



- 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 010 100 S03	1	10	55	3		2DUBEW 060 440 S06	6	44	80	6	
2DUBEW 011 120 S03	1.1	12	55	3		2DUBEW 061 530 S08	6.1	53	90	8	
2DUBEW 012 120 S03	1.2	12	55	3		2DUBEW 062 530 S08	6.2	53	90	8	
2DUBEW 013 120 S03	1.3	12	55	3		2DUBEW 063 530 S08	6.3	53	90	8	
2DUBEW 014 120 S03	1.4	12	55	3		2DUBEW 064 530 S08	6.4	53	90	8	
2DUBEW 015 120 S03	1.5	12	55	3		2DUBEW 065 530 S08	6.5	53	90	8	
2DUBEW 016 160 S03	1.6	16	55	3		2DUBEW 066 530 S08	6.6	53	90	8	
2DUBEW 017 160 S03	1.7	16	55	3		2DUBEW 067 530 S08	6.7	53	90	8	
2DUBEW 018 160 S03	1.8	16	55	3		2DUBEW 068 530 S08	6.8	53	90	8	
2DUBEW 019 160 S03	1.9	16	55	3		2DUBEW 069 530 S08	6.9	53	90	8	
2DUBEW 020 210 S04	2	21	55	4		2DUBEW 070 530 S08	7	53	90	8	
2DUBEW 021 210 S04	2.1	21	55	4		2DUBEW 071 530 S08	7.1	53	90	8	
2DUBEW 022 210 S04	2.2	21	55	4		2DUBEW 072 530 S08	7.2	53	90	8	
2DUBEW 023 210 S04	2.3	21	55	4		2DUBEW 073 530 S08	7.3	53	90	8	
2DUBEW 024 210 S04	2.4	21	55	4		2DUBEW 074 530 S08	7.4	53	90	8	
2DUBEW 025 210 S04	2.5	21	55	4		2DUBEW 075 530 S08	7.5	53	90	8	
2DUBEW 026 210 S04	2.6	21	55	4		2DUBEW 076 530 S08	7.6	53	90	8	
2DUBEW 027 210 S04	2.7	21	55	4		2DUBEW 077 530 S08	7.7	53	90	8	
2DUBEW 028 210 S04	2.8	21	55	4		2DUBEW 078 530 S08	7.8	53	90	8	
2DUBEW 029 210 S04	2.9	21	55	4		2DUBEW 079 530 S08	7.9	53	90	8	
2DUBEW 030 280 S06	3	28	65	6		2DUBEW 080 530 S08	8	53	90	8	
2DUBEW 031 280 S06	3.1	28	65	6		2DUBEW 081 610 S10	8.1	61	105	10	
2DUBEW 032 280 S06	3.2	28	65	6		2DUBEW 082 610 S10	8.2	61	105	10	
2DUBEW 033 280 S06	3.3	28	65	6		2DUBEW 083 610 S10	8.3	61	105	10	
2DUBEW 034 280 S06	3.4	28	65	6		2DUBEW 084 610 S10	8.4	61	105	10	
2DUBEW 035 280 S06	3.5	28	65	6		2DUBEW 085 610 S10	8.5	61	105	10	
2DUBEW 036 280 S06	3.6	28	65	6		2DUBEW 086 610 S10	8.6	61	105	10	
2DUBEW 037 280 S06	3.7	28	65	6		2DUBEW 087 610 S10	8.7	61	105	10	
2DUBEW 038 360 S06	3.8	36	75	6		2DUBEW 088 610 S10	8.8	61	105	10	
2DUBEW 039 360 S06	3.9	36	75	6		2DUBEW 089 610 S10	8.9	61	105	10	
2DUBEW 040 360 S06	4	36	75	6		2DUBEW 090 610 S10	9	61	105	10	
2DUBEW 041 360 S06	4.1	36	75	6		2DUBEW 091 610 S10	9.1	61	105	10	
2DUBEW 042 360 S06	4.2	36	75	6		2DUBEW 092 610 S10	9.2	61	105	10	
2DUBEW 043 360 S06	4.3	36	75	6		2DUBEW 093 610 S10	9.3	61	105	10	
2DUBEW 044 360 S06	4.4	36	75	6		2DUBEW 094 610 S10	9.4	61	105	10	
2DUBEW 045 360 S06	4.5	36	75	6		2DUBEW 095 610 S10	9.5	61	105	10	
2DUBEW 046 360 S06	4.6	36	75	6		2DUBEW 096 610 S10	9.6	61	105	10	
2DUBEW 047 360 S06	4.7	36	75	6		2DUBEW 097 610 S10	9.7	61	105	10	
2DUBEW 048 440 S06	4.8	44	80	6		2DUBEW 098 610 S10	9.8	61	105	10	
2DUBEW 049 440 S06	4.9	44	80	6		2DUBEW 099 610 S10	9.9	61	105	10	
2DUBEW 050 440 S06	5	44	80	6		2DUBEW 100 610 S10	10	61	105	10	
2DUBEW 051 440 S06	5.1	44	80	6		2DUBEW 101 710 S12	10.1	71	120	12	
2DUBEW 052 440 S06	5.2	44	80	6		2DUBEW 102 710 S12	10.2	71	120	12	
2DUBEW 053 440 S06	5.3	44	80	6		2DUBEW 103 710 S12	10.3	71	120	12	
2DUBEW 054 440 S06	5.4	44	80	6		2DUBEW 104 710 S12	10.4	71	120	12	
2DUBEW 055 440 S06	5.5	44	80	6		2DUBEW 105 710 S12	10.5	71	120	12	
2DUBEW 056 440 S06	5.6	44	80	6		2DUBEW 106 710 S12	10.6	71	120	12	
2DUBEW 057 440 S06	5.7	44	80	6		2DUBEW 107 710 S12	10.7	71	120	12	
2DUBEW 058 440 S06	5.8	44	80	6		2DUBEW 108 710 S12	10.8	71	120	12	
2DUBEW 059 440 S06	5.9	44	80	6		2DUBEW 109 710 S12	10.9	71	120	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 110 710 S12	11	71	120	12		2DUBEW 160 830 S16	16	83	135	16	
2DUBEW 111 710 S12	11.1	71	120	12		2DUBEW 161 930 S18	16.1	93	145	18	
2DUBEW 112 710 S12	11.2	71	120	12		2DUBEW 162 930 S18	16.2	93	145	18	
2DUBEW 113 710 S12	11.3	71	120	12		2DUBEW 163 930 S18	16.3	93	145	18	
2DUBEW 114 710 S12	11.4	71	120	12		2DUBEW 164 930 S18	16.4	93	145	18	
2DUBEW 115 710 S12	11.5	71	120	12		2DUBEW 165 930 S18	16.5	93	145	18	
2DUBEW 116 710 S12	11.6	71	120	12		2DUBEW 166 930 S18	16.6	93	145	18	
2DUBEW 117 710 S12	11.7	71	120	12		2DUBEW 167 930 S18	16.7	93	145	18	
2DUBEW 118 710 S12	11.8	71	120	12		2DUBEW 168 930 S18	16.8	93	145	18	
2DUBEW 119 710 S12	11.9	71	120	12		2DUBEW 169 930 S18	16.9	93	145	18	
2DUBEW 120 710 S12	12	71	120	12		2DUBEW 170 930 S18	17	93	145	18	
2DUBEW 121 770 S14	12.1	77	125	14		2DUBEW 171 930 S18	17.1	93	145	18	
2DUBEW 122 770 S14	12.2	77	125	14		2DUBEW 172 930 S18	17.2	93	145	18	
2DUBEW 123 770 S14	12.3	77	125	14		2DUBEW 173 930 S18	17.3	93	145	18	
2DUBEW 124 770 S14	12.4	77	125	14		2DUBEW 174 930 S18	17.4	93	145	18	
2DUBEW 125 770 S14	12.5	77	125	14		2DUBEW 175 930 S18	17.5	93	145	18	
2DUBEW 126 770 S14	12.6	77	125	14		2DUBEW 176 930 S18	17.6	93	145	18	
2DUBEW 127 770 S14	12.7	77	125	14		2DUBEW 177 930 S18	17.7	93	145	18	
2DUBEW 128 770 S14	12.8	77	125	14		2DUBEW 178 930 S18	17.8	93	145	18	
2DUBEW 129 770 S14	12.9	77	125	14		2DUBEW 179 930 S18	17.9	93	145	18	
2DUBEW 130 770 S14	13	77	125	14		2DUBEW 180 930 S18	18	93	145	18	
2DUBEW 131 770 S14	13.1	77	125	14		2DUBEW 181 1010 S20	18.1	101	155	20	
2DUBEW 132 770 S14	13.2	77	125	14		2DUBEW 182 1010 S20	18.2	101	155	20	
2DUBEW 133 770 S14	13.3	77	125	14		2DUBEW 183 1010 S20	18.3	101	155	20	
2DUBEW 134 770 S14	13.4	77	125	14		2DUBEW 184 1010 S20	18.4	101	155	20	
2DUBEW 135 770 S14	13.5	77	125	14		2DUBEW 185 1010 S20	18.5	101	155	20	
2DUBEW 136 770 S14	13.6	77	125	14		2DUBEW 186 1010 S20	18.6	101	155	20	
2DUBEW 137 770 S14	13.7	77	125	14		2DUBEW 187 1010 S20	18.7	101	155	20	
2DUBEW 138 770 S14	13.8	77	125	14		2DUBEW 188 1010 S20	18.8	101	155	20	
2DUBEW 139 770 S14	13.9	77	125	14		2DUBEW 189 1010 S20	18.9	101	155	20	
2DUBEW 140 770 S14	14	77	125	14		2DUBEW 190 1010 S20	19	101	155	20	
2DUBEW 141 830 S16	14.1	83	135	16		2DUBEW 191 1010 S20	19.1	101	155	20	
2DUBEW 142 830 S16	14.2	83	135	16		2DUBEW 192 1010 S20	19.2	101	155	20	
2DUBEW 143 830 S16	14.3	83	135	16		2DUBEW 193 1010 S20	19.3	101	155	20	
2DUBEW 144 830 S16	14.4	83	135	16		2DUBEW 194 1010 S20	19.4	101	155	20	
2DUBEW 145 830 S16	14.5	83	135	16		2DUBEW 195 1010 S20	19.5	101	155	20	
2DUBEW 146 830 S16	14.6	83	135	16		2DUBEW 196 1010 S20	19.6	101	155	20	
2DUBEW 147 830 S16	14.7	83	135	16		2DUBEW 197 1010 S20	19.7	101	155	20	
2DUBEW 148 830 S16	14.8	83	135	16		2DUBEW 198 1010 S20	19.8	101	155	20	
2DUBEW 149 830 S16	14.9	83	135	16		2DUBEW 199 1010 S20	19.9	101	155	20	
2DUBEW 150 830 S16	15	83	135	16		2DUBEW 200 1010 S20	20	101	155	20	
2DUBEW 151 830 S16	15.1	83	135	16							
2DUBEW 152 830 S16	15.2	83	135	16							
2DUBEW 153 830 S16	15.3	83	135	16							
2DUBEW 154 830 S16	15.4	83	135	16							
2DUBEW 155 830 S16	15.5	83	135	16							
2DUBEW 156 830 S16	15.6	83	135	16							
2DUBEW 157 830 S16	15.7	83	135	16							
2DUBEW 158 830 S16	15.8	83	135	16							
2DUBEW 159 830 S16	15.9	83	135	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.