

# Dry Suction, Combo Vacuum & Drain Cleaning



## Time Savings and Environmental Benefits

Introducing the most advanced dry suction excavator onto the Australian Market. ForceOne DryVacs complete digs up to **16 times<sup>1</sup> faster** than conventional hydro-excavators. Twin turbine fans produce a massive **44,000m<sup>3</sup>/hr in suction power** and are equipped with **separation chambers** and **micro-mesh filters** which aid in stopping finer particles entering the environment.

Spoil removed from the excavation is contained within the debris chambers, and can be **re-used immediately** onsite without cross-contamination. The need for water can be eliminated using DryVacs, thereby further reducing negative environmental impacts.

## Cost Savings with Reusable Material

By **reusing** the original, uncontaminated material, there is no need for extra machinery carting back-fill onto site to complete rehabilitation. **Additional time savings** can be found by the unit not leaving site to dump spoil, meaning DryVacs spend more time on-task and **save on tip fees**.

## Greater Suction Power at Depth, Distance, Area and Volume

**Vertically**, with a 10 inch (250mm) suction air in-take attached to a hydraulic boom, depths up to 30 meters can be reached safely and precisely. **Horizontally**, using flexible hoses, distances up to 150 meters can be reached without loss of suction power. Also, by using flexible hoses, difficult-to-reach areas can be accessed safely.

And, in addition to all this, one 10 inch hose can be **split 3 ways**, replacing up to 3 separate conventional vacuum units. This enables **3 separate tasks** to be undertaken with one DryVac.

The containment bin holds up to 8m<sup>3</sup> of dry spoil, meaning the vacuum unit can efficiently and safely remove up to **100m<sup>3</sup> of dry spoil** in a 24 hour shift and store this spoil onsite.



## Dry Excavation Techniques

The DryVac uses a variety of air-tools in conjunction with the hydraulic boom to excavate safely and precisely around important assets. An **air-lance** (operating at 100psi) assists in breaking ground gently around services, while an **air-spade** and **jack-hammer** can break through harder ground where services have already been located. A **water gun** (operating at 1500psi) is also available and aids further in asset identification.

In addition to the variety of air-tools outlined above, the DryVac has a **variety of vacuum head attachments**. These attachments further increase the safety and efficiency of excavating around crucial infrastructure.

## Remote Controlled Vehicle

The DryVac is fully remote controlled, meaning the plant can be **driven and operated remotely** without the need for disengaging and re-engaging the plant. Not only is this feature safer for other personnel, but the DryVac spends more time working.

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<sup>1</sup> [www.rsp-germany.com](http://www.rsp-germany.com)

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## Mining and Mine-Shutdown Applications

ForceOne DryVacs have been used in a variety of **industrial cleaning activities**, reducing production losses and environmental harm, while promoting a safer working environment. **Confined space entry can be eliminated** using a ForceOne DryVac and difficult-to-reach areas are now accessible using our flexible hose system.

By removing debris and other corrosive materials around cable trays, above ground pipes and suspended walkways, the likelihood of **corrosion and asset failure is avoided**. This proactive cleaning approach avoids incidents and provides for an accurate inspection of infrastructure quality.

## Live Asset Excavation

ForceOne operators are **highly experienced and trained in live dig situations**. After first assessing relevant plans, drawings and dial-before-you-dig's, the area is examined using the on-board electronic locator.

DryVacs expose most **subsoil indicators** such as trench lines and any other man-made ground disturbances, whereas conventional hydro-excavation hides these indicators.

Excavation involves **exposing live services** to a dimension and standard that creates safe working distances for other machinery and tradesmen.

Most recently, ForceOne was engaged to locate and expose services for the **Wentworth to Broken Hill water pipeline construction**. This included locating a variety of services, which were not mapped nor surveyed.

## Underground Asset Locating and Camera Inspections

The ForceOne DryVac is equipped with a **Leica Digicat 550i Locator**, used for detecting underground assets such as electrical assets and communication services. Furthermore, a small push-rod camera is available for underground asset investigations.

## Urban Uses, Drainage Management and Rail

ForceOne has been engaged by various councils and urban planners to clean **cattle grids, storm water culverts, gutters, storm water pits** and to expose important infrastructure. Our proactive approach and experience in urban drainage management, prevents blockages and removes contaminants entering the environment, meaning potential future clean-up costs and fines are eliminated.

ForceOne has also introduced innovation for **rail networks**. Purpose-built specialised vacuum head attachments allow for the efficient **removal of ballast**. (See the below video link). ForceOne DryVacs have also been used in a variety of other applications for rail networks.

## Emergency Spill Response

The DryVac is ideal in emergency spill response with crew trained in spill response scenarios. Without using water (which would otherwise spread the spill further), DryVacs have the capability of containing a spill and removing the contaminants entirely. Contaminated waste is sealed in the containment bin for safe transportation to approved disposal facilities.

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## Combo Vacuum Truck

German vacuum technology has been leading the industry over the decades. Force One will be taking delivery of a **Kroll™ Combination Unit**, further increasing our capabilities to our customers in Northern Australia.

The combo unit can vac and jet simultaneously. **A built-in 20m, 6" retractable vacuum hose** will make easy work of cleaning sumps or pits with the unit able to jet clean at the same time with the **built-in 180m 1" jetting hose** (2,200psi / 270l/min). Manual handling is mostly eliminated as the vacuum and jetting hose are remotely retracted hydraulically.

## Drain Cleaning

In 2019, Force One introduced a drain cleaning unit to our Mount Isa fleet. Our drain cleaning unit comprises a variety of cleaning heads to suit most applications. The water pumps operates at **260 litres per minute and 2200 psi**. Jetting head include a **Penetrator Head** (unblocking), **Warthog Head** (rotating), **Bottle Bomb** (large pipe cleaning) and a **Chain Flail** (root cutting/descaling).

## Most Experienced Team in Australia

Force One is the most experienced, specialised and innovative team using dry suction technologies in Australia, with our operators introducing the technology onto the Australian market in 2014.

## Our Clients



## Media

<http://www.forceoneaus.com.au>

<https://www.kroll-fahrzeugbau.com/en>

<https://youtu.be/nL13rhgzLmU> (General Introduction)

<https://youtu.be/RbA5bTsHRLI> (Mine Site Maintenance)

<https://www.youtube.com/watch?v=gH9E78jWUfs> (Rail Applications)

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