



DUPLEX TANK MOUNTED HIGH EFFICIENCY DRY CLAW MEDICAL VACUUM SYSTEMS 2 THROUGH 5 HP

The EMSE CORPORATION tank mounted Medical Vacuum system is a completely packaged NFPA 99 and NEC compliant assembly featuring high efficiency dry claw 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.

VACUUMPUMPS

The medical vacuum pumps are continuous duty, high efficiency, oil-less, frictionless, compression rotary claw, with intake filters and exhaust silencers.

Each vacuum pump is driven by a 3 phase, 60 cycle, TEFC NEMA C-face motor.

Each vacuum pump is supplied with an inlet check valve, inlet isolation valve, safety relief valve, inlet filter, vacuum control switch, inlet and discharge flexible connectors and a shut-off cock for gauge and vacuum switches.

RECEIVER

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.

CONTROL PANEL

The UL listed control panel is supplied in a NEMA 12 enclosure and includes short circuit, single phase and thermal overload protection. Externally operable circuit breakers with a door interlock, control circuit transformers with fused primary and secondary coils, H-O-A switches, magnetic starters with 3 leg overload protection and reset switches are standard.

The Programmable Logic Controller provides automatic alternation and lead-lag control with the option to select either one of the pumps as a permanent lead for periods of pump maintenance. It includes minimum run timers to prevent short cycle operation.



Human Machine Interface (HMI) display includes pump run indication, accumulated run time and alarm conditions.

Local "Backup in use" audible and visual alarms are provided per NFPA 99. The audible alarm can be acknowledged with the "Silence" button. The visual alarm will stay on until manually reset.

All controls and alarms will function even if one of the pumps is shut down for maintenance or repairs.

The panel includes a set of dry contacts for connection to the master alarm.

Field adjustable control switches are pre-set to operate the lead vacuum pump between 19" Hg and 23" Hg. The stand-by vacuum pump will automatically start at 16" Hg if one of the other vacuum pumps fails to operate.



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

WARRANTY

The Medical Vacuum system is guaranteed for a period of 24 months from the date of start-up or 30 months from the date of shipment (whichever comes first) against defects in design, materials, or construction.

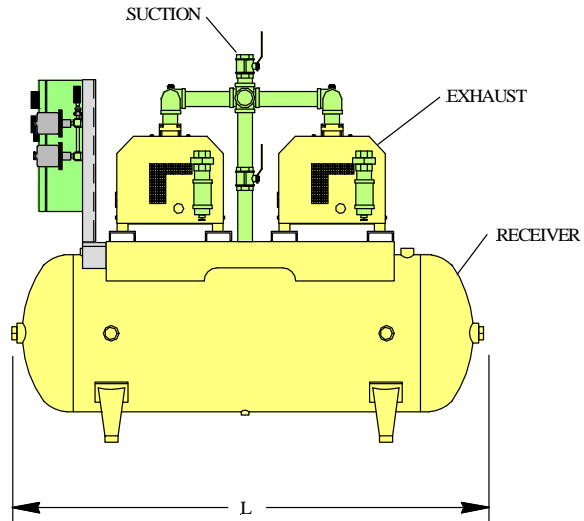
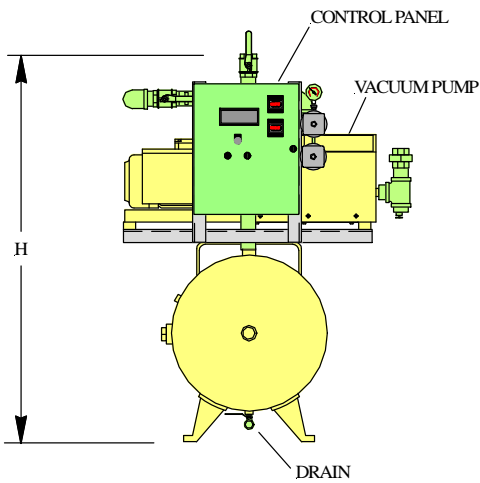
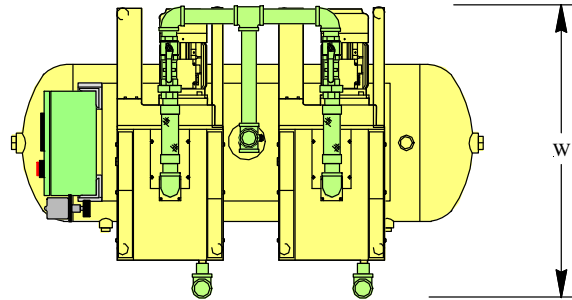
Optional System Accessories

(only checked options will be supplied)

- Touch Screen HMI (Ethernet ready) including vacuum level display, pump status indication, accumulated run time, all alarm displays and scheduled maintenance reminder
- Touch screen interface with ethernet connectivity, embedded web page for remote monitoring and electronic notifications of alarms and warnings
- Rust protection receiver lining
- Galvanized receiver
- External intake filters
- Thermal malfunction shut-down with manual reset and alarm lights
- Oxygen assured
- Variable speed drive

DUPLEX TANK MOUNTED HIGH EFFICIENCY DRY CLAW MEDICAL VACUUM SYSTEMS 2 THROUGH 5 HP LAYOUT AND PERFORMANCE TABLE

MOUNT UNIT ON CONCRETE BASE
 RECOMMENDED MINIMUM ACCESS
 SPACE 3 FEET IN FRONT OF PANEL



System Model Number	Horsepower		Capacity SCFM (Each Pump) @ 19" Hg	Suct. Conn.	Exh. Conn.	Tank (Gal.)	Dimensions, In.			Weight Lbs.
	Each	Total					L	W	H	
1DCB2T120	2	4	16	1-1/4"	1"	120	69	43	60	1180
1DCB3T120	3	6	21	1-1/4"	1"	120	69	43	60	1220
1DCB4T120	4	8	29	1-1/4"	1"	120	69	43	60	1220
1DCB5T120	5	10	38	1-1/4"	1"	120	69	44	60	1250

- Notes:**
- To convert Free Air Capacity (SCFM) to Expanded Air Capacity (ACFM):
 at 19" Hg multiply SCFM by 2.74
 - Maximum ambient temperature: 100° F for standard systems, 90° F if equipped with variable speed drive.

Power Requirements:

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