



- 고경도강(HRc52~65), 열처리강 계열의 강력 드릴
- HR코팅으로 내열성과 내마모성이 우수, 긴 공구수명을 실현 하였습니다.
- 칩핑을 최소화 하는 Point thinning을 적용 하였습니다.
- 140도와 90도의 선단각과 최적의 플루트 형상 설계로 공구의 성능을 극대화하였습니다.
- 칩 배출력과 드릴의 강성을 고려한 플루트 홈 설계로 안정적인 드릴링을 구현합니다.

### Powerful drills for hardened steels(HRc52~65) and heat-treated steels

- Longer tool life HR coating which provides excellent heat resistance and wear resistance.
- Point thinning was applied to minimize chipping.
- With an optimal flute design and 90 and 140-degree point angle, the tool's performance is maximized.
- Implements stable drilling with a flute groove design considering chip evacuation and drill rigidity.



511P

단위 : mm

| Order Number       | 날경<br>Diameter<br>D | 홀길이<br>Flute Length<br>L1 | 전장<br>Overall Length<br>L | 샙크<br>Shank Dia<br>d | 비고 | Order Number       | 날경<br>Diameter<br>D | 홀길이<br>Flute Length<br>L1 | 전장<br>Overall Length<br>L | 샙크<br>Shank Dia<br>d | 비고 |
|--------------------|---------------------|---------------------------|---------------------------|----------------------|----|--------------------|---------------------|---------------------------|---------------------------|----------------------|----|
| 3DUBEH 010 060 S03 | 1                   | 6                         | 40                        | 3                    |    | 3DUBEH 060 270 S06 | 6                   | 27                        | 65                        | 6                    |    |
| 3DUBEH 011 060 S03 | 1.1                 | 6                         | 40                        | 3                    |    | 3DUBEH 061 310 S08 | 6.1                 | 31                        | 75                        | 8                    |    |
| 3DUBEH 012 060 S03 | 1.2                 | 6                         | 40                        | 3                    |    | 3DUBEH 062 310 S08 | 6.2                 | 31                        | 75                        | 8                    |    |
| 3DUBEH 013 080 S03 | 1.3                 | 8                         | 40                        | 3                    |    | 3DUBEH 063 310 S08 | 6.3                 | 31                        | 75                        | 8                    |    |
| 3DUBEH 014 080 S03 | 1.4                 | 8                         | 40                        | 3                    |    | 3DUBEH 064 310 S08 | 6.4                 | 31                        | 75                        | 8                    |    |
| 3DUBEH 015 080 S03 | 1.5                 | 8                         | 40                        | 3                    |    | 3DUBEH 065 310 S08 | 6.5                 | 31                        | 75                        | 8                    |    |
| 3DUBEH 016 100 S03 | 1.6                 | 10                        | 40                        | 3                    |    | 3DUBEH 066 330 S08 | 6.6                 | 33                        | 75                        | 8                    |    |
| 3DUBEH 017 100 S03 | 1.7                 | 10                        | 40                        | 3                    |    | 3DUBEH 067 330 S08 | 6.7                 | 33                        | 75                        | 8                    |    |
| 3DUBEH 018 100 S03 | 1.8                 | 10                        | 40                        | 3                    |    | 3DUBEH 068 330 S08 | 6.8                 | 33                        | 75                        | 8                    |    |
| 3DUBEH 019 100 S03 | 1.9                 | 10                        | 40                        | 3                    |    | 3DUBEH 069 330 S08 | 6.9                 | 33                        | 75                        | 8                    |    |
| 3DUBEH 020 120 S03 | 2                   | 12                        | 45                        | 3                    |    | 3DUBEH 070 330 S08 | 7                   | 33                        | 75                        | 8                    |    |
| 3DUBEH 021 120 S03 | 2.1                 | 12                        | 45                        | 3                    |    | 3DUBEH 071 330 S08 | 7.1                 | 33                        | 80                        | 8                    |    |
| 3DUBEH 022 120 S03 | 2.2                 | 12                        | 45                        | 3                    |    | 3DUBEH 072 330 S08 | 7.2                 | 33                        | 80                        | 8                    |    |
| 3DUBEH 023 120 S03 | 2.3                 | 12                        | 45                        | 3                    |    | 3DUBEH 073 330 S08 | 7.3                 | 33                        | 80                        | 8                    |    |
| 3DUBEH 024 120 S03 | 2.4                 | 12                        | 45                        | 3                    |    | 3DUBEH 074 330 S08 | 7.4                 | 33                        | 80                        | 8                    |    |
| 3DUBEH 025 130 S03 | 2.5                 | 13                        | 45                        | 3                    |    | 3DUBEH 075 330 S08 | 7.5                 | 33                        | 80                        | 8                    |    |
| 3DUBEH 026 130 S03 | 2.6                 | 13                        | 45                        | 3                    |    | 3DUBEH 076 360 S08 | 7.6                 | 36                        | 80                        | 8                    |    |
| 3DUBEH 027 130 S03 | 2.7                 | 13                        | 45                        | 3                    |    | 3DUBEH 077 360 S08 | 7.7                 | 36                        | 80                        | 8                    |    |
| 3DUBEH 028 130 S03 | 2.8                 | 13                        | 45                        | 3                    |    | 3DUBEH 078 360 S08 | 7.8                 | 36                        | 80                        | 8                    |    |
| 3DUBEH 029 130 S03 | 2.9                 | 13                        | 45                        | 3                    |    | 3DUBEH 079 360 S08 | 7.9                 | 36                        | 80                        | 8                    |    |
| 3DUBEH 030 130 S03 | 3                   | 13                        | 45                        | 3                    |    | 3DUBEH 080 360 S08 | 8                   | 36                        | 80                        | 8                    |    |
| 3DUBEH 031 190 S04 | 3.1                 | 19                        | 55                        | 4                    |    | 3DUBEH 081 360 S10 | 8.1                 | 36                        | 85                        | 10                   |    |
| 3DUBEH 032 190 S04 | 3.2                 | 19                        | 55                        | 4                    |    | 3DUBEH 082 360 S10 | 8.2                 | 36                        | 85                        | 10                   |    |
| 3DUBEH 033 190 S04 | 3.3                 | 19                        | 55                        | 4                    |    | 3DUBEH 083 360 S10 | 8.3                 | 36                        | 85                        | 10                   |    |
| 3DUBEH 034 190 S04 | 3.4                 | 19                        | 55                        | 4                    |    | 3DUBEH 084 360 S10 | 8.4                 | 36                        | 85                        | 10                   |    |
| 3DUBEH 035 190 S04 | 3.5                 | 19                        | 55                        | 4                    |    | 3DUBEH 085 360 S10 | 8.5                 | 36                        | 85                        | 10                   |    |
| 3DUBEH 036 210 S04 | 3.6                 | 21                        | 55                        | 4                    |    | 3DUBEH 086 380 S10 | 8.6                 | 38                        | 85                        | 10                   |    |
| 3DUBEH 037 210 S04 | 3.7                 | 21                        | 55                        | 4                    |    | 3DUBEH 087 380 S10 | 8.7                 | 38                        | 85                        | 10                   |    |
| 3DUBEH 038 210 S04 | 3.8                 | 21                        | 55                        | 4                    |    | 3DUBEH 088 380 S10 | 8.8                 | 38                        | 85                        | 10                   |    |
| 3DUBEH 039 210 S04 | 3.9                 | 21                        | 55                        | 4                    |    | 3DUBEH 089 380 S10 | 8.9                 | 38                        | 85                        | 10                   |    |
| 3DUBEH 040 210 S04 | 4                   | 21                        | 55                        | 4                    |    | 3DUBEH 090 380 S10 | 9                   | 38                        | 85                        | 10                   |    |
| 3DUBEH 041 230 S06 | 4.1                 | 23                        | 60                        | 6                    |    | 3DUBEH 091 380 S10 | 9.1                 | 38                        | 90                        | 10                   |    |
| 3DUBEH 042 230 S06 | 4.2                 | 23                        | 60                        | 6                    |    | 3DUBEH 092 380 S10 | 9.2                 | 38                        | 90                        | 10                   |    |
| 3DUBEH 043 230 S06 | 4.3                 | 23                        | 60                        | 6                    |    | 3DUBEH 093 380 S10 | 9.3                 | 38                        | 90                        | 10                   |    |
| 3DUBEH 044 230 S06 | 4.4                 | 23                        | 60                        | 6                    |    | 3DUBEH 094 380 S10 | 9.4                 | 38                        | 90                        | 10                   |    |
| 3DUBEH 045 230 S06 | 4.5                 | 23                        | 60                        | 6                    |    | 3DUBEH 095 380 S10 | 9.5                 | 38                        | 90                        | 10                   |    |
| 3DUBEH 046 250 S06 | 4.6                 | 25                        | 60                        | 6                    |    | 3DUBEH 096 410 S10 | 9.6                 | 41                        | 90                        | 10                   |    |
| 3DUBEH 047 250 S06 | 4.7                 | 25                        | 60                        | 6                    |    | 3DUBEH 097 410 S10 | 9.7                 | 41                        | 90                        | 10                   |    |
| 3DUBEH 048 250 S06 | 4.8                 | 25                        | 60                        | 6                    |    | 3DUBEH 098 410 S10 | 9.8                 | 41                        | 90                        | 10                   |    |
| 3DUBEH 049 250 S06 | 4.9                 | 25                        | 60                        | 6                    |    | 3DUBEH 099 410 S10 | 9.9                 | 41                        | 90                        | 10                   |    |
| 3DUBEH 050 250 S06 | 5                   | 25                        | 60                        | 6                    |    | 3DUBEH 100 410 S10 | 10                  | 41                        | 90                        | 10                   |    |
| 3DUBEH 051 250 S06 | 5.1                 | 25                        | 65                        | 6                    |    | 3DUBEH 101 410 S12 | 10.1                | 41                        | 95                        | 12                   |    |
| 3DUBEH 052 250 S06 | 5.2                 | 25                        | 65                        | 6                    |    | 3DUBEH 102 410 S12 | 10.2                | 41                        | 95                        | 12                   |    |
| 3DUBEH 053 250 S06 | 5.3                 | 25                        | 65                        | 6                    |    | 3DUBEH 103 410 S12 | 10.3                | 41                        | 95                        | 12                   |    |
| 3DUBEH 054 250 S06 | 5.4                 | 25                        | 65                        | 6                    |    | 3DUBEH 104 410 S12 | 10.4                | 41                        | 95                        | 12                   |    |
| 3DUBEH 055 250 S06 | 5.5                 | 25                        | 65                        | 6                    |    | 3DUBEH 105 410 S12 | 10.5                | 41                        | 95                        | 12                   |    |
| 3DUBEH 056 270 S06 | 5.6                 | 27                        | 65                        | 6                    |    | 3DUBEH 106 450 S12 | 10.6                | 45                        | 95                        | 12                   |    |
| 3DUBEH 057 270 S06 | 5.7                 | 27                        | 65                        | 6                    |    | 3DUBEH 107 450 S12 | 10.7                | 45                        | 95                        | 12                   |    |
| 3DUBEH 058 270 S06 | 5.8                 | 27                        | 65                        | 6                    |    | 3DUBEH 108 450 S12 | 10.8                | 45                        | 95                        | 12                   |    |
| 3DUBEH 059 270 S06 | 5.9                 | 27                        | 65                        | 6                    |    | 3DUBEH 109 450 S12 | 10.9                | 45                        | 95                        | 12                   |    |

