BUILD THE PERFECT UNIT

YOUR EASY GUIDE TO HYDROVAC UNITS BY HYDRO-SPADE

Hydrovac excavation has proven to be the best tool for navigating underground services, maintaining clean sites and keeping your team happy and safe on the job.

But how exactly are these units built, and how do you know which features are right for your needs?

In this guide, we'll explain the **5 main components** of every unit — **chassis**, **tank**, **blower**, **water pump** and **boom** — with tips for building your unit. You'll also discover what sets our units apart from the competition.

Maximize payload
with balanced weight distribution design

Easy Cleanout
with hydraulic rear opening door

Dig efficiently
with full hydraulic boom

YOUR EASY GUIDE TO HYDROVAC UNITS

1. Chassis

The chassis is the backbone of the hydrovac unit.

What does it do?

Supports and stabilizes the debris tank, water tank, vacuum/water equipment and other essential components. Ensures your hydrovac unit operates safely and efficiently, especially when in transit and maneuvering on job sites.

What should you know about it?

The choice of chassis will impact the load capacity, mobility and durability of your unit. Be sure to select the right chassis for the equipment you need to mount on it and the kind of work you need to do.

You'll want a smaller chassis if you're doing work such as slot trenching, pit cleaning or pole installation and/or needing to navigate tight spaces.

You'll want a larger chassis for bigger excavation jobs where there's a large amount of debris to remove in a short amount of time.

Truck units are consistently used daily, unlike trailers, which can be dropped off at a site or used more infrequently.

What's unique about a Hydro-Spade chassis?

Our chassis are built using heavy-duty tube construction which provides greater stability than channel or I-beam construction that tends to flex more frequently.

Available in a variety of sizes:

Trailer chassis: GVRW 10,400 lbs - 20,000 lbs
Truck chassis: GVRW 19,500 lbs - 39,000 lbs

2. Debris Tank

The tank is a crucial component in the excavation process.

What does it do?

A debris tank holds the soil and debris during excavation. It stores the collected material, allowing you to dispose of the debris keeping the excavated area accessible and the work site clean.

What should I know about it?

The capacity and design of the tank determines how much material can be excavated before needing to be emptied. Be sure to select the tank that will allow you to work as efficiently as possible.

Ensure that the inside of the tank is fully welded. This keeps water and debris separated, preventing moisture from rotting the seams in the tank.

Here are some general guidelines:

Low Excavation Volume

- Daylighting
- Potholing
- Sign installation
- Locates

Moderate Excavation Volume

- Locating subsurface and underground utilities Pole installation
- Clean up

High Excavation Volume

- Line installation: depending on the depth and length of the line
- Slot trenching

Sewer, Repairs, and Rehabilitation

- Volume can vary significantly based on the scope of work, from moderate to high excavation volume

What's unique about Hydro-Spade tanks?

Our tanks are equipped with a full opening rear door with a hoisted tank for easy dumping and washout.

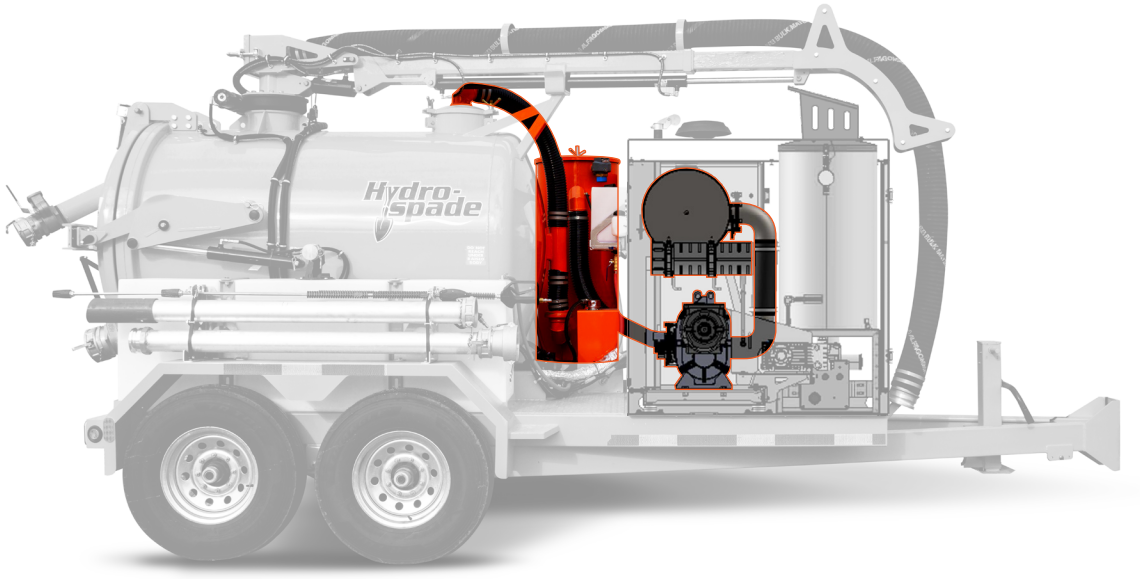
They're fully welded and consistently outperform the competition in durability and longevity.

The primary value is above the top of the tank allowing you to easily fill to the top of the tank.

Available in a range of standard sizes* for a variety of applications:

- 400 usg
- 800 usg
- 600 usg
- 1200 usg

*Additional sizes are available upon request.



3. Blower

The blower is the engine of the vacuum system.

What does it do?

The blower creates a powerful vacuum to suction up excavated material and slurry. It generates a high-speed airflow that draws the material into the debris tank.

What should you know about it?

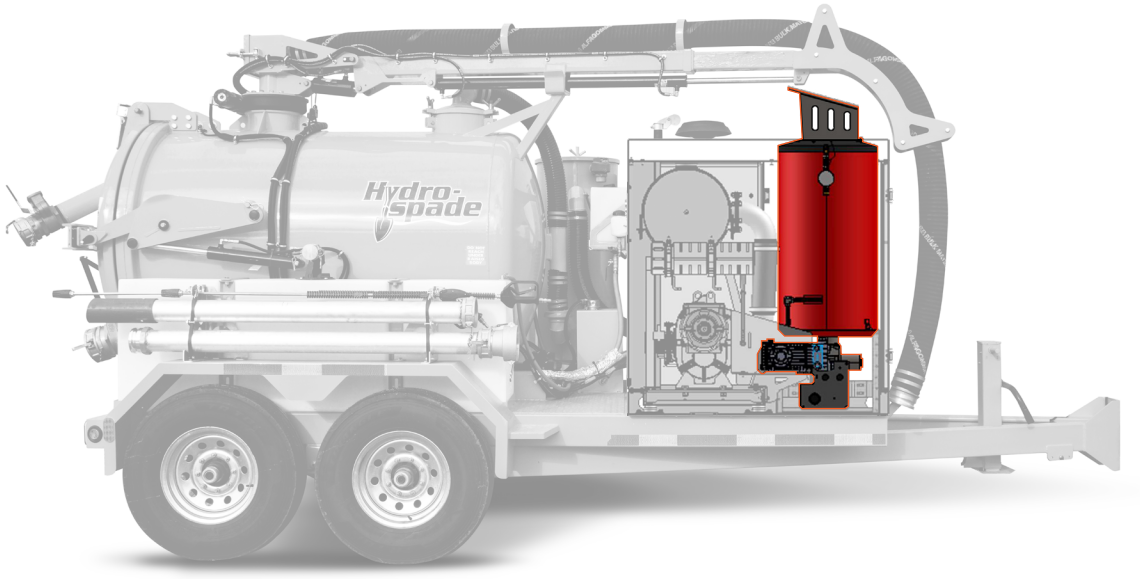
The strength of the blower determines how efficiently your unit can remove soil, debris and other materials.

Here are a few general tips for selecting the option that best suits your needs:

1. A smaller blower, such as the 550 cfm, is the most versatile. It's suitable for small projects while still being able to handle many common excavation needs.
2. Large blowers, such as the 1600 cfm or larger, are required for removing extensive amounts of debris or large volumes of wet or dry material.
3. Using a larger size is important when the job calls for digging deep holes and trenches or dealing with compacted materials like clay-based soils, which are tougher to break up.
4. The blower size and tank capacity should be proportionate.

Available in a range of sizes for a variety of applications:

Trailer: 550 - 1200 cfm @15hg
Truck: 900 - 2200 cfm @15-28hg



4. Water Pump

The water pump is the heart of the water system.

What does it do?

The water pump pressurizes water and delivers it to the excavation site. This pressurized water breaks up soil and debris, making it easier to remove.

What should you know about it?

The water pump determines how efficiently you're able to cut through soil. If there's not enough pressure available, excavation will take longer than normal. Too much pressure can cause unnecessary damage to the surrounding area, including underground utilities. Be sure to select the water pump with the right amount of pressure to best fit your needs.

Here are a few general tips for selecting the option that best suits your needs:

1. Hydrovac units are often built with large water pumps to make the unit larger, but you don't always need a large pump. Avoid paying for equipment you don't need by ensuring you select the right size pump for your work.
2. You may need a water pump that will do more than one thing. For example, a 5-8 GPM pump is great for excavating but if you want to do line flushing you may want to consider using a high gallonage water pump.
3. Use different types of nozzles to cut the earth effectively and efficiently, depending on the task at hand.
4. When using pressurized water, cut in a grid pattern and maneuver the vacuum hose to collect as much dry debris as possible, rather than attempting to flush the slurry towards the hose.

Available in a range of sizes for a variety of applications:

Trailer: 4.5G - 14gpm @2900+ psi
Truck: 5.5gpm @3500psi - 18gpm @3000psi

5. Boom

The boom is the mechanical arm of the hydrovac unit.

What does it do?

The boom serves as an adjustable arm that can be directed to a specific area where excavation is needed. It extends the reach of the vacuum hose to access excavation sites, enhancing safety by allowing operators to avoid strenuous physical labour that can result in injury.

What should you know about it?

In remote settings, when the boom can't reach the work, attaching a hose to the end of the boom or rear debris tank is a great solution.

What's unique about Hydro-Spade booms?

They have a full 6-way hydraulic boom with a slew drive allowing a single operator to control the boom with a wireless remote. They're easily operated without getting assistance from a second person.

Boom hoses are larger than the respective vacuum lance to allow debris to flow to the tank without clogging.

EQUIPMENT

GET THE JOB DONE, WHATEVER THE SCALE

Choose your product category. Then select from a variety of size and power options to build the perfect unit to tackle the work ahead.

TRUCKS

Specifications >

600 | 800 | 1200

TRAILERS

Specifications >

400 | 600 | 800

SKID MOUNTS

Specifications >

300-2000

ADDITIONAL UNITS

See website for details >

NEED HELP DECIDING ON THE RIGHT UNIT FOR YOUR NEEDS?

Contact us at **519-448-8890** or info@hydrospade.com

Simply built. Simply better.

www.hydrospade.com

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