

# VACALL™

## All Excavate 35



NON-COL VACUUM EXCAVATION  
**All Excavate 35**

## SPECIFICATIONS

### GENERAL SPECIFICATIONS

**Silencer:** Outlet silencer based on blower requirements

**Electrical:** 12 volt CAN bus system with sealed connectors

### VACUUM SYSTEM

**Blower:** Howden-Roots 6x16 with two vacuum reliefs

**Vacuum:** 2,200 CFM @ 15" Hg (204"H2O)  
70 HP @ 2,800 rpm

**Blower Airflow:** 2,446 CFM free air

**Drive:** Chelsea PTO on Transmission,  
Full Hydrostatic drive

**Blower Inlet:** Filter housing with 304 SS  
screen assembly

**Cyclone Separator:** Dual with drop box clean out

**Vacuum Relief:** Air operated 4" valve controlled  
at control panel and handheld pendant

### WATER SYSTEM

**Pump Type:** Hydraulically powered triplex plunger

**Water Pump:** 0-10 gpm @ 3,000 psi  
(37.8 LPM @ 206.8 BAR)

**Excavating Hose Reel:** Hannay spring rewind,  
0.5" x 50' capacity, includes 50' of 0.5" high  
pressure, high temperature hose

**Standard Handgun, Lance, and Nozzle Kit:**  
(1) Handgun/lance assembly, (2) extension  
lances with quick couplers, 50' handgun hose  
with quick couplers on each end, 3,000 psi  
hose shipped loose

**Drain Valves:** High pressure section, water  
pump suction line, cut-off on water pump  
inlet line

**Water Pressure Relief Valve:** Adjustable

**Air Purge System**

**Cold Weather Recirculation:** TBD

### DEBRIS TANK

**Volumetric Capacity:** 3.5 cubic yards, 776 gallons

**Dump Angle:** 50°

**Construction:** Round Steel Tank

**Sides:** .187" thick steel

**Lifting:** Hydraulic 2-stage telescopic cylinder

**Debris Body Safety Prop:** Dual prop manually  
operated, located on hoist frame near cylinder

**Tailgate:** Heavy-duty rear 90° hydraulically  
opening with dual positive hydraulic locks

**Tailgate Safety Prop:** Dual Props

**Carbon Steel Float Ball Cage**

**Stainless Steel Float Ball Shut-Off**

**Carbon Steel Splash Shield**

**Float Level Indicator**

**Interior and Exterior Powder Coated**

**Sludge Pump Port**

### BOOM AND HOSE

**Hose:** 6" bore x 240" long, single piece rubber  
hose, boom turret head to end connector

**Hose Construction:** Smooth bore Gumrubber liner

**Hydraulic Boom:** Rear mounted

**Boom Rotation:** 270°

### HYDRAULIC SYSTEM

**Hydraulic Pump:** Pressure-compensated  
piston pump with ORS fittings

**Hydraulic Reservoir:** 51 gal max

**Return Filter:** 5 microns

### OPERATOR CONTROLS

**AllSmartFlow Control Panel:**

**Enclosed cabinet** control box containing:  
CAN bus boom control joystick recessed for  
protection. LCD color display with 32 output  
microprocessor control (expandable), J1939  
can communication, increase/decrease engine  
RPM, tachometer, hour meter, water pressure  
psi, vacuum Hg, water pump hour meter, blower  
hour meter, vacuum gauge, low water light

**Boom Control Joystick:** Recessed for  
protection

**Throttle Control:** Increase and decrease RPM

**Water Pump:** On, off, increase and decrease  
pressure

**Blower:** On, off, increase and decrease vacuum

**Vacuum Relief:** Open and close

**Electric Implement Controls:** Debris tank  
raise and lower, rear door open and close,  
vibrator, and sludge pump

**Emergency Stop**

**Electrical Controls and Wiring Harness:**  
Ip66 sealed exterior, protective cover exceeds  
Nema 4 rating

**Two Channel Camera System:** 7" Swivel Color  
LCD Monitor (Back Up)

### POWER MODULE

**Vacuum Pump:** Hydrostatic drive

**Hydraulic Level Sight Gauge**

**Hydraulic Reservoir Shut-Off Valve(s)**

**Hydraulic Pump:** Dual Implement and  
Water System

**Tube Storage at Power Module**

### WATER TANKS

**Volumetric Capacity:** 500 gallons

**Construction:** Aluminum

**Water Tank Fill:** 4" air gap with water tank  
electronic level indicator on control panel display  
2-1/2" Y-Strainer on Fill Line

**VACALL™**

## SPECIFICATIONS (cont.)

### CHASSIS

Electric Back Up Alarm  
Factory Mounted Single Axle, Fenders  
Mud Flaps Behind Rear Tires  
Rear Dot Under Ride Protection (Bumper)

### LIGHTING

LED D.O.T. Lighting: Stop, tail, turn and back-up  
LED Boom Work Lights

### PAINT

Supreme Finished Galvanized Debris Body  
Supreme Finished Galvanized Air Water Separator  
Supreme Finished Galvanized Tailgate  
Powder Coat: Subframe, power frame, exhaust silencer, debris tank exterior and interior, water tanks and air/water separator exterior only

### PACKAGED ITEMS

TBD

## VACALL ALLEXCAVATE 35 CHASSIS REQUIREMENTS

#### Vehicle configuration

- Set forward axle - truck

#### General service

- Expected front axle(s) load: 12,000 lb (max weight)
- Expected rear drive axle(s) load: 21,000 lb (max weight)
- Expected gross vehicle weight capacity: 26,000 lb (max weight)
- Domiciled, USA 50 states (including California and carb opt-in states)

#### Engine

- Cummins 6.7 325 hp @ 2400 rpm, 2600 gov rpm, 750 lb-ft @ 1800 rpm

#### Engine equipment

- 2010 EPA/GHG 2024/CARB 2024 configuration (dependent on registration state)
- 12 volt, 160 amp alternator
- Passenger side outboard under step mounted horizontal after-treatment system assembly with passenger side b-pillar mounted vertical tailpipe
- 6 gal diesel exhaust fluid tank (mounted behind fuel tank)

#### Transmission

- Allison 3000 RDS automatic transmission with side/side PTO provision (minimum)

#### Transmission equipment

- PTO mounting, driver side and passenger side of main transmission

#### Rear suspension

- 21,000 lb leaf spring, single axel

#### Brake system

- Air dryer reservoir mounted (no sideout frame mount)

#### Wheelbase & frame

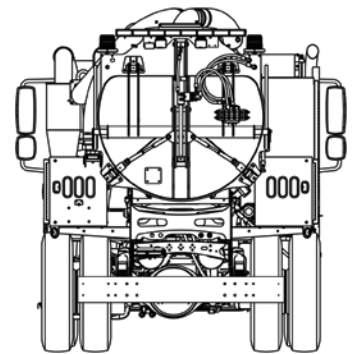
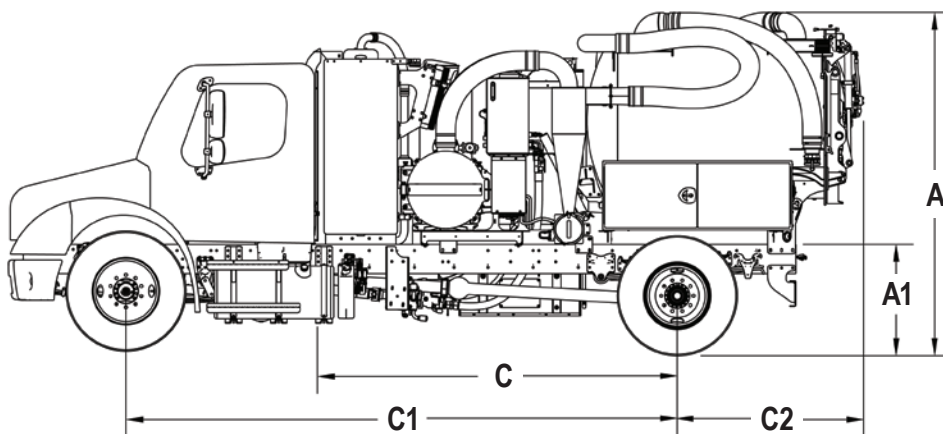
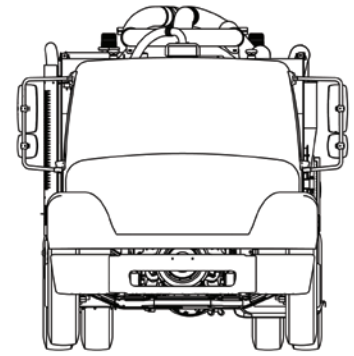
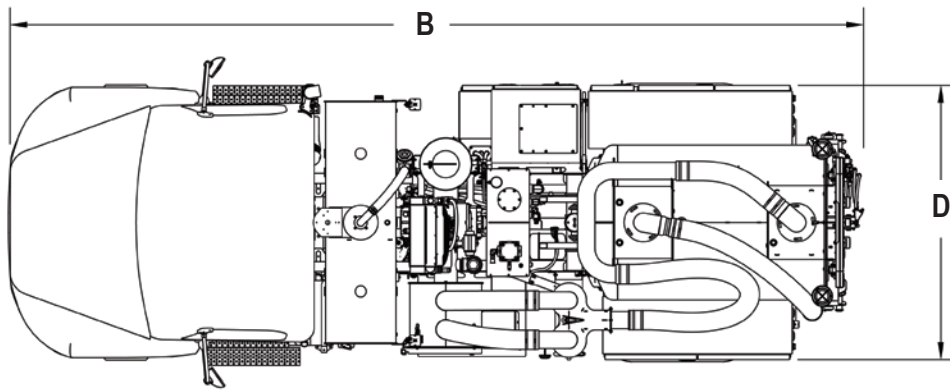
- Frame overhang: 41"+ (1.04 m)
- Calculated effective back of cab to rear suspension c/l (ca): 126" (Usable ca 123" minimum)

#### Fuel tanks

- 70 gal rectangular fuel tank

## VEHICLE SPECIFICATIONS SUMMARY – FRAME RBM

Wheelbase (545)..... 192" (4,8750 mm)  
Frame Rails (546) ..... 0.31" x 3.50" x 10.28" (8.0 mm x 89.0 mm x 261 mm) steel  
80KSI (546)  
Yield Strength (psi)..... 140,000  
Section Modulus (per rail) (cu in)..... 14.3  
RBM (per rail) (lbf-in) ..... 1,609,000  
Inner Frame Reinforcement (547) ..... No inner frame reinforcement  
Outer Frame Reinforcement (548) ..... No outer frame reinforcement



## DIMENSIONS

<b>A</b>	10' (3.0m)	Overall Height
<b>A1</b>	3'3" (1.0m)	Chassis Frame Height
<b>B</b>	24'10" (7.6m)	Overall Length
<b>C</b>	10'6" (3.2 m)	Module Length Front
<b>C1</b>	16'0" (4.9m)	Wheelbase
<b>C2</b>	5'7" (1.6 m)	Module Length Rear
<b>D</b>	7'11" (2.4m)	Overall Width

**NOTE:** All dimensions shown are applicable to Freightliner M2-106 Chassis only.

## OPTIONS

**Belly Pack Wireless Pendant:** Controls all boom functions, engine RPM, vacuum relief, emergency stop, and water pump speed. Other Functions Also Available.

**Air Excavation:** Air compressor, low pressure mode up to 110 psi at 185 CFM, high pressure mode up to 150 psi at 150 CFM, spring rewind air hose reel with 75' of 1" hose.

**Handheld Wireless Remote**

**Sludge Pump**

**Full Load Indicator**

**Electric Debris Body Vibrator**

**Anti-Siphon Fill**

**Strobe Light Package**

**Beacon Light Package**

**Camlock Fill Adapter**

**SS Hinged Decant Screens**

**Standpipes - Various sizes**

**Anti-Splash Valve**

**Air Compressor**

**1" Drain Valve on Air Water Separator**

**1" Drain Valve on Silencer**

**4" Air Operated Vacuum Relief**

**Lube Chart**

**Blower Temp Gauge**

**Blower Temp Gauge Connection to Vac Relief**

**Can/USB Cable**

**Debris Tank High Level Alarms and Light**

**Debris Tank High Level Alarms and Light Hooked to Vac Relief**

**Power Pack with Emergency Hydraulics**

**Remote Emergency Stop**

**Low Water Light and Alarm**

**Override for Alarms**

**Spotlights**

**First Aid Kit**

**Nozzles**



## COLD WEATHER PACKAGE OPTION

**Boiler:** Diesel fired 470,000 Btu

**Cabinet Heater**

**External Waterlines:** Insulated with heat trace

Printed in U.S.A • Form No. 12603 2/26

Vacall machines are designed and manufactured by Gradall Industries LLC., a world leader in the production of versatile, reliable maintenance machines. It is our policy to continually improve our products. Therefore, designs, materials and specifications are subject to change without notice and without incurring any liability on units already sold. NOTE: some options shown in pictures.

**VACALL**™

Gradall Industries LLC. • 406 Mill Ave SW • New Philadelphia, OH 44663  
Phone: (800) 382-8302  
[www.vacall.com](http://www.vacall.com)

