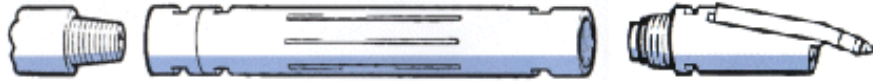




International Drilling Services Limited

IDS Specialised Pilot Boring Systems - Down-Hole Assemblies

1



Sonde Housing Module ('SHU' shown) with Angled Drill Head ('DHU' shown) and 'Sabre' Lead Cutter ('LCU' shown).

Recommended use: For general purpose use across a range of conditions including soft medium clays and aggregates.

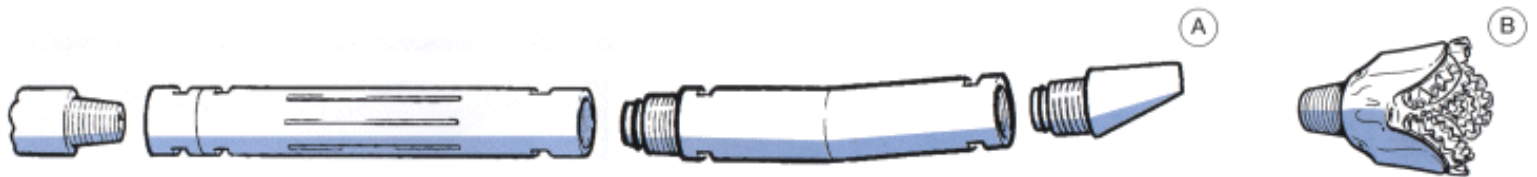
2



Sonde Housing Module ('SHU' shown) with Angled Drill Head ('DHU' shown) and 'Viper' Hard Ground Bit ('VBU' shown).

Recommended use: For tough ground including stiff clays, rocky soils, gravel and soft rock formations.

3



Universal Sonde Housing Module ('SHU') with Bent Jet Tube ('JTU') and:

(a) Detachable Jet Head ('JHAU').

(b) Rock Bit.

Recommended use:

(a) For controlled-grade jetting in soft formations.

(b) For mixed-formation drilling (rock bit permits rotational drilling in harder sections).

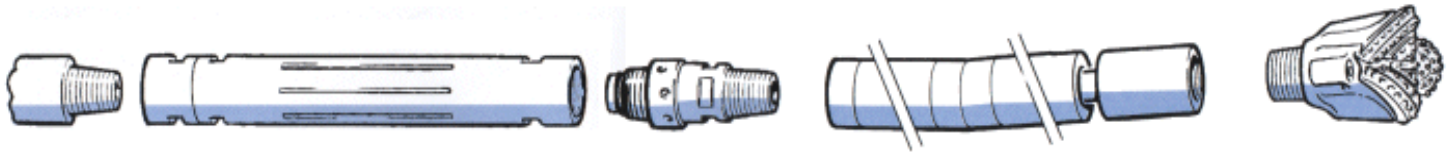
4



Directional Hammer ('DH') with Directional Hammer Bit ('DB').

Recommended use: For high-penetration drilling and steering in hard ground and soft rock formations.

5



Universal Sonde Housing Module ('SHU') with Indexing Sub ('ISU'), Mud Motor (not available from IDS) and Rock Bit.
Recommended use: For rock drilling with walk-over detection systems.

6



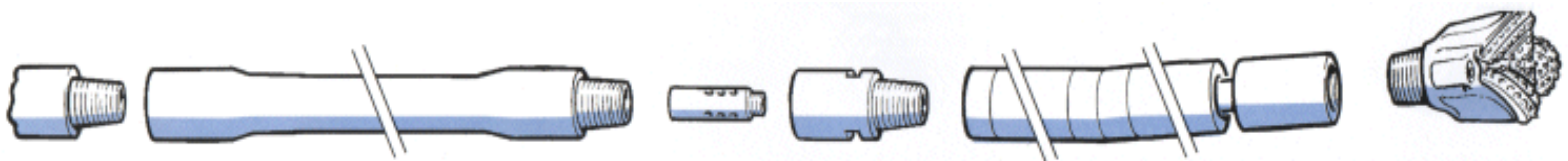
Non-Mag. drill Pipe ('DRNM') with Non-Mag. Flow Tube ('FTNM'), Bent Jet Tube ('JTNM') and:
(a) Detachable Jet Head ('JHANM').
(b) Rock Bit.

Recommended use:

(a) For controlled-grade jetting in soft formations.

(b) For mixed-formation drilling (rock bit permits rotational drilling in harder sections) (Used in conjunction with magnetic wire-line steering tool).

7



Non-Mag. Drill Pipe ('DRNM') with Non-Mag. Flow Tube ('FTNM'), Non-Mag. Orienting Sub ('OSNM'), Mud Motor (not available from IDS) and Rock Bit.

Recommended use: For Rock Drilling. Used in conjunction with wire-line steering tool.