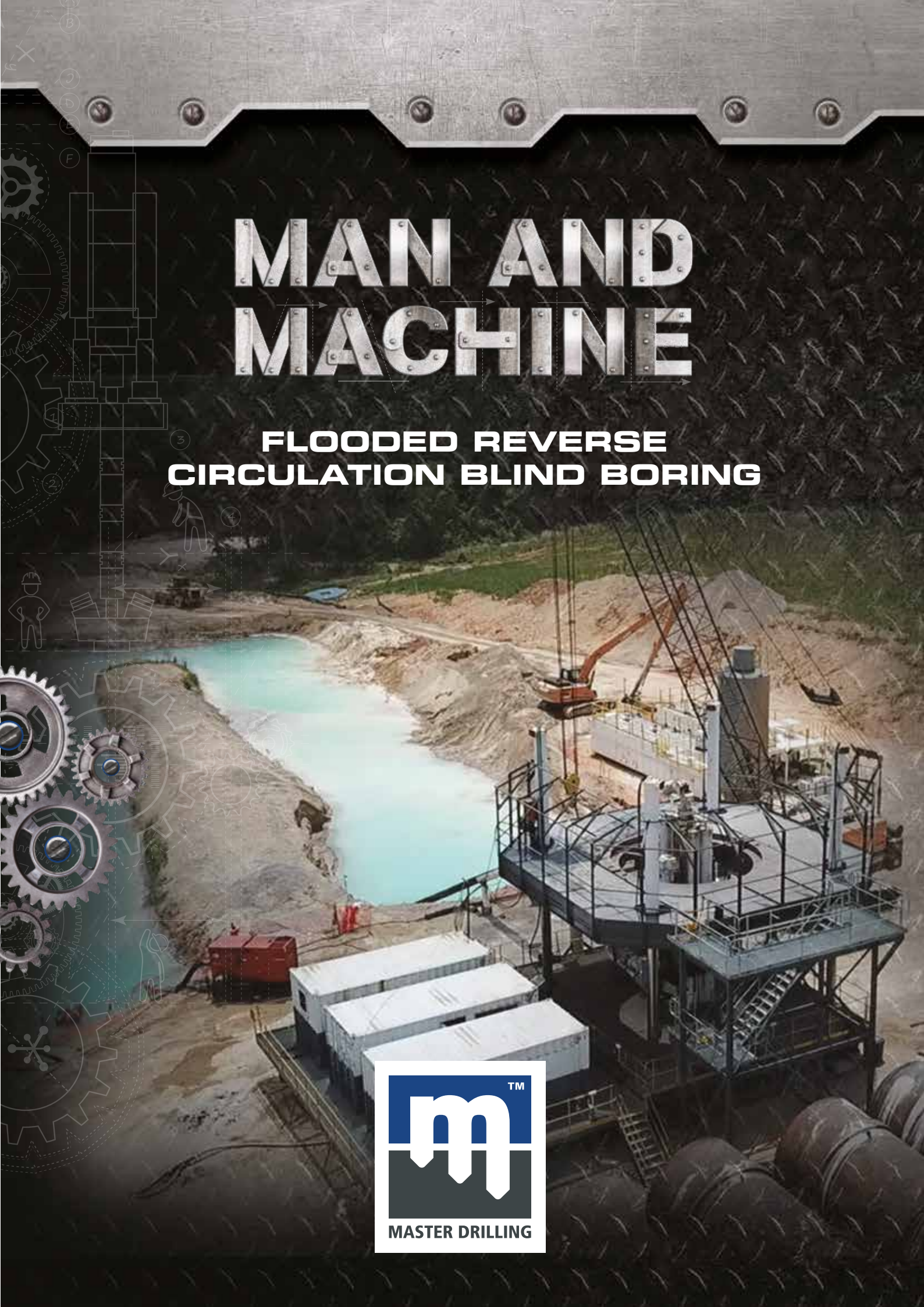


MAN AND MACHINE

FLOODED REVERSE CIRCULATION BLIND BORING



FLOODED REVERSE CIRCULATION DRILLING

Flooded reverse circulation blind boring is a mechanised alternative for conventional drill and blast shaft sinking. It is common to use reverse circulation drilling in mining, civils and energy related projects. This method can be used in either greenfields or brownfields projects, where boring can take place without the need of bottom access.

Flooded reverse circulation blind boring is a versatile drilling method used for different types of shaft drilling, including production, ventilation, access, surge and pressure shafts. All the shafts can be established without the need for bottom access. Reverse Circulation Drilling is ideal for weak ground conditions as well as water bearing geology.

Our service is suited for the excavation of shaft ranging from 800mm to 10m in diameter. With a continuous drilling operation, advance rates of 20m per 24 hour day can be achieved, making this method extremely effective.

Reverse Circulation Drilling works by injecting compressed air into the centre of the drill rods creating a vacuum that hoists material to the ground surface.

THE BENEFITS:

Flooded reverse circulation drilling is a safer, faster and more flexible method of accessing underground ore bodies or to develop ventilation shafts without the need of explosives. No personnel is required to work in the shaft during excavation. With a continuous production process, advances of up to 20m per 24 hour day are achieved.

This versatile method can be used to develop ventilation shafts even before lateral development has reached the shaft, ensuring that there are no delays due to ventilation shortages. When ventilation is required on the critical path, this method saves time and money.

The quality of the sidewall is not compromised due to blasting fractures. With mechanical cutting, a smooth sidewall is developed therefore reducing the support requirements and the difficulty of equipping the shaft due to an uneven sidewall.

The material handling or mucking underground is not required.



Reverse circulation drilling is a mechanised drilling method that does not require any explosives, thus making it a continuous operation, which in turn achieves higher advance rates.

With less capital expenditure, less manpower and higher advance rates the process is a competitive alternative to conventional shaft sinking.

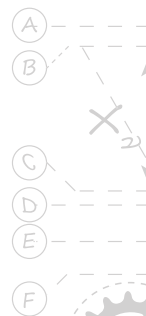
The method works by keeping the entire shaft filled with water making it ideal for weak and water bearing geology, with the fluid pressure keeping the sidewall from collapsing.

With the ability to install liners ranging from steel casings to precast concrete segments, the sidewall is supported after shaft construction.

Directional drilling can be implemented in the process to keep the verticality of the shaft. This enables shaft equipping of the services to be done faster.

THE SPECIFICATIONS:

- 14" Disc cutters
- Front Loading Cutters
- 22" Drill Rods
- 800mm - 10m Drilling Diameter
- 800Tons Lifting Capacity
- 1240kN.m Breakout Torque
- 1600kVa Installed Power
- 3m Drill Rods
- Casing Installation Capabilities
- Directional Drilling Capability
- Adjustable Reamer Diameter



Master Drilling Group Ltd is ISO 9001, ISO 14001, BS OHSAS 18001



Keen to drill deeper?
Visit us at www.masterdrilling.com