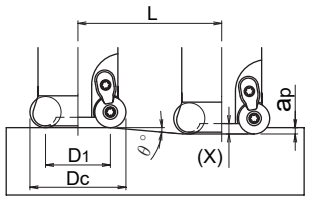
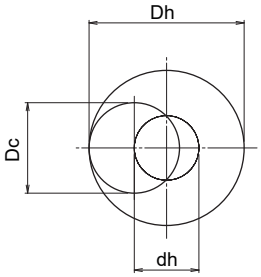
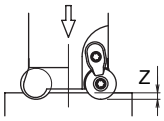
INCH

Super Diemaster

HELICAL INTERPOLATION CUTTING DATA







• Calculation of tool pass dia.

ØDc = ØDh - I

Tool pass dia. Bore dia. Tool Dia.

- **Down cutting is recommended, tool pass rotation should be counterclockwise.**
- **Depth of cut per one circuit should not exceed max. depth of cut Ap.**
- **In case of ramping and helical interpolation, apply 70% or less feed (F) from standard cutting condition table.**
- **In case of drilling, apply 50% or less Z axis feed speed from standard cutting condition table.**
- **When drilling, may have long consecutive chips, please use safety cautions.**
- **Do not combine drilling and ramping together.**

TOOL DIAMETER I	INSERT DIA. (mm)	EFFECTIVE CUTTING DIA.: D1	RAMPING		HELICAL INTERPOLATION		MAX. DEPTH OF CUT: AP	MAX. DRILLING DEPTH: Z	DEPTH OF HOLDER FACE: X
			MAX. RAMP ANGLE: 0°	TOTAL CUTTING LENGTH at MAX. AP: L	MIN. BORE DIA.: Dh	MAX. BORE DIA.: Dh			
.750”	7 (R3.5)	.474	6°00’	1.31	1.11	1.42	.138	.059	.098
1.00”	10 (R5)	.606	10°20’	1.08	1.37	1.92	.197	.098	.138
1.00”	12 (R6)	.527	9°30’	1.41	1.21	1.92	.236	.078	.118
1.25”	10 (R5)	.856	6°30’	1.73	1.87	2.42	.197	.098	.138
1.25”	12 (R6)	.778	7°30’	1.79	1.71	2.42	.236	.098	.138
1.50”	10 (R5)	1.11	4°40’	2.41	2.37	2.92	.236	.098	.138
1.50”	12 (R5)	1.03	5°20’	2.53	2.21	2.92	.236	.098	.138
2.00”	12 (R6)	1.53	5°10’	2.61	3.21	3.92	.236	.138	.177
2.00”	16 (R8)	1.37	7°10’	2.50	3.02	3.92	.315	.157	.197
3.00”	12 (R6)	2.53	2°50’	4.77	5.21	5.92	.236	.138	.177
3.00”	16 (R8)	2.37	4°00’	4.50	5.02	5.92	.315	.157	.197
3.00”	20 (R10)	2.21	4°10’	5.41	5.13	5.92	.394	.157	.197
4.00”	12 (R6)	3.53	2°00’	6.76	7.21	7.92	.236	.138	.177
4.00”	16 (R8)	3.37	2°30’	7.21	7.02	7.92	.315	.157	.197
4.00”	20 (R10)	3.21	3°00’	7.51	7.13	7.92	.394	.177	.217

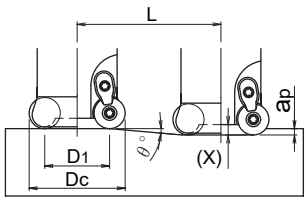
DIJET®

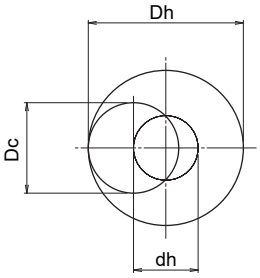
Face Milling | Pocket Milling | Copy Milling | Helical Interpolation

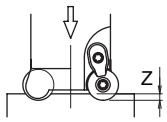
Super Diemaster

METRIC

HELICAL INTERPOLATION CUTTING DATA







• Calculation of tool pass dia.

ØDc = ØDh - I

Tool pass dia. Bore dia. Tool Dia.

- **Down cutting is recommended, tool pass rotation should be counterclockwise.**
- **Depth of cut per one circuit should not exceed max. depth of cut Ap.**
- **In case of ramping and helical interpolation, apply 70% or less feed (F) from standard cutting condition table.**
- **In case of drilling, apply 50% or less Z axis feed speed from standard cutting condition table.**
- **When drilling, may have long consecutive chips, please use safety cautions.**
- **Do not combine drilling and ramping together.**

TOOL DIAMETER I	INSERT DIA. (mm)	EFFECTIVE CUTTING DIA.: D1	RAMPING		HELICAL INTERPOLATION		MAX. DEPTH OF CUT: AP	MAX. DRILLING DEPTH: Z	DEPTH OF HOLDER FACE: X
			MAX. RAMP ANGLE: 0°	TOTAL CUTTING LENGTH at MAX. AP: L	MIN. BORE DIA.: Dh	MAX. BORE DIA.: Dh			
20	7 (R3.5)	13	5°30’	36.3	30	38	3.5	1.5	2.5
22	7 (R3.5)	15	4°35’	43.6	34	42	3.5	1.5	2.5
25	7 (R3.5)	18	3°40’	54.6	40	48	3.5	1.5	2.5
25	10 (R5)	15	10°45’	26.3	34	48	5.0	2.5	3.5
28	10 (R5)	18	8°20’	34.1	40	54	5.0	2.5	3.5
30	10 (R5)	20	7°15’	39.3	44	58	5.0	2.5	3.5
32	10 (R5)	22	6°25’	44.4	48	62	5.0	2.5	3.5
32	12 (R6)	20	7°35’	45.1	44	62	6.0	2.5	3.5
35	10 (R5)	25	5°30’	51.9	54	68	5.0	2.5	3.5
35	12 (R6)	23	6°15’	54.7	50	68	6.0	2.5	3.5
40	12 (R6)	28	4°55’	69.7	60	78	6.0	2.5	3.5
42	10 (R5)	32	4°05’	70.0	68	82	5.0	2.5	3.5
50	12 (R6)	38	5°15’	65.2	80	98	6.0	3.5	4.5
50	16 (R8)	34	7°25’	61.4	75	98	8.0	4.0	5.0
52	12 (R6)	40	4°55’	69.7	84	102	6.0	3.5	4.5
52	16 (R8)	36	6°55’	65.9	79	102	8.0	4.0	5.0
63	12 (R6)	51	3°45’	91.5	106	124	6.0	3.5	4.5
63	16 (R8)	47	5°00’	91.4	101	124	8.0	4.0	5.0
66	12 (R6)	54	3°30’	98.1	112	130	6.0	3.5	4.5
66	16 (R8)	50	4°40’	98.0	107	130	8.0	4.0	5.0
80	12 (R6)	68	2°45’	124.9	140	158	6.0	3.5	4.5
80	16 (R8)	64	3°30’	130.7	135	158	8.0	4.0	5.0
80	20 (R10)	60	4°25’	129.5	138	158	10.0	4.5	5.5
100	16 (R8)	84	2°35’	177.3	175	198	8.0	4.0	5.0
125	16 (R8)	109	1°55’	239.1	225	248	8.0	4.0	5.0
160	16 (R8)	144	1°25’	223.5	295	318	8.0	4.0	5.0