



Your toughest jobs just got easier with Cusco's Turbovac truck series. Built to perform, Cusco's Turbovac series will handle heavy sludge, slurries, and liquid waste without compromise. With cyclonic filtration technology, airflow ratings of 1,800 CFM to 5,500 CFM, and powered with 28" Hg of vacuum, the Turbovac series is your solution to handling hazardous and non-hazardous waste removal and environmental remediation.

#### **Features**

- ► Positive displacement blowers
- ► Heavy-duty hydraulic vibrator
- ► Pressure off-loading system
- Rear door valves
- ► Sand pipe to carry solids to the front of the tank
- Internal shut-off to prevent fluids from entering the vacuum pump
- ► Rotary float gauge
- ► Isolation valve
- ► Tank pressure relief valve
- ► Cyclone assembly

- ► System pressure relief valve
- ► Vacuum relief valve
- ► Hydraulic control valve
- ► Roots/Hibon blowers
- ► Air cooled vacuum pumps
- ► Exterior moisture trap
- ► Exterior filter and float ball
- ► Oil trap muffler
- ► Master control panel

#### **Turbovac Optional Features**

- ► High-pressure wash system
- ► Stainless steel tank construction
- ► Hydraulic suction boom
- ► Heated valves
- ► Storage cabinets and toolboxes
- ▶ DOT 407/412 and TC 407/41 configurations

### **Product Specifications**

Installation	• 2018 Kenworth T-880 tandem axle, 450hp, automatic chassis
Tank Capacity	• 3600 USG + 3% Outage
Hydrostatic Test Pressure	• 40.0 PSIG
Internal Design Pressure	• 25PSIG MAWP
External Design Pressure	• 15PSIG
Standards	Meet all requirements     Section VIII Division 1 ASME Boiler and Pressure Vessel Code     National Board Registered     Tanks to be designed and Constructed     Department of Transportation Specifications DOT 407/12
Head Material	• 0.3125 SA516-70
Shell Material	• 0.3125 SA516-70
Tank Diameter	• 78" OD
Operating Temperature	• -20 to 200 degrees F
Pressure Relief	4" SS Girard pressure vent, 30 PSIG setting mounted top of tank
Primary Shut-off	8" Internal shut-off with 12" stainless steel float ball/cage assembly and 8" rubber seat.
Baffle	One anti surge baffle mounted on reinforcing pads
Rings	Circumferential reinforcement rings with tank support feet where applicable
Overturn Protection	Front, center and rear 4" pipe construction overturns with reinforcement pads and gussets; cw overturn rings
Manway	20" Diameter located top of tank.
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 cylinder and safety brace.
Suction Valve	6" ANSI Betts air open/spring close valve and actuator, 6" stand pipe/deflector plate assembly, aluminum Kamlok fittings mounted on rear head at 4 o'clock position
Discharge Valve	6" ANSI Betts air open/spring close valve and actuator with aluminum Kamlok fittings mounted on bottom center of rear door

## **Product Specifications**

Solation Valve   8" Air operated butterfly valve between primary and cyclone with manual air switch control		
with side swing clean out, 3" brass drain valve and aluminum Kamlok fittings, Cusco 30" diameter final filter assembly installed for protection of blower with 20" diameter stainless core steel with 100 micron filter  Silencers  12" Intake and exhaust silencers  Roots DVJ 721 Blower 3658 CFM free air rating, 2850 CFM @ 18"Hg, 27" Hg maximum vacuum  Blower Piping  Single 8" diameter with 8" quick disconnect rubber boot assembly  6" Manual butterfly vacuum relief valve and 10" inline check valve assembly  Drive  Pressure Unloading System  Moro PM80 air cooled vacuum/pressure pump (350 CFM free air 28" Hg) hydraulically driven with 3" air operated isolation butterfly valve, 3" diameter no disconnect piping, 3" secondary moisture trap filter and muffler/oil trap assembly  Hydraulic Reservoir  Hydraulic Dump System  Full length hydraulic dump sub-frame with 20 ton, 3 stage single acting dump cylinder, rear dump pivot assembly and safety brace  Vibrator  Hydraulic Vibrator assembly mounted bottom of tank with reinforcing pad, heavy duty mounting channel and pressure relief valve  Hydraulic Controls  Gauges  1 Turbovac gauge panel assembly with tank vacuum/pressure gauge, filter element vacuum gauges, tachometer, throttle control and 3" isolation valve control. Panel to be lighted for night operation. Panel to be located on the driver side of unit near control panel  Side Trays  Full-length side boxes for hose storage / fender assembly with antisail mud-flaps and rear tire skirt.  Trim  Ladder assembly mounted on the driver side of the tank c/w sidebox ladder.  (4) numbered placards  50' Static line	Isolation Valve	
Blower Specifications  - Roots DVJ 721 Blower 3658 CFM free air rating, 2850 CFM @ 18"Hg, 27" Hg maximum vacuum  - Single 8" diameter with 8" quick disconnect rubber boot assembly  - Single 8" diameter with 8" quick disconnect rubber boot assembly  - Single 8" diameter with 8" quick disconnect rubber boot assembly  - Blower Valving  - Single 8" diameter with 8" quick disconnect rubber boot assembly  - Drive  - Driven from air shift transfer case  - Moro PM80 air cooled vacuum/pressure pump (350 CFM free air 28" Hg) hydraulically driven with 3" air operated isolation butterfly valve, 3" diameter no disconnect piping, 3" secondary moisture trap filter and muffler/oil trap assembly  - Mounted on hydraulic dump sub-frame with suction strainer, diffuser, fill cap, hydraulic oil filters and sight glass  - Full length hydraulic dump sub-frame with 20 ton, 3 stage single acting dump cylinder, rear dump pivot assembly and safety brace  - Vibrator  - Hydraulic vibrator assembly mounted bottom of tank with reinforcing pad, heavy duty mounting channel and pressure relief valve  - Hydraulic Controls  - 3-spool valve body for control of pressure unloading system/vibrator, rear door and hydraulic dump complete with hydraulic pressure guage. Controls are located on the driver side of unit near control panel  - Turbovac gauge panel assembly with tank vacuum/pressure gauge, filter element vacuum gauges, tachometer, throttle control and 3" isolation valve control. Panel to be lighted for night operation. Panel to be located on the driver side of unit near hydraulic controls.  - Full-length side boxes for hose storage / fender assembly with antisail mud-flaps and rear tire skirt.  - Ladder assembly mounted on the driver side of the tank c/w sidebox ladder.  - (4) numbered placards - 50' Static line	Filtration System	with side swing clean out, 3" brass drain valve and aluminum Kamlok fittings, Cusco 30" diameter final filter assembly installed for protection of blower with 20" diameter stainless core steel with 100
Blower Piping  Single 8" diameter with 8" quick disconnect rubber boot assembly  6" Manual butterfly vacuum relief valve and 10" inline check valve assembly  Drive  Drive  Driven from air shift transfer case  Moro PM80 air cooled vacuum/pressure pump (350 CFM free air 28" Hg) hydraulically driven with 3" air operated isolation butterfly valve, 3" diameter no disconnect piping, 3" secondary moisture trap filter and muffler/oil trap assembly  Hydraulic Reservoir  Hydraulic Dump System  Full length hydraulic dump sub-frame with suction strainer, diffuser, fill cap, hydraulic dump sub-frame with 20 ton, 3 stage single acting dump cylinder, rear dump pivot assembly and safety brace  Vibrator  Hydraulic Vibrator assembly mounted bottom of tank with reinforcing pad, heavy duty mounting channel and pressure relief valve  Hydraulic Controls  Jaspool valve body for control of pressure unloading system/vibrator, rear door and hydraulic dump complete with hydraulic pressure guage. Controls are located on the driver side of unit near control panel  Gauges  Turbovac gauge panel assembly with tank vacuum/pressure gauge, filter element vacuum gauges, tachometer, throttle control and 3" isolation valve control. Panel to be lighted for night operation. Panel to be located on the driver side of unit near hydraulic controls.  Side Trays  Full-length side boxes for hose storage / fender assembly with antisail mud-flaps and rear tire skirt.  Ladder assembly mounted on the driver side of the tank c/w sidebox ladder.  (4) numbered placards  50' Static line	Silencers	12" Intake and exhaust silencers
Blower Valving  - 6° Manual butterfly vacuum relief valve and 10° inline check valve assembly  Drive  - Driven from air shift transfer case  - Moro PM80 air cooled vacuum/pressure pump (350 CFM free air 28° Hg) hydraulically driven with 3° air operated isolation butterfly valve, 3° diameter no disconnect piping, 3° secondary moisture trap filter and muffler/oil trap assembly  - Mounted on hydraulic dump sub-frame with suction strainer, diffuser, fill cap, hydraulic oil filters and sight glass  - Full length hydraulic dump sub-frame with 20 ton, 3 stage single acting dump cylinder, rear dump pivot assembly and safety brace  - Vibrator  - Hydraulic vibrator assembly mounted bottom of tank with reinforcing pad, heavy duty mounting channel and pressure relief valve  - Hydraulic Controls  - 3-spool valve body for control of pressure unloading system/vibrator, rear door and hydraulic dump complete with hydraulic pressure guage. Controls are located on the driver side of unit near control panel  - Turbovac gauge panel assembly with tank vacuum/pressure gauge, filter element vacuum gauges, tachometer, throttle control and 3° isolation valve control. Panel to be lighted for night operation. Panel to be located on the driver side of unit near hydraulic controls.  - Full-length side boxes for hose storage / fender assembly with antisail mud-flaps and rear tire skirt.  - Ladder assembly mounted on the driver side of the tank c/w sidebox ladder.  - (4) numbered placards - 50' Static line	Blower Specifications	
Drive Driven from air shift transfer case  Pressure Unloading System  Pressure Unloading System  A Moro PM80 air cooled vacuum/pressure pump (350 CFM free air 28" Hg) hydraulically driven with 3" air operated isolation butterfly valve, 3" diameter no disconnect piping, 3" secondary moisture trap filter and muffler/oil trap assembly  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, 3 stage single acting dump cylinder, rear dump pivot assembly and safety brace  Vibrator  Hydraulic Vibrator assembly mounted bottom of tank with reinforcing pad, heavy duty mounting channel and pressure relief valve  Hydraulic Controls  3-spool valve body for control of pressure unloading system/vibrator, rear door and hydraulic dump complete with hydraulic pressure guage. Controls are located on the driver side of unit near control panel  Gauges  Turbovac gauge panel assembly with tank vacuum/pressure gauge, filter element vacuum gauges, tachometer, throttle control and 3" isolation valve control. Panel to be lighted for night operation. Panel to be located on the driver side of unit near hydraulic controls.  Side Trays  Full-length side boxes for hose storage / fender assembly with antisall mud-flaps and rear tire skirt.  Trim  Ladder assembly mounted on the driver side of the tank c/w sidebox ladder.  (4) numbered placards  50' Static line	Blower Piping	Single 8" diameter with 8" quick disconnect rubber boot assembly
Pressure Unloading System  • Moro PM80 air cooled vacuum/pressure pump (350 CFM free air 28" Hg) hydraulically driven with 3" air operated isolation butterfly valve, 3" diameter no disconnect piping, 3" secondary moisture trap filter and muffler/oil trap assembly  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, 3 stage single acting dump cylinder, rear dump pivot assembly and safety brace  Vibrator  • Hydraulic vibrator assembly mounted bottom of tank with reinforcing pad, heavy duty mounting channel and pressure relief valve  Hydraulic Controls  • 3-spool valve body for control of pressure unloading system/vibrator, rear door and hydraulic dump complete with hydraulic pressure guage. Controls are located on the driver side of unit near control panel  Gauges  • Turbovac gauge panel assembly with tank vacuum/pressure gauge, filter element vacuum gauges, tachometer, throttle control and 3" isolation valve control. Panel to be lighted for night operation. Panel to be located on the driver side of unit near hydraulic controls.  Side Trays  • Full-length side boxes for hose storage / fender assembly with antisail mud-flaps and rear tire skirt.  Trim  • Ladder assembly mounted on the driver side of the tank c/w sidebox ladder.  • (4) numbered placards  • 50' Static line	Blower Valving	
28" Hg) hydraulically driven with 3" air operated isolation butterfly valve, 3" diameter no disconnect piping, 3" secondary moisture trap filter and muffler/oil trap assembly  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, 3 stage single acting dump cylinder, rear dump pivot assembly and safety brace  Vibrator  • Hydraulic vibrator assembly mounted bottom of tank with reinforcing pad, heavy duty mounting channel and pressure relief valve  Hydraulic Controls  • 3-spool valve body for control of pressure unloading system/vibrator, rear door and hydraulic dump complete with hydraulic pressure guage. Controls are located on the driver side of unit near control panel  Gauges  • Turbovac gauge panel assembly with tank vacuum/pressure gauge, filter element vacuum gauges, tachometer, throttle control and 3" isolation valve control. Panel to be lighted for night operation. Panel to be located on the driver side of unit near hydraulic controls.  Side Trays  • Full-length side boxes for hose storage / fender assembly with antisail mud-flaps and rear tire skirt.  Trim  • Ladder assembly mounted on the driver side of the tank c/w sidebox ladder.  • (4) numbered placards  • 50' Static line	Drive	Driven from air shift transfer case
Hydraulic Dump System  • Full length hydraulic dump sub-frame with 20 ton, 3 stage 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 and pressure relief valve  Hydraulic Controls  • 3-spool valve body for control of pressure unloading system/vibrator, rear door and hydraulic dump complete with hydraulic pressure guage. Controls are located on the driver side of unit near control panel  Gauges  • Turbovac gauge panel assembly with tank vacuum/pressure gauge, filter element vacuum gauges, tachometer, throttle control and 3" isolation valve control. Panel to be lighted for night operation. Panel to be located on the driver side of unit near hydraulic controls.  Side Trays  • Full-length side boxes for hose storage / fender assembly with antisail mud-flaps and rear tire skirt.  Trim  • Ladder assembly mounted on the driver side of the tank c/w sidebox ladder. • (4) numbered placards • 50' Static line	Pressure Unloading System	28" Hg) hydraulically driven with 3" air operated isolation butterfly valve, 3" diameter no disconnect piping, 3" secondary moisture trap
Acting dump cylinder, rear dump pivot assembly and safety brace  Vibrator  - Hydraulic vibrator assembly mounted bottom of tank with reinforcing pad, heavy duty mounting channel and pressure relief valve  - 3-spool valve body for control of pressure unloading system/vibrator, rear door and hydraulic dump complete with hydraulic pressure guage. Controls are located on the driver side of unit near control panel  - Turbovac gauge panel assembly with tank vacuum/pressure gauge, filter element vacuum gauges, tachometer, throttle control and 3" isolation valve control. Panel to be lighted for night operation. Panel to be located on the driver side of unit near hydraulic controls.  - Full-length side boxes for hose storage / fender assembly with antisail mud-flaps and rear tire skirt.  - Ladder assembly mounted on the driver side of the tank c/w sidebox ladder.  - (4) numbered placards - 50' Static line	Hydraulic Reservoir	
Pad, heavy duty mounting channel and pressure relief valve  - 3-spool valve body for control of pressure unloading system/vibrator, rear door and hydraulic dump complete with hydraulic pressure guage. Controls are located on the driver side of unit near control panel  - Turbovac gauge panel assembly with tank vacuum/pressure gauge, filter element vacuum gauges, tachometer, throttle control and 3" isolation valve control. Panel to be lighted for night operation. Panel to be located on the driver side of unit near hydraulic controls.  - Full-length side boxes for hose storage / fender assembly with antisail mud-flaps and rear tire skirt.  - Ladder assembly mounted on the driver side of the tank c/w sidebox ladder.  - (4) numbered placards  - 50' Static line	Hydraulic Dump System	
rear door and hydraulic dump complete with hydraulic pressure guage. Controls are located on the driver side of unit near control panel  • Turbovac gauge panel assembly with tank vacuum/pressure gauge, filter element vacuum gauges, tachometer, throttle control and 3" isolation valve control. Panel to be lighted for night operation. Panel to be located on the driver side of unit near hydraulic controls.  • Full-length side boxes for hose storage / fender assembly with antisail mud-flaps and rear tire skirt.  • Ladder assembly mounted on the driver side of the tank c/w sidebox ladder. • (4) numbered placards • 50' Static line	Vibrator	
filter element vacuum gauges, tachometer, throttle control and 3" isolation valve control. Panel to be lighted for night operation. Panel to be located on the driver side of unit near hydraulic controls.  Side Trays  • Full-length side boxes for hose storage / fender assembly with antisail mud-flaps and rear tire skirt.  Trim  • Ladder assembly mounted on the driver side of the tank c/w sidebox ladder.  • (4) numbered placards  • 50' Static line	Hydraulic Controls	rear door and hydraulic dump complete with hydraulic pressure guage. Controls are located on the driver side of unit near control
sail mud-flaps and rear tire skirt.  • Ladder assembly mounted on the driver side of the tank c/w sidebox ladder.  • (4) numbered placards  • 50' Static line	Gauges	filter element vacuum gauges, tachometer, throttle control and 3" isolation valve control. Panel to be lighted for night operation. Panel
ladder.  • (4) numbered placards  • 50' Static line	Side Trays	
	Trim	ladder.  • (4) numbered placards  • 50' Static line

# **TURBOVAC**

#### **Product Specifications**

Lighting	<ul> <li>DOT LED moisture proof lighting conformant to FMVSS 108</li> <li>(3) lamp rear module assembly</li> <li>Clearance lamps</li> <li>Reflectors</li> <li>(3) in a row clearance markers</li> <li>(2) rear halogen flood lights and (1) at controls</li> <li>(1) rear amber strobe beacon</li> </ul>
Bumper	DOT rear bumper for protection of external valves with platform/step assembly and rear dirt shield.
Dual Hose Hooks	Dual rear mounted hose hooks

