

## **Forsun Cross Profile Impregnated Core Bit ( F10-1 Impregnated Bit)**



### **Application Range**

Cross Profile Bit design is a patented innovative solution of Forsun to handle fine-grained unbroken formations in which the quartz content is high, such as fine-grained competent granite, rhyolite and siliceous limestone. Cross Bit is not recommended to be applied in relatively soft rocks (below hardness 7) or fractured formations.

### **Working Principle and Properties**

The pressure of every single diamond is increased by reducing bit face, which enables the diamonds to be pressed in the rock to a greater depth. Cross bit adopts high grade diamonds that lengthen the bit life and increase the compression strength. There are blank areas both along inner and outer gauge, resulting in discontinuous cracked rocks with larger-sized debris during the bit's working. Because of the blank area, there are much debris left on the bit bottom. The debris increases the abrasion to the matrix, enhances the bit's self-sharpening ability and raises the penetration rate. Especially for slightly abrasive polished formation this effect would be more obvious. Incline structure is adopted in matrix segment, improving the stress condition of segments.

All F10-1 impregnated bits manufactured by Forsun have cross profile and share the same prices with relative bits of other matrix profile in the same impregnation height.