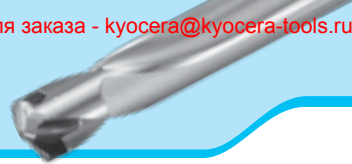


# Magic Drill DRC



## Recommended Cutting Conditions

Workpiece Material		Hardness (HB)	Cutting Condition		Cutting Dia. ØDc(inch)							
			Cutting Speed Vc(SFM)	Spindle Revolution (min <sup>-1</sup> ) Feed Rate (ipr)	Ø0.315	Ø0.3937	Ø0.4724	Ø0.5512	Ø0.6300	Ø0.7087	Ø0.7874	
Low Carbon Steel	1010-1025	125	400 - 600	Spindle Revolution(min <sup>-1</sup> )	4,780 - 7,170	3,820 - 5,730	3,180 - 4,780	2,730 - 4,090	2,390 - 3,580	2,120 - 3,180	1,910 - 2,870	
				Feed Rate(ipr)	.0043 - .0079	.0051 - .0094	.0055 - .0110	.0067 - .0125	.0075 - .0138	.0091 - .0150	.0098 - .0161	
Carbon Steel	1030-1060 (Annealed)	190	330 - 500	Spindle Revolution(min <sup>-1</sup> )	3,980 - 5,970	3,180 - 4,780	2,650 - 3,980	2,270 - 3,410	1,990 - 2,990	1,770 - 2,650	1,590 - 2,390	
	1030-1060 (Heat treated)	250	260 - 400	Spindle Revolution(min <sup>-1</sup> )	3,180 - 4,780	2,550 - 3,820	2,120 - 3,180	1,820 - 2,730	1,590 - 2,390	1,420 - 2,120	1,270 - 1,910	
				Feed Rate(ipr)	.0051 - .0083	.0059 - .0098	.0071 - .0122	.0083 - .0154	.0091 - .0177	.0098 - .0209	.0110 - .0240	
		300	170 - 250	Spindle Revolution(min <sup>-1</sup> )	1,990 - 2,990	1,590 - 2,390	1,330 - 1,990	1,140 - 1,710	1,000 - 1,490	880 - 1,330	800 - 1,190	
Alloy Steel	4137, 5132 (Annealed)	180	230 - 310	Spindle Revolution(min <sup>-1</sup> )	2,790 - 3,780	2,230 - 3,030	1,860 - 2,520	1,590 - 2,160	1,390 - 1,890	1,240 - 1,680	1,110 - 1,510	
				Feed Rate(ipr)	.0059 - .0110	.0063 - .0138	.0083 - .0146	.0091 - .0181	.0098 - .0181	.0098 - .0201	.0118 - .0201	
	4137, 5132 (Heat treated)	275	230 - 310	Spindle Revolution(min <sup>-1</sup> )	2,790 - 3,780	2,230 - 3,030	1,860 - 2,520	1,590 - 2,160	1,390 - 1,890	1,240 - 1,680	1,110 - 1,510	
				Feed Rate(ipr)	.0043 - .0083	.0055 - .0098	.0075 - .0118	.0083 - .0130	.0091 - .0146	.0110 - .0169	.0110 - .0181	
		300	200 - 300	Spindle Revolution(min <sup>-1</sup> )	2,390 - 3,580	1,910 - 2,870	1,590 - 2,390	1,360 - 2,050	1,190 - 1,790	1,060 - 1,590	960 - 1,430	
			350	170 - 250	Spindle Revolution(min <sup>-1</sup> )	1,990 - 2,990	1,590 - 2,390	1,330 - 1,990	1,140 - 1,710	1,000 - 1,490	880 - 1,330	800 - 1,190
					Feed Rate(ipr)	.0043 - .0079	.0047 - .0091	.0063 - .0098	.0067 - .0114	.0071 - .0126	.0079 - .0142	.0091 - .0150
					Spindle Revolution(min <sup>-1</sup> )	2,390 - 3,180	1,910 - 2,550	1,590 - 2,120	1,360 - 1,820	1,190 - 1,590	1,060 - 1,420	960 - 1,270
Stainless Steel	304 316	220	200 - 260	Feed Rate(ipr)	.0043 - .0075	.0047 - .0091	.0063 - .0102	.0071 - .0122	.0083 - .0130	.0091 - .0142	.0098 - .0150	
	S17400	300	170 - 230	Spindle Revolution(min <sup>-1</sup> )	1,990 - 2,790	1,590 - 2,230	1,330 - 1,860	1,140 - 1,590	1,000 - 1,390	880 - 1,240	800 - 1,110	
Gray Cast Iron	No.30-35	180	400 - 560	Feed Rate(ipr)	.0043 - .0079	.0047 - .0091	.0063 - .0098	.0067 - .0114	.0071 - .0126	.0079 - .0142	.0091 - .0150	
				Spindle Revolution(min <sup>-1</sup> )	4,780 - 6,770	3,820 - 5,410	3,180 - 4,510	2,730 - 3,870	2,390 - 3,380	2,120 - 3,010	1,910 - 2,710	
	No.45-60	260	300 - 400	Spindle Revolution(min <sup>-1</sup> )	3,580 - 4,780	2,870 - 3,820	2,390 - 3,180	2,050 - 2,730	1,790 - 2,390	1,590 - 2,120	1,430 - 1,910	
				Feed Rate(ipr)	.0055 - .0098	.0063 - .0122	.0075 - .0138	.0091 - .0165	.0102 - .0185	.0110 - .0209	.0118 - .0228	
Nodular Cast Iron	60-40-18-70-50-05	160	200 - 300	Spindle Revolution(min <sup>-1</sup> )	2,390 - 3,580	1,910 - 2,870	1,590 - 2,390	1,360 - 2,050	1,190 - 1,790	1,060 - 1,590	960 - 1,430	
				Feed Rate(ipr)	.0055 - .0098	.0063 - .0118	.0075 - .0138	.0087 - .0157	.0094 - .0177	.0110 - .0201	.0110 - .0220	
	80-60-03-120-90-02	250	130 - 210	Spindle Revolution(min <sup>-1</sup> )	1,590 - 2,590	1,270 - 2,070	1,060 - 1,730	910 - 1,480	800 - 1,290	710 - 1,150	640 - 1,040	
				Feed Rate(ipr)	.0039 - .0075	.0047 - .0087	.0055 - .0098	.0063 - .0122	.0075 - .0138	.0091 - .0201	.0098 - .0209	

## Wrench for Installing Inserts

Shape		Description	Dimension(inch)			Remarks
			A	B	C	
		WDCR8	1.69	1.30	Ø0.402	
		WDCR10			Ø0.480	
		WDCR12			Ø0.559	
		WDCR14			Ø0.677	
		WDCR17	3.03	2.05	-	<ul style="list-style-type: none"> <li>•WDCR17(Multiple type wrench) has four insert entry points. If using an insert ranging from DC06692-SC to DC08264-SC, use the entry point printed as Ø0.6692"~Ø0.8264".</li> <li>•WDCR17 can be used instead of WDCR8~14 wrench.</li> </ul>