YG

Leading Through Innovation

CARBIDE INSERTS & HOLDERS

i- ONE DRILLS

- High Performance Exchangeable for General Steels and Cast Iron

i- ONE DRILLS

RECOMMENDED CUTTING CONDITIONS

SFM = FT/MIN.
FEED(IPR) = INCH/REV.

ISO	VDI 3323	Material Description	Cutting Speed	Feed					
			SFM	Ø10.0~11.99	Ø12.09~14.99	Ø15.00~17.99	Ø18.00~21.99	Ø22.0~26.99	Ø27.0~33.99
P	1	Non-alloy steel	260~440	.005~.011	.007~0.013	.009~.015	.011~.017	.013~.020	.014~.020
	2		230~400	.005~.011	.007~0.013	.009~.015	.011~.017	.013~.020	.014~.020
	3		230~300	.005~.011	.007~0.013	.009~.015	.011~.017	.013~.020	.014~.020
	4		230~300	.005~.011	.007~0.013	.009~.015	.011~.017	.013~.020	.014~.020
	5		130~260	.005~.011	.007~0.013	.009~.015	.011~.017	.013~.020	.014~.020
	6	Low alloy steel	260~330	.005~.011	.007~0.013	.009~.014	.011~.015	.013~.018	.014~.019
	7		230~295	.005~.011	.007~0.013	.009~.014	.011~.015	.013~.018	.014~.019
	8		200~260	.005~.011	.007~0.013	.009~.014	.011~.015	.013~.018	.014~.019
	9		165~200	.005~.011	.007~0.013	.009~.014	.011~.015	.013~.018	.014~.019
	10	High alloyed steel, and tool steel	150~260	.005~.009	.006~0.011	.008~.013	.010~.015	.011~.015	.013~.016
	11		115~230	.005~.009	.006~0.011	.008~.013	.010~.015	.011~.015	.013~.016
K	15	Grey cast iron	330~460	.006~.014	.008~.016	.010~.018	.012~.022	.014~.024	.016~.024
	16		295~400	.006~.014	.008~.016	.010~.018	.012~.022	.014~.024	.016~.024
	17	Nodular cast iron	330~445	.006~.014	.008~.016	.010~.018	.012~.022	.014~.024	.016~.024
	18		295~400	.006~.014	.008~.016	.010~.018	.012~.022	.014~.024	.016~.024
	19	Malleable cast iron	330~445	.006~.014	.008~.016	.010~.018	.012~.022	.014~.024	.016~.024
	20		295~400	.006~.014	.008~.016	.010~.018	.012~.022	.014~.024	.016~.024

▶ The recommendations for speeds, feeds and other parameters presented in this chart are nominal recommendations and should be considered only as good starting points.
Speed and feed reductions (20% reduction in speed and 10% reduction in feed) are recommended.

▶ Recommend you to reduce the feed rate to 85%, 70% when you use 5xD, 8xD holders.

▶ For use of 8xD holder, we recommend to use a pilot drill with equal to or larger than 140° point angle (0.5xD ~ 1.5xD).
The use of the centering pre-hole improves hole location, roundness and surface finish.