



## DUPLEX TANK MOUNTED LUBRICATED ROTARY VANE MEDICAL VACUUM SYSTEMS 1 THROUGH 5 HP

The EMSE CORPORATION tank mounted Medical Vacuum system is a completely packaged NFPA 99 and NEC compliant assembly featuring rotary vane vacuum pumps, U.L. listed control cabinet, an ASME receiver and the accessories required to meet and exceed the current code requirements. All components are piped and wired to single-point service connections. The only field connections are air intake, air discharge and power at the control panel. All interconnecting piping and wiring is complete and operationally tested prior to shipment. Liquid tight conduit, fittings and junction boxes are provided for all control and power wiring.

The medical vacuum pumps are continuous duty, rotary vane, air-cooled, equipped with non-asbestos vanes, having a minimum life of 40,000 hours. The pumps are provided with a full recirculated oil supply. The oil separation consists of four stages of oil and smoke eliminators, capable of removing 99.9+% of oil and smoke particles from the exhaust. Each vacuum pump is driven by a 3 phase, 60 cycle, TEFC NEMA C-face, motor.

The system includes a vacuum receiver of ASME construction rated for 200 PSI MWP. The tank includes a vacuum gauge, valved by-pass and manual tank drain. Each vacuum pump is supplied with an inlet check valve, inlet isolation valve, built-in anti-suck-back valve, inlet filter screen, oil sight gauge, oil drain valve, exhaust pressure gauge, vacuum switch, inlet and discharge flexible connectors and a shut-off cock for gauge and vacuum switches.

The system includes a UL listed control panel in a NEMA 12 enclosure. The panel includes the following for **each** pump: externally operable circuit breaker with a door interlock, control circuit transformer with fused primary and secondary coils, H-O-A switch, run light, hour meter, minimum run timer to prevent short cycle operation, magnetic starter with 3 leg overload protection and reset switch. The panel is equipped with a multiple position selector switch for selection of normal operation (automatic alternation) or manual selection of lead and lag pumps if one pump is taken out of service for scheduled maintenance. All control circuit components are plug-in type for quick and easy replacement without re-wiring or a system shut-down.

Local "Backup in use" audible and visual alarms are provided per NFPA 99. The alarm includes an indicating light and horn. The audible alarm can be cancelled with the "Silence" button. The visual alarm remains energized until the problem is corrected. Each alarm function includes dry contacts for connection to the master alarm.



All control and alarm functions remain energized while any vacuum pump remains electrically on-line.

Field adjustable control switches are pre-set to operate the lead vacuum pump between 20" Hg and 25" Hg. The lag vacuum pump will automatically start at 18" Hg if the lead vacuum pump fails to operate.

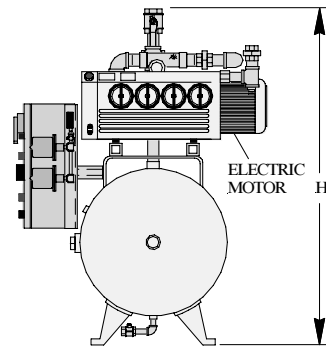
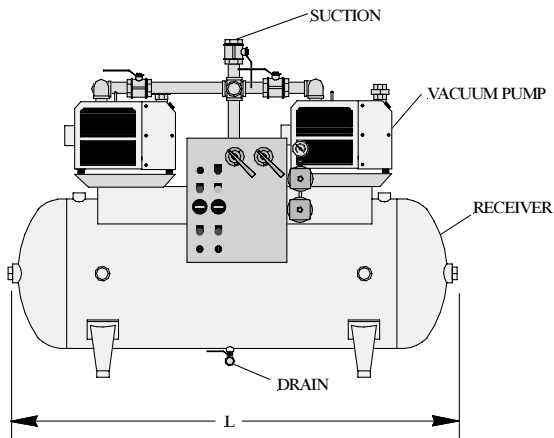
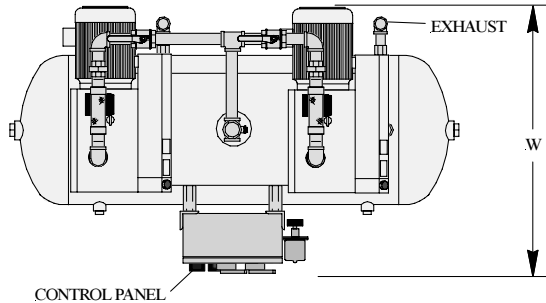
The Medical Vacuum system is guaranteed by the manufacturer for a period of 12 months from the date of start-up or 18 months from the date of shipment (whichever comes first) against defects in design, materials, or construction. In addition, the bare pumps are guaranteed for 36 months from the date of shipment.

### Optional System Accessories

(only checked options will be supplied)

- Rust protection receiver lining
- Galvanized receiver
- Pump intake filters
- Oil temperature gauges
- Receiver gauge glass
- Thermal malfunction shut-down with manual reset and alarm lights

# DUPLEX TANK MOUNTED LUBRICATED ROTARY VANE MEDICAL VACUUM SYSTEMS 1 THROUGH 5 HP LAYOUT AND PERFORMANCE TABLE



System Model Number	Horsepower		Capacity SCFM (Each Pump)		Suct. Conn.	Exh. Conn.	Tank (Gal.)	Dimensions, In.			Weight Lbs.
	Each	Total	19" Hg	25" Hg				L	W	H	
1DRB1T80	1	2	5.1	2.3	1"	1/2"	80	63	30	40	400
1DRR1.5T80	1.5	3	7.4	3.3	1"	1/2"	80	63	35	40	550
1DRR2T80	2	4	12.4	5.6	1"	3/4"	80	63	35	40	640
1DRR3T120	3	6	17.3	8.4	1"	3/4"	120	69	39	45	850
1DRR5T120	5	10	27.5	11.8	1-1/2"	1-1/4"	120	69	41	47	990
1DRR5HT120	5	10	37.3	16.2	1-1/2"	1-1/4"	120	69	42	47	1070

**Notes:** 1. To convert Free Air Capacity (SCFM) to Expanded Air Capacity (ACFM):

at 19" Hg multiply SCFM by 2.74

at 25" Hg multiply SCFM by 6.1

2. Maximum ambient temperature: 105° F. For higher ambient temperatures consult factory.

### Power Requirements:

(Two) \_\_\_\_\_ HP Motors, 3 Phase 60 Hertz  208 v  230 v  460 v