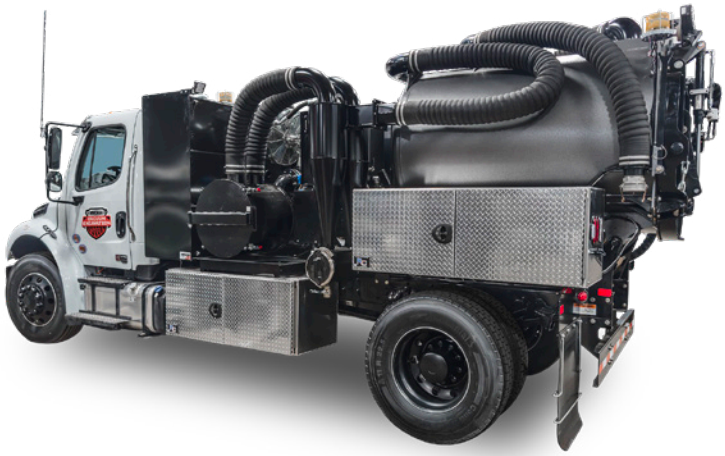
VACALL™

AllExcavate 35



AllExcavate 35
NON-CDL VACUUM EXCAVATION

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"H20) 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 Galvanized and 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: Front 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

AllExcavate 35 NON-CDL VACUUM EXCAVATION

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 axle

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)

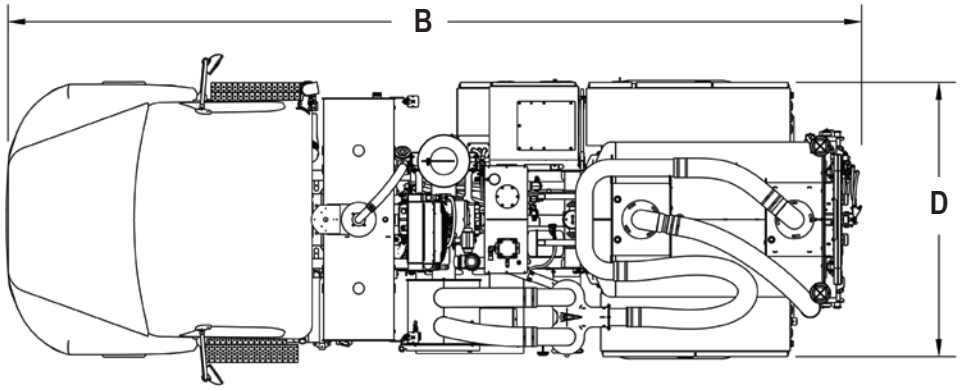
Yield Strength (psi)..... 140,000

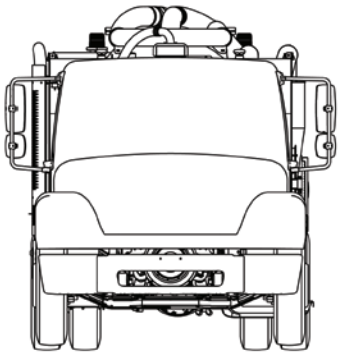
Section Modulus (per rail) (cu in)..... 14.3

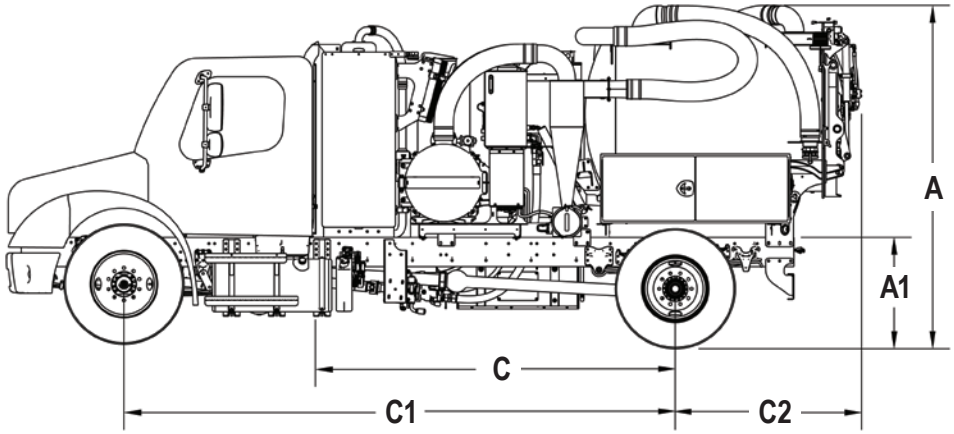
RBM (per rail) (lbf-in) 1,609,000

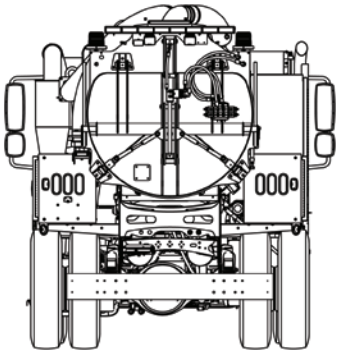
Inner Frame Reinforcement (547) ..... No inner frame reinforcement

Outer Frame Reinforcement (548) ..... No outer frame reinforcement









DIMENSIONS

A	10’ (3.0m)	Overall Height
A1	3’3” (1.0m)	Chassis Frame Height
B	24’10” (7.6m)	Overall Length
C	10’6” (3.2 m)	Module Length Front
C1	16’0” (4.9m)	Wheelbase
C2	5’7” (1.6 m)	Module Length Rear
D	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

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