

Features

- Solid Carbide
- Able to cut a wide range of materials
- Range 1.0mm to 16.0mm
- Carbide able to give high wear resistance and long tool life

RS PRO End Mill, 4 Flute, Solid Carbide



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 End Mill 4 Flute, Solid Carbide

RS PRO solid carbide K30 uncoated 4 flute end mills range designed with features to cut a wide variety of materials. Range starting at a standard 1.0mm diameter to 16.0mm. Ideal for various machining operations, in a wide variety of materials. The sub straight provides high wear resistance and long tool life, making it a reliable tool for multiple applications.

Applications

Suitable for the milling of steels, stainless, cast and aluminium. **See cutting data sheet.**

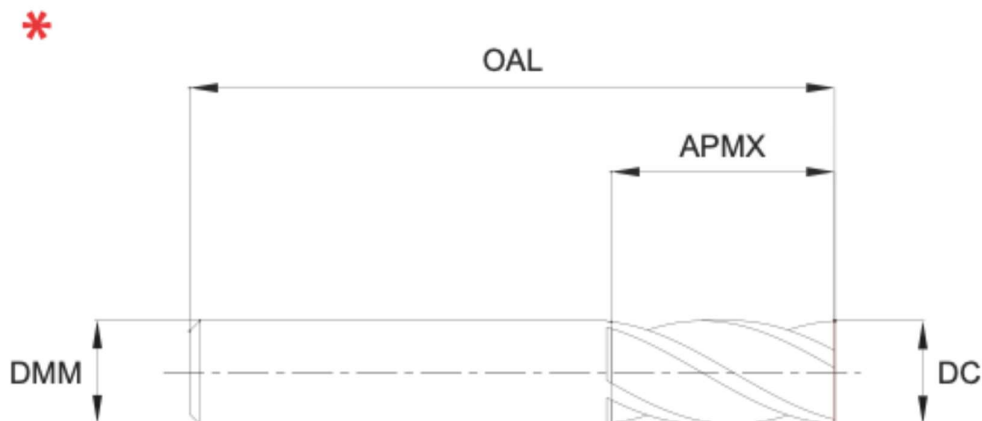
General Specifications

Cutter Diameter	See table and detailed image below (*DC)
Cut Length	See table and detailed image below (*APMX)
Number of Flutes	4
Material	K30 Carbide
Number of Pieces	1
Overall Length	See table and detailed image below (*OAL)
Shank Type	Plain
Shank Diameter	See table and detailed image below (*DMM)
Centre Cutting	Yes

Stock No.	Brand	Product Name	Cutter Diameter (DC)	Cut Length (APMX)	No of Flutes	Material	Overall Length (OAL)	Shank Diameter (DMM)
0316142	RS PRO	End Mill	1.0	4.0	4	Carbide	38.0	3.0
0316143	RS PRO	End Mill	2.0	6.3	4	Carbide	38.0	3.0
0316145	RS PRO	End Mill	3.0	12.0	4	Carbide	38.0	3.0
0316146	RS PRO	End Mill	4.0	14.0	4	Carbide	50.0	4.0
0316062	RS PRO	End Mill	5.0	16.0	4	Carbide	50.0	6.0
0316063	RS PRO	End Mill	6.0	19.0	4	Carbide	58.0	6.0
0316064	RS PRO	End Mill	8.0	20.0	4	Carbide	63.0	8.0
0316066	RS PRO	End Mill	10.0	22.0	4	Carbide	75.0	10.0
0316067	RS PRO	End Mill	12.0	25.0	4	Carbide	75.0	12.0
0316069	RS PRO	End Mill	16.0	32.0	4	Carbide	89.0	16.0

Approvals

Declarations	REACH DoC
Standards Met	DIN 6535HA



CUTTING DATA

VDI MATERIAL GROUP			HRc		Size (mm)										
					2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0	14.0	16.0	20.0
P	1-5	Non-alloy Steel	<25	v _c (m/min)	60	70	80	85	90	90	85	90	90	95	90
				n	9550	7425	6365	5410	4775	3580	2705	2385	2045	1890	1430
				f _t	0.006	0.009	0.019	0.024	0.029	0.043	0.047	0.047	0.047	0.047	0.047
				f (mm/min)	230	265	485	520	555	615	510	450	385	355	270
	6-9	Low alloy Steel	25-35	v _c (m/min)	60	70	80	85	90	90	85	90	90	95	90
				n	9550	7425	6365	5410	4775	3580	2705	2385	2045	1890	1430
				f _t	0.006	0.009	0.019	0.024	0.029	0.043	0.047	0.047	0.047	0.047	0.047
				f (mm/min)	230	265	485	520	555	615	510	450	385	355	270
M	12-13	Ferritic/ Martensitic Stainless Steel		v _c (m/min)	35	35	40	40	45	45	45	45	45	50	45
				n	5570	3715	3180	2545	2385	1790	1430	1195	1020	995	715
				f _t	0.006	0.009	0.018	0.024	0.029	0.042	0.044	0.045	0.045	0.045	0.046
				f (mm/min)	135	135	230	245	275	300	250	215	185	180	130
K	15-20	Cast Iron		v _c (m/min)	60	55	60	55	55	55	60	55	55	55	55
				n	9550	5835	4775	3500	2920	2190	1910	1460	1250	1095	875
				f _t	0.017	0.026	0.065	0.044	0.065	0.093	0.116	0.155	0.182	0.22	0.288
				f (mm/min)	650	605	665	615	760	815	885	905	910	960	1010
N	21-24	Aluminium/ Aluminium Alloys		v _c (m/min)	140	145	140	145	145	145	145	140	145	145	140
				n	22280	15385	11140	9230	7690	5770	4615	3715	3295	2885	2230
				f _t	0.015	0.021	0.03	0.036	0.047	0.063	0.078	0.095	0.108	0.125	0.163
				f (mm/min)	1335	1290	1335	1330	1445	1455	1440	1410	1425	1440	1450
	26-27	Copper/ Copper Alloys		v _c (m/min)	105	105	110	105	105	110	105	105	105	110	105
				n	16710	11140	8755	6685	5570	4375	3340	2785	2385	2190	1670
				f _t	0.016	0.024	0.029	0.038	0.048	0.063	0.081	0.096	0.115	0.125	0.162
				f (mm/min)	1070	1070	1015	1015	1070	1100	1080	1070	1100	1095	1080



► The feed rate for long, long reach and uncoated tools should be reduced by up to 50%

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_t - feed per tooth (mm)
 f - feed rate (mm/min)
 a_p - axial depth of cut
 a_e - radial depth of cut