

The image shows an industrial site with several large cylindrical storage tanks. In the foreground, a blue and white Ecorobotics industrial cleaning robot is positioned on a wet, dark surface. The robot has a prominent green and white logo on its side that reads "ecorobotics" in a stylized font, with "INDUSTRIAL CLEANING ROBOTS" written below it. The robot is connected to a blue and white structure. In the background, a large tank is visible with the number "884" on its side. The sky is a clear, light blue.

ecorobotics
INDUSTRIAL CLEANING ROBOTS

**Ecorobotics. Much more than
tank cleaning.**

Transportation & Trucking

40ft Container packages

Landoll needed for 40ft containers, needs to have a 40,000 lb capacity winch. Units are loaded and unloaded by truck driver.

When sending a Landoll we have no room for anything extra. Anything but our standard package will require a separate truck.

40ft units are at 29,000 lbs. loaded.

Can fit 10-15 hoses max in the unit anything else requires a separate truck.

Mod Units

53ft Drop deck needed for Mod units. Nothing smaller will work. Always trucked with a drop deck because of the height requirements.

Typical package is Tool House, RCS Unit, Reel skid, electric HPU, I line panel with transformer, pallet of hoses. Each piece requires a forklift to load and unload.

Company owned Diesel Driven Submersible Pump package.

Requires a separate flatbed truck. Drop deck is not required.

The package is about 20ft long and weighs approximately 10,000 lbs. Ships as a set with Diesel HPU, Reel skid and robot with pump mounted.

Company Owned Generators

Each one weighs about 17,500 lbs. when empty of fuel.

Must be towed with a 1 Ton or heavier dually truck.

Package Requirements

40ft

175kw generator is a minimum needed to cover the end rush of the equipment. We run 1 single power cable to the generator. No I-line needed.

We run 200 amps total in breakers contained in the unit, a 175KW generator is considered undersized according to our breaker count but it will work. 200kw or bigger is better.

Triplex is rated at 60 gallons per min and needs a water supply from a fire system or tank.

We have 150' of pressure and return to feed the reel skid and another 150ft of usable umbilical.

100% Self-contained, we are C1, D2 rated with the interior protected by Gas Detection. Total shut down happens inside a C1/D1 main explosion proof enclosure.

Unit is not purged. We have a standard 150' of pressure and return to drive the Hydraulics and 150' of usable umbilical to run the robots. Longer distances will require extensions.

Mod units

Require the same power to run but they require a 480v I-line (distribution Panel) this splits up the power and adds a breaker to each split to protect the equipment.

Mod units are not classified for use in regulated areas. We often operate outside the zone 1 area. Inside the berms is typically considered C1/D2 but can be zone 1 -3. Only zone zero and zone 1 are typically enforced.

Package Requirements Continued

Mini Viper

A small, pancake air compressor will work.

A u haul enclosed trailer for transporting the equipment should also be bided.

Remember, just because it is self-contained, and no control room is needed, we still need everything else to do a job. Things such as PPE, cleaning supplies, tools, and spare parts all must travel with the units.

Does not require a shelter to run.

Full Size Cannon

Requires the same support equipment as a robot.

You must be able to get a forklift to the man way to mount it. It cannot be done by hand.

Fits 22" -28" manway.

Uses full size camera with special female plug. This is prewired by Royal.

It's designed as a bulkhead. It is C1/D1 safe and completely seals the vessel or tank.

Let's meet the Robotic Team

H5 robots

Designed for bulk removal and wash down.

Can wash, Vac and pump.

Can be heavily modified. Jaws of life, rock crusher, scrapers and buckets are just some of the things we have done.

Designed for a 24" manway but it's POSSIBLE to fit in a 22" manway in special circumstances.

Ramp design plays a role in going into smaller. Weighs between 1,000 and 1200lbs.

H8

Designed for cooling towers.

Pump/Vac only, either or but not at the same time.

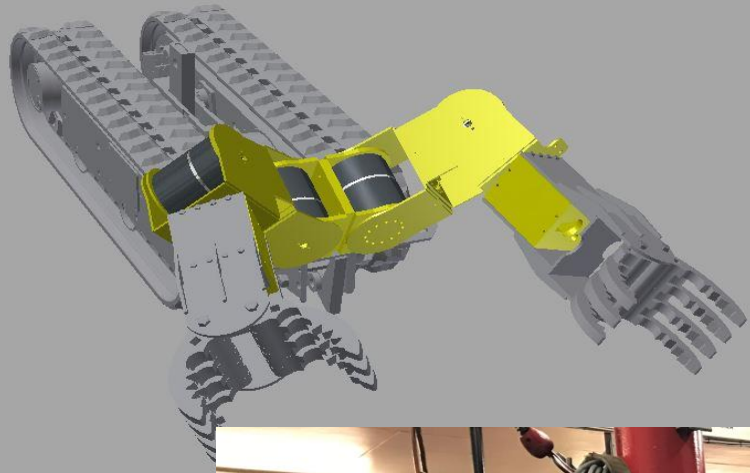
Will not fit in a manway.

When pumping, the pump must be completely submerged.

Cannot pull a vacuum with pump.

Pump cannot pump thick material.

Don't mount the pump on a robot for the sake of mounting it on a robot. The body could prevent it from sinking down enough to prime. If material is that deep you probably won't be able to track making a robot useless.



Robotic Team Continued

H7

Was designed to be fabricated with no machining of parts. Cheaper and faster to build.

Weighs almost the same as H5.

Needs modification to run vacuum head on.

2" narrower and 6" shorter

Advantages are its faster, nimbler, and more modular.

H6

Originally discontinued for track problems and robot was too light.

Have one set of tracks left to assemble one robot.

Can be used with solid or scissor bodies.

Great for small spaces, 14" manway depending on application.

Some attachments would need to be adapted or manufactured as the H6 was only ever used to wash down.



Robotic Team Continued

Viper Manway Cannon

We have two that will fit from a 22"-26" manway.

Very heavy, mounts with forklift

Needs control unit, HPU and Triplex and full-size camera to operate.

Has full size, 3 axis arm. Same arm as H5.

Mini arms

Designed to be magnetically mounted to tank walls.

100% Standalone system, we only need an air compressor and camera system.

2 in stock

A small air compressor will work to run them, even a pancake.

Can be fitted to a 12" to 36" manway, different sized manway cover plates must be manufactured until we have a collection. 1 week time lead time needed for manufacture.

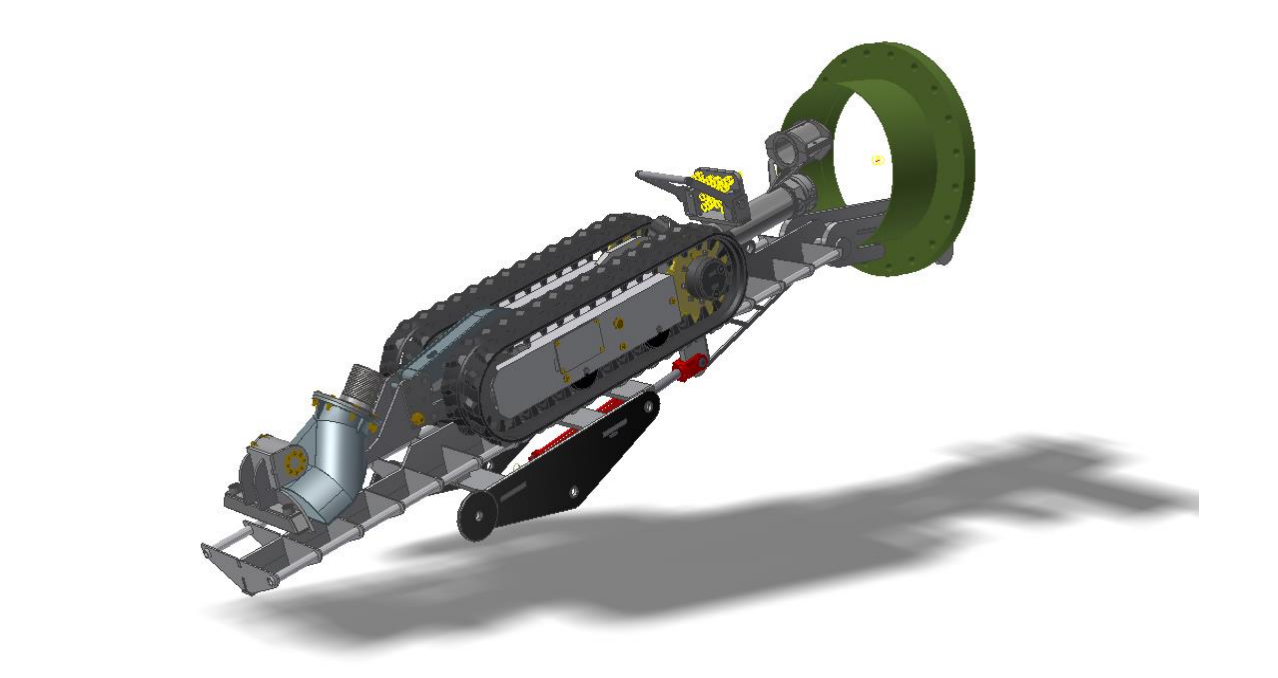
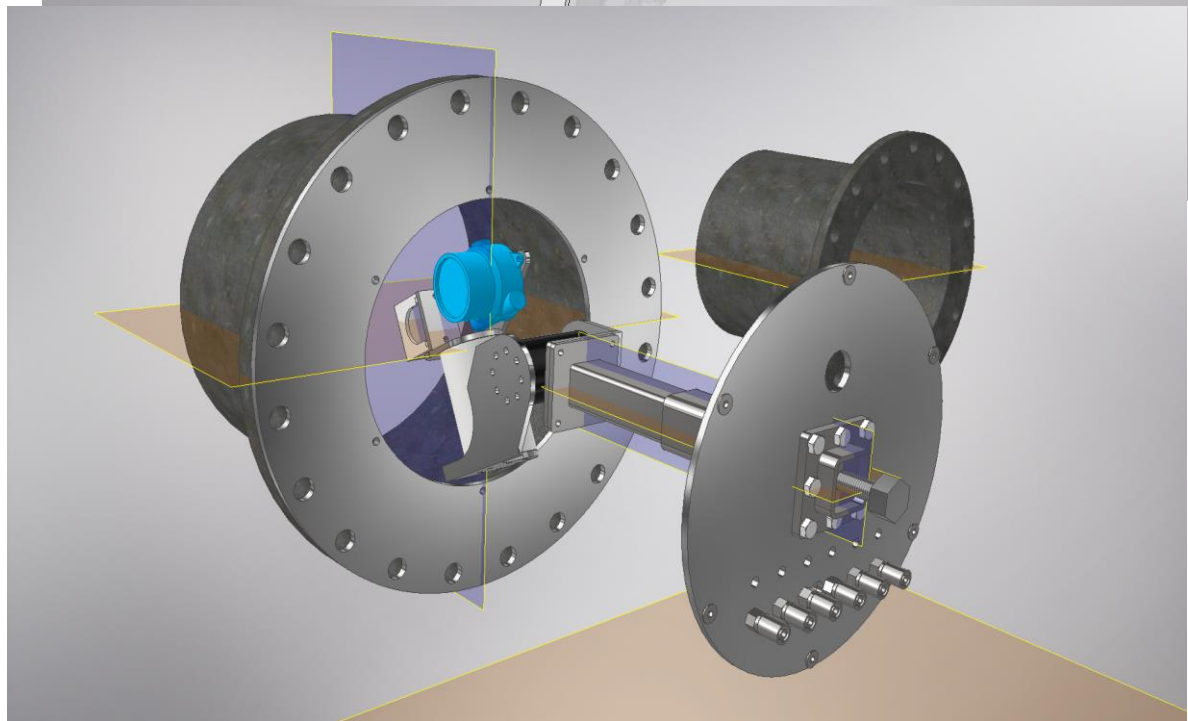
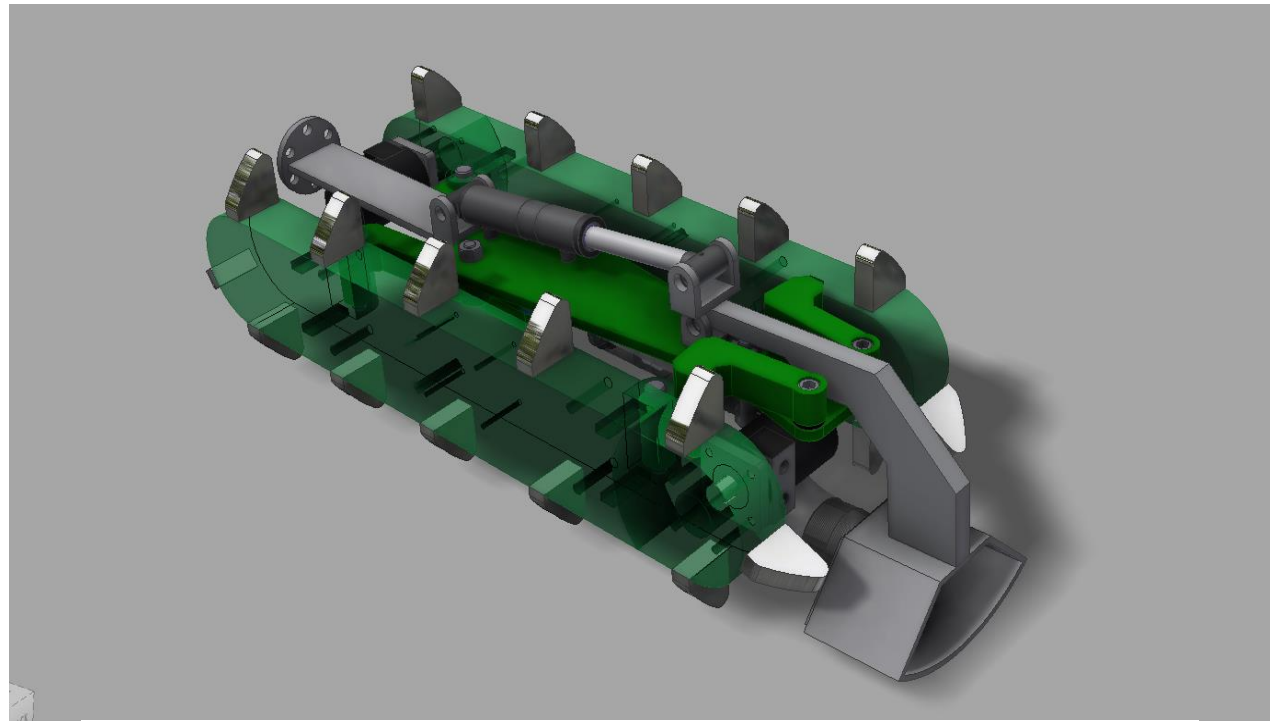
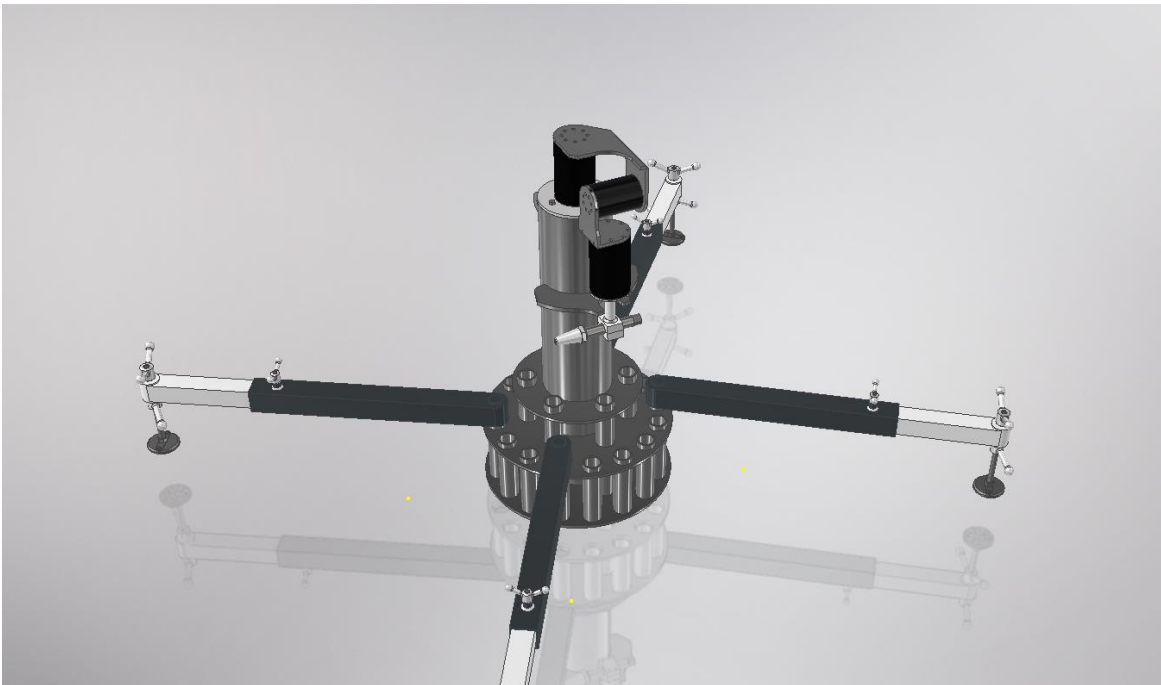
In the process of redesigning as a complete replacement to the Viper Manway. Currently it will handle the same water pumps as Viper Canons and H5

Can be installed by hand.

Custom Modifications

Custom modifications are what we have always done well. We have the capability to dream it and deliver it, but it does have a cost. It takes time to do the design and produce G Code files for the water cutter. Time for welding fitting, assembly time and testing. And of course, the expense. While most tasks can be done with existing equipment, even small modifications can improve efficiency.

A couple of examples of some unique equipment that we have modified and repurposed is the squid crane originally designed to deploy H5 through a hatch, in the corner of a drill ship. Later an arm was placed on it and it can be used to wash tank roofs. We have a “7 on 5” robot, which is a vac bot on H7 tracks, H5 body with a lifting tail. We have over 10 years of parts in the Conex that we can reuse, repurpose or build on.





H5 being used to place cribbing under a collapsed roof.

- The robot was also used to position air bags so that the collapsed roof could be lifted high enough to place the cribbing.

Robotic Claw

Designed to crush, grab, twist, tear and cut internals inside a reactor.





H7 Robot with a cutting blade attachment

This was used real time to cut up
a collapsed roof.