



Magic Drill DRC

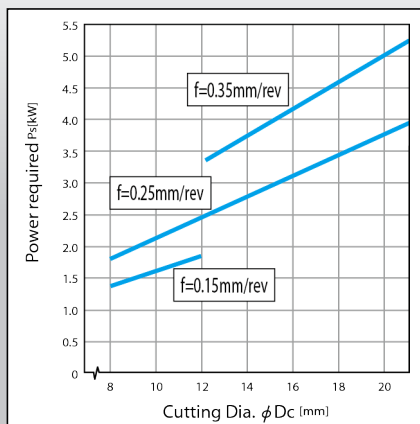
Drilling

## Reference Charts

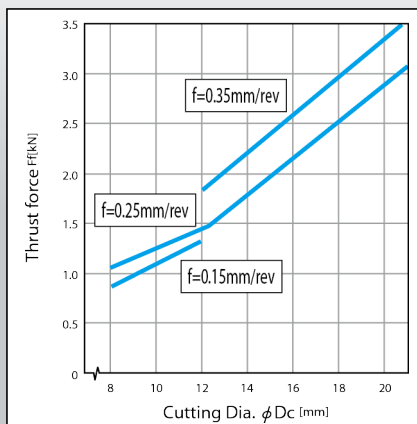
### <Cutting Condition>

Heat treated steel (Hardness 240HB) Vc=80m/min, Wet

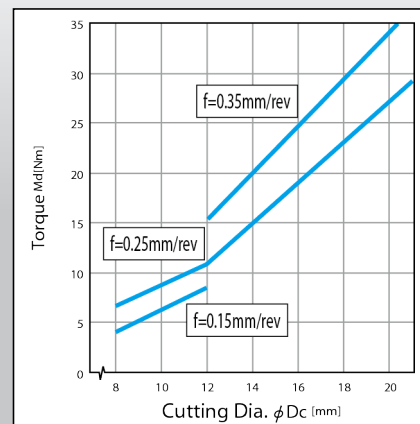
● Power required



● Thrust force



● Torque



## Case Studies

1049	
<ul style="list-style-type: none"> <li>Flange</li> <li>Vc=97m/min (n=2,490min<sup>-1</sup>)</li> <li>H=32mm</li> <li>f=0.3mm/rev (Vf=747mm/min)</li> <li>Wet(Internal Coolant)</li> <li>DC1250M-SC (PR0315)</li> </ul>	
<b>SS14-DRC120M-3</b>	3,000holes/insert
Competitor A	1,800holes/drill
<p>Compared to competitor's drill A, MagicDrill DRC type has reduced burr and reduced more than 10% of the power required. Tool life has also improved greatly.</p> <p style="text-align: right;">Customer Evaluation</p>	

4140	
<ul style="list-style-type: none"> <li>Housing</li> <li>Vc=83m/min (n=2,400min<sup>-1</sup>)</li> <li>H=32mm</li> <li>f=0.24mm/rev (Vf=576mm/min)</li> <li>Wet(Internal Coolant)</li> <li>DC1100M-SC(PR0315)</li> </ul>	
<b>SS12-DRC110M-3</b>	more than 2,400holes/insert
Competitor B	2,000holes/drill
<p>Compared to competitor's solid drill B, MagicDrill DRC type has greatly reduced preparation time with its easy insert replacement feature. Also, the costs of spare tools for re-grinding has been reduced, and tool life has improved.</p> <p style="text-align: right;">Customer Evaluation</p>	

## Q&A

**Q-1** Is re-grinding available?

**A-1** We don't recommend it. Grinding of edge nose chisel is not possible.

**Q-2** How large would the cutting hole be to the insert diameter (ØDc)?

**A-2** When drilling 4137, the hole diameter will be about 0.020 to 0.040 larger than the insert diameter.