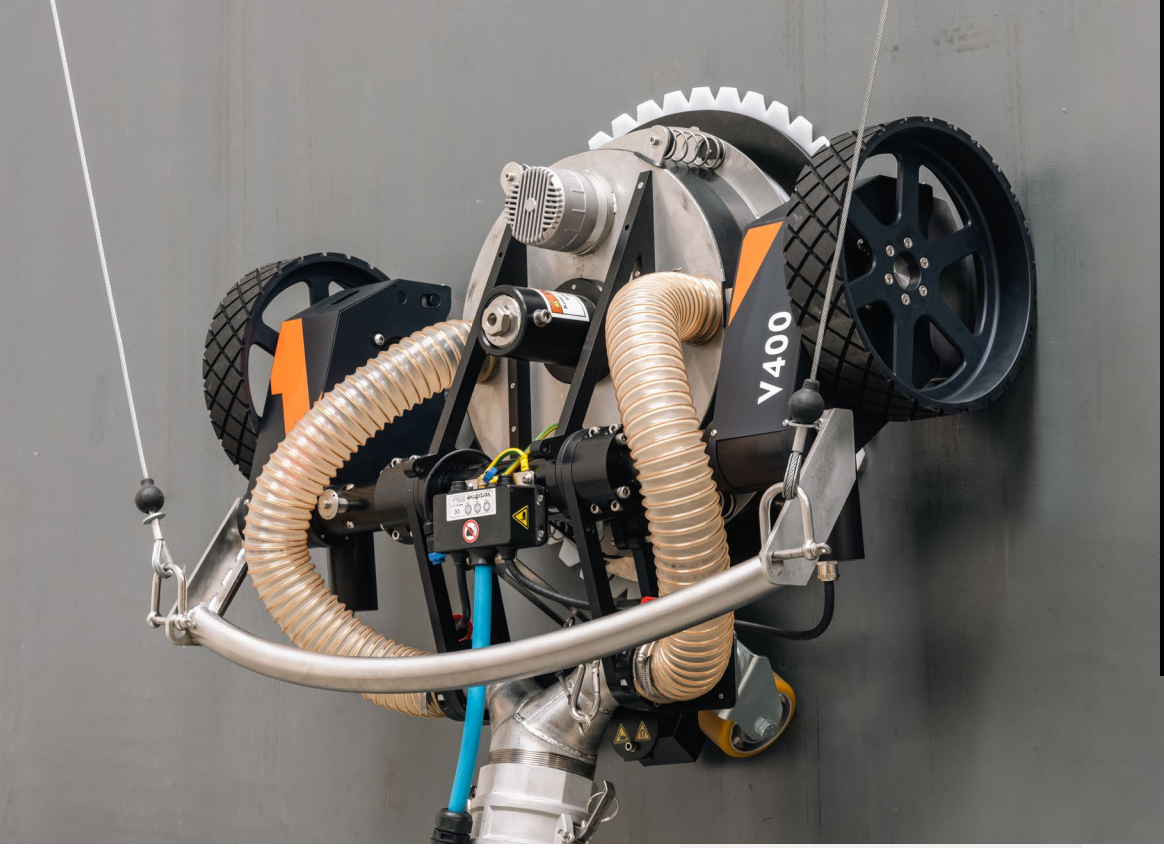


vertidrive | V400

WE CREATE INNOVATIONS THAT STICK

SOLUTION FOR REMOVING COATINGS AND CONTAMINANTS FROM LARGE STEEL SURFACES

Surface preparation trends are rapidly changing. New regulations focused on environmental impact, safety, and labour are putting pressure on shipyards, tank terminals, and subcontractors. Industry contractors must adapt their methods of surface preparation or become obsolete. A significant shift is underway, moving away from hazardous abrasives and towards Ultra-High-Pressure (UHP) blasting.

However, even with UHP blasting - paints, coatings, and protective materials can still harm our environment and wildlife. That's where the VertiDrive V400 Series steps in.

Introducing our newest V400 platform: the strongest and most robust robotic solution in its class for enclosed UHP water blasting and washing. Designed to withstand harsh industrial environments, its durable frame allows for versatile operation: upside down, vertically, or horizontally, thanks to our improved, powerful magnets.

The V400 Series is purpose-built to address present challenges and beyond, ensuring large steel surfaces can be prepared with utmost safety, efficiency, and regulatory compliance.

FASTER, SAFER, CLEANER.

V400

EXPERIENCE MASSIVE PRODUCTION

Our V400 Series introduces a break-through solution that surpasses the limitations of traditional UHP blasting methods. No longer accept slow production rates that average 5-8m² (53.8-86.1ft²) per hour, when you can experience an impressive average coverage of 45m² (484.4ft²) per hour.

Upgrade your blasting operations to the V400 Series and unlock exceptional performance, backed by our expert knowledge, and unwavering customer support.

SAFER, FASTER, CLEANER

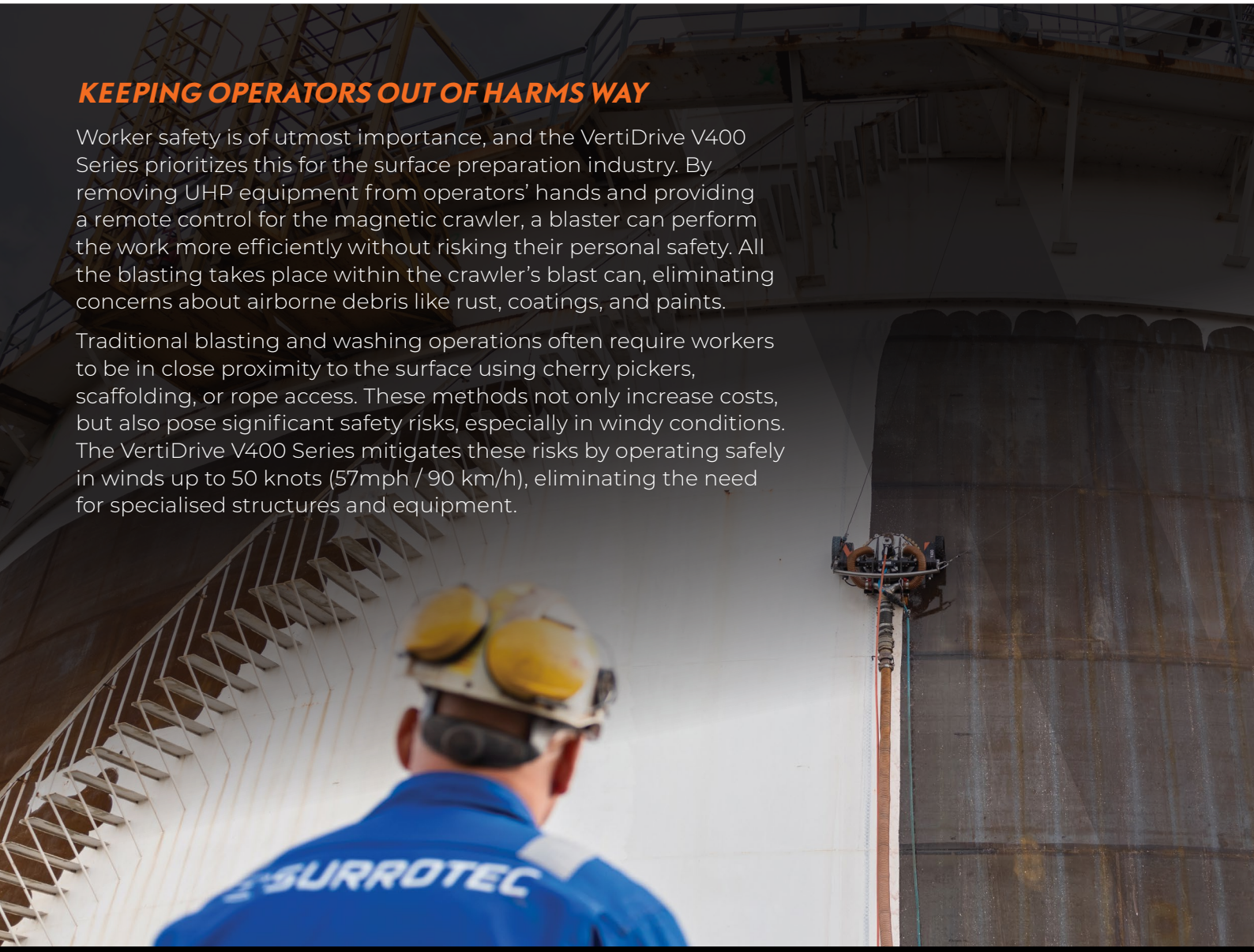
Revolutionise your operations with our Skid Mount Vacuum System for the V400 Series for cost-efficient waste water collection

Effortlessly collect waste water and store them responsibly in our optional big bag holder. Experience unmatched performance, flexibility, and cost savings in one smart solution.

KEEPING OPERATORS OUT OF HARMS WAY

Worker safety is of utmost importance, and the VertiDrive V400 Series prioritizes this for the surface preparation industry. By removing UHP equipment from operators' hands and providing a remote control for the magnetic crawler, a blaster can perform the work more efficiently without risking their personal safety. All the blasting takes place within the crawler's blast can, eliminating concerns about airborne debris like rust, coatings, and paints.

Traditional blasting and washing operations often require workers to be in close proximity to the surface using cherry pickers, scaffolding, or rope access. These methods not only increase costs, but also pose significant safety risks, especially in windy conditions. The VertiDrive V400 Series mitigates these risks by operating safely in winds up to 50 knots (57mph / 90 km/h), eliminating the need for specialised structures and equipment.



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V400

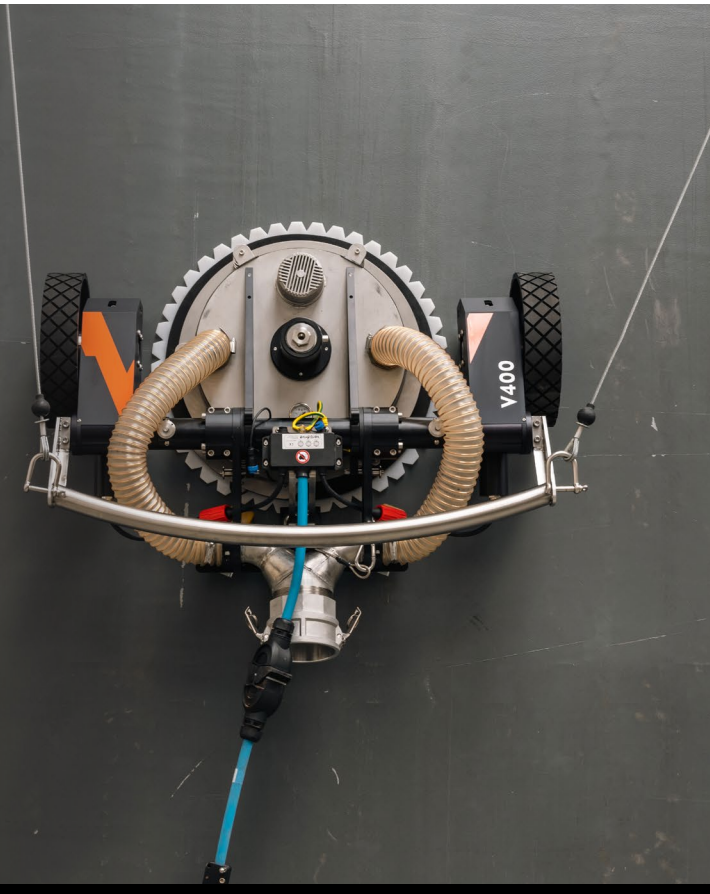
MITIGATE FLASH RUST

The V400 Series is a cutting-edge innovation in surface preparation. When paired with the VertiDrive Vacuum System, it provides an efficient means of waste water collection and guards against flash rust. The treated surface dries instantaneously, making it ready for subsequent applications such as paint or coating.

Equipped with a closed blast can featuring an Ultra-High Pressure (UHP) cross, the V400 Series accommodates up to 16 nozzles. The system utilises UHP water blasting to effectively restore the surface profile, providing a superior level of surface preparation.

- > UP TO 45M² / 485 FT² PER HOUR
- > UP TO 5X MORE EFFICIENT
- > UP TO 5X FASTER THAN MANUAL WORK
- > UP TO 92% COST REDUCTION

CLICK TO VIEW THE WEBSITE PRODUCT PAGE



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WE CREATE INNOVATIONS THAT STICK

TECHNICAL SPECIFICATIONS
ELECTRICAL MODEL

ROBOT

Robot dimensions	900mm L x 990mm W x 420mm H (35.5" x 39" x 16.5")
Weight	88 kg (194 lbs)
Payload capacity	150 kg (330 lbs)
Driving speed	Max. 5 m/min (16.4 ft)
Holding power magnets	Up to 300 kg (660 lbs)
Minimal Radius Required	>10m radius (20m diameter)
Max operational Windspeed	50 knots / 25 m/s
Adjustable Magnets	From 4 to 12mm (0.16" to 0.47")
Drive Motors	2x 315W

UMBILICAL

Dimensions	ø 18mm, length 50 m (164 ft)
Weight	25 kg (0.5 kg / m)
Extension	Max 100m (328 ft)

CONTROL BOX

Input voltage range	230V systems: 200-240 VAC 120V systems: 100-120 VAC
Input frequency range	50/60 Hz
Input current (without cooling)	230V systems: 5A, 120V systems: 10A
Input current (with cooling)	230V systems: 7A, 120V systems: 14A
Working temp. (without cooling)	-20 to +35°C (0 to +95°F)
Working temp. (with cooling)	-20 to +50°C (0 to +120°F)
Output voltage to the robot	70 VDC (motors) and 24 VDC (logic).
Dimensions	600mm H x 600mm W x 260mm D (600 x 690 x 260 mm with optional cooling)
Weight	35 kg (44 kg for 'high temperature' systems with cooling)

REMOTE SYSTEM

Remote control System	Hetronic Nova XL
Range remote control	100 meters (328 ft)

ENVIRONMENTAL CONDITIONS

Storage temperature	-40 to +85°C (-40 to +185°F)
IP rating robot	IP65
IP rating control box	IP66
IP rating remote control	IP66

APPLICATION SPECIFICATIONS

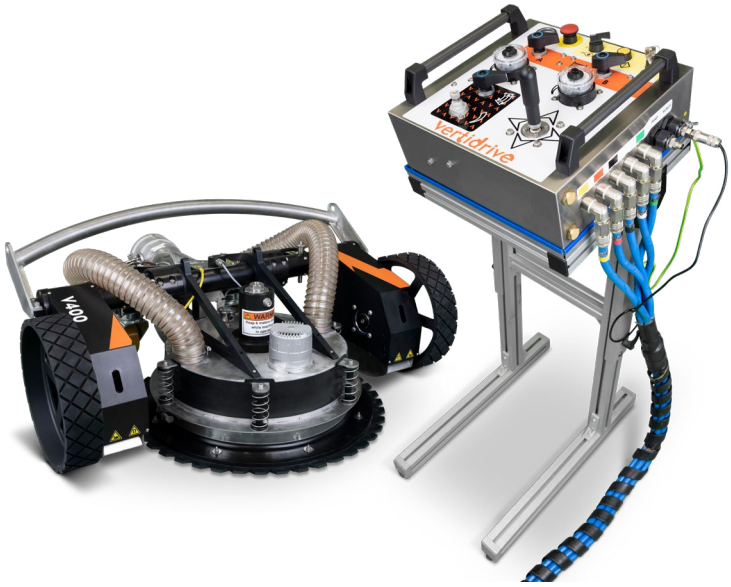
ULTRA-HIGH PRESSURE

- Max. 3000 bar @ 40 l/min (Max. 43,500 psi @ 10.5 gal/min)
- Cleaning Width 400mm (15.75")
- Self-rotating cross with 16 x M10 nozzles
- Average up to 45m² per hour (484ft²)

Note: The VertiDrive V400 is designed to improve wastewater collection efficiency during surface preparation. However, its ability to contain and manage waste water varies depending on surface conditions and operational setup. Complete containment of waste water cannot be guaranteed.

V400

WORKING IN A HAZARDOUS AREA?



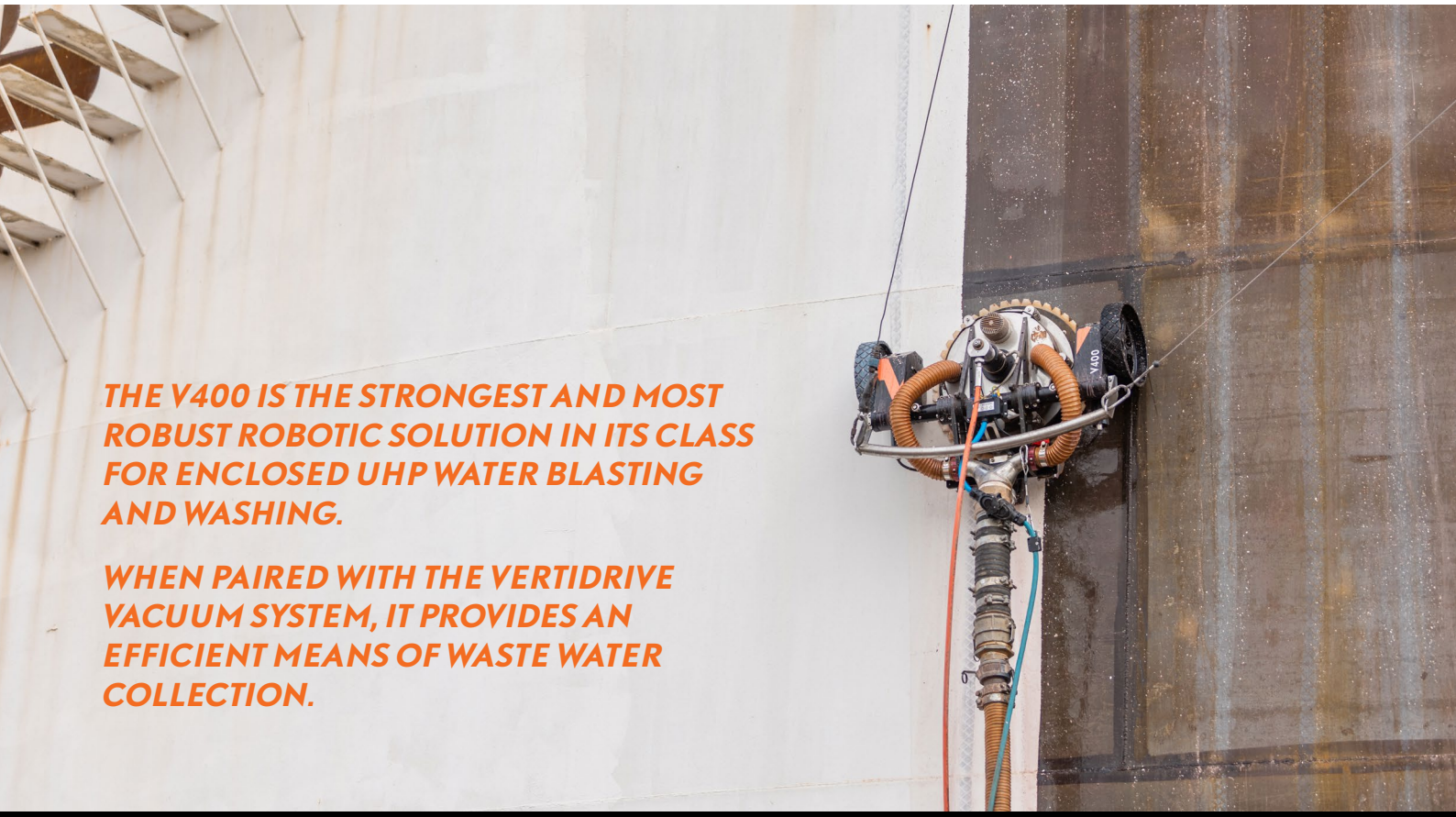
PNEUMATIC DRIVEN OPTION: ATEX ZONE 2 CERTIFIED

ATEX ZONE 2 CERTIFIED

Comply with often strict safety regulations at tank terminals.

The V400 Series ATEX variant is designed for blasting activities in Zone 2 environments, ensuring safety without compromising on performance. With powerful air motors and a pneumatic control box, the V400 seamlessly integrates into ATEX-regulated areas, providing reliable and efficient operation.

When paired with the ATEX Zone 2 VertiDrive Vacuum system, the V400 allows you to experience the benefits of robotic blasting and waste collection, all in one efficient package.



THE V400 IS THE STRONGEST AND MOST ROBUST ROBOTIC SOLUTION IN ITS CLASS FOR ENCLOSED UHP WATER BLASTING AND WASHING.

WHEN PAIRED WITH THE VERTIDRIVE VACUUM SYSTEM, IT PROVIDES AN EFFICIENT MEANS OF WASTE WATER COLLECTION.

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PNEUMATIC DRIVEN OPTION: ATEX ZONE 2 CERTIFIED

TECHNICAL SPECIFICATIONS

ATEX CERTIFIED MODEL

ROBOT

> Robot dimensions	900mm L x 990mm W x 420mm H (35.5" x 39" x 16.5")
> Weight	85 kg (187 lbs)
> Payload capacity	150 kg (330 lbs)
> Driving speed	Max. 8m/min (5m/min at full load)
> Holding power magnets	Up to 300 kg (660 lbs)
> Minimal Radius Required	>10m radius (20m diameter)
> Max operational Windspeed	50 knots / 25 m/s
> Adjustable Magnets	From 4 to 12mm (0.16" to 0.47")
> Drive Motors	2x air motor 7 bar, 840 Nl/min max

UMBILICAL

> Dimensions	ø 55mm, length 50 m (164 ft)
> Weight	25 kg (0.5 kg / m)

CONTROL BOX

> Input pressure	Min. 7 bar, max 12 bar
> Dimensions	400mm H x 500mm W x 250mm D (1250mm H x 500mm W x 640mm D incl. stand)
> Weight	20kg (35kg incl stand)
> Air consumption	1700 Nl/min max

ATEX CERTIFICATION

> Certification	Ex II 3G Ex h IIB T4 Gc
> Ambient temperature	-5°C < Ta < +40°C

ENVIRONMENTAL CONDITIONS

> Storage temperature	-40 to +85°C (-40 to +185°F)
> IP rating robot	IP65
> IP rating control box	IP65

APPLICATION SPECIFICATIONS

ULTRA-HIGH PRESSURE

- > Max. 3000 bar @ 40 l/min (Max. 43,500 psi @ 10.5 gal/min)
- > Cleaning Width 400mm (15.75")
- > Self-rotating cross with 16 x M10 nozzles
- > Average up to 45m² per hour (484ft²)

vertidrive | V700

WE CREATE INNOVATIONS THAT STICK

INDUSTRIAL-GRADE SOLUTION FOR REMOVING COATINGS AND CONTAMINANTS FROM LARGE STEEL SURFACES

The steel surface preparation industry has faced many challenges, including slow production, high costs, and dangerous working conditions. To keep up with changing times and prioritise safety and efficiency, it's important for companies to innovate and attract new talent. That's where the VertiDrive V700 Series comes in.

Our new robotic platform is designed specifically for tough industrial environments, ready for future demands. With powerful magnets, the V700 Series can work on any steel surface with magnetic properties, even upside down. Plus, it's incredibly versatile and can switch between three different applications in just minutes.

REDUCE ASSET DOWNTIME

The V700 Series can help speed up the process of preparing large steel assets like storage tanks and ships. Normally, this preparation can take up to 70% of the asset's downtime.

This results in enhanced availability of assets. For instance, there's a notable increase in tank storage, and docking availability.

FASTER, SAFER, CLEANER.

V700

EASY TO USE

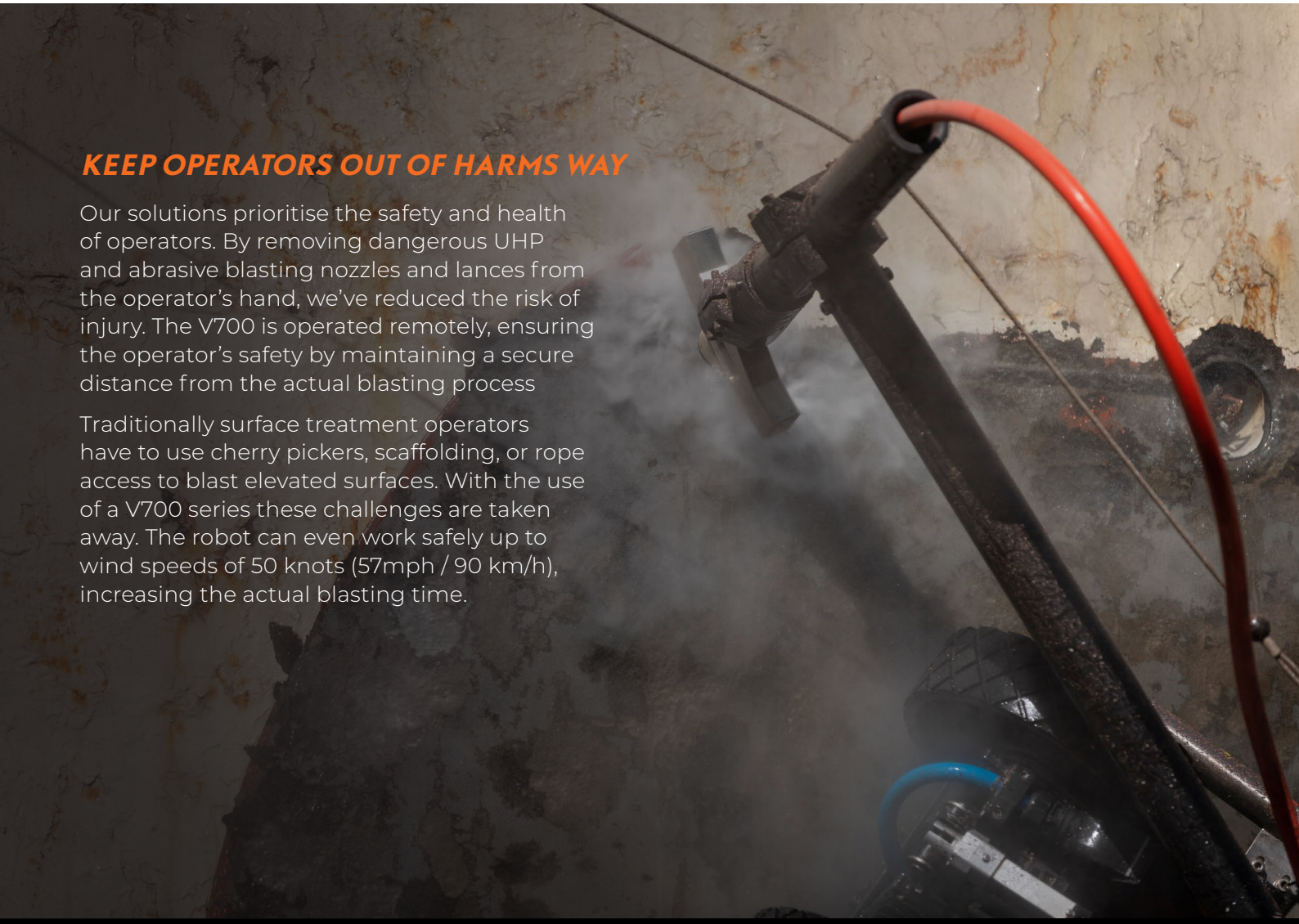
- Operator Friendly
- Compatibility
- Easy to maintain
- Plug and play
- On site training

With our Train-the-Trainer program, we ensure you'll have someone in-house qualified to train new staff to operate the crawler while maintaining the best results. This helps ensure that your operation runs smoothly and efficiently.

EXPERIENCE MASSIVE PRODUCTION

The V700 Series can improve your washing and blasting performance significantly. We don't just sell you a piece of equipment - we analyse your current operation and show you how our crawler can be your competitive advantage.

With the V700, you can achieve impressive blasting and washing results in terms of performance and high consistent quality. Check out the V700 Series applications below.



KEEP OPERATORS OUT OF HARMS WAY

Our solutions prioritise the safety and health of operators. By removing dangerous UHP and abrasive blasting nozzles and lances from the operator's hand, we've reduced the risk of injury. The V700 is operated remotely, ensuring the operator's safety by maintaining a secure distance from the actual blasting process

Traditionally surface treatment operators have to use cherry pickers, scaffolding, or rope access to blast elevated surfaces. With the use of a V700 series these challenges are taken away. The robot can even work safely up to wind speeds of 50 knots (57mph / 90 km/h), increasing the actual blasting time.

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V700

V700 FOR ABRASIVE BLASTING

Best for removal of coatings, paints, liners, corrosion, and anti-fouling systems. This method provides a brand-new profile on the blasted surface.

- Blast up to 60m² (646ft²) per hour.
- Capable of holding up to 3 #10 SnakeBite blast nozzles. Max. 600 N (60 kg force) at 1m (3.28ft) arm length
- Can house any blast hose and nozzle between 20mm to 80mm (0.7874" to 3.1496")

V700 FOR HIGH PRESSURE WASHING

Best for the removal of contaminations like oils, fouling, salts, and others.

This method maintains the underlying coatings and liners.

- Max. 1000 bar @ 80 l/min (Up to 14500 psi @ 21.1 gal/min)
- 1 or 3 self-rotating nozzle application

V700 FOR ULTRA HIGH PRESSURE

Best for removal of coatings, paints, liners, corrosion, and anti-fouling systems. This method will restore the surface to its original surface profile.

- Max. 3000 bar @ 40 l/min (Max. 43500 psi @ 10.5F gal/min)
- Achieve up to 60m² (646ft²)
- 1500 mm (60") cleaning width

BLAST CONSISTENTLY IN ANY WJ OR SA STANDARD

Utilising the V700 Series with one of the 3 washing and blasting applications will give you a consistent blasting pattern with minimal overlap and high performance ensuring water or abrasives are used most efficiently.

Depending on the specifications of the surface, the swing arm and step timer function can be configured to wash and blast at the most optimal width and speed. With the VertiDrive V700 Series, you don't have to worry about operator fatigue or inconsistency.

The robot always produces the same output, so you'll get a uniform result every time.

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TECHNICAL SPECIFICATIONS
ELECTRICAL MODEL

ROBOT

> Robot dimensions	750mm L x 520mm W x 720mm H (29.5" x 20.5" x 28.5")
> Weight	62 kg (137 lbs)
> Payload capacity	180 kg (397 lbs)
> Driving speed	Max. 5 m/min (16.4 ft)
> Holding power magnets	Up to 900 kg (1984 lbs)
> Minimal Radius Required	>4m radius (8m diameter)
> Max operational Windspeed	50 knots / 25 m/s
> Adjustable Magnets	From 7 to 13mm (0.28" to 0.51")
> Drive Motors	2x 315W
> Swing Arm Motor	1x 315W

SWING ARM

> Torque capacity (horizontal)	Max 150 Nm (15 kg at 1m arm length).
> Torque capacity (vertical)	Max 600 N (60 kg force) at 1m arm length
> Working width	1500mm
> Swing arm speed	Max 30 °/s.

UMBILICAL

> Dimensions	ø 18mm, length 50 m (164 ft)
> Weight	25 kg (0.5 kg / m)
> Extension	Max 100m (328 ft)

CONTROL BOX

> Input voltage range	230V systems: 200-240 VAC 120V systems: 100-120 VAC
> Input frequency range	50/60 Hz
> Input current (without cooling)	230V systems: 5A, 120V systems: 10A
> Input current (with cooling)	230V systems: 7A, 120V systems: 14A
> Working temp. (without cooling)	-20 to +35°C (0 to +95°F)
> Working temp. (with cooling)	-20 to +50°C (0 to +120°F)
> Output voltage to the robot	70 VDC (motors) and 24 VDC (logic).
> Dimensions	600mm H x 600mm W x 260mm D (600 x 690 x 260 mm with optional cooling)
> Weight	35 kg (44 kg for 'high temperature' systems with cooling)

REMOTE SYSTEM

> Remote control System	Hetronic Nova XL
> Range remote control	100 meters (328 ft)

ENVIRONMENTAL CONDITIONS

> Storage temperature	-40 to +85°C (-40 to +185°F)
> IP rating robot	IP65
> IP rating control box	IP66
> IP rating remote control	IP66

APPLICATION SPECIFICATIONS

ULTRA-HIGH PRESSURE

> Max. 3000 bar @ 40 l/min
(Max. 43,500 psi @ 10.5 gal/min)

HIGH PRESSURE WASHING

> Up to 1000 bar @ 80 l/min
(Max. 14500 psi @ 21.1 gal/min)

> Up to 500 bar @ 100 l/min
(Max. 7251 PSI @ 26.41 gal/min)

> 1 or 3 self-rotating nozzle application

ABRASIVE BLASTING

> Up to 3 nozzles

> Max. 600 N (60 kg force) at 1m arm length

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WORKING IN A HAZARDOUS AREA?

PNEUMATIC DRIVEN OPTION: ATEX ZONE 2 CERTIFIED

ATEX ZONE 2 CERTIFIED

Meet stringent safety standards at tank terminals effortlessly.

The V700 Series ATEX variant is specially designed for operation in Zone 2 environments, ensuring safe, compliant blasting without sacrificing productivity.

Equipped with robust air motors and a pneumatic control system, the V700 delivers powerful and consistent performance in ATEX-regulated areas. Its certified design also reduces downtime related to safety inspections, such as eliminating the need for hot work permits, giving you the efficiency edge you need in hazardous environments.

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PNEUMATIC DRIVEN OPTION: ATEX ZONE 2 CERTIFIED

TECHNICAL SPECIFICATIONS
ATEX CERTIFIED MODEL

ROBOT

> Robot dimensions	750mm L x 520mm W x 720mm H (29.5" x 20.5" x 28.5")
> Weight	60 kg (132 lbs)
> Payload capacity	180 kg (397 lbs)
> Driving speed	Max. 8 m/min (5m/min at full load)
> Holding power magnets	Up to 900 kg (1984 lbs)
> Minimal Radius Required	>4m radius (8m diameter)
> Max operational Windspeed	50 knots / 25 m/s
> Adjustable Magnets	From 7 to 13mm (0.28" to 0.51")
> Drive Motors	2x air motor 7 bar, 840 Nl/min max
> Swing Arm Motor	1x air motor, 7 bar, 840 Nl/min max

SWING ARM

> Torque capacity (horizontal)	Max 150 Nm (15 kg at 1m arm length).
> Torque capacity (vertical)	Max 600 N (60 kg force) at 1m arm length
> Working width	1500mm
> Swing arm speed	Max 30 °/s.

UMBILICAL

> Dimensions	ø 55mm, length 50 m (164 ft)
> Weight	60 kg (1.2kg/m)

CONTROL BOX

> Input pressure	Min. 7 bar, max 12 bar
> Dimensions	400mm H x 500mm W x 250mm D (1250mm H x 500mm W x 640mm D incl. stand)
> Weight	20kg (35kg incl stand)
> Air consumption	2500 Nl/min max

ATEX CERTIFICATION

> Certification	Ex II 3G Ex h IIB T4 Gc
> Ambient temperature	-5°C < Ta < +40°C

ENVIRONMENTAL CONDITIONS

> Storage temperature	-40 to +85°C (-40 to +185°F)
> IP rating robot	IP65
> IP rating control box	IP65

APPLICATION SPECIFICATIONS

ULTRA-HIGH PRESSURE

> Max. 3000 bar @ 40 l/min (Max. 43,500 psi @ 10.5 gal/min)

HIGH PRESSURE WASHING

> Up to 1000 bar @ 80 l/min (Max. 14500 psi @ 21.1 gal/min)

> Up to 500 bar @ 100 l/min

> Up to 7251 PSI @ 26.41 gal/min

> 1 or 3 self-rotating nozzle application

ABRASIVE BLASTING

> Up to 3 nozzles

> Max. 600 N (60 kg force) at 1m arm length

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UHP AND ABRASIVE BLASTING ROBOTS

CASE STUDIES

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PROJECT: 2 Tank Internals (1660 m^2 / 17, 868 ft^2)

COATING REMOVED: New Steel

CUSTOMER: Alphatech Sdn Bhd

LOCATION: Banting, Selangor, Malaysia

DATE: April 5, 2023

SETUP: VertiDrive M7 with 2 SnakeBite #6 nozzles, 6.5 Blast Pot with TeraValve, Air Prep, Blue Wizard Extractor Fan using GMA SpeedBlast Garnet

RESULTS: 30 m^2/hr (322 ft^2/hr). Consumption rate of 20 kg/m^2 (4.4 lbs/ft^2)

PREVIOUS RESULTS BEFORE VERTIDRIVE:
24 hour operation - 2 shifts of 4 blasters each. Using the VertiDrive they only needed 1 blaster for 3 hours (per tank) to compensate for the 10% upper sphere radius the VertiDrive was unable to navigate

COMMENTS: *Had 3 weeks time constraint on two tanks and therefore wanted an alternative to scaffolding costs: assembly/disassembly time and rental fees.*

PROJECT: 180ft Diameter Tank

COATING REMOVED: New Steel

CUSTOMER: Brock

LOCATION: Salt Lake City, UT, USA

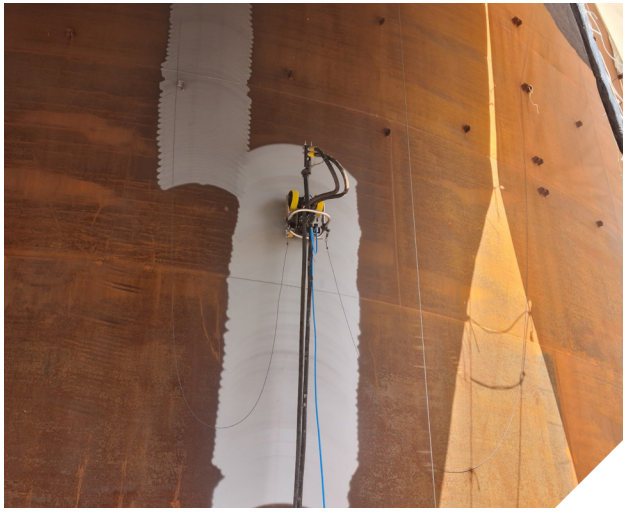
DATE: November 11, 2021

SETUP: VertiDrive M7 with 2 #8 UltraTuff nozzles, AmphiBlast with GMA NewSteel Garnet, plus 2 additional manual blasters

RESULTS: 55.7 m^2/hr (600 ft^2/hr) Verti+Blasters. 37 m^2/hr (400 ft^2/hr) VertiDrive only

PREVIOUS RESULTS BEFORE VERTIDRIVE:
37 m^2/hr - 4 blasters. Blasters were accomplishing less than 9.3 m^2/hr (standard is 9.3 m^2/hr). Reduced labour by one and VertiDrive itself blasted 2X both remaining labourers combined

COMMENTS: *The VertiDrive also blasted the roof. Customer liked the performance and kept the machine on site to use on another tank.*



PROJECT: 120ft New Fuel Storage Tank External

COATING REMOVED: New Steel

CUSTOMER: Civmec

LOCATION: BCSBP Kwinana, WA, Australia

DATE: October 16, 2020

SETUP: VertiDrive M7 with 2 x #7 Hyper nozzles running at 110 psi at the nozzle using GMA SpeedBlast

RESULTS: 55.7 m^2/hr (600 ft^2/hour) to NACE 3 finish and 76 micron profile, reduced labourers from 3 down to 1 (66% reduction!)

PREVIOUS RESULTS BEFORE VERTIDRIVE:
Required 2 blasters and 1 spotter

PROJECT: 225ft Diameter Fuel Tank Floor

COATING REMOVED: New Steel

CUSTOMER: Moore Painting

LOCATION: Tank Farm - Patoka, IL, USA

DATE: October 16, 2020

SETUP: VertiDrive M7 with 2 UltraTuff #8 nozzles, using GMA GX2 Garnet

RESULTS: 37 m^2/hr at 0.16 kg/m^2 (400 ft^2/hr at 3.7 lbs/ft^2)

PROJECT: 8 Million Liter (10 Million Gallon) Tank

COATING REMOVED: New Steel

CUSTOMER: T W Woods Construction Pty Ltd

LOCATION: Tomago NSW, Australia

DATE: May 18, 2023

SETUP: VertiDrive M7 with 3 SnakeBite nozzles (2-#7 / 1-#6) with a MegaBlaster using GMA NewSteel Garnet

RESULTS: 55-65 m^2/hr (592-699 ft^2/hr)

PREVIOUS RESULTS BEFORE VERTIDRIVE:
36m^2/hr (387ft^2/hr) with two blasters

COMMENTS: *We were skeptical at first, but seeing how fast the unit can go really amazed us. Also remarkably quieter with the SnakeBite nozzles.*

PROJECT: 100ft Sphere

COATING REMOVED: Millscale

CUSTOMER: Brand

LOCATION: El Segundo, CA, USA

DATE: April 19, 2023

SETUP: VertiDrive M7 with UHP

RESULTS: Entire sphere completed with UHP. No scaffolding costs.

PREVIOUS RESULTS BEFORE VERTIDRIVE:
Required scaffolding and blasters

PROJECT: Fuel Storage Tank External

COATING REMOVED: 152-254 micron

CUSTOMER: Quincy Industrial Painting

LOCATION: Iowa, USA

DATE: May 12, 2022

SETUP: VertiDrive M7 with 2 x #7 UltraTuff nozzles with a 6 tonne bulk pot

RESULTS: 25 m^2/hr (270 ft^2/hour) with a NACE 2.5 finish, while reducing labour by 50%

PREVIOUS RESULTS BEFORE VERTIDRIVE:
4 men (3 blasters plus spotter) down 50% to 2 (1 operator and 1 blaster doing touch ups) with the VertiDrive.

PROJECT: RAN Navy Vessel

COATING REMOVED: 177 microns of top coat only - International Intershield 300

CUSTOMER: Eptec

LOCATION: Henderson Naval Shipyard, WA, Australia

DATE: October 23, 2021

SETUP: VertiDrive M7 with 2 #7 SnakeBite nozzles, AmphiBlast with 1600 Air Dryer plus 2 manual nozzles on man lifts using GMA PremiumBlast

RESULTS: 34 m^2/hr (366 ft^2/hr) removing the top coat only, reduced blasters from 4 to 2. Reduced manlift equipment requirements

PREVIOUS RESULTS BEFORE VERTIDRIVE:
4 blasters with an additional spotter

COMMENTS: *Pressure dialed down to 90psi at the nozzle to ensure blasting operation did not remove the mid coat.*

THE MOST EFFECTIVE SOLUTION FOR CLEANING STEEP STEEL SURFACES

PROJECT: 50ft Diameter Jet Fuel Tank

COATING REMOVED: 305-380 micron epoxy urethane

CUSTOMER: Graham Industrial Coatings

LOCATION: Eielson Air Force Base - Fairbanks North Star, AK, USA

DATE: June 8, 2021

SETUP: VertiDrive M7 with 2 #8 UltraTuff nozzles, using AmphiBlast and coal slag abrasive

RESULTS: 24 m^2/hr (260 ft^2/hr)

PREVIOUS RESULTS BEFORE VERTIDRIVE:
Foreman stated they average 8.8 m^2/hr (95 ft^2/hr) for the tank right next to this one

COMMENTS: *Blasted to SP10. Used manual hand cut-ins.*

PROJECT: Spherical Tank

COATING REMOVED: 305-380 micron epoxy urethane

CUSTOMER: Brock Services

LOCATION: TX, USA

DATE: December 7, 2022

SETUP: M7 VertiDrive with 2 #8 Hyper nozzles, using 6 tonne Bulk AmphiBlast at 104 psi with nickel slag

RESULTS: 24 m^2/hr (260 ft^2/hr)

PREVIOUS RESULTS BEFORE VERTIDRIVE:
4 blasters with an additional spotter

COMMENTS: *The customer did not make all the adjustments we advised, however they still had success. They used Emerald Blast and standard hoses. They had some compressor failures which did result in production limitations.*

PROJECT: Water tank

COATING REMOVED: 380 micron epoxy

CUSTOMER: Graham Industrial Coatings

LOCATION: Eielson Air Force Base - Fairbanks North Star, AK, USA

DATE: October 25, 2022

SETUP: VertiDrive M7 with 2 #8 UltraTuff nozzles, using 8 tonne bulk pot with Green Diamond Slag

RESULTS: 27.8 m^2/hr (300 ft^2/hr)

COMMENTS: *Under tight timeline and needed quick turn-around. Renting the VertiDrive was the ideal solution.*

PROJECT: Crude Oil Storage Tank

COATING REMOVED: Epoxy 12-20 mils

CUSTOMER: Glindemann Industrial Coatings

LOCATION: Queensland, AU

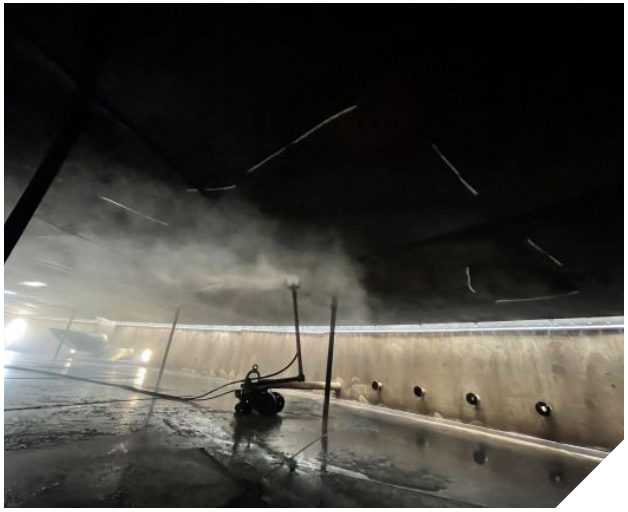
DATE: 2020

SETUP: VertiDrive M7, 20,000 psi pump @ 14.22 gal/min flow (approx 1400 bar @ 6 lpm)

RESULTS: WJ2 Clean, 62.5% reduction in workforce required (from 8 to 3), Completed project 4 days earlier than schedule (14 vs 18 days)

PREVIOUS RESULTS BEFORE VERTIDRIVE: Required 8 workers

COMMENTS: *The VertiDrive M7 was used for 75 hours in total at an astonishing average production rate of 840 ft² (78 m²) per hour.*



PROJECT: Floating Crude Oil Tank Roof

COATING REMOVED: 3-layer Epoxy 12-20 mils

CUSTOMER: Persy Steel Protection

LOCATION: Rotterdam, Netherlands

DATE: March 2017

SETUP: VertiDrive M4 UHP with Vacuum System, 36,000 psi @ 8.5 gal/min (2500 bar @32 lpm), vacuum capacity 1,100 m³/hr at 650 cfm

RESULTS: Average production rate of 3,200-4,300 ft² (300-400 m²) per 8-hour shift

COMMENTS: *Waste water treated and disposed of responsibly.*

PROJECT: Ship Hull

COATING REMOVED: Epoxy 15-20 mils

CUSTOMER: GMD Shipyard

LOCATION: Brooklyn, NY, USA

DATE: January 26, 2021

SETUP: 2 M7 VertiDrives each with 2 #8 Hyper nozzles, 2 MegaBlast Pots using GMA GX2 Garnet

RESULTS: 333 ft²/hr (31 m²/hr)
2000 ft² (185 m²) in 6 hrs of blasting

PREVIOUS RESULTS BEFORE VERTIDRIVE: GMD were using UHP but the maintenance of the pumps cost too much and so they switched to abrasive

COMMENTS: *GMD had a timeline and needed a fast turn-around. They were blasting to an SP10 when specs allowed for an SP6. Thus over-blasting hindered even more impressive results.*

PROJECT: Water Tank

COATING REMOVED: Epoxy 15-20 mils

CUSTOMER: Moore Painting

LOCATION: Eureka, CA, USA

DATE: August 17, 2022

SETUP: M7 VertiDrive with 2 #8 nozzles using GMA GX2 Garnet

RESULTS: 280 ft²/hr (26 m²/hr) and finished entire tank shell in 3 days. 40% faster!

PREVIOUS RESULTS BEFORE VERTIDRIVE:
Previously required 5 days of blasting to complete

PROJECT: 180ft Diameter Diesel Storage Tank Floor

COATING REMOVED: Epoxy 15-20 mils

CUSTOMER: BP

LOCATION: Bulwer Island, QLD, Australia

DATE: January 15, 2020

SETUP: M7 VertiDrive with 2 #8 UltraTuff nozzles, using 8 tonne bulk pot with GMA PremiumBlast at 92 psi

RESULTS: 290 ft²/hr (27 m²/hr) and NACE 3 finish with 3 mil profile

PROJECT: 180ft Diameter Tank Floor

COATING REMOVED: Epoxy 16-20 mils

CUSTOMER: Lakehead

LOCATION: Husky Refinery, Superior, WI, USA

DATE: October 1, 2021

SETUP: M7 VertiDrive with 3 Hyper #7 nozzles, using Bulk AmphiBlast (dry) with GMA GX2 Garnet

RESULTS: 320 ft²/hr (30 m²/hr). Total 3 labourers

PREVIOUS RESULTS BEFORE VERTIDRIVE:
Normally require 5-6 labourers

COMMENTS: *So happy with the performance they bought the machine. Manually blasted 3ft up walls.*

COATINGS REMOVED: 380-760 MICRONS

PROJECT: Ship Hull

COATING REMOVED: 30 mils silicone

CUSTOMER: NKOM

LOCATION: Doha, Qatar

DATE: April 22, 2022

SETUP: M7 VertiDrive with 2 #8 SnakeBite nozzles, using coal slag at 90psi

RESULTS: 18.5 m^2/hr (200 ft^2/hr)

PREVIOUS RESULTS BEFORE VERTIDRIVE: 6.5 m^2/hr (70 ft^2/hr) manual blasting. Two blasters = 13 m^2/hr (140 ft^2/hr)

COMMENTS: *Had big compressors, but had constricting 2.0" bull hoses and pusher lines resulting in the low pressure. Customer purchased 2 VertiDrives.*

PROJECT: Water Tank

COATING REMOVED: Epoxy 380-635 micron

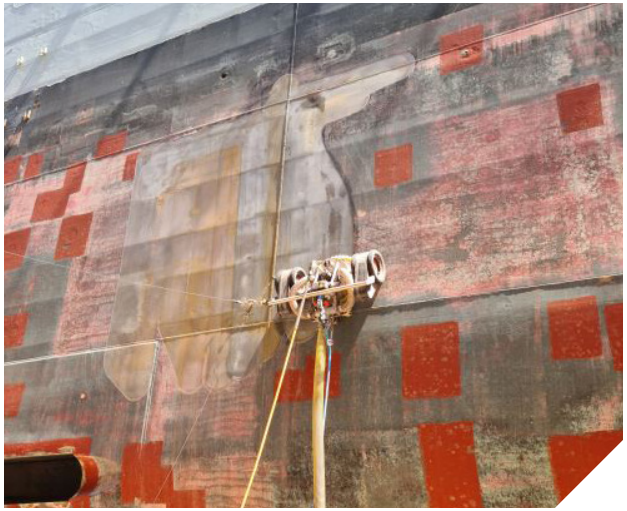
CUSTOMER: Capital Coatings

LOCATION: Escondido, CA, USA

DATE: April 24, 2023

SETUP: 2 M7 VertiDrives each with 2 #7 nozzles, using GMA GX2 Garnet

RESULTS: 22.3 m^2/hr (240 ft^2/hr)



PROJECT: Naval Vessel

COATING REMOVED: 550 microns of marine coating

CUSTOMER: Eptec

LOCATION: Garden Island Dockyard, Sydney Australia

DATE: October 8, 2020

SETUP: VertiDrive M4 Ultra High pressure robot with an NLB 300hp 40,000psi @10gpm pump

RESULTS: 26 m^2/hr (280 ft^2/hr) leaving a dry WJ1 surface free of contaminants and ready for painting

PREVIOUS RESULTS BEFORE VERTIDRIVE: 9.2 m^2/hr (100 ft^2/hr) per manual lance, doing the work of nearly 3 manual lances

PROJECT: 100ft Diameter Tank Internal

COATING REMOVED: 12,700-25,400 micron (12 to 25.4) of rubber coating

CUSTOMER: BHP

LOCATION: Olympic Dam, Australia

DATE: June 5, 2020

SETUP: 2 x 300hp Ultra High Pressure pumps coupled to 2 x VertiDrive M7 with 6 inch spinning cutting heads

RESULTS: 14 m^2/hr (150 ft^2/hr) and minimising any men on man lifts inside the small tank

PREVIOUS RESULTS BEFORE VERTIDRIVE:
9.2 m^2/hr (100 ft^2/hr) - 2 blasters on man lifts

BHP

PROJECT: Glen Sannox Ferry Boat

COATING REMOVED: 990 micron four-layer Jotun Epoxy

CUSTOMER: BME Services

LOCATION: Aberdeen, Scotland, UK

DATE: 2020

SETUP: VertiDrive M7 UHP, 36,250 psi pump @ 25 litres/minute flow (2500 bar @ 26 lpm), 4 total workers

RESULTS: Completed in 8 days. Average of 125 m^2/day (1345.5 ft^2/day). 500% faster!

PREVIOUS RESULTS BEFORE VERTIDRIVE:
25 m^2/day (269 ft^2/day)

COMMENTS: *Glen Sannox ferry boat had dimensions of 102.4 x 17 m (1102 ft x 183 ft) and a total area of 2,000 m^2 (21,527.8 ft^2)*

BME

PROJECT: Storage Tank Inner Walls

COATING REMOVED: Heavy rust

CUSTOMER: Buchen International

LOCATION: Antwerp, BE, USA

DATE: June 1, 2023

SETUP: VertiDrive V400 UHP Vacuum Blasting

RESULTS: Average of 45 m^2/hr (484 ft^2/hr) @ 40,610psi (2800 bar) 46 lpm (12 gal/min)

PREVIOUS RESULTS BEFORE VERTIDRIVE:
6 m^2/hr (64 ft^2/hr)

COMMENTS: *750% increase! Project completed 4 days ahead of schedule.*

BUCHEN® WORKING FOR THE FUTURE

PROJECT: 6 (5.8 diameter x 500m long) Penstocks

COATING REMOVED: Pressure Washed Only

CUSTOMER: Snowy Hydro

LOCATION: New South Wales, Australia

DATE: June 5, 2020

SETUP: 2 x VertiDrive M7 with pressure washing arms.

RESULTS: 1,000 m^2 (10,764 ft^2) per day.

PREVIOUS RESULTS BEFORE VERTIDRIVE:
4-5 personnel working by hand to match productivity.

COMMENTS: *As the tops of the pipes were about 6 metres off the ground covered in slippery organic growth, the VertiDrive eliminated this hazardous condition while also out-performing human blasters.*

EFFECTIVELY REMOVE DIRT, PAINT AND COATINGS ON VARIOUS STEEL SURFACES

7 BENEFITS THAT DRIVE YOUR OUTPUT TO ITS HIGHEST LEVEL

INCREASES PRODUCTIVITY

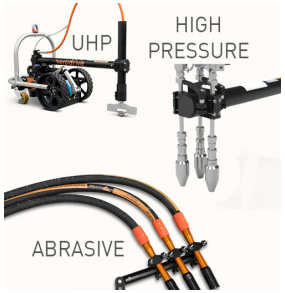
Accommodates up to three #8 blast nozzles

IMPROVES SAFETY

Reduces blasters exposure to heights, and dangerous pressures

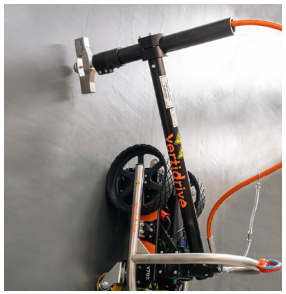
SIMPLE TO OPERATE

Manual joystick or automated advancing capabilities



3-IN-1 VERSATILITY

Robots with multiple capabilities: abrasive, UHP, pressure washing



CONSISTENT BLAST

Timed swing arm delivers consistent profile

USE LESS ABRASIVE

The metered consistency of the blast reduces abrasive waste

RENTABLE

Rent the equipment, own the success.

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FOR STEEL SURFACE PREPARATION

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WE CREATE INNOVATIONS THAT STICK

V700 SERIES

- Multi-purpose, compact, agile
- Interchangeable applications
- Available in Electric or Pneumatic ATEX Zone 2

V400 SERIES

- Enclosed Hydroblasting
- Waste Collection Through vacuum
- Available in Electric or Pneumatic ATEX Zone 2

WASTEWATER COLLECTION SYSTEM

- Maintenance Friendly
- Optional Big Bag Holder
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DESIGNED TO MEET THE CHALLENGES OF STEEL SURFACE PREPARATION

The robotic crawlers adhere to steel surfaces with powerful permanent magnets and can move independently in all directions: up, down, sideways and even overhead.

This enables operators to perform a variety of jobs, like HP cleaning, abrasive blasting and hydro blasting, while staying safely on the ground.

ADVANTAGES

Our solutions offer significant advantages over traditional methods of cleaning and blasting.

- The ability to work simultaneously in close proximity to other trades or maintenance processes
- Cleans horizontal, overhead and vertical surfaces
- Reduced manpower requirements
- Environment friendly and no clean-up costs
- Eliminates access requirements (staging, cranes, platforms, etc.)
- Enhanced asset availability through expedited project turnover
- Full-service package with 24/7 technical support
- Ergonomic design and user-friendly, remotely controlled
- Low maintenance robots

ACHIEVE RESULTS UP TO:

8 TIMES
FASTER THAN MANUAL WORK

92%
COST REDUCTION

8 TIMES
MORE EFFICIENT

VERTIDRIVE DEVELOPS ROBOTIC SOLUTIONS

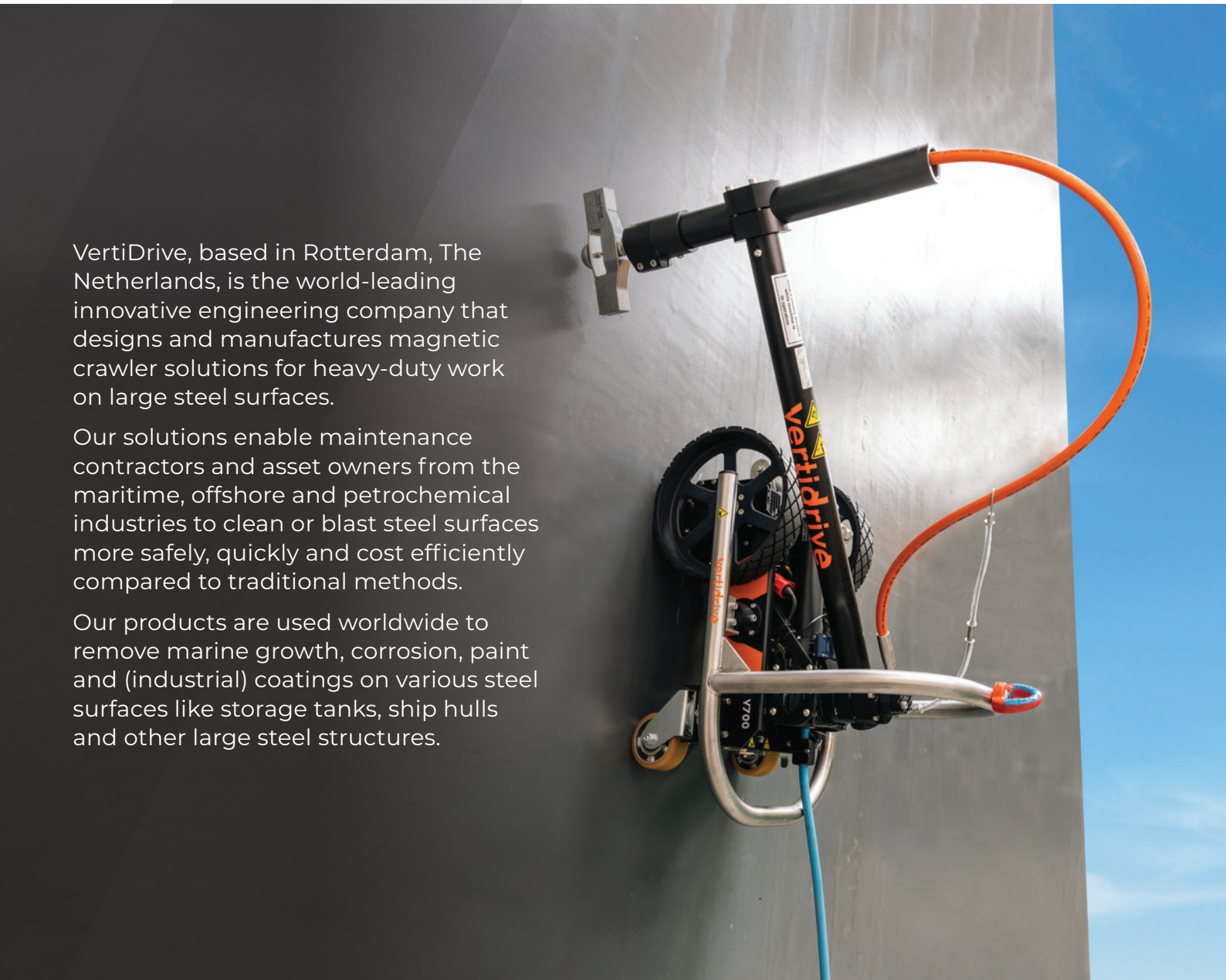
VertiDrive leads in developing advanced robotic solutions for the Tank Storage and Ship Repair industry, specializing in efficient coating removal and comprehensive cleaning operations.

Our mission is to provide safer, more effective and cost-efficient magnetic robotic solutions for heavy-duty work on large steel surfaces at the most challenging places.

VertiDrive, based in Rotterdam, The Netherlands, is the world-leading innovative engineering company that designs and manufactures magnetic crawler solutions for heavy-duty work on large steel surfaces.

Our solutions enable maintenance contractors and asset owners from the maritime, offshore and petrochemical industries to clean or blast steel surfaces more safely, quickly and cost efficiently compared to traditional methods.

Our products are used worldwide to remove marine growth, corrosion, paint and (industrial) coatings on various steel surfaces like storage tanks, ship hulls and other large steel structures.



OUR VISION

At VertiDrive, we see a world where surface preparation operations are no longer laborious and hazardous but a seamless and efficient process.

A world where shipyards, tank storage facilities, and off-shore structures, are prepared with ease and safety, without compromise.

QUALITY

Our robotic solutions are designed with utmost precision and only the best parts available. All our solutions are thoroughly tested at our facility before hitting the field.

SERVICE

We don't just sell you a piece of equipment - we analyse your current operation and show you how the VertiDirive crawler can be your competitive advantage. We ensure seamless integration of our solutions in your operations.

SUPPORT

Multi-access 24/7 service and support via VertiDrive or VertiDrive Sales Partner network

"I would like to put a massive thanks to VertiDrive for possibly the best service I have ever encountered.

I required a PCB board from their store in Holland to my workshop in Aberdeen in a hurry.

From my call to them and receiving the board in our workshop it took 7 hours.

Just fantastic. What a service!"

Scot Borland, Managing Director

BME UK LTD

"Buchen Industrial Services booked significant results - Surface cleaning - With the new generation VertiDrive V400 Series.

High cleanliness quality, a pleasure to operate, and financially very attractive for tank owners."

Frank O'Gara, Managing Director

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