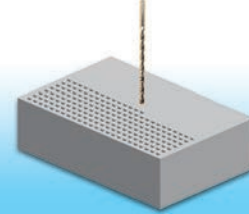


CASE STUDY #1

Machine	Vertical Machining center (DAEWOO)	
Part Name	Test workpiece	
Material	KP 4 (Mould steel_HB280-320)	
Drill	DRXL0700210UAR01 (Special 30xD)	
Drill Diameter	7.0mm	
Cutting speed	V (sfm)	262
Feed rate	f (ipr)	.008
Depth	4.13 (IN)	
Coolant	M.Q.L. system	
Air Pressure	8.5 [kgf/cm2], Oil quantity: 12.5 [cc/h]	

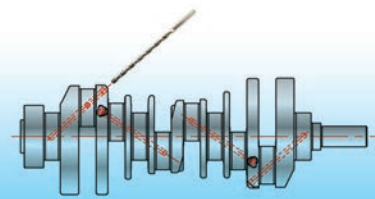
Tool Life: 1020 holes



CASE STUDY #2

Machine	Horizontal Machining center (HORKOS)	
Part Name	Crank shaft (Oil way hole)	
Material	S45CVMn (HBc 22-27)	
Drill	DRXL0580184T7R01 (Special 30xD)	
Drill Diameter	7.0mm	
Cutting speed	V (sfm)	265
Feed rate	f (ipr)	.007
Depth	3.275 (IN)	
Coolant	M.Q.L. system	
Air Pressure	7-8 [kgf/cm2], Oil quantity: 40-50 [cc/h]	

Tool Life: 200 holes



DR SOLID CARBIDE DRILLS OPERATING GUIDELINES

Designation		Dia 0.118 - 0.393	Dia 0.397 - 0.590	Dia 0.594 - 0.787
Mild Steel Alloy Steel Carbon Steel (HRC 25)	V (feet/min)	262 - 328	295 - 328	328 - 393
	V (inch/rev)	0.006 - 0.010	0.007 - 0.013	0.009 - 0.015
Alloy Steel Forged Steel (HRC 25 - 35)	V (feet/min)	213 - 328	295 - 328	295 - 360
	V (inch/rev)	0.006 - 0.009	0.006 - 0.011	0.006 - 0.011
Hardened Steel (HRC 35-45)	V (feet/min)	114 - 213	131 - 230	147 - 246
	V (inch/rev)	0.006 - 0.009	0.006 - 0.011	0.007 - 0.012
Stainless Steel	V (feet/min)	98 - 197	114 - 230	131 - 230
	V (inch/rev)	0.003 - 0.009	0.003 - 0.009	0.003 - 0.011
Ductile Cast Iron	V (feet/min)	213 - 295	246 - 328	279 - 360
	V (inch/rev)	0.006 - 0.011	0.007 - 0.013	0.009 - 0.015
Cast Iron	V (feet/min)	295 - 328	328 - 360	328 - 393
	V (inch/rev)	0.006 - 0.011	0.007 - 0.013	0.009 - 0.015