

Special action

UHF-RT

16.9 - 31.12.2019



Buy 2 UHF-RT end mills and get 1 free of charge!

- Multipurpose end mill, from roughing to semi-finishing, for very high metal removal rates
- Highest productivity on pocketing using ramping and helical interpolation
- Broad range of diameters from 2 to 12 mm, all with 3xD reduced neck
- Conditions: the 2+1 order is valid only for the same product code; valid only for stock standard items



COMPLETE RANGE
AND PARAMETERS

 **OSAWA**
DRILLS & END MILLS

UHF-RT

Multipurpose end mill, from roughing to semi-finishing, for very high metal removal rates.
 Highest productivity on pocketing using ramping and helical interpolation.
 Broad range of diameters from 2 to 12 mm, all with 3xD reduced neck.
 High precision cylindrical shank (h5 tol.) for better shrink-fit .

FEATURES



The geometry with combined radius (corner radius + head radius) create thinner chips in comparison with conventional full radius, allowing a great reduction of cutting forces.



Special "no-contact" area in the end mill center, together with low helix geometry, reduce drastically the vibration, even when machining at corners.



Curved cutting edges reduce chattering and improve the chips flow.

TECHNICAL GUIDE

D	ap max	CAM input		ap max	Circular interpolation		Cutting length for linear ramping Lmax (αmax=5°)	Lmax = $\frac{ap}{\tan \alpha}$	
		Rtheo	max unmachined part K		Ø min	Ø max			α=0.5°
2	0.07	0.189	0.051		2.9	3.8		8.02	0.80
3	0.10	0.283	0.076		4.3	5.8		11.46	1.14
4	0.13	0.378	0.102		5.7	7.8		14.90	1.49
5	0.17	0.472	0.127		7.1	9.8		19.48	1.94
6	0.20	0.567	0.152		8.6	11.8		22.92	2.29
8	0.27	0.756	0.203		11.4	15.8		30.94	3.09
10	0.33	0.945	0.254		14.2	19.8		37.81	3.77
12	0.40	1.134	0.305		17.1	23.8		45.84	4.57

(mm)

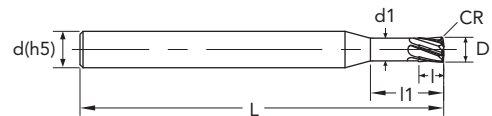
UHF-RT

cylindrical shank, multiflutes radius type for high feed machining



P	M	K	N	S	H
☆					★

★ 1st choice ☆ suitable



D	D Tol.	CR	d(h5)	l	l1	d1	L	Z	EDP No.	Stock
2	-0.014/-0.038	0.13	6	2	6	1.9	50	4	UHF470RT020	○
3	-0.014/-0.038	0.19	6	3	9	2.9	60	4	UHF470RT030	○
4	-0.014/-0.038	0.25	6	4	12	3.9	60	6	UHF670RT040	●
5	-0.014/-0.038	0.31	6	5	15	4.7	60	6	UHF670RT050	●
6	-0.014/-0.038	0.38	6	5	18	5.5	60	6	UHF670RT060	●
8	-0.014/-0.038	0.50	8	7	24	7.5	75	6	UHF670RT080	●
10	-0.014/-0.038	0.63	10	8	30	9.5	90	6	UHF670RT100	●
12	-0.014/-0.038	0.75	12	10	36	11.5	100	6	UHF670RT120	●

● stock standard ○ non-standard stock

CUTTING PARAMETERS

UHF-RT

3D MACHINING	Material Group ISO 513	P6 H1 H4 H5			H2			H3		
	Hardness/Rm	45 - 55 HRC			55 - 60 HRC			60 - 65 HRC		
	ap x ae	0.03D x 0.55D			0.03D x 0.55D			0.03D x 0.55D		
Vc (m/min)	100-120			80-100			50-70			
D (mm)	n (rpm)	fz (mm/z)	Vf (mm/min)	n (rpm)	fz (mm/z)	Vf (mm/min)	n (rpm)	fz (mm/z)	Vf (mm/min)	
2	17520	0.07	4910	14340	0,05	2870	9560	0,04	1530	
3	11680	0.10	4680	9560	0,08	3060	6370	0,06	1530	
4	8760	0.15	7890	7170	0,10	4310	4780	0,08	2300	
5	7010	0.20	8410	5740	0,12	4140	3830	0,10	2300	
6	5840	0.25	8760	4780	0,20	5740	3190	0,15	2880	
8	4380	0.35	9200	3590	0,25	5390	2390	0,20	2870	
10	3500	0.40	8400	2870	0,30	5170	1920	0,25	2880	
12	2920	0.45	7890	2390	0,35	5020	1600	0,30	2880	