



- 중저경도강(HRC52이하), 프리하든강 계열, 탄소강, 금형강 등 다양한 피삭재 가공
- JCRO 코팅 처리하여 넓은 영역의 피삭재 가공에 적합합니다.
- 고정밀 공차 적용으로 초정밀 가공에 적합합니다.
- 항절력이 높은 미립자 초경합금(0.5μm)을 채택, 엔드밀의 파손을 최소화 하였습니다.

#### Endmills for various work materials (~HRC52), pre-hardened steels, carbon steels, mold steels

- Optimum for various work materials by JCRO coating.
- High precise edge tolerance.
- Minimize fracturing by high TRS fine(0.5μm) WC grade.



Shield Edge 457P

| Condition | D Size      | D Tolerance   | Condition | D Size   | D Tolerance       |
|-----------|-------------|---------------|-----------|----------|-------------------|
| ØD ≠ Ød   | Ø0.1 ~ 0.15 | +0 ~ -0.005mm | ØD = Ød   | Ø4 ~ 6   | -0.005 ~ -0.015mm |
|           | Ø0.2 ~ 6    | +0 ~ -0.01mm  |           | Ø8 ~ 12  | -0.01 ~ -0.025mm  |
|           | Ø6.5 ~ 20   | +0 ~ -0.015mm |           | Ø14 ~ 20 | -0.015 ~ -0.03mm  |

단위 : mm

| Order Number       | 날경<br>Diameter<br>D | 날장<br>Length of cut<br>L1 | 전장<br>Overall Length<br>L | 샙크<br>Dia<br>d | 비고 |
|--------------------|---------------------|---------------------------|---------------------------|----------------|----|
| 2HCEG 001 002 S04  | 0.1                 | 0.2                       | 40                        | 4              |    |
| 2HCEG 0015 003 S04 | 0.15                | 0.3                       | 40                        | 4              |    |
| 2HCEG 002 004 S04  | 0.2                 | 0.4                       | 40                        | 4              |    |
| 2HCEG 0025 005 S04 | 0.25                | 0.5                       | 40                        | 4              |    |
| 2HCEG 003 006 S04  | 0.3                 | 0.6                       | 40                        | 4              |    |
| 2HCEG 0035 007 S04 | 0.35                | 0.7                       | 40                        | 4              |    |
| 2HCEG 004 008 S04  | 0.4                 | 0.8                       | 40                        | 4              |    |
| 2HCEG 0045 009 S04 | 0.45                | 0.9                       | 40                        | 4              |    |
| 2HCEG 005 010 S04  | 0.5                 | 1                         | 40                        | 4              |    |
| 2HCEG 0055 011 S04 | 0.55                | 1.1                       | 40                        | 4              |    |
| 2HCEG 006 012 S04  | 0.6                 | 1.2                       | 40                        | 4              |    |
| 2HCEG 0065 013 S04 | 0.65                | 1.3                       | 40                        | 4              |    |
| 2HCEG 007 014 S04  | 0.7                 | 1.4                       | 40                        | 4              |    |
| 2HCEG 0075 015 S04 | 0.75                | 1.5                       | 40                        | 4              |    |
| 2HCEG 008 016 S04  | 0.8                 | 1.6                       | 40                        | 4              |    |
| 2HCEG 0085 017 S04 | 0.85                | 1.7                       | 40                        | 4              |    |
| 2HCEG 009 020 S04  | 0.9                 | 2                         | 40                        | 4              |    |
| 2HCEG 0095 020 S04 | 0.95                | 2                         | 40                        | 4              |    |
| 2HCEG 010 010 S04  | 1                   | 1                         | 40                        | 4              |    |
| 2HCEG 010 025 S04  | 1                   | 2.5                       | 40                        | 4              |    |
| 2HCEG 010 025 S06  | 1                   | 2.5                       | 40                        | 6              |    |
| 2HCEG 010 025 S06  | 1                   | 2.5                       | 60                        | 6              |    |
| 2HCEG 010 040 S06  | 1                   | 4                         | 50                        | 6              |    |
| 2HCEG 011 027 S04  | 1.1                 | 2.7                       | 40                        | 4              |    |
| 2HCEG 012 012 S04  | 1.2                 | 1.2                       | 40                        | 4              |    |
| 2HCEG 012 030 S04  | 1.2                 | 3                         | 40                        | 4              |    |
| 2HCEG 012 030 S06  | 1.2                 | 3                         | 40                        | 6              |    |
| 2HCEG 012 030 S06  | 1.2                 | 3                         | 60                        | 6              |    |
| 2HCEG 012 060 S06  | 1.2                 | 6                         | 50                        | 6              |    |
| 2HCEG 013 032 S04  | 1.3                 | 3.2                       | 40                        | 4              |    |
| 2HCEG 014 035 S04  | 1.4                 | 3.5                       | 40                        | 4              |    |
| 2HCEG 015 015 S04  | 1.5                 | 1.5                       | 40                        | 4              |    |
| 2HCEG 015 040 S04  | 1.5                 | 4                         | 40                        | 4              |    |
| 2HCEG 015 040 S06  | 1.5                 | 4                         | 40                        | 6              |    |
| 2HCEG 015 040 S06  | 1.5                 | 4                         | 60                        | 6              |    |
| 2HCEG 016 040 S04  | 1.6                 | 4                         | 40                        | 4              |    |
| 2HCEG 017 042 S04  | 1.7                 | 4.2                       | 40                        | 4              |    |
| 2HCEG 018 045 S04  | 1.8                 | 4.5                       | 40                        | 4              |    |
| 2HCEG 019 050 S04  | 1.9                 | 5                         | 40                        | 4              |    |
| 2HCEG 020 020 S04  | 2                   | 2                         | 40                        | 4              |    |
| 2HCEG 020 060 S04  | 2                   | 6                         | 40                        | 4              |    |
| 2HCEG 020 060 S06  | 2                   | 6                         | 40                        | 6              |    |
| 2HCEG 020 060 S06  | 2                   | 6                         | 60                        | 6              |    |
| 2HCEG 021 060 S04  | 2.1                 | 6                         | 40                        | 4              |    |
| 2HCEG 022 060 S04  | 2.2                 | 6                         | 40                        | 4              |    |
| 2HCEG 023 060 S04  | 2.3                 | 6                         | 40                        | 4              |    |
| 2HCEG 024 080 S04  | 2.4                 | 8                         | 45                        | 4              |    |
| 2HCEG 025 080 S04  | 2.5                 | 8                         | 45                        | 4              |    |
| 2HCEG 025 080 S06  | 2.5                 | 8                         | 45                        | 6              |    |
| 2HCEG 025 080 S07  | 2.5                 | 8                         | 70                        | 6              |    |

| Order Number      | 날경<br>Diameter<br>D | 날장<br>Length of cut<br>L1 | 전장<br>Overall Length<br>L | 샙크<br>Dia<br>d | 비고 |
|-------------------|---------------------|---------------------------|---------------------------|----------------|----|
| 2HCEG 026 080 S04 | 2.6                 | 8                         | 45                        | 4              |    |
| 2HCEG 027 080 S04 | 2.7                 | 8                         | 45                        | 4              |    |
| 2HCEG 028 080 S04 | 2.8                 | 8                         | 45                        | 4              |    |
| 2HCEG 029 080 S04 | 2.9                 | 8                         | 45                        | 4              |    |
| 2HCEG 030 030 S04 | 3                   | 3                         | 40                        | 4              |    |
| 2HCEG 030 080 S04 | 3                   | 8                         | 45                        | 4              |    |
| 2HCEG 030 080 S06 | 3                   | 8                         | 45                        | 6              |    |
| 2HCEG 030 080 S07 | 3                   | 8                         | 70                        | 6              |    |
| 2HCEG 035 100 S06 | 3.5                 | 10                        | 45                        | 6              |    |
| 2HCEG 040 040 S04 | 4                   | 4                         | 40                        | 4              |    |
| 2HCEG 040 100 S04 | 4                   | 10                        | 45                        | 4              |    |
| 2HCEG 040 110 S06 | 4                   | 11                        | 45                        | 6              |    |
| 2HCEG 040 110 S07 | 4                   | 11                        | 70                        | 6              |    |
| 2HCEG 045 110 S06 | 4.5                 | 11                        | 45                        | 6              |    |
| 2HCEG 050 130 S06 | 5                   | 13                        | 50                        | 6              |    |
| 2HCEG 050 130 S08 | 5                   | 13                        | 80                        | 6              |    |
| 2HCEG 055 130 S06 | 5.5                 | 13                        | 50                        | 6              |    |
| 2HCEG 060 060 S06 | 6                   | 6                         | 45                        | 6              |    |
| 2HCEG 060 130 S06 | 6                   | 13                        | 50                        | 6              |    |
| 2HCEG 060 130 S08 | 6                   | 13                        | 80                        | 6              |    |
| 2HCEG 060 150 S06 | 6                   | 15                        | 60                        | 6              |    |
| 2HCEG 065 160 S08 | 6.5                 | 16                        | 60                        | 8              |    |
| 2HCEG 070 160 S08 | 7                   | 16                        | 60                        | 8              |    |
| 2HCEG 075 160 S08 | 7.5                 | 16                        | 60                        | 8              |    |
| 2HCEG 080 080 S08 | 8                   | 8                         | 50                        | 8              |    |
| 2HCEG 080 190 S08 | 8                   | 19                        | 60                        | 8              |    |
| 2HCEG 080 200 S08 | 8                   | 20                        | 70                        | 8              |    |
| 2HCEG 085 190 S10 | 8.5                 | 19                        | 70                        | 10             |    |
| 2HCEG 090 190 S10 | 9                   | 19                        | 70                        | 10             |    |
| 2HCEG 095 190 S10 | 9.5                 | 19                        | 70                        | 10             |    |
| 2HCEG 100 100 S10 | 10                  | 10                        | 60                        | 10             |    |
| 2HCEG 100 220 S10 | 10                  | 22                        | 70                        | 10             |    |
| 2HCEG 100 250 S10 | 10                  | 25                        | 75                        | 10             |    |
| 2HCEG 105 220 S12 | 10.5                | 22                        | 75                        | 12             |    |
| 2HCEG 110 220 S12 | 11                  | 22                        | 75                        | 12             |    |
| 2HCEG 115 220 S12 | 11.5                | 22                        | 75                        | 12             |    |
| 2HCEG 120 120 S12 | 12                  | 12                        | 65                        | 12             |    |
| 2HCEG 120 260 S12 | 12                  | 26                        | 75                        | 12             |    |
| 2HCEG 120 300 S12 | 12                  | 30                        | 80                        | 12             |    |
| 2HCEG 140 260 S14 | 14                  | 26                        | 80                        | 14             |    |
| 2HCEG 140 260 S16 | 14                  | 26                        | 85                        | 16             |    |
| 2HCEG 160 350 S16 | 16                  | 35                        | 100                       | 16             |    |
| 2HCEG 160 400 S16 | 16                  | 40                        | 100                       | 16             |    |
| 2HCEG 180 350 S18 | 18                  | 35                        | 100                       | 18             |    |
| 2HCEG 200 400 S20 | 20                  | 40                        | 100                       | 20             |    |
| 2HCEG 200 500 S20 | 20                  | 50                        | 110                       | 20             |    |