# USG

# ดอกเอ็นมิล
## END MILL

Material | FLUTE | FLUTE | Helix Angle | Shouldering | Center Cutting | Length of cut

## SUPER HIGH SPEED M42

***First Class Material from France***

เอ็นมิลแบบ 4 ฟัน ใช้สำหรับงานด้านข้างงาน ผิวเรียบละเอียดใช้ได้กับงานทั่วไป

These end mills are furnished as regular with right-hand cutting and right-hand helical flutes. These are designed for slotting, drilling, pocketing and general-purpose operation.

### END MILL HSS กัดละเอียด 2/4 ฟัน

| Dia. of Mill (mm.) | Flut | Dia. of Shank (mm.) | Length of Cut (mm.) | Overall Length (mm.) | PRICE |
|---|---|---|---|---|---|
| 1.0 | 4F | 6 | 4 | 55 | 320.- |
| 1.5 | 4F | 6 | 4 | 55 | 320.- |
| ▶ 2.0 | 2F/4F | 6 | 6 | 55 | 280.- |
| 2.5 | 4F | 6 | 7 | 55 | 390.- |
| ▶ 3.0 | 2F | 6 | 10 | 55 | 260.- |
| 3.5 | 4F | 6 | 12 | 55 | 260.- |
| ▶ 4.0 | 2F/4F | 6 | 12 | 60/55 | 260.- |
| 4.5 | 4F | 6 | 15 | 60 | 265.- |
| ▶ 5.0 | 4F | 6 | 15 | 60 | 265.- |
| 5.5 | 4F | 6 | 15 | 60 | 265.- |
| ▶ 6.0 | 2F/4F | 6 | 15 | 60 | 265.- |
| 6.5 | 4F | 8 | 15 | 65 | 310.- |
| 7.0 | 4F | 8 | 20 | 70 | 320.- |
| 7.5 | 4F | 8 | 20 | 70 | 320.- |
| ▶ 8.0 | 2F/4F | 8 | 20 | 70 | 320.- |
| 8.5 | 4F | 10 | 25 | 80 | 320.- |
| 9.0 | 4F | 10 | 25 | 80 | 420.- |
| 9.5 | 4F | 10 | 25 | 80 | 420.- |
| ▶ 10.0 | 2F/4F | 10 | 25 | 80 | 420.- |
| 10.5 | 4F | 12 | 30 | 90 | 550.- |
| 11.0 | 4F | 12 | 30 | 90 | 540.- |
| 11.5 | 4F | 12 | 30 | 90 | 540.- |
| ▶ 12.0 | 2F/4F | 12 | 30 | 90 | 560.- |
| 12.5 | 4F | 12 | 35 | 95 | 660.- |
| 13.0 | 4F | 12 | 35 | 95 | 660.- |

| Dia. of Mill (mm.) | Flut | Dia. of Shank (mm.) | Length of Cut (mm.) | Overall Length (mm.) | PRICE |
|---|---|---|---|---|---|
| 13.5 | 4F | 12 | 35 | 100 | 760.- |
| ▶ 14.0 | 2F/4F | 12 | 35 | 95 | 790.- |
| 14.0 | 2F/4F | 16 | 35 | 100 | 920.- |
| 15.0 | 4F | 16 | 40 | 105 | 950.- |
| ▶ 16.0 | 2F/4F | 16 | 40 | 105 | 950.- |
| 16.5 | 4F | 16 | 40 | 105 | 1,030.- |
| 17.0 | 4F | 16 | 40 | 105 | 1,030.- |
| 17.5 | 4F | 16 | 40 | 105 | 1,120.- |
| ▶ 18.0 | 2F/4F | 16 | 40 | 105 | 1,120.- |
| 18.0 | 2F/4F | 20 | 40 | 105 | 1,300.- |
| 18.5 | 4F | 20 | 45 | 115 | 1,400.- |
| 19.0 | 4F | 20 | 45 | 115 | 1,400.- |
| ▶ 20.0 | 2F/4F | 20 | 45 | 115 | 1,400.- |
| 21.0 | 4F | 20 | 45 | 115 | 1,600.- |
| 22.0 | 4F | 20 | 45 | 115 | 1,600.- |
| 23.0 | 4F | 25 | 50 | 125 | 2,200.- |
| 24.0 | 4F | 25 | 50 | 125 | 2,200.- |
| ▶ 25.0 | 4F | 25 | 50 | 125 | 2,200.- |
| 26.0 | 4F | 25 | 50 | 125 | 2,600.- |
| 27.0 | 4F | 25 | 50 | 125 | 2,600.- |
| 28.0 | 4F | 25 | 55 | 125 | 2,600.- |
| 29.0 | 4F | 25 | 55 | 125 | 2,890.- |
| 30.0 | 4F | 26 | 55 | 125 | 2,830.- |
| 32.0 | 4F | 32 | 60 | 145 | 3,650.- |

## Application

■ Excellent ▲ Good

| Carbon Steels | Alloy Steel | Pre-hardende Steels | Hardende Steel | | High Hardende Steels | Copper | Graphite | Cast Iron | Aluminum | Stainless Steel | Titanium | Inconel |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~225 HB | 225~325 HB | 30~40 HRC | 40~45 HRC | 45~55 HRC | 55~70 HRC | | | | | | | |
| ■ | ■ | ▲ | | | | | | | ▲ | | | |

HSS Co8 — Material | COARSE | 4&6 — FLUTE | 30° — Helix Angle | PLAIN | Shouldering | CC — Center Cutting | SHORT LENGTH — Length of cut

# SUPER HIGH SPEED M42

***First Class Material from France***

เอ็นมิลรุ่นนี้ออกแบบมาสำหรับการกัดงานหยาบ
เอาเนื้อชิ้นงานออกได้เร็ว เพื่อการทำงานที่ไวขึ้น
ใช้ได้กับวัสดุที่เป็นเหล็ก และไม่ใช่เหล็ก
ไม่ควรใช้กับโลหะที่มีความแข็งเกิน 40 HRC

This general purpose rougher is designed
for high production metal removal
in a wide range of work piece matereials.
It is recommanded for cutting steel
grades and many non-ferrous materials.

## Featuer:

- HSSCo8: High speed steel with 8% cobalt for better wear resistance.
- 4&6 FLUTE,
- SHORT LENGTH,
- CENTER CUTTING,
- ROUGHING-COARSE,
- Flatted shank
- Helix angle 30°

**END MILL HSS** — กัดหยาบ 4-6 ฟัน

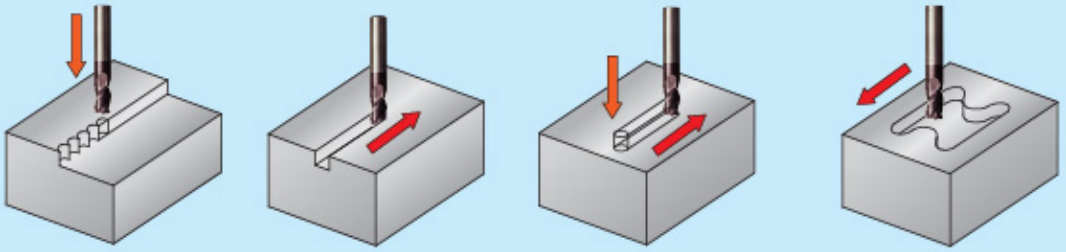
| Dia. of Mill (mm.) | Dia. of Shank (mm.) | Length of Cut (mm.) | Overall Length (mm.) | PRICE |
|---|---|---|---|---|
| 6x4F | 8 | 15 | 60 | 590.- |
| 7x4F | 10 | 20 | 65 | 680.- |
| 8x4F | 10 | 20 | 65 | 700.- |
| 9x4F | 12 | 25 | 75 | 900.- |
| ▶10x4F | 12 | 25 | 72 | 950.- |
| ▶12x4F | 12 | 30 | 80 | 980.- |
| 14x4F | 16 | 35 | 90 | 1,300.- |
| ▶16x4F | 16 | 40 | 105 | 1,600.- |
| 18x4F | 20 | 40 | 110 | 1,800.- |
| ▶20x4F | 20 | 45 | 120 | 2,500.- |
| 21x5F | 20 | 45 | 120 | 2,600.- |
| 22x5F | 20 | 45 | 145 | 2,900.- |
| 23x5F | 25 | 50 | 120 | 2,700.- |
| 24x5F | 25 | 50 | 120 | 3,000.- |
| 25x5F | 25 | 50 | 125 | 3,200.- |
| 25x4F | 25 | 100 | 166 | 3,900.- |
| 32x6F | 32 | 60 | 145 | 5,400.- |

## Application

■ Excellent ▲ Good

| Carbon Steels | Alloy Steel | Pre-hardende Steels | Hardende Steel | | High Hardende Steels | Copper | Graphite | Cast Iron | Aluminum | Stainless Steel | Titanium | Inconel |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~225 HB | 225~325 HB | 30~40 HRC | 40~45 HRC | 45~55 HRC | 55~70 HRC | | | | | | | |
| ■ | ■ | ▲ | | | | | | | ▲ | | | |

## Application



Plunge milling | Slotting | Plunge milling + Slotting | Pocketing