

## 400<sup>+</sup>

2 刃  
切削  
條件表  
**P361**  
Cutting Condition

3 刃  
切削  
條件表  
**P362**  
Cutting Condition

## Square Type - Long Neck - 2 & 3 flutes

### 2 刃&3 刃深溝長頸立銑刀

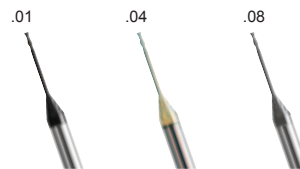
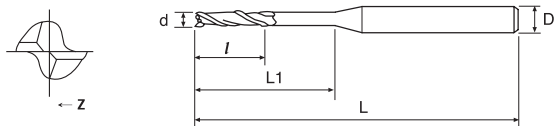
400 PLUS

HRC 55

A B A#B

● Ultra Fine Micro Grain Carbide

● WC=87 Co=12 HRA=92.1 Rupture=3800N/mm<sup>2</sup> Grain Size=0.4μm



HRC > 40

HRC > 45

HRC > 50

HRC > 55

HRC > 60

HRC > 65

| Dimension 規格 |              |                  |             |                |        | Purchase Code 採購代碼 |            |       |       |
|--------------|--------------|------------------|-------------|----------------|--------|--------------------|------------|-------|-------|
| Diameter     | Flute Length | Efficient Length | Full Length | Shank Diameter | Flutes | MODE               | Coating 塗層 |       |       |
| d 刃徑         | Z 刃長         | L1 有效長           | L 全長        | D 柄徑           | Z 刃數   | 型號                 | ALTiBN     | ZrN-S | nACRo |
| 0.5          | 0.75         | 2                | 50          | 4              | 2      | P-ULNT05022        | .01        | .04   | .08   |
| 0.5          | 0.75         | 4                | 50          | 4              | 2      | P-ULNT05042        | .01        | .04   | .08   |
| 0.5          | 0.75         | 6                | 50          | 4              | 2      | P-ULNT05062        | .01        | .04   | .08   |
| 0.6          | 0.9          | 2                | 50          | 4              | 2      | P-ULNT06022        | .01        | .04   | .08   |
| 1            | 1.5          | 6                | 50          | 4              | 3      | P-ULNT10063        | .01        | .04   | .08   |
| 1            | 1.5          | 8                | 50          | 4              | 3      | P-ULNT10083        | .01        | .04   | .08   |
| 1            | 1.5          | 10               | 50          | 4              | 3      | P-ULNT10103        | .01        | .04   | .08   |
| 1            | 1.5          | 12               | 50          | 4              | 3      | P-ULNT10123        | .01        | .04   | .08   |
| 1.5          | 2.3          | 6                | 50          | 4              | 3      | P-ULNT15063        | .01        | .04   | .08   |
| 1.5          | 2.3          | 8                | 50          | 4              | 3      | P-ULNT15083        | .01        | .04   | .08   |
| 1.5          | 2.3          | 10               | 50          | 4              | 3      | P-ULNT15103        | .01        | .04   | .08   |
| 1.5          | 2.3          | 12               | 50          | 4              | 3      | P-ULNT15123        | .01        | .04   | .08   |
| 1.5          | 2.3          | 14               | 50          | 4              | 3      | P-ULNT15143        | .01        | .04   | .08   |
| 1.5          | 2.3          | 16               | 50          | 4              | 3      | P-ULNT15163        | .01        | .04   | .08   |
| 1.5          | 2.3          | 18               | 50          | 4              | 3      | P-ULNT15183        | .01        | .04   | .08   |
| 1.5          | 2.3          | 20               | 50          | 4              | 3      | P-ULNT15203        | .01        | .04   | .08   |
| 2            | 3            | 6                | 50          | 4              | 3      | P-ULNT20063        | .01        | .04   | .08   |
| 2            | 3            | 8                | 50          | 4              | 3      | P-ULNT20083        | .01        | .04   | .08   |
| 2            | 3            | 10               | 50          | 4              | 3      | P-ULNT20103        | .01        | .04   | .08   |
| 2            | 3            | 12               | 50          | 4              | 3      | P-ULNT20123        | .01        | .04   | .08   |

Application 適用材質：

★ Perfect 最推薦    ◎ Excellent 適合    ○ Good 佳

| Coating 塗層 | Carbon steel, Alloy steel 炭素鋼, 合金鋼 | Pre-harden steel 預硬鋼 | High-hardened 高硬度鋼 |        |        |        | Stainless steel 不鏽鋼 | Titanium alloy 鈦合金 | Nickel/Inconel alloy 鎳基合金 | Copper alloy 銅合金, 銅 | Aluminum alloy 鋁合金 |
|------------|------------------------------------|----------------------|--------------------|--------|--------|--------|---------------------|--------------------|---------------------------|---------------------|--------------------|
|            |                                    | ~45HRC               | ~50HRC             | ~55HRC | ~60HRC | ~65HRC |                     |                    |                           |                     |                    |
| ALTiBN     | ◎                                  | ◎                    | ◎                  | ◎      | ○      | ○      |                     |                    |                           |                     |                    |
| ZrN-S      | ◎                                  | ◎                    | ◎                  | ○      | ○      |        | ○                   |                    |                           |                     |                    |
| nACRo      | ◎                                  | ◎                    | ◎                  | ◎      | ○      | ◎      | ○                   | ○                  |                           |                     |                    |

Unit/單位: mm

**400+** 2刃 切削條件表 **P361** Cutting Condition  
 3刃 切削條件表 **P362** Cutting Condition

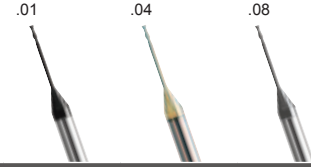
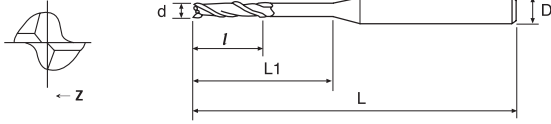
## Square Type - Long Neck - 3 flutes

### 3刃深溝長頸立銑刀



● Ultra Fine Micro Grain Carbide

● WC=87 Co=12 HRA=92.1 Rupture=3800N/mm<sup>2</sup> Grain Size=0.4μm



| Dimension 規格 |              |                  |             |                |        | Purchase Code 採購代碼 |            |       |       |
|--------------|--------------|------------------|-------------|----------------|--------|--------------------|------------|-------|-------|
| Diameter     | Flute Length | Efficient Length | Full Length | Shank Diameter | Flutes | MODE               | Coating 塗層 |       |       |
| d 刃徑         | Z 刃長         | L1 有效長           | L 全長        | D 柄徑           | Z 刃數   | 型號                 | ALTiBN     | ZrN-S | nACRo |
| 2            | 3            | 14               | 50          | 4              | 3      | P-ULNT20143        | .01        | .04   | .08   |
| 2            | 3            | 16               | 50          | 4              | 3      | P-ULNT20163        | .01        | .04   | .08   |
| 2            | 3            | 18               | 50          | 4              | 3      | P-ULNT20183        | .01        | .04   | .08   |
| 2            | 3            | 20               | 50          | 4              | 3      | P-ULNT20203        | .01        | .04   | .08   |
| 2.5          | 4            | 8                | 50          | 4              | 3      | P-ULNT25083        | .01        | .04   | .08   |
| 2.5          | 4            | 12               | 50          | 4              | 3      | P-ULNT25123        | .01        | .04   | .08   |
| 2.5          | 4            | 16               | 50          | 4              | 3      | P-ULNT25163        | .01        | .04   | .08   |
| 2.5          | 4            | 20               | 50          | 4              | 3      | P-ULNT25203        | .01        | .04   | .08   |
| 3            | 4.5          | 10               | 50          | 6              | 3      | P-ULNT30103        | .01        | .04   | .08   |
| 3            | 4.5          | 12               | 50          | 6              | 3      | P-ULNT30123        | .01        | .04   | .08   |
| 3            | 4.5          | 16               | 60          | 6              | 3      | P-ULNT30163        | .01        | .04   | .08   |
| 3            | 4.5          | 20               | 60          | 6              | 3      | P-ULNT30203        | .01        | .04   | .08   |
| 3            | 4.5          | 25               | 75          | 6              | 3      | P-ULNT30253        | .01        | .04   | .08   |
| 4            | 6            | 12               | 50          | 6              | 3      | P-ULNT40123        | .01        | .04   | .08   |
| 4            | 6            | 16               | 60          | 6              | 3      | P-ULNT40163        | .01        | .04   | .08   |
| 4            | 6            | 20               | 75          | 6              | 3      | P-ULNT40203        | .01        | .04   | .08   |
| 4            | 6            | 25               | 75          | 6              | 3      | P-ULNT40253        | .01        | .04   | .08   |
| 4            | 6            | 30               | 75          | 6              | 3      | P-ULNT40303        | .01        | .04   | .08   |
| 4            | 6            | 35               | 75          | 6              | 3      | P-ULNT40353        | .01        | .04   | .08   |

Application 適用材質：

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| Coating 塗層 | Carbon steel, Alloy steel 炭素鋼, 合金鋼 | Pre-hardened steel 預硬鋼 | High-hardened 高硬度鋼 |        |        |        | Stainless steel 不鏽鋼 | Titanium alloy 鈦合金 | Nickel/Inconel alloy 鎳基合金 | Copper alloy 銅合金, 銅 | Aluminum alloy 鋁合金 |
|------------|------------------------------------|------------------------|--------------------|--------|--------|--------|---------------------|--------------------|---------------------------|---------------------|--------------------|
|            |                                    | ~45HRC                 | ~50HRC             | ~55HRC | ~60HRC | ~65HRC |                     |                    |                           |                     |                    |
| ALTiBN     | ◎                                  | ◎                      | ◎                  | ◎      | ○      | ○      |                     |                    |                           |                     |                    |
| ZrN-S      | ◎                                  | ◎                      | ◎                  | ○      | ○      |        | ○                   |                    |                           |                     |                    |
| nACRo      | ◎                                  | ◎                      | ◎                  | ◎      | ○      | ◎      | ○                   | ○                  |                           |                     |                    |

Unit/單位: mm