

DRY-VACUUM TECHNOLOGY

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Game Changer for Powerful, Safe, Productive Excavation

When Ox Equipment, of Ancaster, Ontario, discovered German-manufactured Mobile Tiefbau Saugsysteme (MTS) dry-suction excavation systems, the Canadian company knew it was just what North American utilities, municipalities and contractors needed.

While hydrovac systems are the norm for excavation, they face an increasing host of challenges. Wet slurry generated by liquefying soils is becoming more difficult and costlier to dispose of, as dump sites get farther away from the urban centers where most utility work occurs. In many states there are additional requirements, such as testing the slurry for possible contamination before its ultimate disposal. Road authorities' enforcement of tighter axle weight limits make overweight concerns a fact of life for most every operator in every state and province.

Dry-vacuum excavation can provide a better alternative. However, traditional dry vacuum equipment is often underpowered, utilizes manually operated 4-inch vacuum hoses that are prone to clogging, and is limited in terms of capacities and productivity, compared to larger, wet vacuums.

"Hydrovacs have become the go-to equipment for vacuum systems over the past decade or so, and we have been waiting in North America for dry vacuums to catch up to that technology," said Darren Bartels, president of Ox Equipment, the exclusive North American distributor for MTS. "It turns out, Europe figured it out long ago."

Class of its own

Through continuous product improvement over the past 20 years, and high-quality German engineering, MTS vacuum equipment is designed to deliver safe, reliable and functional vacuum excavation performance – producing over 24,000 CFM of air movement – all while staying dry. "In fact, MTS refers to the technology as 'Suction Excavation,' which makes a lot of sense when you witness the raw power and productivity of this type of equipment," Bartels added. "This is definitely not your typical dry vac."

Trent Robinson, suction excavation manager at California-based Bradley Tanks Inc. and Ox Equipment customer, agrees the MTS equipment is a game changer. "First off, the power is unparalleled here in North America," he said. "We were up against hydrovacs every day when we got our first units, and we have successfully turned every foreman we have worked for into a believer of MTS dry suction technology."

"This equipment is in a class of its own. It's really not even comparable to a hydrovac because it completes the job in a totally different way."

German engineered

Patented Twin Fan systems create the 24,000 CFM of air movement, which is pulled through a 10-inch diameter boom hose. Due to the enormous suction power available, the boom hose is precisely manipulated via a wireless remote control that hydraulically actuates the mechanical Power Arm.

"Think of it as excavator strength meets vacuum system – no floppy boom hoses to manually position, which can often result in operator strain or even injury. It's a safer, more-precise way to get the work done," added Bartels.

Onboard compressor systems generate up to 320 CFM of compressed air to power Air Spade excavation tools used to break up the toughest ground conditions. When required, an additional pneumatic power shovel can gently and quickly help break out stubborn clay soil conditions, or power a lightweight jackhammer for hard surface breakouts.

An innovative, boom-mounted vibrator system eliminates potential clogging issues in sticky clay soils, and keeps all the dry materials moving through the boom hose with ease.

With a wide variety of side-tipping hoppers, from 4.5 cubic meters (5.9 square yards) to 12 cubic meters (15.7 square yards), spoils can be dumped into convenient roll-off bins, or directly onsite for reuse as backfill. This allows the unit to work onsite all day.

More options

Jeff Kamstra, sales manager at Canada-based Super Sucker Hydro Vac Services, also knows the value of this new technology.

"Our name may say hydrovac, but we came up with that long before these dry systems arrived in Canada. We now have customers who request only the dry suction excavator. They may have had their doubts to begin with, but being able to dig dry and dump onsite, avoid the slurry disposal charges, and keep the unit excavating all day, is priceless. Our contractors know the value of productivity, and MTS equipment delivers."

That value also includes MTS' range of standard equipment, as well as customization to fit customers' differing projects and environments.

The versatile Dino series, built on a North American-manufactured chassis, provides a solid platform for excavation work in refineries, utility projects and industrial applications. Tracked-mounted MTS suction equipment can be customized for rail applications and off-road excavations. The nimble City Dino is perfect for the tight confines of urban centers, while retaining the excavating power of its bigger brother, Dino.

"Obviously, hydrovacs will always have a place in our fleet, but this new dry-suction technology gives us a real advantage by allowing us to offer our clients more options," said Kamstra.

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