the compressor will have in the off cycle between

starts. With close pressure switch settings, the compressor will frequently start to maintain the desired pressure.

IF YOUR SYSTEM IS DOING THIS:

Shutting down due to high temperature

WE SUGGEST YOU CHECK THIS:

- A. The compressor may be running continuously for long periods of time. Many compressors are designed for intermittent operation and will overheat if run too long. This could be caused by a defective pressure switch, which is not allowing the compressor to shut off when adequate pressure is attained.
- B. The temperature switch itself could be defective. Its job is to protect the compressor from excessive heat by shutting it down. If the switch is providing a false temperature reading, it could be shutting down the compressor prematurely. In such cases, the switch may need to be replaced.
- C. The compressor may have worn rings or intake/discharge valves. As mentioned above, if these components are worn, the compressor will not create adequate pressure, resulting in long run times and excessive heat.

IF YOUR PUMP IS DOING THIS:

Experiencing high amp draw and motor trip out

WE SUGGEST YOU CHECK THIS:

- A. Low line voltage. Power consumption is a function of line voltage and amperage draw ($P=I \times E$). If the facility's line voltage dips below required levels, the pump and motor may draw excessive amps, resulting in excessive heat and motor trip out.
- B. The motor starter could have a defective contactor. Such a situation would not allow the contactor to handle the proper level of amperage, causing it to interrupt power to the motor prematurely.
- C. There could be a loose wire in the main power feed or the circuit to the pump motor. Loose or inadequate wire connections will cause excessive resistance and subsequent high amp draw.
- D. A weak motor. If the pump's motor is old, it could become weak due to numerous occasions of heating and cooling. The motor may need to be replaced.

IF YOUR SYSTEM IS DOING THIS:

Lag Alarm Going Off (Multiplex Systems)

WE SUGGEST YOU CHECK THIS:

- A. One of the system's compressors may be defective and unable to build adequate pressure and flow. This will cause the system to trigger the lag pump to meet demand, setting off the lag alarm.
- B. One of the system's compressors or motors may have failed for any reason. This could be due to heat shut-down, a failed motor or other cause. To meet demand, the pressure switch would cause the lag pump to be actuated, resulting in the lag alarm.
- C. The pressure switches could be set too close or they could be defective. When multiple pressure switches are used, setting the switches too close together could make the lag compressor come on too quickly, which would trigger the alarm. A faulty switch could also cause the lag compressor to come on with the same result.
- D. The system may be undersized for the facility's demand. Many systems are designed with one compressor reserved for backup. However, if the total demand is too high for the system, all compressors could be actuated, resulting in a lag alarm.

IF YOUR SYSTEM IS DOING THIS:

Desiccant Dryer Going Into Switching Failure

WE SUGGEST YOU CHECK THIS:

- A. The repressurization valve could be malfunctioning. If the repressurization valve is not functioning properly, a transducer in each tower would identify the abnormal pressure condition and put the dryer into a switching failure mode. The repressurization valve would either need to be rebuilt and/or replaced.
- B. The purge valve could be malfunctioning. If the purge valve is not functioning properly, a transducer in each tower would identify the abnormal pressure condition and put the dryer into a switching failure mode. The purge valve would either need to be rebuilt and/or replaced.
- C. The dryer could have a defective transducer. This would identify a false abnormal pressure condition putting the dryer in a switching failure mode. The transducer would need to be replaced.

SYSTEMS

Complete Engineered Air & Vacuum Systems

- Oil-Sealed Rotary Vane Vacuum Systems
- Oil-Free Rotary Vane Vacuum Systems
- Liquid ring Vacuum Systems
- Claw Vacuum Systems
- Reciprocating Piston Oil-Less Compressor Systems
- Oil-Less Scroll Compressor Systems
- High Pressure Lab and Control Air Compressors



Go to our website (www.ohiomedical.com) and download a copy of our "Medical Planning & Design Guide" or give us a call and we will send one to you. (1-800-448-0770 and ask for medical sales)



We also have air and vacuum systems for the laboratory environment.



Squire-Cogswell Rotary Vane Pumps & Repair Kits

- Direct Driven or Belt Driven
- 1200 RPM Operation
- Once Thru or Total Recirculating Oiling Systems
- Thousands in use worldwide
- Intermittent duty is defined as off-on cycling of the pump with the time to be limited so that the discharge gas temperature of the pump never exceeds 375°F

Model	Motor HP	SCFM @ 19" Hg	Part Number
SC6	2 or 3	19.6	SC-6X
SC10	5	32.6	SC-10X
SC15	7.5	49.3	SC-15X
SC20	10	64.9	SC-20X

Description	SC-6	SC-10	SC-15	SC-20
Pump Repair Kit	140-6-3	140-10-3	140-15-3	140-20-3
Rotor & Shaft Assembly	108-6-2	108-10-2	108-15-2	108-20-2
Flange Gasket			125-15-2	125-15-2
Taper Pin	122-10-3	122-10-3	122-10-3	122-10-3
O-Ring, cylinder Head/ Cylinder	127-10-3	127-10-3	127-10-3	127-10-3
O-Ring, Cylinder Head/Seal Housing/End Cap	128-10-3	128-10-3	128-10-3	128-10-3

Repair Kit includes: vanes(4)(SC-20 requires 8 vanes), bearings, seal, retaining ring, lock washers, wave spring and lock nuts

**Need your pump rebuilt?
Don't have time to wait?
Don't have the budget for a new pump?**
Then Exchange your pump For Change!
The program is simple:

Contact Our **Customer Support Department (1-800-448-0770)** and tell us the model number of your pump or compressor. We'll let you know if we have the exact model in our refurbished pump inventory. We'll quote you a price for the pump on our shelf, which will include the exchange of your old pump. We'll ship you ours and you ship us yours.

Dry Running (Oil-Less) Vacuum Pumps - Becker

These oil-less rotary vane pumps are an excellent choice on a variety of low to medium vacuum applications where low maintenance is desired. Some key uses are surgicenter vacuum, waste gas evac, and intermittent industrial applications, with a variable vacuum range



Model #	HP	ACFM @ 19" Hg	ACFM @ 25" Hg	Maximum Vacuum Level	Intake and Exhaust Size	Part #
D1	1	8.8	6	25" Hg	1/2"	262678
D15	1.5	14.5	10.8	25" Hg	3/4"	262680
D2	2	22.5	18	25" Hg	3/4"	262682
D3	3	34	18	27" Hg	1"	262684
D5L	5	42	18	27" Hg	1"	262686
D5	5	60.3	30	27" Hg	1-1/2"	262688
D75	7.5	83	42	22" Hg	1-1/2"	262690
D10	10	151	114	25" Hg	2.5"	262692

PUMPS - Vacuum

Squire-Cogswell/Ohio Medical Rotary Vane Vacuum Pumps

These pumps are oil sealed, air cooled units that range in size from 2 to 25 Hp. The standard configuration (S models) provide vacuum to 29.2" Hg, while the deep vacuum versions (SD models) provide a maximum vacuum of 29.9" Hg. The Selectorr series pumps provide high flows, quiet operation, and ease of installation. They can also be liquid cooled.

An excellent retrofit choice for most brands of rotary vane pumps



Model	Motor HP	Free Air Capacity (CFM)	Part Number	Exhaust Filter Kit	Maintenance Kit	Gasket Kit
S1L 115 volt	0.75	7	262326	264138	262074	262169
S1L 230/460v.	0.75	7	262325	264138	262074	262169
S2/SD2	2	21	262065/262058	264139	262075	262219
S3L/SD3L	3	30.8	262066/262059	264139	262076	262219
S3/SD3	3	44	262067/262060	264140	262077	262411
S5L/SD5L	5	70	262068/262061	264140	262078	262411
S5C-N/SD5B-N	5	118	262294/262979	264141	262079	262489
S7C-N/SD7B-N	7.5	163.8	262296/262980	264142	262080	262135
S10BN/SD10B-N	10	194	262925/262577	264143	262662	262635
S15N/SD15N	15	283	262918/262919	264144	264127	264126
S20N/SD20N	20	306	262926/262927	264144	264127	264126
S25N/SD25N	25	470	262928/262929	264145	264129	264128



Squire-Cogswell "SL" Series Liquid Ring Vacuum pumps provide top performance and exceptional versatility. Each pump comes equipped with an extended shaft with a NEMA motor flange, allowing the customer his choice of motors. All pumps include carbon/silicon carbide/viton mechanical seals. Available 3 Hp thru 20 Hp. Vacuum ranges up to 28.9" Hg

Squire-Cogswell "SM" Series Liquid Ring Vacuum pumps provide top performance in a compact design. The pump and motor comprise a single unit, which is easily bolted in place. All pumps include carbon/silicon carbide/viton mechanical seals. Standard motors are configured for either 230 or 460V operation. Available 3 Hp thru 10 Hp. Vacuum ranges up to 28.9" Hg



Repair Kits for "SL" and "SM" Series

Pump Model #	14 Construction	06 Construction	Bearings
SM30 / SL30A	263346	263358	263528
SM40 / SL40A	263348	263360	263529
SM55 / SL55A	263350	263362	263529
SM75 / SL75A	263352	263364	263529
SM100 / SL100A	263354	263366	263530
SL150A	263355	263367	263530
SL200A	263356	263390	263531

Materials Of Construction:

Type 14 Cast iron casing, 60T AISI 420 stainless steel coated impeller, AISI 420 stainless steel shaft and carbon/silicon carbide/viton mechanical seals

Type 06 AISI 316 stainless steel casing, impeller, shaft and carbon/silicon carbide/viton mechanical seals

PUMPS - Liquid Ring

ALL IRON CONSTRUCTION (Stainless steel impellers)

SM Monobloc Pumps

Model	HP	ACFM @19" Hg	ACFM @25" Hg	Part #
SM30A14TM	3	32	27.5	263300
SM40A14TM	4	59	56	263301
SM55A14TM	5.5	72	69.5	263302
SM75A14TM	7.5	92	85	263303
SM100A14TM	10	129.8	122	263308

SL Separate Drive Pumps

Model	HP	ACFM @19" Hg	ACFM @25" Hg	Part #
SL30A14TM	3	32	27.5	263310
SL40A14TM	5	59	56	263311
SL55A14TM	7.5	72	69.5	263312
SL75A14TM	7.5	92	85	263313
SL100A14TM	10	129.8	122	263314
SL150A14TM	15	206	200	263315
SL200A14TM	20	275	248	263316

STAINLESS STEEL CONSTRUCTION (Stainless steel body, shaft, impellers)

SM Monobloc Pumps

Model	HP	ACFM @19" Hg	ACFM @25" Hg	Part #
SM30A06TM	3	32	27.5	263304
SM40A06TM	4	59	56	263305
SM55A06TM	5.5	72	69.5	263306
SM75A06TM	7.5	92	85	263307
SM100A06TM	10	129.8	122	263309

SL Separate Drive Pumps

Model	HP	ACFM @19"	ACFM @25"	Part #
SL30A06TM	3	32	27.5	263317
SL40A06TM	5	59	56	263318
SL55A06TM	7.5	72	69.5	263319
SL75A06TM	7.5	92	85	263320
SL100A06TM	10	129.8	122	263321
SL150A06TM	15	206	200	263322
SL200A06TM	20	275	248	263323



Single stage pumps are equipped with mechanical seals. The dynamically balanced rotor is supported by grease lubricated ball bearings. The impeller is mounted between the bearings, which results in less vibration, low noise, and easy accessibility to the shaft sealing. They can be sealed with water or oil. Available 30 Hp thru 75 Hp. Vacuum ranges up to 28.9" Hg.

Two stage pumps are equipped with mechanical seals. The dynamically balanced rotor is supported by grease lubricated ball bearings. The impeller is mounted between the bearings, which results in less vibration, low noise and easy accessibility to the shaft sealing. The two stage pumps contain two impellers running in series to achieve high vacuum. On these pumps, the discharge end from the first stage is directly ported to the inlet of the second stage. Available 5 Hp to 75 Hp. Vacuum ranges up to 28.9" Hg



***These pumps are an excellent retrofit choice for many brands of liquid ring pumps.**

**STANDARD CONSTRUCTION (Bronze Impellers)
2 Stage Pumps**

Model	HP	Suction & Discharge	ACFM @ 25" Hg	ACFM @ 28.9" Hg	Part #
27LC02TM	7.5	1 1/2"	67	47.5	263391
27C02TM	7.5	1 1/2"	105	84	263392
210C02TM	10	1 1/2"	134	100	263393
215C02TM	15	2"	177	138	263394
220C02TM	20	2"	238	162	263395
225C02TM	25	2"	268	190	263396
240C02TM	40	3"	410	270	263397
250C02TM	50	3"	510	320	263398
260A02TM	60	4"	570	500	262769
275A02TM	75	4"	845	545	262772

Single Stage Pumps (150B01TM & 175B01TM equipped with nodular iron impellers)

130B02TM	30	4"	360	139	263612
140B02TM	40	4"	510	248	263613
150B01TM	50	5"	710	330	263618
175B01TM	75	5"	1110	540	263621

PUMPS - Liquid Ring

ALL IRON CONSTRUCTION (Stainless Steel Impellers)

2 Stage Pumps

Model	HP	Suction & Discharge	ACFM @ 25" Hg	ACFM @ 28.9" Hg	Part #
27LC14TM	7.5	1 1/2"	67	47.5	263387
27C14TM	7.5	1 1/2"	105	84	263386
210C14TM	10	1 1/2"	134	100	263385
215C14TM	15	2"	177	138	263384
220C14TM	20	2"	238	162	263383
225C14TM	25	2"	268	190	220108
240C14TM	40	3"	410	270	263382
250C14TM	50	3"	510	320	263399
260A14TM	60	4"	570	500	262771
275A14TM	75	4"	845	545	262774

Single Stage Pumps

130B14TM	30	4"	360	139	263614
140B14TM	40	4"	510	248	263615
150B14TM	50	5"	710	330	263388
175B14TM	75	5"	1110	540	263389

STAINLESS STEEL CONSTRUCTION (Stainless steel body, shaft, impellers)

2 Stage Pumps

Model	HP	Suction & Discharge	ACFM @ 25" Hg	ACFM @ 28.9" Hg	Part #
27LC06TM	7.5	1 1/2"	67	47.5	220100
27C06TM	7.5	1 1/2"	105	84	220101
210C06TM	10	1 1/2"	134	100	220102
215C06TM	15	2"	177	138	220103
220C06TM	20	2"	238	162	220104
225C06TM	25	2"	268	190	220105
240C06TM	40	3"	410	270	220106
250C06TM	50	3"	510	320	220107
260A06TM	60	4"	570	500	262770
275A06TM	75	4"	845	545	262773

Single Stage Pumps

130B06TM	30	4"	360	139	263616
140B06TM	40	4"	510	248	263617
150B06TM	50	5"	710	330	263620
175B06TM	75	5"	1110	540	263623

Materials Of Construction:

Type 01 Cast iron casing, nodular iron impeller, AISI 420 stainless steel shaft and carbon/silicon carbide/ viton mechanical seals

Type 02 Cast iron casing bronze impeller, AISI 420 stainless steel shaft and carbon/silicon carbide/ viton mechanical seals

Type 14 Cast iron casing, 60T AISI 420 stainless steel coated impeller, AISI 420 stainless steel shaft and carbon/silicon carbide/ viton mechanical seals

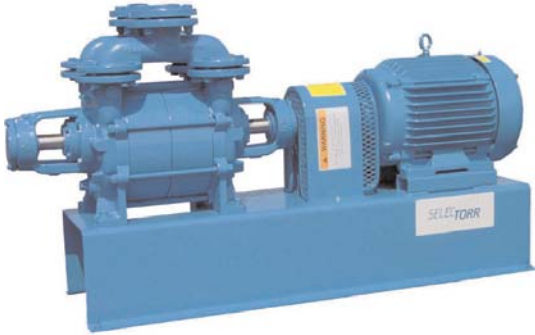
Type 06 AISI 316 stainless steel casing, impeller, shaft and carbon/silicon carbide/ viton mechanical seals

Note:

Models 130B and 140B are not available in "01" Construction

Models 150B and 175B are not available in "02" Construction

MB Liquid Ring Vacuum Modules



MB packages are ideal in situations where a new pump, motor and coupling are needed. This package offers the convenience of all components mounted on a common base, ready for installation.

The motor is 230/460 volt, 60 cycle, 3 phase. Includes a set of coupling drives with an OSHA-approved guard.

The package is factory assembled, tested, painted and crated.

MOTOR HP	RPM	ACFM	20" Hg	25" Hg	28" Hg	28.9" Hg	Avg. Service Liquid (GPM)	Model #
			252 Torr 335 mbar	125 Torr 166 mbar	49 Torr 65 mbar	26 Torr 35 mbar		
7.5	1750	ACFM	64	67	63	47.5	2.2	27LC-MB
7.5	1750	ACFM	97.5	105	102.5	84	2.7	27C-MB
10	1750	ACFM	127.5	134	126	100	2.8	210C-MB
15	1750	ACFM	173	177	170	138	5.5	215C-MB
20	1750	ACFM	234	238	224	162	7.0	220C-MB
25	1750	ACFM	259	268	274	190	7.5	225C-MB
40	1750	ACFM	395	410	380	270	8.2	240C-MB

Oil-Less Scrolls



Bare Scroll Compressor

Model	Motor HP	SCFM @ 100 PSIG	SCFM @ 145 PSIG
SLAE03	3	8.6	
SLAE03-HP	3		7.1
SLAE-05	5	14.7	
SLAE05-HP	5		12.1

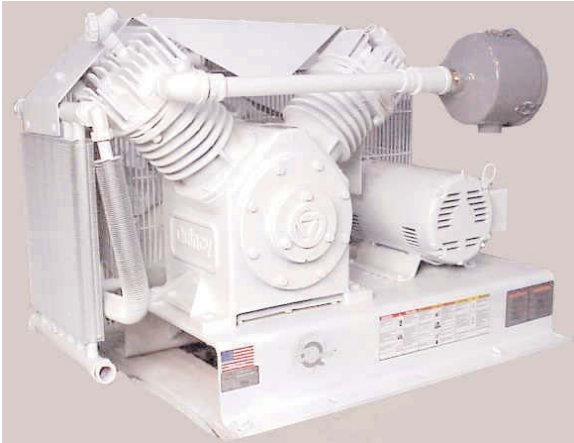
Oil-Less Scroll Compressor Modules

Each module includes standard pressure oil-less scroll compressor, motor, belt, belt guard and aftercooler, all mounted on a base plate.

Part #	Description
230065	2 HP module, 200 volt
230066	2 HP module, 230/460 volt
230067	3 HP module, 200 volt
230068	3 HP module, 230/460 volt
230069	5 HP module, 200 volt
230070	5 HP module, 230/460 volt
211035	Temperature Switch, N.O., set @ 400 Deg. F

PUMPS - Air

Quincy Modules



All modules are skid mounted and include single stage oil-less air compressor, 230/460V ODP motor, belt, belt guard, after cooler, inlet filter, and NFPA compliant piping. 200 V motors also available upon request at same price.

*Complete pump only. Replacements are also available.

Model	Motor HP	CFM @ 50 PSIG	Part Number
A200Q-B1	2	7.8	230031
A300Q-B1	3	12.1	230032
A500Q-B1	5	20	230033
A750Q-B1	7.5	34	230035
A1000Q-B1	10	41	230036
A1500Q-B1	15	64	230037
A2000Q-B1	20	71	230038
A2500Q-B1	25	110	230039
A3000Q-B1	30	117	230040

Repair Kits for Quincy Single Stage Air Compressors

Description	QRDS-5	QRDS-7.5	QRDS-10	QRDS-15	QRDS-20
Gasket Set	111637-1	111637-1	111637-2	111637	113630
Replacement Valve Assembly	113629	113629	113629-2	113629-1	113632
Lube Kit	111640-9	111640-9	111640-9	1111640-10	111640-10
Ring, Piston	113631-5	113631-7	113631-10	111638-6	113631
Piston Kit	KQRDS5K	KARDS7.5K	KQRDS10C	KQRDS10/15J	KQRDS20D
Overhaul Kit	KQRDS5F	KQRDS7.5F	KQRDS10B	KQRDS10/15E	KQRDS20B

OIL

For Rotary Vane Vacuum Pumps, Liquid Ring Vacuum Pumps or Air Compressors

- Keeps Pump Clean
- Minimizes Oil Vapor
- Increase Pump Life
- Reduces Pump Temperature
- Non-Carbon Forming
- Inhibits Acid Formation
- Anti-Foaming
- Non-Detergent



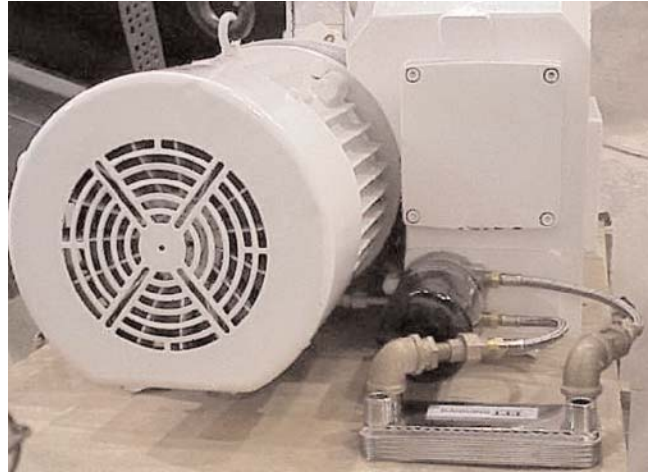
Used For:	Container Size	Type	Part Number
Rietschle & Busch Pumps	55 Gallon drum	60 Wt	249212
	5 Gallon	60 Wt	249215
	1 Gallon	60 Wt	249214
	1 Quart	60 Wt	249213
Gast Pumps & SelecTORR S1, SD1	55 Gallon Drum	10 Wt	249204
	5 Gallon	10 Wt	249207
	1 Gallon	10 Wt	249206
	1 Quart	10 Wt	249205
Squire-Cogswell, Pur-Pax, Corken, Pneumotive, SC, Rietschle	55 Gallon Drum	30 Wt	249208
	5 Gallon	30 Wt	249211
	1 Gallon	30 Wt	249210
	1 Quart	30 Wt	249209
Synthetic Oil for SelecTORR® Rotary Vane (Except Model S1, SD1)	55 Gallon Drum	40 Wt	249221
	5 Gallon	40 Wt	249224
	1 Gallon	40 Wt	249223
	1 Quart	40 Wt	249222
Food Grade for SelecTORR® Model S1 & SD1 and Oil Sealed Liquid Ring Vacuum Pumps	55 Gallon Drum	ISO 32	249200
	5 Gallon	ISO 32	249203
	1 Gallon	ISO 32	249202
	1 Quart	ISO 32	249201
Food Grade for SelecTORR® Rotary Vane (Except S1, SD1)	55 Gallon Drum	30 Wt	249217
	5 Gallon	30 Wt	249220
	1 Gallon	30 Wt	249219
	1 Quart	30 Wt	249218

ACCESSORIES

Cooling Kits for Rotary Vane Vacuum Pumps

If your rotary vane vacuum pumps are located in a high heat environment, these cooling kits can help. Running your pumps cooler can result in extended oil and vane life, as well as the reduction of local heat loads. Depending on the temperature of your chilled water supply, the use of cooling kits may reduce the operating temperature of the pump by 30 to 40 degreeF.

*Available for most brands of oil-sealed rotary vane vacuum pumps.

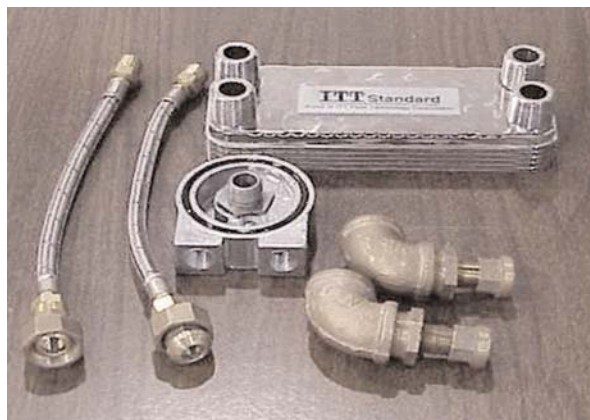


Two kits are available:

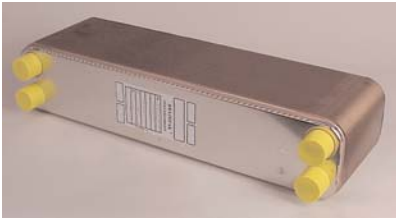
Kit #262164 is for small & medium size pumps. Kit includes filter adapter ring, send and return oil lines, and liquid to liquid heat exchanger.

Kit #262173 is for larger pumps. This kit includes stainless steel braided send and return oil lines and liquid to liquid heat exchanger.

Please order one kit for each pump on your system. Also, please note the make and model of your pump when ordering.



Liquid to Liquid Plate Heat Exchangers



These liquid to liquid heat exchangers consist of a series of stainless steel plates that are copper brazed together for compactness. (Nickel brazing available). Available in a multitude of sizes, they are suitable for both water and oil sealants. They provide efficient cooling with minimal space requirements.

LIQUID TO LIQUID PLATE HEAT EXCHANGERS

CONNECTION						
MODEL	SIZE	LENGTH	WIDTH	THICKNESS	#PLATES	PART #
WP1-10	3/4"	8"	3"	1.42"	10	237001
WP1-20	3/4"	8"	3"	2.36"	20	237002
WP1-30	3/4"	8"	3"	3.31"	30	237003
WP4-20	1"	13"	5"	2.36"	20	237004
WP4-30	1"	13"	5"	3.31"	30	237005
WP4-40	1"	13"	5"	4.25"	40	237006
WP4-60	1"	13"	5"	6.14"	60	237007
WP4-80	1"	13"	5"	8.03"	80	237008
WP5-20	1 1/4"	21"	5"	2.36"	20	237009
WP5-50	1 1/4"	21"	5"	5.19"	50	237010
WP5-60	1 1/4"	21"	5"	6.14"	60	237011
WP7-40	2"	21"	10.6"	4.25"	40	237012
WP7-60	2"	21"	10.6"	6.14"	60	237013

Discharge Separator Tanks

- Multiple Inlet/Discharge Ports
- Can be equipped with level gauge/switch



SPECIFICATIONS

Gallons	Diameter	Length	In	Out	Model Number	Material
8	11"	25"	2"	2"	222770	HDPE
13.5	12"	28"	3"	3"	222771	HDPE
15	12"	37"	3"	3"	248548	Steel
30	16"	40"	4"	4"	248541	Steel
60	20"	54"	5"	5"	248546	Steel

Description	Part #
Level switch and PVC housing for reservoir	211151
Variable Temperature Switch for water control	211011
Temperature well	211013

ACCESSORIES

Y-Strainer



Available in a variety of water line sizes, these Y strainers are used in liquid ring vacuum systems to trap contaminant's in the sealing liquid. The strainer body is constructed of cast iron ASTM A-126 Class B, while the removable screen is made of 20 mesh 304 stainless steel.

The maximum working pressures are:

STEAM
250 psi @ 400 deg F

WATER, OIL, GAS
400 psi @ 150 deg. F

SEDIMENT STRAINERS

Model	Pipe Size	Part Number
Y-3/8	3/8"	240010
Y-3/4	3/4"	240003
Y-1	1"	240004
Y-1 1/4	1 1/4"	240005
Y-1 1/2	1 1/2"	240006
Y-2	2"	240007
Y-2 1/2	2 1/2"	240008
Y-4	4"	240009

Inlet Check Valve

Inlet check valves are available in a variety of sizes. Constructed of steel and aluminum, each check valve closes in the "pump off" mode. All valves are rated for a maximum pressure of 150 psi.



INLET CHECK VALVES

Valve Diameter	Part Number
1"	247518
1 1/4"	247519
1 1/2"	247520
2"	247521
2 1/2"	247522
3"	247523
4"	247524
5"	247507

Ohio Medical - Desiccant Dryers



Standard Instrumentation:

- Tower pressure gauges
- Moisture indicator - alerts operator of elevated dew point
- Purge flow indicator
- Provides Pressure Dewpoints of -40°F, 100°F

Control Panel with:

- On/off switch
- Tower status lights
- Switching failure alarm - indicates if a tower fails to pressurize or depressurize properly
- 120V/1Ph/60Hz
- Dewpoint Dependent Switching (not on all models)

Compressed Air Dryers - Desiccant

Part Number	Flow Rate CFM	Height In	Width In	Depth In	Weight lbs	NPT(F) Dryer
233501	10	27.2	11.4	5.9	39.7	3/8"
233502	13	33.3	11.4	5.9	44.1	3/8"
233503	20	43.2	11.4	5.9	61.7	3/8"
233504	24	32.9	11.2	11.9	70	1/2"
233505	32	39.5	11.2	11.9	81	1/2"
233506	42	46	11.2	11.9	92	1/2"
233507	53	52.5	11.2	11.9	103	1/2"
233508	65	59	11.2	11.9	114	1/2"
233509	88	68.8	11.2	11.9	132	3/4"
233510	106	56.4	8.7	22.3	176	1"
233511	130	62.9	8.7	22.3	198	1"
233512	176	72.7	8.7	22.3	229	1"
233513	240	64.8	21.65	12.8	518	2"

Dimensions and weight are for reference only. Request certified drawings for construction purposes.

ACCESSORIES

Ohio Medical Filters/Service Kits for Desiccant Dryers

Recommended Filters for Field Installation

Dryer Model	Flow CFM	Prefilter (PF) .01 Micron	Replacement Element PF	After Filter (AF) 1.0 Micron	Replacement Element AF
233501	10	233890	233772	233897	233777
233502	13	233890	233772	233897	233777
233503	20	233890	233772	233897	233777
233504	24	233891	233772	233898	233777
233505	32	233891	233772	233898	233777
233506	42	233891	233772	233898	233777
233507	53	233892	233773	233899	233778
233508	65	233893	233774	233900	233779
233509	88	233893	233774	233900	233779
233510	106	233894	233774	233901	233779
233511	130	233895	233775	233902	233780
233512	176	233895	233775	233902	233780
233513	240	233896	233776	233903	233781

SERVICE KIT INFORMATION

- every 12,000 hours
- every 24 months

Desiccant Dryer Kits (10 - 20 CFM)	233501	233502	233503

DRYER SERVICE KIT (valve overhaul kits)				
DASMK4	12,000 hour service kit	•		
DASMK5	12,000 hour service kit		•	
DASMK6	12,000 hour service kit			
DASMK7	12,000 hour service kit			•
DAS24SK	24 month service kit	▪	▪	▪

REPLACEMENT ELEMENTS (? replace every 12 months)				
233772	Pre-filter element	1x	1x	1x
233777	After-filter element	1x	1x	1x

PRE-FILTER DRAIN (? replace every 12 months)				
EF1	Automatic float-style drain	1x	1x	1x

Using original service kits will prolong the useful life of your dryer while ensuring smooth operation. Kits are available for the 12,000 hour and 24 month service points. Please remember that the pre-filters and after filters, as well as the pre-filter drain should be replaced annually and will always need to be ordered separately.

SERVICE KIT INFORMATION

• every 12 months
■ every 24 months
▲ every 36 months

Desiccant Dryer Kits (24 - 240 CFM)	233504	233505	233506	233507	233508	233508	233509	233510	233511	233512

DRYER SERVICE KIT (valve overhaul kits)

60-833-0006	24 month service kit	■	■	■	■	■	■	■	■	■	
60-833-0007	24 month service kit							■	■	■	
60-862-0091	24 month service kit										■

REPLACEMENT ELEMENTS (• replace every 12 months)

233772	Pre-filter element	1x									
233777	After-filter element	1x									
233772	Pre-filter element		1x								
233777	After-filter element		1x								
233772	Pre-filter element			1x	1x						
233777	After-filter element			1x	1x						
233774	Pre-filter element					1x	1x	1x			
233779	After-filter element					1x	1x	1x			
233775	Pre-filter element								1x	1x	
233780	After-filter element								1x	1x	
233776	Pre-filter element										1x
233781	After-filter element										1x

EXHAUST SILENCERS (• replace every 12 months)

60-823-3670	Exhaust silencer	1x	1x	1x	1x	1x	1x	1x			
60-833-0001	Exhaust silencer								1x	1x	1x
60-862-0090	Exhaust silencer										1x

PRE-FILTER DRAIN (• replace every 12 months)

ZKO3	Automatic float-style drain	1x	1x	1x	1x	1x	1x	1x	1x	1x	1x
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DESICCANT PACKS (▲ replace every 36 months)

60-820-3661	Desiccant Pack	1x	1x	2x	2x	2x	2x	3x	4x	5x	9x
60-820-3733	Column seal kit	1x	1x	1x	1x	1x	1x				
60-833-0010	Column seal kit							1x	1x	1x	
60-862-0098	Column seal kit										1x
60-820-0622	Snow Storm Filler (one time purchase)	1x	1x	1x	1x	1x	1x	1x	1x	1x	
60-820-1051	Snow Storm Filler (one time purchase)										1x

Using original service kits will prolong the useful life of your dryer while ensuring smooth operation. Kits are available for the 24 month service points. In order to carry out the general overhaul after 36 months, you will need a desiccant pack in addition to the normal kit. The desiccant packs are available for this purpose (see table). Please remember that the pre-filters and after filters, as well as the exhaust silencers and pre-filter drain, should be replaced annually and will always need to be ordered separately. An activity test should be carried out annually to check the desiccant quality.

ACCESSORIES

Cycling Refrigerated Dryers

- Ideal for Extremely Low Flow Applications
- Conserves Energy

INCLUDES:

- Refrigeration Suction Pressure Gauge
- On/Off Switch with Power On Light



MODEL	10 HSE	18 HSE	24 HSE	35 HSE	50 HSE	75 HSG	100 HSG	125 HSG	150 HSG	200 HSG	250 HSG
Part #	233460	233461	233462	233463	233464	233465	233475	233476	233477	233477	233479
SCFM	10	18	24	35	50	75	100	125	150	200	250
Length In (mm)	14 (356)	14(356)	14(356)	20 (508)	20 (508)	20 (508)	20 (508)	32(813)	32(813)	32(813)	32(813)
Depth In (mm)	14(356)	14(356)	14(356)	16(406)	16(406)	20 (508)	20 (508)	27(686)	27(686)	27(686)	27(686)
Height In (mm)	18(457)	18(457)	18(457)	23(584)	23(584)	31 (787)	31 (787)	41(1043)	41 (1043)	41 (1043)	53(1346)
Shipping Wt Lbs (kg)	95(43)	100(45)	100(45)	170(77)	170(77)	270(122)	285(129)	505(229)	480(218)	545(247)	740(336)
Air Connection In & Out	1/2" FPT	1/2" FPT	1/2" FPT	3/4" FPT	3/4" FPT	1" MPT	1" MPT	1 1/2" MPT	2" MPT	2" MPT	2 1/2" MPT
Drain	1/8" FPT	1/8" FPT	1/8" FPT	1/8" FPT	1/8" FPT	1/8" FPT	1/8" FPT	1/8" FPT	1/4" FPT	1/4" FPT	1/4" FPT
Refrigeration HP	1/5	1/5	1/3	1/3	1/2	1/3	1/3	1/2	1/2	1	1 1/2
Max. Work. Press. psig (Bar)	250 [17.2]	250 [17.2]	250 [17.2]	250 [17.2]	250 [17.2]	250 [17.2]	250 [17.2]	250 [17.2]	250 [17.2]	250 [17.2]	250 [17.2]
Operating KW**	0.27	0.48	0.72	0.82	1	0.82	0.82	1.2	1.33	1.6	1.97
Voltages	115-1-60 200-1-50	115-1-60 220-1-50	115-1-60 220-1-50	115-1-60 220-1-60	115-1-60 220-1-50	115-1-60 220-1-50	115-1-60 220-1-50 208-230-1-60	115-1-60 220-1-50 208-230-1-60	115-1-60 220-1-50 208-230-1-60	208/230-3-60 208/230-1-60 460-3-60 575-3-60	208/230-3-60 208/230-1-60 460-3-60 575-3-60

*Performance data obtained and presented in accordance with CAGI Standard No. ADF 100.

"Refrigerated Compressed Air Dryers - Method for Testing and Rating"

Hankison Non-Cycling Refrigerated Dryer

- Copper Tube-in-Tube Heat Exchanger
- Two Stage Separator/Filter
- Automatic Condensate Drain



- Models 8005 - 80125 includes 6 ft power cord with plug.
- Models 8025 & Larger include on/off switch, power on light, high temperature warning light and refrigerant suction pressure gauge.
- Models 8005-8015 include power on light and high temperature warning light.

Rated Flow SCFM	Refrigeration Compressor HP	Voltages (V/ph/Hz)	Connection (in)	Dimensions			Weight (lb)	Model Number
				H (in.)	W (in.)	D (in.)		
10	1/8	115/1/60	3/8" OD	14	11	16	48	233486
15	1/7	220-240/1/50	3/8" OD	14	11	16	56	233487
25	1/6	115/1/60	3/4" NPT	17	17	22	105	233488
35	1/5		3/4" NPT	17	17	22	118	233489
50	1/4	208-230/1/60	1" NPT	20	17	24	156	233490
75	1/3	220-240/1/50	1" NPT	22	20	29	180	233491
100	1/2	208-230/3/60	1 1/2" NPT	27	24	30	229	233493
125	1/2		1 1/2" NPT	27	24	30	230	233494
150	3/4	460/3/60	2" NPT	40	22	48	410	233496
200	1		2" NPT	40	22	48	430	233497
250	1 1/2	575/3/60	2" NPT	40	22	48	440	233500
300	1 1/2	380-420/3/50	2" NPT	40	22	48		

Repair Kits

Dryer Models	Kit Number	Kit Includes	Weight
PR5, PR5A PR110, PR10A 8005, 8010 9005, 9010	RDMK1	Separator element Drain mechanism Insulation set & fastener O-ring for bowl Drain tube & hose clamp Service Reminder decal	1 lb.
PR15, PR15A, PR25, PR35 8015, 8025, 8035, VL25, VL35	RDMK2	Separator element	1 lb.
8045, 8055, VL45, VL55	RDMK3	Drain mechanism	2 lbs.
PR50, 8070, 80100 VL70, VL100	RDMK4	Insulation set & fastener O-ring for bowl	2 lbs.
PR75, PR100, PR125 PR250n, 80125, VL125	RDMK5	Service Reminder decal	2 lbs.
PR150*, PR175 PR200, PR250 80150, 80200 80250	RDMK6	Separator element Drain mechanism O-ring for bowl Service Reminder decal	2 lbs.

*Discontinued 1st quarter 1998

ACCESSORIES

Combination CO/DewPoint Monitor

Part #233013 (for either Refrigerated or Desiccant Dryers)

CO Range: 0 to 100 PPM, factory set @ 10 PPM
Dew Point Range: -112°F to +68°F
Inlet Pressure: 1/2" Feed, 80-120 PSIG
Sensor for CO: Electrochemical Cell
Sensor for Dew Point: Solid State Hydrosensor

Part Number 233015 - Calibration Kit

- Visual and Audible Alarm with Dry Contacts for CO & Dew Point



DewPoint Monitor

THREE ELEMENT MOISTURE SENSOR AND TEMPERATURE TRANSDUCER

	<u>Desiccant</u>	<u>Refrigerated</u>
Dew Point Range:	-40o to +15°F	+10° to +70°F
Maximum Pressure:	300 PSIG	150 PSIG
Model Number:	8097	8092

- Visual and Audible Alarm with Dry Contacts
- Dew Point Display in °C or °F



Gas Monitor

CARBON MONOXIDE/TOXIC GASES

Gases Detected: CO, Oxidation Toxins
Sensor: Solid State, Catalytic Semi-Conductor
Meter Scale: 2-50 ppm CO
Factory Set Alarm: 10 ppm CO

Model Number: 1541

- Visual and Audible Alarm with Dry Contacts
- Includes cal connector, 20 ppm CO test gas & screw driver in a carrying case



Air Treatment Modules

Healthcair® Treatment Modules are designed to **upgrade existing compressor systems** with dual dryers, filters, regulators and CO/Dewpoint monitors.

The Healthcair® Treatment Module for oil-less compressors shall include dual dryers, dual filtration system and a CO Monitor and Dewpoint transmitter, mounted on a common base with interconnecting copper/brass piping and upstream and downstream isolation valves. The isolation valves shall allow either set of components to be serviced without shutting down the system. A 115V electrical receptacle shall also be provided to power the dryers and CO monitor and Dewpoint transmitter. Design of the Healthcair® Treatment Module and its components shall **meet the latest edition of NFPA 99**.

Dryers shall be heatless desiccant design selected and sized to provide for the peak calculated demand. The desiccant dryer shall be equipped with an **economizer control or a dewpoint dependent switching feature minimizing the purge rate**.

Each dryer shall be selected to handle the calculated peak demand.

The dual filtration system is designed to remove liquid and particulate matter and consists of (1) .01 micron prefilter and (1) 1.0 micron afterfilter with differential pressure indicators and automatic drains, air line pressure regulators with gauges, final pressure relief valve and sampling valve.

The CO Monitor and Dewpoint transmitter shall include a local audible and visual alarm with dry contacts for remote monitoring. The monitor shall include a gas specific demand check to facilitate service and testing.



Air Treatment Modules - Desiccant

Part Number	Flow Rate CFM	Height In	Width In	Depth In	Weight lbs	NPT(F) Dryer
HCTM-10-DD-SS	10	33	34	20	185	3/8"
HCTM-13-DD-SS	13	40	34	20	200	3/8"
HCTM-20-DD-SS	20	40	34	20	225	3/8"
HCTM-24-DD-SS	24	41	34	24	270	1/2"
HCTM-32-DD-SS	32	46	34	24	300	1/2"
HCTM-42-DD-SS	42	52	34	24	325	1/2"
HCTM-53-DD-SS	53	59	34	24	350	1/2"
HCTM-65-DD-SS	65	65	34	24	375	1/2"
HCTM-88-DD-SS	88	75	34	24	400	3/4"
HCTM-106-DD-SS	106	67	35	32	550	1"
HCTM-130-DD-SS	130	73	35	32	600	1"
HCTM-176-DD-SS	176	83	35	32	650	1"
HCTM-240-DD-SS	240	71	70	46	1900	2"

Dimensions and weight are for reference only. Request certified drawings for construction purposes.

Electronic Auto Drain

A popular option for air systems with refrigerated dryers is an electronically actuated auto-drain. Adjustable to multiple timed intervals, the auto-drain can be fitted to the dryer or the air receiver.

The unit includes a 1/2" NPT fitting and is powered by 115V/1/60 .

Part #532-04-200S

ACCESSORIES

Retrofit Electrical Control Panels

(for your existing air or vacuum system)



FEATURES AND BENEFITS:

- Human Machine Interface (HMI) feature
- Fuseless design
- NFPA 99 & UL Compliant

Control Panel Cabinet								
Panel Type	Voltage	Horsepower						
		1	2	3	5	7.5	10	15
Simplex	208	219510	219510	219510	219510	219510	219510	219512
	230	219510	219510	219510	219510	219510	219510	219510
	460	219510	219510	219510	219510	219510	219510	219510
Duplex	208	219520	219520	219520	219520	219520	219520	219522
	230	219520	219520	219520	219520	219520	219520	219520
	460	219520	219520	219520	219520	219520	219520	219520
Triplex	208	219530	219530	219530	219530	219530	219530	219532
	230	219530	219530	219530	219530	219530	219530	219530
	460	219530	219530	219530	219530	219530	219530	219530
Quadruplex	208	219540	219540	219540	219540	219540	219540	219542
	230	219540	219540	219540	219540	219540	219540	219540
	460	219540	219540	219540	219540	219540	219540	219540

Control Panel Cabinet								
Panel Type	Voltage	Horsepower						
		20	25	30	40	50	60	75
Simplex	208	219512	219512	215514	219514	N/A	N/A	N/A
	230	219512	219512	219514	219514	N/A	N/A	N/A
	460	219510	219510	219510	219512	219512	219514	219514
Duplex	208	219522	219522	219524	219524	N/A	N/A	N/A
	230	219522	219522	219524	219524	N/A	N/A	N/A
	460	219520	219520	219520	219522	219522	219524	219524
Triplex	208	219532	219532	219534	219534	N/A	N/A	N/A
	230	219532	219532	219534	219534	N/A	N/A	N/A
	460	219530	219530	219530	219532	219532	219534	219534
Quadruplex	208	219542	219542	219544	219544	N/A	N/A	N/A
	230	219542	219542	215544	219544	N/A	N/A	N/A
	460	219540	219540	219540	219542	219542	219544	219544

Trip Module

HP	208V	230V	460V
	3PH/60HZ	3PH/60HZ	3PH/60HZ
1/4	214502	214502	214500
1/2	214503	214503	214501
3/4	214504	215504	214502
1	214504	214504	201503
1 1/2	214505	214505	214504
2	214506	214506	201504
3	214507	214506	214505
5	214508	214507	214506
7 1/2	214509	214508	214507
10	214510	214509	214507
15	N/A	214510	214508
20	N/A	N/A	214509
25	N/A	N/A	214510
30	N/A	N/A	214510



IN-LINE AIR FILTERS

REPLACEMENT FILTER ELEMENTS

CONNECTION		O.D.	HT	PART No.
SIZE	PART No.			
3/4"	233750	3.875"	2.75"	CALL
1"	233751	5.00"	4.75"	SCAFC475500
1 1/4"	233752	5.00"	4.75"	SCAFC475500
1 1/2"	233753	5.00"	4.75"	SCAFC475500
2"	SCAF-2A	5.875"	8.75"	SCAFC875587
3"	SCAF-3B	7.875"	14.50"	SCAF-334P

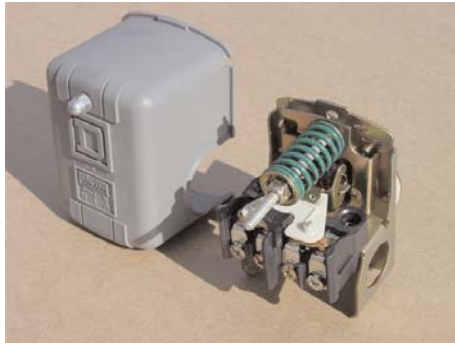
EXHAUST FILTERS

FOR MODEL	PART No.
SC20	252712
SC6, SC10	233758
SC15, 13A, 15A, 25B, 27B	252714
110A, 115LA, 210B	252715
115A, 120A, 125A, 215B, 220B, 220LB	252716
140A, 150A, 230B, 240B, 250A	252717



ACCESSORIES

Vacuum & Pressure Switches



Square D Variable Pressure Switch

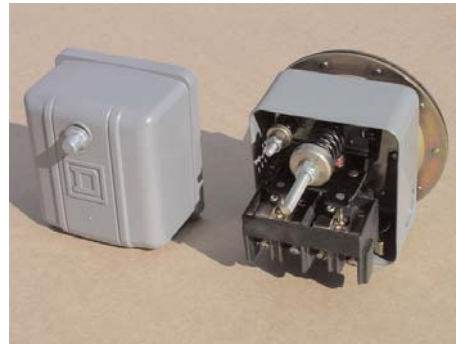
Class 9013 Type FHG Pressure Switch (two pole)
Pressure settings adjusted by rotating nut
Approximate 20 psi differential
1/4" NPT pipe tap

Part #211503

Square D Adjustable Vacuum Switch

Class 9016 Type GVG-1
Two pole, NEMA 1 enclosure
Adjustable vacuum differential
3/4" Hex pressure connector
1/4" NPT pipe connection

Part # 211514



Square D Adjustable Vacuum Switch

Class 9016 Type GAW
Single pole, double throw snap switch
(1 N.C. 1 N.O.)
Adjustable vacuum differential
3/4" Hex pressure connector
1/4" NPT pipe connection

Part #211515



Relief Valves



MODEL NO.	PIPE SIZE	PRESSURE	VACUUM	MAX. SPECIFICATIONS	PART NO.
A-12130-1	1/4"		•	18 SCFM @ 28" Hg	222350
A-12130-3	3/4"		•	72 SCFM @ 28" Hg	222352
A-12130-4	1 1/4"		•	102 SCFM @ 28" Hg	222353
112C-75	1/4"	•		50 SCFM @ 75 PSIG	232257
112C-100	1/4"	•		64 SCFM @ 100 PSIG	232251
112C-115	1/4"	•		72 SCFM @ 115 PSIG	232253
112C-125	1/4"	•		78 SCFM @ 125 PSIG	232260
112C-150 1/4	1/4"	•		92 SCFM @ 150 PSIG	232255
112C-200 1/4	1/4"	•		120 SCFM @ 200 PSIG	232256
112C-75 1/2	1/2"	•		76 SCFM @ 75 PSIG	232258
112C-100 1/2	1/2"	•		97 SCFM @ 100 PSIG	232252
112C-125 1/2	1/2"	•		119 SCFM @ 125 PSIG	232259
112C-150	1/2"	•		140 SCFM @ 150 PSIG	232254
118C-50 1/2	1/2"	•		107 SCFM @ 50 PSIG	232261
118C-75	1/2"	•		150 SCFM @ 75 PSIG	232262
118C-175	1/2"	•		319 SCFM @ 175 PSIG	232266
118C-100 3/4	3/4"	•		458 SCFM @ 100 PSIG	232263
118C-125 3/4	3/4"	•		559 SCFM @ 125 PSIG	232264
118C-150 3/4	3/4"	•		659 SCFM @ 50 PSIG	232265

Gauges



FEATURES

- Vacuum, Pressure, Compound, or Temperature
- Stainless Steel Available
- Available from Stock



Type	Mounting	Face	Scale	Part No.
VACUUM	1/4" BM	2"	0-30" Hg	223007
VACUUM	1/4" BM	2.5"	0-30" Hg	223009*
VACUUM	1/4" BM	4"	0-30" Hg	223000**
VACUUM	1/4" BM	2.5"	0-100" H2O	223004
VACUUM	1/4" BM	2.5"	0-250" H2O	223005
COMPOUND	1/4" BM	2.5"	30" Hg-30 PSI	223001**
PRESSURE	1/4" BM	2.5"	0-100 PSI	234256*
PRESSURE	1/4" BM	2.5"	0-100" H2O	234250
PRESSURE	1/4" BM	2.5"	0-250" H2O	234251
TEMPERATURE	1/4" CBM	1.5"	20-240oF	223006
TEMPERATURE	1/2" NPT	4.5"	50-300oF	223002
VACUUM	1/4" NPT	4.5"	0-30" Hg	223011
PRESSURE	1/4" NPT	4.5"	0-200 PSIG	223010

*LIQUID FILLED

**LIQUID FILLED, STAINLESS STEEL CONSTRUCTION

ACCESSORIES

Air & Vacuum Receivers

FEATURES

- 200 PSIG Rated
- ASME Stamped
- Oversized Openings for Vacuum Applications/Flows



FEATURES

- 200 PSIG Rated(1)
- ASME Stamped
- Oversized Openings for Vacuum Applications/Flows



Gas Specific Quick Connect

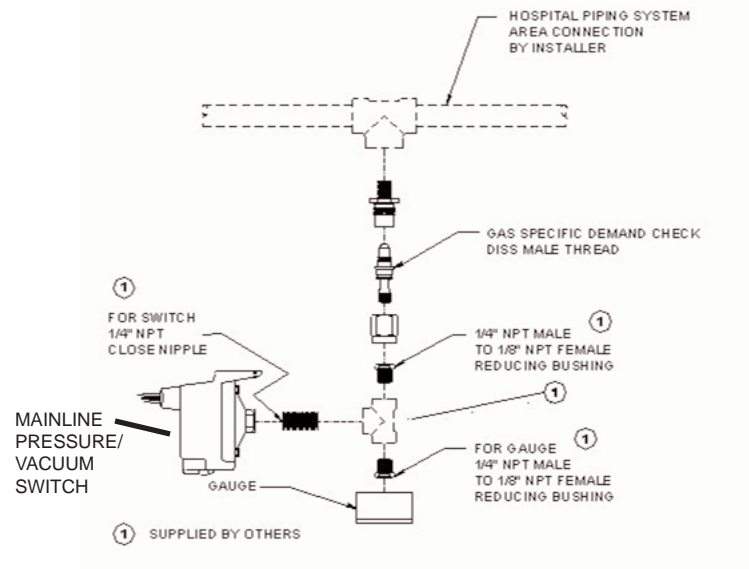
FEATURES

- Use to mount Medical Gas Pressure/Vacuum Switches and Gauges
- Allows Alarm Testing without Service Disruption
- Simplifies Servicing Pressure Switches and Gauges

SPECIFICATIONS

The gas specific demand check fitting (as required by NFPA 99) shall be designed to allow quick removal of pressure/vacuum switches and gauges from the pipeline. Facilitates replacement and ease of periodic testing without disrupting the system.

The gas specific demand check assembly shall consist of 1/4" chrome plated brass female check unit and a mating chrome plated brass fitting with 1/8" NPT thread.



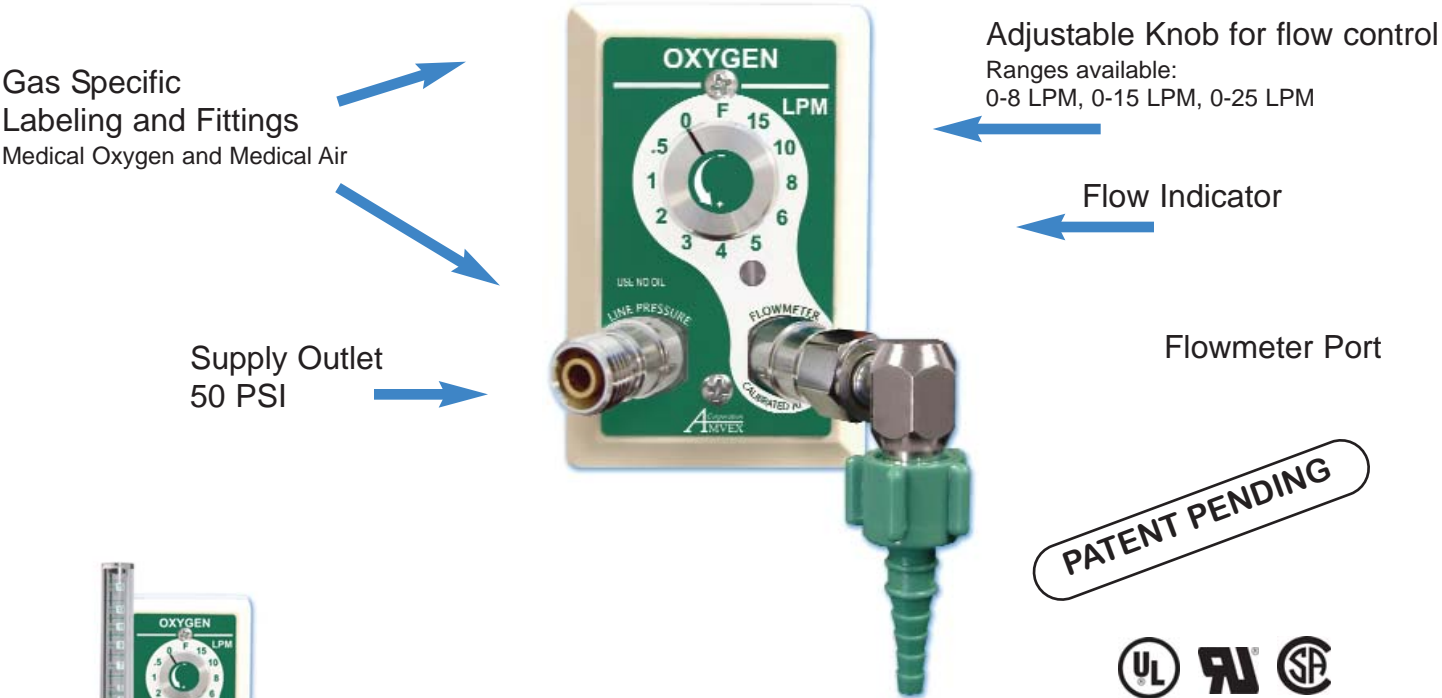
PART NUMBERS

261977	Evacuation	261924	N2**
261976	CO2	261932	Vacuum
261922	Air	261933	Oxygen
261923	N2O		

**Nitrogen (N2) requires two pressure switches. Replace the tee with a cross to install two pressure switches

Innovation That Makes Sense

Integrated Flowmeter.... always there when you need it!



- 2 outlets in 1
- Easy to service
- Retrofit existing outlets
- No more lost, chained, or broken Flowmeters
- Safest, most convenient way to dispense Medical Oxygen & Air



The Integrated Flowmeter outlet combines a Dial Flowmeter and a Medical Gas Outlet into a single compact design. The right side port connection has a contort knob which allows the user to adjust the flow setting, while the left side port is a direct connection to the gas supply.

The Integrated Flowmeter saves space, reduces construction costs, and ensure healthcare providers always have a Flowmeter when they need one.

<u>P/N</u>	<u>Description</u>
FI-C08UO-DD	Oxygen Integrated Flowmeter, 8 LPM
FI-C15UO-DD	Oxygen Integrated Flowmeter, 15 LPM
FI-C25UO-DD	Oxygen Integrated Flowmeter, 25 LPM
FI-C08UA-DD	Air Integrated Flowmeter, 8 LPM
FI-C15UA-DD	Air Integrated Flowmeter, 15 LPM
FI-C25UA-DD	Air Integrated Flowmeter, 25 LPM

MedGas Pipeline

Outlets



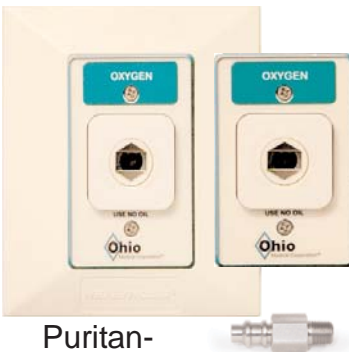
Diamond
Compatible



Chemetron
Compatible



DISS
(Diameter Index
Safety System)



Puritan-
Bennett

FEATURES

- Accepts Chemetron/Allied®, Diamond, HillRom® Beacon Medaes, Puritan Bennett and DISS specific adapters
- Pin indexed to prevent interchangeability of gas services
- Cleaned for medical gas service
- Less than 3 psi (21 kPa) pressure drop through the outlet at 120 L/min and 50 psig (345 kPa) inlet pressure
- Inlet pipe can be rotated 360 degrees for ease of installation
- Gas specific back bodies can accept either Quick Connect or DISS front identification bodies
- Outlets can be adjusted up to 1 1/4" (32 mm) wall thickness.
- Adapters are available from Ohio Medical Corporation

*Rebuild Kits Available

Chemetron® is a registered trademark of Allied Healthcare Products, Inc.
Hill-Rom® is a registered trademark of Hillenbrand Industries

Ohio Diamond Compatible

DESCRIPTION/PRODUCT	Wall	Console	Ceiling Column
Oxygen	261010-1	261010-2	261010-4
Vacuum	261010-5	261010-6	261010-8
Air	261010-13	261010-14	261010-16
Nitrous Oxide	261010-9	261010-10	261010-12
Evacuation	261010-17	261010-18	261010-20
Slide	261690	262760	

Chemetron Compatible

DESCRIPTION/PRODUCT	Wall	Console	Ceiling Column
Oxygen	261020-1	261020-2	261020-4
Vacuum	261020-5	261020-6	261020-8
Air	261020-13	261020-14	261020-16
Nitrous Oxide	261020-9	261020-10	261020-12
Evacuation	261020-17	261020-18	261020-20
Slide	261690	262760	

Diameter Index Safety System (D.I.S.S.)

DESCRIPTION/PRODUCT	Wall	Console	Ceiling Column	Ceiling
Oxygen	261000-1	261000-2	261000-4	261000-3
Vacuum	261000-5	261000-6	261000-8	261000-7
Air	261000-13	261000-14	261000-16	261000-15
Nitrous Oxide	261000-9	261000-10	261000-12	261000-11
Evacuation	261000-21	261000-22	261000-24	261000-23
Nitrogen	261000-17	261000-18	261000-20	261000-19
Carbon Dioxide	261000-25	261000-26	261000-28	261000-27
Slide	261690	262760		

Puritan-Bennett Compatible

DESCRIPTION/PRODUCT	Wall	Console
Oxygen	261040-1	261040-2
Vacuum	261040-5	261040-6
Nitrous Oxide	261040-9	261040-10
Medical Air	261040-13	261040-14
Evacuation	261040-17	261040-18

Retrofit Wall Outlets

FEATURES

- Accepts Diamond or DISS Gas Specific Adapters.
- Pin indexed to prevent interchangeability of gas services.
- Each outlet is cleaned for medical gas service and pressure tested.
- Less than 3 psi (21 kPa) pressure drop through the outlet @ 120 l/min and 50 psig (345 kPa) inlet pressure.



RETROFIT KIT FOR DIAMOND 2/3 ROUGH-IN part numbers

P/N	Description	P/N	Description
261220	Rough-In RetroFit Kit Pressure Gas	261221	Vacuum Rough-In RetroFit Kit

RETROFIT KIT FOR DIAMOND 2/3 latch valve part numbers

261170-1	Latch Valve Diamond, Oxy	261160-1	Latch Valve DISS Oxy
261170-2	Latch Valve Diamond, Vac	261160-2	Latch Valve DISS Vac
261170-3	Latch Valve Diamond, N2O	261160-3	Latch Valve DISS N2O
261170-4	Latch Valve Diamond, Air	261160-4	Latch valve DISS Air
261170-6	Latch Valve Diamond, WAGD	261160-5	Latch Valve DISS N2
		261160-6	Latch Valve DISS WAGD
		261160-7	Latch Valve DISS CO2



Slide Bracket & Blank Wall Assembly

P/N	DESCRIPTION
261690	Wall Slide
261691	Console Slide
261394	Wall Cover Blank

Outlet Repair Kits

Part No.	Description
261031	Repair Kit for DISS outlets*, spare parts to repair 10 outlets
261032	Repair kit for Chemetron/Diamond compatible outlets*, spare parts to repair 10 outlets
4G646	Oxygen compatible lubricant Krytox Performance Grease - 2 oz tube



*Kits are for Healthcair® brand of Diamond and Chemetron compatible outlets.

MedGas Pipeline

Alarms

Ohio Medical Corporation offers retrofit alarms for many other brands, please consult customer service at 1-800-448-0770, ask for medgas sales.

AREA ALARM

- High visibility LED readouts
- Up to 6 gas or 8 gas
- Can be equipped with local or remote sensors
- UL listed
- "Test" and "Silence/Rest"



LOCAL		REMOTE	
261861-X	1 Gas Area Alarm	261851-X	1 Gas Area Alarm
261862-XX	2 Gas Area Alarm	261852-XX	2 Gas Area Alarm
261863-XXX	3 Gas Area Alarm	261853-XXX	3 Gas Area Alarm
261864-XXXX	4 Gas Area Alarm	261854-XXXX	4 Gas Area Alarm
261865-XXXXX	5 Gas Area Alarm	261855-XXXXX	5 Gas Area Alarm
261866-XXXXXX	6 Gas Area Alarm	261856-XXXXXX	6 Gas Area Alarm
261867-XXXXXXX	7 Gas Area Alarm	261857-XXXXXXX	7 Gas Area Alarm
261868-XXXXXXXX	8 Gas Area Alarm	261858-XXXXXXXX	8 Gas Area Alarm

X = gas 1 = Oxygen 4 = Air 7 = Carbon Dioxide
 2 = Vacuum 5 = Nitrogen
 3 = Nitrous Oxide 6 = Evacuation

MASTER ALARM

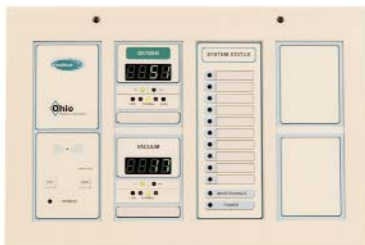


- Up to 30 or 50 Points
- High visibility LED readouts
- Circuitry allows for Normally Open or Normally Closed
- Adjustable audible alarm repeat (from 1 to 99 minutes)
- UL listed

LOCAL	
261890-10	Digital Master Alarm 10 Point
261890-20	Digital Master Alarm 20 Point
261890-30	Digital Master Alarm 30 Point
261890-40	Digital Master Alarm 40 Point
261890-50	Digital Master Alarm 50 Point

REMOTE	
261890-10C	Digital Master Alarm 10 Point with dry contacts
261890-20C	Digital Master Alarm 20 Point with dry contacts
261890-30C	Digital Master Alarm 30 Point with dry contacts
261890-40C	Digital Master Alarm 40 Point with dry contacts
261890-50C	Digital Master Alarm 50 Point with dry contacts

COMBO ALARM



Combination Area and Master Alarms are available in several configurations. Please contact Ohio Medical for assistance. (1-800-448-0770 and ask for medgas sales)

- High visibility LED readouts
- Can be equipped with local or remote sensors
- UL listed
- Dry contacts in area alarm for remote monitoring

Manifolds

Automatic, High Pressure



- Fully Automatic - N₂O, CO₂, N₂, Air, O₂
- Compact Design
- U.L. Listed, NFPA 99, 2005 Compliant
- Liquid Systems Available
- Liquid by High Pressure also available
- 5" Header Spacing

	Oxygen	N ₂ O	N ₂	Air	CO ₂	Overall Length**
Control Unit Only	261651-00	261652-00	261653-00	261654-00	261655-00	
1 x 1	261651-01	261652-01	261653-01	261654-01	261655-01	57
2 x 2	261651-02	261652-02	261653-02	261654-02	261655-02	56
3 x 3	261651-03	261652-03	261653-03	261654-03	261655-03	76
4 x 4	261651-04	261652-04	261653-04	261654-04	261655-04	76
5 x 5	261651-05	261652-05	261653-05	261654-05	261655-05	96
6 x 6	261651-06	261652-06	261653-06	261654-06	261655-06	96
7 x 7	261651-07	261652-07	261653-07	261654-07	261655-07	116
8 x 8	261651-08	261652-08	261653-08	261654-08	261655-08	116
9 x 9	261651-09	261652-09	261653-09	261654-09	261655-09	136
10 x 10	261651-10	261652-10	261653-10	261654-10	261655-10	136

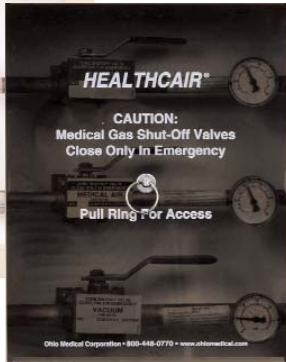
**without heater box

Manifold Accessories

- Gas Specific Quick Connect (See Page 32)
- Pressure Switches (See Page 30)
- Gauges (See Page 31)
- Isolation Valves (See Page 40)

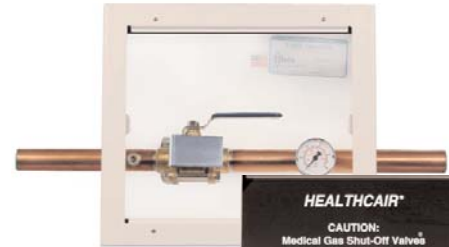
MedGas Pipeline

Zone Valve Boxes



Multiple Zone Valve Box
 4" box holds 1/2" to 1-1/2" valves
 6 1/2" box holds up to 3" valve

- Up to 5 valves in single, large box
- Full port design
- Blow-out proof stem
- Cleaned for medical gas service
- Teflon seats
- Dual gauge port on pipe extension
- Available 4" or 6 1/2" deep



Single Zone Valve Box
 4" box holds 1/2" to 1-1/2" valves
 6 1/2" box holds up to 3" valve

261901-15	1-1/2"	Single Zone Valve Box
261901-20	2"	Single Zone Valve Box (Requires a 6-1/2" deep box)
261901-05	2-1/2"	Single Zone Valve Box (Requires a 6-1/2" deep box)
261901-07	3"	Single Zone Valve Box (Requires a 6-1/2" deep box)

261902-XXXX	Double Zone Valve Box (4" Deep box)	
261903-XXXXXX	Triplex Zone Valve Box (4" Deep box)	
261904-XXXXXXXX	Quadruplex Zone Valve Box (4" Deep box)	
261905-XXXXXXXXXX	Quintuplex Zone Valve Box (4" Deep box)	
261902-XXXX	Double Zone Valve Box (6 1/2" deep box)	
261903-XXXXXX	Triplex Zone Valve Box (6 1/2" deep box)	

Replace XX with:

- 05 = 1/2"
- 07 = 3/4"
- 10 = 1"
- 12 = 1 1/4"
- 15 = 1 1/2"
- 20 = 2"



Lockable Valve
 P/N 261600-XX



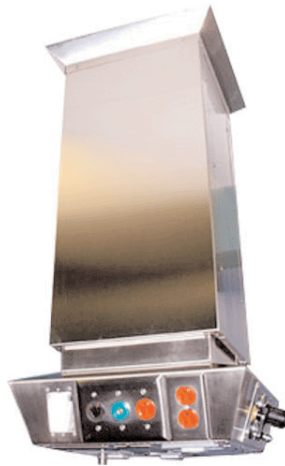
Non-Locking Valve
 P/N 261630-XX

- Full port design
- Blow-out proof stem
- Sizes range from 1/2" (13mm) to 4" (102mm)
- Cleaned for medical gas service
- Teflon seats
- 1/2" through 3" - Dual gauge port on pipe extension
- Available Locking and Non-Locking

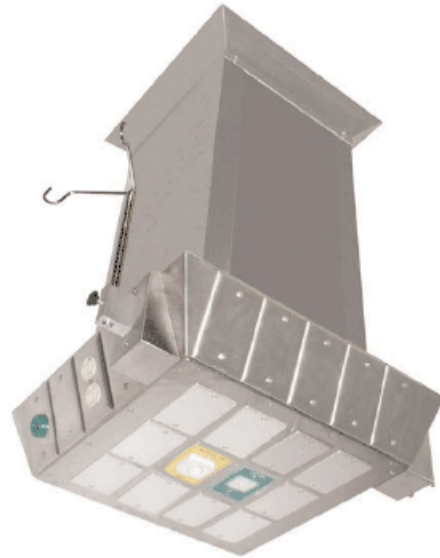
Ceiling Columns



Manual Retractable
Ceiling Column
P/N 262664



Electrically Retractable
Ceiling Column
P/N 262665



Rigid/Stationary Ceiling Column
P/N 262633

Hose Assemblies and Hose Retractor

DISS Female to DISS Male - 5' Hose Length

263400-1-05	Oxygen Hose Assembly
263400A-2-05	Vacuum Hose Assembly
263400-3-05	Nitrous Oxide Hose Assembly
263400-4-05	Air Hose Assembly
263400-5-05	Nitrogen Hose Assembly
263400A-6-05	WAGD Hose Assembly
263400-7-05	Carbon Dioxide Hose Assembly

DISS Female to Chemetron Compatible Quick Connect - 5' Hose Length

263402-1-05	Oxygen Hose Assembly
263402A-2-05	Vacuum Hose Assembly
263402-3-05	Nitrous Oxide Hose Assembly
263402-4-05	Air Hose Assembly
263402A-6-05	WAGD Hose Assembly



Retractor

261746	Retractor
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DISS Female to Ohmeda Compatible Quick Connect - 5' Hose Length

263401-1-05	Oxygen Hose Assembly
263401A-2-05	Vacuum Hose Assembly
263401-3-05	Nitrous Oxide Hose Assem
263401-4-05	Air Hose Assembly
263401A-6-05	WAGD Hose Assembly

MedGas Pipeline

Gas Control Panel



- Nitrogen, Air, CO₂
- Pressure range: 0-300 PSIG
- Pull to Lock
- Push To Adjust
- One DISS Outlet on Unit

P/N

261760 Nitrogen
261911 Ar
263280 CO₂

Emergency Oxygen Inlet Station

- Lockable
- NFPA 99, 2005

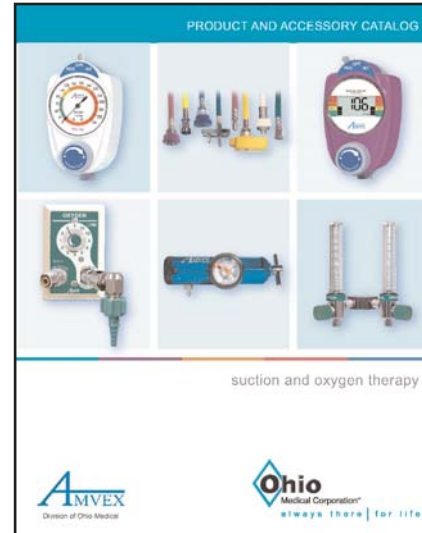
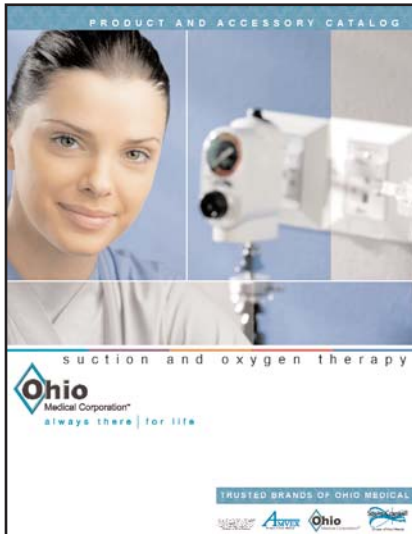
<u>Part Number</u>	<u>Description</u>
261825	Emergency oxygen Inlet Box, NFPA 99, 1999 [2] Low Pressure (Recessed/Surface Mounted)
232600	1/2" Relief Valves (set at 75 PSIG) for Emergency Oxygen Inlet Box [1]
232602	Pipe away for 1/2" Relief Valve (1 required per relief valve)



[1] Advise pressure setting when ordering - typical setting required by NFPA 99 is 75#.

[2] NFPA requires check valves and a relief valve be installed with the emergency oxygen inlet box.

Other Products available from Ohio Medical



Suction and Oxygen Therapy

- Suction Regulators
- Flowmeters
- Medical Gas Regulators
- Portable Electric Vacuum Pumps



Amvex

- Digital Suction Regulators
- Integrated Flowmeters
- Fittings, Adapters, Couplers and Hoses



Service:

24/7 TECHNICAL SUPPORT: 847-855-6234

VACUUM & AIR COMPRESSOR PACKAGES AND ACCESSORIES

(SQUIRE-COGSWELL / HEALTHCAIR® LABCAIR® SELECTORR®)

●
MEDGAS PIPELINE EQUIPMENT

●
SUCTION & OXYGEN THERAPY DEVICES

●
PORTABLE SUCTION MACHINES



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