



# FORDIA®

## SURFACE SET CORE BITS

Fordia's line of surface set core bits meets the needs of drilling companies operating in differing ground conditions. With a choice of diamond grades ranging from coarse to fine, and a variety of profiles, choosing the appropriate surface set core bit is now easier than ever.

The following chart describes the main grades of diamonds available. Please note that the grade represents the number of stones per carat (SPC) and not the quality of the stones. Other grades of diamonds are also available for custom orders.



### CHART

Grade of Diamonds (SPC)	Soil Type	Mohs Hardness Scale				
		1	2	3	4	5
10/12 Synthetic Diamonds	<b>Very Soft-Soft</b> Gypsum, Talc	10/12				
15/20 Natural Diamonds	<b>Very Soft</b> Gypsum, Talc	15/20				
20/30 Natural Diamonds	<b>Soft</b> Schist, Sandstone	20/30				
30/40 Natural Diamonds	<b>Soft-Medium</b> Limestone, Dolomite		30/40			
40/60 Natural Diamonds	<b>Medium</b> Gabbro			40/60		
60/80 Natural Diamonds	<b>Medium-Hard*</b> Basalt, Diorite				60/80	

\* To drill in hard to very hard ground, use an impregnated diamond crown instead. Contact your representative for more details.

Choose a synthetic diamond tool for a more economical solution or opt for a natural diamond if you need greater cutting ability. For drilling in hard to very hard ground, a diamond impregnated crown is always a good choice. Whatever the case, you can always count on one of our representatives to help you pick the best product for your needs.

### PROFILES



**SEMI-ROUND**  
Standard profile, ideal for most ground conditions



**ROUND**  
Preferred profile for harder, abrasive ground conditions with rocks



**STEP**  
A profile that provides a faster rate of penetration, but is a bit more fragile especially in fractured ground. Generally used with wireline core barrel systems.



**PILOT**  
A profile that provides good stability, and a good rate of penetration and recovery. Ideal for soft to medium ground.



**ANGLED PILOT**  
A very durable profile that provides good stability. Ideal for ground that is very fractured.



**FACE DISCHARGE**  
A profile that helps in the recovery of core samples in very fragile ground.