UHF-RT

High feed end mill with multi-flutes convex design

P H

FOR PRE-HARDENED AND HARDENED MATERIALS

OSAWA

DRILLS & END MILLS

UHF-RT

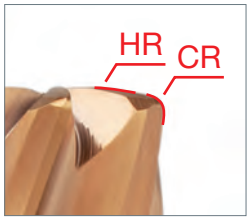
Multipurpose end mill, from roughing to semi-finishing, for very high metal removal rates.

Highest productivity on pocketing using ramping and helical interpolation.

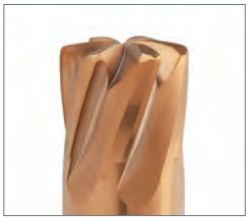
Broad range of diameters from 2 to 12 mm, all with 3xD reduced neck.

High precision cylindrical shank (h5 tol.) for better shrink-fit .

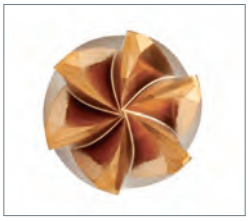
FEATURES



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.



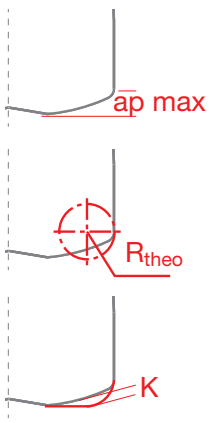
Special "no-contact" area in the end mill center, together with low helix geometry, reduce drastically the vibration, even when machining at corners.

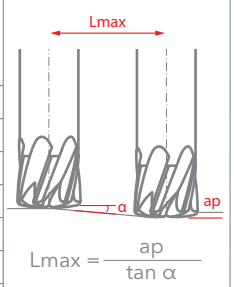


Curved cutting edges reduce chattering and improve the chips flow.

TECHNICAL GUIDE

D	ap max	CAM input			Circular interpolation			Cutting length for linear ramping Lmax (αmax=5°)	
		Rtheo	max unmachined part K		Ø min	Ø max		EXAMPLE α=0.5°	α=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)

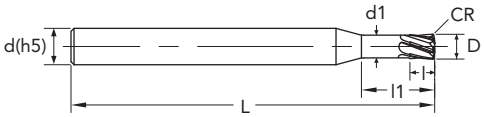
UHF-RT

cylindrical shank, multiflutes radius type
for high feed machining

OSAWA NORM | UH | NMG / UH RED | <70 HRC | 20° | HIGH FEED | Z4 | Z6

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

	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**					
3D MACHINING	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			

www.osawa.it

SORMA
DIAMOND & CUTTING TOOLS

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