



- SUS, Titanium, HRC28이하 SCM등의 합금용 난삭재 가공 드릴
- Cross cut 코팅을 적용하여 우수한 내열성과 내마모성으로 절삭영역을 확대하였습니다.
- 절삭 저항을 최소화하는 Point thinning을 채택 하였습니다.
- 최적에 플루트 형상 설계와 내부급유 방식을 적용하여 칩배출 성능이 매우 우수합니다.
- 140도 선단각 설계하여 높은 고정밀, 고속 드릴링 작업에 탁월한 성능을 발휘합니다.

High-speed drills for SUS, alloy materials up to HRC28, SCM and Titanium

- Minimized adhesion during drilling operations by applying cross-cut coating.
- Adopted point thinning to minimize cutting resistance.
- Excellent chip evacuation performance achieved by applying an optimal flute design and internal coolant system.
- Design with a 140-degree point angle for outstanding performance in high highprecision, high-speed drilling operations.



515P

단위 : mm

Order Number	날경 Diameter D	홈길이 Flute Length L1	전장 Overall Length L	샙크 Shank Dia d	비고	Order Number	날경 Diameter D	홈길이 Flute Length L1	전장 Overall Length L	샙크 Shank Dia d	비고
2DUBEW 010 080 S03	1	8	40	3		2DUBEW 060 280 S06	6	28	65	6	
2DUBEW 011 080 S03	1.1	8	40	3		2DUBEW 061 340 S08	6.1	34	80	8	
2DUBEW 012 080 S03	1.2	8	40	3		2DUBEW 062 340 S08	6.2	34	80	8	
2DUBEW 013 080 S03	1.3	8	40	3		2DUBEW 063 340 S08	6.3	34	80	8	
2DUBEW 014 080 S03	1.4	8	40	3		2DUBEW 064 340 S08	6.4	34	80	8	
2DUBEW 015 080 S03	1.5	8	50	3		2DUBEW 065 340 S08	6.5	34	80	8	
2DUBEW 016 080 S03	1.6	8	50	3		2DUBEW 066 340 S08	6.6	34	80	8	
2DUBEW 017 100 S03	1.7	10	50	3		2DUBEW 067 340 S08	6.7	34	80	8	
2DUBEW 018 100 S03	1.8	10	50	3		2DUBEW 068 340 S08	6.8	34	80	8	
2DUBEW 019 100 S03	1.9	10	50	3		2DUBEW 069 340 S08	6.9	34	80	8	
2DUBEW 020 160 S04	2	16	50	4		2DUBEW 070 340 S08	7	34	80	8	
2DUBEW 021 160 S04	2.1	16	50	4		2DUBEW 071 410 S08	7.1	41	80	8	
2DUBEW 022 160 S04	2.2	16	50	4		2DUBEW 072 410 S08	7.2	41	80	8	
2DUBEW 023 160 S04	2.3	16	50	4		2DUBEW 073 410 S08	7.3	41	80	8	
2DUBEW 024 160 S04	2.4	16	50	4		2DUBEW 074 410 S08	7.4	41	80	8	
2DUBEW 025 200 S04	2.5	20	50	4		2DUBEW 075 410 S08	7.5	41	80	8	
2DUBEW 026 200 S04	2.6	20	50	4		2DUBEW 076 410 S08	7.6	41	80	8	
2DUBEW 027 200 S04	2.7	20	50	4		2DUBEW 077 410 S08	7.7	41	80	8	
2DUBEW 028 200 S04	2.8	20	50	4		2DUBEW 078 410 S08	7.8	41	80	8	
2DUBEW 029 200 S04	2.9	20	50	4		2DUBEW 079 410 S08	7.9	41	80	8	
2DUBEW 030 200 S06	3	20	60	6		2DUBEW 080 410 S08	8	41	80	8	
2DUBEW 031 200 S06	3.1	20	60	6		2DUBEW 081 470 S10	8.1	47	90	10	
2DUBEW 032 200 S06	3.2	20	60	6		2DUBEW 082 470 S10	8.2	47	90	10	
2DUBEW 033 200 S06	3.3	20	60	6		2DUBEW 083 470 S10	8.3	47	90	10	
2DUBEW 034 200 S06	3.4	20	60	6		2DUBEW 084 470 S10	8.4	47	90	10	
2DUBEW 035 200 S06	3.5	20	60	6		2DUBEW 085 470 S10	8.5	47	90	10	
2DUBEW 036 200 S06	3.6	20	60	6		2DUBEW 086 470 S10	8.6	47	90	10	
2DUBEW 037 200 S06	3.7	20	60	6		2DUBEW 087 470 S10	8.7	47	90	10	
2DUBEW 038 240 S06	3.8	24	65	6		2DUBEW 088 470 S10	8.8	47	90	10	
2DUBEW 039 240 S06	3.9	24	65	6		2DUBEW 089 470 S10	8.9	47	90	10	
2DUBEW 040 240 S06	4	24	65	6		2DUBEW 090 470 S10	9	47	90	10	
2DUBEW 041 240 S06	4.1	24	65	6		2DUBEW 091 470 S10	9.1	47	90	10	
2DUBEW 042 240 S06	4.2	24	65	6		2DUBEW 092 470 S10	9.2	47	90	10	
2DUBEW 043 240 S06	4.3	24	65	6		2DUBEW 093 470 S10	9.3	47	90	10	
2DUBEW 044 240 S06	4.4	24	65	6		2DUBEW 094 470 S10	9.4	47	90	10	
2DUBEW 045 240 S06	4.5	24	65	6		2DUBEW 095 470 S10	9.5	47	90	10	
2DUBEW 046 240 S06	4.6	24	65	6		2DUBEW 096 470 S10	9.6	47	90	10	
2DUBEW 047 240 S06	4.7	24	65	6		2DUBEW 097 470 S10	9.7	47	90	10	
2DUBEW 048 280 S06	4.8	28	65	6		2DUBEW 098 470 S10	9.8	47	90	10	
2DUBEW 049 280 S06	4.9	28	65	6		2DUBEW 099 470 S10	9.9	47	90	10	
2DUBEW 050 280 S06	5	28	65	6		2DUBEW 100 470 S10	10	47	90	10	
2DUBEW 051 280 S06	5.1	28	65	6		2DUBEW 101 550 S12	10.1	55	100	12	
2DUBEW 052 280 S06	5.2	28	65	6		2DUBEW 102 550 S12	10.2	55	100	12	
2DUBEW 053 280 S06	5.3	28	65	6		2DUBEW 103 550 S12	10.3	55	100	12	
2DUBEW 054 280 S06	5.4	28	65	6		2DUBEW 104 550 S12	10.4	55	100	12	
2DUBEW 055 280 S06	5.5	28	65	6		2DUBEW 105 550 S12	10.5	55	100	12	
2DUBEW 056 280 S06	5.6	28	65	6		2DUBEW 106 550 S12	10.6	55	100	12	
2DUBEW 057 280 S06	5.7	28	65	6		2DUBEW 107 550 S12	10.7	55	100	12	
2DUBEW 058 280 S06	5.8	28	65	6		2DUBEW 108 550 S12	10.8	55	100	12	
2DUBEW 059 280 S06	5.9	28	65	6		2DUBEW 109 550 S12	10.9	55	100	12	

단위 : mm

Order Number	날경 Diameter D	홈길이 Flute Length L1	전장 Overall Length L	샙크 Dia d	비고	Order Number	날경 Diameter D	홈길이 Flute Length L1	전장 Overall Length L	샙크 Dia d	비고
2DUBEW 110 550 S12	11	55	100	12		2DUBEW 160 650 S16	16	65	115	16	
2DUBEW 111 550 S12	11.1	55	100	12		2DUBEW 161 730 S18	16.1	73	125	18	
2DUBEW 112 550 S12	11.2	55	100	12		2DUBEW 162 730 S18	16.2	73	125	18	
2DUBEW 113 550 S12	11.3	55	100	12		2DUBEW 163 730 S18	16.3	73	125	18	
2DUBEW 114 550 S12	11.4	55	100	12		2DUBEW 164 730 S18	16.4	73	125	18	
2DUBEW 115 550 S12	11.5	55	100	12		2DUBEW 165 730 S18	16.5	73	125	18	
2DUBEW 116 550 S12	11.6	55	100	12		2DUBEW 166 730 S18	16.6	73	125	18	
2DUBEW 117 550 S12	11.7	55	100	12		2DUBEW 167 730 S18	16.7	73	125	18	
2DUBEW 118 550 S12	11.8	55	100	12		2DUBEW 168 730 S18	16.8	73	125	18	
2DUBEW 119 550 S12	11.9	55	100	12		2DUBEW 169 730 S18	16.9	73	125	18	
2DUBEW 120 550 S12	12	55	100	12		2DUBEW 170 730 S18	17	73	125	18	
2DUBEW 121 600 S14	12.1	60	100	14		2DUBEW 171 730 S18	17.1	73	125	18	
2DUBEW 122 600 S14	12.2	60	100	14		2DUBEW 172 730 S18	17.2	73	125	18	
2DUBEW 123 600 S14	12.3	60	100	14		2DUBEW 173 730 S18	17.3	73	125	18	
2DUBEW 124 600 S14	12.4	60	100	14		2DUBEW 174 730 S18	17.4	73	125	18	
2DUBEW 125 600 S14	12.5	60	100	14		2DUBEW 175 730 S18	17.5	73	125	18	
2DUBEW 126 600 S14	12.6	60	100	14		2DUBEW 176 730 S18	17.6	73	125	18	
2DUBEW 127 600 S14	12.7	60	100	14		2DUBEW 177 730 S18	17.7	73	125	18	
2DUBEW 128 600 S14	12.8	60	100	14		2DUBEW 178 730 S18	17.8	73	125	18	
2DUBEW 129 600 S14	12.9	60	100	14		2DUBEW 179 730 S18	17.9	73	125	18	
2DUBEW 130 600 S14	13	60	100	14		2DUBEW 180 730 S18	18	73	125	18	
2DUBEW 131 600 S14	13.1	60	100	14		2DUBEW 181 790 S20	18.1	79	130	20	
2DUBEW 132 600 S14	13.2	60	105	14		2DUBEW 182 790 S20	18.2	79	130	20	
2DUBEW 133 600 S14	13.3	60	105	14		2DUBEW 183 790 S20	18.3	79	130	20	
2DUBEW 134 600 S14	13.4	60	105	14		2DUBEW 184 790 S20	18.4	79	130	20	
2DUBEW 135 600 S14	13.5	60	105	14		2DUBEW 185 790 S20	18.5	79	130	20	
2DUBEW 136 600 S14	13.6	60	105	14		2DUBEW 186 790 S20	18.6	79	130	20	
2DUBEW 137 600 S14	13.7	60	105	14		2DUBEW 187 790 S20	18.7	79	130	20	
2DUBEW 138 600 S14	13.8	60	105	14		2DUBEW 188 790 S20	18.8	79	130	20	
2DUBEW 139 600 S14	13.9	60	105	14		2DUBEW 189 790 S20	18.9	79	130	20	
2DUBEW 140 600 S14	14	60	105	14		2DUBEW 190 790 S20	19	79	130	20	
2DUBEW 141 650 S16	14.1	65	110	16		2DUBEW 191 790 S20	19.1	79	130	20	
2DUBEW 142 650 S16	14.2	65	110	16		2DUBEW 192 790 S20	19.2	79	130	20	
2DUBEW 143 650 S16	14.3	65	110	16		2DUBEW 193 790 S20	19.3	79	130	20	
2DUBEW 144 650 S16	14.4	65	110	16		2DUBEW 194 790 S20	19.4	79	130	20	
2DUBEW 145 650 S16	14.5	65	110	16		2DUBEW 195 790 S20	19.5	79	130	20	
2DUBEW 146 650 S16	14.6	65	110	16		2DUBEW 196 790 S20	19.6	79	130	20	
2DUBEW 147 650 S16	14.7	65	110	16		2DUBEW 197 790 S20	19.7	79	130	20	
2DUBEW 148 650 S16	14.8	65	110	16		2DUBEW 198 790 S20	19.8	79	130	20	
2DUBEW 149 650 S16	14.9	65	110	16		2DUBEW 199 790 S20	19.9	79	130	20	
2DUBEW 150 650 S16	15	65	110	16		2DUBEW 200 790 S20	20	79	130	20	
2DUBEW 151 650 S16	15.1	65	110	16							
2DUBEW 152 650 S16	15.2	65	115	16							
2DUBEW 153 650 S16	15.3	65	115	16							
2DUBEW 154 650 S16	15.4	65	115	16							
2DUBEW 155 650 S16	15.5	65	115	16							
2DUBEW 156 650 S16	15.6	65	115	16							
2DUBEW 157 650 S16	15.7	65	115	16							
2DUBEW 158 650 S16	15.8	65	115	16							
2DUBEW 159 650 S16	15.9	65	115	16							

2DUBEW(3XD) Cutting Condition

• RPM : rev./min • Feed : mm/min

피삭재 Material	일반구조강/쾌삭강 Mild Steels/Free cutting steels HP/SM		구조용강/탄소강/회주철 Structural steels / Carbon Steels /Gray cast irons SS/SC/FC		덕타일 주철 Ductile cast irons FCD		스테인레스강 Stainless Steels SUS304/SUS316	
경도 Hardness	~200HB		~30Hrc		-		-	
외경 Outside Diameter	회전수 RPM	이송 속도 FEED	회전수 RPM	이송 속도 FEED	회전수 RPM	이송 속도 FEED	회전수 RPM	이송 속도 FEED
ø1	19,000	530	13,200	430	13,200	460	19,150	830
ø2	9,480	620	7,200	460	7,010	400	9,550	630
ø3	8,280	920	7,080	540	6,840	550	8,400	830
ø4	6,200	1010	5,400	540	5,060	550	6,350	770
ø5	4,970	980	4,140	690	4,025	670	5,100	715
ø6	4,140	1000	3,600	690	3,450	670	4,200	660
ø8	3,100	1030	2,520	530	2,530	550	3,200	740
ø10	2,500	830	2,040	470	2,070	500	2,550	700
ø12	2,100	670	1,680	420	1,725	460	2,100	580
ø16	1,560	530	1,380	410	1,265	400	1,600	510
ø20	1,240	460	1,140	410	1,035	400	1,250	480

- 피삭재의 고정 불안정 할 시 내구성이 떨어지므로, 확실한 클램핑을 하십시오.
- 원활한 칩 배출을 위해 절삭유 사용을 권장하며, 수용성 절삭유가 효과적입니다.
- 상기 절삭 조건은 참고 수치이므로, 실 가공 시 가공 형상, 가공 목적, 적용 기계에 따라 조건 변경 요망합니다.
- Peck(Q) drilling 간격은 외부 쿨런트 타입 0.2Dc~0.5Dc, 내부 쿨런트 타입 0.2Dc~1.5Dc를 권장합니다.
- 조건표가 기계의 최대 스피들 속도를 초과하거나 버 및 적열 현상이 발생할 때 스피들 속도와 이송 속도를 비례하여 조정하십시오.
- Ensure a stable clamping when fixing the cutting tool, as durability may be compromised if the clamping is unstable.
- For smooth chip evacuation, we recommend using cutting oil, and a soluble cutting fluid is effective as well.
- Use this table for your reference. Adjust the parameters depending on your machining geometry, machining purpose and CNC.
- For peck (Q) drilling, we recommend intervals of 0.2Dc to 0.5Dc for external coolant types and 0.2Dc to 1.5Dc for internal coolant types.
- If the cutting conditions exceed the maximum spindle speed of the machine or if chattering and thermal phenomena occur, adjust the spindle speed and feed rate proportionally.

2DUBEW(5XD) Cutting Condition

• RPM : rev./min • Feed : mm/min

피삭재 Material	일반구조강/쾌삭강 Mild Steels/Free cutting steels HP/SM		구조용강/탄소강/회주철 Structural steels / Carbon Steels /Gray cast irons SS/SC/FC		덕타일 주철 Ductile cast irons FCD		스테인레스강 Stainless Steels SUS304/SUS316	
경도 Hardness	~200HB		~30Hrc		-		-	
외경 Outside Diameter	회전수 RPM	이송 속도 FEED	회전수 RPM	이송 속도 FEED	회전수 RPM	이송 속도 FEED	회전수 RPM	이송 속도 FEED
ø1	19,000	480	13,200	390	13,200	420	19,150	750
ø2	9,480	560	7,200	420	7,010	360	9,550	570
ø3	8,280	840	7,080	490	6,840	500	8,400	750
ø4	6,200	920	5,400	490	5,060	500	6,350	700
ø5	4,970	890	4,140	625	4,025	610	5,100	650
ø6	4,140	910	3,600	625	3,450	610	4,200	600
ø8	3,100	940	2,520	480	2,530	500	3,200	670
ø10	2,500	750	2,040	430	2,070	455	2,550	640
ø12	2,100	610	1,680	380	1,725	420	2,100	525
ø16	1,560	480	1,380	370	1,265	360	1,600	460
ø20	1,240	420	1,140	370	1,035	360	1,250	440

- 피삭재의 고정 불안정 할 시 내구성이 떨어지므로, 확실한 클램핑을 하십시오.
- 원활한 칩 배출을 위해 절삭유 사용을 권장하며, 수용성 절삭유가 효과적입니다.
- 상기 절삭 조건은 참고 수치이므로, 실 가공 시 가공 형상, 가공 목적, 적용 기계에 따라 조건 변경 요망합니다.
- 절삭하는 피삭재의 따라 구멍깊이 최대 5xDc 이상의 드릴링 시 peck(Q) 절입량을 변경하십시오.
- Peck(Q) drilling 간격은 외부 쿨런트 타입 0.2Dc~0.5Dc, 내부 쿨런트 타입 0.2Dc~1.5Dc를 권장합니다.
- 조건표가 기계의 최대 스피들 속도를 초과하거나 버 및 적열 현상이 발생할 때 스피들 속도와 이송 속도를 비례하여 조정하십시오.
- Ensure a stable clamping when fixing the cutting tool, as durability may be compromised if the clamping is unstable.
- For smooth chip evacuation, we recommend using cutting oil, and a soluble cutting fluid is effective as well.
- Use this table for your reference. Adjust the parameters depending on your machining geometry, machining purpose and CNC.
- Please adjust the peck (Q) feed rate when drilling with a cutting tool that has a depth of cut (Dc) exceeding 5 times the diameter.
- For peck (Q) drilling, we recommend intervals of 0.2Dc to 0.5Dc for external coolant types and 0.2Dc to 1.5Dc for internal coolant types.
- If the cutting conditions exceed the maximum spindle speed of the machine or if chattering and thermal phenomena occur, adjust the spindle speed and feed rate proportionally.