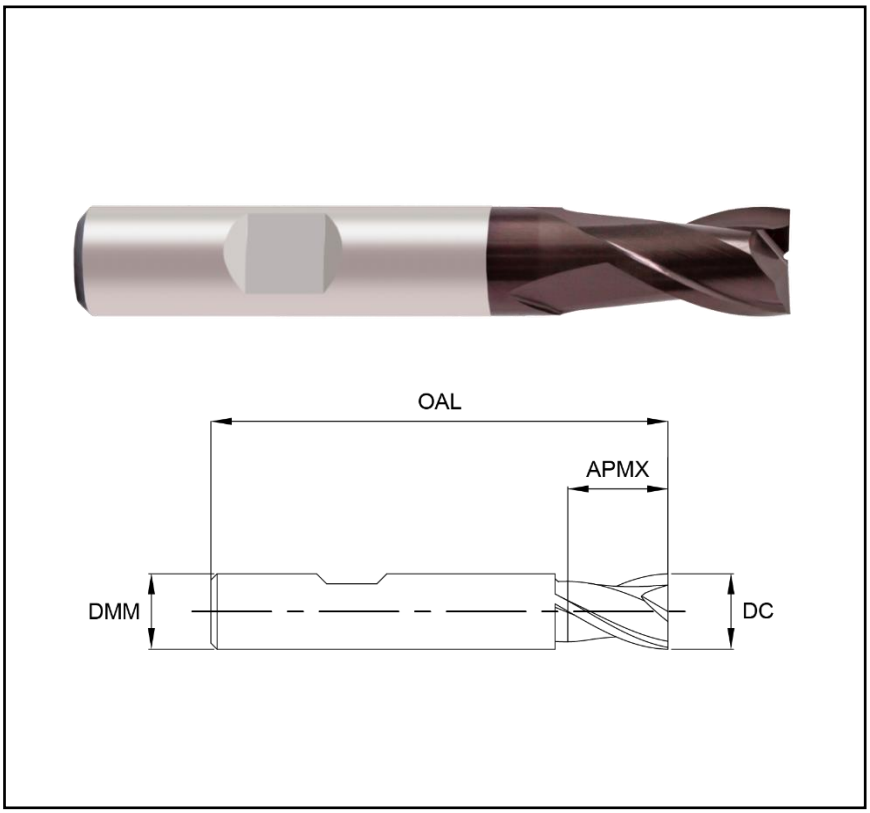
## Features

- 2-flute design with a 30° flute helix angle (FHA) for efficient chip evacuation and smooth cutting in materials classified as P (steel) and M (stainless steel).
- Made from HSS-E-PM (high-speed steel, enhanced, powder metallurgy) for superior hardness, wear resistance, and toughness, ideal for demanding applications.
- Suitable for a wide range of machining operations including slotting, profiling, and plunge cutting.

# RS PRO 2 Flute Short Length




RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

## Product Description

*RS PRO 2 Flute Short Length End Mill is engineered for cutting steel and stainless steel (ISO P and M). Made from premium HSS-E-PM (high speed steel, enhanced, powder metallurgy), it delivers exceptional hardness, wear resistance, and toughness for demanding machining applications. The 30° flute helix angle ensures efficient chip evacuation and smooth cutting and ideal for slotting, profiling and plunge cutting.*

## General Specifications

| | |
|---|---|
| **Brand** | RS PRO |
| **Material** | High Speed Steel – Enhanced – Powder Metallurgy (HSS-E-PM) |
| **Cutter Diameter** | 2mm – 25mm |
| **Product Type** | End Mill |
| **Overall Length** | 48mm – 102mm |
| **Diameter** | 6mm – 25mm |
| **Cut Length** | 4mm – 26mm |
| **Number of Pieces** | 1 |
| **Cutter Type** | Short Length |
| **Cutter Application** | Steels<br>Stainless steel<br>Cast irons |

## Mechanical Specifications

| | |
|---|---|
| **Cutter Diameter** | DC– See table below and detailed image below |
| **Cut Length** | APMX – See table below and detailed image below |
| **Number of Flutes** | 2 |
| **Overall Length** | OAL – See table below and detailed image below |
| **Shank Type** | Plain / Straight |
| **Shank Diameter** | DDM – See table below and detailed image below |
| **Centre Cutting** | Yes |

## Approvals

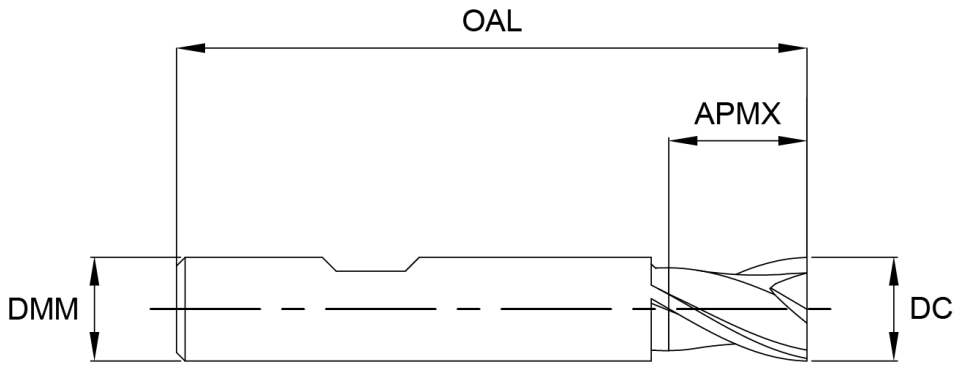
| | |
|---|---|
| **Declarations** | N/A |
| **Hazardous Area Certification** | N/A |
| **Standards Met** | DIN 1835B |

| Stock No. | Brand | Diameter **DC** | Shank Diameter **DMM** | Length of Cut **APMX** | O/ALL **OAL** |
|---|---|---|---|---|---|
| XXX-XXXX 900359 | RS PRO | 7.0 | 10 | 10.0 | 60 |
| XXX-XXXX 900498 | RS PRO | 8.0 | 8 | 11.0 | 61 |
| XXX-XXXX 900499 | RS PRO | 9.0 | 10 | 11.0 | 61 |
| XXX-XXXX 900500 | RS PRO | 10.0 | 10 | 13.0 | 63 |
| XXX-XXXX 900501 | RS PRO | 12.0 | 12 | 16.0 | 73 |
| XXX-XXXX 900502 | RS PRO | 14 | 12 | 16.0 | 73 |
| XXX-XXXX 900503 | RS PRO | 16.0 | 16 | 19.0 | 79 |
| XXX-XXXX 900504 | RS PRO | 20.0 | 20 | 22.0 | 88 |

## Similar Products

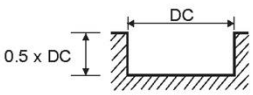
| **Stock No.** | **Brand** | Diameter **DC / DMM** | Shank Diameter **DDM** | Length of Cut **APMX** | O/ALL **OAL** |
|---|---|---|---|---|---|
| XXX-XXXX 900505 | RS PRO | 14.0 | 14 | - | - |
| XXX-XXXX 900506 | RS PRO | 16.0 | 16 | 32.0 | 92 |

Connection Diagrams / Assembly Diagrams / Illustrations / Accessories




## Cutting Data

| VDI MATERIAL GROUP | | MATERIAL | HRc | | Size (mm) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 3.0 | 4.0 | 5.0 | 6.0 | 8.0 | 10.0 | 12.0 | 16.0 | 20.0 | 25.0 |
| P | 1-5 | Non-alloy Steel | <25 | $v_c$ (m/min) | 40 | 45 | 50 | 55 | 55 | 55 | 55 | 60 | 50 | 50 |
| | | | | n | 4100 | 3600 | 3250 | 2900 | 2200 | 1800 | 1450 | 1150 | 780 | 630 |
| | | | | $f_z$ | 0.016 | 0.024 | 0.031 | 0.036 | 0.055 | 0.074 | 0.083 | 0.085 | 0.106 | 0.111 |
| | | | | f (mm/min) | 135 | 175 | 2000 | 210 | 240 | 265 | 240 | 195 | 165 | 140 |
| | 6-9 | Low alloy Steel | 25-35 | $v_c$ (m/min) | 30 | 40 | 40 | 45 | 45 | 45 | 45 | 45 | 45 | 40 |
| | | | | n | 3350 | 3150 | 2600 | 2300 | 1800 | 1450 | 1150 | 890 | 700 | 490 |
| | | | | $f_z$ | 0.017 | 0.025 | 0.036 | 0.041 | 0.056 | 0.079 | 0.091 | 0.101 | 0.107 | 0.117 |
| | | | | f (mm/min) | 115 | 160 | 185 | 190 | 200 | 230 | 210 | 180 | 150 | 115 |
| | 10-11 | High alloy Steel, Tool Steel | 35-45 | $v_c$ (m/min) | 45 | 55 | 60 | 65 | 65 | 65 | 70 | 70 | 60 | 60 |
| | | | | n | 5000 | 4300 | 3900 | 3500 | 2600 | 2100 | 1800 | 1350 | 950 | 750 |
| | | | | $f_z$ | 0.016 | 0.027 | 0.033 | 0.038 | 0.053 | 0.071 | 0.076 | 0.098 | 0.116 | 0.103 |
| | | | | f (mm/min) | 160 | 230 | 255 | 265 | 275 | 300 | 275 | 265 | 220 | 155 |
| M | 12-14 | Stainless Steel | | $v_c$ (m/min) | 40 | 45 | 50 | 55 | 55 | 55 | 55 | 60 | 50 | 50 |
| | | | | n | 4100 | 3600 | 3250 | 2900 | 2200 | 1800 | 1450 | 1150 | 780 | 630 |
| | | | | $f_z$ | 0.016 | 0.024 | 0.031 | 0.036 | 0.055 | 0.074 | 0.083 | 0.085 | 0.106 | 0.111 |
| | | | | f (mm/min) | 135 | 175 | 200 | 210 | 240 | 265 | 240 | 195 | 165 | 140 |
| K | 15-20 | Cast Iron | | $v_c$ (m/min) | 40 | 45 | 50 | 55 | 55 | 55 | 55 | 60 | 50 | 50 |
| | | | | n | 4100 | 3600 | 3250 | 2900 | 2200 | 1800 | 1450 | 1150 | 780 | 630 |
| | | | | $f_z$ | 0.016 | 0.024 | 0.031 | 0.036 | 0.055 | 0.074 | 0.083 | 0.085 | 0.106 | 0.111 |
| | | | | f (mm/min) | 135 | 175 | 200 | 210 | 240 | 265 | 240 | 195 | 165 | 140 |




Recommended cutting depths are **maximum** depths, and **speeds and feeds are a starting point** based on these depths.
All recommendations are based on ideal machining conditions. Adjustments may need to be made according to your set-up.
**For long series and long necked tools** it may be necessary to reduce feed rate by up to 50%.

$v_c$ - cutting speed (m/min)
n - RPM (rev/min)
$f_z$ - feed per tooth (mm)
f - feed rate (mm/min)
$a_p$ - axial depth of cut
$a_e$ - radial depth of cut