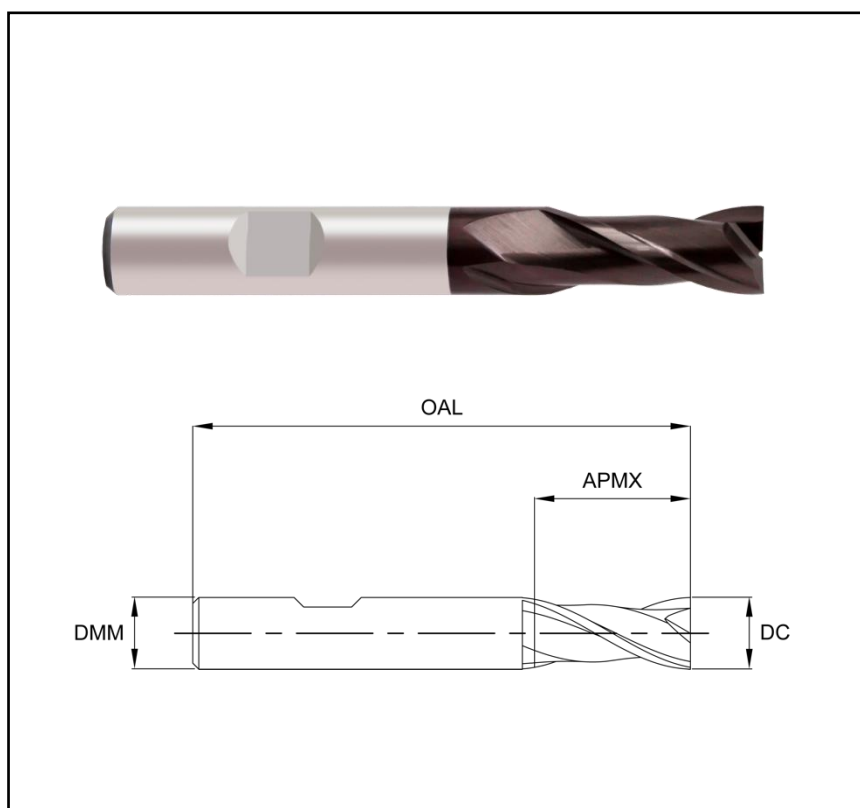


## Features

- Manufactured from powder-metallurgy high-speed steel for enhanced hardness, wear resistance, and toughness, resulting in longer tool life and consistent performance.
- Provides excellent chip evacuation and smooth cutting action, making it ideal for slotting, pocketing, and machining steels and stainless steels.
- Offers a good balance between rigidity and reach, reducing tool deflection while remaining versatile for general-purpose milling applications.

## RS PRO 2 Flute Standard 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

*The RS PRO 2-Flute Standard Length End Mill is manufactured from HSS-E-PM (high-speed steel – enhanced - powder-metallurgy) to provide excellent wear resistance, toughness and extended tool life. Designed for machining ISO P and M materials, it is suitable for cutting steels and stainless steels in general milling, slotting, pocketing and plunge profiling applications. The 2 flute geometry ensures efficient chip evacuation and stable cutting performance, while the standard length provides increased reach and versatility over the RS PRO 2 Flute Short Length end mill without compromising machining accuracy, making it ideal for both manual and CNC machining operations.*

## General Specifications

|                           |                                                            |
|---------------------------|------------------------------------------------------------|
| <b>Brand</b>              | RS PRO                                                     |
| <b>Material</b>           | High Speed Steel – Enhanced - Powder Metallurgy (HSS-E-PM) |
| <b>Cutter Diameter</b>    | 3mm – 16mm                                                 |
| <b>Product Type</b>       | End Mill                                                   |
| <b>Overall Length</b>     | 52mm – 92mm                                                |
| <b>Diameter</b>           | 6mm – 16mm                                                 |
| <b>Cut Length</b>         | 8mm – 32mm                                                 |
| <b>Number of Pieces</b>   | 1                                                          |
| <b>Cutter Type</b>        | Long Length                                                |
| <b>Cutter Application</b> | Steels<br>Stainless steel<br>Cast irons                    |

## Mechanical Specifications

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

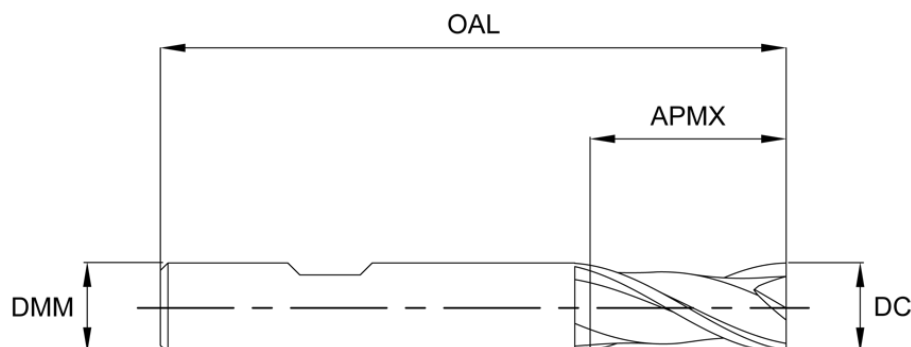
## Approvals

|                                     |           |
|-------------------------------------|-----------|
| <b>Declarations</b>                 | N/A       |
| <b>Hazardous Area Certification</b> | N/A       |
| <b>Standards Met</b>                | DIN 1835B |

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

## Similar Products

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



## 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 <sub>c</sub> (m/min) | 40        | 45    | 50    | 55    | 55    | 55    | 55    | 60    | 50    | 50    |
|                    |       |                              |       | n                      | 4100      | 3600  | 3250  | 2900  | 2200  | 1800  | 1450  | 1150  | 780   | 630   |
|                    |       |                              |       | f <sub>z</sub>         | 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 <sub>c</sub> (m/min) | 30        | 40    | 40    | 45    | 45    | 45    | 45    | 45    | 45    | 40    |
|                    |       |                              |       | n                      | 3350      | 3150  | 2600  | 2300  | 1800  | 1450  | 1150  | 890   | 700   | 490   |
|                    |       |                              |       | f <sub>z</sub>         | 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 <sub>c</sub> (m/min) | 45        | 55    | 60    | 65    | 65    | 65    | 70    | 70    | 60    | 60    |
|                    |       |                              |       | n                      | 5000      | 4300  | 3900  | 3500  | 2600  | 2100  | 1800  | 1350  | 950   | 750   |
|                    |       |                              |       | f <sub>z</sub>         | 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 <sub>c</sub> (m/min) | 40        | 45    | 50    | 55    | 55    | 55    | 55    | 60    | 50    | 50    |
|                    |       |                              |       | n                      | 4100      | 3600  | 3250  | 2900  | 2200  | 1800  | 1450  | 1150  | 780   | 630   |
|                    |       |                              |       | f <sub>z</sub>         | 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 <sub>c</sub> (m/min) | 40        | 45    | 50    | 55    | 55    | 55    | 55    | 60    | 50    | 50    |
|                    |       |                              |       | n                      | 4100      | 3600  | 3250  | 2900  | 2200  | 1800  | 1450  | 1150  | 780   | 630   |
|                    |       |                              |       | f <sub>z</sub>         | 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