Impregnated Diamond Drill Bit Selection

Coloured “T” Series – “TA” Series

The selection of the optimum Bit for anticipated ground conditions requires careful consideration.

While Bit life is an important factor, data can be provided to show that penetration rate may be a more important consideration.

To optimize, the drilling economy RPM and feed rate should be balanced to suit the rock type being drilled.

RPI/RPC Index

The RPI index is the number of Bit revolutions per inch of penetration.
The RPC index is the number of Bit revolutions per cm of penetration.

RPI (RPC) = The RPM on your drill string divided by your penetration in inch/min (cm/min).

Example:

1000 RPM ÷ 5in/min = 200 RPI
1000 RPM ÷ 10cm/min = 100 RPC

It is recommended that to keep the Bit open while still maintaining good Bit life, an RPI of 200-250 or RPC of 80-100 should be aimed for.