

DREAM DRILL-INOX, THROUGH COOLANT

DH451, DH452 & DH453* Series

CUTTING DATA

DRILLING

MATERIAL	CARBON STEEL & ALLOY STEELS		STAINLESS STEEL				TITANIUM ALLOYS		ALUMINIUM				NON FERROUS	
Strength	-		< 800 N/mm ²		> 800 N/mm ²		~ 410 N/mm ²		< 10% Si		> 10% Si		-	
Drilling Speed	105 ~ 125 mm/min		60 ~ 70 mm/min		35 ~ 45 mm/min		40 ~ 50 mm/min		200 ~ 220 mm/min		155 ~ 175 mm/min		105 ~ 125 mm/min	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
1	26000	0.02	12000	0.02	6200	0.02	8100	0.01	48000	0.04	38000	0.03	38000	0.02
1.5	18000	0.03	9000	0.03	5400	0.02	7500	0.01	43000	0.05	32000	0.04	25500	0.03
2.5	10800	0.05	7000	0.04	4200	0.03	4500	0.02	25500	0.08	19500	0.06	15500	0.05
3	13000	0.04	7400	0.04	4700	0.02	5300	0.03	23000	0.12	18500	0.10	16000	0.08
4	10000	0.05	5600	0.05	3600	0.03	4000	0.04	17500	0.18	13900	0.15	11900	0.10
5	8000	0.05	4400	0.05	2800	0.03	3200	0.05	14000	0.20	11000	0.18	9500	0.12
6	6600	0.06	3700	0.06	2400	0.04	2650	0.06	11700	0.25	9300	0.25	8000	0.15
8	5000	0.08	2800	0.08	1800	0.06	2000	0.07	8800	0.30	7000	0.30	6000	0.18
10	4000	0.10	2200	0.10	1400	0.08	1600	0.08	7000	0.40	5600	0.35	4800	0.22
12	3300	0.12	1900	0.12	1200	0.10	1300	0.10	5800	0.50	4600	0.40	4000	0.26
14	2800	0.15	1600	0.15	1000	0.12	1100	0.12	5000	0.60	4000	0.50	3400	0.30
16	2500	0.20	1400	0.20	900	0.15	1000	0.14	4380	0.80	3500	0.60	3000	0.40
18	2200	0.22	1250	0.22	800	0.17	900	0.16	3900	1.00	3100	0.70	2650	0.45
20	2000	0.24	1120	0.24	720	0.19	800	0.18	3500	1.20	2800	0.80	2400	0.50

*NOTE: For DH453 Series reduce Feed by 15%.

DREAM DRILL-HIGH HARDENED STEEL

DH500 Series

CUTTING DATA

DRILLING

MATERIAL	HARDENED STEELS		HIGH HARDENED STEELS			
Hardness	HRC50~55		HRC55~60		HRC70~70	
Drilling Speed	14 ~ 22 mm/min		10 ~ 16 mm/min		8 ~ 13 mm/min	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed
3	1900	0.04	1330	0.04	1250	0.04
4	1430	0.04	1000	0.04	950	0.04
5	1150	0.04	800	0.04	750	0.04
6	960	0.04	670	0.04	630	0.04
8	720	0.04	500	0.04	480	0.04
10	570	0.04	400	0.04	380	0.04
12	480	0.04	330	0.04	320	0.04
14	438	0.04	282	0.04	272	0.04

MACH DRILL Plus - INCONEL & TITANIUM

MSDPH-3S & MSDPH-5S Series

CUTTING DATA

DRILLING

MATERIAL	HRSA (INCONEL, HASTELLOY, WASPALLOY)				TITANIUM			
Material	Fe-BASED HRC25-30		Ni or Co BASED HRC35-45		Pure Titanium HRC10-15		Titanium Alloys HRC 35-45	
Diameter	Speed (m/min)	Feed	Speed (m/min)	Feed	Speed (m/min)	Feed	Speed (m/min)	Feed
2.5-5.0	25 ~ 30 mm/min	0.055~0.07	20 ~ 25 mm/min	0.07~0.10	40 ~ 50 mm/min	0.08~0.13	30 ~ 40 mm/min	0.10~0.15
5.1-8.0		0.045~0.06		0.06~0.09		0.07~0.12		0.09~0.14
8.1-12.0		0.045~0.06		0.09~0.14		0.12~0.18		0.16~0.23
12.1-16.0		0.05~0.09		0.07~0.12		0.10~0.16		0.14~0.21

RPM: revolutions per minute Feed: mm per minute

