ADVANTAGES

- Latest Safe-Dig technology
- Minimal risk to hidden/buried services
- Reduced vehicle movements on site
- Removes operative from hazardous area
- Cleaner excavation point
Suction Excavation
Force One Ltd was established in 2004. After rapid expansion, we became a main service provider of operated Suction Excavation vehicles with our safe dig/material extraction service being used by main construction and engineering contractors across the UK.

Today, Force One Ltd are specialist’s within Suction Excavation with a reputation for safety, reliability and for being customer focused. Our range of vehicles and specialist equipment combined with the qualifications held by our operatives mean we work across a wide range of sectors. These include; construction, highways, rail infrastructure, airports, specialist petrochemical and oil refineries.

**HOW DOES IT WORK?**

A Suction Excavator generates high volume air flow via its suction fans which are powered by the vehicles main engine. This air flow produces a suction that pulls material into the machines intake nozzle depositing it into a material storage container which holds between 7 – 10m³. The air then continues through to a bank of micro mesh filters that capture small particles and dust, before being released back into the atmosphere.
Force One Ltd operate a range of modern Suction Excavators each with specialist features making them the ideal solution. Force One Suction Excavators prioritise safety with earthing systems, chalwyn valves and spark arrestors. These machines are available with semi-power arm or full power arm.

Standard Vehicles | 26/32 tonne | Twin Fan | 8m³ Capacity

Advanced Vehicles | 41 tonne | Triple Fan | 10m³ Capacity

Specialist Vehicles | 32 tonne | Quad Fan | 8m³ Capacity
CERTIFIED
Mid 2016, a new dedicated CPCS certification was introduced for all Operatives of Suction Excavation machines. Late 2017, the CPA, having worked closely with the CITB, released their “Safe Use of Suction Excavators” Good Practice Guide. These two developments provides consistency of operational standards across our industry.

Force One Ltd have worked closely with both the CITB and CPA to establish this new certification and Good Practice Guide and, as a result, operate one of the first CITB CPCS A78 test centres in the UK. All our operatives are fully trained and tested to this high level and, as a company, we have embraced all the CPA recommendations.

Our test centre, based in March Cambridgeshire, offers full preparation for all of the A78 categories A through to H theory and practical tests.

Force One Ltd operatives are not only qualified to CPCS A78 level but also hold a wealth of certification to ensure that they conform to other industry sector requirements. These include:

- PTS – Rail
- CCNSG
- BESC & PERSONS
- SSSTS
- EUSR
- STREET WORKS

This, along with more site specific certification, all adds up to us providing the best trained, qualified, experienced and competent operator teams possible.
Force One Ltd are RISQS audited. With our operational teams being PTS certified and directly sponsored by Force One Ltd, this enables us to tackle rail projects quickly and effectively. We bring safe dig and material extraction to the Rail sector using a range of equipment from our standard road vehicles to our unique and innovative remote RRV with a rail mounted quad fan suction system.
We operate a number of vehicles within our Suction Excavator fleet, which are fitted with specialist safety equipment allowing for safe operation within highly sensitive environments. These machines, together with our specialist qualified operating teams, carry out work across numerous refineries/petrochemical and gas sites throughout the UK.

Force One Ltd were one of the first to introduce this technology to airports across the UK. Benefits of using this method rapidly became recognised resulting in Suction Excavation being written into many site preferred excavation techniques. We operate across not only civilian airports but also MoD sites nationally. Our teams are airside driver passed, security cleared and familiar with operational requirements.
Industries

Highways

A safe and fast method of excavation, using Suction Excavation helps reduce operative and vehicle numbers required on highway projects. One machine can excavate, contain and remove material from the excavation area. Excavations are smaller, require less barriers once excavation is complete and require less material to reinstate.
Our diverse range of Suction Excavators have been applied to a variety of civil engineering projects across the UK. The unique power of these vehicles offer the ability to work at distance and depth. This opens up the option for Remote Nozzles to remove the operative from the point of excavation, increasing safety for all personnel. This offers a new, safer and more effective solution.

Suction Excavation is perfectly suited to the more sensitive environments found within electrical facilities. Where conventional methods have a high risk of service strikes and injuries, Suction Excavation is the ideal solution offering a safer and more effective alternative.
Suction Excavation provides the safest method of excavation over and around multiple services. Generally, excavating over utilities will be within the highway (including the footway and verge), in residential, built up or construction areas. Benefits of this method include; reducing the size of excavations, removing spoil, and cutting down on barriers, signs and site traffic.
Gas

Be it low, medium or high pressure gas mains that require excavating, avoiding risk to both the asset and operatives involved has to be a priority. Safety must always be the primary consideration. Utilising Suction Excavation by avoiding the need to break the ground with mechanical means, i.e. digging buckets/hand tools, ensures the safest possible approach.

Specialist Material

Our teams clear all types of material such as reservoir slabs, roof areas, industrial filters, eco fuel storage units, silos/tanks, basements and many more. Extracting material from distance, depth or height makes utilising Suction Extraction a new, safe and fast option. The possibilities are constantly growing as the awareness for this technology increases.
One of the most recent additions to our fleet is the 32tonne, high tip, quad fan, power arm vehicle. This machine provides greater flexibility as it can tip directly into a muck away/grab lorry. This enables faster tipping without the suction lorry having to move from its working point resulting in greater productivity.
Our range of 150, 250 and 280mm diameter, rigid and flexi, extension hoses enable greater flexibility in the use of our machines. Our vehicles can be positioned away from excavation points if vehicle weight or access presents an issue.

Extension hoses can be extended up to 200m horizontally and 60m vertically (dependant upon material) to reach into or through buildings, into basements, tanks, culverts, tunnels or where placing a vehicle proves impossible. The options become almost limitless...

Reuse Material...

Force One Ltd offer a unique “Bag Pack” system. This allows material extracted to be tipped from our suction vehicles into a dedicated dual hopper and then into suitable heavy duty certificated storage bags. Ideal if material has to be reused or contained.
Remote Nozzles

Force One Ltd operate a range of mini tracked nozzles (RN units). These machines are fully remote controlled and are used in conjunction with our road suction vehicles that provide the suction power. They safely position the intake nozzle when working at distance whilst removing the operatives from the point of excavation eliminating all manual handling.
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