



RFD3X-6017

FACE DRILL





Maximum control for precise and consistent drilling

This Rhino RFD3X-6017 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

Diesel engine brand - model	RHINO RFD209T / Cummins 6CTA8.3
Engine power kW (HP) @ rpm	209 (280) @ 2200 / 194 (260) @ 2200
Maximum engine torque N·m (lb-ft) @ rpm	1314 (969) @ 1500 / 1220 (900) @ 1500
Emissions certification (Tier / Stage)	National III / Tier 3 (Equivalent)
Transmission (Type / Model)	Hydromechanical / DANA torque converter
Chassis type	Heavy-duty articulated (4WD)
Steering and articulation angle (°)	Hydrostatic power steering / ± 40
Axles / Brakes	Front with anti-slip self-locking / Enclosed wet service, parking, and emergency brakes
Maximum speed km/h (mph)	12 (7.5)
Maximum gradeability ° (%)	12 (25)
Tire dimensions and type	14.00R24 Underground mining tire
Fuel tank L (gal)	150 (39.6)

HYDRAULIC SYSTEM

Type of hydraulic pumps	Axial piston (percussion, feed, and boom) and Gear (rotation)
Maximum system pressure bar (psi)	230 (3335)
Hydraulic tank capacity L (gal)	700 (185)
Filtration µm	10
Oil cooling system	Stainless steel water/oil heat exchanger

POSITIONING BOOM

Number of booms	3
Boom extension mm (ft)	1800 (5.9)
Lift angle (°)	+65 / -45
Side swing (°)	± 45
Rotation (Roll-over) (°)	± 180
Automatic parallelism	Full omnidirectional hydraulic
Anti-collision system	Hydraulic interlocking between booms
Boom weight kg (lb)	3200 (7055) per boom

AUXILIARY SERVICE PLATFORM (BASKET)

Platform extension mm (ft)	5000
Parallelism maintenance	Omnidirectional
Lift / lower angle (°)	+60 / -35
Oscillation / swing angle (°)	± 45
Basket payload capacity kg (lb)	400

FEED BEAM

Beam type	High torsion-resistant aluminum alloy profile with stainless steel covers
Feed type	Hydraulic motor with heavy-duty wire rope thrust cylinder
Feed compensation mm (ft)	1800 (5.9)
Beam extension (Total length) mm (ft)	5315 (17.4) / 5915 (19.4) / 6525 (21.4) / 7393 (24.2)
Feed force kN (lbf)	15 (3372)
Maximum rod length mm (ft)	3700 (12.1) / 4300 (14.1) / 4915 (16.1) / 5525 (18.1)
Optimum drilling depth mm (ft)	3400 (11.1) / 4000 (13.1) / 4600 (15.1) / 5200 (17.0)
Beam weight with drifter kg (lb)	560 (1234) / 594 (1309) / 700 (1543) / 800 (1763)

HYDRAULIC DRIFTER (ROCK DRILL)

Drifter Model Options	WoserId A18D/L / A22L/D / A25L
Impact power kW (HP)	18 (24.1) / 22 (29.5) / 25 (33.5)
Percussion pressure bar (psi)	230 (3335)
Percussion frequency Hz (bpm)	60 (3600) / 53 (3180) / 42 - 55 (2520 - 3300)
Rotation speed rpm	0 - 215 / 0 - 215 / 110 - 135
Rotation torque Nm (lb-ft)	1000 (737) / 1550 (1143) / 1970 (1453)
Drilling diameter mm (in)	33 - 76 (1.3 - 3.0) / 64 - 102 (2.5 - 4.0) / 76 - 115 (3.0 - 4.5)
Shank adapter	T38 / T38 / T45E - T51E
Lubrication air consumption L/s (cfm)	5 (10.6)
Anti-jamming system	Automatic hydraulic by feed pressure
Drifter safety systems	Automatic drilling protection (anti-jamming and anti-blank firing)
Total operating weight kg (lb)	170 (375) / 174 (383) / 180 (397)

DRILLING COVERAGE

Maximum coverage area m ² (ft ²)	185 (1991)
Maximum coverage (Width × Height) mm (ft)	16035 × 12518 (52.61 × 41.07) up to 20042 × 14529 (65.75 × 47.67)
Minimum tunnel cross-section m (ft)	6.9 × 5.5 (22.64 × 18.04)
Maximum tunnel cross-section m (ft)	17.5 × 13 (57.41 × 42.65)
Inside turning radius mm (ft)	5631 (18.47)
Outside turning radius mm (ft)	9847 (32.31)

ELECTRICAL SYSTEM (OPERATION)

Main electric motor kW (HP)	3 × 55 (73.7) or 3 × 75 (100.5) (One independent motor per pump/boom)
Total installed power kW (HP)	180 (241.4) or 240 (321.8)
Voltage / Frequency V (Hz)	380 (50) (Customizable voltage depending on the project)
Starting method	Star-Delta
Cable length (Reel) m (ft)	100 (328) (Winding and unwinding via automatic hydraulic control)
IP protection rating	IP55 (Main cabinets and motors)
Battery electric propulsion	No
Battery system	2 × 120Ah (Chassis electrical system voltage: 24V)
Transformer power kVA	8
Main electrical components	Schneider
Integrated electrical protections	Thermal overload, impact hour meter, digital voltmeter/ammeter, phase sequence indicator, and ground fault detector

WATER AND AIR SYSTEM

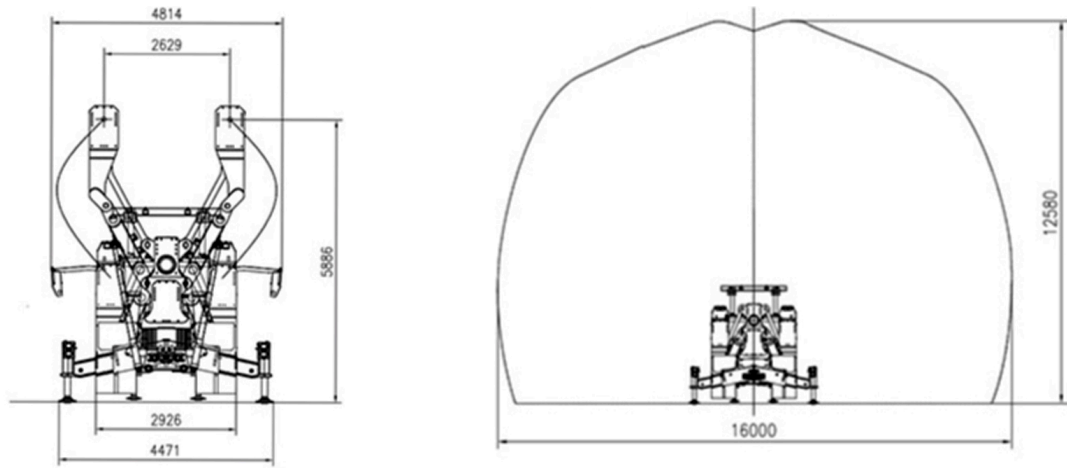
Compressor type	Screw type
Compressor capacity m ³ /min (cfm)	0.9 (31.8)
Air working pressure bar (psi)	8 (116)
Lubrication air pressure bar (psi)	2.5 - 3.0 (36 - 43)
Water pump type	Centrifugal (Water pressure booster for flushing)
Water flow rate L/min (gpm)	250 (66)
Maximum water pressure bar (psi)	25 (362)
Pump motor power kW (HP)	7.5 (10) (Independent motors for pump and compressor)

AUTOMATION, CONTROL AND CONNECTIVITY

Control system	Direct proportional electrohydraulic
Automation level	Advanced conventional with semi-automatic drilling functions
Anti-jamming system	Percussion control by automatic reverse hydraulic thrust force
Positioning control	Manual assisted by proportional valves and automatic parallelism
Teleremote operation	Optional
Remote monitoring	Electrical cabinet with integrated fault diagnosis system
Automatic control features	Automatic collaring, automatic hole flushing, automatic drifter stop and return upon reaching depth



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CABIN, ERGONOMICS AND SAFETY

Structure certification (FOPS / ROPS)

FOPS (Falling Object Protective Structure)

Cabin type

Hydraulically adjustable protective roof (Open with option for closed cabin)

Internal cabin noise level dB(A)

< 85

Air conditioning system and HEPA filtration

Optional (Only available with fully enclosed cabin configuration)

Fire suppression system

Standard manual dry chemical powder fire extinguisher (Optional automatic system)

Centralized lubrication system

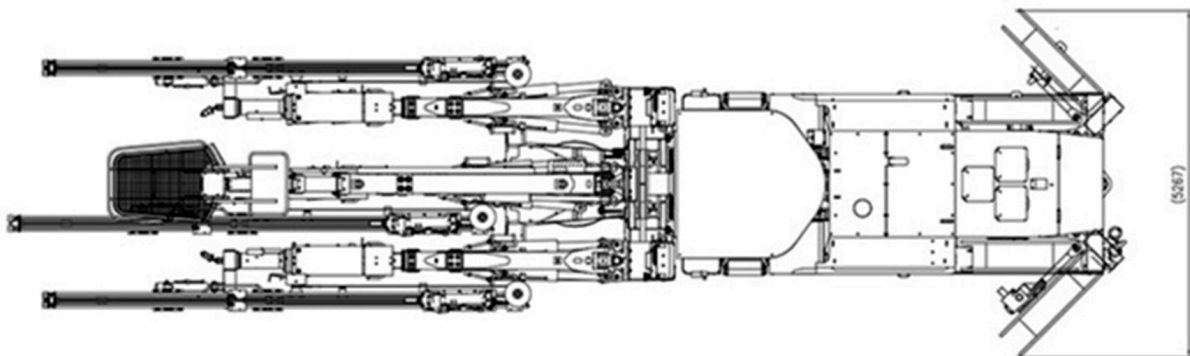
Centralized manual grease points

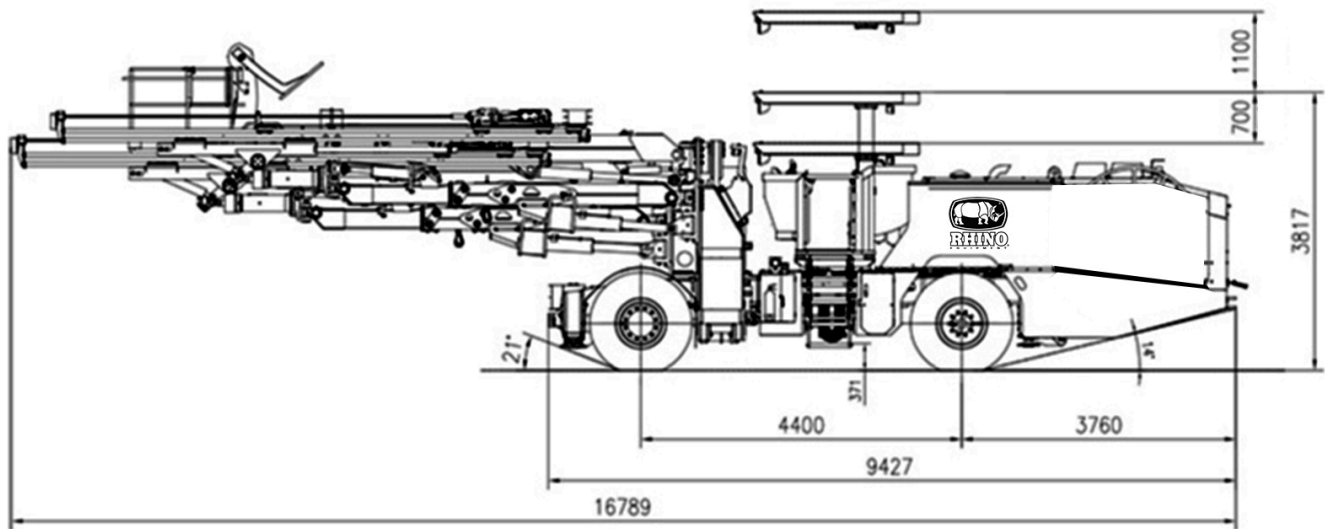
Blind spot assistance cameras and LED illum.

High-intensity LED driving and working lights 8 × 56W / Reverse alarm and strobe beacon

Mechanical leveler

Horizontal leveling instrument (bubble level/manual inclinometer)





DIMENSIONS AND WEIGHT (TRANSPORT POSITION)

Total length mm (ft)	16824 (55.20)
Transport width mm (ft)	2941 (9.65)
Transport height mm (ft)	3156 (10.35) / 4945 (16.22)
Ground clearance mm (in)	392 (15.43)
Length - Wheelbase mm (in)	4423 (174.13)
Rear chassis length mm (in)	3802 (149.69)
Total hydraulic support length mm (in)	9440 (371.65)
Vertical extension of cabin roof mm (in)	711 - 1139 (27.99 - 44.84)
Maximum chassis height with extended cabin mm (ft)	3848 (12.62)
Front chassis width with stabilizers mm (ft)	4504 (14.78)
Rear chassis transport height mm (in)	3131 (102.66)
Approach angle (°)	21
Departure angle (°)	14
Quantity of front hydraulic stabilizers	4 (2 Front telescopic, 2 Rear)
Total operating weight kg (lb)	51000