

DRILLING (SOLID CARBIDE)

MAS

- Specialized in aluminum and cast iron drilling.
- High hole accuracy.
- Pre-hole drilling for rolled tap.
- Helical coolant hole enables high speed machining.

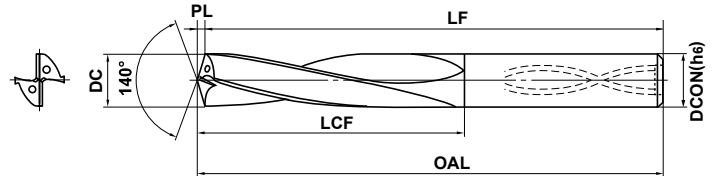
P M **K** N S H

Tolerance	.1250 ≤ DC ≤ .2344	.2500 ≤ DC ≤ .3906	.4062 ≤ DC ≤ .7031	.7188 ≤ DC ≤ .7812
DC (inch)	+0.00020 0	+0.00020 0	+0.00020 0	+0.00020 0
DCON (inch)	0 -0.00031	0 -0.00035	0 -0.00043	0 -0.00051

INCH STANDARD

L/D=3

Internal Coolant



Helix Angle : 10°

(Note 1) MAS type larger than ϕ .2031" have a recess in the shank end face.

(Note 2) MAS type can be used for shrink fit holders.

DC (inch)	Order Number	Stock	Dimensions (inch)					Rolled Thread Tap Size
		HT110	LCF	OAL	LF	PL	DCON	
.1250	MAS01250MB	●	.968	2.543	2.520	.023	.1575	
.1406	MAS01406MB	●	1.128	2.703	2.677	.026	.1575	
.1495	MAS01495MB	●	1.129	2.704	2.677	.027	.1575	10-24NC
.1563	MAS01563MB	●	1.130	2.705	2.677	.028	.1575	
.1590	MAS01590MB	●	1.249	2.824	2.795	.029	.1969	10-32NF
.1719	MAS01719MB	●	1.251	2.826	2.795	.031	.1969	
.1875	MAS01875MB	●	1.333	2.908	2.874	.034	.1969	
.2031	MAS02031MB	●	1.454	3.029	2.992	.037	.2362	
.2165	MAS02165MB	●	1.456	3.031	2.992	.039	.2362	
.2188	MAS02188MB	●	1.575	3.150	3.110	.040	.2362	
.2344	MAS02344MB	●	1.578	3.153	3.110	.043	.2362	
.2500	MAS02500MB	●	1.700	3.353	3.307	.046	.2756	1/16-27NS
.2570	MAS02570MB	●	1.701	3.354	3.307	.047	.2756	5/16-18NC
.2656	MAS02656MB	●	1.702	3.355	3.307	.048	.2756	
.2720	MAS02720MB	●	1.704	3.357	3.307	.050	.2756	5/16-24NF
.2812	MAS02812MB	●	1.941	3.594	3.543	.051	.3150	
.2969	MAS02969MB	●	1.944	3.597	3.543	.054	.3150	
.3125	MAS03125MB	●	1.947	3.600	3.543	.057	.3150	3/8-16NC
.3281	MAS03281MB	●	2.029	3.761	3.701	.060	.3543	1/8-27NPT
.3320	MAS03320MB	●	2.029	3.761	3.701	.060	.3543	3/8-24NF
.3438	MAS03438MB	●	2.032	3.764	3.701	.063	.3543	
.3594	MAS03594MB	●	2.152	3.884	3.819	.065	.3937	
.3680	MAS03680MB	●	2.154	3.886	3.819	.067	.3937	7/16-14NC
.3750	MAS03750MB	●	2.155	3.887	3.819	.068	.3937	
.3906	MAS03906MB	●	2.158	3.890	3.819	.071	.3937	7/16-20NF
.4062	MAS04062MB	●	2.239	4.050	3.976	.074	.4331	

DC (inch)	Order Number	Stock	Dimensions (inch)					Rolled Thread Tap Size
		HT110	LCF	OAL	LF	PL	DCON	
.4219	MAS04219MB	●	2.242	4.053	3.976	.077	.4331	1/2-13, 1/2-12
.4375	MAS04375MB	●	2.442	4.253	4.173	.080	.4724	1/4-18NPT
.4531	MAS04531MB	●	2.444	4.255	4.173	.082	.4724	1/2-20, 1/4-18NS
.4688	MAS04688MB	●	2.447	4.258	4.173	.085	.4724	
.4844	MAS04844MB	●	2.647	4.616	4.528	.088	.5118	9/16-12NC
.5000	MAS05000MB	●	2.650	4.619	4.528	.091	.5118	
.5118	MAS05118MB	●	2.652	4.621	4.528	.093	.5118	
.5156	MAS05156MB	●	2.850	4.818	4.724	.094	.5512	9/16-18NF
.5312	MAS05312MB	●	2.853	4.821	4.724	.097	.5512	5/8-11NC
.5469	MAS05469MB	●	2.856	4.824	4.724	.100	.5512	
.5625	MAS05625MB	●	2.937	5.220	5.118	.102	.5906	3/8-18NPT
.5781	MAS05781MB	●	2.940	5.223	5.118	.105	.5906	5/8-18NF
.5937	MAS05937MB	●	3.100	5.384	5.276	.108	.6299	3/8-18NS
.6094	MAS06094MB	●	3.103	5.387	5.276	.111	.6299	
.6250	MAS06250MB	●	3.106	5.390	5.276	.114	.6299	
.6406	MAS06406MB	●	3.267	5.550	5.433	.117	.6693	
.6563	MAS06563MB	●	3.269	5.552	5.433	.119	.6693	3/4-10NC
.6718	MAS06718MB	●	3.468	5.752	5.630	.122	.7087	
.6875	MAS06875MB	●	3.471	5.755	5.630	.125	.7087	3/4-16NF
.7031	MAS07031MB	●	3.474	5.758	5.630	.128	.7087	1/2-14NPT
.7188	MAS07188MB	●	3.674	5.958	5.827	.131	.7480	
.7344	MAS07344MB	●	3.677	5.961	5.827	.134	.7480	7/8-9, 1/2-14NS
.7500	MAS07500MB	●	3.877	6.161	6.024	.137	.7874	
.7656	MAS07656MB	●	3.879	6.163	6.024	.139	.7874	
.7812	MAS07812MB	●	3.882	6.166	6.024	.142	.7874	

(Note) Please contact Mitsubishi Materials for any geometry that is not in the catalog (e.g. different dia. and length).

DRILLING

RECOMMENDED CUTTING CONDITIONS

Work Material	Drill Dia. $\phi.1250'' - \phi.2344''$		Drill Dia. $\phi.2500'' - \phi.3906''$		Drill Dia. $\phi.4062'' - \phi.7812''$	
	Cutting Speed (SFM)	Feed (IPR)	Cutting Speed (SFM)	Feed (IPR)	Cutting Speed (SFM)	Feed (IPR)
N Aluminum Alloy Casting	330 (195–490)	.006 (.002–.012)	390 (260–555)	.008 (.004–.012)	490 (330–655)	.010 (.004–.016)
Aluminum Alloy Die Casting	390 (260–555)	.005 (.002–.010)	490 (330–590)	.006 (.002–.010)	525 (390–655)	.008 (.004–.012)
K Gray Cast Iron	195 (130–260)	.006 (.004–.008)	260 (195–360)	.008 (.004–.012)	330 (230–425)	.012 (.008–.016)
Ductile Cast Iron	145 (100–195)	.004 (.002–.006)	195 (130–260)	.005 (.002–.008)	260 (195–330)	.008 (.004–.012)

MACHINED HOLE ACCURACY

Tool : MAS1000LB Workpiece : 330 Aluminum Feed : .008 inch/rev Drilled Depth : 2.36 inch (Through hole) WSO (10%)

