



HYDCO Engineering Pvt. Ltd.

The Hydco drilling rig platforms have evolved over 20 years of rugged field evaluation in Australia. Our Hydco 1000H is the culmination of this infield experience, utilising tried and proven components from world recognised manufacturers. This design enables our rigs to withstand the harsh environments where exploration drilling takes place. Key components used have international warranties and the components and consumables are readily available in Australia and worldwide.

The Hydco design team has looked to the future in creating the 1000H, incorporating the latest Rexroth and Danfoss valve systems, laying the platform to PLC many aspects of the drilling process. Our International R & D team is developing these operating systems and new 1000H owners will reap these benefits as upgrades become available.

Although designed as a diamond rig, the 1000H is fitted with a two speed head giving it excellent RC capabilities should the purchaser require a multi purpose machine. The 7.4 metre deck can comfortably accommodate a compressor package with room for rod racks and adequate hydraulic capacity for a rod loader.

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Hydco 1000H Diamond / RC Drill Rig

1. Drilling Capacity Coring - Wireline

The technical data supplied for drilling depths, has been based on drilling data obtained from the operations of similar drilling rigs manufactured and designed by Hydraulic Contracting & Supply Pty Ltd. The actual drilling depths reached will be dependent upon a number of factors including the rock type, drilling techniques, tools and overall conditions.

Drill Rod/Core Barrel	Rod Size (mm)	Core Size (mm)	Hole Depth (meters)
BQ	55.6	46.1	1900
NQ	69.9	60.3	1500
HQ	88.9	77.8	1000

2. Dimensions

Base	7.4 meter fully welded structure – channel & RHS Four levelling jacks
	Tour revening justice

3. Drill Mast and Feed

Mast	Fully welded lattice frame with cross bracing Mast Length 10.3 meters (plus winches) Drill Head travel 7.5 meters Hydraulic head slide 20mm non rotating wire ropes with Hydraulic tensioning Hydco hydraulic drill rod clamp
Feed	Variable feed pressure control Pull Back 19,000 kg (Variable) Pull Down 12,300 kg (Variable)
Dump Mast	Heavy Duty 2 meter mast dump UHMWPE Slides

4. Drill Head

Drill Head	2 Speed Hollow Spindle Drillhead 2 Speed hydraulic motor Pressure Lubricated – (Gears Hardened & Ground)	
	Speed and torque	
	0 to 1100 RPM 790 nm	
	0 to 880 RPM 1,030 nm	
	0 to 180 RPM 4,800 nm	
	0 to 140 RPM 6,200 nm	

5. Winches

Main Winch	Capacity – 15,000 kg single line pull 20 mm non-rotating (35 x 7 Construction) Winch limiter & Speed limiter – Wire rope overrun cutout Planetary reduction gearbox, Fail safe brake complete with over centre valve
Wire-line Winch	Capacity – 6 mm non-rotating (18 x 7 Construction) 1500 meters Winch speed limiter – Rope level winder Planetary reduction gearbox, Fail safe brake complete with over centre valve



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6. **Hvdraulics System**

Pumps	1 x Main Pump Kawasaki K3VL200 Pressure compensated load sensing 2 x Auxiliary pumps Sauer Danfoss Sunstrand Series 45 – 57 cc Pressure compensated load sensing
Valves	Rexroth 4M4-22 Main Directional Valve 2 x Danfoss PVG 32/8 Auxiliary valves Proportional load sensing valves Operating Pressures 210 Bar (3,000 PSI)
Hydraulic Tank	600 ltr capacity
Filtration	Arlon pressure filtration Arlon return filtration All circuits 10 micron absolute
Oil Cooler	Hydraulic fan driven cooler

7. **Control Panel**

Control System	All rig functions & Gauges including water flow & pressures All engine controls – Shut down in panel 1 Emergency Stop (3 in total on rig)
	Hydraulically pivoting control panel

8. **Standard Features**

Engine	Cummins Diesel 6 CTA 8.3 ltr Custom Pack (260 HP @ 2,200 RPM)
Water Pump	FMC John Bean L09-18HD-BCD Variable speed: Maximum 250 lts/min @ 70 bar
Other Features	Guarding to table with rotation shut off Guarding to all rotating items Rig safety rails including toe kicks Enclosed pulleys Drillers operating platform Fold down ladder to deck Rig lighting
Paint	Two pack paint system

9. **Options**

Options	Fire Suppression system Hydraulic lighting pack Hydraulic generator set Multi-purpose (RC) drill fit out
	Multi-purpose (RC) drill fit out

These technical specifications are based on theoretical engineering calculations. Actual capacity will depend on specific drilling conditions and materials. Hydco International Sales Company Pte Ltd reserves the right to change or make modification to designs and specifications without prior notice or obligation.



