



# HF535T

5F carbide endmill for trochoidal milling



P M K S

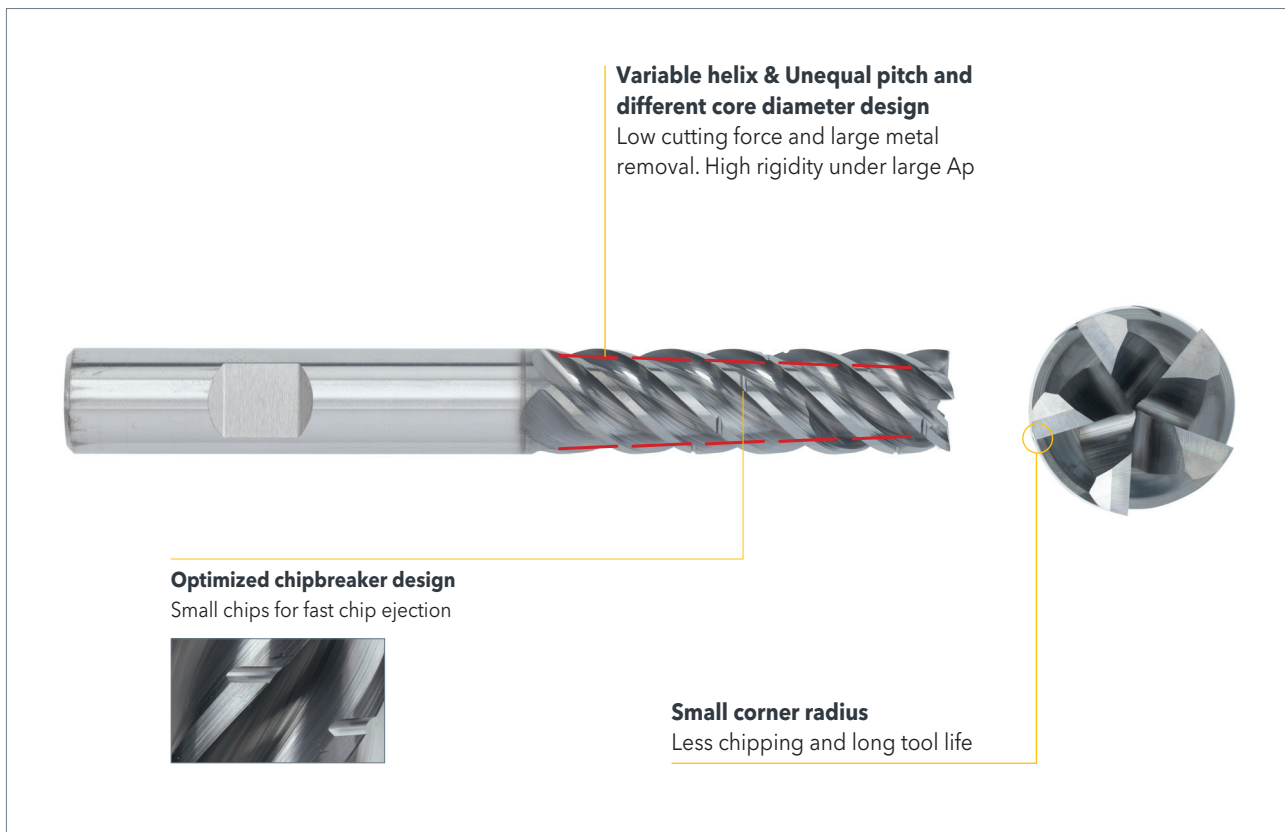
 **OSAWA**  
SORMA CUTTING SOLUTIONS



# HF535T

- New 5F trochoidal carbide endmill with chipbreaker for high productivity machining on material groups ISO P, ISO M, ISO K, and ISO S.
- Unequal pitch, variable helix, and different core diameter design guarantee minimum vibration and extended tool life under high metal removal rate application.
- Special edge design and optimized chipbreaker allow small chips and high feed.
- Trochoidal milling strategy allows short machining time and low cutting force.
- Cutting length 3.5xD.
- Range: D10 - D20.

## FEATURES



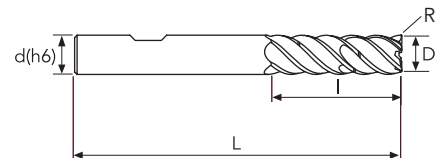
# HF535T

Weldon shank, 5 flutes, chipbreaker, corner radius, different core diameter, trochoidal milling



P	M	K	N	S	H
★	☆	★		☆	

★ 1st choice ☆ suitable



D	D Tol.	R	R Tol.	d(h6)	I	I1	L	Z	EDP No.	Stock
10	0/-0.040	0.10	+/-0.020	10	35		90	5	HF535T010100	●
12	0/-0.050	0.12	+/-0.020	12	45		100	5	HF535T012120	●
16	0/-0.050	0.15	+/-0.020	16	55		115	5	HF535T015160	●
20	0/-0.050	0.20	+/-0.020	20	70		131	5	HF535T020200	●

● stock standard ○ non-standard stock

### HF535T

	Material Group ISO 513	P1 P2 P7 K1	P3 P4 M1 K2 K3	P5 P6 M2 M3 K4 S1 S4	S2 S3 S5
	Hardness/Rm	≤700 N/mm <sup>2</sup>	600÷1000 N/mm <sup>2</sup>	≤35 HRC	≤45 HRC
	ap x ae	<b>3.5D x 0.05D</b>	<b>3.5D x 0.05D</b>	<b>3.5D x 0.05D</b>	<b>3.5D x 0.05D</b>
	Vc (m/min)	<b>170÷190</b>	<b>100÷120</b>	<b>80÷100</b>	<b>60÷80</b>
	D (mm)	fz (mm/z)	fz (mm/z)	fz (mm/z)	fz (mm/z)
	<b>10</b>	0.100	0.100	0.080	0.072
	<b>12</b>	0.120	0.120	0.100	0.090
	<b>16</b>	0.150	0.150	0.130	0.117
<b>20</b>	0.150	0.150	0.150	0.135	

	Material Group ISO 513	P1 P2 P7 K1	P3 P4 M1 K2 K3	P5 P6 M2 M3 K4 S1 S4	S2 S3 S5
	Hardness/Rm	≤700 N/mm <sup>2</sup>	600÷1000 N/mm <sup>2</sup>	≤35 HRC	≤45 HRC
	ap x ae	<b>3.5D x 0.05D</b>	<b>3.5D x 0.05D</b>	<b>3.5D x 0.05D</b>	<b>3.5D x 0.05D</b>
	Vc (m/min)	<b>170÷190</b>	<b>100÷120</b>	<b>80÷100</b>	<b>60÷80</b>
	D (mm)	fz (mm/z)	fz (mm/z)	fz (mm/z)	fz (mm/z)
	<b>10</b>	0.100	0.100	0.080	0.072
	<b>12</b>	0.120	0.120	0.100	0.090
	<b>16</b>	0.150	0.150	0.130	0.117
<b>20</b>	0.150	0.150	0.150	0.135	

**NOTES:**

Down milling CNC programming is required.

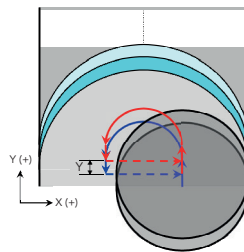
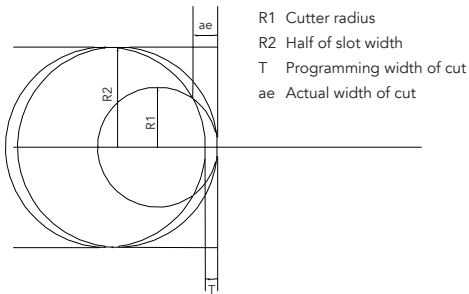
“ae” value max 0.2xD - “T” value max 0.1xD.

The use of end mill with diameter 30-40% smaller than the width of the slot is recommended.

The cutting conditions are based on CNC programming with medium dynamic speed.

With lower CNC dynamic speed, use the same cutting conditions or reduce the cutting speed Vc.

With higher CNC dynamic speed, reduce the “T” value by approximately -30 -50% and apply the maximum available cutting speed Vc.



[www.osawa.it](http://www.osawa.it)



\$ONP123HF535T