



优钻地质材料供应有限公司 PRE-MAT DRILLING SUPPLIES PTE LTD

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WIRELINE DRILL RODS

Drilmax tubes are available in 2 standard materials, which conform to major core drilling standards and industry practices. This offers the benefit of FIELD PROVEN products currently in use throughout the world for both wireline and conventional drilling. Standard materials also provide flexibility to supply varying requirements including small minimum quantities.

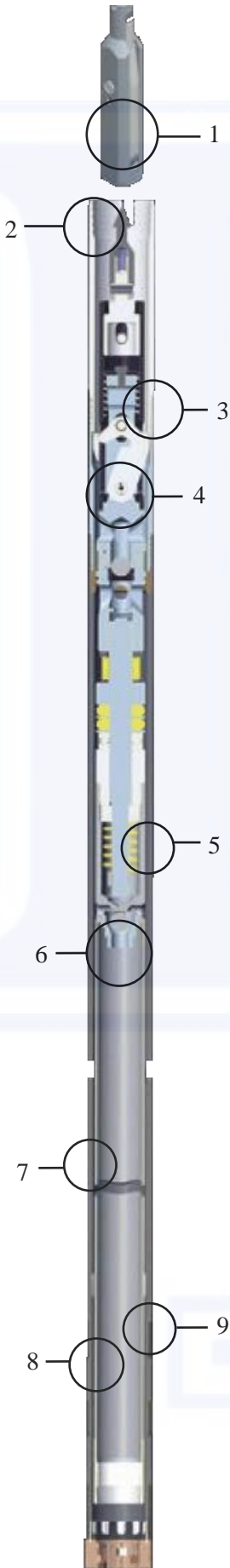


Mechanical Properties					Material analysis		
Material	Yield Strength min. MPa	Ultimate Tensile Strength min. MPa	Elongation min. (Gauge length 51 mm or 2 inches)	Brinell Hardness Number	Typical Chemical Composition %		
					Carbon	Silicon	Manganese
DRILMAX 550	550	620	15 %	200-250	0.33	0.25	0.7
DRILMAX 620	620	725	15 %	230-280	0.42	0.25	1.5

WIRELINE DRILL ROD TUBES

Designation	mm				inches			
	Outside Diameter		Inside Diameter		Outside Diameter		Inside Diameter	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
A Wireline	44.45	44.70	35.07	34.82	1.750	1.760	1.381	1.371
B Wireline	55.55	55.80	46.20	45.95	2.187	2.197	1.819	1.809
N Wireline	69.85	70.10	60.32	60.07	2.750	2.760	2.375	2.365
H Wireline	88.90	89.28	78.00	77.62	3.500	3.515	3.071	3.056
P Wireline	114.30	114.68	103.17	102.79	4.500	4.515	4.062	4.047
S Wireline	139.70	140.08	125.50	125.12	5.500	5.515	4.941	4.926

WIRELINE CORE BARREL



DIMENSIONS

Size	Core Ø		Hole Ø	
	mm	inch	mm	inch
AQTK	35.3	1 $\frac{3}{8}$	48.0	1 $\frac{7}{8}$
BQ	36.4	1 $\frac{7}{16}$	60.0	2 $\frac{3}{8}$
BQTK	40.7	1 $\frac{5}{8}$	60.0	2 $\frac{3}{8}$
NQ	47.6	1 $\frac{7}{8}$	75.7	3
NQTK (NQ2")	50.6	2	75.7	3
NQ3	45.0	1 $\frac{3}{8}$	75.7	3
HQ	63.5	2 $\frac{1}{2}$	96.0	3 $\frac{3}{8}$
HQ3	61.1	2 $\frac{3}{8}$	96.0	3 $\frac{3}{8}$
PQ	85.0	3 $\frac{3}{8}$	122.6	4 $\frac{7}{8}$
PQ3	83.0	3 $\frac{1}{4}$	122.6	4 $\frac{7}{8}$

(1) Overshot Assembly

The overshot is dropped or pumped into the drill string to retrieve the inner-tube assembly via wireline cable and hoist.

(2) Locking Coupling

The 'locking coupling' threads to the drill rods string and provides a hardened mating surface which the core barrel inner-tube assembly latches ride against while drilling.

(3) Adapter Coupling

The adaptor coupling mates between the locking coupling and core barrel outer tube, providing the pocket which the head assembly latches deploy.

(4) Head Assembly

The head assembly provides: latching and pivoting spearpoint mechanisms to allow insertion and retrieval of the inner-tube assembly, a bearing assembly to allow the inner tube to remain stationary and avoid sample damage while drilling, fluid pressure operating indications and fluid control valves.

(5) Outer Tube

The outer tube houses the inner tube assembly and connects to the diamond products cutting the hole. The increased wall thickness of the outer tube provides additional stiffness for directional control and a tighter hole annulus for increased fluid velocity and rapid cuttings evacuation for bit performance. Multiple out tubes can be assembled to extend the possible core sample length.

(6) Inner Tube

The inner tube captures the core samples as drilling progresses. Multiple inner tubes can be assembled with couplers or extensions to accept longer core samples.

(7) Inner Tube Stabilizer

Seated in the reaming shell or in mated outer tube extensions the replaceable and reversible inner tube Stabilizer provides centralizing for improved sample recovery and a bearing between the stationary inner tube and the rotating outer tube

(8) Core Lifter

The core lifter is a hardened steel split collar with a tapered body that mated to a tapered socket in the core lifter case.

In a core breaking operation, the drilling string is lifted of bottom and the core sample begins to slide out of the inner tube. Grip features on the inner surface of the core lifter catch the moving core sample and pull the core lifter towards the smaller end of the tapered socket in the core lifter case. The core lifter is constricted against the core sample and retains it after it has broken, allowing retrieval to surface.

Core Lifter Case

The core lifter case mates to the inner tube and house the core lifter in a tapered socket which controls the movement of the core lifter.

As the drill string is lifted during a core breaking operation, the core lifter case bottoms out on the inside of the drill bit, transferring the pullback load from the drill string to the core lifter until the core sample breaks

(9) Stop Ring

The stop ring is a hardened steel snap ring designed to seat into a mating groove and retain the core lifter in the core lifter case.