

TUNNELLING & SHAFT SINKING



Design-engineered solutions for major projects that feature deep and complex excavations.



WHERE SIMPLICITY, SPEED & SAFETY
COMBINE FOR YOUR EXCAVATION



INCREASING PRODUCTIVITY OF WASTE MATERIAL HANDLING

BulkX is a revolutionary excavation methodology that significantly enhances the efficiency of projects.

How? A 'drop bottom' skip that eliminates multiple handling of spoil, significantly reducing dig programme times. BulkX discharges large volumes of spoil and other materials efficiently, meaning less crane time or plant machines are needed compared to traditional methods. Size options range from 4m³ to 20m³ and three different variants are available.

WATCH
THE VIDEO



ONTARIO LINE SOUTHERN CIVIL STATIONS AND TUNNEL | ONTARIO TRANSIT GROUP

IN PRACTICE: POTOMAC RIVER TUNNEL

Tasked with constructing a large-diameter deep sewer tunnel, the project team had to excavate eight shafts to create outfall locations on the river. They removed large amounts of muck and spoil at depths of around 20 metres, then continued to excavate through a hard rock layer below.

Our Free-Standing Gantry BulkX aided 14m³ of material being removed every 6–7 minutes from the shaft. Enabling the team to load approximately 9 trucks per hour on the Potomac River Tunnel Project.

"We actually cut down on how much staffing we need, and we get to live load the truck and send them straight away from the job site. The spoil doesn't have to be double handled – it just saves us so much time and hassle."

Tyler Wilt | Site Manager, CBNA

WATCH
THE VIDEO



POTOMAC RIVER TUNNEL | CBNA (CIVIL BUILDING NORTH AMERICA)

IN PRACTICE: THE ONTARIO LINE

Faced with the challenge of excavating 6 km of the subway tunnel and related tunnelling works, the Ontario Line Group required a rapid and efficient muck-away solution.

The Cantilevered Gantry BulkX, customised to meet Canadian specifications, enabled project teams to load 5–6 trucks of spoil per hour. Eliminating double handling and minimised environmental impact on surrounding areas.

"We worked with Conquip on the specifics, so they built the gantries and structures according to the sites that we have."

Sergio Gijon | Construction Manager, Queen-Spadina and King-Bathurst, Ontario Transit Group

WATCH
THE VIDEO

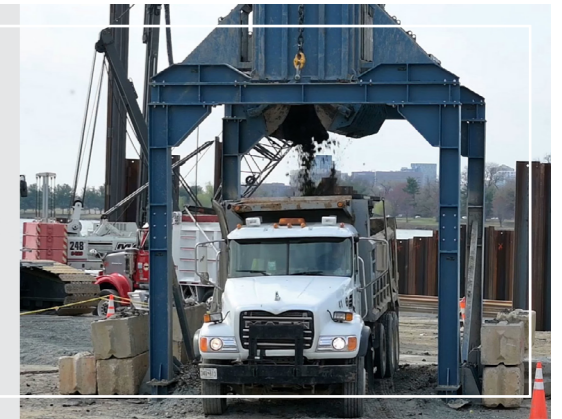


BULKX VARIATIONS

FREE-STANDING GANTRY

Provides contractors with the option to reposition the discharge area on-site.

Skip capacities
from 6,000 to 20,000L.



CANTILEVERED GANTRY

A compact configuration often chosen for sites with limited space.

Skip capacities
from 4,000 to 14,000L.



PIT LANE GANTRY

Allows the discharge area on the roadside to be used by other delivery vehicles, maximising available space.

Skip capacities
from 4,000 to 14,000L.



DIRECT-TO-TRUCK BULKX ELIMINATES DOUBLE HANDLING

The Direct-To-Truck BulkX features a muck away skip engineered to discharge spoil directly into waiting trucks upon landing. This eliminates the need for stockpiling or double handling, streamlining site logistics, and reducing overall dig programme durations. Skip capacities range from 3,000 to 8,000 litres.

On Melbourne's Metro Tunnel Project, the Direct-To-Truck BulkX enabled fast, efficient spoil removal at the space-constrained Federation Square site — discharging directly onto trucks, eliminated the need to stockpile and improved overall site productivity.

WATCH
THE VIDEO



FEDERATION SQUARE, MELBOURNE METRO | DESIGN & CONSTRUCTION JOINT VENTURE

SMART-RELEASE BULKX REMOTE-OPERATED FOR SAFETY

The Smart-Release BulkX is the latest innovation in our BulkX range, designed to minimise plant-person interface and streamline operations.

Ideal for discharging into muck bays, barges, trucks, or stockpiles, it features a low-maintenance system making it perfectly suited for long-duration excavation programmes on major projects. Skip capacities range from 4,000 to 14,000 litres.

Used on the HS2 rail project, one of the UK's largest infrastructure upgrades, the Smart-Release BulkX played a key role in meeting a critical 101-hour excavation window. By operating two skips in rotation, the team maintained continuous material movement, eliminated downtime, and enhanced safety by removing plant-person interface.

WATCH
THE VIDEO



TRANSPENNINE ROUTE UPGRADE | TRU EAST ALLIANCE

MATERIAL CAGES

COMPACT GOODS CAGE

A safe, convenient method of transporting lighter loads to and from high or low locations on-site. Gate and fold-down ramp access options available with a Working Load Limit of 1500kg.



GOODS CAGE

An efficient and safe way to transport a range of loose or palletised materials around site. All cages have a Working Load Limit of 3000kg and are available in small and large sizes, with gate or ramp access options.



XXL LIFTING CAGE

A large capacity lifting cage for transporting a range of materials and equipment in a single lift. Featuring a Working Load Limit of 5000kg and available floor space for up to six pallets.



PEOPLE CAGES

ACCESS CAGE

A range of safe and secure cages to transport personnel around site. Available in 1 to 12-person capacities.



STRETCHER CAGE

A crane-lift frame for collecting and transporting injured personnel on a stretcher.



RESCUE CAGE

A lifting cage for collecting and transporting injured or stranded personnel, particularly from a leading edge.



EXCAVATOR LIFTING PLATFORM

A robust platform designed specifically to safely transport excavators. Featuring a Working Load Limit of 30,000kg and ramps at both ends for easy loading and unloading.



CONCRETE WASHOUT SOLUTIONS

CONCRETE WASHOUT SYSTEM

Ideal for larger sites with cranes that are pouring using Concrete Skips. 2000-litre capacity.

- ✓ Wash larger items: concrete skips, pumps, truck chutes, and concrete equipment.
- ✓ pH neutralise and safely store/dispose concrete wastewater or reuse it for further washout or for wet curing.



COMPACT CONCRETE WASHOUT UNIT

Perfect for sites with no cranes, where smaller equipment, such as pouring buckets and truck chutes are used. 800-litre capacity.

- ✓ Wash from three sides of the unit; ideal for space-restricted sites.
- ✓ Closed-loop system that pH neutralises, stores and reuses concrete wastewater.



BOAT SKIP

EFFICIENT WASTE MANAGEMENT

The Boat Skip is a flexible solution for general muck and waste removal. Designed with a low loading height and a drop-down bale arm, it allows for quick, easy loading and enables the crane operator to discharge the skip without assistance from ground operatives. Capacities range from 500 to 2,000 litres and our Heavy-Duty Boat Skip ranges from 2,000 to 6,000 litres.



DEEP EXCAVATION

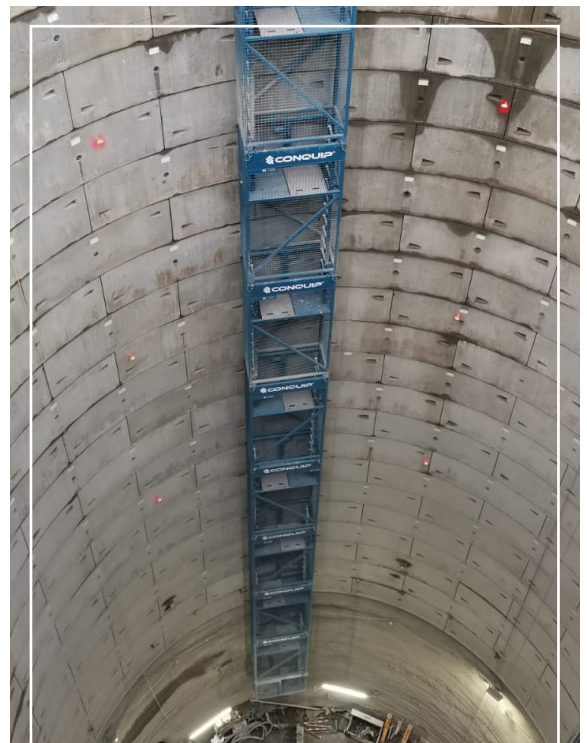
GROUND SUPPORT

Our in-house team of qualified Civil, Structural, and Mechanical Engineers delivers value-engineered Temporary Works and Project Design services for deep excavation projects.

Conquip designs and manufactures complete propping schemes and excavation support solutions, including Temporary Propping, BulkX, CantiDeck, and Temporary Logistics Decks.

"We (Conquip and Morrisroe) were able to value engineer the propping requirements for the project, reducing the amounts required. This not only helped with buildability and maximized the potential of the props, but also had a big impact on sustainability."

Ali Solki | Project Engineer, Morrisroe



MODULAR SHAFT LADDER

An innovative ladder providing safe access to modular shaft. Designed for where lift access is not feasible, its robust steel frame and mesh sides provide enhanced personnel safety.

CONTACT US

Email: sales@cqegroup.com | Visit: www.cqegroup.com/us



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our case studies

