

RBR900VF

POWERFUL SHAFT BORING



Raise Boring Rig RBR900VF

- › The largest Raise Boring Rig in the world
- › For long raises and large reaming diameters
- › Robust, powerful design
- › Mechanized wrench system and rod handling for improved work safety
- › Highly efficient and variable frequency drive

**PIONEERING
UNDERGROUND
TECHNOLOGIES**



Raise Boring Rig RBR900VF

Technical specifications

The **Raise Boring Rig (RBR)** developed by Herrenknecht is designed for the construction of shafts in rock down to 2,000 meters in depth. Thanks to its compact design, it offers high flexibility even under space constraints and is therefore suitable for various applications in the mining industry. It has proven its worth with its modular design and its efficient center-free drive. Connection shafts for mining or penstocks for pump storage power plants can be constructed quickly and safely.



Shaft collar for a 6.3m diameter raise bored shaft.



Breakthrough of a 6.3m diameter reamer into the shaft collar.



Reamer removal showing the use of a "false floor" providing safe working procedures.

RBR900VF

- › Reaming torque: 900 kNm (663,800 lbf. ft)
- › Max. static torque: 1,125 kNm (829,760 lbf. ft)
- › Thrust force: 22,000 kN (4,945,800 lbf)

Dimensions

- › Height (retracted/extended): 6.7 m/8.7 m (22 ft/28.54 ft)
- › Width: 3.2 m (10.5 ft)
- › Depth: 3.3 m (10.83 ft)

Weight

- › Rig: 107 t (235,900 lb)

Hoist unit

- › Stroke: 3.15 m (10.33 ft)

Modular design for high degree of flexibility.

PIPE HANDLER

- › Load: 1,850 kg (4,080 lb)
- › Handling system: mechanized with axial drill rod adjustment

WRENCH SYSTEM

- › Handling system: fully hydraulically operated

Mechanized drill rod handling and wrench system for safe and easy handling.

MAIN DRIVE

- › Drive: electric (VF)
- › Number of motors: 4
- › Installed power: 720 kW (964 hp)
- › Rotational speed (pilot drilling): 0 rpm–50 rpm
- › Rotational speed (reaming): 0 rpm–10 rpm
- › Hydraulic drive system: on request

The powerful electric drive is ideal for long raises and large reaming diameters. Variable speed and torque limiting control.

DRIVEHEAD

- › Float: 120 mm (4.72 inch)
- › Swivel: $\pm 1^\circ$
- › Active float system

Drivehead with swivel and float function saves drill rod threads. Active float to reduce weight on threads while make up and break out operation.

DRILL ROD

- › Diameter: 15 inch
- › Length, s/s: 2,100 mm (82.7 inch)
- › Other sizes: on request

HYDRAULIC POWER PACK

Power: 340 kW (456 hp)
Cooling: water cooled

ELECTRIC POWER PACK

Input voltage: 690 V
Frequency: 50 Hz/60 Hz

CONTROL CABIN

Controls: touch screen and control panel

OPTIONAL EQUIPMENT

- › Digital Drilling Report
- › High pressure flushing pump
- › Transformer
- › Pipe Feeder
- › Transport frame
- › Control Cabinet
- › Chiller system
- › Flow meters
- › Drilling tools
- › Other tools on request

CRAWLER

System: crawler and transport frame
Drive: diesel powered hydraulic drive
Power: 243 kW (326 hp)
Grade: max. +20 %

HERRENKNECHT MINING

77963 Schwanau
Germany
Phone +49 7824 302-0
Fax +49 7824 302 3528
mining@herrenknecht.com
www.herrenknecht.com

