

# M460

## High Performance Solid Endmills

**NEW**

- *High performance machining for Alloy steel & Stainless steel.*
- *Positive rake angle for finishing to medium machining.*
- *Well edge treatment to improve tool life.*
- *Specially for machine part machining.*




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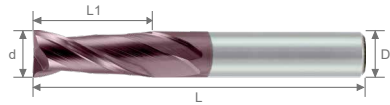
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**W1903E**

## M460 High Performance Solid Endmills

### M460 CARBIDE ENDMILLS - SQUARE TYPE - 2F

#### EMSFA2, EMSSA2



Order No.	Dia (d)	LOC (L1)	OAL (L)	Shank (D)	Flutes (F)
EMSFA201000U	1.0	3	50	4	2
EMSFA201500U	1.5	4	50	4	2
EMSFA202000U	2.0	5	50	4	2
EMSFA202500U	2.5	6	50	4	2
EMSFA203000U	3.0	8	50	4	2
EMSFA204000U	4.0	10	50	4	2
EMSSA203000U	3.0	8	50	6	2
EMSSA203500U	3.5	9	50	6	2
EMSSA204000U	4.0	10	50	6	2
EMSSA204500U	4.5	11	50	6	2
EMSSA205000U	5.0	13	50	6	2
EMSSA205500U	5.5	14	50	6	2
EMSSA206000U	6.0	15	50	6	2
EMSSA206500U	6.5	16	60	8	2
EMSSA207000U	7.0	18	60	8	2
EMSSA208000U	8.0	20	60	8	2
EMSSA209000U	9.0	22	75	10	2
EMSSA210000U	10.0	25	75	10	2
EMSSA212000U	12.0	30	75	12	2
EMSSA214000U	14.0	30	75	14	2
EMSSA216000U	16.0	35	100	16	2
EMSSA218000U	18.0	40	100	20	2
EMSSA220000U	20.0	45	100	20	2
EMSSA225000U	25.0	45	100	25	2

Work Material								
Carbon Steels (S45C - S55C)	Alloy Steels (SK - SCM - SUS)	Stainless Steels (SUS)	Pre-hardened Steels (NAK - HPM)	Hardened Steels			Cast Iron	Aluminium Alloys
				- HRC 55	- HRC 60	- HRC 65		
◎	◎	◎	○				◎	○

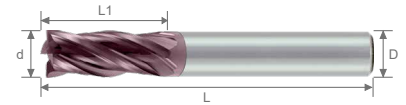
Dia (d)	Tolerance
∅ < 3	0 ~ -0.02
3 ≤ ∅ ≤ 10	0 ~ -0.03
∅ > 10	0 ~ -0.04

### Recommended Cutting Conditions

Material	Carbon Steel / Alloy Steel				Pre-Hardened Steel				Stainless Steel				Cast Iron			
Hardness	HB180~250				HRC35~45											
VC	120(m/min)				79(m/min)				79(m/min)				120(m/min)			
Dia (d)	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)	RPM	Feed (mm/min)	ap (mm)	ae (mm)
for EMSFA2, EMSSA2																
4mm	9550	382	2	4	6290	251	0.2	4	6290	251	0.2	4	9550	382	2	4
6mm	6370	445	3	6	4200	294	0.3	6	4200	294	0.3	6	6370	445	3	6
8mm	4770	333	4	8	3140	220	0.4	8	3140	220	0.4	8	4770	333	4	8
10mm	3820	230	5	10	2515	150	0.5	10	2515	150	0.5	10	3820	230	5	10
12mm	3180	190	6	12	2100	126	0.6	12	2100	126	0.6	12	3180	190	6	12
for EMSFA4, EMSSA4, EMSFH4, EMSSH4																
4mm	9550	764	4	0.2	6290	503	4	0.2	6290	503	4	0.2	9550	503	4	0.2
6mm	6370	890	6	0.3	4200	588	6	0.3	4200	588	6	0.3	6370	588	6	0.3
8mm	4770	668	8	0.4	3140	440	8	0.4	3140	440	8	0.4	4770	440	8	0.4
10mm	3820	458	10	0.5	2515	301	10	0.5	2515	301	10	0.5	3820	301	10	0.5
12mm	3180	380	12	0.6	2100	252	12	0.6	2100	252	12	0.6	3180	252	12	0.6

### M460 CARBIDE ENDMILLS - SQUARE TYPE - 4F

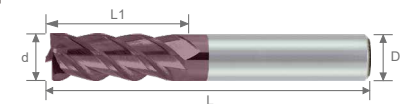
#### EMSFA4, EMSSA4



Order No.	Dia (d)	LOC (L1)	OAL (L)	Shank (D)	Flutes (F)
EMSFA401000U	1.0	3	50	4	4
EMSFA401500U	1.5	4	50	4	4
EMSFA402000U	2.0	5	50	4	4
EMSFA402500U	2.5	6	50	4	4
EMSFA403000U	3.0	8	50	4	4
EMSFA403500U	3.5	9	50	4	4
EMSFA404000U	4.0	10	50	4	4
EMSSA403000U	3.0	8	50	6	4
EMSSA404000U	4.0	10	50	6	4
EMSSA404500U	4.5	11	50	6	4
EMSSA405000U	5.0	13	50	6	4
EMSSA405500U	5.5	14	50	6	4
EMSSA406000U	6.0	15	50	6	4
EMSSA406500U	6.5	16	50	8	4
EMSSA408000U	8.0	20	60	8	4
EMSSA410000U	10.0	25	75	10	4
EMSSA412000U	12.0	30	75	12	4
EMSSA414000U	14.0	30	75	14	4
EMSSA416000U	16.0	35	100	16	4
EMSSA420000U	20.0	45	100	20	4
EMSSA425000U	25.0	45	100	25	4

### M460 CARBIDE ENDMILLS - HIGH HELIX SQUARE TYPE - 4F

#### EMSFH4, EMSSH4



Order No.	Dia (d)	LOC (L1)	OAL (L)	Shank (D)	Flutes (F)
EMSFH403000U	3.0	8	50	4	4
EMSFH404000U	4.0	10	50	4	4
EMSSH405000U	5.0	13	50	6	4
EMSSH406000U	6.0	15	50	6	4
EMSSH408000U	8.0	20	60	8	4
EMSSH410000U	10.0	25	75	10	4
EMSSH412000U	12.0	30	75	12	4
EMSSH416000U	16.0	35	100	16	4