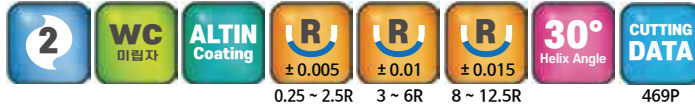


- 그래파이트(흑연), HRc48 이하의 고경도강, 프리하든강, 공구강, 주철등 다양한 피삭재 가공
- ALTIN 코팅을 적용하여 절삭저항이 적으며, 내마모성이 우수합니다.
- 긴날장으로 설계하여, 깊은 측벽가공이 많은 흑연 가공에 가장 적합합니다.
- 미립자 초경합금을 채택하여 다양한 비철합금 및 목업의 피삭재 영역에 적용이 가능합니다.

- Endmills for various work materials, graphite, hardened steels(HRc~48), pre-hardened steels, tool steels and cast irons
- Excellent performance with low cutting force by ALTIN coating.
- Long flute length optimized for deep-side wall machining of graphite.
- Applied fine WC grade optimized for various non-ferrous and non-metallic work materials.



0.25 ~ 2.5R 3 ~ 6R 8 ~ 12.5R

469P

| Condition | D Size    | D Tolerance  |
|-----------|-----------|--------------|
| ØD ≠ Ød   | Ø0.5 ~ 25 | +0 ~ -0.01mm |

| Condition | D Size   | D Tolerance       |
|-----------|----------|-------------------|
| ØD = Ød   | Ø3 ~ 12  | -0.005 ~ -0.015mm |
|           | Ø16 ~ 25 | -0.01 ~ -0.02mm   |

단위 : mm

| Order Number     | 날경<br>Diameter<br>R × D | 날장<br>Length of cut<br>L1 | 유효장<br>Effective Length<br>L2 | 전장<br>Overall Length<br>L | 샙크<br>Shank Dia<br>d | 비고 | Order Number      | 날경<br>Diameter<br>R × D | 날장<br>Length of cut<br>L1 | 유효장<br>Effective Length<br>L2 | 전장<br>Overall Length<br>L | 샙크<br>Shank Dia<br>d | 비고 |
|------------------|-------------------------|---------------------------|-------------------------------|---------------------------|----------------------|----|-------------------|-------------------------|---------------------------|-------------------------------|---------------------------|----------------------|----|
| 2GBE 005 020 S04 | 0.25R X 0.5             | 2                         | -                             | 50                        | 4                    |    | 2GBE 050 250 S06  | 2.5R X 5                | 25                        | -                             | 90                        | 6                    |    |
| 2GBE 005 050 S04 | 0.25R X 0.5             | 2                         | 5                             | 50                        | 4                    |    | 2GBE 050 500 S06  | 2.5R X 5                | 25                        | 50                            | 110                       | 6                    |    |
| 2GBE 010 050 S04 | 0.5R X 1                | 5                         | -                             | 60                        | 4                    |    | 2GBE 060 250 110  | 3R X 6                  | 25                        | -                             | 110                       | 6                    |    |
| 2GBE 010 050 S06 | 0.5R X 1                | 5                         | -                             | 60                        | 6                    |    | 2GBE 060 300 150  | 3R X 6                  | 30                        | -                             | 150                       | 6                    |    |
| 2GBE 010 100 S04 | 0.5R X 1                | 5                         | 10                            | 60                        | 4                    |    | 2GBE 060 300 200  | 3R X 6                  | 30                        | -                             | 200                       | 6                    |    |
| 2GBE 010 100 S06 | 0.5R X 1                | 5                         | 10                            | 60                        | 6                    |    | 2GBE 060 300 220  | 3R X 6                  | 30                        | -                             | 220                       | 6                    |    |
| 2GBE 010 150 S04 | 0.5R X 1                | 5                         | 15                            | 60                        | 4                    |    | 2GBE 080 350 110  | 4R X 8                  | 35                        | -                             | 110                       | 8                    |    |
| 2GBE 010 200 S04 | 0.5R X 1                | 5                         | 20                            | 60                        | 4                    |    | 2GBE 080 400 150  | 4R X 8                  | 40                        | -                             | 150                       | 8                    |    |
| 2GBE 010 250 S04 | 0.5R X 1                | 5                         | 25                            | 70                        | 4                    |    | 2GBE 080 400 200  | 4R X 8                  | 40                        | -                             | 200                       | 8                    |    |
| 2GBE 010 300 S04 | 0.5R X 1                | 5                         | 30                            | 80                        | 4                    |    | 2GBE 080 400 220  | 4R X 8                  | 40                        | -                             | 220                       | 8                    |    |
| 2GBE 010 350 S04 | 0.5R X 1                | 5                         | 35                            | 80                        | 4                    |    | 2GBE 100 400 120  | 5R X 10                 | 40                        | -                             | 120                       | 10                   |    |
| 2GBE 010 400 S04 | 0.5R X 1                | 5                         | 40                            | 90                        | 4                    |    | 2GBE 100 450 150  | 5R X 10                 | 45                        | -                             | 150                       | 10                   |    |
| 2GBE 015 080 S06 | 0.75R X 1.5             | 8                         | -                             | 60                        | 6                    |    | 2GBE 100 450 200  | 5R X 10                 | 45                        | -                             | 200                       | 10                   |    |
| 2GBE 015 100 S04 | 0.75R X 1.5             | 8                         | 10                            | 60                        | 4                    |    | 2GBE 100 450 230  | 5R X 10                 | 45                        | -                             | 230                       | 10                   |    |
| 2GBE 015 150 S04 | 0.75R X 1.5             | 8                         | 15                            | 60                        | 4                    |    | 2GBE 120 500 130  | 6R X 12                 | 50                        | -                             | 130                       | 12                   |    |
| 2GBE 015 150 S06 | 0.75R X 1.5             | 8                         | 15                            | 60                        | 6                    |    | 2GBE 120 500 150  | 6R X 12                 | 50                        | -                             | 150                       | 12                   |    |
| 2GBE 015 200 S04 | 0.75R X 1.5             | 8                         | 20                            | 60                        | 4                    |    | 2GBE 120 550 200  | 6R X 12                 | 55                        | -                             | 200                       | 12                   |    |
| 2GBE 015 250 S04 | 0.75R X 1.5             | 8                         | 25                            | 70                        | 4                    |    | 2GBE 120 550 250  | 6R X 12                 | 55                        | -                             | 250                       | 12                   |    |
| 2GBE 015 300 S04 | 0.75R X 1.5             | 8                         | 30                            | 80                        | 4                    |    | 2GBE 160 600 160  | 8R X 16                 | 60                        | -                             | 160                       | 16                   |    |
| 2GBE 015 350 S04 | 0.75R X 1.5             | 8                         | 35                            | 80                        | 4                    |    | 2GBE 160 650 200  | 8R X 16                 | 65                        | -                             | 200                       | 16                   |    |
| 2GBE 015 400 S04 | 0.75R X 1.5             | 8                         | 40                            | 90                        | 4                    |    | 2GBE 160 650 250  | 8R X 16                 | 65                        | -                             | 250                       | 16                   |    |
| 2GBE 020 100 S04 | 1R X 2                  | 10                        | -                             | 60                        | 4                    |    | 2GBE 160 700 320  | 8R X 16                 | 70                        | -                             | 320                       | 16                   |    |
| 2GBE 020 100 S06 | 1R X 2                  | 10                        | -                             | 70                        | 6                    |    | 2GBE 200 700 160  | 10R X 20                | 70                        | -                             | 160                       | 20                   |    |
| 2GBE 020 150 S04 | 1R X 2                  | 10                        | 15                            | 60                        | 4                    |    | 2GBE 200 750 200  | 10R X 20                | 75                        | -                             | 200                       | 20                   |    |
| 2GBE 020 200 S04 | 1R X 2                  | 10                        | 20                            | 60                        | 4                    |    | 2GBE 200 750 250  | 10R X 20                | 75                        | -                             | 250                       | 20                   |    |
| 2GBE 020 200 S06 | 1R X 2                  | 10                        | 20                            | 70                        | 6                    |    | 2GBE 200 900 320  | 10R X 20                | 90                        | -                             | 320                       | 20                   |    |
| 2GBE 020 250 S04 | 1R X 2                  | 10                        | 25                            | 70                        | 4                    |    | 2GBE 250 1000 250 | 12.5R X 25              | 100                       | -                             | 250                       | 25                   |    |
| 2GBE 020 300 S04 | 1R X 2                  | 10                        | 30                            | 80                        | 4                    |    |                   |                         |                           |                               |                           |                      |    |
| 2GBE 020 350 S04 | 1R X 2                  | 10                        | 35                            | 80                        | 4                    |    |                   |                         |                           |                               |                           |                      |    |
| 2GBE 020 400 S04 | 1R X 2                  | 10                        | 40                            | 90                        | 4                    |    |                   |                         |                           |                               |                           |                      |    |
| 2GBE 020 500 S04 | 1R X 2                  | 10                        | 50                            | 100                       | 4                    |    |                   |                         |                           |                               |                           |                      |    |
| 2GBE 020 600 S04 | 1R X 2                  | 10                        | 60                            | 100                       | 4                    |    |                   |                         |                           |                               |                           |                      |    |
| 2GBE 025 200 S04 | 1.25R X 2.5             | 10                        | 20                            | 70                        | 4                    |    |                   |                         |                           |                               |                           |                      |    |
| 2GBE 030 150 100 | 1.5R X 3                | 15                        | -                             | 100                       | 3                    |    |                   |                         |                           |                               |                           |                      |    |
| 2GBE 030 150 S06 | 1.5R X 3                | 15                        | -                             | 70                        | 6                    |    |                   |                         |                           |                               |                           |                      |    |
| 2GBE 030 200 S04 | 1.5R X 3                | 15                        | 20                            | 70                        | 4                    |    |                   |                         |                           |                               |                           |                      |    |
| 2GBE 030 300 S04 | 1.5R X 3                | 15                        | 30                            | 80                        | 4                    |    |                   |                         |                           |                               |                           |                      |    |
| 2GBE 030 300 S06 | 1.5R X 3                | 15                        | 30                            | 75                        | 6                    |    |                   |                         |                           |                               |                           |                      |    |
| 2GBE 030 400 S04 | 1.5R X 3                | 15                        | 40                            | 90                        | 4                    |    |                   |                         |                           |                               |                           |                      |    |
| 2GBE 030 400 S06 | 1.5R X 3                | 15                        | 40                            | 90                        | 6                    |    |                   |                         |                           |                               |                           |                      |    |
| 2GBE 030 500 S04 | 1.5R X 3                | 15                        | 50                            | 100                       | 4                    |    |                   |                         |                           |                               |                           |                      |    |
| 2GBE 030 600 S04 | 1.5R X 3                | 15                        | 60                            | 100                       | 4                    |    |                   |                         |                           |                               |                           |                      |    |
| 2GBE 040 200 080 | 2R X 4                  | 20                        | -                             | 80                        | 4                    |    |                   |                         |                           |                               |                           |                      |    |
| 2GBE 040 200 100 | 2R X 4                  | 20                        | -                             | 100                       | 4                    |    |                   |                         |                           |                               |                           |                      |    |
| 2GBE 040 200 130 | 2R X 4                  | 20                        | -                             | 130                       | 4                    |    |                   |                         |                           |                               |                           |                      |    |
| 2GBE 040 200 S06 | 2R X 4                  | 20                        | -                             | 75                        | 6                    |    |                   |                         |                           |                               |                           |                      |    |
| 2GBE 040 350 S06 | 2R X 4                  | 20                        | 35                            | 90                        | 6                    |    |                   |                         |                           |                               |                           |                      |    |
| 2GBE 040 450 S06 | 2R X 4                  | 20                        | 45                            | 100                       | 6                    |    |                   |                         |                           |                               |                           |                      |    |
| 2GBE 050 250 100 | 2.5R X 5                | 25                        | -                             | 100                       | 5                    |    |                   |                         |                           |                               |                           |                      |    |
| 2GBE 050 250 130 | 2.5R X 5                | 25                        | -                             | 130                       | 5                    |    |                   |                         |                           |                               |                           |                      |    |