



RFD1X-2045

FACE DRILL





Precision drilling with effortless control

This Rhino RFD1X-2045 face drill is loaded with enhancements that not only increase productivity and uptime, but lower daily operating costs too. A high-efficiency hydraulic system, advanced digital control interface, and specific drilling modes to allow you to choose your penetration profile headline the long list of advances.



1. Level climate-control system with automotive-style adjustable louvers helps keep the glass clear and the cab comfortable.
2. Advanced LCD monitor provides intuitive access to a wealth of operational and drilling data and functions.
3. Ergonomically correct short-throw pilot levers provide smooth, predictable fingertip control with less movement or effort.

ENGINE AND POWERTRAIN	
Brand - Diesel engine model	RHINO RFD50T / Yanmar 4TNV94L
Engine power kW (HP) @ rpm	49.3 (66.1) @ 2,000 / 35.9 (48.1) @ 2,000
Emission certification (Tier / Stage)	Euro Stage III
Transmission (Type / Model)	Hydrostatic Transmission (Linde or equivalent)
Chassis type	Articulated, 4WD
Steering and articulation angle (°)	Hydrostatic, ±40°
Axles / Brakes	SAHR
Maximum speed km/h (mph)	8.5 (5.3)
Maximum gradeability (%)	14° (≈25%)
Tire dimensions and type	7.50R15NHS GLR07
Fuel tank L (gal)	50 (13.2)
Exhaust aftertreatment system	Catalytic converter + muffler
HYDRAULIC SYSTEM	
Hydraulic pump type	Independent pumps for percussion, positioning, feed and rotation
Maximum system pressure bar (psi)	230 (3,335)
Hydraulic tank capacity L (gal)	150 (39.6)
Filtration µm	10
Oil cooling system	Stainless steel water-to-oil heat exchanger
HYDRAULIC ROCK DRILL (DRIFTER)	
Impact power kW (HP)	18 (24.1)
Percussion pressure bar (psi)	230 (3,335)
Percussion frequency Hz (bpm)	60 (3,600)
Rotation speed rpm	0–215
Rotation torque Nm (lb-ft)	1,000 (737.5)
Drill diameter mm (in)	33–76
Shank adapter	T38
Air consumption for lubrication L/s (cfm)	5 (10.6)
Anti-jamming system	Electronically integrated
Total operating weight kg (lb)	8,600 (18,959)

POSITIONING ARM (BOOM)

Number of booms	1
Boom extension mm (ft)	700 (2.3)
Lift angle (°)	+55° / -20° (from horizontal)
Side swing (°)	±50° to ±60°
Roll-over rotation (°)	±180°
Automatic parallelism	Yes
Anti-collision system	N/A (single-boom unit)
Boom weight kg (lb)	350 (800)

FEED BEAM

Beam type	High-strength light alloy
Feed type	Continuous hydraulic cylinder with thrust compensation
Beam extension mm (ft)	1,710 (5.6)
Feed force kN (lbf)	12 (2,697)
Maximum rod length mm (ft)	3,300 (10.8)
Useful drilling depth mm (ft)	2,910 (9.5)
Reverse extraction system	Yes



Equipment specifications and images may change without notice from Rhino Equipment Group Inc.

DRILLING COVERAGE

Maximum coverage area m ² (ft ²)	15.0 (161.5)
Maximum coverage (Width × Height) mm (ft)	5,472 × 4,650 (17.9 × 15.3)
Minimum tunnel cross-section m (ft)	2.0 × 2.0 (6.5 × 6.5)
Max. tunnel section m (ft)	5.0 × 4.5 (16.4 × 14.7)
Internal turning radius mm (ft)	2,935 (9.6)
External turning radius mm (ft)	4,710 (15.5)

ELECTRICAL SYSTEM (OPERATION)

Main electric motor kW (HP)	55 (73.7)
Total installed power kW (HP)	63.5 (85.1)
Voltage / Frequency V (Hz)	380 (50)
Starting method	Star-Delta
Cable length (Reel) m (ft)	60 (196)
Protection rating IP	IP54
Battery electric propulsion	No
Battery system	24 V (1 × 12 V, 120 Ah)

WATER AND AIR SYSTEM

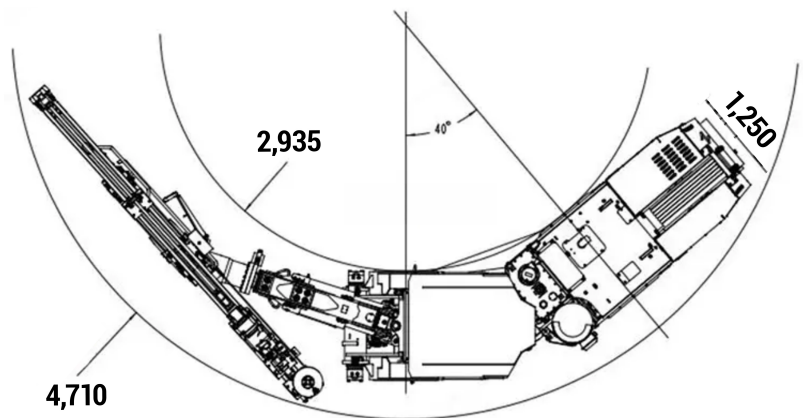
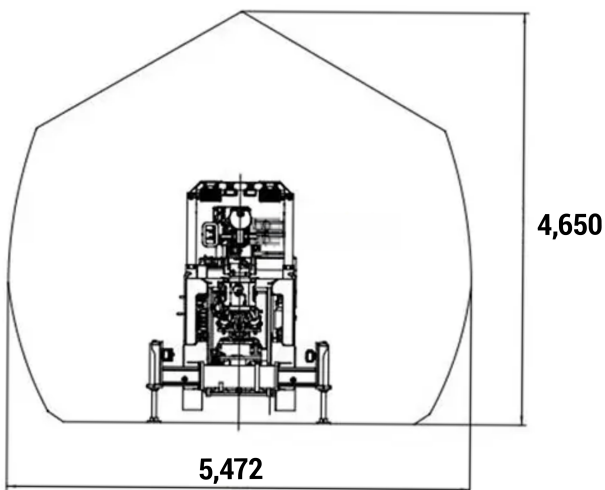
Compressor type	Rotary screw
Compressor brand	Jaguar
Compressor capacity m ³ /min (cfm)	0.5 (17.6)
Air working pressure bar (psi)	8 (116)
Air pressure for lubrication bar (psi)	8 (116)
Water pump type	Centrifugal
Pump brand	Nanfeng Pump Industry
Water flow rate L/min (gpm)	80 (21.1)
Maximum water pressure bar (psi)	12 (174)
Pump motor power kW (HP)	3 (4.0)

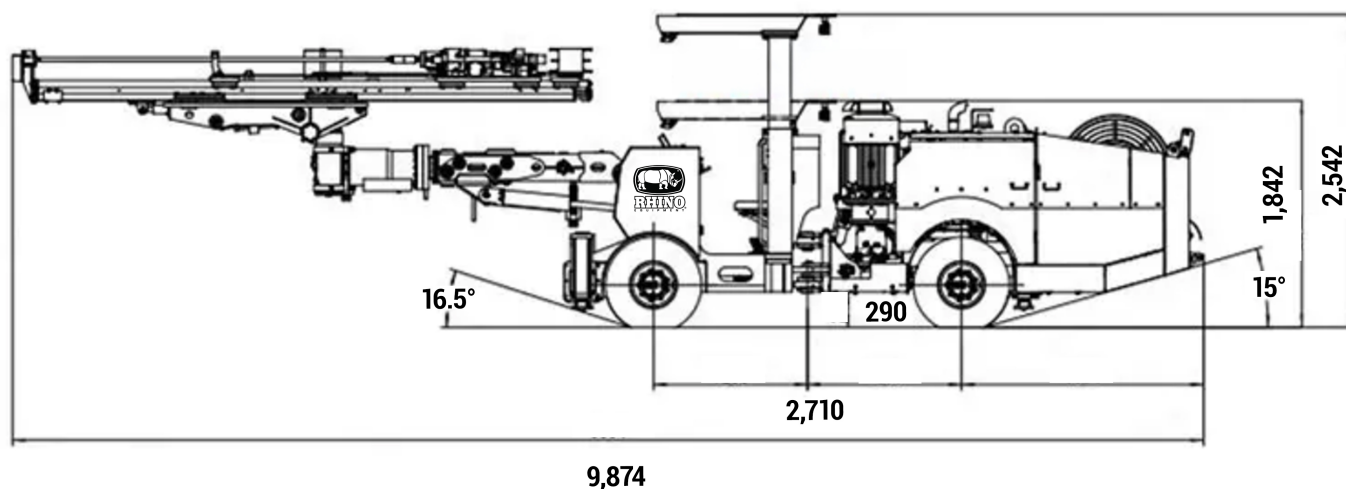
AUTOMATION, CONTROL AND CONNECTIVITY

Control system	Electronic controls via two proportional joysticks
Automation level	Semi-automated
Anti-jamming system	Electronic
Positioning control	Electronic
Remote operation	Optional via wireless remote control
Remote monitoring	Optional
Navigation / Drill plan	No
MWD (Measure While Drilling)	No

CAB, ERGONOMICS AND SAFETY

Structure certification (FOPS / ROPS)	FOPS ISO 3449 Level II / ROPS ISO 3471
Cab type (Enclosed / Canopy)	Enclosed FOPS/ROPS certified cab with A/C (premium) or FOPS canopy (compact units)
Internal cab noise level dB(A)	72–80
Air conditioning and HEPA filtration system	Air conditioning and heating as standard
Fire suppression system (Manual / Automatic / Brand)	Automatic ANSUL, Fogmaker or Dafo; manual extinguisher as backup
Centralized lubrication system (Auto greasing)	Lincoln, SKF, Groeneveld or Bijur Delimon automatic
Blind spot cameras and LED lighting (Lumens)	Rear camera; optional 360°; high-intensity LED 2,500–5,000 lm per lamp, 8–16 LED lamps





DIMENSIONS AND WEIGHT (TRANSPORT POSITION)

Total length mm (ft)	9,874 (32.4)
Transport width mm (ft)	1,250 (4.1)
Transport height mm (ft)	1,865 (6.1) min / 2,565 (8.4) max
Internal turning radius mm (ft)	2,935 (9.6)
External turning radius mm (ft)	4,710 (15.5)
Ground clearance mm (in)	290 (11.4)
Wheelbase mm (in)	2,710 (106.7)
Approach angle (°)	16.5°
Departure angle (°)	15°