



## DUPLEX "SPACE SAVER" DRY ROTARY VANE MEDICAL VACUUM SYSTEMS 1 THROUGH 2 HP

The EMSE CORPORATION continuous duty tank mounted Medical Vacuum system is a completely packaged NFPA 99 and NEC compliant assembly featuring dry rotary vane vacuum pumps, a U.L. listed electrical control cabinet, an ASME receiver and the necessary accessories required to meet and exceed the current code requirements. All components are pre-piped and pre-wired to single-point service connections. The only field connections are air intake, air discharge and power connection at the control panel. All interconnecting piping as well as wiring is completed 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 oil-less rotary vane air-cooled type. Each vacuum pump is driven by a 3 phase, 60 cycle, TEFC NEMA C-face, foot mounted motor.

The system includes a vacuum storage tank of ASME construction rated for full vacuum service. The tank is equipped with a vacuum gauge, valved by-pass and manual tank drain.

Also included as standard equipment for each vacuum pump are: inlet check valve, inlet isolation valve, safety relief valve, inlet filter, vacuum control switch, bronze or stainless steel flexible connectors on inlet and discharge lines as well as copper tubing with shut-off cock for gauge and vacuum switches.

The system includes a UL labeled control panel in a NEMA 12 enclosure. The panel includes the following standard accessories 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, magnetic starter with 3 leg overload protection and reset switch and minimum run timer to prevent short cycle operation. 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 of the pumps is taken out of service due to scheduled maintenance.

Local "Backup in use" audible and visual alarms are provided per NFPA 99. The alarm includes an indicating light as well as the horn. The audible alarm can be acknowledged with the "Silence" button. The visual alarm will remain energized until the problem has been corrected. Each alarm function includes a set of dry contacts for connection to the master alarm. All control



and alarm functions will remain energized while any vacuum pump in the system remains electrically on-line. Field adjustable control switches are pre-set to operate the lead vacuum pump between 19" Hg and 22" Hg. The lag vacuum pump will automatically start at 18" Hg if the lead vacuum pump fails to operate.

The Medical Vacuum system and its component parts will undergo a complete electric and pneumatic test prior to shipment.

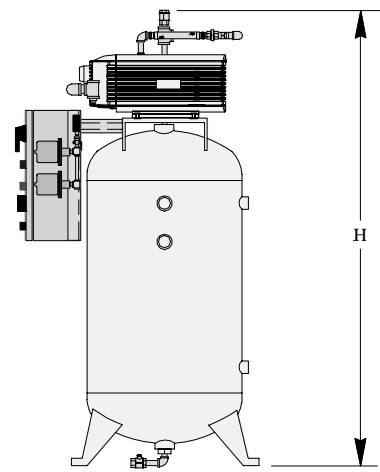
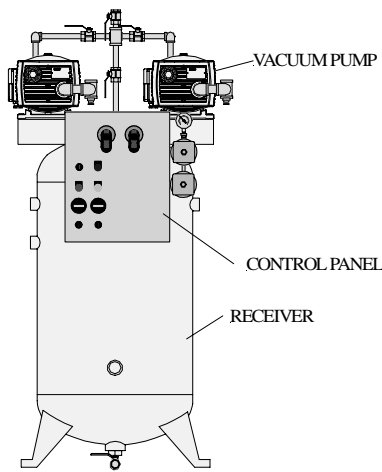
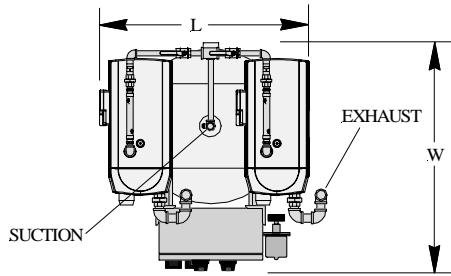
The Medical Vacuum system is guaranteed by the manufacturer for a period of 12 months from the date of start-up or 18 months from the date of shipment (whichever comes first) against defects in design, materials, or construction.

### Optional System Accessories

(only checked options will be supplied)

- Rust protection receiver lining
- Galvanized receiver

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ROTARY VANE MEDICAL VACUUM SYSTEMS  
1 THROUGH 2 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	24" Hg				L	W	H	
1DOB1T80V	1	2	3.0	1.2	1/2"	1/2"	80	32	38	67	440
1DOB1.5T80V	1.5	3	4.8	1.6	3/4"	3/4"	80	32	38	67	460
1DOB2T80V	2	4	8.1	2.3	3/4"	3/4"	80	32	38	67	530
1DOB2T120V	2	4	8.1	2.3	3/4"	3/4"	120	39	44	69	740

**Notes:** 1. To convert Free Air Capacity (SCFM) to Expanded Air Capacity (ACFM):  
at 19" Hg multiply SCFM by 2.74  
at 24" Hg multiply SCFM by 5.05  
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