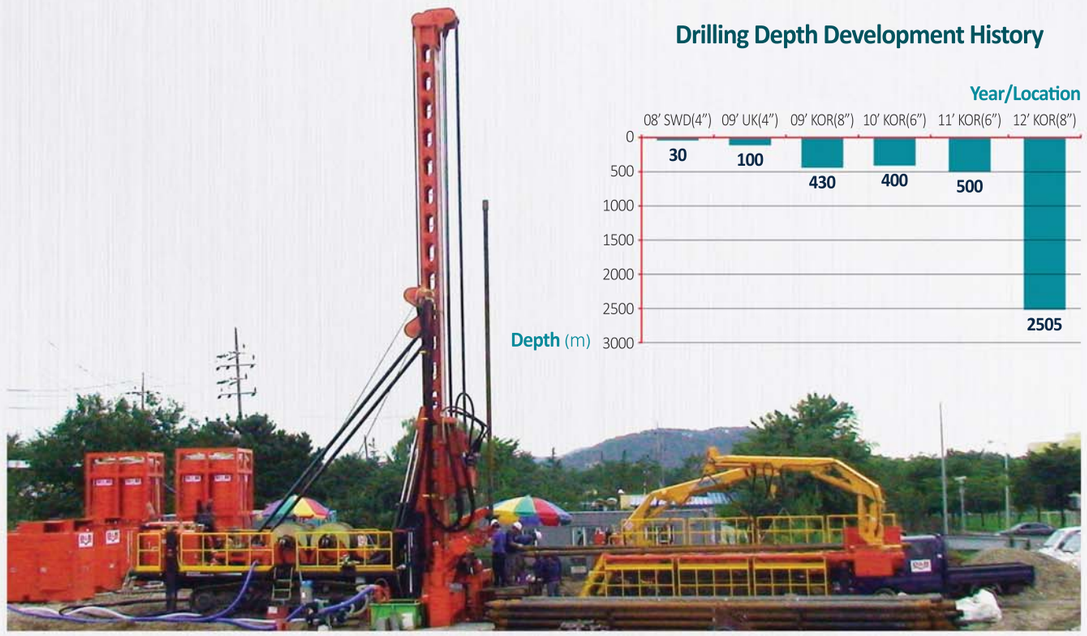
Deep Hole Drilling Record (Gwang-Ju 2012 Dec)



CO^2 **70%** ↓ Cost **500%** ↓

	Water hammer	Air hammer
Air pollution	70% Emission Reduction(Max. 500%)	strong pollution
Soil pollution	None	10 Liter oil per 100m boring
Noise Pollution & Vibration	1. Noise : 90% Reduction (The downtown construction is possible)	1. popular complaint, if the downtown Constrution operates
	2. Vibration : 85% Reduction(dam grouting)	2. Vibration structure in not allowed to bore
Aquifer Drilling	Regardless of soil condition, Deep drilling is also possible	Need for lots of air compressor & booster compressor
Advantage	1. Straight drilling is possible(horizontal boring) 2. Deep drilling is possible(more than 1500m) 3. Vulnerable soil drilling productivity is excellent 4. Fuel Reduction	Not allowed to use in Vulnerable soil and have horizontal boring prob
Regulation	None(In Korea)	Not allowed to use at some regions of Sweden & New Zealand

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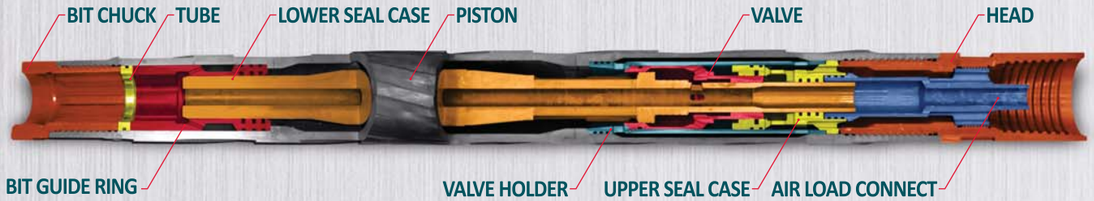
Water Hammer System

- New concept!!
- New Water hammer!!
- Powerful & Deep hole drilling!!
- Drilling Record

  Liverpool, UK - Geothermal Drilling - 2009
  Stockholm, Sweden - Jet Grouting Site, Jun of 2008
  London, UK - Geothermal Drilling - 2009
  Korea, Hard Granite 430m - 2012
  Gwang-Ju City, Korea Geothermal Drilling 8", 2505m - 2012

Why D&B Water Hammer?

- Max Drilling depth over 5000m
- Special Accumulate system(Patent)
- Eco friendly Drilling method
  (No need hammer oil and free of soil contamination on the DTH hammer drilling site)
- Long bit life time
- Low noise water hammering
- No need for Pressure down drilling
- Min. maintenance : Valveless hammering system
- 100% Recycling water using available system(Patent)



- D&B Water Hammer Specification

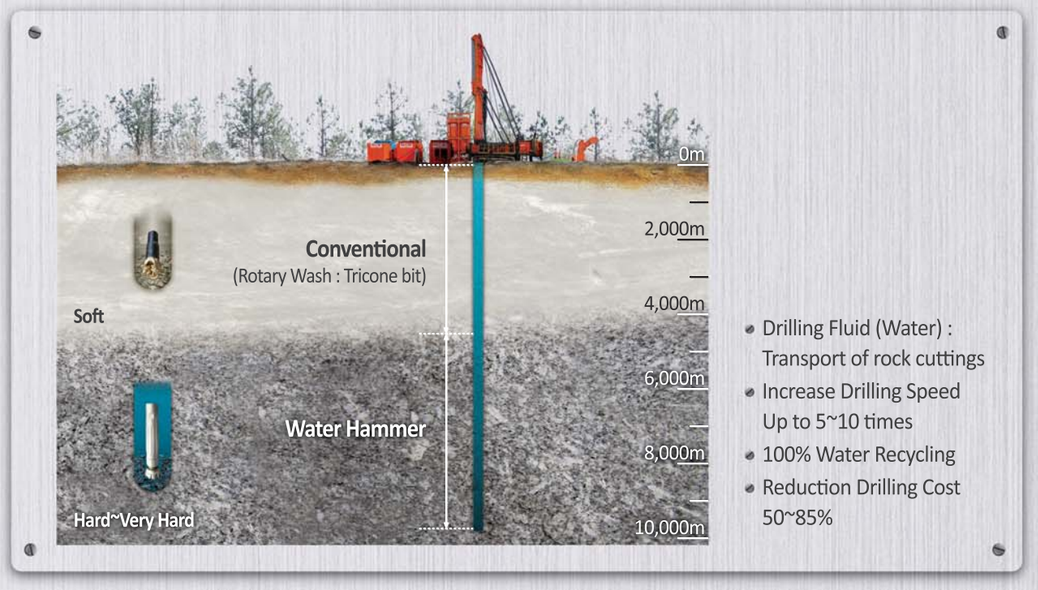
	Hole size bit (mm)	Diameter of Tube (mm)	Length (mm)	Total Length with bit (mm)	Weight (kg)
D&B-35WH	102	93	1549	1632	60
D&B-40WH	115	105	1675	1750	78
D&B-50WH	140	122	1956	2044	123
D&B-60WH	152	142	2003	2093	218
D&B 80WH	203	182	2283	2394	322

	Drill Pipe	Water consumption at max pressure (lit/min)	Operating pressure (bar)
D&B-35WH	API 2-3/8"Reg/NC23	200	120~175
D&B-40WH	API 2-3/8"IF/NC26	300	120~175
D&B-50WH	API 2-3/8"IF/NC26 API 2-7/8"IF/NC31	450	120~175
D&B-60WH	API 3-1/2"Reg API 2-7/8"IF/NC31	600	120~175
D&B 80WH	API 4-1/2" IF	800 - 1000	120~175

Geothermal/Water Hole Drilling System

- 350W / 250W / 45W

- Ultra Deep Geothermal/Water Hole Drilling



- Drilling Fluid (Water) : Transport of rock cuttings
- Increase Drilling Speed Up to 5~10 times
- 100% Water Recycling
- Reduction Drilling Cost 50~85%