

KWL1600 Multi Purpose Drill Rig

The KWL 1600 delivers exception performance coupled with user-friendly operation and industry leading safety. It is a robust and versatile platform that can be configured for both reverse drilling and diamond drilling applications.

The highest quality hydraulic pumps and motors have been inte-grated into this powerful design to create a reliable machine that can cope with the toughest conditions.

Features include:

1 Top mounted mainline

Improves reliability and safety by keeping cable in tension and pre-venting bird nesting

2 Cable over cylinder head traverse

Improves production by providing fast and smooth movement

3 Top drive 2 speed head

Floating spindle makes for simple rod start and allows high speed for diamond drilling and high torque for RC drilling

4 Extendable operator console

The simple and uncomplicated control panel has an advanced er-gonomic layout, capable of extending 800 mm and turning 30°

5 Acoustic Enclosure

Lowers operating noise levels

6 Cat C13 Engine & Dual Tension P16 Pumps

Delivers full power @ 1500 rpm

Mast

The powerful mast is capable of 9 m rod pulls at an impressive 16,400 kg of pullback and 9,620 kg of thrust

Rod Handler

Fail-safe hands-free for handling and flexible pick up positions improve operator safety



Specifications

Drilling Depth Guidelines		
Core Drilling		
Drill Rod/Core Barrel	Dry Hole Depth	Fluid Filled Hole Depth
NQ	2,076 m / 6,811 ft	2,379 m / 7,805 ft
NQ V-Wall™	2,491 m / 8,173 ft	2,854 m / 9,364 ft
HQ	1,394 m / 4,573 ft	1,598 m / 5,243 ft
HQ V-Wall™	1,918 m / 6,293 ft	2,198 m / 7,211 ft
PQ	870 m / 2,756 ft	962 m / 3,156 ft
PQ V-Wall™	1,321 m / 4,334 ft	1,514 m / 4,967 ft
Reverse Circulation		
Drill Rod	Hole Depth	Hole Sizes
114.3 mm / 4½"	430 m / 1,419 ft	165.1 mm / 6½"

Mast	
Design	Fully welded RHS lattice construction with cross bracing
	Box section mast with 100 mm / 3.94" wide drive head wear face side
Length	12.32 m / 40.51 ft

Traverse Actuation		Rotation Drive Head	
Head Traverse Length	7.5 m / 24.61 ft	Model	LX16 (floating spindle)
Retract Force	181.5 kN / 40,700 lb	Floating Spindle Thread	3½" IF RH male
Pull down Force	94.4 kN / 21,206 lb	Floating Spindle Bore	70 mm / 2.8"
		Drive Head Side Shift (hydraulic)	457 mm / 18"

Dump Mast	
Stroke	2 m / 6.56 ft
locking	Hydraulic Cylinder Locking System; hands free - vertical to 45°

Wireline		Lift Capacity Bare Drum	
Drum Capacity		Lift Capacity Bare Drum	
Cable size 6 mm / 0.24"	2,300 m / 7,545 ft	Bare Drum	14.72kN / 3,307 lb
Cable size 8 mm / 0.32"	1,300 m / 4,265 ft	Full Drum	7.85 kN / 1,774 lb

Power Pack		Water Pump	
Engine	Caterpillar CATC13	Water Pump	FMC L1118 DISC
Braking @ 1,800 rpm	328.2 kW/ 440 hp	Delivery Pressure	103 bar / 1500 psi
Torque @ 1,400 rpm	2,010 Nm/ 1,482.5 lb/ft	Fluid Delivery	264 Lpm / 65 US gpm

Torque and RPM Rating - Based on Engine Speed of 1,800 rpm				
	Displacement in³/rev	Oil Flow US gpm	Torque NM lbft	Output Speed prm
Core Drilling 2.0:1	10	118	2,100 NM / 1,548 lbft	925
		118	1,500 NM / 1,106 lbft	1,250
Reverse Circulation Drilling 16.52:1	10	118	18,100 NM / 13,408 lbft	105
		118	11,363 NM / 8360 lbft	157

NOTE: Maximum spindle speed on Drive head is 1300 rpm with motor at minimum displacement of 10 in 3. Exceeding these speeds may result in damage to the unit

Safety Cage	
Safety Cut- Out	Opening Cage restricts oil flow to drive head motor thus limiting drive head rotation speed

Foot Clamp	
Brand	LX hydraulic foot clamp
Jaws	PQ / HWC, HQ and NQ - one set of jaw holders supplied for use with HQ & NQ jaws

Power Breakout STD	
Type	Cylinder actuated mounted on lower right hand side of mast
Tool	Wrap around Spanner