CUSCO DOT DURAVAC 820 Vacuum Combo Unit

STANDARD OPTIONS

- DESIGN: Design shall withstand 25-PSI internal pressure and 15 PSIG external pressure (full vacuum) and shall meet all the requirements of Section VIII Division 1 of the A.S.M.E. Boiler and Pressure Vessel Code. National Board Registered. Tank designed and constructed in full compliance with Department of Transportation Specifications DOT 407/412 and TC 407 / 412
- TANK CAPACITY: 3200 USG + 3% Outage
- HEAD MATERIAL: 0.3125 SA516-70
- SHELL MATERIAL: 0.3125 SA516-70
- TANK DIAMETER: 78" OD
- OPERATING TEMPERATURE: -20 to 200 degrees F
- HYDROSTATIC TEST PRESSURE: 40.0 PSIG
- PRESSURE RELIEF: 4" SS Girard pressure vent, 25 PSIG setting mounted top of tank.
- PRIMARY SHUT-OFF: 6" internal shut-off with 12" SS float ball and cage assembly with neoprene rubber seat top front of tank.
- BAFFLE: One anti surge mounted on reinforcing pad.
- RINGS: Circumferential reinforcement rings with tank support feet.
- OVERTURN PROTECTION: Front, dual center, and rear 4" pipe construction overturns with reinforcement pads and gussets
- SAMPLE PORT: 6" sample port installed in top of tank with vent valve
- LIQUID LEVEL INDICATOR: Stainless Steel construction rotary float gauge with 6" float ball assembly located on front driver side with grab handle and up position tie back.
- REAR DOOR: Hydraulic full opening rear door assembly with 6 heavy duty wing clamps, neoprene rubber rear door gasket, double acting hydraulic cylinders and safety brace.
- SUCTION VALVE: One 6" ANSI Betts air open/spring close valve and Betts actuator with 6" sand pipe / deflector plate assembly, aluminum Kamlok fittings at 4 o'clock position. One 4" ANSI Betts air open/spring close valve and Betts actuator with aluminum Kamlok fittings mounted at 8 o'clock position. Note the 4:00 position does not include a sand pipe assembly.
- DISCHARGE VALVE: 6" ANSI Betts air open/spring close valve and Betts actuator with aluminum Kamlok fittings mounted on rear head.
- ISOLATION VALVE: 6" air operated butterfly valve between primary and secondary shut-off controlled by manual air switch.
- FILTRATION SYSTEM: Cusco 20" diameter final filter assembly installed for protection of blower with 16" diameter stainless steel 100 micron filter.
- CYCLONE: High capacity cyclone assembly with 12" diameter drop box with bottom mounted clean out door, and 2" brass gate valve, Kamlok and cap. Cyclone installed on front of head of tank curbside.
- PIPING: Single 6" diameter composite hose with Victaulic fittings no disconnect piping to allow tank to dump with vacuum system connected with 6" 4 way valve for vacuum loading and pressure unloading and dual 6" inline check valve assemblies.
- SILENCERS: 6" intake and exhaust silencer with exhaust line c/w 6" aluminum kamlok
- BLOWER SPECIFICATIONS: Hibon VTB-820, 1400 CFM free air rating, 1100 CFM @ 18"Hg, 27"Hg maximum vacuum.
- DRIVE: Hydraulically driven from air shift PTO mounted on transmission with hydraulic pump, motor and oil cooler.
- BLOWER FLUSH SYSTEM: Diesel fuel supply line with valve from separate diesel fuel tank.
- HYDRAULIC RESERVOIR: Mounted on hydraulic dump sub-frame with suction strainer, diffuser, fill cap, hydraulic oil filters and sight glass.
- HYDRAULIC DUMP SYSTEM: Full length hydraulic dump sub-frame with 20 ton Mailhot single acting dump cylinder, rear dump pivot assembly and safety brace.
- HYDRAULIC VIBRATOR: Assembly mounted bottom of tank with reinforcing pad, heavy duty mounting channel, pressure relief valve
- HYDRAULIC CONTROLS: 3-spool valve body for control of blower/vibrator, rear door, and hydraulic dump located on the driver side of unit near control panel.
- GAUGES: Duravac gauge panel assembly with tank vacuum/pressure gauge, filter element vacuum gauges, tachometer, throttle control, diesel flush control and cooler over ride. Panel located on the driver side of unit near hydraulic controls.
- SIDE TRAYS: Western style full length side boxes for hose storage / fender assembly with heavy duty out riggers, anti-sail mud flaps, rear 45 degree full coverage tire skirt, and splash guard between subframe and side tray full length.
- TRIM: Ladder assembly on water tank portion with 6-point attachment for access to water tank manway, four numbered placards and 50' static line.
- LIGHTING: DOT LED moisture proof lighting, three lower lamp assembly, dual upper turn and brake lamp assembly, 5 side marker lights on side tray, clearance lamps, reflectors, three in a row clearance markers, upper license plate mount and light assembly, and one rear amber strobe beacon. 6 total flood lights (4) rear facing rectangular halogen flood lights (2 on rear door and 1 on each side of tank at front), (1) at blower control area, and (1) at wash system work area.
- BUMPER: DOT rear bumper for protection of external valves with grated platform/step assembly and rear dirt shield. Rear bumper will have removable insert.
- WATER TANK: 1000 USG steel water compartment front of waste tank, sandblasted and coated on interior with heavy duty sealant, with 20" manway, 3" air operated heated BF drain valve, heated supply line with water shutoff valve, stainless steel construction rotary float gauge with 6" float ball assembly located on front passenger side with grab handle and 3" brass fill port on curb side with line to top of compartment with kamlok and cap connection. Water tank re-circulating system with burner operational when truck is stationary.
- HIGH PRESSURE WASH SYSTEM: CAT 3560 water pump with suction strainer, pressure relief valve. Two (2) steam, rated Hannay hydraulic rewind hose reels c/w 75' 3/8" high pressure hose. Complete wash pump and reels mounted on passenger side, in a pointed steel insulated cross box with 2 high capacity bus heaters and polished SS doors installed behind truck cab with light and small hose access doors for hose reels. Includes handgun and steam want
- WATER PUMP DRIVE: Water pump to be driven via load sensing hydraulic system with adjustable pressure and speed controls.
- WASH SYSTEM OPERATION: Wash system have dedicated steam hose reel and hot water hose reel. Wash to be set up to run one or both hose reels at the same time for hot water only not steam. Water system to be set to maximum 3000 PSI and 20 GPM. Note water pump to operate at same time as blower.



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- HOT WATER SYSTEM: 980,000 BTU/hr burner with steam kit and 3000 watt 110 volt inverter with additional outlet in burner cabinet. Diesel fuel filter system with water separator. Water supplied from wash system. Burner mounted in the center of heated and insulated cross box, exhaust stack for burner. Glycol flush tank included for winterizing system c/w air purge system.
- HEATED JACKET VALVE: Assembly for 4" or 6" rear valves, isolation valve, water tank drain, fill valve, and cyclone drain valve.
- TOOLBOX: One (1) 72" toolbox mounted on driver's side side tray, spaced up 1" from checker plate for cleaning. Side swing doors.
- · CHAIN HANGERS: Two (2) solid mount chain hangers, one mounted each side complete with locking bar
- FIRE EXTINGUISHER: 30 lb. ABC fire extinguisher mounted on driver's side.
- PAINT: The entire tank and body of the vacuum system is sandblasted and primed with two (2) coats of primer and painted with two (2) coats of single stage Sherwin Williams paint
- INSTALLATION: 2014 Western Star SB4900 Chassis, Cummins ISX 15 Engine, 500HP, and Eaton Fuller RTLO-16918B Manual Transmission











