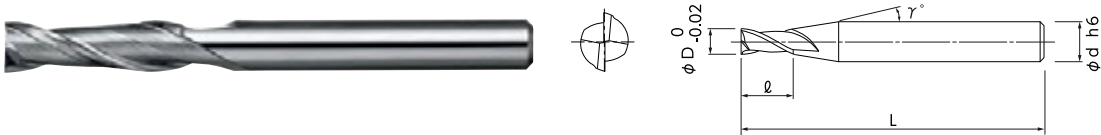
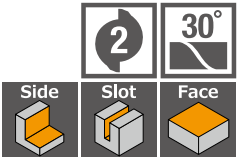


汎用性の高い2枚刃ミディアム刃長エンドミル  
刃長は外径の約3倍。深い側面・溝加工にも対応

Versatile 2-flute medium edge end mill  
L/D is approximately 3. It can be used for deep side machining and groove



▲ 生産終了品 Discontinued Products

| コードNo.<br>Code No. | (D)外径<br>Dia. | (ℓ)刃長<br>Length of Cut | (γ)首角<br>Neck Taper Angle | (d)シャンク径<br>Shank Dia. | (L)全長<br>Overall Length | 標準価格<br>Retail Price |
|--------------------|---------------|------------------------|---------------------------|------------------------|-------------------------|----------------------|
| ▲ 01-00232-00050   | 0.5           | 1.5                    | 9°                        | 3                      | 35                      | 7,600 Ⅱ              |
| ▲ 01-00232-00060   | 0.6           | 1.8                    | 9°                        | 3                      | 35                      | 7,600 Ⅱ              |
| ▲ 01-00232-00070   | 0.7           | 2.1                    | 9°                        | 3                      | 35                      | 7,600 Ⅱ              |
| ▲ 01-00232-00080   | 0.8           | 2.4                    | 9°                        | 3                      | 35                      | 7,600 Ⅱ              |
| ▲ 01-00232-00090   | 0.9           | 2.7                    | 9°                        | 3                      | 35                      | 7,600 Ⅱ              |
| ▲ 01-00232-00100   | 1             | 3                      | 9°                        | 4                      | 45                      | 6,600 Ⅱ              |
| ▲ 01-00232-00110   | 1.1           | 3.5                    | 9°                        | 4                      | 45                      | 6,700 Ⅱ              |
| ▲ 01-00232-00120   | 1.2           | 3.5                    | 9°                        | 4                      | 45                      | 6,700 Ⅱ              |
| ▲ 01-00232-00130   | 1.3           | 4                      | 9°                        | 4                      | 45                      | 6,700 Ⅱ              |
| ▲ 01-00232-00140   | 1.4           | 4.5                    | 9°                        | 4                      | 45                      | 6,700 Ⅱ              |
| ▲ 01-00232-00150   | 1.5           | 4.5                    | 9°                        | 4                      | 45                      | 6,700 Ⅱ              |
| ▲ 01-00232-00160   | 1.6           | 5                      | 9°                        | 4                      | 45                      | 6,700 Ⅱ              |
| ▲ 01-00232-00170   | 1.7           | 5                      | 9°                        | 4                      | 45                      | 6,700 Ⅱ              |
| ▲ 01-00232-00180   | 1.8           | 5.5                    | 9°                        | 4                      | 45                      | 6,700 Ⅱ              |
| ▲ 01-00232-00190   | 1.9           | 6                      | 9°                        | 4                      | 45                      | 6,700 Ⅱ              |
| ▲ 01-00232-00200   | 2             | 6                      | 9°                        | 4                      | 45                      | 6,700 Ⅱ              |
| ▲ 01-00232-00250   | 2.5           | 8                      | 9°                        | 4                      | 45                      | 6,700 Ⅱ              |
| ▲ 01-00232-00300   | 3             | 10                     | 9°                        | 6                      | 45                      | 7,600 Ⅱ              |
| ▲ 01-00232-00350   | 3.5           | 11                     | 9°                        | 6                      | 50                      | 9,400 Ⅱ              |
| ▲ 01-00232-00400   | 4             | 12                     | 9°                        | 6                      | 50                      | 7,600 Ⅱ              |

単位 [寸法 : mm / 価格 : 円]  
Unit [Size : mm / Retail Price : JPY]

| コードNo.<br>Code No. | (D)外径<br>Dia. | (ℓ)刃長<br>Length of Cut | (γ)首角<br>Neck Taper Angle | (d)シャンク径<br>Shank Dia. | (L)全長<br>Overall Length | 標準価格<br>Retail Price |
|--------------------|---------------|------------------------|---------------------------|------------------------|-------------------------|----------------------|
| ▲ 01-00232-00450   | 4.5           | 14                     | 9°                        | 6                      | 55                      | 9,400 Ⅱ              |
| ▲ 01-00232-00500   | 5             | 15                     | 9°                        | 6                      | 55                      | 7,700 Ⅱ              |
| ▲ 01-00232-00550   | 5.5           | 17                     | 9°                        | 6                      | 55                      | 9,400 Ⅱ              |
| ▲ 01-00232-00600   | 6             | 18                     | —                         | 6                      | 60                      | 7,700 Ⅱ              |
| ▲ 01-00232-00650   | 6.5           | 20                     | —                         | 6                      | 65                      | 13,400 Ⅱ             |
| ▲ 01-00232-00700   | 7             | 21                     | 9°                        | 8                      | 65                      | 13,400 Ⅱ             |
| ▲ 01-00232-00750   | 7.5           | 23                     | 9°                        | 8                      | 70                      | 13,400 Ⅱ             |
| ▲ 01-00232-00800   | 8             | 24                     | —                         | 8                      | 70                      | 11,600 Ⅱ             |
| ▲ 01-00232-00850   | 8.5           | 25                     | —                         | 8                      | 70                      | 19,900 Ⅱ             |
| ▲ 01-00232-00900   | 9             | 27                     | 9°                        | 10                     | 75                      | 19,900 Ⅱ             |
| ▲ 01-00232-00950   | 9.5           | 28                     | 9°                        | 10                     | 75                      | 19,900 Ⅱ             |
| ▲ 01-00232-01000   | 10            | 30                     | —                         | 10                     | 80                      | 15,800 Ⅱ             |
| ▲ 01-00232-01100   | 11            | 33                     | 9°                        | 12                     | 80                      | 29,500 Ⅱ             |
| ▲ 01-00232-01200   | 12            | 36                     | —                         | 12                     | 85                      | 25,500 Ⅱ             |
| ▲ 01-00232-01400   | 14            | 42                     | —                         | 12                     | 100                     | 40,600 Ⅱ             |
| ▲ 01-00232-01500   | 15            | 45                     | 9°                        | 16                     | 110                     | 53,700 Ⅱ             |
| ▲ 01-00232-01600   | 16            | 50                     | —                         | 16                     | 110                     | 53,700 Ⅱ             |
| ▲ 01-00232-01800   | 18            | 55                     | 9°                        | 20                     | 130                     | 86,900 Ⅱ             |
| ▲ 01-00232-02000   | 20            | 60                     | —                         | 20                     | 135                     | 86,900 Ⅱ             |

オーダー方法  
How to Order

NCM-2 外径 (D) を指示してください。  
When you order, indicate NCM-2 (D).

※ (γ) は参考値です。  
※ (γ) is reference value.

Ⅱの規格・サイズは特定商社在庫となります。詳しくはお取引のある商社様へお問い合わせください。  
Ⅱ Semi-standard products, please inquire for price and delivery.

▲は生産終了品です。在庫が無くなり次第、販売終了となります。  
▲ Discontinued products. The marked sizes will no longer be on sale after the stock runs out.

- 炭素鋼  
Carbon Steel

P
- 合金鋼  
Alloy Steel

P
- アルミ合金  
Aluminium Alloy

N
- 銅  
Copper

N
- 樹脂  
Resin

O

| 被削材<br>Work Material  | 炭素鋼<br>Carbon Steels<br>S50C                                                                                                                                        |                    |               | 合金鋼<br>Alloy Steels<br>SCM・SKD・SUS |                    |               | 調質鋼<br>Prehardened Steels<br>HPM・NAK |                    |               | アルミニウム合金<br>Aluminium Alloy |                    |               | 銅<br>Copper          |                    |               |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------|------------------------------------|--------------------|---------------|--------------------------------------|--------------------|---------------|-----------------------------|--------------------|---------------|----------------------|--------------------|---------------|
| 切削速度<br>Cutting Speed | 40～50m/min                                                                                                                                                          |                    |               | 35～45m/min                         |                    |               | 25～35m/min                           |                    |               | 60～100m/min                 |                    |               | 40～80m/min           |                    |               |
| 外 径<br>Dia.           | 回転数<br>Spindle Speed                                                                                                                                                | 送り速度<br>Feed       |               | 回転数<br>Spindle Speed               | 送り速度<br>Feed       |               | 回転数<br>Spindle Speed                 | 送り速度<br>Feed       |               | 回転数<br>Spindle Speed        | 送り速度<br>Feed       |               | 回転数<br>Spindle Speed | 送り速度<br>Feed       |               |
|                       | min <sup>-1</sup>                                                                                                                                                   | mm/min             |               | min <sup>-1</sup>                  | mm/min             |               | min <sup>-1</sup>                    | mm/min             |               | min <sup>-1</sup>           | mm/min             |               | min <sup>-1</sup>    | mm/min             |               |
|                       |                                                                                                                                                                     | 側面<br>Side Milling | 溝<br>Slotting |                                    | 側面<br>Side Milling | 溝<br>Slotting |                                      | 側面<br>Side Milling | 溝<br>Slotting |                             | 側面<br>Side Milling | 溝<br>Slotting |                      | 側面<br>Side Milling | 溝<br>Slotting |
| 0.5                   | 28,700                                                                                                                                                              | 130                | 50            | 25,500                             | 90                 | 40            | 19,100                               | 80                 | 35            | 50,000                      | 200                | 80            | 38,200               | 150                | 60            |
| 0.8                   | 17,900                                                                                                                                                              | 130                | 50            | 15,900                             | 90                 | 40            | 11,900                               | 80                 | 35            | 50,000                      | 200                | 80            | 23,900               | 150                | 60            |
| 1                     | 14,300                                                                                                                                                              | 130                | 50            | 12,700                             | 90                 | 40            | 9,600                                | 80                 | 35            | 25,500                      | 250                | 100           | 19,100               | 180                | 80            |
| 1.5                   | 9,600                                                                                                                                                               | 130                | 50            | 8,500                              | 90                 | 40            | 6,400                                | 80                 | 35            | 17,000                      | 250                | 100           | 12,700               | 180                | 80            |
| 2                     | 7,200                                                                                                                                                               | 130                | 50            | 6,400                              | 90                 | 40            | 4,800                                | 80                 | 35            | 12,700                      | 250                | 100           | 9,600                | 180                | 80            |
| 3                     | 4,800                                                                                                                                                               | 150                | 60            | 4,200                              | 120                | 50            | 3,200                                | 90                 | 40            | 8,500                       | 250                | 100           | 6,400                | 180                | 80            |
| 4                     | 3,600                                                                                                                                                               | 150                | 60            | 3,200                              | 120                | 50            | 2,400                                | 90                 | 40            | 6,400                       | 300                | 130           | 4,800                | 220                | 100           |
| 5                     | 2,900                                                                                                                                                               | 170                | 70            | 2,500                              | 140                | 55            | 1,900                                | 110                | 45            | 5,100                       | 300                | 130           | 3,800                | 220                | 100           |
| 6                     | 2,400                                                                                                                                                               | 170                | 70            | 2,100                              | 140                | 55            | 1,600                                | 110                | 45            | 4,200                       | 350                | 150           | 3,200                | 250                | 120           |
| 7                     | 2,000                                                                                                                                                               | 170                | 70            | 1,800                              | 140                | 55            | 1,400                                | 110                | 45            | 3,600                       | 350                | 150           | 2,700                | 250                | 120           |
| 8                     | 1,800                                                                                                                                                               | 170                | 70            | 1,600                              | 140                | 55            | 1,200                                | 110                | 45            | 3,200                       | 350                | 150           | 2,400                | 250                | 120           |
| 9                     | 1,600                                                                                                                                                               | 170                | 70            | 1,400                              | 140                | 55            | 1,100                                | 110                | 45            | 2,800                       | 350                | 150           | 2,100                | 250                | 120           |
| 10                    | 1,400                                                                                                                                                               | 170                | 70            | 1,300                              | 140                | 55            | 1,000                                | 110                | 45            | 2,500                       | 350                | 150           | 1,900                | 250                | 120           |
| 11                    | 1,300                                                                                                                                                               | 170                | 70            | 1,200                              | 140                | 55            | 900                                  | 110                | 45            | 2,300                       | 350                | 150           | 1,700                | 250                | 120           |
| 12                    | 1,200                                                                                                                                                               | 170                | 70            | 1,100                              | 140                | 55            | 800                                  | 110                | 45            | 2,100                       | 350                | 150           | 1,600                | 250                | 120           |
| 14                    | 1,020                                                                                                                                                               | 170                | 70            | 910                                | 140                | 55            | 680                                  | 110                | 45            | 1,800                       | 350                | 150           | 1,400                | 250                | 120           |
| 15                    | 960                                                                                                                                                                 | 170                | 70            | 850                                | 140                | 55            | 640                                  | 110                | 45            | 1,700                       | 350                | 150           | 1,300                | 250                | 120           |
| 16                    | 900                                                                                                                                                                 | 170                | 70            | 800                                | 140                | 55            | 600                                  | 110                | 45            | 1,600                       | 350                | 150           | 1,200                | 250                | 120           |
| 18                    | 800                                                                                                                                                                 | 170                | 70            | 710                                | 140                | 55            | 530                                  | 110                | 45            | 1,400                       | 350                | 150           | 1,100                | 250                | 120           |
| 20                    | 720                                                                                                                                                                 | 170                | 70            | 640                                | 140                | 55            | 480                                  | 110                | 45            | 1,300                       | 350                | 150           | 1,000                | 250                | 120           |
| 切込み量<br>Depth of Cut  | <div><div>側面 Side Milling</div><div>溝 Slotting</div><div><div>ap</div><div>φ 0.5 ～ 0.9 = 0.25D</div><div>φ 1 ～ 2.5 = 0.5D</div><div>φ 3 ～ 20 = 1D</div></div></div> |                    |               |                                    |                    |               |                                      |                    |               |                             |                    |               |                      |                    |               |
| (D・外径 Dia.)           |                                                                                                                                                                     |                    |               |                                    |                    |               |                                      |                    |               |                             |                    |               |                      |                    |               |
| 備 考<br>Notes          | ※ 1 切削油を使用してください。<br>※ 2 回転数と送り速度は同じ割合で調整してください。<br>※ 1 Use cutting fluid.<br>※ 2 Adjust both spindle speed and feed at the same rate.                              |                    |               |                                    |                    |               |                                      |                    |               |                             |                    |               |                      |                    |               |

- 炭素鋼  
Carbon Steel

P
- 合金鋼  
Alloy Steel

P
- アルミ合金  
Aluminium Alloy

N
- 銅  
Copper

N
- 樹脂  
Resin

O