

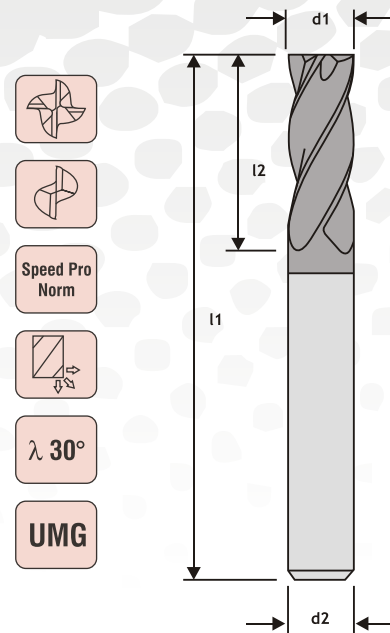
FM Star (65 HRC) Flat End Mills - Regular Series

Type : N, right-hand cutting, straight shank according to DIN 6535 HA

Design Features : 2 fluted / 4 fluted centre cutting, helix angle 30°, CNC grinding

Application : High performance end mills for periphery and form milling. For milling of steel and steel castings (< 1100 N/mm²), as well as non-ferrous metals and plastics.

▲ For Speed & Feed chart refer page 39



FM Star (65 HRC) Flat End Mills - Regular Series

Article No.		Dimension (mm)					
2 Flute	4 Flute	Ø d1 h10	Ø d2 h6	l2	l1	Uncoated	TiAlN Coated
SH-SEM2010	SH-SEM4010	1	3	4	38	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2015	SH-SEM4015	1.5	3	5	38	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2020	SH-SEM4020	2	3	6	38	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2025	SH-SEM4025	2.5	3	9	38	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2030	SH-SEM4030	3	3	12	38	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2035	SH-SEM4035	3.5	4	12	50	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2040	SH-SEM4040	4	4	14	50	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2050	SH-SEM4050	5	5	16	50	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2060	SH-SEM4060	6	6	19	57	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2080	SH-SEM4080	8	8	20	63	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2100	SH-SEM4100	10	10	22	75	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2120	SH-SEM4120	12	12	25	75	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2140	SH-SEM4140	14	14	32	89	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2160	SH-SEM4160	16	16	32	89	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2180	SH-SEM4180	18	18	38	100	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2200	SH-SEM4200	20	20	38	100	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2250	SH-SEM4250	25	25	38	100	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Available ex stock / subject to prior sale

Delivery time on request - mention if uncoated in the article no. eg. **SH-SEM-U-4010**

UMG Ultra Micron Grade

FM Star (65 HRC) Flat End Mills - Extra Long Series

Type : N, right-hand cutting, straight shank according to DIN 6535 HA, extra long

Design Features : 2 fluted / 4 fluted centre cutting, helix angle 30°, CNC grinding

Application : High performance end mills for periphery and form milling. For milling of steel, steel castings, titanium and titanium alloy, non-ferrous metals and plastics.

▲ For Speed & Feed chart refer page 39

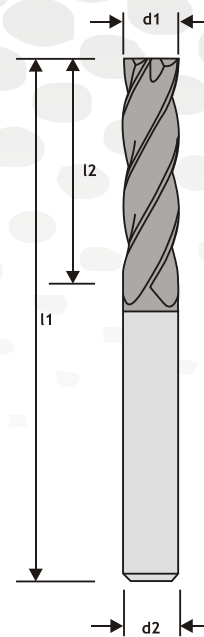


Speed Pro Norm



λ 30°

UMG



FM Star (65 HRC) Flat End Mills Extra Long Series

Article No.		Dimension (mm)				Uncoated	TiAlN Coated
2 Flute	4 Flute	Ø d1 h10	Ø d2 h6	l2	l1		
SH-SEM2030L	SH-SEM4030L	3	3	25	75	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2040L	SH-SEM4040L	4	4	25	75	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2050L	SH-SEM4050L	5	5	25	75	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2060L	SH-SEM4060L	6	6	25	75	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2080L	SH-SEM4080L	8	8	25	75	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2100L	SH-SEM4100L	10	10	38	100	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2120L	SH-SEM4120L	12	12	50	100	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2140L	SH-SEM4140L	14	14	75	150	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2160L	SH-SEM4160L	16	16	75	150	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2180L	SH-SEM4180L	18	18	75	150	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2200L	SH-SEM4200L	20	20	75	150	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2250L	SH-SEM4250L	25	25	75	150	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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UMG Ultra Micron Grade

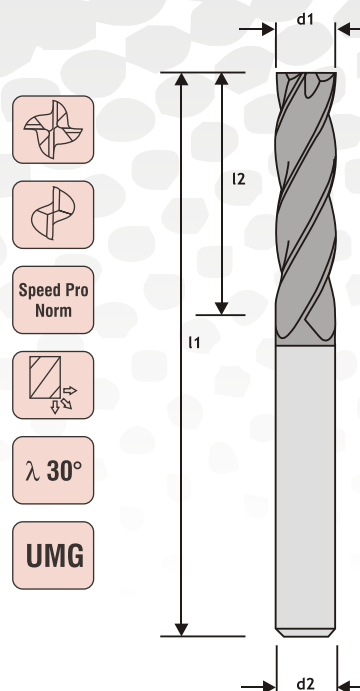
FM Star (65 HRC) Flat End Mills - Deep Reach + XL Series

Type : N, right-hand cutting, straight shank according to DIN 6535 HA, Deep Reach

Design Features : 2 fluted / 4 fluted centre cutting, helix angle 30°, CNC grinding

Application : High performance end mills for periphery and form milling. For milling of steel, steel castings, titanium and titanium alloy, non-ferrous metals and plastics.

▲ For Speed & Feed chart refer page 39



FM Star (65 HRC) Flat End Mills Deep Reach + XL Series

Article No.		Dimension (mm)				Uncoated	TA-coated
2 Flute	4 Flute	Ø d1 h10	Ø d2 h6	l2	l1		
SH-SEM2030DR	SH-SBM4030DR	3	3	12	75	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2040DR	SH-SBM4040DR	4	4	12	75	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2050DR	SH-SBM4050DR	5	5	12	75	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2060DR	SH-SEM4060DR	6	6	25	100	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2060DRXL	SH-SEM4060DRXL	6	6	25	150	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2080DR	SH-SEM4080DR	8	8	25	100	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2080DRXL	SH-SEM4080DRXL	8	8	25	150	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2100DR	SH-SEM4100DR	10	10	38	150	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2120DR	SH-SEM4120DR	12	12	38	100	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2120DRXL	SH-SEM4120DRXL	12	12	38	150	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2140DR	SH-SEM4140DR	14	14	38	150	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2160DR	SH-SEM4160DR	16	16	38	150	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2180DR	SH-SEM4180DR	18	18	40	150	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2200DR	SH-SEM4200DR	20	20	40	150	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SH-SEM2250DR	SH-SEM4250DR	25	25	40	150	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Available ex stock / subject to prior sale

Delivery time on request - mention if uncoated in the article no. eg. **SH-SEM-U-4030DR**

UMG Ultra Micron Grade