

# Power Max Drill

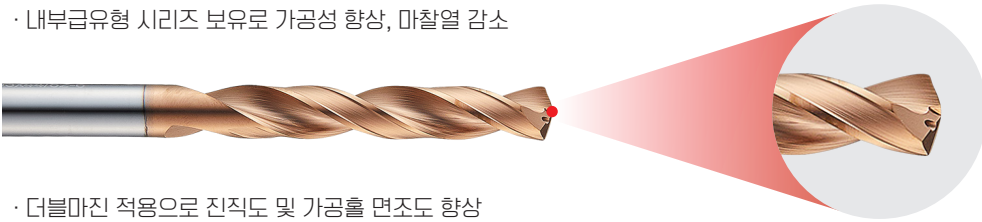
고속 가공용 파워 맥스 드릴

## 제품설명

- 합금강, 주철, 스테인리스강, 프리하트강 등 피삭재(추천 : ~ HRC 50)의 고속 가공에 적합
- 3D ~ 20D까지 다양한 제원의 제품군 보유로 광범위한 가공 프로세스 대응

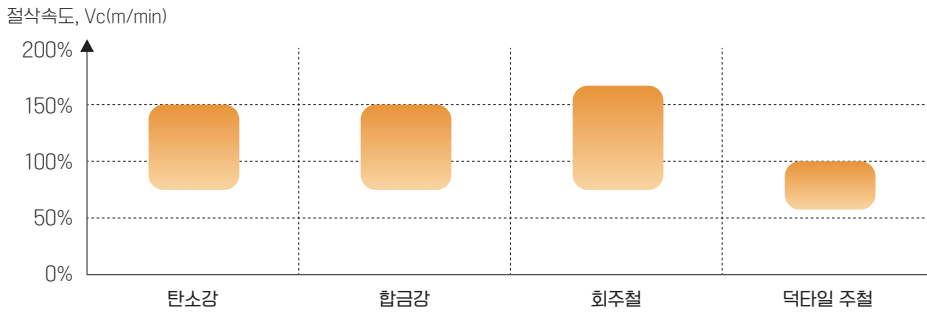
## 제품특징

- 고인성 소재 사용으로 고속, 고이송 가공 시 높은 내치핑성
- AlTiN계 코팅 적용으로 표면경도 및 내열성 강화
- 내부급유형 시리즈 보유로 가공성 향상, 마찰열 감소

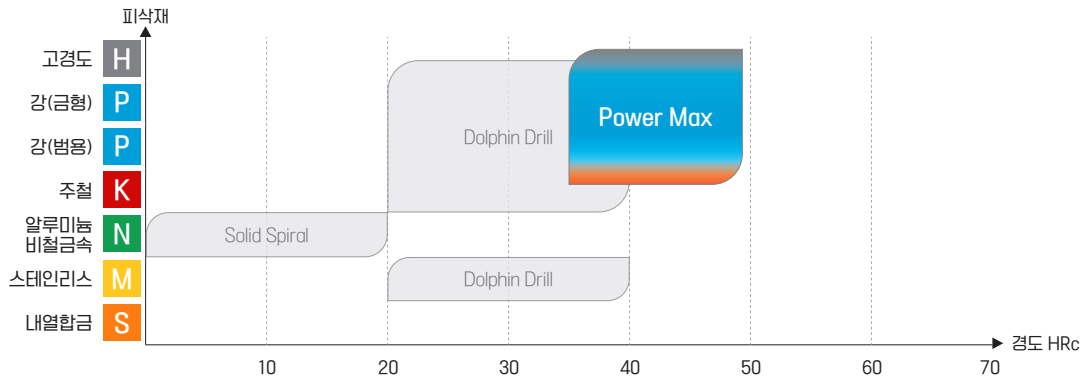


- 더블마진 적용으로 진직도 및 가공률 면조도 향상
- 넓고 깊은 칩 포켓으로 칩 배출력 향상
- 가공 깊이에 따라 내부 / 외부급유 타입의 드릴을 선정할 수 있도록 가공효율과 범용성 증대













## 적용영역별 절삭속도



## 적용영역



## 목차

| 품목코드<br>단위<br>(INCH : ■ / METRIC : □) | 날수 | 사진  | 길이 |    |    |     |     | 급유<br>타입 | 마진     | 날부<br>공차 | 재원(Ø) |    | 페이지 |
|---------------------------------------|----|---|----|----|----|-----|-----|----------|--------|----------|-------|----|-----|
|                                       |    |   | 3D | 5D | 8D | 10D | 12D |          |        |          | 최소    | 최대 |     |
| PF503 ■ □                             | 2날 |    | ○  |    |    |     |     | 외부       | Single | h8       | 2     | 20 | 454 |
| PF505 ■ □                             |    |    |    | ○  |    |     |     | 외부       | Single | h8       | 3     | 20 | 458 |
| SF503 ■ □                             |    |    | ○  |    |    |     |     | 내부       | Single | h8       | 3     | 20 | 461 |
| SF505 ■ □                             |    |    |    | ○  |    |     |     | 내부       | Single | h8       | 3     | 20 | 464 |
| SF508 ■ □                             |    |    |    |    | ○  |     |     | 내부       | Single | h8       | 3     | 20 | 467 |
| SF510 ■ □                             |    |    |    |    |    | ○   |     | 내부       | Double | h8       | 3     | 13 | 470 |
| SF520 ■ □                             |    |    |    |    |    |     | ○   | 내부       | Double | h8       | 4.1   | 10 | 472 |
| HP503 ■ □                             |    |    | ○  |    |    |     |     | 외부       | Double | m7       | 3     | 16 | 474 |
| HPI503 ■ □                            |    |    | ○  |    |    |     |     | 내부       | Double | m7       | 3     | 20 | 476 |
| HPI505 ■ □                            |    |    |    | ○  |    |     |     | 내부       | Double | m7       | 3     | 20 | 479 |
| HPI508-N ■ □                          |    |    |    |    | ○  |     |     | 내부       | Double | m7       | 3     | 20 | 483 |
| P503A(F) ■ □                          |    |   | ○  |    |    |     |     | 외부       | Single | m7       | 3     | 20 | 486 |
| P505A(F) ■ □                          |    |  |    | ○  |    |     |     | 외부       | Single | m7       | 3     | 20 | 489 |

## 품번체계

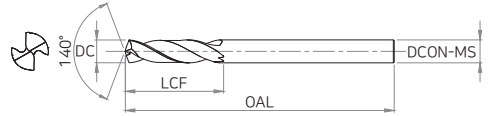
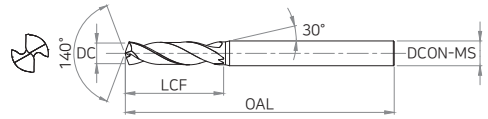
\*정수로 표현되는 경우 소수점 이하는 생략합니다.



| ① 분류                | ② 형상       | ③ 등급      | ④ 가공깊이   | ⑤ 자루타입          | ⑥ 날경 (Ø) |
|---------------------|------------|-----------|----------|-----------------|----------|
| P : Power Max       | F : 측면 포인트 | 5 : Grade | 03 : 3D  | A : Plane       | Ø3       |
| S : Spiral Coolant  | I : 내부 급유  |           | 05 : 5D  | F : DIN 6535 HE | ~        |
| HP : High Precision |            |           | 08 : 8D  |                 |          |
|                     |            |           | 10 : 10D |                 |          |
|                     |            |           | 20 : 20D |                 |          |

# PF503 고속가공용 드릴 - 3D

Drill



▶ 제품허용공차

| 날경(DC)      |            | 자루경 |
|-------------|------------|-----|
| ~ Ø3        | 0 ~ -0.014 |     |
| Ø3.1 ~ Ø6   | 0 ~ -0.018 |     |
| Ø6.1 ~ D10  | 0 ~ -0.022 |     |
| Ø10.1 ~ Ø18 | 0 ~ -0.027 |     |
| Ø18.1 ~     | 0 ~ -0.033 |     |

h6



| 품목코드        | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 | 품목코드        | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 |
|-------------|--------|----------|-------|-----------|-----------|---------------|-------------|--------|----------|-------|-----------|-----------|---------------|
|             | mm     | fraction | inch  |           |           |               |             | mm     | fraction | inch  |           |           |               |
| PF503 020   | 2      | -        | .0787 | 14        | 50        | 3             | PF503 037   | 3.7    | -        | .1457 | 22        | 60        | 4             |
| PF503 021   | 2.1    | -        | .0827 | 14        | 50        | 3             | PF503 038   | 3.8    | -        | .1496 | 24        | 60        | 4             |
| PF503 022   | 2.2    | -        | .0866 | 14        | 50        | 3             | PF503 039   | 3.9    | -        | .1535 | 24        | 60        | 4             |
| PF503 023   | 2.3    | -        | .0906 | 14        | 50        | 3             | PF503 040   | 4      | -        | .1575 | 24        | 60        | 4             |
| PF503 024   | 2.4    | -        | .0945 | 14        | 50        | 3             | PF503 04039 | 4.039  | -        | .1590 | 24        | 60        | 4             |
| PF503 025   | 2.5    | -        | .0984 | 14        | 50        | 3             | PF503 041   | 4.1    | -        | .1614 | 24        | 60        | 4             |
| PF503 026   | 2.6    | -        | .1024 | 14        | 50        | 3             | PF503 042   | 4.2    | -        | .1654 | 26        | 62        | 5             |
| PF503 027   | 2.7    | -        | .1063 | 14        | 50        | 3             | PF503 043   | 4.3    | -        | .1693 | 26        | 62        | 5             |
| PF503 028   | 2.8    | -        | .1102 | 14        | 50        | 3             | PF503 044   | 4.4    | -        | .1732 | 26        | 62        | 5             |
| PF503 029   | 2.9    | -        | .1142 | 14        | 50        | 3             | PF503 045   | 4.5    | -        | .1772 | 26        | 62        | 5             |
| PF503 030   | 3      | -        | .1181 | 18        | 60        | 3             | PF503 046   | 4.6    | -        | .1811 | 26        | 62        | 5             |
| PF503 031   | 3.1    | -        | .1220 | 20        | 60        | 4             | PF503 047   | 4.7    | -        | .1850 | 26        | 62        | 5             |
| PF503 03175 | 3.175  | 1/8      | .1250 | 20        | 60        | 4             | PF503 04763 | 4.763  | 3/16     | .1875 | 26        | 62        | 5             |
| PF503 032   | 3.2    | -        | .1260 | 20        | 60        | 4             | PF503 048   | 4.8    | -        | .1890 | 26        | 62        | 5             |
| PF503 03264 | 3.264  | -        | .1285 | 20        | 60        | 4             | PF503 049   | 4.9    | -        | .1920 | 26        | 62        | 5             |
| PF503 033   | 3.3    | -        | .1299 | 20        | 60        | 4             | PF503 050   | 5      | -        | .1969 | 26        | 62        | 5             |
| PF503 034   | 3.4    | -        | .1339 | 22        | 60        | 4             | PF503 051   | 5.1    | -        | .2008 | 26        | 62        | 5             |
| PF503 035   | 3.5    | -        | .1378 | 22        | 60        | 4             | PF503 05159 | 5.159  | 13/64    | .2031 | 28        | 66        | 6             |
| PF503 03572 | 3.572  | 9/64     | .1406 | 22        | 60        | 4             | PF503 052   | 5.2    | -        | .2047 | 28        | 66        | 6             |
| PF503 036   | 3.6    | -        | .1417 | 22        | 60        | 4             | PF503 053   | 5.3    | -        | .2087 | 28        | 66        | 6             |

▶ 적용 피삭재

○ : 적함 ◎ : 매우 적함

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# PF503 고속가공용 드릴 -3D

Drill

| 품목코드        | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 | 품목코드        | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 |
|-------------|--------|----------|-------|-----------|-----------|---------------|-------------|--------|----------|-------|-----------|-----------|---------------|
|             | mm     | fraction | inch  |           |           |               |             | mm     | fraction | inch  |           |           |               |
| PF503 054   | 5.4    | -        | .2126 | 28        | 66        | 6             | PF503 081   | 8.1    | -        | .3189 | 40        | 79        | 8             |
| PF503 055   | 5.5    | -        | .2165 | 28        | 66        | 6             | PF503 082   | 8.2    | -        | .3228 | 43        | 84        | 9             |
| PF503 05558 | 5.558  | 7/32     | .2188 | 30        | 66        | 6             | PF503 083   | 8.3    | -        | .3268 | 43        | 84        | 9             |
| PF503 056   | 5.6    | -        | .2205 | 30        | 66        | 6             | PF503 08334 | 8.334  | 21/64    | .3281 | 43        | 84        | 9             |
| PF503 057   | 5.7    | -        | .2244 | 30        | 66        | 6             | PF503 084   | 8.4    | -        | .3307 | 43        | 84        | 9             |
| PF503 058   | 5.8    | -        | .2283 | 30        | 66        | 6             | PF503 085   | 8.5    | -        | .3320 | 43        | 84        | 9             |
| PF503 059   | 5.9    | -        | .2323 | 30        | 66        | 6             | PF503 086   | 8.6    | -        | .3346 | 43        | 84        | 9             |
| PF503 05953 | 5.953  | 15/64    | .2344 | 30        | 66        | 6             | PF503 087   | 8.7    | -        | .3386 | 43        | 84        | 9             |
| PF503 060   | 6      | -        | .2362 | 30        | 66        | 6             | PF503 08733 | 8.733  | -        | .3425 | 43        | 84        | 9             |
| PF503 061   | 6.1    | -        | .2402 | 30        | 66        | 6             | PF503 088   | 8.8    | -        | .3438 | 43        | 84        | 9             |
| PF503 062   | 6.2    | -        | .2441 | 34        | 74        | 7             | PF503 089   | 8.9    | -        | .3465 | 43        | 84        | 9             |
| PF503 063   | 6.3    | -        | .2480 | 34        | 74        | 7             | PF503 090   | 9      | -        | .3504 | 43        | 84        | 9             |
| PF503 0635  | 6.35   | 1/4      | .2500 | 34        | 74        | 7             | PF503 091   | 9.1    | -        | .3543 | 43        | 84        | 9             |
| PF503 064   | 6.4    | -        | .2520 | 34        | 74        | 7             | PF503 09129 | 9.129  | 23/64    | .3594 | 47        | 89        | 10            |
| PF503 065   | 6.5    | -        | .2559 | 34        | 74        | 7             | PF503 092   | 9.2    | -        | .3622 | 47        | 89        | 10            |
| PF503 066   | 6.6    | -        | .2598 | 34        | 74        | 7             | PF503 093   | 9.3    | -        | .3661 | 47        | 89        | 10            |
| PF503 067   | 6.7    | -        | .2638 | 37        | 74        | 7             | PF503 09347 | 9.347  | -        | .3680 | 47        | 89        | 10            |
| PF503 06747 | 6.747  | 17/64    | .2656 | 37        | 74        | 7             | PF503 094   | 9.4    | -        | .3701 | 47        | 89        | 10            |
| PF503 068   | 6.8    | -        | .2677 | 37        | 74        | 7             | PF503 095   | 9.5    | -        | .3740 | 47        | 89        | 10            |
| PF503 069   | 6.9    | -        | .2717 | 37        | 74        | 7             | PF503 09525 | 9.525  | 3/8      | .3750 | 47        | 89        | 10            |
| PF503 070   | 7      | -        | .2756 | 37        | 74        | 7             | PF503 096   | 9.6    | -        | .3780 | 47        | 89        | 10            |
| PF503 071   | 7.1    | -        | .2795 | 37        | 74        | 7             | PF503 097   | 9.7    | -        | .3819 | 47        | 89        | 10            |
| PF503 07145 | 7.145  | 9/32     | .2813 | 40        | 79        | 8             | PF503 098   | 9.8    | -        | .3858 | 47        | 89        | 10            |
| PF503 072   | 7.2    | -        | .2835 | 40        | 79        | 8             | PF503 099   | 9.9    | -        | .3898 | 47        | 89        | 10            |
| PF503 073   | 7.3    | -        | .2874 | 40        | 79        | 8             | PF503 09921 | 9.921  | 25/64    | .3906 | 47        | 89        | 10            |
| PF503 074   | 7.4    | -        | .2913 | 40        | 79        | 8             | PF503 100   | 10     | -        | .3937 | 47        | 89        | 10            |
| PF503 075   | 7.5    | -        | .2953 | 40        | 79        | 8             | PF503 101   | 10.1   | -        | .3976 | 47        | 89        | 10            |
| PF503 07541 | 7.541  | 19/64    | .2969 | 40        | 79        | 8             | PF503 102   | 10.2   | -        | .4016 | 51        | 95        | 11            |
| PF503 076   | 7.6    | -        | .2992 | 40        | 79        | 8             | PF503 103   | 10.3   | -        | .4055 | 51        | 95        | 11            |
| PF503 077   | 7.7    | -        | .3031 | 40        | 79        | 8             | PF503 1032  | 10.32  | 13/32    | .4063 | 51        | 95        | 11            |
| PF503 078   | 7.8    | -        | .3071 | 40        | 79        | 8             | PF503 104   | 10.4   | -        | .4094 | 51        | 95        | 11            |
| PF503 079   | 7.9    | -        | .3110 | 40        | 79        | 8             | PF503 105   | 10.5   | -        | .4134 | 51        | 95        | 11            |
| PF503 07938 | 7.938  | 5/16     | .3125 | 40        | 79        | 8             | PF503 106   | 10.6   | -        | .4173 | 51        | 95        | 11            |
| PF503 080   | 8      | -        | .3150 | 40        | 79        | 8             | PF503 107   | 10.7   | -        | .4213 | 51        | 95        | 11            |

Dolphin Drill

Dolphin Oil-Hole Drill

Power Max

Solid Spiral

▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# PF503 고속가공용 드릴 - 3D

Drill

| 품목코드        | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 | 품목코드        | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 |
|-------------|--------|----------|-------|-----------|-----------|---------------|-------------|--------|----------|-------|-----------|-----------|---------------|
|             | mm     | fraction | inch  |           |           |               |             | mm     | fraction | inch  |           |           |               |
| PF503 10716 | 10.716 | 27/64    | .4219 | 51        | 95        | 11            | PF503 136   | 13.6   | -        | .5354 | 60        | 107       | 14            |
| PF503 108   | 10.8   | -        | .4252 | 51        | 95        | 11            | PF503 137   | 13.7   | -        | .5394 | 60        | 107       | 14            |
| PF503 109   | 10.9   | -        | .4291 | 51        | 95        | 11            | PF503 138   | 13.8   | -        | .5433 | 60        | 107       | 14            |
| PF503 110   | 11     | -        | .4331 | 51        | 95        | 11            | PF503 13891 | 13.891 | 35/64    | .5469 | 60        | 107       | 14            |
| PF503 111   | 11.1   | -        | .4370 | 51        | 95        | 11            | PF503 139   | 13.9   | -        | .5472 | 60        | 107       | 14            |
| PF503 11113 | 11.113 | 7/16     | .4375 | 54        | 102       | 12            | PF503 140   | 14     | -        | .5512 | 60        | 107       | 14            |
| PF503 112   | 11.2   | -        | .4409 | 54        | 102       | 12            | PF503 141   | 14.1   | -        | .5551 | 60        | 107       | 14            |
| PF503 113   | 11.3   | -        | .4449 | 54        | 102       | 12            | PF503 142   | 14.2   | -        | .5591 | 62        | 111       | 15            |
| PF503 114   | 11.4   | -        | .4488 | 54        | 102       | 12            | PF503 14288 | 14.288 | 9/16     | .5625 | 62        | 111       | 15            |
| PF503 115   | 11.5   | -        | .4528 | 54        | 102       | 12            | PF503 143   | 14.3   | -        | .5630 | 62        | 111       | 15            |
| PF503 116   | 11.6   | -        | .4531 | 54        | 102       | 12            | PF503 144   | 14.4   | -        | .5669 | 62        | 111       | 15            |
| PF503 117   | 11.7   | -        | .4567 | 54        | 102       | 12            | PF503 145   | 14.5   | -        | .5709 | 62        | 111       | 15            |
| PF503 118   | 11.8   | -        | .4606 | 54        | 102       | 12            | PF503 146   | 14.6   | -        | .5748 | 62        | 111       | 15            |
| PF503 119   | 11.9   | 15/32    | .4646 | 54        | 102       | 12            | PF503 147   | 14.7   | -        | .5787 | 62        | 111       | 15            |
| PF503 11908 | 11.908 | -        | .4685 | 54        | 102       | 12            | PF503 148   | 14.8   | -        | .5827 | 62        | 111       | 15            |
| PF503 120   | 12     | -        | .4688 | 54        | 102       | 12            | PF503 149   | 14.9   | -        | .5866 | 62        | 111       | 15            |
| PF503 121   | 12.1   | -        | .4724 | 54        | 102       | 12            | PF503 150   | 15     | -        | .5906 | 62        | 111       | 15            |
| PF503 122   | 12.2   | -        | .4803 | 57        | 102       | 13            | PF503 15081 | 15.081 | 19/32    | .5937 | 62        | 111       | 15            |
| PF503 123   | 12.3   | -        | .4843 | 57        | 102       | 13            | PF503 151   | 15.1   | -        | .5945 | 62        | 111       | 15            |
| PF503 12304 | 12.304 | 31/64    | .4844 | 57        | 102       | 13            | PF503 152   | 15.2   | -        | .5984 | 64        | 115       | 16            |
| PF503 124   | 12.4   | -        | .4882 | 57        | 102       | 13            | PF503 153   | 15.3   | -        | .6063 | 64        | 115       | 16            |
| PF503 125   | 12.5   | -        | .4921 | 57        | 102       | 13            | PF503 154   | 15.4   | -        | .6102 | 64        | 115       | 16            |
| PF503 126   | 12.6   | -        | .4961 | 57        | 102       | 13            | PF503 155   | 15.5   | -        | .6142 | 64        | 115       | 16            |
| PF503 127   | 12.7   | -        | .5000 | 57        | 102       | 13            | PF503 156   | 15.6   | -        | .6181 | 64        | 115       | 16            |
| PF503 128   | 12.8   | -        | .5039 | 57        | 102       | 13            | PF503 157   | 15.7   | -        | .6220 | 64        | 115       | 16            |
| PF503 129   | 12.9   | -        | .5079 | 57        | 102       | 13            | PF503 158   | 15.8   | -        | .6250 | 64        | 115       | 16            |
| PF503 130   | 13     | -        | .5118 | 57        | 102       | 13            | PF503 15875 | 15.875 | 5/8      | .6299 | 64        | 115       | 16            |
| PF503 13096 | 13.096 | 33/64    | .5156 | 57        | 102       | 13            | PF503 160   | 16     | -        | .6339 | 64        | 115       | 16            |
| PF503 131   | 13.1   | -        | .5157 | 57        | 102       | 13            | PF503 161   | 16.1   | -        | .3071 | 64        | 115       | 16            |
| PF503 132   | 13.2   | -        | .5197 | 60        | 107       | 14            | PF503 163   | 16.3   | -        | .6417 | 66        | 119       | 17            |
| PF503 133   | 13.3   | -        | .5236 | 60        | 107       | 14            | PF503 165   | 16.5   | -        | .6496 | 66        | 119       | 17            |
| PF503 134   | 13.4   | -        | .5276 | 60        | 107       | 14            | PF503 16667 | 16.667 | 21/32    | .6562 | 66        | 119       | 17            |
| PF503 13494 | 13.494 | 17/32    | .5313 | 60        | 107       | 14            | PF503 170   | 17     | -        | .6693 | 66        | 119       | 17            |
| PF503 135   | 13.5   | -        | .5315 | 60        | 107       | 14            | PF503 171   | 17.1   | -        | .6732 | 66        | 119       | 17            |

▶ 적용 피삭재

○ : 적함 ◎ : 매우 적함

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# PF503

고속가공용 드릴 - 3D

| 품목코드        | DC(날경) |          |       | LCF | OAL | DCONMS | 품목코드      | DC(날경) |    |       | LCF | OAL | DCONMS |
|-------------|--------|----------|-------|-----|-----|--------|-----------|--------|----|-------|-----|-----|--------|
|             | mm     | fraction | inch  |     |     |        |           | 날장     | 전장 | 자루경   |     |     |        |
| PF503 172   | 17.2   | -        | .6772 | 66  | 123 | 18     | PF503 182 | 18.2   | -  | .7165 | 70  | 127 | 19     |
| PF503 17463 | 17.463 | 11/16    | .6772 | 66  | 123 | 18     | PF503 185 | 18.5   | -  | .7283 | 70  | 127 | 19     |
| PF503 175   | 17.5   | -        | .6875 | 66  | 123 | 18     | PF503 190 | 19     | -  | .7480 | 70  | 127 | 19     |
| PF503 177   | 17.7   | -        | .6890 | 66  | 123 | 18     | PF503 191 | 19.1   | -  | .7520 | 70  | 127 | 19     |
| PF503 178   | 17.8   | -        | .6969 | 66  | 123 | 18     | PF503 195 | 19.5   | -  | .7677 | 70  | 131 | 20     |
| PF503 180   | 18     | -        | .7008 | 66  | 123 | 18     | PF503 197 | 19.7   | -  | .7756 | 70  | 131 | 20     |
| PF503 181   | 18.1   | -        | .7087 | 66  | 123 | 18     | PF503 200 | 20     | -  | .7874 | 70  | 131 | 20     |

Drill

Dolphin Drill

Dolphin Oil-Hole Drill

Power Max

Solid Spiral

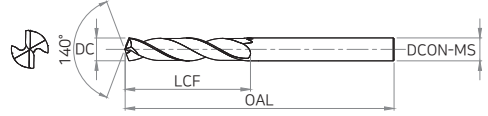
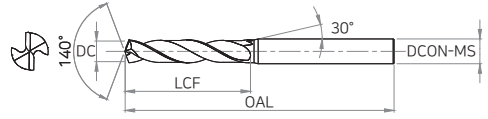
▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하트강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# PF505 고속가공용 드릴 - 5D

Drill



▶ 제품허용공차

| 날경(DC)      |            | 자루경 |
|-------------|------------|-----|
| ~ Ø3        | 0 ~ -0.014 |     |
| Ø3.1 ~ Ø6   | 0 ~ -0.018 |     |
| Ø6.1 ~ Ø10  | 0 ~ -0.022 |     |
| Ø10.1 ~ Ø18 | 0 ~ -0.027 |     |
| Ø18.1 ~     | 0 ~ -0.033 |     |

h6

CARBIDE
AlTiN
5D
30° HELIX
140°
절삭조건 P.743

| 품목코드        | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 |
|-------------|--------|----------|-------|-----------|-----------|---------------|
|             | mm     | fraction | inch  |           |           |               |
| PF505 030   | 3      | -        | .1181 | 25        | 60        | 3             |
| PF505 031   | 3.1    | -        | .122  | 27        | 60        | 4             |
| PF505 03175 | 3.175  | 1/8      | .125  | 27        | 60        | 4             |
| PF505 032   | 3.2    | -        | .126  | 27        | 60        | 4             |
| PF505 03264 | 3.264  | #30      | .1285 | 27        | 60        | 4             |
| PF505 033   | 3.3    | -        | .1299 | 27        | 60        | 4             |
| PF505 034   | 3.4    | -        | .1339 | 30        | 65        | 4             |
| PF505 035   | 3.5    | -        | .1378 | 30        | 65        | 4             |
| PF505 03572 | 3.572  | 9/64     | .1406 | 30        | 65        | 4             |
| PF505 036   | 3.6    | -        | .1417 | 30        | 65        | 4             |
| PF505 037   | 3.7    | -        | .1457 | 30        | 65        | 4             |
| PF505 038   | 3.8    | -        | .1496 | 33        | 71        | 4             |
| PF505 039   | 3.9    | -        | .1535 | 33        | 71        | 4             |
| PF505 040   | 4      | -        | .1575 | 33        | 71        | 4             |
| PF505 04039 | 4.039  | #21      | .1575 | 33        | 71        | 5             |
| PF505 041   | 4.1    | -        | .159  | 33        | 71        | 5             |
| PF505 042   | 4.2    | -        | .1614 | 33        | 71        | 5             |
| PF505 043   | 4.3    | -        | .1654 | 36        | 71        | 5             |
| PF505 044   | 4.4    | -        | .1693 | 36        | 71        | 5             |
| PF505 045   | 4.5    | -        | .1732 | 36        | 71        | 5             |

| 품목코드        | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 |
|-------------|--------|----------|-------|-----------|-----------|---------------|
|             | mm     | fraction | inch  |           |           |               |
| PF505 046   | 4.6    | -        | .1772 | 36        | 71        | 5             |
| PF505 047   | 4.7    | -        | .1811 | 36        | 71        | 5             |
| PF505 04763 | 4.763  | 3/16     | .185  | 39        | 71        | 5             |
| PF505 048   | 4.8    | -        | .1875 | 39        | 71        | 5             |
| PF505 049   | 4.9    | -        | .189  | 39        | 71        | 5             |
| PF505 050   | 5      | -        | .192  | 39        | 71        | 5             |
| PF505 051   | 5.1    | -        | .2008 | 39        | 83        | 6             |
| PF505 05159 | 5.159  | 13/64    | .2031 | 39        | 83        | 6             |
| PF505 052   | 5.2    | -        | .2047 | 39        | 83        | 6             |
| PF505 053   | 5.3    | -        | .2087 | 39        | 83        | 6             |
| PF505 054   | 5.4    | -        | .2126 | 43        | 83        | 6             |
| PF505 055   | 5.5    | -        | .2165 | 43        | 83        | 6             |
| PF505 05558 | 5.558  | 7/32     | .2188 | 43        | 83        | 6             |
| PF505 056   | 5.6    | -        | .2205 | 43        | 83        | 6             |
| PF505 057   | 5.7    | -        | .2244 | 43        | 83        | 6             |
| PF505 058   | 5.8    | -        | .2283 | 43        | 83        | 6             |
| PF505 059   | 5.9    | -        | .2323 | 43        | 83        | 6             |
| PF505 05953 | 5.953  | 15/64    | .2344 | 43        | 83        | 6             |
| PF505 060   | 6      | -        | .2362 | 43        | 83        | 6             |
| PF505 061   | 6.1    | -        | .2402 | 47        | 87        | 7             |

▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# PF505 고속가공용 드릴 - 5D

Drill

| 품목코드        | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 | 품목코드        | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 |
|-------------|--------|----------|-------|-----------|-----------|---------------|-------------|--------|----------|-------|-----------|-----------|---------------|
|             | mm     | fraction | inch  |           |           |               |             | mm     | fraction | inch  |           |           |               |
| PF505 062   | 6.2    | -        | .2441 | 47        | 87        | 7             | PF505 089   | 8.9    | -        | .3504 | 56        | 96        | 9             |
| PF505 063   | 6.3    | -        | .248  | 47        | 87        | 7             | PF505 090   | 9      | -        | .3543 | 56        | 96        | 9             |
| PF505 065   | 6.35   | 1/4      | .25   | 47        | 87        | 7             | PF505 091   | 9.1    | -        | .3583 | 62        | 105       | 10            |
| PF505 064   | 6.4    | -        | .252  | 47        | 87        | 7             | PF505 09129 | 9.129  | 23/64    | .3594 | 62        | 105       | 10            |
| PF505 065   | 6.5    | -        | .2559 | 47        | 87        | 7             | PF505 092   | 9.2    | -        | .3622 | 62        | 105       | 10            |
| PF505 066   | 6.6    | -        | .2598 | 47        | 87        | 7             | PF505 093   | 9.3    | -        | .3661 | 62        | 105       | 10            |
| PF505 067   | 6.7    | -        | .2638 | 47        | 87        | 7             | PF505 094   | 9.4    | -        | .3701 | 62        | 105       | 10            |
| PF505 06747 | 6.747  | 17/64    | .2656 | 47        | 87        | 7             | PF505 095   | 9.5    | -        | .374  | 62        | 105       | 10            |
| PF505 068   | 6.8    | -        | .2677 | 47        | 87        | 7             | PF505 09525 | 9.525  | 3/8      | .375  | 62        | 105       | 10            |
| PF505 069   | 6.9    | -        | .2717 | 47        | 87        | 7             | PF505 096   | 9.6    | -        | .378  | 62        | 105       | 10            |
| PF505 070   | 7      | -        | .2756 | 47        | 87        | 7             | PF505 097   | 9.7    | -        | .3819 | 62        | 105       | 10            |
| PF505 071   | 7.1    | -        | .2795 | 52        | 92        | 8             | PF505 098   | 9.8    | -        | .3858 | 62        | 105       | 10            |
| PF505 07145 | 7.145  | 9/32     | .2813 | 52        | 92        | 8             | PF505 099   | 9.9    | -        | .3898 | 62        | 105       | 10            |
| PF505 072   | 7.2    | -        | .2835 | 52        | 92        | 8             | PF505 09921 | 9.921  | 25/64    | .3906 | 62        | 105       | 10            |
| PF505 073   | 7.3    | -        | .2874 | 52        | 92        | 8             | PF505 100   | 10     | -        | .3937 | 62        | 105       | 10            |
| PF505 074   | 7.4    | -        | .2913 | 52        | 92        | 8             | PF505 101   | 10.1   | -        | .3976 | 68        | 115       | 11            |
| PF505 075   | 7.5    | -        | .2953 | 52        | 92        | 8             | PF505 102   | 10.2   | -        | .4016 | 68        | 115       | 11            |
| PF505 07541 | 7.541  | 19/64    | .2969 | 52        | 92        | 8             | PF505 103   | 10.3   | -        | .4055 | 68        | 115       | 11            |
| PF505 076   | 7.6    | -        | .2992 | 52        | 92        | 8             | PF505 1032  | 10.32  | 13/32    | .4063 | 68        | 115       | 11            |
| PF505 077   | 7.7    | -        | .3031 | 52        | 92        | 8             | PF505 104   | 10.4   | -        | .4094 | 68        | 115       | 11            |
| PF505 078   | 7.8    | -        | .3071 | 52        | 92        | 8             | PF505 105   | 10.5   | -        | .4134 | 68        | 115       | 11            |
| PF505 079   | 7.9    | -        | .311  | 52        | 92        | 8             | PF505 106   | 10.6   | -        | .4173 | 68        | 115       | 11            |
| PF505 07938 | 7.938  | 5/16     | .3125 | 52        | 92        | 8             | PF505 107   | 10.7   | -        | .4213 | 68        | 115       | 11            |
| PF505 080   | 8      | -        | .315  | 52        | 92        | 8             | PF505 10716 | 10.716 | 27/64    | .4219 | 68        | 115       | 11            |
| PF505 081   | 8.1    | -        | .3189 | 56        | 96        | 9             | PF505 108   | 10.8   | -        | .4252 | 68        | 115       | 11            |
| PF505 082   | 8.2    | -        | .3228 | 56        | 96        | 9             | PF505 109   | 10.9   | -        | .4291 | 68        | 115       | 11            |
| PF505 083   | 8.3    | -        | .3268 | 56        | 96        | 9             | PF505 110   | 11     | -        | .4331 | 68        | 115       | 11            |
| PF505 08334 | 8.334  | 21/64    | .3281 | 56        | 96        | 9             | PF505 111   | 11.1   | -        | .437  | 71        | 121       | 12            |
| PF505 084   | 8.4    | -        | .3307 | 56        | 96        | 9             | PF505 11113 | 11.113 | 7/16     | .4375 | 71        | 121       | 12            |
| PF505 085   | 8.5    | -        | .3346 | 56        | 96        | 9             | PF505 112   | 11.2   | -        | .4409 | 71        | 121       | 12            |
| PF505 086   | 8.6    | -        | .3386 | 56        | 96        | 9             | PF505 113   | 11.3   | -        | .4449 | 71        | 121       | 12            |
| PF505 087   | 8.7    | -        | .3425 | 56        | 96        | 9             | PF505 114   | 11.4   | -        | .4488 | 71        | 121       | 12            |
| PF505 08733 | 8.733  | 11/32    | .3438 | 56        | 96        | 9             | PF505 115   | 11.5   | -        | .4528 | 71        | 121       | 12            |
| PF505 088   | 8.8    | -        | .3465 | 56        | 96        | 9             | PF505 116   | 11.6   | -        | .4567 | 71        | 121       | 12            |

Dolphin Drill

Dolphin Oil-Hole Drill

Power Max

Solid Spiral

▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# PF505 고속가공용 드릴 - 5D

Drill

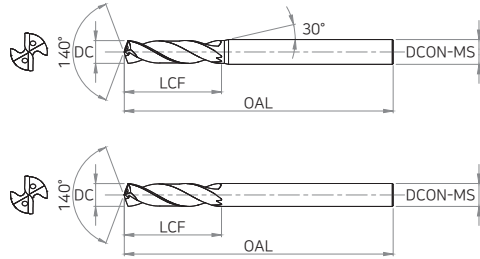
| 품목코드        | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 | 품목코드        | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 |
|-------------|--------|----------|-------|-----------|-----------|---------------|-------------|--------|----------|-------|-----------|-----------|---------------|
|             | mm     | fraction | inch  |           |           |               |             | mm     | fraction | inch  |           |           |               |
| PF505 117   | 11.7   | -        | .4606 | 71        | 121       | 12            | PF505 146   | 14.6   | -        | .5748 | 83        | 143       | 15            |
| PF505 118   | 11.8   | -        | .4646 | 71        | 121       | 12            | PF505 147   | 14.7   | -        | .5787 | 83        | 143       | 15            |
| PF505 119   | 11.9   | -        | .4685 | 71        | 121       | 12            | PF505 148   | 14.8   | -        | .5827 | 83        | 143       | 15            |
| PF505 11908 | 11.908 | 15/32    | .4688 | 71        | 121       | 12            | PF505 149   | 14.9   | -        | .5866 | 83        | 143       | 15            |
| PF505 120   | 12     | -        | .4724 | 71        | 121       | 12            | PF505 150   | 15     | -        | .5906 | 83        | 143       | 15            |
| PF505 121   | 12.1   | -        | .4764 | 75        | 125       | 13            | PF505 15081 | 15.081 | 19/32    | .5937 | 90        | 152       | 16            |
| PF505 122   | 12.2   | -        | .4803 | 75        | 125       | 13            | PF505 151   | 15.1   | -        | .5945 | 90        | 152       | 16            |
| PF505 123   | 12.3   | -        | .4843 | 75        | 125       | 13            | PF505 152   | 15.2   | -        | .5984 | 90        | 152       | 16            |
| PF505 12304 | 12.304 | 31/64    | .4844 | 75        | 125       | 13            | PF505 154   | 15.4   | -        | .6063 | 90        | 152       | 16            |
| PF505 124   | 12.4   | -        | .4882 | 75        | 125       | 13            | PF505 155   | 15.5   | -        | .6102 | 90        | 152       | 16            |
| PF505 125   | 12.5   | -        | .4921 | 75        | 125       | 13            | PF505 156   | 15.6   | -        | .6142 | 90        | 152       | 16            |
| PF505 126   | 12.6   | -        | .4961 | 75        | 125       | 13            | PF505 157   | 15.7   | -        | .6181 | 90        | 152       | 16            |
| PF505 127   | 12.7   | -        | .5    | 75        | 125       | 13            | PF505 158   | 15.8   | -        | .622  | 90        | 152       | 16            |
| PF505 128   | 12.8   | -        | .5039 | 75        | 125       | 13            | PF505 15875 | 15.875 | 5/8      | .625  | 90        | 152       | 16            |
| PF505 129   | 12.9   | -        | .5079 | 75        | 125       | 13            | PF505 160   | 16     | -        | .6299 | 90        | 152       | 16            |
| PF505 130   | 13     | -        | .5118 | 75        | 125       | 13            | PF505 161   | 16.1   | -        | .6339 | 95        | 155       | 17            |
| PF505 13096 | 13.096 | 33/64    | .5156 | 80        | 134       | 14            | PF505 163   | 16.3   | -        | .6417 | 95        | 155       | 17            |
| PF505 131   | 13.1   | -        | .5157 | 80        | 134       | 14            | PF505 165   | 16.5   | -        | .6496 | 95        | 155       | 17            |
| PF505 132   | 13.2   | -        | .5197 | 80        | 134       | 14            | PF505 16667 | 16.667 | 21/32    | .6562 | 95        | 155       | 17            |
| PF505 133   | 13.3   | -        | .5236 | 80        | 134       | 14            | PF505 170   | 17     | -        | .6693 | 95        | 155       | 17            |
| PF505 134   | 13.4   | -        | .5276 | 80        | 134       | 14            | PF505 171   | 17.1   | -        | .6732 | 100       | 157       | 18            |
| PF505 13494 | 13.494 | 17/32    | .5313 | 80        | 134       | 14            | PF505 172   | 17.2   | -        | .6772 | 100       | 157       | 18            |
| PF505 135   | 13.5   | -        | .5315 | 80        | 134       | 14            | PF505 17463 | 17.463 | 11/16    | .6875 | 100       | 157       | 18            |
| PF505 136   | 13.6   | -        | .5354 | 80        | 134       | 14            | PF505 175   | 17.5   | -        | .689  | 100       | 157       | 18            |
| PF505 137   | 13.7   | -        | .5394 | 80        | 134       | 14            | PF505 177   | 17.7   | -        | .6969 | 100       | 157       | 18            |
| PF505 138   | 13.8   | -        | .5433 | 80        | 134       | 14            | PF505 178   | 17.8   | -        | .7008 | 100       | 157       | 18            |
| PF505 13891 | 13.891 | 35/64    | .5469 | 80        | 134       | 14            | PF505 180   | 18     | -        | .7087 | 100       | 157       | 18            |
| PF505 139   | 13.9   | -        | .5472 | 80        | 134       | 14            | PF505 181   | 18.1   | -        | .7126 | 105       | 160       | 19            |
| PF505 140   | 14     | -        | .5512 | 80        | 134       | 14            | PF505 182   | 18.2   | -        | .7165 | 105       | 160       | 19            |
| PF505 141   | 14.1   | -        | .5551 | 83        | 143       | 15            | PF505 185   | 18.5   | -        | .7283 | 105       | 160       | 19            |
| PF505 142   | 14.2   | -        | .5591 | 83        | 143       | 15            | PF505 190   | 19     | -        | .748  | 105       | 160       | 19            |
| PF505 14288 | 14.288 | -        | .5625 | 83        | 143       | 15            | PF505 191   | 19.1   | -        | .752  | 110       | 163       | 20            |
| PF505 143   | 14.3   | -        | .563  | 83        | 143       | 15            | PF505 195   | 19.5   | -        | .7677 | 110       | 163       | 20            |
| PF505 144   | 14.4   | -        | .5669 | 83        | 143       | 15            | PF505 197   | 19.7   | -        | .7756 | 110       | 163       | 20            |
| PF505 145   | 14.5   | -        | .5709 | 83        | 143       | 15            | PF505 200   | 20     | -        | .7874 | 110       | 163       | 20            |

▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

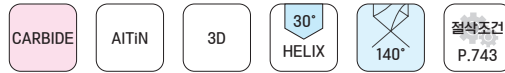
| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# SF503 내부급유형 고속가공용 드릴 - 3D



## ▶ 제품허용공차

| 날경(DC)      |            | 자루경 |
|-------------|------------|-----|
| ~ Ø3        | 0 ~ -0.014 |     |
| Ø3.1 ~ Ø6   | 0 ~ -0.018 |     |
| Ø6.1 ~ Ø10  | 0 ~ -0.022 |     |
| Ø10.1 ~ Ø18 | 0 ~ -0.027 |     |
| Ø18.1 ~     | 0 ~ -0.033 |     |



| 품목코드        | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 |
|-------------|--------|----------|-------|-----------|-----------|---------------|
|             | mm     | fraction | inch  |           |           |               |
| SF503 030   | 3      | -        | .1181 | 18        | 60        | 3             |
| SF503 031   | 3.1    | -        | .1220 | 20        | 60        | 4             |
| SF503 03175 | 3.175  | 1/8      | .1250 | 20        | 60        | 4             |
| SF503 032   | 3.2    | -        | .1260 | 20        | 60        | 4             |
| SF503 03264 | 3.264  | -        | .1285 | 20        | 60        | 4             |
| SF503 033   | 3.3    | -        | .1299 | 20        | 60        | 4             |
| SF503 034   | 3.4    | -        | .1339 | 22        | 60        | 4             |
| SF503 035   | 3.5    | -        | .1378 | 22        | 60        | 4             |
| SF503 03572 | 3.572  | 9/64     | .1406 | 22        | 60        | 4             |
| SF503 036   | 3.6    | -        | .1417 | 22        | 60        | 4             |
| SF503 037   | 3.7    | -        | .1457 | 22        | 60        | 4             |
| SF503 038   | 3.8    | -        | .1496 | 24        | 60        | 4             |
| SF503 039   | 3.9    | -        | .1535 | 24        | 60        | 4             |
| SF503 040   | 4      | -        | .1575 | 24        | 60        | 4             |
| SF503 04039 | 4.039  | -        | .1590 | 24        | 62        | 5             |
| SF503 041   | 4.1    | -        | .1614 | 24        | 62        | 5             |
| SF503 042   | 4.2    | -        | .1654 | 26        | 62        | 5             |
| SF503 043   | 4.3    | -        | .1693 | 26        | 62        | 5             |
| SF503 044   | 4.4    | -        | .1732 | 26        | 62        | 5             |
| SF503 045   | 4.5    | -        | .1772 | 26        | 62        | 5             |

| 품목코드        | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 |
|-------------|--------|----------|-------|-----------|-----------|---------------|
|             | mm     | fraction | inch  |           |           |               |
| SF503 046   | 4.6    | -        | .1811 | 26        | 62        | 5             |
| SF503 047   | 4.7    | -        | .1850 | 26        | 62        | 5             |
| SF503 04763 | 4.763  | 3/16     | .1875 | 26        | 62        | 5             |
| SF503 048   | 4.8    | -        | .1890 | 26        | 62        | 5             |
| SF503 049   | 4.9    | -        | .1920 | 26        | 62        | 5             |
| SF503 050   | 5      | -        | .1969 | 26        | 62        | 5             |
| SF503 051   | 5.1    | -        | .2008 | 28        | 66        | 6             |
| SF503 05159 | 5.159  | 13/64    | .2031 | 28        | 66        | 6             |
| SF503 052   | 5.2    | -        | .2047 | 28        | 66        | 6             |
| SF503 053   | 5.3    | -        | .2087 | 28        | 66        | 6             |
| SF503 054   | 5.4    | -        | .2126 | 28        | 66        | 6             |
| SF503 055   | 5.5    | -        | .2165 | 28        | 66        | 6             |
| SF503 05558 | 5.558  | 7/32     | .2188 | 30        | 66        | 6             |
| SF503 056   | 5.6    | -        | .2205 | 30        | 66        | 6             |
| SF503 057   | 5.7    | -        | .2244 | 30        | 66        | 6             |
| SF503 058   | 5.8    | -        | .2283 | 30        | 66        | 6             |
| SF503 059   | 5.9    | -        | .2323 | 30        | 66        | 6             |
| SF503 05953 | 5.953  | 15/64    | .2344 | 30        | 66        | 6             |
| SF503 060   | 6      | -        | .2362 | 30        | 66        | 6             |
| SF503 061   | 6.1    | -        | .2402 | 34        | 74        | 7             |

## ▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# SF503

## 내부급유형 고속가공용 드릴 - 3D

Drill

| 품목코드        | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 | 품목코드        | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 |
|-------------|--------|----------|-------|-----------|-----------|---------------|-------------|--------|----------|-------|-----------|-----------|---------------|
|             | mm     | fraction | inch  |           |           |               |             | mm     | fraction | inch  |           |           |               |
| SF503 062   | 6.2    | -        | .2441 | 34        | 74        | 7             | SF503 089   | 8.9    | -        | .3504 | 43        | 84        | 9             |
| SF503 063   | 6.3    | -        | .2480 | 34        | 74        | 7             | SF503 090   | 9      | -        | .3543 | 43        | 84        | 9             |
| SF503 0635  | 6.350  | 1/4      | .2500 | 34        | 74        | 7             | SF503 091   | 9.1    | -        | .3583 | 47        | 89        | 10            |
| SF503 064   | 6.4    | -        | .2520 | 34        | 74        | 7             | SF503 09129 | 9.129  | 23/64    | .3594 | 47        | 89        | 10            |
| SF503 065   | 6.5    | -        | .2559 | 34        | 74        | 7             | SF503 092   | 9.2    | -        | .3622 | 47        | 89        | 10            |
| SF503 066   | 6.6    | -        | .2598 | 34        | 74        | 7             | SF503 093   | 9.3    | -        | .3661 | 47        | 89        | 10            |
| SF503 067   | 6.7    | -        | .2638 | 37        | 74        | 7             | SF503 094   | 9.4    | -        | .3701 | 47        | 89        | 10            |
| SF503 06747 | 6.747  | 17/64    | .2656 | 37        | 74        | 7             | SF503 095   | 9.5    | -        | .3740 | 47        | 89        | 10            |
| SF503 068   | 6.8    | -        | .2677 | 37        | 74        | 7             | SF503 09525 | 9.525  | 3/8      | .3750 | 47        | 89        | 10            |
| SF503 069   | 6.9    | -        | .2717 | 37        | 74        | 7             | SF503 096   | 9.6    | -        | .3780 | 47        | 89        | 10            |
| SF503 070   | 7      | -        | .2756 | 37        | 74        | 7             | SF503 097   | 9.7    | -        | .3819 | 47        | 89        | 10            |
| SF503 071   | 7.1    | -        | .2795 | 40        | 79        | 8             | SF503 098   | 9.8    | -        | .3858 | 47        | 89        | 10            |
| SF503 07145 | 7.145  | 9/32     | .2813 | 40        | 79        | 8             | SF503 099   | 9.9    | -        | .3898 | 47        | 89        | 10            |
| SF503 072   | 7.2    | -        | .2835 | 40        | 79        | 8             | SF503 09921 | 9.921  | 25/64    | .3906 | 47        | 89        | 10            |
| SF503 073   | 7.3    | -        | .2874 | 40        | 79        | 8             | SF503 100   | 10     | -        | .3937 | 47        | 89        | 10            |
| SF503 074   | 7.4    | -        | .2913 | 40        | 79        | 8             | SF503 101   | 10.1   | -        | .3976 | 51        | 95        | 11            |
| SF503 075   | 7.5    | -        | .2953 | 40        | 79        | 8             | SF503 102   | 10.2   | -        | .4016 | 51        | 95        | 11            |
| SF503 07541 | 7.541  | 19/64    | .2969 | 40        | 79        | 8             | SF503 103   | 10.3   | -        | .4055 | 51        | 95        | 11            |
| SF503 076   | 7.6    | -        | .2992 | 40        | 79        | 8             | SF503 1032  | 10.32  | 13/32    | .4063 | 51        | 95        | 11            |
| SF503 077   | 7.7    | -        | .3031 | 40        | 79        | 8             | SF503 104   | 10.4   | -        | .4094 | 51        | 95        | 11            |
| SF503 078   | 7.8    | -        | .3071 | 40        | 79        | 8             | SF503 105   | 10.5   | -        | .4134 | 51        | 95        | 11            |
| SF503 079   | 7.9    | -        | .3110 | 40        | 79        | 8             | SF503 106   | 10.6   | -        | .4173 | 51        | 95        | 11            |
| SF503 07938 | 7.938  | 5/16     | .3125 | 40        | 79        | 8             | SF503 107   | 10.7   | -        | .4213 | 51        | 95        | 11            |
| SF503 080   | 8      | -        | .3150 | 40        | 79        | 8             | SF503 10716 | 10.716 | 27/64    | .4219 | 51        | 95        | 11            |
| SF503 081   | 8.1    | -        | .3189 | 43        | 84        | 9             | SF503 108   | 10.8   | -        | .4252 | 51        | 95        | 11            |
| SF503 082   | 8.2    | -        | .3228 | 43        | 84        | 9             | SF503 109   | 10.9   | -        | .4291 | 51        | 95        | 11            |
| SF503 083   | 8.3    | -        | .3268 | 43        | 84        | 9             | SF503 110   | 11     | -        | .4331 | 51        | 95        | 11            |
| SF503 08334 | 8.334  | 21/64    | .3281 | 43        | 84        | 9             | SF503 111   | 11.1   | -        | .4370 | 54        | 102       | 12            |
| SF503 084   | 8.4    | -        | .3307 | 43        | 84        | 9             | SF503 11113 | 11.113 | 7/16     | .4375 | 54        | 102       | 12            |
| SF503 085   | 8.5    | -        | .3346 | 43        | 84        | 9             | SF503 112   | 11.2   | -        | .4409 | 54        | 102       | 12            |
| SF503 086   | 8.6    | -        | .3386 | 43        | 84        | 9             | SF503 113   | 11.3   | -        | .4449 | 54        | 102       | 12            |
| SF503 087   | 8.7    | -        | .3425 | 43        | 84        | 9             | SF503 114   | 11.4   | -        | .4488 | 54        | 102       | 12            |
| SF503 08733 | 8.733  | 11/32    | .3438 | 43        | 84        | 9             | SF503 115   | 11.5   | -        | .4528 | 54        | 102       | 12            |
| SF503 088   | 8.8    | -        | .3465 | 43        | 84        | 9             | SF503 11509 | 11.509 | 29/64    | .4531 | 54        | 102       | 12            |

▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# SF503

## 내부급유형 고속가공용 드릴 - 3D

Drill

| 품목코드        | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 | 품목코드        | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 |
|-------------|--------|----------|-------|-----------|-----------|---------------|-------------|--------|----------|-------|-----------|-----------|---------------|
|             | mm     | fraction | inch  |           |           |               |             | mm     | fraction | inch  |           |           |               |
| SF503 116   | 11.6   | -        | .4567 | 54        | 102       | 12            | SF503 146   | 14.6   | -        | .5748 | 62        | 111       | 15            |
| SF503 117   | 11.7   | -        | .4606 | 54        | 102       | 12            | SF503 147   | 14.7   | -        | .5787 | 62        | 111       | 15            |
| SF503 118   | 11.8   | -        | .4646 | 54        | 102       | 12            | SF503 148   | 14.8   | -        | .5827 | 62        | 111       | 15            |
| SF503 119   | 11.9   | -        | .4685 | 54        | 102       | 12            | SF503 149   | 14.9   | -        | .5866 | 62        | 111       | 15            |
| SF503 11908 | 11.908 | 15/32    | .4688 | 54        | 102       | 12            | SF503 150   | 15     | -        | .5906 | 62        | 111       | 15            |
| SF503 120   | 12     | -        | .4724 | 54        | 102       | 12            | SF503 15081 | 15.081 | 19/32    | .5937 | 64        | 115       | 16            |
| SF503 121   | 12.1   | -        | .4764 | 57        | 102       | 13            | SF503 151   | 15.1   | -        | .5945 | 64        | 115       | 16            |
| SF503 122   | 12.2   | -        | .4803 | 57        | 102       | 13            | SF503 152   | 15.2   | -        | .5984 | 64        | 115       | 16            |
| SF503 123   | 12.3   | -        | .4843 | 57        | 102       | 13            | SF503 154   | 15.4   | -        | .6063 | 64        | 115       | 16            |
| SF503 12304 | 12.304 | 31/64    | .4844 | 57        | 102       | 13            | SF503 155   | 15.5   | -        | .6102 | 64        | 115       | 16            |
| SF503 124   | 12.4   | -        | .4882 | 57        | 102       | 13            | SF503 156   | 15.6   | -        | .6142 | 64        | 115       | 16            |
| SF503 125   | 12.5   | -        | .4921 | 57        | 102       | 13            | SF503 157   | 15.7   | -        | .6181 | 64        | 115       | 16            |
| SF503 126   | 12.6   | -        | .4961 | 57        | 102       | 13            | SF503 158   | 15.8   | -        | .6220 | 64        | 115       | 16            |
| SF503 127   | 12.7   | 1/2      | .5000 | 57        | 102       | 13            | SF503 15875 | 15.875 | 5/8      | .6250 | 64        | 115       | 16            |
| SF503 128   | 12.8   | -        | .5039 | 57        | 102       | 13            | SF503 160   | 16     | -        | .6299 | 64        | 115       | 16            |
| SF503 129   | 12.9   | -        | .5079 | 57        | 102       | 13            | SF503 161   | 16.1   | -        | .6339 | 66        | 119       | 17            |
| SF503 130   | 13     | -        | .5118 | 57        | 102       | 13            | SF503 163   | 16.3   | -        | .6417 | 66        | 119       | 17            |
| SF503 13096 | 13.096 | 33/64    | .5156 | 60        | 107       | 14            | SF503 165   | 16.5   | -        | .6496 | 66        | 119       | 17            |
| SF503 131   | 13.1   | -        | .5157 | 60        | 107       | 14            | SF503 16667 | 16.667 | 21/32    | .6562 | 66        | 119       | 17            |
| SF503 132   | 13.2   | -        | .5197 | 60        | 107       | 14            | SF503 170   | 17     | -        | .6693 | 66        | 119       | 17            |
| SF503 133   | 13.3   | -        | .5236 | 60        | 107       | 14            | SF503 171   | 17.1   | -        | .6732 | 66        | 123       | 18            |
| SF503 134   | 13.4   | -        | .5276 | 60        | 107       | 14            | SF503 172   | 17.2   | -        | .6772 | 66        | 123       | 18            |
| SF503 13494 | 13.494 | 17/32    | .5313 | 60        | 107       | 14            | SF503 17463 | 17.463 | 11/16    | .6875 | 66        | 123       | 18            |
| SF503 135   | 13.5   | -        | .5315 | 60        | 107       | 14            | SF503 175   | 17.5   | -        | .6890 | 66        | 123       | 18            |
| SF503 136   | 13.6   | -        | .5354 | 60        | 107       | 14            | SF503 177   | 17.7   | -        | .6969 | 66        | 123       | 18            |
| SF503 137   | 13.7   | -        | .5394 | 60        | 107       | 14            | SF503 178   | 17.8   | -        | .7008 | 66        | 123       | 18            |
| SF503 138   | 13.8   | -        | .5433 | 60        | 107       | 14            | SF503 180   | 18     | -        | .7087 | 66        | 123       | 18            |
| SF503 13891 | 13.891 | 35/64    | .5469 | 60        | 107       | 14            | SF503 181   | 18.1   | -        | .7126 | 70        | 127       | 19            |
| SF503 139   | 13.9   | -        | .5472 | 60        | 107       | 14            | SF503 182   | 18.2   | -        | .7165 | 70        | 127       | 19            |
| SF503 140   | 14     | -        | .5512 | 60        | 107       | 14            | SF503 185   | 18.5   | -        | .7283 | 70        | 127       | 19            |
| SF503 141   | 14.1   | -        | .5551 | 62        | 111       | 15            | SF503 190   | 19     | -        | .7480 | 70        | 127       | 19            |
| SF503 142   | 14.2   | -        | .5591 | 62        | 111       | 15            | SF503 191   | 19.1   | -        | .7520 | 70        | 131       | 20            |
| SF503 14288 | 14.288 | 9/16     | .5625 | 62        | 111       | 15            | SF503 195   | 19.5   | -        | .7677 | 70        | 131       | 20            |
| SF503 143   | 14.3   | -        | .5630 | 62        | 111       | 15            | SF503 197   | 19.7   | -        | .7756 | 70        | 131       | 20            |
| SF503 144   | 14.4   | -        | .5669 | 62        | 111       | 15            | SF503 200   | 20     | -        | .7874 | 70        | 131       | 20            |
| SF503 145   | 14.5   | -        | .5709 | 62        | 111       | 15            |             |        |          |       |           |           |               |

Dolphin Drill

Dolphin Oil-Hole Drill

Power Max

Solid Spiral

▶ 적용 피삭재

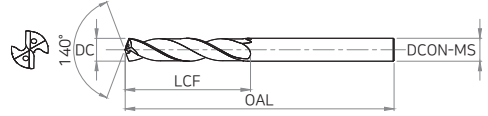
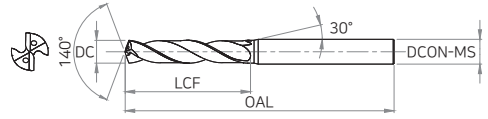
○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하트강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# SF505

내부급유형 고속가공용 드릴 - 5D

Drill



▶ 제품허용공차

| 날경(DC)      |            | 자루경 |
|-------------|------------|-----|
| ~ Ø3        | 0 ~ -0.014 |     |
| Ø3.1 ~ Ø6   | 0 ~ -0.018 |     |
| Ø6.1 ~ Ø10  | 0 ~ -0.022 |     |
| Ø10.1 ~ Ø18 | 0 ~ -0.027 |     |
| Ø18.1 ~     | 0 ~ -0.033 |     |

h6



| 품목코드        | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 |
|-------------|--------|----------|-------|-----------|-----------|---------------|
|             | mm     | fraction | inch  |           |           |               |
| SF505 030   | 3.0    | -        | .1181 | 27        | 74        | 3             |
| SF505 031   | 3.1    | -        | .1220 | 27        | 74        | 4             |
| SF505 03175 | 3.175  | 1/8      | .1250 | 27        | 74        | 4             |
| SF505 032   | 3.2    | -        | .1260 | 27        | 74        | 4             |
| SF505 03264 | 3.264  | -        | .1285 | 27        | 74        | 4             |
| SF505 033   | 3.3    | -        | .1299 | 27        | 74        | 4             |
| SF505 034   | 3.4    | -        | .1339 | 30        | 74        | 4             |
| SF505 035   | 3.5    | -        | .1378 | 30        | 74        | 4             |
| SF505 03572 | 3.572  | 9/64     | .1406 | 30        | 74        | 4             |
| SF505 036   | 3.6    | -        | .1417 | 30        | 74        | 4             |
| SF505 037   | 3.7    | -        | .1457 | 30        | 74        | 4             |
| SF505 038   | 3.8    | -        | .1496 | 33        | 74        | 4             |
| SF505 039   | 3.9    | -        | .1535 | 33        | 74        | 4             |
| SF505 040   | 4      | -        | .1575 | 33        | 74        | 4             |
| SF505 04039 | 4.039  | -        | .1590 | 33        | 80        | 5             |
| SF505 041   | 4.1    | -        | .1614 | 33        | 80        | 5             |
| SF505 042   | 4.2    | -        | .1654 | 33        | 80        | 5             |
| SF505 043   | 4.3    | -        | .1693 | 36        | 80        | 5             |
| SF505 044   | 4.4    | -        | .1732 | 36        | 80        | 5             |
| SF505 045   | 4.5    | -        | .1772 | 36        | 80        | 5             |

| 품목코드        | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 |
|-------------|--------|----------|-------|-----------|-----------|---------------|
|             | mm     | fraction | inch  |           |           |               |
| SF505 046   | 4.6    | -        | .1811 | 36        | 80        | 5             |
| SF505 047   | 4.7    | -        | .1850 | 36        | 80        | 5             |
| SF505 04763 | 4.763  | 3/16     | .1875 | 39        | 80        | 5             |
| SF505 048   | 4.8    | -        | .1890 | 39        | 80        | 5             |
| SF505 049   | 4.9    | -        | .1920 | 39        | 80        | 5             |
| SF505 050   | 5      | -        | .1969 | 39        | 80        | 5             |
| SF505 051   | 5.1    | -        | .2008 | 39        | 87        | 6             |
| SF505 05159 | 5.159  | 13/64    | .2031 | 39        | 87        | 6             |
| SF505 052   | 5.2    | -        | .2047 | 39        | 87        | 6             |
| SF505 053   | 5.3    | -        | .2087 | 39        | 87        | 6             |
| SF505 054   | 5.4    | -        | .2126 | 43        | 87        | 6             |
| SF505 055   | 5.5    | -        | .2165 | 43        | 87        | 6             |
| SF505 05558 | 5.558  | 7/32     | .2188 | 43        | 87        | 6             |
| SF505 056   | 5.6    | -        | .2205 | 43        | 87        | 6             |
| SF505 057   | 5.7    | -        | .2244 | 43        | 87        | 6             |
| SF505 058   | 5.8    | -        | .2283 | 43        | 87        | 6             |
| SF505 059   | 5.9    | -        | .2323 | 43        | 87        | 6             |
| SF505 05953 | 5.953  | 15/64    | .2344 | 43        | 87        | 6             |
| SF505 060   | 6      | -        | .2362 | 43        | 87        | 6             |
| SF505 061   | 6.1    | -        | .2402 | 47        | 95        | 7             |

▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# SF505

## 내부급유형 고속가공용 드릴 - 5D

Drill

| 품목코드        | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 | 품목코드        | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 |
|-------------|--------|----------|-------|-----------|-----------|---------------|-------------|--------|----------|-------|-----------|-----------|---------------|
|             | mm     | fraction | inch  |           |           |               |             | mm     | fraction | inch  |           |           |               |
| SF505 062   | 6.2    | -        | .2441 | 47        | 95        | 7             | SF505 089   | 8.9    | -        | .3504 | 56        | 105       | 9             |
| SF505 063   | 6.3    | -        | .2480 | 47        | 95        | 7             | SF505 090   | 9      | -        | .3543 | 56        | 105       | 9             |
| SF505 0635  | 6.350  | 1/4      | .2500 | 47        | 95        | 7             | SF505 091   | 9.1    | -        | .3583 | 62        | 108       | 10            |
| SF505 064   | 6.4    | -        | .2520 | 47        | 95        | 7             | SF505 09129 | 9.129  | 23/64    | .3594 | 62        | 108       | 10            |
| SF505 065   | 6.5    | -        | .2559 | 47        | 95        | 7             | SF505 092   | 9.2    | -        | .3622 | 62        | 108       | 10            |
| SF505 066   | 6.6    | -        | .2598 | 47        | 95        | 7             | SF505 093   | 9.3    | -        | .3661 | 62        | 108       | 10            |
| SF505 067   | 6.7    | -        | .2638 | 47        | 95        | 7             | SF505 094   | 9.4    | -        | .3701 | 62        | 108       | 10            |
| SF505 06747 | 6.747  | 17/64    | .2656 | 47        | 95        | 7             | SF505 095   | 9.5    | -        | .3740 | 62        | 108       | 10            |
| SF505 068   | 6.8    | -        | .2677 | 47        | 95        | 7             | SF505 09525 | 9.525  | 3/8      | .3750 | 62        | 108       | 10            |
| SF505 069   | 6.9    | -        | .2717 | 47        | 95        | 7             | SF505 096   | 9.6    | -        | .3780 | 62        | 108       | 10            |
| SF505 070   | 7      | -        | .2756 | 47        | 95        | 7             | SF505 097   | 9.7    | -        | .3819 | 62        | 108       | 10            |
| SF505 071   | 7.1    | -        | .2795 | 52        | 103       | 8             | SF505 098   | 9.8    | -        | .3858 | 62        | 108       | 10            |
| SF505 07145 | 7.145  | 9/32     | .2813 | 52        | 103       | 8             | SF505 099   | 9.9    | -        | .3898 | 62        | 108       | 10            |
| SF505 072   | 7.2    | -        | .2835 | 52        | 103       | 8             | SF505 09921 | 9.921  | 25/64    | .3906 | 62        | 108       | 10            |
| SF505 073   | 7.3    | -        | .2874 | 52        | 103       | 8             | SF505 100   | 10     | -        | .3937 | 62        | 108       | 10            |
| SF505 074   | 7.4    | -        | .2913 | 52        | 103       | 8             | SF505 101   | 10.1   | -        | .3976 | 68        | 125       | 11            |
| SF505 075   | 7.5    | -        | .2953 | 52        | 103       | 8             | SF505 102   | 10.2   | -        | .4016 | 68        | 125       | 11            |
| SF505 07541 | 7.541  | 19/64    | .2969 | 52        | 103       | 8             | SF505 103   | 10.3   | -        | .4055 | 68        | 125       | 11            |
| SF505 076   | 7.6    | -        | .2992 | 52        | 103       | 8             | SF505 1032  | 10.32  | 13/32    | .4063 | 68        | 125       | 11            |
| SF505 077   | 7.7    | -        | .3031 | 52        | 103       | 8             | SF505 104   | 10.4   | -        | .4094 | 68        | 125       | 11            |
| SF505 078   | 7.8    | -        | .3071 | 52        | 103       | 8             | SF505 105   | 10.5   | -        | .4134 | 68        | 125       | 11            |
| SF505 079   | 7.9    | -        | .3110 | 52        | 103       | 8             | SF505 106   | 10.6   | -        | .4173 | 68        | 125       | 11            |
| SF505 07938 | 7.938  | 5/16     | .3125 | 52        | 103       | 8             | SF505 107   | 10.7   | -        | .4213 | 68        | 125       | 11            |
| SF505 080   | 8      | -        | .3150 | 52        | 103       | 8             | SF505 10716 | 10.716 | 27/64    | .4219 | 68        | 125       | 11            |
| SF505 081   | 8.1    | -        | .3189 | 56        | 105       | 9             | SF505 108   | 10.8   | -        | .4252 | 68        | 125       | 11            |
| SF505 082   | 8.2    | -        | .3228 | 56        | 105       | 9             | SF505 109   | 10.9   | -        | .4291 | 68        | 125       | 11            |
| SF505 083   | 8.3    | -        | .3268 | 56        | 105       | 9             | SF505 110   | 11     | -        | .4331 | 68        | 125       | 11            |
| SF505 08334 | 8.334  | 21/64    | .3281 | 56        | 105       | 9             | SF505 111   | 11.1   | -        | .4370 | 71        | 133       | 12            |
| SF505 084   | 8.4    | -        | .3307 | 56        | 105       | 9             | SF505 11113 | 11.113 | 7/16     | .4375 | 71        | 133       | 12            |
| SF505 085   | 8.5    | -        | .3346 | 56        | 105       | 9             | SF505 112   | 11.2   | -        | .4409 | 71        | 133       | 12            |
| SF505 086   | 8.6    | -        | .3386 | 56        | 105       | 9             | SF505 113   | 11.3   | -        | .4449 | 71        | 133       | 12            |
| SF505 087   | 8.7    | -        | .3425 | 56        | 105       | 9             | SF505 114   | 11.4   | -        | .4488 | 71        | 133       | 12            |
| SF505 08733 | 8.733  | 11/32    | .3438 | 56        | 105       | 9             | SF505 115   | 11.5   | -        | .4528 | 71        | 133       | 12            |
| SF505 088   | 8.8    | -        | .3465 | 56        | 105       | 9             | SF505 116   | 11.6   | -        | .4567 | 71        | 133       | 12            |

Dolphin Drill

Dolphin Oil-Hole Drill

Power Max

Solid Spiral

▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# SF505

## 내부급유형 고속가공용 드릴 - 5D

Drill

| 품목코드        | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 | 품목코드        | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 |
|-------------|--------|----------|-------|-----------|-----------|---------------|-------------|--------|----------|-------|-----------|-----------|---------------|
|             | mm     | fraction | inch  |           |           |               |             | mm     | fraction | inch  |           |           |               |
| SF505 117   | 11.7   | -        | .4606 | 71        | 133       | 12            | SF505 146   | 14.6   | -        | .5748 | 83        | 148       | 15            |
| SF505 118   | 11.8   | -        | .4646 | 71        | 133       | 12            | SF505 147   | 14.7   | -        | .5787 | 83        | 148       | 15            |
| SF505 119   | 11.9   | -        | .4685 | 71        | 133       | 12            | SF505 148   | 14.8   | -        | .5827 | 83        | 148       | 15            |
| SF505 11908 | 11.908 | 15/32    | .4688 | 71        | 133       | 12            | SF505 149   | 14.9   | -        | .5866 | 83        | 148       | 15            |
| SF505 120   | 12     | -        | .4724 | 71        | 133       | 12            | SF505 150   | 15     | -        | .5906 | 83        | 148       | 15            |
| SF505 121   | 12.1   | -        | .4764 | 75        | 137       | 13            | SF505 15081 | 15.081 | 19/32    | .5937 | 90        | 152       | 16            |
| SF505 122   | 12.2   | -        | .4803 | 75        | 137       | 13            | SF505 151   | 15.1   | -        | .5945 | 90        | 152       | 16            |
| SF505 123   | 12.3   | -        | .4843 | 75        | 137       | 13            | SF505 152   | 15.2   | -        | .5984 | 90        | 152       | 16            |
| SF505 12304 | 12.304 | 31/64    | .4844 | 75        | 137       | 13            | SF505 154   | 15.4   | -        | .6063 | 90        | 152       | 16            |
| SF505 124   | 12.4   | -        | .4882 | 75        | 137       | 13            | SF505 155   | 15.5   | -        | .6102 | 90        | 152       | 16            |
| SF505 125   | 12.5   | -        | .4921 | 75        | 137       | 13            | SF505 156   | 15.6   | -        | .6142 | 90        | 152       | 16            |
| SF505 126   | 12.6   | -        | .4961 | 75        | 137       | 13            | SF505 157   | 15.7   | -        | .6181 | 90        | 152       | 16            |
| SF505 127   | 12.7   | -        | .5000 | 75        | 137       | 13            | SF505 158   | 15.8   | -        | .6220 | 90        | 152       | 16            |
| SF505 128   | 12.8   | -        | .5039 | 75        | 137       | 13            | SF505 15875 | 15.875 | 5/8      | .6250 | 90        | 152       | 16            |
| SF505 129   | 12.9   | -        | .5079 | 75        | 137       | 13            | SF505 160   | 16     | -        | .6299 | 90        | 152       | 16            |
| SF505 130   | 13     | -        | .5118 | 75        | 137       | 13            | SF505 161   | 16.1   | -        | .6339 | 95        | 155       | 17            |
| SF505 13096 | 13.096 | 33/64    | .5156 | 80        | 142       | 14            | SF505 163   | 16.3   | -        | .6417 | 95        | 155       | 17            |
| SF505 131   | 13.1   | -        | .5157 | 80        | 142       | 14            | SF505 165   | 16.5   | -        | .6496 | 95        | 155       | 17            |
| SF505 132   | 13.2   | -        | .5197 | 80        | 142       | 14            | SF505 16667 | 16.667 | 21/32    | .6562 | 95        | 155       | 17            |
| SF505 133   | 13.3   | -        | .5236 | 80        | 142       | 14            | SF505 170   | 17     | -        | .6693 | 95        | 155       | 17            |
| SF505 134   | 13.4   | 0.5276   | .80   | 142       | 14        | 14            | SF505 171   | 17.1   | -        | .6732 | 100       | 157       | 18            |
| SF505 13494 | 13.494 | -        | .5313 | 80        | 142       | 14            | SF505 172   | 17.2   | -        | .6772 | 100       | 157       | 18            |
| SF505 135   | 13.5   | 17/32    | .5315 | 80        | 142       | 14            | SF505 17463 | 17.463 | 11/16    | .6875 | 100       | 157       | 18            |
| SF505 136   | 13.6   | -        | .5354 | 80        | 142       | 14            | SF505 175   | 17.5   | -        | .6890 | 100       | 157       | 18            |
| SF505 137   | 13.7   | -        | .5394 | 80        | 142       | 14            | SF505 177   | 17.7   | -        | .6969 | 100       | 157       | 18            |
| SF505 138   | 13.8   | -        | .5433 | 80        | 142       | 14            | SF505 178   | 17.8   | -        | .7008 | 100       | 157       | 18            |
| SF505 13891 | 13.891 | 35/64    | .5469 | 80        | 142       | 14            | SF505 180   | 18     | -        | .7087 | 100       | 157       | 18            |
| SF505 139   | 13.9   | -        | .5472 | 80        | 142       | 14            | SF505 181   | 18.1   | -        | .7126 | 105       | 160       | 19            |
| SF505 140   | 14     | -        | .5512 | 80        | 142       | 14            | SF505 182   | 18.2   | -        | .7165 | 105       | 160       | 19            |
| SF505 141   | 14.1   | -        | .5551 | 83        | 148       | 15            | SF505 185   | 18.5   | -        | .7283 | 105       | 160       | 19            |
| SF505 142   | 14.2   | -        | .5591 | 83        | 148       | 15            | SF505 190   | 19     | -        | .7480 | 105       | 160       | 19            |
| SF505 14288 | 14.288 | 9/16     | .5625 | 83        | 148       | 15            | SF505 191   | 19.1   | -        | .7520 | 110       | 163       | 20            |
| SF505 143   | 14.3   | -        | .5630 | 83        | 148       | 15            | SF505 195   | 19.5   | -        | .7677 | 110       | 163       | 20            |
| SF505 144   | 14.4   | -        | .5669 | 83        | 148       | 15            | SF505 197   | 19.7   | -        | .7756 | 110       | 163       | 20            |
| SF505 145   | 14.5   | -        | .5709 | 83        | 148       | 15            | SF505 200   | 20     | -        | .7874 | 110       | 163       | 20            |

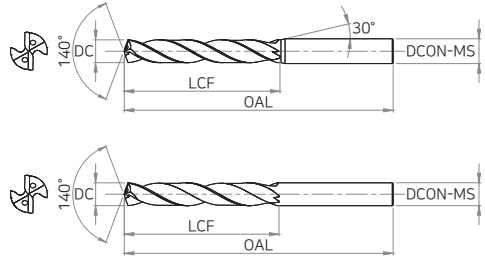
▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

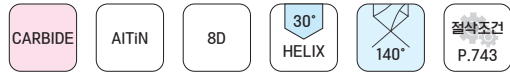
# SF508

## 내부급유형 고속가공용 드릴 - 8D



### ▶ 제품허용공차

| 날경(DC)      |            | 자루경 |
|-------------|------------|-----|
| ~ Ø3        | 0 ~ -0.014 |     |
| Ø3.1 ~ Ø6   | 0 ~ -0.018 |     |
| Ø6.1 ~ Ø10  | 0 ~ -0.022 |     |
| Ø10.1 ~ Ø18 | 0 ~ -0.027 | h6  |



| 품목코드        | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 |
|-------------|--------|----------|-------|-----------|-----------|---------------|
|             | mm     | fraction | inch  |           |           |               |
| SF508 030   | 3      | -        | .1181 | 43        | 80        | 3             |
| SF508 031   | 3.1    | -        | .1120 | 43        | 80        | 4             |
| SF508 03175 | 3.175  | 1/8      | .1250 | 43        | 80        | 4             |
| SF508 032   | 3.2    | -        | .1260 | 43        | 80        | 4             |
| SF508 033   | 3.3    | -        | .1299 | 43        | 80        | 4             |
| SF508 034   | 3.4    | -        | .1339 | 43        | 80        | 4             |
| SF508 035   | 3.5    | -        | .1378 | 43        | 80        | 4             |
| SF508 03572 | 3.572  | -        | .1406 | 43        | 80        | 4             |
| SF508 036   | 3.6    | -        | .1417 | 43        | 80        | 4             |
| SF508 037   | 3.7    | -        | .1457 | 43        | 80        | 4             |
| SF508 038   | 3.8    | -        | .1496 | 49        | 87        | 4             |
| SF508 039   | 3.9    | -        | .1535 | 49        | 87        | 4             |
| SF508 0397  | 3.97   | 9/64     | .1563 | 49        | 87        | 4             |
| SF508 040   | 4      | -        | .1575 | 49        | 87        | 4             |
| SF508 04039 | 4.039  | -        | .1590 | 49        | 87        | 5             |
| SF508 041   | 4.1    | -        | .1614 | 49        | 87        | 5             |
| SF508 042   | 4.2    | -        | .1654 | 49        | 87        | 5             |
| SF508 043   | 4.3    | -        | .1693 | 49        | 87        | 5             |
| SF508 04366 | 4.366  | -        | .1719 | 49        | 87        | 5             |
| SF508 044   | 4.4    | -        | .1732 | 49        | 87        | 5             |

| 품목코드        | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 |
|-------------|--------|----------|-------|-----------|-----------|---------------|
|             | mm     | fraction | inch  |           |           |               |
| SF508 045   | 4.5    | -        | .1772 | 49        | 87        | 5             |
| SF508 046   | 4.6    | -        | .1811 | 49        | 87        | 5             |
| SF508 047   | 4.7    | -        | .1850 | 49        | 87        | 5             |
| SF508 04763 | 4.763  | 3/16     | .1875 | 56        | 94        | 5             |
| SF508 048   | 4.8    | -        | .1890 | 56        | 94        | 5             |
| SF508 049   | 4.9    | -        | .1929 | 56        | 94        | 5             |
| SF508 050   | 5      | -        | .1969 | 56        | 94        | 5             |
| SF508 051   | 5.1    | -        | .2008 | 56        | 94        | 6             |
| SF508 05159 | 5.159  | 13/64    | .2031 | 56        | 94        | 6             |
| SF508 052   | 5.2    | -        | .2047 | 56        | 94        | 6             |
| SF508 053   | 5.3    | -        | .2087 | 56        | 94        | 6             |
| SF508 054   | 5.4    | -        | .2126 | 56        | 94        | 6             |
| SF508 0541  | 5.41   | -        | .2130 | 56        | 94        | 6             |
| SF508 055   | 5.5    | -        | .2165 | 56        | 94        | 6             |
| SF508 05558 | 5.558  | 7/32     | .2188 | 56        | 94        | 6             |
| SF508 056   | 5.6    | -        | .2205 | 56        | 94        | 6             |
| SF508 057   | 5.7    | -        | .2244 | 56        | 94        | 6             |
| SF508 058   | 5.8    | -        | .2283 | 56        | 94        | 6             |
| SF508 059   | 5.9    | -        | .2323 | 56        | 94        | 6             |
| SF508 05953 | 5.953  | 15/64    | .2344 | 56        | 94        | 6             |

### ▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# SF508

내부급유형 고속가공용 드릴 - 8D

Drill

| 품목코드        | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 | 품목코드        | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 |
|-------------|--------|----------|-------|-----------|-----------|---------------|-------------|--------|----------|-------|-----------|-----------|---------------|
|             | mm     | fraction | inch  |           |           |               |             | mm     | fraction | inch  |           |           |               |
| SF508 060   | 6      | -        | .2362 | 56        | 94        | 6             | SF508 086   | 8.6    | -        | .3386 | 87        | 131       | 9             |
| SF508 061   | 6.1    | -        | .2402 | 67        | 105       | 7             | SF508 087   | 8.7    | -        | .3425 | 87        | 131       | 9             |
| SF508 062   | 6.2    | -        | .2441 | 67        | 105       | 7             | SF508 08733 | 8.733  | 11/32    | .3438 | 87        | 131       | 9             |
| SF508 063   | 6.3    | -        | .2480 | 67        | 105       | 7             | SF508 088   | 8.8    | -        | .3465 | 87        | 131       | 9             |
| SF508 0635  | 6.35   | 1/4      | .2500 | 67        | 105       | 7             | SF508 089   | 8.9    | -        | .3504 | 87        | 131       | 9             |
| SF508 064   | 6.4    | -        | .2520 | 67        | 105       | 7             | SF508 090   | 9      | -        | .3543 | 87        | 131       | 9             |
| SF508 065   | 6.5    | -        | .2559 | 67        | 105       | 7             | SF508 091   | 9.1    | -        | .3583 | 95        | 139       | 10            |
| SF508 06528 | 6.528  | -        | .2570 | 67        | 105       | 7             | SF508 09129 | 9.129  | 23/64    | .3594 | 95        | 139       | 10            |
| SF508 066   | 6.6    | -        | .2598 | 67        | 105       | 7             | SF508 092   | 9.2    | -        | .3622 | 95        | 139       | 10            |
| SF508 067   | 6.7    | -        | .2638 | 67        | 105       | 7             | SF508 093   | 9.3    | -        | .3661 | 95        | 139       | 10            |
| SF508 06747 | 6.747  | 17/64    | .2656 | 67        | 105       | 7             | SF508 094   | 9.4    | -        | .3701 | 95        | 139       | 10            |
| SF508 068   | 6.8    | -        | .2677 | 67        | 105       | 7             | SF508 095   | 9.5    | -        | .3740 | 95        | 139       | 10            |
| SF508 069   | 6.9    | -        | .2717 | 67        | 105       | 7             | SF508 09525 | 9.525  | 3/8      | .3750 | 95        | 139       | 10            |
| SF508 070   | 7      | -        | .2756 | 76        | 116       | 7             | SF508 096   | 9.6    | -        | .3780 | 95        | 139       | 10            |
| SF508 071   | 7.1    | -        | .2795 | 76        | 116       | 8             | SF508 097   | 9.7    | -        | .3819 | 95        | 139       | 10            |
| SF508 07145 | 7.145  | 9/32     | .2813 | 76        | 116       | 8             | SF508 098   | 9.8    | -        | .3858 | 95        | 139       | 10            |
| SF508 072   | 7.2    | -        | .2835 | 76        | 116       | 8             | SF508 099   | 9.9    | -        | .3898 | 95        | 139       | 10            |
| SF508 073   | 7.3    | -        | .2874 | 76        | 116       | 8             | SF508 09921 | 9.921  | 25/64    | .3906 | 95        | 139       | 10            |
| SF508 074   | 7.4    | -        | .2913 | 76        | 116       | 8             | SF508 100   | 10     | -        | .3937 | 95        | 139       | 10            |
| SF508 075   | 7.5    | -        | .2953 | 76        | 116       | 8             | SF508 101   | 10.1   | -        | .3976 | 106       | 155       | 11            |
| SF508 07541 | 7.541  | 19/64    | .2969 | 76        | 116       | 8             | SF508 102   | 10.2   | -        | .4016 | 106       | 155       | 11            |
| SF508 076   | 7.6    | -        | .2992 | 76        | 116       | 8             | SF508 103   | 10.3   | -        | .4055 | 106       | 155       | 11            |
| SF508 077   | 7.7    | -        | .3031 | 76        | 116       | 8             | SF508 1032  | 10.32  | 13/32    | .4063 | 106       | 155       | 11            |
| SF508 078   | 7.8    | -        | .3071 | 76        | 116       | 8             | SF508 104   | 10.4   | -        | .4094 | 106       | 155       | 11            |
| SF508 079   | 7.9    | -        | .3110 | 76        | 116       | 8             | SF508 105   | 10.5   | -        | .4134 | 106       | 155       | 11            |
| SF508 07938 | 7.938  | 5/16     | .3125 | 76        | 116       | 8             | SF508 106   | 10.6   | -        | .4173 | 106       | 155       | 11            |
| SF508 080   | 8      | -        | .3150 | 76        | 116       | 8             | SF508 107   | 10.7   | -        | .4213 | 106       | 155       | 11            |
| SF508 081   | 8.1    | -        | .3189 | 87        | 131       | 9             | SF508 10716 | 10.716 | 27/64    | .4219 | 106       | 155       | 11            |
| SF508 082   | 8.2    | -        | .3228 | 87        | 131       | 9             | SF508 108   | 10.8   | -        | .4252 | 106       | 155       | 11            |
| SF508 083   | 8.3    | -        | .3268 | 87        | 131       | 9             | SF508 109   | 10.9   | -        | .4291 | 106       | 155       | 11            |
| SF508 08334 | 8.334  | 21/64    | .3281 | 87        | 131       | 9             | SF508 110   | 11     | -        | .4331 | 106       | 155       | 11            |
| SF508 084   | 8.4    | -        | .3307 | 87        | 131       | 9             | SF508 111   | 11.1   | -        | .4370 | 114       | 163       | 12            |
| SF508 08433 | 8.433  | -        | .3320 | 87        | 131       | 9             | SF508 11113 | 11.113 | 7/16     | .4375 | 114       | 163       | 12            |
| SF508 085   | 8.5    | -        | .3346 | 87        | 131       | 9             | SF508 112   | 11.2   | -        | .4409 | 114       | 163       | 12            |

▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# SF508

## 내부급유형 고속가공용 드릴 - 8D

Drill

| 품목코드        | DC(날경) |          |       | LCF | OAL | DCONMS | 품목코드        | DC(날경) |       |       | LCF | OAL | DCONMS |
|-------------|--------|----------|-------|-----|-----|--------|-------------|--------|-------|-------|-----|-----|--------|
|             | mm     | fraction | inch  |     |     |        |             | 날장     | 전장    | 자루경   |     |     |        |
| SF508 113   | 11.3   | -        | .4449 | 114 | 163 | 12     | SF508 137   | 13.7   | -     | .5394 | 133 | 182 | 14     |
| SF508 114   | 11.4   | -        | .4488 | 114 | 163 | 12     | SF508 140   | 14     | -     | .5512 | 133 | 182 | 14     |
| SF508 115   | 11.5   | -        | .4528 | 114 | 163 | 12     | SF508 14288 | 14.288 | 9/16  | .5625 | 152 | 204 | 15     |
| SF508 11509 | 11.509 | 29/64    | .4531 | 114 | 163 | 12     | SF508 143   | 14.3   | -     | .5630 | 152 | 204 | 15     |
| SF508 116   | 11.6   | -        | .4567 | 114 | 163 | 12     | SF508 144   | 14.4   | -     | .5669 | 152 | 204 | 15     |
| SF508 117   | 11.7   | -        | .4606 | 114 | 163 | 12     | SF508 145   | 14.5   | -     | .5709 | 152 | 204 | 15     |
| SF508 118   | 11.8   | -        | .4646 | 114 | 163 | 12     | SF508 14683 | 14.683 | 37/64 | .5781 | 152 | 204 | 15     |
| SF508 119   | 11.9   | -        | .4685 | 114 | 163 | 12     | SF508 147   | 14.7   | -     | .5787 | 152 | 204 | 15     |
| SF508 11908 | 11.908 | 15/32    | .4688 | 114 | 163 | 12     | SF508 150   | 15     | -     | .5906 | 152 | 204 | 15     |
| SF508 120   | 12     | -        | .4724 | 114 | 163 | 12     | SF508 15081 | 15.081 | 19/32 | .5937 | 152 | 204 | 16     |
| SF508 121   | 12.1   | -        | .4764 | 133 | 182 | 13     | SF508 155   | 15.5   | -     | .6102 | 152 | 204 | 16     |
| SF508 122   | 12.2   | -        | .4803 | 133 | 182 | 13     | SF508 157   | 15.7   | -     | .6181 | 152 | 204 | 16     |
| SF508 123   | 12.3   | -        | .4843 | 133 | 182 | 13     | SF508 15875 | 15.875 | 5/8   | .6250 | 152 | 204 | 16     |
| SF508 12304 | 12.304 | 31/64    | .4844 | 133 | 182 | 13     | SF508 160   | 16     | -     | .6299 | 152 | 204 | 16     |
| SF508 125   | 12.5   | -        | .4921 | 133 | 182 | 13     | SF508 165   | 16.5   | -     | .6496 | 171 | 223 | 17     |
| SF508 126   | 12.6   | -        | .4961 | 133 | 182 | 13     | SF508 16667 | 16.667 | 21/32 | .6562 | 171 | 223 | 17     |
| SF508 127   | 12.7   | 1/2      | .5000 | 133 | 182 | 13     | SF508 170   | 17     | -     | .6693 | 171 | 223 | 17     |
| SF508 128   | 12.8   | -        | .5039 | 133 | 182 | 13     | SF508 17463 | 17.463 | 11/16 | .6875 | 171 | 223 | 18     |
| SF508 129   | 12.9   | -        | .5079 | 133 | 182 | 13     | SF508 175   | 17.5   | -     | .6890 | 171 | 223 | 18     |
| SF508 130   | 13     | -        | .5118 | 133 | 182 | 13     | SF508 180   | 18     | -     | .7087 | 171 | 223 | 18     |
| SF508 131   | 13.1   | -        | .5157 | 133 | 182 | 14     | SF508 185   | 18.5   | -     | .7283 | 191 | 244 | 19     |
| SF508 132   | 13.2   | -        | .5197 | 133 | 182 | 14     | SF508 190   | 19     | -     | .7480 | 191 | 244 | 19     |
| SF508 133   | 13.3   | -        | .5236 | 133 | 182 | 14     | SF508 1905  | 19.05  | 3/4   | .7500 | 191 | 244 | 20     |
| SF508 134   | 13.4   | -        | .5276 | 133 | 182 | 14     | SF508 19446 | 19.446 | 49/64 | .7656 | 191 | 244 | 20     |
| SF508 13494 | 13.494 | 17/32    | .5313 | 133 | 182 | 14     | SF508 195   | 19.5   | -     | .7677 | 191 | 244 | 20     |
| SF508 135   | 13.5   | -        | .5315 | 133 | 182 | 14     | SF508 200   | 20     | -     | .7874 | 191 | 244 | 20     |
| SF508 136   | 13.6   | -        | .5354 | 133 | 182 | 14     |             |        |       |       |     |     |        |

Dolphin Drill

Dolphin Oil-Hole Drill

Power Max

Solid Spiral

▶ 적용 피삭재

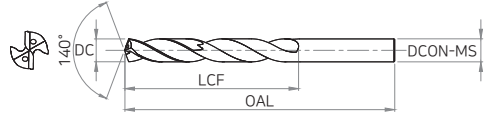
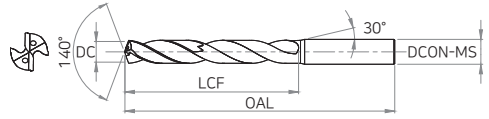
○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하트강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# SF510

내부금유형 고속가공용 드릴 - 10D

Drill



▶ 제품허용공차

| 날경(DC)      |            | 자루경 |
|-------------|------------|-----|
| ~ Ø3        | 0 ~ -0.014 |     |
| Ø3.1 ~ Ø6   | 0 ~ -0.018 |     |
| Ø6.1 ~ Ø10  | 0 ~ -0.022 |     |
| Ø10.1 ~ Ø13 | 0 ~ -0.027 | h5  |



| 품목코드      | DC  | LCF | OAL | DCONMS | 품목코드      | DC  | LCF | OAL | DCONMS |
|-----------|-----|-----|-----|--------|-----------|-----|-----|-----|--------|
|           | 날경  | 날장  | 전장  | 자루경    |           | 날경  | 날장  | 전장  | 자루경    |
| SF510 030 | 3   | 39  | 87  | 3      | SF510 050 | 5   | 66  | 117 | 5      |
| SF510 031 | 3.1 | 46  | 94  | 4      | SF510 051 | 5.1 | 72  | 123 | 6      |
| SF510 032 | 3.2 | 46  | 94  | 4      | SF510 052 | 5.2 | 72  | 123 | 6      |
| SF510 033 | 3.3 | 46  | 94  | 4      | SF510 053 | 5.3 | 72  | 123 | 6      |
| SF510 034 | 3.4 | 46  | 94  | 4      | SF510 054 | 5.4 | 72  | 123 | 6      |
| SF510 035 | 3.5 | 46  | 94  | 4      | SF510 055 | 5.5 | 72  | 123 | 6      |
| SF510 036 | 3.6 | 52  | 101 | 4      | SF510 056 | 5.6 | 79  | 130 | 6      |
| SF510 037 | 3.7 | 52  | 101 | 4      | SF510 057 | 5.7 | 79  | 130 | 6      |
| SF510 038 | 3.8 | 52  | 101 | 4      | SF510 058 | 5.8 | 79  | 130 | 6      |
| SF510 039 | 3.9 | 52  | 101 | 4      | SF510 059 | 5.9 | 79  | 130 | 6      |
| SF510 040 | 4   | 52  | 101 | 4      | SF510 060 | 6   | 79  | 130 | 6      |
| SF510 041 | 4.1 | 59  | 108 | 5      | SF510 061 | 6.1 | 85  | 138 | 7      |
| SF510 042 | 4.2 | 59  | 108 | 5      | SF510 062 | 6.2 | 85  | 138 | 7      |
| SF510 043 | 4.3 | 59  | 108 | 5      | SF510 063 | 6.3 | 85  | 138 | 7      |
| SF510 044 | 4.4 | 59  | 108 | 5      | SF510 064 | 6.4 | 85  | 138 | 7      |
| SF510 045 | 4.5 | 59  | 108 | 5      | SF510 065 | 6.5 | 85  | 138 | 7      |
| SF510 046 | 4.6 | 66  | 117 | 5      | SF510 066 | 6.6 | 92  | 145 | 7      |
| SF510 047 | 4.7 | 66  | 117 | 5      | SF510 067 | 6.7 | 92  | 145 | 7      |
| SF510 048 | 4.8 | 66  | 117 | 5      | SF510 068 | 6.8 | 92  | 145 | 7      |
| SF510 049 | 4.9 | 66  | 117 | 5      | SF510 069 | 6.9 | 92  | 145 | 7      |

▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# SF510

내부급유형 고속가공용 드릴 - 10D

Drill

| 품목코드      | DC  | LCF | OAL | DCONMS | 품목코드      | DC   | LCF | OAL | DCONMS |
|-----------|-----|-----|-----|--------|-----------|------|-----|-----|--------|
|           | 날경  | 날장  | 전장  | 자루경    |           | 날경   | 날장  | 전장  | 자루경    |
| SF510 070 | 7   | 92  | 145 | 7      | SF510 101 | 10.1 | 138 | 193 | 11     |
| SF510 071 | 7.1 | 98  | 153 | 8      | SF510 102 | 10.2 | 138 | 193 | 11     |
| SF510 072 | 7.2 | 98  | 153 | 8      | SF510 103 | 10.3 | 138 | 193 | 11     |
| SF510 073 | 7.3 | 98  | 153 | 8      | SF510 104 | 10.4 | 138 | 193 | 11     |
| SF510 074 | 7.4 | 98  | 153 | 8      | SF510 105 | 10.5 | 138 | 193 | 11     |
| SF510 075 | 7.5 | 98  | 153 | 8      | SF510 106 | 10.6 | 144 | 205 | 11     |
| SF510 076 | 7.6 | 105 | 160 | 8      | SF510 107 | 10.7 | 144 | 205 | 11     |
| SF510 077 | 7.7 | 105 | 160 | 8      | SF510 108 | 10.8 | 144 | 205 | 11     |
| SF510 078 | 7.8 | 105 | 160 | 8      | SF510 109 | 10.9 | 144 | 205 | 11     |
| SF510 079 | 7.9 | 105 | 160 | 8      | SF510 110 | 11   | 144 | 205 | 11     |
| SF510 080 | 8   | 105 | 160 | 8      | SF510 111 | 11.1 | 151 | 212 | 12     |
| SF510 081 | 8.1 | 111 | 166 | 9      | SF510 112 | 11.2 | 151 | 212 | 12     |
| SF510 082 | 8.2 | 111 | 166 | 9      | SF510 113 | 11.3 | 151 | 212 | 12     |
| SF510 083 | 8.3 | 111 | 166 | 9      | SF510 114 | 11.4 | 151 | 212 | 12     |
| SF510 084 | 8.4 | 111 | 166 | 9      | SF510 115 | 11.5 | 151 | 212 | 12     |
| SF510 085 | 8.5 | 111 | 166 | 9      | SF510 116 | 11.6 | 157 | 218 | 12     |
| SF510 086 | 8.6 | 118 | 173 | 9      | SF510 117 | 11.7 | 157 | 218 | 12     |
| SF510 087 | 8.7 | 118 | 173 | 9      | SF510 118 | 11.8 | 157 | 218 | 12     |
| SF510 088 | 8.8 | 118 | 173 | 9      | SF510 119 | 11.9 | 157 | 218 | 12     |
| SF510 089 | 8.9 | 118 | 173 | 9      | SF510 120 | 12   | 157 | 218 | 12     |
| SF510 090 | 9   | 118 | 173 | 9      | SF510 121 | 12.1 | 164 | 225 | 13     |
| SF510 091 | 9.1 | 124 | 179 | 10     | SF510 122 | 12.2 | 164 | 225 | 13     |
| SF510 092 | 9.2 | 124 | 179 | 10     | SF510 123 | 12.3 | 164 | 225 | 13     |
| SF510 093 | 9.3 | 124 | 179 | 10     | SF510 124 | 12.4 | 164 | 225 | 13     |
| SF510 094 | 9.4 | 124 | 179 | 10     | SF510 125 | 12.5 | 164 | 225 | 13     |
| SF510 095 | 9.5 | 124 | 179 | 10     | SF510 126 | 12.6 | 170 | 236 | 13     |
| SF510 096 | 9.6 | 131 | 186 | 10     | SF510 127 | 12.7 | 170 | 236 | 13     |
| SF510 097 | 9.7 | 131 | 186 | 10     | SF510 128 | 12.8 | 170 | 236 | 13     |
| SF510 098 | 9.8 | 131 | 186 | 10     | SF510 129 | 12.9 | 170 | 236 | 13     |
| SF510 099 | 9.9 | 131 | 186 | 10     | SF510 130 | 13   | 170 | 236 | 13     |
| SF510 100 | 10  | 131 | 186 | 10     |           |      |     |     |        |

Dolphin Drill

Dolphin Oil-Hole Drill

Power Max

Solid Spiral

▶ 적용 피삭재

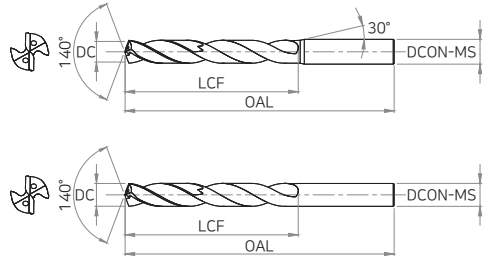
○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하트강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# SF520

내부급유형 고속가공용 드릴 - 20D

Drill



Dolphin Drill

Dolphin Oil-Hole Drill

▶ 제품허용공차

| 날경(DC)     |            | 자루경 |
|------------|------------|-----|
| ~ Ø6       | 0 ~ -0.018 |     |
| Ø6.1 ~ Ø10 | 0 ~ -0.022 |     |

Power Max

CARBIDE
AITIN
20D
30° HELIX
140°
절삭조건 P.744

Solid Spiral

| 품목코드      | DC  | LCF | OAL | DCONMS | 품목코드      | DC  | LCF | OAL | DCONMS |
|-----------|-----|-----|-----|--------|-----------|-----|-----|-----|--------|
|           | 날경  | 날장  | 전장  | 자루경    |           | 날경  | 날장  | 전장  | 자루경    |
| SF520 041 | 4.1 | 104 | 155 | 5      | SF520 061 | 6.1 | 150 | 203 | 7      |
| SF520 042 | 4.2 | 104 | 155 | 5      | SF520 062 | 6.2 | 150 | 203 | 7      |
| SF520 043 | 4.3 | 104 | 155 | 5      | SF520 063 | 6.3 | 150 | 203 | 7      |
| SF520 044 | 4.4 | 104 | 155 | 5      | SF520 064 | 6.4 | 150 | 203 | 7      |
| SF520 045 | 4.5 | 104 | 155 | 5      | SF520 065 | 6.5 | 150 | 203 | 7      |
| SF520 046 | 4.6 | 116 | 167 | 5      | SF520 066 | 6.6 | 162 | 215 | 7      |
| SF520 047 | 4.7 | 116 | 167 | 5      | SF520 067 | 6.7 | 162 | 215 | 7      |
| SF520 048 | 4.8 | 116 | 167 | 5      | SF520 068 | 6.8 | 162 | 215 | 7      |
| SF520 049 | 4.9 | 116 | 167 | 5      | SF520 069 | 6.9 | 162 | 215 | 7      |
| SF520 050 | 5   | 116 | 167 | 5      | SF520 070 | 7   | 162 | 215 | 7      |
| SF520 051 | 5.1 | 127 | 178 | 6      | SF520 071 | 7.1 | 173 | 228 | 8      |
| SF520 052 | 5.2 | 127 | 178 | 6      | SF520 072 | 7.2 | 173 | 228 | 8      |
| SF520 053 | 5.3 | 127 | 178 | 6      | SF520 073 | 7.3 | 173 | 228 | 8      |
| SF520 054 | 5.4 | 127 | 178 | 6      | SF520 074 | 7.4 | 173 | 228 | 8      |
| SF520 055 | 5.5 | 127 | 178 | 6      | SF520 075 | 7.5 | 173 | 228 | 8      |
| SF520 056 | 5.6 | 139 | 190 | 6      | SF520 076 | 7.6 | 185 | 240 | 8      |
| SF520 057 | 5.7 | 139 | 190 | 6      | SF520 077 | 7.7 | 185 | 240 | 8      |
| SF520 058 | 5.8 | 139 | 190 | 6      | SF520 078 | 7.8 | 185 | 240 | 8      |
| SF520 059 | 5.9 | 139 | 190 | 6      | SF520 079 | 7.9 | 185 | 240 | 8      |
| SF520 060 | 6   | 139 | 190 | 6      | SF520 080 | 8   | 185 | 240 | 8      |

▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H            |              | P      |            |          | K       | N |    |      | M     | S    |
|--------------|--------------|--------|------------|----------|---------|---|----|------|-------|------|
| 열처리강         |              | 탄소강    | 합금강        | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61 ~HRc55 | SKD11 HRc55~ | ~HB225 | HB225 ~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○            | ○            | ○      | ◎          | ◎        | ◎       |   |    |      |       |      |

# SF520

내부급유형 고속가공용 드릴 - 20D

| 품목코드      | DC  | LCF | OAL | DCONMS | 품목코드      | DC  | LCF | OAL | DCONMS |
|-----------|-----|-----|-----|--------|-----------|-----|-----|-----|--------|
|           | 날경  | 날장  | 전장  | 자루경    |           | 날경  | 날장  | 전장  | 자루경    |
| SF520 081 | 8.1 | 196 | 251 | 9      | SF520 091 | 9.1 | 219 | 274 | 10     |
| SF520 082 | 8.2 | 196 | 251 | 9      | SF520 092 | 9.2 | 219 | 274 | 10     |
| SF520 083 | 8.3 | 196 | 251 | 9      | SF520 093 | 9.3 | 219 | 274 | 10     |
| SF520 084 | 8.4 | 196 | 251 | 9      | SF520 094 | 9.4 | 219 | 274 | 10     |
| SF520 085 | 8.5 | 196 | 251 | 9      | SF520 095 | 9.5 | 219 | 274 | 10     |
| SF520 086 | 8.6 | 208 | 263 | 9      | SF520 096 | 9.6 | 231 | 286 | 10     |
| SF520 087 | 8.7 | 208 | 263 | 9      | SF520 097 | 9.7 | 231 | 286 | 10     |
| SF520 088 | 8.8 | 208 | 263 | 9      | SF520 098 | 9.8 | 231 | 286 | 10     |
| SF520 089 | 8.9 | 208 | 263 | 9      | SF520 099 | 9.9 | 231 | 286 | 10     |
| SF520 090 | 9   | 208 | 263 | 9      | SF520 100 | 10  | 231 | 286 | 10     |

Drill

Dolphin Drill

Dolphin Oil-Hole Drill

Power Max

Solid Spiral

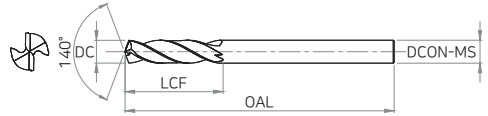
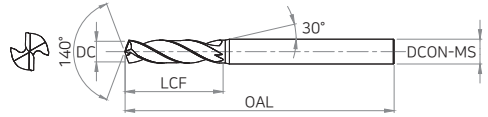
▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# HP503 더블 마진 드릴 - DIN6537K

Drill



▶ 제품허용공차

| 날경(DC)      |                 | 자루경 |
|-------------|-----------------|-----|
| Ø3          | +0.002 ~ +0.012 |     |
| Ø3.1 ~ Ø6   | +0.004 ~ +0.016 |     |
| Ø6.1 ~ Ø10  | +0.006 ~ +0.021 |     |
| Ø10.1 ~ Ø16 | +0.007 ~ +0.025 |     |

h6

DIN 6537K CARBIDE AITiN

3D 30° HELIX 140° 절삭조건 P.743

| 품목코드      | DC(날경) |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 | 품목코드      | DC(날경) |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 |
|-----------|--------|-------|-----------|-----------|---------------|-----------|--------|-------|-----------|-----------|---------------|
|           | mm     | inch  |           |           |               |           | mm     | inch  |           |           |               |
| HP503 030 | 3      | .1181 | 20        | 62        | 6             | HP503 052 | 5.2    | .2047 | 28        | 66        | 6             |
| HP503 031 | 3.1    | .1220 | 20        | 62        | 6             | HP503 053 | 5.3    | .2087 | 28        | 66        | 6             |
| HP503 032 | 3.2    | .1260 | 20        | 62        | 6             | HP503 054 | 5.4    | .2126 | 28        | 66        | 6             |
| HP503 033 | 3.3    | .1299 | 20        | 62        | 6             | HP503 055 | 5.5    | .2165 | 28        | 66        | 6             |
| HP503 034 | 3.4    | .1339 | 20        | 62        | 6             | HP503 056 | 5.6    | .2205 | 28        | 66        | 6             |
| HP503 035 | 3.5    | .1378 | 20        | 62        | 6             | HP503 057 | 5.7    | .2244 | 28        | 66        | 6             |
| HP503 036 | 3.6    | .1417 | 20        | 62        | 6             | HP503 058 | 5.8    | .2283 | 28        | 66        | 6             |
| HP503 037 | 3.7    | .1457 | 20        | 62        | 6             | HP503 059 | 5.9    | .2322 | 28        | 66        | 6             |
| HP503 038 | 3.8    | .1496 | 24        | 66        | 6             | HP503 060 | 6      | .2362 | 28        | 66        | 6             |
| HP503 039 | 3.9    | .1535 | 24        | 66        | 6             | HP503 061 | 6.1    | .2402 | 34        | 79        | 8             |
| HP503 040 | 4      | .1575 | 24        | 66        | 6             | HP503 062 | 6.2    | .2441 | 34        | 79        | 8             |
| HP503 041 | 4.1    | .1614 | 24        | 66        | 6             | HP503 063 | 6.3    | .2480 | 34        | 79        | 8             |
| HP503 042 | 4.2    | .1654 | 24        | 66        | 6             | HP503 064 | 6.4    | .2520 | 34        | 79        | 8             |
| HP503 043 | 4.3    | .1693 | 24        | 66        | 6             | HP503 065 | 6.5    | .2559 | 34        | 79        | 8             |
| HP503 044 | 4.4    | .1732 | 24        | 66        | 6             | HP503 066 | 6.6    | .2598 | 34        | 79        | 8             |
| HP503 045 | 4.5    | .1772 | 24        | 66        | 6             | HP503 067 | 6.7    | .2638 | 34        | 79        | 8             |
| HP503 046 | 4.6    | .1811 | 24        | 66        | 6             | HP503 068 | 6.8    | .2677 | 34        | 79        | 8             |
| HP503 047 | 4.7    | .1850 | 24        | 66        | 6             | HP503 069 | 6.9    | .2717 | 34        | 79        | 8             |
| HP503 048 | 4.8    | .1890 | 28        | 66        | 6             | HP503 070 | 7      | .2756 | 34        | 79        | 8             |
| HP503 049 | 4.9    | .1929 | 28        | 66        | 6             | HP503 071 | 7.1    | .2795 | 41        | 79        | 8             |
| HP503 050 | 5      | .1969 | 28        | 66        | 6             | HP503 072 | 7.2    | .2835 | 41        | 79        | 8             |
| HP503 051 | 5.1    | .2008 | 28        | 66        | 6             | HP503 073 | 7.3    | .2874 | 41        | 79        | 8             |

▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# HP503

더블 마진 드릴 - DIN6537K

Drill

| 품목코드      | DC(날경) |       | LCF | OAL | DCONMS | 품목코드      | DC(날경) |       | LCF | OAL | DCONMS |
|-----------|--------|-------|-----|-----|--------|-----------|--------|-------|-----|-----|--------|
|           | mm     | inch  | 날장  | 전장  | 자루경    |           | mm     | inch  | 날장  | 전장  | 자루경    |
| HP503 074 | 7.4    | .2913 | 41  | 79  | 8      | HP503 110 | 11     | .4331 | 55  | 102 | 12     |
| HP503 075 | 7.5    | .2953 | 41  | 79  | 8      | HP503 111 | 11.1   | .4370 | 55  | 102 | 12     |
| HP503 076 | 7.6    | .2992 | 41  | 79  | 8      | HP503 112 | 11.2   | .4409 | 55  | 102 | 12     |
| HP503 077 | 7.7    | .3031 | 41  | 79  | 8      | HP503 113 | 11.3   | .4449 | 55  | 102 | 12     |
| HP503 078 | 7.8    | .3071 | 41  | 79  | 8      | HP503 114 | 11.4   | .4488 | 55  | 102 | 12     |
| HP503 079 | 7.9    | .3110 | 41  | 79  | 8      | HP503 115 | 11.5   | .4528 | 55  | 102 | 12     |
| HP503 080 | 8      | .3150 | 41  | 79  | 8      | HP503 116 | 11.6   | .4567 | 55  | 102 | 12     |
| HP503 081 | 8.1    | .3189 | 47  | 89  | 10     | HP503 117 | 11.7   | .4606 | 55  | 102 | 12     |
| HP503 082 | 8.2    | .3228 | 47  | 89  | 10     | HP503 118 | 11.8   | .4646 | 55  | 102 | 12     |
| HP503 083 | 8.3    | .3268 | 47  | 89  | 10     | HP503 119 | 11.9   | .4685 | 55  | 102 | 12     |
| HP503 084 | 8.4    | .3307 | 47  | 89  | 10     | HP503 120 | 12     | .4724 | 55  | 102 | 12     |
| HP503 085 | 8.5    | .3346 | 47  | 89  | 10     | HP503 121 | 12.1   | .4764 | 60  | 107 | 14     |
| HP503 086 | 8.6    | .3386 | 47  | 89  | 10     | HP503 122 | 12.2   | .4803 | 60  | 107 | 14     |
| HP503 087 | 8.7    | .3425 | 47  | 89  | 10     | HP503 123 | 12.3   | .4843 | 60  | 107 | 14     |
| HP503 088 | 8.8    | .3465 | 47  | 89  | 10     | HP503 124 | 12.4   | .4882 | 60  | 107 | 14     |
| HP503 089 | 8.9    | .3504 | 47  | 89  | 10     | HP503 125 | 12.5   | .4921 | 60  | 107 | 14     |
| HP503 090 | 9      | .3543 | 47  | 89  | 10     | HP503 126 | 12.6   | .4961 | 60  | 107 | 14     |
| HP503 091 | 9.1    | .3583 | 47  | 89  | 10     | HP503 127 | 12.7   | .5000 | 60  | 107 | 14     |
| HP503 092 | 9.2    | .3622 | 47  | 89  | 10     | HP503 128 | 12.8   | .5039 | 60  | 107 | 14     |
| HP503 093 | 9.3    | .3661 | 47  | 89  | 10     | HP503 129 | 12.9   | .5079 | 60  | 107 | 14     |
| HP503 094 | 9.4    | .3701 | 47  | 89  | 10     | HP503 130 | 13     | .5118 | 60  | 107 | 14     |
| HP503 095 | 9.5    | .3740 | 47  | 89  | 10     | HP503 131 | 13.1   | .5157 | 60  | 107 | 14     |
| HP503 096 | 9.6    | .3780 | 47  | 89  | 10     | HP503 132 | 13.2   | .5157 | 60  | 107 | 14     |
| HP503 097 | 9.7    | .3819 | 47  | 89  | 10     | HP503 133 | 13.3   | .5236 | 60  | 107 | 14     |
| HP503 098 | 9.8    | .3858 | 47  | 89  | 10     | HP503 135 | 13.5   | .5315 | 60  | 107 | 14     |
| HP503 099 | 9.9    | .3898 | 47  | 89  | 10     | HP503 137 | 13.7   | .5394 | 60  | 107 | 14     |
| HP503 100 | 10     | .3937 | 47  | 89  | 10     | HP503 140 | 14     | .5512 | 60  | 107 | 14     |
| HP503 101 | 10.1   | .3976 | 55  | 102 | 12     | HP503 142 | 14.2   | .5591 | 65  | 115 | 16     |
| HP503 102 | 10.2   | .4016 | 55  | 102 | 12     | HP503 143 | 14.3   | .5630 | 65  | 115 | 16     |
| HP503 103 | 10.3   | .4055 | 55  | 102 | 12     | HP503 145 | 14.5   | .5709 | 65  | 115 | 16     |
| HP503 104 | 10.4   | .4094 | 55  | 102 | 12     | HP503 146 | 14.6   | .5787 | 65  | 115 | 16     |
| HP503 105 | 10.5   | .4134 | 55  | 102 | 12     | HP503 148 | 14.8   | .5827 | 65  | 115 | 16     |
| HP503 106 | 10.6   | .4173 | 55  | 102 | 12     | HP503 150 | 15     | .5906 | 65  | 115 | 16     |
| HP503 107 | 10.7   | .4213 | 55  | 102 | 12     | HP503 155 | 15.5   | .6102 | 65  | 115 | 16     |
| HP503 108 | 10.8   | .4252 | 55  | 102 | 12     | HP503 157 | 15.7   | .6181 | 65  | 115 | 16     |
| HP503 109 | 10.9   | .4291 | 55  | 102 | 12     | HP503 160 | 16     | .6299 | 65  | 115 | 16     |

Dolphin Drill

Dolphin Oil-Hole Drill

Power Max

Solid Spiral

▶ 적용 피삭재

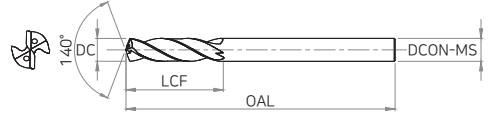
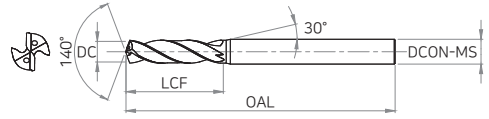
○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# HPI503

내부급유형 더블 마진 드릴 - DIN6537K

Drill



▶ 제품허용공차

| 날경(DC)      |                 | 자루경 |
|-------------|-----------------|-----|
| Ø3          | +0.002 ~ +0.012 |     |
| Ø3.1 ~ Ø6   | +0.004 ~ +0.016 |     |
| Ø6.1 ~ Ø10  | +0.006 ~ +0.021 |     |
| Ø10.1 ~ Ø18 | +0.007 ~ +0.025 |     |
| Ø18.1 ~ Ø20 | +0.008 ~ +0.029 |     |

h6

DIN 6537K CARBIDE AITiN

3D 30° HELIX 140° 절삭조건 P.743

| 품목코드         | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 | 품목코드         | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 |
|--------------|--------|----------|-------|-----------|-----------|---------------|--------------|--------|----------|-------|-----------|-----------|---------------|
|              | mm     | fraction | inch  |           |           |               |              | mm     | fraction | inch  |           |           |               |
| HPI503 030   | 3      | -        | .1181 | 20        | 62        | 6             | HPI503 044   | 4.4    | -        | .1732 | 24        | 66        | 6             |
| HPI503 031   | 3.1    | -        | .112  | 20        | 62        | 6             | HPI503 045   | 4.5    | -        | .1772 | 24        | 66        | 6             |
| HPI503 03175 | 3.175  | 1/8      | .125  | 20        | 62        | 6             | HPI503 046   | 4.6    | -        | .1811 | 24        | 66        | 6             |
| HPI503 032   | 3.2    | -        | .126  | 20        | 62        | 6             | HPI503 047   | 4.7    | -        | .185  | 24        | 66        | 6             |
| HPI503 03264 | 3.264  | -        | .1285 | 20        | 62        | 6             | HPI503 04763 | 4.763  | 3/16     | .1875 | 28        | 66        | 6             |
| HPI503 033   | 3.3    | -        | .1299 | 20        | 62        | 6             | HPI503 048   | 4.8    | -        | .189  | 28        | 66        | 6             |
| HPI503 034   | 3.4    | -        | .1339 | 20        | 62        | 6             | HPI503 049   | 4.9    | -        | .1929 | 28        | 66        | 6             |
| HPI503 035   | 3.5    | -        | .1378 | 20        | 62        | 6             | HPI503 050   | 5      | -        | .1969 | 28        | 66        | 6             |
| HPI503 03572 | 3.572  | 9/64     | .1406 | 20        | 62        | 6             | HPI503 051   | 5.1    | -        | .2008 | 28        | 66        | 6             |
| HPI503 036   | 3.6    | -        | .1417 | 20        | 62        | 6             | HPI503 05159 | 5.159  | 13/64    | .2031 | 28        | 66        | 6             |
| HPI503 037   | 3.7    | -        | .1457 | 20        | 62        | 6             | HPI503 052   | 5.2    | -        | .2047 | 28        | 66        | 6             |
| HPI503 038   | 3.8    | -        | .1496 | 24        | 66        | 6             | HPI503 053   | 5.3    | -        | .2087 | 28        | 66        | 6             |
| HPI503 039   | 3.9    | -        | .1535 | 24        | 66        | 6             | HPI503 054   | 5.4    | -        | .2126 | 28        | 66        | 6             |
| HPI503 0397  | 3.97   | 5/32     | .1563 | 24        | 66        | 6             | HPI503 055   | 5.5    | -        | .2165 | 28        | 66        | 6             |
| HPI503 040   | 4      | -        | .1575 | 24        | 66        | 6             | HPI503 05558 | 5.558  | 7/32     | .2188 | 28        | 66        | 6             |
| HPI503 04039 | 4.039  | -        | .159  | 24        | 66        | 6             | HPI503 056   | 5.6    | -        | .2205 | 28        | 66        | 6             |
| HPI503 041   | 4.1    | -        | .1614 | 24        | 66        | 6             | HPI503 057   | 5.7    | -        | .2244 | 28        | 66        | 6             |
| HPI503 042   | 4.2    | -        | .1654 | 24        | 66        | 6             | HPI503 058   | 5.8    | -        | .2283 | 28        | 66        | 6             |
| HPI503 043   | 4.3    | -        | .1693 | 24        | 66        | 6             | HPI503 059   | 5.9    | -        | .2323 | 28        | 66        | 6             |
| HPI503 04366 | 4.366  | -        | .1719 | 24        | 66        | 6             | HPI503 05953 | 5.953  | 15/64    | .2344 | 28        | 66        | 6             |

▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# HPI503

내부급유형 더블 마진 드릴 - DIN6537K

Drill

| 품목코드         | DC(날경) |          |       | LCF | OAL | DCONMS | 품목코드         | DC(날경) |       |       | LCF | OAL | DCONMS |
|--------------|--------|----------|-------|-----|-----|--------|--------------|--------|-------|-------|-----|-----|--------|
|              | mm     | fraction | inch  |     |     |        |              | 날장     | 전장    | 자루경   |     |     |        |
| HPI503 060   | 6      | -        | .2362 | 28  | 66  | 6      | HPI503 087   | 8.7    | -     | .3425 | 47  | 89  | 10     |
| HPI503 061   | 6.1    | -        | .2402 | 34  | 79  | 8      | HPI503 08733 | 8.733  | 11/32 | .3438 | 47  | 89  | 10     |
| HPI503 062   | 6.2    | -        | .2441 | 34  | 79  | 8      | HPI503 088   | 8.8    | -     | .3465 | 47  | 89  | 10     |
| HPI503 063   | 6.3    | -        | .248  | 34  | 79  | 8      | HPI503 089   | 8.9    | -     | .6504 | 47  | 89  | 10     |
| HPI503 0635  | 6.35   | 1/4      | .25   | 34  | 79  | 8      | HPI503 090   | 9      | -     | .3543 | 47  | 89  | 10     |
| HPI503 064   | 6.4    | -        | .252  | 34  | 79  | 8      | HPI503 091   | 9.1    | -     | .3583 | 47  | 89  | 10     |
| HPI503 065   | 6.5    | -        | .2559 | 34  | 79  | 8      | HPI503 09129 | 9.129  | 23/64 | .3594 | 47  | 89  | 10     |
| HPI503 066   | 6.6    | -        | .2598 | 34  | 79  | 8      | HPI503 092   | 9.2    | -     | .3622 | 47  | 89  | 10     |
| HPI503 067   | 6.7    | -        | .2638 | 34  | 79  | 8      | HPI503 093   | 9.3    | -     | .3661 | 47  | 89  | 10     |
| HPI503 06747 | 6.747  | 17/64    | .2656 | 34  | 79  | 8      | HPI503 094   | 9.4    | -     | .368  | 47  | 89  | 10     |
| HPI503 068   | 6.8    | -        | .2677 | 34  | 79  | 8      | HPI503 095   | 9.5    | -     | .374  | 47  | 89  | 10     |
| HPI503 069   | 6.9    | -        | .2717 | 34  | 79  | 8      | HPI503 09525 | 9.525  | 3/8   | .375  | 47  | 89  | 10     |
| HPI503 070   | 7      | -        | .2756 | 34  | 79  | 8      | HPI503 096   | 9.6    | -     | .378  | 47  | 89  | 10     |
| HPI503 071   | 7.1    | -        | .2795 | 41  | 79  | 8      | HPI503 097   | 9.7    | -     | .3819 | 47  | 89  | 10     |
| HPI503 07145 | 7.145  | 9/32     | .2813 | 41  | 79  | 8      | HPI503 098   | 9.8    | -     | .3858 | 47  | 89  | 10     |
| HPI503 072   | 7.2    | -        | .2835 | 41  | 79  | 8      | HPI503 099   | 9.9    | -     | .3898 | 47  | 89  | 10     |
| HPI503 073   | 7.3    | -        | .2874 | 41  | 79  | 8      | HPI503 09921 | 9.9921 | 25/64 | .3906 | 47  | 89  | 10     |
| HPI503 074   | 7.4    | -        | .2913 | 41  | 79  | 8      | HPI503 100   | 10     | -     | .3937 | 47  | 89  | 10     |
| HPI503 075   | 7.5    | -        | .2953 | 41  | 79  | 8      | HPI503 101   | 10.1   | -     | .3976 | 55  | 105 | 12     |
| HPI503 07541 | 7.541  | 19/64    | .2969 | 41  | 79  | 8      | HPI503 102   | 10.2   | -     | .4016 | 55  | 105 | 12     |
| HPI503 076   | 7.6    | -        | .2992 | 41  | 79  | 8      | HPI503 103   | 10.3   | -     | .4055 | 55  | 105 | 12     |
| HPI503 077   | 7.7    | -        | .3031 | 41  | 79  | 8      | HPI503 1032  | 10.32  | 13/32 | .4063 | 55  | 105 | 12     |
| HPI503 078   | 7.8    | -        | .3071 | 41  | 79  | 8      | HPI503 104   | 10.4   | -     | .4094 | 55  | 105 | 12     |
| HPI503 079   | 7.9    | -        | .311  | 41  | 79  | 8      | HPI503 105   | 10.5   | -     | .4134 | 55  | 105 | 12     |
| HPI503 07938 | 7.938  | 5/16     | .3125 | 41  | 79  | 8      | HPI503 106   | 10.6   | -     | .4173 | 55  | 105 | 12     |
| HPI503 080   | 8      | -        | .315  | 41  | 79  | 8      | HPI503 107   | 10.7   | -     | .4213 | 55  | 105 | 12     |
| HPI503 081   | 8.1    | -        | .3189 | 47  | 89  | 10     | HPI503 10716 | 10.716 | 27/64 | .4219 | 55  | 105 | 12     |
| HPI503 082   | 8.2    | -        | .3228 | 47  | 89  | 10     | HPI503 108   | 10.8   | -     | .4252 | 55  | 105 | 12     |
| HPI503 083   | 8.3    | -        | .3268 | 47  | 89  | 10     | HPI503 109   | 10.9   | -     | .4291 | 55  | 105 | 12     |
| HPI503 08334 | 8.334  | 21/64    | .3281 | 47  | 89  | 10     | HPI503 110   | 11     | -     | .4331 | 55  | 105 | 12     |
| HPI503 0834  | 8.34   | -        | .3283 | 47  | 89  | 10     | HPI503 111   | 11.1   | -     | .437  | 55  | 105 | 12     |
| HPI503 084   | 8.4    | -        | .3307 | 47  | 89  | 10     | HPI503 11113 | 11.113 | 7/16  | .4375 | 55  | 105 | 12     |
| HPI503 085   | 8.5    | -        | .3346 | 47  | 89  | 10     | HPI503 112   | 11.2   | -     | .4409 | 55  | 105 | 12     |
| HPI503 086   | 8.6    | -        | .3386 | 47  | 89  | 10     | HPI503 113   | 11.3   | -     | .4449 | 55  | 105 | 12     |

Dolphin Drill

Dolphin Oil-Hole Drill

Power Max

Solid Spiral

▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# HPI503

내부급유형 더블 마진 드릴 - DIN6537K

Drill

| 품목코드         | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 | 품목코드         | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 |
|--------------|--------|----------|-------|-----------|-----------|---------------|--------------|--------|----------|-------|-----------|-----------|---------------|
|              | mm     | fraction | inch  |           |           |               |              | mm     | fraction | inch  |           |           |               |
| HPI503 114   | 11.4   | -        | .4488 | 55        | 105       | 12            | HPI503 142   | 14.2   | -        | .5591 | 65        | 115       | 16            |
| HPI503 115   | 11.5   | -        | .4528 | 55        | 105       | 12            | HPI503 14288 | 14.288 | 9/16     | .5625 | 65        | 115       | 16            |
| HPI503 11509 | 11.509 | 29/64    | .4531 | 55        | 105       | 12            | HPI503 145   | 14.5   | -        | .5709 | 65        | 115       | 16            |
| HPI503 116   | 11.6   | -        | .4567 | 55        | 105       | 12            | HPI503 146   | 14.6   | -        | .5746 | 65        | 115       | 16            |
| HPI503 117   | 11.7   | -        | .4606 | 55        | 105       | 12            | HPI503 147   | 14.7   | -        | .5787 | 65        | 115       | 16            |
| HPI503 118   | 11.8   | -        | .4646 | 55        | 105       | 12            | HPI503 150   | 15     | -        | .5906 | 65        | 115       | 16            |
| HPI503 119   | 11.9   | -        | .4685 | 55        | 105       | 12            | HPI503 15081 | 15.081 | 19/32    | .5937 | 65        | 115       | 16            |
| HPI503 11908 | 11.908 | 15/32    | .4688 | 55        | 105       | 12            | HPI503 155   | 15.5   | -        | .6102 | 65        | 115       | 16            |
| HPI503 120   | 12     | -        | .4724 | 55        | 105       | 12            | HPI503 157   | 15.7   | -        | .6181 | 65        | 115       | 16            |
| HPI503 121   | 12.1   | -        | .4764 | 60        | 107       | 14            | HPI503 158   | 15.8   | -        | .622  | 65        | 115       | 16            |
| HPI503 122   | 12.2   | -        | .4803 | 60        | 107       | 14            | HPI503 15875 | 15.875 | 5/8      | .625  | 65        | 115       | 16            |
| HPI503 123   | 12.3   | -        | .4843 | 60        | 107       | 14            | HPI503 160   | 16     | -        | .6299 | 65        | 115       | 16            |
| HPI503 12304 | 12.304 | 31/64    | .4844 | 60        | 107       | 14            | HPI503 162   | 16.2   | -        | .6378 | 73        | 123       | 18            |
| HPI503 124   | 12.4   | -        | .4882 | 60        | 107       | 14            | HPI503 163   | 16.3   | -        | .6417 | 73        | 123       | 18            |
| HPI503 125   | 12.5   | -        | .4921 | 60        | 107       | 14            | HPI503 165   | 16.5   | -        | .6496 | 73        | 123       | 18            |
| HPI503 126   | 12.6   | -        | .4961 | 60        | 107       | 14            | HPI503 167   | 16.7   | -        | .6575 | 73        | 123       | 18            |
| HPI503 127   | 12.7   | 1/2      | .5    | 60        | 107       | 14            | HPI503 168   | 16.8   | -        | .6614 | 73        | 123       | 18            |
| HPI503 128   | 12.8   | -        | .5039 | 60        | 107       | 14            | HPI503 170   | 17     | -        | .6693 | 73        | 123       | 18            |
| HPI503 129   | 12.9   | -        | .5079 | 60        | 107       | 14            | HPI503 171   | 17.1   | -        | .6732 | 73        | 123       | 18            |
| HPI503 130   | 13     | -        | .5118 | 60        | 107       | 14            | HPI503 17463 | 17.463 | 11/16    | .6875 | 73        | 123       | 18            |
| HPI503 132   | 13.2   | -        | .5197 | 60        | 107       | 14            | HPI503 175   | 17.5   | -        | .689  | 73        | 123       | 18            |
| HPI503 133   | 13.3   | -        | .5236 | 60        | 107       | 14            | HPI503 180   | 18     | -        | .7087 | 73        | 123       | 18            |
| HPI503 13494 | 13.494 | 17/32    | .5313 | 60        | 107       | 14            | HPI503 185   | 18.5   | -        | .7883 | 79        | 131       | 20            |
| HPI503 135   | 13.5   | -        | .5315 | 60        | 107       | 14            | HPI503 190   | 19     | -        | .748  | 79        | 131       | 20            |
| HPI503 137   | 13.7   | -        | .5394 | 60        | 107       | 14            | HPI503 1905  | 19.05  | 3/4      | .75   | 79        | 131       | 20            |
| HPI503 13891 | 13.891 | 35/64    | .5469 | 60        | 107       | 14            | HPI503 197   | 19.7   | -        | .7756 | 79        | 131       | 20            |
| HPI503 140   | 14     | -        | .5512 | 60        | 107       | 14            | HPI503 200   | 20     | -        | .7874 | 79        | 131       | 20            |
| HPI503 141   | 14.1   | -        | .5551 | 65        | 115       | 16            |              |        |          |       |           |           |               |

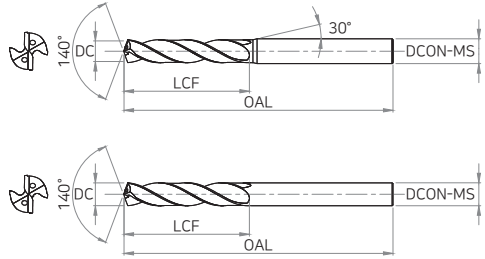
▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# HPI505

내부급유형 더블 마진 드릴 - DIN6537L



▶ 제품허용공차

| 날경(DC)      |                 | 자루경 |
|-------------|-----------------|-----|
| Ø3          | +0.002 ~ +0.012 |     |
| Ø3.1 ~ Ø6   | +0.004 ~ +0.016 |     |
| Ø6.1 ~ Ø10  | +0.006 ~ +0.021 |     |
| Ø10.1 ~ Ø18 | +0.007 ~ +0.025 |     |
| Ø18.1 ~ Ø20 | +0.008 ~ +0.029 |     |

DIN 6537L

CARBIDE

AITIN

5D

30° HELIX

140°

절삭조건 P.743

| 품목코드         | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 |
|--------------|--------|----------|-------|-----------|-----------|---------------|
|              | mm     | fraction | inch  |           |           |               |
| HPI505 030   | 3      | -        | .1181 | 30        | 66        | 6             |
| HPI505 031   | 3.1    | -        | .1120 | 30        | 66        | 6             |
| HPI505 03175 | 3.175  | -        | .1250 | 30        | 66        | 6             |
| HPI505 032   | 3.2    | -        | .1260 | 30        | 66        | 6             |
| HPI505 03264 | 3.264  | 1/8      | .1285 | 30        | 66        | 6             |
| HPI505 033   | 3.3    | -        | .1299 | 30        | 66        | 6             |
| HPI505 034   | 3.4    | -        | .1339 | 30        | 66        | 6             |
| HPI505 035   | 3.5    | -        | .1378 | 30        | 66        | 6             |
| HPI505 03572 | 3.572  | 9/64     | .1406 | 30        | 66        | 6             |
| HPI505 036   | 3.6    | -        | .1417 | 30        | 66        | 6             |
| HPI505 037   | 3.7    | -        | .1457 | 30        | 66        | 6             |
| HPI505 038   | 3.8    | -        | .1496 | 36        | 74        | 6             |
| HPI505 039   | 3.9    | -        | .1535 | 36        | 74        | 6             |
| HPI505 0397  | 3.97   | 5/32     | .1563 | 36        | 74        | 6             |
| HPI505 040   | 4      | -        | .1575 | 36        | 74        | 6             |
| HPI505 04039 | 4.039  | -        | .1590 | 36        | 74        | 6             |
| HPI505 041   | 4.1    | -        | .1614 | 36        | 74        | 6             |
| HPI505 042   | 4.2    | -        | .1654 | 36        | 74        | 6             |
| HPI505 043   | 4.3    | -        | .1693 | 36        | 74        | 6             |
| HPI505 04366 | 4.366  | -        | .1719 | 36        | 74        | 6             |

| 품목코드         | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 |
|--------------|--------|----------|-------|-----------|-----------|---------------|
|              | mm     | fraction | inch  |           |           |               |
| HPI505 044   | 4.4    | -        | .1732 | 36        | 74        | 6             |
| HPI505 045   | 4.5    | -        | .1772 | 36        | 74        | 6             |
| HPI505 0458  | 4.58   | -        | .1803 | 36        | 74        | 6             |
| HPI505 046   | 4.6    | -        | .1811 | 36        | 74        | 6             |
| HPI505 04623 | 4.623  | -        | .1820 | 36        | 74        | 6             |
| HPI505 047   | 4.7    | -        | .1850 | 36        | 74        | 6             |
| HPI505 04763 | 4.763  | 3/16     | .1875 | 44        | 82        | 6             |
| HPI505 048   | 4.8    | -        | .1890 | 44        | 82        | 6             |
| HPI505 049   | 4.9    | -        | .1929 | 44        | 82        | 6             |
| HPI505 050   | 5      | -        | .1969 | 44        | 82        | 6             |
| HPI505 051   | 5.1    | -        | .2008 | 44        | 82        | 6             |
| HPI505 05159 | 5.159  | 13/64    | .2031 | 44        | 82        | 6             |
| HPI505 052   | 5.2    | -        | .2047 | 44        | 82        | 6             |
| HPI505 053   | 5.3    | -        | .2087 | 44        | 82        | 6             |
| HPI505 054   | 5.4    | -        | .2126 | 44        | 82        | 6             |
| HPI505 0541  | 5.41   | -        | .2130 | 44        | 82        | 6             |
| HPI505 055   | 5.5    | -        | .2165 | 44        | 82        | 6             |
| HPI505 05558 | 5.558  | 7/32     | .2188 | 44        | 82        | 6             |
| HPI505 056   | 5.6    | -        | .2205 | 44        | 82        | 6             |
| HPI505 057   | 5.7    | -        | .2244 | 44        | 82        | 6             |

▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# HPI505

내부급유형 더블 마진 드릴 - DIN6537L

Drill

| 품목코드         | DC(날경) |          |       | LCF | OAL | DCONMS | 품목코드         | DC(날경) |       |       | LCF | OAL | DCONMS |
|--------------|--------|----------|-------|-----|-----|--------|--------------|--------|-------|-------|-----|-----|--------|
|              | mm     | fraction | inch  |     |     |        |              | 날장     | 전장    | 자루경   |     |     |        |
| HPI505 058   | 5.8    | -        | .2283 | 44  | 82  | 6      | HPI505 08334 | 8.334  | 21/64 | .3281 | 61  | 103 | 10     |
| HPI505 059   | 5.9    | -        | .2323 | 44  | 82  | 6      | HPI505 084   | 8.4    | -     | .3307 | 61  | 103 | 10     |
| HPI505 05953 | 5.953  | 15/64    | .2344 | 44  | 82  | 6      | HPI505 08433 | 8.433  | -     | .3320 | 61  | 103 | 10     |
| HPI505 060   | 6      | -        | .2362 | 44  | 82  | 6      | HPI505 085   | 8.5    | -     | .3346 | 61  | 103 | 10     |
| HPI505 061   | 6.1    | -        | .2402 | 53  | 91  | 8      | HPI505 086   | 8.6    | -     | .3386 | 61  | 103 | 10     |
| HPI505 062   | 6.2    | -        | .2441 | 53  | 91  | 8      | HPI505 087   | 8.7    | -     | .3425 | 61  | 103 | 10     |
| HPI505 063   | 6.3    | -        | .2480 | 53  | 91  | 8      | HPI505 08733 | 8.733  | 11/32 | .3438 | 61  | 103 | 10     |
| HPI505 0635  | 6.35   | 1/4      | .2500 | 53  | 91  | 8      | HPI505 088   | 8.8    | -     | .3465 | 61  | 103 | 10     |
| HPI505 064   | 6.4    | -        | .2520 | 53  | 91  | 8      | HPI505 089   | 8.9    | -     | .3504 | 61  | 103 | 10     |
| HPI505 065   | 6.5    | -        | .2559 | 53  | 91  | 8      | HPI505 090   | 9      | -     | .3543 | 61  | 103 | 10     |
| HPI505 06528 | 6.528  | -        | .2570 | 53  | 91  | 8      | HPI505 091   | 9.1    | -     | .3583 | 61  | 103 | 10     |
| HPI505 066   | 6.6    | -        | .2598 | 53  | 91  | 8      | HPI505 09129 | 9.129  | 23/64 | .3594 | 61  | 103 | 10     |
| HPI505 067   | 6.7    | -        | .2638 | 53  | 91  | 8      | HPI505 092   | 9.2    | -     | .3622 | 61  | 103 | 10     |
| HPI505 06747 | 6.747  | 17/64    | .2656 | 53  | 91  | 8      | HPI505 093   | 9.3    | -     | .3661 | 61  | 103 | 10     |
| HPI505 068   | 6.8    | -        | .2677 | 53  | 91  | 8      | HPI505 09347 | 9.347  | -     | .3680 | 61  | 103 | 10     |
| HPI505 069   | 6.9    | -        | .2717 | 53  | 91  | 8      | HPI505 094   | 9.4    | -     | .3701 | 61  | 103 | 10     |
| HPI505 06909 | 6.909  | -        | .2720 | 53  | 91  | 8      | HPI505 095   | 9.5    | -     | .3740 | 61  | 103 | 10     |
| HPI505 070   | 7      | -        | .2756 | 53  | 91  | 8      | HPI505 09525 | 9.525  | 3/8   | .3750 | 61  | 103 | 10     |
| HPI505 071   | 7.1    | -        | .2795 | 53  | 91  | 8      | HPI505 096   | 9.6    | -     | .3780 | 61  | 103 | 10     |
| HPI505 07145 | 7.145  | 9/32     | .2813 | 53  | 91  | 8      | HPI505 097   | 9.7    | -     | .3819 | 61  | 103 | 10     |
| HPI505 072   | 7.2    | -        | .2835 | 53  | 91  | 8      | HPI505 09703 | 9.703  | -     | .3820 | 61  | 103 | 10     |
| HPI505 073   | 7.3    | -        | .2874 | 53  | 91  | 8      | HPI505 09746 | 9.746  | -     | .3837 | 61  | 103 | 10     |
| HPI505 074   | 7.4    | -        | .2913 | 53  | 91  | 8      | HPI505 098   | 9.8    | -     | .3858 | 61  | 103 | 10     |
| HPI505 075   | 7.5    | -        | .2953 | 53  | 91  | 8      | HPI505 099   | 9.9    | -     | .3898 | 61  | 103 | 10     |
| HPI505 07541 | 7.541  | 19/64    | .2969 | 53  | 91  | 8      | HPI505 09921 | 9.921  | 25/64 | .3906 | 61  | 103 | 10     |
| HPI505 076   | 7.6    | -        | .2992 | 53  | 91  | 8      | HPI505 100   | 10     | -     | .3937 | 61  | 103 | 10     |
| HPI505 077   | 7.7    | -        | .3031 | 53  | 91  | 8      | HPI505 101   | 10.1   | -     | .3976 | 71  | 118 | 12     |
| HPI505 078   | 7.8    | -        | .3071 | 53  | 91  | 8      | HPI505 102   | 10.2   | -     | .4016 | 71  | 118 | 12     |
| HPI505 079   | 7.9    | -        | .3110 | 53  | 91  | 8      | HPI505 103   | 10.3   | -     | .4055 | 71  | 118 | 12     |
| HPI505 07938 | 7.938  | 5/16     | .3125 | 53  | 91  | 8      | HPI505 1032  | 10.32  | 13/32 | .4063 | 71  | 118 | 12     |
| HPI505 080   | 8      | -        | .3150 | 53  | 91  | 8      | HPI505 104   | 10.4   | -     | .4074 | 71  | 118 | 12     |
| HPI505 081   | 8.1    | -        | .3189 | 61  | 103 | 10     | HPI505 105   | 10.5   | -     | .4134 | 71  | 118 | 12     |
| HPI505 082   | 8.2    | -        | .3228 | 61  | 103 | 10     | HPI505 106   | 10.6   | -     | .4173 | 71  | 118 | 12     |
| HPI505 083   | 8.3    | -        | .3268 | 61  | 103 | 10     | HPI505 107   | 10.7   | -     | .4213 | 71  | 118 | 12     |

▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | Hrc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# HPI505

내부급유형 더블 마진 드릴 - DIN6537L

Drill

| 품목코드         | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 | 품목코드         | DC(날경) |          |       | LCF<br>날장 | OAL<br>전장 | DCONMS<br>자루경 |
|--------------|--------|----------|-------|-----------|-----------|---------------|--------------|--------|----------|-------|-----------|-----------|---------------|
|              | mm     | fraction | inch  |           |           |               |              | mm     | fraction | inch  |           |           |               |
| HPI505 10716 | 10.716 | 27/64    | .4219 | 71        | 118       | 12            | HPI505 13494 | 13.494 | 17/32    | .5313 | 77        | 124       | 14            |
| HPI505 108   | 10.8   | -        | .4252 | 71        | 118       | 12            | HPI505 135   | 13.5   | -        | .5315 | 77        | 124       | 14            |
| HPI505 109   | 10.9   | -        | .4291 | 71        | 118       | 12            | HPI505 137   | 13.7   | -        | .5394 | 77        | 124       | 14            |
| HPI505 110   | 11     | -        | .4331 | 71        | 118       | 12            | HPI505 138   | 13.8   | -        | .5433 | 77        | 124       | 14            |
| HPI505 111   | 11.1   | -        | .4370 | 71        | 118       | 12            | HPI505 13891 | 13.981 | 35/64    | .5504 | 77        | 124       | 14            |
| HPI505 11113 | 11.113 | 7/16     | .4375 | 71        | 118       | 12            | HPI505 140   | 14     | -        | .5512 | 77        | 124       | 14            |
| HPI505 112   | 11.2   | -        | .4409 | 71        | 118       | 12            | HPI505 141   | 14.1   | -        | .5551 | 83        | 133       | 16            |
| HPI505 113   | 11.3   | -        | .4449 | 71        | 118       | 12            | HPI505 142   | 14.2   | -        | .5591 | 83        | 133       | 16            |
| HPI505 114   | 11.4   | -        | .4488 | 71        | 118       | 12            | HPI505 14288 | 14.288 | 9/16     | .5625 | 83        | 133       | 16            |
| HPI505 115   | 11.5   | -        | .4528 | 71        | 118       | 12            | HPI505 145   | 14.5   | -        | .5709 | 83        | 133       | 16            |
| HPI505 11509 | 11.509 | 29/64    | .4531 | 71        | 118       | 12            | HPI505 146   | 14.6   | -        | .5748 | 83        | 133       | 16            |
| HPI505 116   | 11.6   | -        | .4567 | 71        | 118       | 12            | HPI505 147   | 14.7   | -        | .5787 | 83        | 133       | 16            |
| HPI505 117   | 11.7   | -        | .4606 | 71        | 118       | 12            | HPI505 148   | 14.8   | -        | .5827 | 83        | 133       | 16            |
| HPI505 118   | 11.8   | -        | .4646 | 71        | 118       | 12            | HPI505 149   | 14.9   | -        | .5866 | 83        | 133       | 16            |
| HPI505 119   | 11.9   | -        | .4685 | 71        | 118       | 12            | HPI505 150   | 15     | -        | .5906 | 83        | 133       | 16            |
| HPI505 11908 | 11.908 | 15/32    | .4688 | 71        | 118       | 12            | HPI505 15081 | 15.081 | 19/32    | .5937 | 83        | 133       | 16            |
| HPI505 120   | 12     | -        | .4724 | 71        | 118       | 12            | HPI505 151   | 15.1   | -        | .5945 | 83        | 133       | 16            |
| HPI505 121   | 12.1   | -        | .4764 | 77        | 124       | 14            | HPI505 152   | 15.2   | -        | .5984 | 83        | 133       | 16            |
| HPI505 122   | 12.2   | -        | .4803 | 77        | 124       | 14            | HPI505 155   | 15.5   | -        | .6102 | 83        | 133       | 16            |
| HPI505 123   | 12.3   | -        | .4843 | 77        | 124       | 14            | HPI505 156   | 15.6   | -        | .6142 | 83        | 133       | 16            |
| HPI505 12304 | 12.304 | 31/64    | .4844 | 77        | 124       | 14            | HPI505 157   | 15.7   | -        | .6181 | 83        | 133       | 16            |
| HPI505 124   | 12.4   | -        | .4882 | 77        | 124       | 14            | HPI505 158   | 15.8   | -        | .622  | 83        | 133       | 16            |
| HPI505 125   | 12.5   | -        | .4921 | 77        | 124       | 14            | HPI505 15875 | 15.875 | 5/8      | .625  | 83        | 133       | 16            |
| HPI505 126   | 12.6   | -        | .4961 | 77        | 124       | 14            | HPI505 159   | 15.9   | -        | .626  | 83        | 133       | 16            |
| HPI505 127   | 12.7   | 1/2      | .5    | 77        | 124       | 14            | HPI505 160   | 16     | -        | .6299 | 83        | 133       | 16            |
| HPI505 128   | 12.8   | -        | .5039 | 77        | 124       | 14            | HPI505 16078 | 16.078 | -        | .633  | 93        | 143       | 18            |
| HPI505 129   | 12.9   | -        | .5079 | 77        | 124       | 14            | HPI505 162   | 16.2   | -        | .6378 | 93        | 143       | 18            |
| HPI505 12903 | 12.903 | -        | .508  | 77        | 124       | 14            | HPI505 164   | 16.4   | -        | .6457 | 93        | 143       | 18            |
| HPI505 130   | 13     | -        | .5118 | 77        | 124       | 14            | HPI505 165   | 16.5   | -        | .6496 | 93        | 143       | 18            |
| HPI505 13096 | 13.096 | 33/64    | .5156 | 77        | 124       | 14            | HPI505 166   | 16.6   | -        | .6535 | 93        | 143       | 18            |
| HPI505 131   | 13.1   | -        | .5157 | 77        | 124       | 14            | HPI505 16667 | 16.667 | 21/32    | .6562 | 93        | 143       | 18            |
| HPI505 132   | 13.2   | -        | .5197 | 77        | 124       | 14            | HPI505 167   | 16.7   | -        | .6575 | 93        | 143       | 18            |
| HPI505 133   | 13.3   | -        | .5236 | 77        | 124       | 14            | HPI505 170   | 17     | -        | .6693 | 93        | 143       | 18            |
| HPI505 134   | 13.4   | -        | .5276 | 77        | 124       | 14            | HPI505 171   | 17.1   | -        | .6732 | 93        | 143       | 18            |

Dolphin Drill

Dolphin Oil-Hole Drill

Power Max

Solid Spiral

▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하트강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# HPI505

내부급유형 더블 마진 드릴 - DIN6537L

Drill

| 품목코드         | DC(날경) |          |       | LCF | OAL | DCONMS | 품목코드         | DC(날경) |          |       | LCF | OAL | DCONMS |
|--------------|--------|----------|-------|-----|-----|--------|--------------|--------|----------|-------|-----|-----|--------|
|              | mm     | fraction | inch  | 날장  | 전장  | 자루경    |              | mm     | fraction | inch  | 날장  | 전장  | 자루경    |
| HPI505 172   | 17.2   | -        | .6772 | 93  | 143 | 18     | HPI505 188   | 18.8   | -        | .7402 | 101 | 153 | 20     |
| HPI505 173   | 17.3   | -        | .6811 | 93  | 143 | 18     | HPI505 189   | 18.9   | -        | .7441 | 101 | 153 | 20     |
| HPI505 17463 | 17.463 | 11/16    | .6875 | 93  | 143 | 18     | HPI505 190   | 19     | -        | .748  | 101 | 153 | 20     |
| HPI505 175   | 17.5   | -        | .689  | 93  | 143 | 18     | HPI505 1905  | 19.05  | 3/4      | .75   | 101 | 153 | 20     |
| HPI505 176   | 17.6   | -        | .6929 | 93  | 143 | 18     | HPI505 192   | 19.2   | -        | .7559 | 101 | 153 | 20     |
| HPI505 177   | 17.7   | -        | .6969 | 93  | 143 | 18     | HPI505 19253 | 19.253 | -        | .758  | 101 | 153 | 20     |
| HPI505 178   | 17.8   | -        | .7008 | 93  | 143 | 18     | HPI505 19446 | 19.446 | 49/64    | .7656 | 101 | 153 | 20     |
| HPI505 179   | 17.9   | -        | .7047 | 93  | 143 | 18     | HPI505 195   | 19.5   | -        | .7677 | 101 | 153 | 20     |
| HPI505 180   | 18     | -        | .7087 | 93  | 143 | 18     | HPI505 197   | 19.7   | -        | .7756 | 101 | 153 | 20     |
| HPI505 184   | 18.4   | -        | .7244 | 101 | 153 | 20     | HPI505 19844 | 19.844 | 25/32    | .7813 | 101 | 153 | 20     |
| HPI505 185   | 18.5   | -        | .7283 | 101 | 153 | 20     | HPI505 200   | 20     | -        | .7874 | 101 | 153 | 20     |
| HPI505 186   | 18.6   | -        | .7323 | 101 | 153 | 20     |              |        |          |       |     |     |        |

Dolphin Drill

Dolphin Oil-Hole Drill

Power Max

Solid Spiral

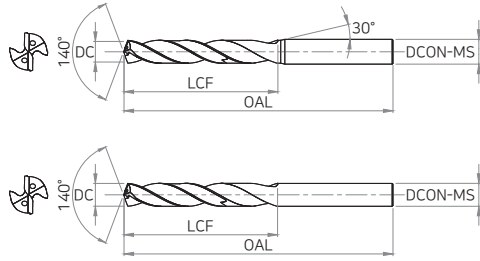
▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

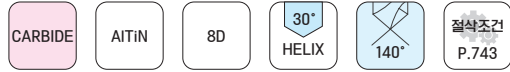
# HPI508-N

## 내부금유형 더블 마진 드릴 - 8D



### ▶ 제품허용공차

| 날경(DC)      |                 | 자루경 |
|-------------|-----------------|-----|
| Ø3          | +0.002 ~ +0.012 |     |
| Ø3.1 ~ Ø6   | +0.004 ~ +0.016 |     |
| Ø6.1 ~ Ø10  | +0.006 ~ +0.021 |     |
| Ø10.1 ~ Ø18 | +0.007 ~ +0.025 |     |
| Ø18.1 ~ Ø20 | +0.008 ~ +0.029 |     |



| 품목코드          | DC(날경) |          |       | 날경 | 전장 | 자루경 |
|---------------|--------|----------|-------|----|----|-----|
|               | mm     | fraction | inch  |    |    |     |
| HPI508 030N   | 3      | -        | .1181 | 43 | 80 | 6   |
| HPI508 031N   | 3.1    | -        | .122  | 43 | 80 | 6   |
| HPI508 03175N | 3.175  | 1/8      | .125  | 43 | 80 | 6   |
| HPI508 032N   | 3.2    | -        | .126  | 43 | 80 | 6   |
| HPI508 03264N | 3.264  | -        | .1285 | 43 | 80 | 6   |
| HPI508 033N   | 3.3    | -        | .1299 | 43 | 80 | 6   |
| HPI508 034N   | 3.4    | -        | .1339 | 43 | 80 | 6   |
| HPI508 035N   | 3.5    | -        | .1378 | 43 | 80 | 6   |
| HPI508 03572N | 3.572  | 9/64     | .1406 | 43 | 80 | 6   |
| HPI508 036N   | 3.6    | -        | .1417 | 43 | 80 | 6   |
| HPI508 037N   | 3.7    | -        | .1457 | 43 | 80 | 6   |
| HPI508 038N   | 3.8    | -        | .1496 | 49 | 87 | 6   |
| HPI508 039N   | 3.9    | -        | .1535 | 49 | 87 | 6   |
| HPI508 0397N  | 3.97   | 5/32     | .1563 | 49 | 87 | 6   |
| HPI508 040N   | 4      | -        | .1575 | 49 | 87 | 6   |
| HPI508 04039N | 4.039  | -        | .159  | 49 | 87 | 6   |
| HPI508 041N   | 4.1    | -        | .1614 | 49 | 87 | 6   |
| HPI508 042N   | 4.2    | -        | .1654 | 49 | 87 | 6   |
| HPI508 043N   | 4.3    | -        | .1693 | 49 | 87 | 6   |
| HPI508 04366N | 4.366  | -        | .1719 | 49 | 87 | 6   |

| 품목코드          | DC(날경) |          |       | 날경 | 전장 | 자루경 |
|---------------|--------|----------|-------|----|----|-----|
|               | mm     | fraction | inch  |    |    |     |
| HPI508 044N   | 4.4    | -        | .1732 | 49 | 87 | 6   |
| HPI508 045N   | 4.5    | -        | .1772 | 49 | 87 | 6   |
| HPI508 046N   | 4.6    | -        | .1811 | 49 | 87 | 6   |
| HPI508 047N   | 4.7    | -        | .185  | 49 | 87 | 6   |
| HPI508 04763N | 4.763  | 3/16     | .1875 | 56 | 94 | 6   |
| HPI508 048N   | 4.8    | -        | .189  | 56 | 94 | 6   |
| HPI508 049N   | 4.9    | -        | .1929 | 56 | 94 | 6   |
| HPI508 050N   | 5      | -        | .1969 | 56 | 94 | 6   |
| HPI508 051N   | 5.1    | -        | .2008 | 56 | 94 | 6   |
| HPI508 05159N | 5.159  | 13/64    | .2031 | 56 | 94 | 6   |
| HPI508 052N   | 5.2    | -        | .2047 | 56 | 94 | 6   |
| HPI508 053N   | 5.3    | -        | .2087 | 56 | 94 | 6   |
| HPI508 054N   | 5.4    | -        | .2126 | 56 | 94 | 6   |
| HPI508 055N   | 5.5    | -        | .2165 | 56 | 94 | 6   |
| HPI508 05558N | 5.558  | 7/32     | .2188 | 56 | 94 | 6   |
| HPI508 056N   | 5.6    | -        | .2205 | 56 | 94 | 6   |
| HPI508 057N   | 5.7    | -        | .2244 | 56 | 94 | 6   |
| HPI508 058N   | 5.8    | -        | .2283 | 56 | 94 | 6   |
| HPI508 059N   | 5.9    | -        | .2323 | 56 | 94 | 6   |
| HPI508 05953N | 5.953  | 15/64    | .2344 | 56 | 94 | 6   |

### ▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# HPI508-N

내부급유형 더블 마진 드릴 - 8D

Drill

| 품목코드          | DC(날경) |          |       | LCF | OAL | DCONMS | 품목코드          | DC(날경) |       |       | LCF | OAL | DCONMS |
|---------------|--------|----------|-------|-----|-----|--------|---------------|--------|-------|-------|-----|-----|--------|
|               | mm     | fraction | inch  |     |     |        |               | 날장     | 전장    | 자루경   |     |     |        |
| HPI508 060N   | 6      | -        | .2362 | 65  | 94  | 6      | HPI508 08733N | 8.733  | 11/32 | .3438 | 87  | 131 | 10     |
| HPI508 061N   | 6.1    | -        | .2402 | 67  | 105 | 8      | HPI508 088N   | 8.8    | -     | .3465 | 87  | 131 | 10     |
| HPI508 062N   | 6.2    | -        | .2441 | 67  | 105 | 8      | HPI508 089N   | 8.9    | -     | .3504 | 87  | 131 | 10     |
| HPI508 063N   | 6.3    | -        | .248  | 67  | 105 | 8      | HPI508 090N   | 9      | -     | .3543 | 87  | 131 | 10     |
| HPI508 0635N  | 6.35   | 1/4      | .2500 | 67  | 105 | 8      | HPI508 091N   | 9.1    | -     | .3583 | 95  | 139 | 10     |
| HPI508 064N   | 6.4    | -        | .252  | 67  | 105 | 8      | HPI508 09129N | 9.129  | 23/64 | .3594 | 95  | 139 | 10     |
| HPI508 065N   | 6.5    | -        | .2559 | 67  | 105 | 8      | HPI508 092N   | 9.2    | -     | .3622 | 95  | 139 | 10     |
| HPI508 066N   | 6.6    | -        | .2598 | 67  | 105 | 8      | HPI508 093N   | 9.3    | -     | .3661 | 95  | 139 | 10     |
| HPI508 067N   | 6.7    | -        | .2638 | 67  | 105 | 8      | HPI508 094N   | 9.4    | -     | .3701 | 95  | 139 | 10     |
| HPI508 06747N | 6.747  | 17/64    | .2656 | 67  | 105 | 8      | HPI508 095N   | 9.5    | -     | .374  | 95  | 139 | 10     |
| HPI508 068N   | 6.8    | -        | .2677 | 67  | 105 | 8      | HPI508 09525N | 9.525  | 3/8   | .375  | 95  | 139 | 10     |
| HPI508 069N   | 6.9    | -        | .2717 | 67  | 105 | 8      | HPI508 096N   | 9.6    | -     | .378  | 95  | 139 | 10     |
| HPI508 070N   | 7      | -        | .2756 | 76  | 116 | 8      | HPI508 097N   | 9.7    | -     | .3819 | 95  | 139 | 10     |
| HPI508 071N   | 7.1    | -        | .2795 | 76  | 116 | 8      | HPI508 098N   | 9.8    | -     | .3858 | 95  | 139 | 10     |
| HPI508 07145N | 7.145  | 9/32     | .2813 | 76  | 116 | 8      | HPI508 099N   | 9.9    | -     | .3898 | 95  | 139 | 10     |
| HPI508 072N   | 7.2    | -        | .2835 | 76  | 116 | 8      | HPI508 09921N | 9.921  | 25/64 | .3906 | 95  | 139 | 10     |
| HPI508 073N   | 7.3    | -        | .2874 | 76  | 116 | 8      | HPI508 100N   | 10     | -     | .3937 | 95  | 139 | 10     |
| HPI508 074N   | 7.4    | -        | .2913 | 76  | 116 | 8      | HPI508 101N   | 10.1   | -     | .3976 | 106 | 155 | 12     |
| HPI508 075N   | 7.5    | -        | .2953 | 76  | 116 | 8      | HPI508 102N   | 10.2   | -     | .4016 | 106 | 155 | 12     |
| HPI508 07541N | 7.541  | 19/64    | .2969 | 76  | 116 | 8      | HPI508 103N   | 10.3   | -     | .4055 | 106 | 155 | 12     |
| HPI508 076N   | 7.6    | -        | .2992 | 76  | 116 | 8      | HPI508 1032N  | 10.32  | 13/32 | .4063 | 106 | 155 | 12     |
| HPI508 077N   | 7.7    | -        | .3031 | 76  | 116 | 8      | HPI508 104N   | 10.4   | -     | .4094 | 106 | 155 | 12     |
| HPI508 078N   | 7.8    | -        | .3071 | 76  | 116 | 8      | HPI508 105N   | 10.5   | -     | .4134 | 106 | 155 | 12     |
| HPI508 079N   | 7.9    | -        | .311  | 76  | 116 | 8      | HPI508 107N   | 10.7   | -     | .4213 | 106 | 155 | 12     |
| HPI508 07938N | 7.938  | 5/16     | .3125 | 76  | 116 | 8      | HPI508 10716N | 10.716 | 27/64 | .4219 | 106 | 155 | 12     |
| HPI508 080N   | 8      | -        | .315  | 76  | 116 | 8      | HPI508 108N   | 10.8   | -     | .4252 | 106 | 155 | 12     |
| HPI508 081N   | 8.1    | -        | .3189 | 87  | 131 | 10     | HPI508 109N   | 10.9   | -     | .4291 | 106 | 155 | 12     |
| HPI508 082N   | 8.2    | -        | .3228 | 87  | 131 | 10     | HPI508 110N   | 11     | -     | .4331 | 106 | 155 | 12     |
| HPI508 083N   | 8.3    | -        | .3268 | 87  | 131 | 10     | HPI508 111N   | 11.1   | -     | .437  | 114 | 163 | 12     |
| HPI508 08334N | 8.334  | 21/64    | .3281 | 87  | 131 | 10     | HPI508 11113N | 11.113 | 7/16  | .4375 | 114 | 163 | 12     |
| HPI508 084N   | 8.4    | -        | .3307 | 87  | 131 | 10     | HPI508 112N   | 11.2   | -     | .4409 | 114 | 163 | 12     |
| HPI508 085N   | 8.5    | -        | .3346 | 87  | 131 | 10     | HPI508 113N   | 11.3   | -     | .4449 | 114 | 163 | 12     |
| HPI508 086N   | 8.6    | -        | .3386 | 87  | 131 | 10     | HPI508 114N   | 11.4   | -     | .4488 | 114 | 163 | 12     |
| HPI508 087N   | 8.7    | -        | .3425 | 87  | 131 | 10     | HPI508 115N   | 11.5   | -     | .4528 | 114 | 163 | 12     |

▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# HPI508-N

## 내부금유형 더블 마진 드릴 - 8D

Drill

| 품목코드          | DC(날경) |          |       | LCF | OAL | DCONMS | 품목코드          | DC(날경) |       |       | LCF | OAL | DCONMS |
|---------------|--------|----------|-------|-----|-----|--------|---------------|--------|-------|-------|-----|-----|--------|
|               | mm     | fraction | inch  |     |     |        |               | 날장     | 전장    | 자루경   |     |     |        |
| HPI508 11509N | 11.509 | 29/64    | .4531 | 114 | 163 | 12     | HPI508 152N   | 15.2   | -     | .5984 | 152 | 204 | 16     |
| HPI508 116N   | 11.6   | -        | .4567 | 114 | 163 | 12     | HPI508 153N   | 15.3   | -     | .6024 | 152 | 204 | 16     |
| HPI508 117N   | 11.7   | -        | .4606 | 114 | 163 | 12     | HPI508 155N   | 15.5   | -     | .6102 | 152 | 204 | 16     |
| HPI508 118N   | 11.8   | -        | .4646 | 114 | 163 | 12     | HPI508 158N   | 15.8   | -     | .622  | 152 | 204 | 16     |
| HPI508 119N   | 11.9   | -        | .4685 | 114 | 163 | 12     | HPI508 15875N | 15.875 | 5/8   | .625  | 152 | 204 | 16     |
| HPI508 11908N | 11.908 | 15/32    | .4688 | 114 | 163 | 12     | HPI508 160N   | 16     | -     | .6299 | 152 | 204 | 16     |
| HPI508 120N   | 12     | -        | .4724 | 114 | 163 | 12     | HPI508 16078N | 16.078 | -     | .633  | 171 | 223 | 18     |
| HPI508 12304N | 12.304 | 31/64    | .4844 | 133 | 182 | 14     | HPI508 162N   | 16.2   | -     | .6378 | 171 | 223 | 18     |
| HPI508 125N   | 12.5   | -        | .4921 | 133 | 182 | 14     | HPI508 165N   | 16.5   | -     | .6496 | 171 | 223 | 18     |
| HPI508 127N   | 12.7   | 1/2      | .5    | 133 | 182 | 14     | HPI508 170N   | 17     | -     | .6693 | 171 | 223 | 18     |
| HPI508 128N   | 12.8   | -        | .5039 | 133 | 182 | 14     | HPI508 17463N | 17.463 | 11/16 | .6875 | 171 | 223 | 18     |
| HPI508 130N   | 13     | -        | .5118 | 133 | 182 | 14     | HPI508 175N   | 17.5   | -     | .689  | 171 | 223 | 18     |
| HPI508 13494N | 13.494 | -        | .5313 | 133 | 182 | 14     | HPI508 180N   | 18     | -     | .7087 | 171 | 223 | 18     |
| HPI508 135N   | 13.5   | -        | .5315 | 133 | 182 | 14     | HPI508 185N   | 18.5   | -     | .7283 | 191 | 244 | 20     |
| HPI508 140N   | 14     | -        | .5512 | 133 | 182 | 14     | HPI508 190N   | 19     | -     | .748  | 191 | 244 | 20     |
| HPI508 14288N | 14.288 | 9/16     | .5625 | 152 | 204 | 16     | HPI508 1905N  | 19.05  | 3/4   | .75   | 191 | 244 | 20     |
| HPI508 145N   | 14.5   | -        | .5709 | 152 | 204 | 16     | HPI508 19253N | 19.253 | -     | .758  | 191 | 244 | 20     |
| HPI508 150N   | 15     | -        | .5906 | 152 | 204 | 16     | HPI508 198N   | 19.8   | -     | .7795 | 191 | 244 | 20     |
| HPI508 151N   | 15.1   | -        | .5945 | 152 | 204 | 16     | HPI508 200N   | 20     | -     | .7874 | 191 | 244 | 20     |

Dolphin Drill

Dolphin Oil-Hole Drill

Power Max

Solid Spiral

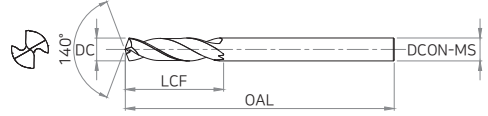
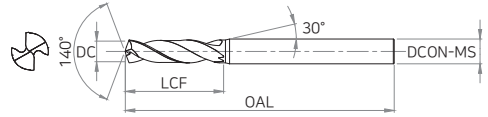
▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# P503A(F) 고속가공용 드릴 - DIN6537K

Drill



▶ 제품허용공차

| 날경(DC)      |                 | 자루경 |
|-------------|-----------------|-----|
| ~ Ø3        | +0.002 ~ +0.012 |     |
| Ø3.1 ~ Ø6   | +0.004 ~ +0.016 |     |
| Ø6.1 ~ Ø10  | +0.006 ~ +0.021 |     |
| Ø10.1 ~ Ø18 | +0.007 ~ +0.025 |     |
| Ø18.1 ~ Ø20 | +0.008 ~ +0.029 |     |

h6

| Series | Standard         | Shank Shape |
|--------|------------------|-------------|
| P503A~ | STRAIGHT         |             |
| P503F~ | 6535HE (FLAT 2') |             |



| 품목코드      | 품목코드         | DC  | LCF | OAL | DCONMS | 품목코드      | 품목코드      | DC  | LCF | OAL | DCONMS |
|-----------|--------------|-----|-----|-----|--------|-----------|-----------|-----|-----|-----|--------|
|           | Weldon shank |     |     |     |        |           | 날경        |     |     |     |        |
| P503A 030 | P503F 030    | 3   | 20  | 62  | 6      | P503A 050 | P503F 050 | 5   | 28  | 66  | 6      |
| P503A 031 | P503F 031    | 3.1 | 20  | 62  | 6      | P503A 051 | P503F 051 | 5.1 | 28  | 66  | 6      |
| P503A 032 | P503F 032    | 3.2 | 20  | 62  | 6      | P503A 052 | P503F 052 | 5.2 | 28  | 66  | 6      |
| P503A 033 | P503F 033    | 3.3 | 20  | 62  | 6      | P503A 053 | P503F 053 | 5.3 | 28  | 66  | 6      |
| P503A 034 | P503F 034    | 3.4 | 20  | 62  | 6      | P503A 054 | P503F 054 | 5.4 | 28  | 66  | 6      |
| P503A 035 | P503F 035    | 3.5 | 20  | 62  | 6      | P503A 055 | P503F 055 | 5.5 | 28  | 66  | 6      |
| P503A 036 | P503F 036    | 3.6 | 20  | 62  | 6      | P503A 056 | P503F 056 | 5.6 | 28  | 66  | 6      |
| P503A 037 | P503F 037    | 3.7 | 20  | 62  | 6      | P503A 057 | P503F 057 | 5.7 | 28  | 66  | 6      |
| P503A 038 | P503F 038    | 3.8 | 24  | 66  | 6      | P503A 058 | P503F 058 | 5.8 | 28  | 66  | 6      |
| P503A 039 | P503F 039    | 3.9 | 24  | 66  | 6      | P503A 059 | P503F 059 | 5.9 | 28  | 66  | 6      |
| P503A 040 | P503F 040    | 4   | 24  | 66  | 6      | P503A 060 | P503F 060 | 6   | 28  | 66  | 6      |
| P503A 041 | P503F 041    | 4.1 | 24  | 66  | 6      | P503A 061 | P503F 061 | 6.1 | 34  | 79  | 8      |
| P503A 042 | P503F 042    | 4.2 | 24  | 66  | 6      | P503A 062 | P503F 062 | 6.2 | 34  | 79  | 8      |
| P503A 043 | P503F 043    | 4.3 | 24  | 66  | 6      | P503A 063 | P503F 063 | 6.3 | 34  | 79  | 8      |
| P503A 044 | P503F 044    | 4.4 | 24  | 66  | 6      | P503A 064 | P503F 064 | 6.4 | 34  | 79  | 8      |
| P503A 045 | P503F 045    | 4.5 | 24  | 66  | 6      | P503A 065 | P503F 065 | 6.5 | 34  | 79  | 8      |
| P503A 046 | P503F 046    | 4.6 | 24  | 66  | 6      | P503A 066 | P503F 066 | 6.6 | 34  | 79  | 8      |
| P503A 047 | P503F 047    | 4.7 | 24  | 66  | 6      | P503A 067 | P503F 067 | 6.7 | 34  | 79  | 8      |
| P503A 048 | P503F 048    | 4.8 | 28  | 66  | 6      | P503A 068 | P503F 068 | 6.8 | 34  | 79  | 8      |
| P503A 049 | P503F 049    | 4.9 | 28  | 66  | 6      | P503A 069 | P503F 069 | 6.9 | 34  | 79  | 8      |

▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# P503A(F) 고속가공용 드릴 - DIN6537K

Drill

| 품목코드      | 품목코드         | DC   | LCF | OAL | DCONMS | 품목코드      | 품목코드         | DC   | LCF | OAL | DCONMS |
|-----------|--------------|------|-----|-----|--------|-----------|--------------|------|-----|-----|--------|
|           | Weldon shank | 날경   | 날장  | 전장  | 자루경    |           | Weldon shank | 날경   | 날장  | 전장  | 자루경    |
| P503A 070 | P503F 070    | 7    | 34  | 79  | 8      | P503A 104 | P503F 104    | 10.4 | 55  | 102 | 12     |
| P503A 071 | P503F 071    | 7.1  | 41  | 79  | 8      | P503A 105 | P503F 105    | 10.5 | 55  | 102 | 12     |
| P503A 072 | P503F 072    | 7.2  | 41  | 79  | 8      | P503A 106 | P503F 106    | 10.6 | 55  | 102 | 12     |
| P503A 073 | P503F 073    | 7.3  | 41  | 79  | 8      | P503A 107 | P503F 107    | 10.7 | 55  | 102 | 12     |
| P503A 074 | P503F 074    | 7.4  | 41  | 79  | 8      | P503A 108 | P503F 108    | 10.8 | 55  | 102 | 12     |
| P503A 075 | P503F 075    | 7.5  | 41  | 79  | 8      | P503A 109 | P503F 109    | 10.9 | 55  | 102 | 12     |
| P503A 076 | P503F 076    | 7.6  | 41  | 79  | 8      | P503A 110 | P503F 110    | 11   | 55  | 102 | 12     |
| P503A 077 | P503F 077    | 7.7  | 41  | 79  | 8      | P503A 111 | P503F 111    | 11.1 | 55  | 102 | 12     |
| P503A 078 | P503F 078    | 7.8  | 41  | 79  | 8      | P503A 112 | P503F 112    | 11.2 | 55  | 102 | 12     |
| P503A 079 | P503F 079    | 7.9  | 41  | 79  | 8      | P503A 113 | P503F 113    | 11.3 | 55  | 102 | 12     |
| P503A 080 | P503F 080    | 8    | 41  | 79  | 8      | P503A 114 | P503F 114    | 11.4 | 55  | 102 | 12     |
| P503A 081 | P503F 081    | 8.1  | 47  | 89  | 10     | P503A 115 | P503F 115    | 11.5 | 55  | 102 | 12     |
| P503A 082 | P503F 082    | 8.2  | 47  | 89  | 10     | P503A 116 | P503F 116    | 11.6 | 55  | 102 | 12     |
| P503A 083 | P503F 083    | 8.3  | 47  | 89  | 10     | P503A 117 | P503F 117    | 11.7 | 55  | 102 | 12     |
| P503A 084 | P503F 084    | 8.4  | 47  | 89  | 10     | P503A 118 | P503F 118    | 11.8 | 55  | 102 | 12     |
| P503A 085 | P503F 085    | 8.5  | 47  | 89  | 10     | P503A 119 | P503F 119    | 11.9 | 55  | 102 | 12     |
| P503A 086 | P503F 086    | 8.6  | 47  | 89  | 10     | P503A 120 | P503F 120    | 12   | 55  | 102 | 12     |
| P503A 087 | P503F 087    | 8.7  | 47  | 89  | 10     | P503A 121 | P503F 121    | 12.1 | 60  | 107 | 14     |
| P503A 088 | P503F 088    | 8.8  | 47  | 89  | 10     | P503A 122 | P503F 122    | 12.2 | 60  | 107 | 14     |
| P503A 089 | P503F 089    | 8.9  | 47  | 89  | 10     | P503A 123 | P503F 123    | 12.3 | 60  | 107 | 14     |
| P503A 090 | P503F 090    | 9    | 47  | 89  | 10     | P503A 124 | P503F 124    | 12.4 | 60  | 107 | 14     |
| P503A 091 | P503F 091    | 9.1  | 47  | 89  | 10     | P503A 125 | P503F 125    | 12.5 | 60  | 107 | 14     |
| P503A 092 | P503F 092    | 9.2  | 47  | 89  | 10     | P503A 126 | P503F 126    | 12.6 | 60  | 107 | 14     |
| P503A 093 | P503F 093    | 9.3  | 47  | 89  | 10     | P503A 127 | P503F 127    | 12.7 | 60  | 107 | 14     |
| P503A 094 | P503F 094    | 9.4  | 47  | 89  | 10     | P503A 128 | P503F 128    | 12.8 | 60  | 107 | 14     |
| P503A 095 | P503F 095    | 9.5  | 47  | 89  | 10     | P503A 129 | P503F 129    | 12.9 | 60  | 107 | 14     |
| P503A 096 | P503F 096    | 9.6  | 47  | 89  | 10     | P503A 130 | P503F 130    | 13   | 60  | 107 | 14     |
| P503A 097 | P503F 097    | 9.7  | 47  | 89  | 10     | P503A 131 | P503F 131    | 13.1 | 60  | 107 | 14     |
| P503A 098 | P503F 098    | 9.8  | 47  | 89  | 10     | P503A 132 | P503F 132    | 13.2 | 60  | 107 | 14     |
| P503A 099 | P503F 099    | 9.9  | 47  | 89  | 10     | P503A 133 | P503F 133    | 13.3 | 60  | 107 | 14     |
| P503A 100 | P503F 100    | 10   | 47  | 89  | 10     | P503A 134 | P503F 134    | 13.4 | 60  | 107 | 14     |
| P503A 101 | P503F 101    | 10.1 | 55  | 102 | 12     | P503A 135 | P503F 135    | 13.5 | 60  | 107 | 14     |
| P503A 102 | P503F 102    | 10.2 | 55  | 102 | 12     | P503A 136 | P503F 136    | 13.6 | 60  | 107 | 14     |
| P503A 103 | P503F 103    | 10.3 | 55  | 102 | 12     | P503A 137 | P503F 137    | 13.7 | 60  | 107 | 14     |

Dolphin Drill

Dolphin Oil-Hole Drill

Power Max

Solid Spiral

▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRC55 | SKD11<br>HRC55~ | ~HB225 | HB225<br>~325 | HRC30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# P503A(F) 고속가공용 드릴 - DIN6537K

Drill

| 품목코드      | 품목코드         | DC   | LCF | OAL | DCONMS | 품목코드      | 품목코드         | DC   | LCF | OAL | DCONMS |
|-----------|--------------|------|-----|-----|--------|-----------|--------------|------|-----|-----|--------|
|           | Weldon shank | 날경   | 날장  | 전장  | 자루경    |           | Weldon shank | 날경   | 날장  | 전장  | 자루경    |
| P503A 138 | P503F 138    | 13.8 | 60  | 107 | 14     | P503A 159 | P503F 159    | 15.9 | 65  | 115 | 16     |
| P503A 139 | P503F 139    | 13.9 | 60  | 107 | 14     | P503A 160 | P503F 160    | 16   | 65  | 115 | 16     |
| P503A 140 | P503F 140    | 14   | 60  | 107 | 14     | P503A 161 | P503F 161    | 16.1 | 73  | 123 | 18     |
| P503A 141 | P503F 141    | 14.1 | 65  | 115 | 16     | P503A 163 | P503F 163    | 16.3 | 73  | 123 | 18     |
| P503A 142 | P503F 142    | 14.2 | 65  | 115 | 16     | P503A 165 | P503F 165    | 16.5 | 73  | 123 | 18     |
| P503A 143 | P503F 143    | 14.3 | 65  | 115 | 16     | P503A 170 | P503F 170    | 17   | 73  | 123 | 18     |
| P503A 144 | P503F 144    | 14.4 | 65  | 115 | 16     | P503A 171 | P503F 171    | 17.1 | 73  | 123 | 18     |
| P503A 145 | P503F 145    | 14.5 | 65  | 115 | 16     | P503A 172 | P503F 172    | 17.2 | 73  | 123 | 18     |
| P503A 146 | P503F 146    | 14.6 | 65  | 115 | 16     | P503A 175 | P503F 175    | 17.5 | 73  | 123 | 18     |
| P503A 147 | P503F 147    | 14.7 | 65  | 115 | 16     | P503A 177 | P503F 177    | 17.7 | 73  | 123 | 18     |
| P503A 148 | P503F 148    | 14.8 | 65  | 115 | 16     | P503A 178 | P503F 178    | 17.8 | 73  | 123 | 18     |
| P503A 149 | P503F 149    | 14.9 | 65  | 115 | 16     | P503A 180 | P503F 180    | 18   | 73  | 123 | 18     |
| P503A 150 | P503F 150    | 15   | 65  | 115 | 16     | P503A 181 | P503F 181    | 18.1 | 79  | 131 | 20     |
| P503A 151 | P503F 151    | 15.1 | 65  | 115 | 16     | P503A 182 | P503F 182    | 18.2 | 79  | 131 | 20     |
| P503A 152 | P503F 152    | 15.2 | 65  | 115 | 16     | P503A 185 | P503F 185    | 18.5 | 79  | 131 | 20     |
| P503A 153 | P503F 153    | 15.3 | 65  | 115 | 16     | P503A 190 | P503F 190    | 19   | 79  | 131 | 20     |
| P503A 154 | P503F 154    | 15.4 | 65  | 115 | 16     | P503A 191 | P503F 191    | 19.1 | 79  | 131 | 20     |
| P503A 155 | P503F 155    | 15.5 | 65  | 115 | 16     | P503A 195 | P503F 195    | 19.5 | 79  | 131 | 20     |
| P503A 156 | P503F 156    | 15.6 | 65  | 115 | 16     | P503A 197 | P503F 197    | 19.7 | 79  | 131 | 20     |
| P503A 157 | P503F 157    | 15.7 | 65  | 115 | 16     | P503A 200 | P503F 200    | 20   | 79  | 131 | 20     |
| P503A 158 | P503F 158    | 15.8 | 65  | 115 | 16     |           |              |      |     |     |        |

Dolphin Drill

Dolphin Oil-Hole Drill

Power Max

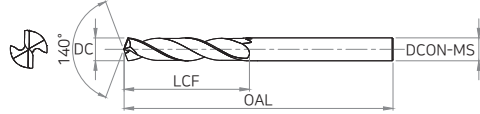
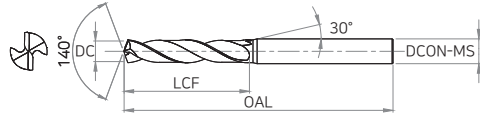
Solid Spiral

▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# P505A(F) 고속가공용 드릴 - DIN6537L



## ▶ 제품허용공차

| 날경(DC)      |                 | 자루경 |
|-------------|-----------------|-----|
| ~ Ø3        | +0.002 ~ +0.012 |     |
| Ø3.1 ~ Ø6   | +0.004 ~ +0.016 |     |
| Ø6.1 ~ Ø10  | +0.006 ~ +0.021 |     |
| Ø10.1 ~ Ø18 | +0.007 ~ +0.025 |     |
| Ø18.1 ~ Ø20 | +0.008 ~ +0.029 |     |

h6

| Series | Standard         | Shank Shape |
|--------|------------------|-------------|
| P505A~ | STRAIGHT         |             |
| P505F~ | 6535HE (FLAT 2°) |             |



| 품목코드      | 품목코드         | DC  | LCF | OAL | DCONMS |
|-----------|--------------|-----|-----|-----|--------|
|           | Weldon shank | 날경  | 날장  | 전장  | 자루경    |
| P505A 030 | P505F 030    | 3   | 28  | 66  | 6      |
| P505A 031 | P505F 031    | 3.1 | 28  | 66  | 6      |
| P505A 032 | P505F 032    | 3.2 | 28  | 66  | 6      |
| P505A 033 | P505F 033    | 3.3 | 28  | 66  | 6      |
| P505A 034 | P505F 034    | 3.4 | 28  | 66  | 6      |
| P505A 035 | P505F 035    | 3.5 | 28  | 66  | 6      |
| P505A 036 | P505F 036    | 3.6 | 28  | 66  | 6      |
| P505A 037 | P505F 037    | 3.7 | 28  | 66  | 6      |
| P505A 038 | P505F 038    | 3.8 | 36  | 74  | 6      |
| P505A 039 | P505F 039    | 3.9 | 36  | 74  | 6      |
| P505A 040 | P505F 040    | 4   | 36  | 74  | 6      |
| P505A 041 | P505F 041    | 4.1 | 36  | 74  | 6      |
| P505A 042 | P505F 042    | 4.2 | 36  | 74  | 6      |
| P505A 043 | P505F 043    | 4.3 | 36  | 74  | 6      |
| P505A 044 | P505F 044    | 4.4 | 36  | 74  | 6      |
| P505A 045 | P505F 045    | 4.5 | 36  | 74  | 6      |
| P505A 046 | P505F 046    | 4.6 | 36  | 74  | 6      |
| P505A 047 | P505F 047    | 4.7 | 36  | 74  | 6      |
| P505A 048 | P505F 048    | 4.8 | 44  | 82  | 6      |
| P505A 049 | P505F 049    | 4.9 | 44  | 82  | 6      |

| 품목코드      | 품목코드         | DC  | LCF | OAL | DCONMS |
|-----------|--------------|-----|-----|-----|--------|
|           | Weldon shank | 날경  | 날장  | 전장  | 자루경    |
| P505A 050 | P505F 050    | 5   | 44  | 82  | 6      |
| P505A 051 | P505F 051    | 5.1 | 44  | 82  | 6      |
| P505A 052 | P505F 052    | 5.2 | 44  | 82  | 6      |
| P505A 053 | P505F 053    | 5.3 | 44  | 82  | 6      |
| P505A 054 | P505F 054    | 5.4 | 44  | 82  | 6      |
| P505A 055 | P505F 055    | 5.5 | 44  | 82  | 6      |
| P505A 056 | P505F 056    | 5.6 | 44  | 82  | 6      |
| P505A 057 | P505F 057    | 5.7 | 44  | 82  | 6      |
| P505A 058 | P505F 058    | 5.8 | 44  | 82  | 6      |
| P505A 059 | P505F 059    | 5.9 | 44  | 82  | 6      |
| P505A 060 | P505F 060    | 6   | 44  | 82  | 6      |
| P505A 061 | P505F 061    | 6.1 | 53  | 91  | 8      |
| P505A 062 | P505F 062    | 6.2 | 53  | 91  | 8      |
| P505A 063 | P505F 063    | 6.3 | 53  | 91  | 8      |
| P505A 064 | P505F 064    | 6.4 | 53  | 91  | 8      |
| P505A 065 | P505F 065    | 6.5 | 53  | 91  | 8      |
| P505A 066 | P505F 066    | 6.6 | 53  | 91  | 8      |
| P505A 067 | P505F 067    | 6.7 | 53  | 91  | 8      |
| P505A 068 | P505F 068    | 6.8 | 53  | 91  | 8      |
| P505A 069 | P505F 069    | 6.9 | 53  | 91  | 8      |

## ▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRC55 | SKD11<br>HRC55~ | ~HB225 | HB225<br>~325 | HRC30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# P505A(F) 고속가공용 드릴 - DIN6537L

Drill

| 품목코드      | 품목코드         | DC   | LCF | OAL | DCONMS | 품목코드      | 품목코드         | DC   | LCF | OAL | DCONMS |
|-----------|--------------|------|-----|-----|--------|-----------|--------------|------|-----|-----|--------|
|           | Weldon shank | 날경   | 날장  | 전장  | 자루경    |           | Weldon shank | 날경   | 날장  | 전장  | 자루경    |
| P505A 070 | P505F 070    | 7    | 53  | 91  | 8      | P505A 104 | P505F 104    | 10.4 | 71  | 118 | 12     |
| P505A 071 | P505F 071    | 7.1  | 53  | 91  | 8      | P505A 105 | P505F 105    | 10.5 | 71  | 118 | 12     |
| P505A 072 | P505F 072    | 7.2  | 53  | 91  | 8      | P505A 106 | P505F 106    | 10.6 | 71  | 118 | 12     |
| P505A 073 | P505F 073    | 7.3  | 53  | 91  | 8      | P505A 107 | P505F 107    | 10.7 | 71  | 118 | 12     |
| P505A 074 | P505F 074    | 7.4  | 53  | 91  | 8      | P505A 108 | P505F 108    | 10.8 | 71  | 118 | 12     |
| P505A 075 | P505F 075    | 7.5  | 53  | 91  | 8      | P505A 109 | P505F 109    | 10.9 | 71  | 118 | 12     |
| P505A 076 | P505F 076    | 7.6  | 53  | 91  | 8      | P505A 110 | P505F 110    | 11   | 71  | 118 | 12     |
| P505A 077 | P505F 077    | 7.7  | 53  | 91  | 8      | P505A 111 | P505F 111    | 11.1 | 71  | 118 | 12     |
| P505A 078 | P505F 078    | 7.8  | 53  | 91  | 8      | P505A 112 | P505F 112    | 11.2 | 71  | 118 | 12     |
| P505A 079 | P505F 079    | 7.9  | 53  | 91  | 8      | P505A 113 | P505F 113    | 11.3 | 71  | 118 | 12     |
| P505A 080 | P505F 080    | 8    | 53  | 91  | 8      | P505A 114 | P505F 114    | 11.4 | 71  | 118 | 12     |
| P505A 081 | P505F 081    | 8.1  | 61  | 103 | 10     | P505A 115 | P505F 115    | 11.5 | 71  | 118 | 12     |
| P505A 082 | P505F 082    | 8.2  | 61  | 103 | 10     | P505A 116 | P505F 116    | 11.6 | 71  | 118 | 12     |
| P505A 083 | P505F 083    | 8.3  | 61  | 103 | 10     | P505A 117 | P505F 117    | 11.7 | 71  | 118 | 12     |
| P505A 084 | P505F 084    | 8.4  | 61  | 103 | 10     | P505A 118 | P505F 118    | 11.8 | 71  | 118 | 12     |
| P505A 085 | P505F 085    | 8.5  | 61  | 103 | 10     | P505A 119 | P505F 119    | 11.9 | 71  | 118 | 12     |
| P505A 086 | P505F 086    | 8.6  | 61  | 103 | 10     | P505A 120 | P505F 120    | 12   | 71  | 118 | 12     |
| P505A 087 | P505F 087    | 8.7  | 61  | 103 | 10     | P505A 121 | P505F 121    | 12.1 | 77  | 124 | 14     |
| P505A 088 | P505F 088    | 8.8  | 61  | 103 | 10     | P505A 122 | P505F 122    | 12.2 | 77  | 124 | 14     |
| P505A 089 | P505F 089    | 8.9  | 61  | 103 | 10     | P505A 123 | P505F 123    | 12.3 | 77  | 124 | 14     |
| P505A 090 | P505F 090    | 9    | 61  | 103 | 10     | P505A 124 | P505F 124    | 12.4 | 77  | 124 | 14     |
| P505A 091 | P505F 091    | 9.1  | 61  | 103 | 10     | P505A 125 | P505F 125    | 12.5 | 77  | 124 | 14     |
| P505A 092 | P505F 092    | 9.2  | 61  | 103 | 10     | P505A 126 | P505F 126    | 12.6 | 77  | 124 | 14     |
| P505A 093 | P505F 093    | 9.3  | 61  | 103 | 10     | P505A 127 | P505F 127    | 12.7 | 77  | 124 | 14     |
| P505A 094 | P505F 094    | 9.4  | 61  | 103 | 10     | P505A 128 | P505F 128    | 12.8 | 77  | 124 | 14     |
| P505A 095 | P505F 095    | 9.5  | 61  | 103 | 10     | P505A 129 | P505F 129    | 12.9 | 77  | 124 | 14     |
| P505A 096 | P505F 096    | 9.6  | 61  | 103 | 10     | P505A 130 | P505F 130    | 13   | 77  | 124 | 14     |
| P505A 097 | P505F 097    | 9.7  | 61  | 103 | 10     | P505A 131 | P505F 131    | 13.1 | 77  | 124 | 14     |
| P505A 098 | P505F 098    | 9.8  | 61  | 103 | 10     | P505A 132 | P505F 132    | 13.2 | 77  | 124 | 14     |
| P505A 099 | P505F 099    | 9.9  | 61  | 103 | 10     | P505A 133 | P505F 133    | 13.3 | 77  | 124 | 14     |
| P505A 100 | P505F 100    | 10   | 61  | 103 | 10     | P505A 134 | P505F 134    | 13.4 | 77  | 124 | 14     |
| P505A 101 | P505F 101    | 10.1 | 71  | 118 | 12     | P505A 135 | P505F 135    | 13.5 | 77  | 124 | 14     |
| P505A 102 | P505F 102    | 10.2 | 71  | 118 | 12     | P505A 136 | P505F 136    | 13.6 | 77  | 124 | 14     |
| P505A 103 | P505F 103    | 10.3 | 71  | 118 | 12     | P505A 137 | P505F 137    | 13.7 | 77  | 124 | 14     |

▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하든강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |

# P505A(F) 고속가공용 드릴 - DIN6537L

Drill

| 품목코드      | 품목코드         | DC   | LCF | OAL | DCONMS | 품목코드      | 품목코드         | DC   | LCF | OAL | DCONMS |
|-----------|--------------|------|-----|-----|--------|-----------|--------------|------|-----|-----|--------|
|           | Weldon shank | 날경   | 날장  | 전장  | 자루경    |           | Weldon shank | 날경   | 날장  | 전장  | 자루경    |
| P505A 138 | P505F 138    | 13.8 | 77  | 124 | 14     | P505A 170 | P505F 170    | 17   | 93  | 143 | 18     |
| P505A 139 | P505F 139    | 13.9 | 77  | 124 | 14     | P505A 171 | P505F 171    | 17.1 | 93  | 143 | 18     |
| P505A 140 | P505F 140    | 14   | 77  | 124 | 14     | P505A 172 | P505F 172    | 17.2 | 93  | 143 | 18     |
| P505A 141 | P505F 141    | 14.1 | 83  | 133 | 16     | P505A 173 | P505F 173    | 17.3 | 93  | 143 | 18     |
| P505A 142 | P505F 142    | 14.2 | 83  | 133 | 16     | P505A 174 | P505F 174    | 17.4 | 93  | 143 | 18     |
| P505A 143 | P505F 143    | 14.3 | 83  | 133 | 16     | P505A 175 | P505F 175    | 17.5 | 93  | 143 | 18     |
| P505A 144 | P505F 144    | 14.4 | 83  | 133 | 16     | P505A 176 | P505F 176    | 17.6 | 93  | 143 | 18     |
| P505A 145 | P505F 145    | 14.5 | 83  | 133 | 16     | P505A 177 | P505F 177    | 17.7 | 93  | 143 | 18     |
| P505A 146 | P505F 146    | 14.6 | 83  | 133 | 16     | P505A 178 | P505F 178    | 17.8 | 93  | 143 | 18     |
| P505A 147 | P505F 147    | 14.7 | 83  | 133 | 16     | P505A 179 | P505F 179    | 17.9 | 93  | 143 | 18     |
| P505A 148 | P505F 148    | 14.8 | 83  | 133 | 16     | P505A 180 | P505F 180    | 18   | 93  | 143 | 18     |
| P505A 149 | P505F 149    | 14.9 | 83  | 133 | 16     | P505A 181 | P505F 181    | 18.1 | 101 | 153 | 20     |
| P505A 150 | P505F 150    | 15   | 83  | 133 | 16     | P505A 182 | P505F 182    | 18.2 | 101 | 153 | 20     |
| P505A 151 | P505F 151    | 15.1 | 83  | 133 | 16     | P505A 183 | P505F 183    | 18.3 | 101 | 153 | 20     |
| P505A 152 | P505F 152    | 15.2 | 83  | 133 | 16     | P505A 184 | P505F 184    | 18.4 | 101 | 153 | 20     |
| P505A 153 | P505F 153    | 15.3 | 83  | 133 | 16     | P505A 185 | P505F 185    | 18.5 | 101 | 153 | 20     |
| P505A 154 | P505F 154    | 15.4 | 83  | 133 | 16     | P505A 186 | P505F 186    | 18.6 | 101 | 153 | 20     |
| P505A 155 | P505F 155    | 15.5 | 83  | 133 | 16     | P505A 187 | P505F 187    | 18.7 | 101 | 153 | 20     |
| P505A 156 | P505F 156    | 15.6 | 83  | 133 | 16     | P505A 188 | P505F 188    | 18.8 | 101 | 153 | 20     |
| P505A 157 | P505F 157    | 15.7 | 83  | 133 | 16     | P505A 189 | P505F 189    | 18.9 | 101 | 153 | 20     |
| P505A 158 | P505F 158    | 15.8 | 83  | 133 | 16     | P505A 190 | P505F 190    | 19   | 101 | 153 | 20     |
| P505A 159 | P505F 159    | 15.9 | 83  | 133 | 16     | P505A 191 | P505F 191    | 19.1 | 101 | 153 | 20     |
| P505A 160 | P505F 160    | 16   | 83  | 133 | 16     | P505A 192 | P505F 192    | 19.2 | 101 | 153 | 20     |
| P505A 161 | P505F 161    | 16.1 | 93  | 143 | 18     | P505A 193 | P505F 193    | 19.3 | 101 | 153 | 20     |
| P505A 162 | P505F 162    | 16.2 | 93  | 143 | 18     | P505A 194 | P505F 194    | 19.4 | 101 | 153 | 20     |
| P505A 163 | P505F 163    | 16.3 | 93  | 143 | 18     | P505A 195 | P505F 195    | 19.5 | 101 | 153 | 20     |
| P505A 164 | P505F 164    | 16.4 | 93  | 143 | 18     | P505A 196 | P505F 196    | 19.6 | 101 | 153 | 20     |
| P505A 165 | P505F 165    | 16.5 | 93  | 143 | 18     | P505A 197 | P505F 197    | 19.7 | 101 | 153 | 20     |
| P505A 166 | P505F 166    | 16.6 | 93  | 143 | 18     | P505A 198 | P505F 198    | 19.8 | 101 | 153 | 20     |
| P505A 167 | P505F 167    | 16.7 | 93  | 143 | 18     | P505A 199 | P505F 199    | 19.9 | 101 | 153 | 20     |
| P505A 168 | P505F 168    | 16.8 | 93  | 143 | 18     | P505A 200 | P505F 200    | 20   | 101 | 153 | 20     |
| P505A 169 | P505F 169    | 16.9 | 93  | 143 | 18     |           |              |      |     |     |        |

Dolphin Drill

Dolphin Oil-Hole Drill

Power Max

Solid Spiral

▶ 적용 피삭재

○ : 적합 ◎ : 매우 적합

| H               |                 | P      |               |          | K       | N |    |      | M     | S    |
|-----------------|-----------------|--------|---------------|----------|---------|---|----|------|-------|------|
| 열처리강            |                 | 탄소강    | 합금강           | 프리하트강    | 주철      | 동 | 흑연 | 알루미늄 | 스테인리스 | 내열합금 |
| SKD61<br>~HRc55 | SKD11<br>HRc55~ | ~HB225 | HB225<br>~325 | HRc30~50 | ~FCD500 |   |    |      |       |      |
| ○               | ○               | ○      | ◎             | ◎        | ◎       |   |    |      |       |      |