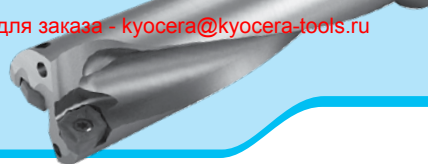


Magic Drill DRX



■ Magic Drill DRX Recommended Cutting Conditions (Coolant)

Workpiece Material	Recommended Cutting Speed (SFM)				Cutting Dia. ØDc (inch)	Type (Drilling Depth)									
	PVD Coated		Carbide			2D~3D			4D			5D			
	PR1230	PR1225	PR1210	GW15		Feed Rate (ipr)									
	GM	GH	SM	GM		GM	GH	SM	GM	GH	SM	GM	GH	SM	
Low Carbon Steel	☆	★			Ø 0.432 ~ Ø 0.591	.0024 ~ .0039	.0024 ~ .0039	.0016 ~ .0039	.0020 ~ .0031	.0020 ~ .0031	.0016 ~ .0031	.0016 ~ .0028	.0016 ~ .0028	.0016 ~ .0031	
					Ø 0.630 ~ Ø 0.709	.0024 ~ .0047	.0024 ~ .0047	.0024 ~ .0047	.0020 ~ .0039	.0020 ~ .0039	.0020 ~ .0039	.0020 ~ .0031	.0020 ~ .0031	.0020 ~ .0039	.0020 ~ .0039
					Ø 0.748 ~ Ø 1.024	.0031 ~ .0055	.0031 ~ .0055	.0024 ~ .0055	.0024 ~ .0047	.0031 ~ .0047	.0020 ~ .0047	.0024 ~ .0039	.0024 ~ .0039	.0020 ~ .0047	.0020 ~ .0047
					Ø 1.063 ~ Ø 2.362	.0031 ~ .0055	.0031 ~ .0055	.0024 ~ .0055	.0024 ~ .0047	.0031 ~ .0047	.0020 ~ .0047	.0024 ~ .0039	.0024 ~ .0039	.0020 ~ .0047	.0020 ~ .0047
Carbon Steel	★	☆			Ø 0.432 ~ Ø 0.591	.0016 ~ .0055	.0016 ~ .0055	.0016 ~ .0039	.0016 ~ .0039	.0016 ~ .0039	.0016 ~ .0031	.0016 ~ .0031	.0016 ~ .0031	.0016 ~ .0031	
					Ø 0.630 ~ Ø 0.709	.0024 ~ .0063	.0024 ~ .0063	.0024 ~ .0047	.0020 ~ .0047	.0020 ~ .0047	.0020 ~ .0039	.0020 ~ .0039	.0020 ~ .0039	.0020 ~ .0039	
					Ø 0.748 ~ Ø 1.024	.0031 ~ .0079	.0031 ~ .0079	.0024 ~ .0055	.0028 ~ .0063	.0028 ~ .0063	.0020 ~ .0047	.0024 ~ .0047	.0024 ~ .0047	.0020 ~ .0047	
					Ø 1.063 ~ Ø 2.362	.0031 ~ .0079	.0031 ~ .0079	.0024 ~ .0055	.0028 ~ .0063	.0028 ~ .0063	.0020 ~ .0047	.0024 ~ .0047	.0024 ~ .0047	.0020 ~ .0047	
Alloy Steel	★	☆			Ø 0.432 ~ Ø 0.591	.0016 ~ .0055	.0016 ~ .0055	.0016 ~ .0039	.0016 ~ .0039	.0016 ~ .0039	.0016 ~ .0031	.0016 ~ .0031	.0016 ~ .0031	.0016 ~ .0031	
					Ø 0.630 ~ Ø 0.709	.0024 ~ .0063	.0024 ~ .0063	.0024 ~ .0047	.0020 ~ .0047	.0020 ~ .0047	.0020 ~ .0039	.0020 ~ .0039	.0020 ~ .0039	.0020 ~ .0039	
					Ø 0.748 ~ Ø 1.024	.0031 ~ .0079	.0031 ~ .0079	.0024 ~ .0055	.0028 ~ .0063	.0028 ~ .0063	.0020 ~ .0047	.0024 ~ .0047	.0024 ~ .0047	.0020 ~ .0047	
					Ø 1.063 ~ Ø 2.362	.0031 ~ .0079	.0031 ~ .0079	.0024 ~ .0055	.0028 ~ .0063	.0028 ~ .0063	.0020 ~ .0047	.0024 ~ .0047	.0024 ~ .0047	.0020 ~ .0047	
Tool Steel	★	☆			Ø 0.432 ~ Ø 0.591	.0016 ~ .0031	.0016 ~ .0031	.0016 ~ .0031	.0016 ~ .0028	.0016 ~ .0028	.0016 ~ .0028	.0016 ~ .0024	.0016 ~ .0024	.0016 ~ .0028	
					Ø 0.630 ~ Ø 0.709	.0024 ~ .0047	.0024 ~ .0047	.0024 ~ .0039	.0020 ~ .0039	.0020 ~ .0039	.0020 ~ .0031	.0016 ~ .0031	.0016 ~ .0031	.0020 ~ .0031	
					Ø 0.748 ~ Ø 1.024	.0031 ~ .0059	.0031 ~ .0059	.0024 ~ .0047	.0024 ~ .0047	.0024 ~ .0047	.0024 ~ .0039	.0020 ~ .0039	.0020 ~ .0039	.0024 ~ .0039	
					Ø 1.063 ~ Ø 2.362	.0031 ~ .0059	.0031 ~ .0059	.0024 ~ .0047	.0024 ~ .0047	.0024 ~ .0047	.0024 ~ .0039	.0020 ~ .0039	.0020 ~ .0039	.0024 ~ .0039	
Stainless Steel	☆	★			Ø 0.432 ~ Ø 0.591	.0024 ~ .0039	.0024 ~ .0039	.0016 ~ .0039	.0020 ~ .0031	.0020 ~ .0031	.0016 ~ .0031	.0016 ~ .0028	.0016 ~ .0031	.0016 ~ .0031	
					Ø 0.630 ~ Ø 0.709	.0024 ~ .0039	.0024 ~ .0039	.0024 ~ .0047	.0020 ~ .0031	.0020 ~ .0031	.0020 ~ .0043	.0016 ~ .0028	.0016 ~ .0028	.0020 ~ .0043	
					Ø 0.748 ~ Ø 1.024	.0031 ~ .0047	.0031 ~ .0047	.0024 ~ .0055	.0028 ~ .0039	.0028 ~ .0039	.0024 ~ .0047	.0028 ~ .0039	.0028 ~ .0039	.0024 ~ .0047	
					Ø 1.063 ~ Ø 2.362	.0031 ~ .0047	.0031 ~ .0047	.0024 ~ .0055	.0028 ~ .0039	.0028 ~ .0039	.0024 ~ .0047	.0028 ~ .0039	.0028 ~ .0039	.0024 ~ .0047	
Gray Cast Iron			★	330 ~ 500	Ø 0.432 ~ Ø 0.591	.0031 ~ .0055	~	~	.0024 ~ .0047	~	~	.0016 ~ .0039	~	~	
					Ø 0.630 ~ Ø 0.709	.0031 ~ .0071	~	~	.0031 ~ .0063	~	~	.0024 ~ .0047	~	~	
					Ø 0.748 ~ Ø 1.024	.0031 ~ .0079	~	~	.0031 ~ .0071	~	~	.0024 ~ .0055	~	~	
					Ø 1.063 ~ Ø 2.362	.0031 ~ .0079	~	~	.0031 ~ .0071	~	~	.0024 ~ .0055	~	~	
Nodular Cast Iron (Ductile)			★	270 ~ 400	Ø 0.432 ~ Ø 0.591	.0031 ~ .0047	~	~	.0024 ~ .0039	~	~	.0016 ~ .0031	~	~	
					Ø 0.630 ~ Ø 0.709	.0031 ~ .0063	~	~	.0031 ~ .0055	~	~	.0024 ~ .0039	~	~	
					Ø 0.748 ~ Ø 1.024	.0031 ~ .0071	~	~	.0031 ~ .0063	~	~	.0024 ~ .0047	~	~	
					Ø 1.063 ~ Ø 2.362	.0031 ~ .0071	~	~	.0031 ~ .0063	~	~	.0024 ~ .0047	~	~	
Non-Ferrous Metal			★	660 ~ 1980	Ø 0.432 ~ Ø 0.591	~	~	.0024 ~ .0047	~	~	.0020 ~ .0039	~	~	.0016 ~ .0031	
					Ø 0.630 ~ Ø 0.709	~	~	.0031 ~ .0055	~	~	.0024 ~ .0047	~	~	.0020 ~ .0039	
					Ø 0.748 ~ Ø 1.024	~	~	.0031 ~ .0063	~	~	.0024 ~ .0055	~	~	.0020 ~ .0047	
					Ø 1.063 ~ Ø 2.362	~	~	.0031 ~ .0079	~	~	.0031 ~ .0063	~	~	.0028 ~ .0055	
Titanium Alloy			★	140 ~ 240	Ø 0.432 ~ Ø 0.591	~	~	.0020 ~ .0031	~	~	.0016 ~ .0028	~	~	.0016 ~ .0024	
					Ø 0.630 ~ Ø 0.709	~	~	.0020 ~ .0031	~	~	.0016 ~ .0028	~	~	.0016 ~ .0024	
					Ø 0.748 ~ Ø 1.024	~	~	.0024 ~ .0039	~	~	.0024 ~ .0031	~	~	.0020 ~ .0028	
					Ø 1.063 ~ Ø 2.362	~	~	.0024 ~ .0039	~	~	.0024 ~ .0031	~	~	.0020 ~ .0028	

• Apply sufficient amount of coolant

★ : 1st Recommendation ☆ : 2nd Recommendation

■ Cutting Conditions by Application

Application	Plain Surface	Slant Surface	Half Clindrical	Hole Expansion	Concave Surface	Pre-drilled Surface	Stacked Plates
Workpiece Shape							
DRX	Cutting Speed (SFM)	400	400	400	400	See Coremaster Coredrill Page 61	See Holeshot Drill Page 53
	Feed Rate (ipr)	.004	.002	.002	.002		
Coolant	Yes	Yes	Yes	Yes	Yes	Yes	-