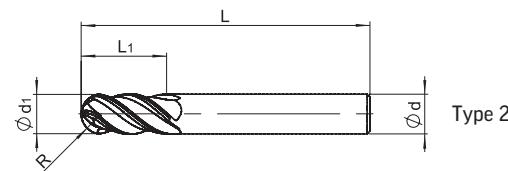
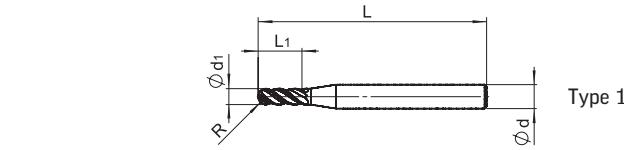
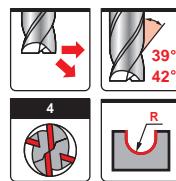


**UMT 9644 Z=4**

Ball nose end mills with different helix angles and irregular teeth for difficult to cut materials


**nano  
TEC2**

d <sub>1</sub> (e8)	L <sub>1</sub>	d (h6)	L	R (d <sub>1</sub> /2)	Stock	Type	ART No
3	8	6	57	1.5	●	1	9644030005700-2
4	11	6	57	2.0	●	1	9644040005700-2
5	13	6	57	2.5	●	1	9644050005700-2
6	13	6	57	3.0	●	2	9644060005700-2
8	19	8	63	4.0	●	2	9644080006300-2
10	22	10	72	5.0	●	2	9644100007200-2
12	26	12	83	6.0	●	2	9644120008300-2
16	32	16	92	8.0	○	2	9644160009200-2
20	38	20	104	10.0	○	2	9644200010400-2

● In stock

○ Produced to order only

## Recommended cutting conditions for end mills 9644

Work material			Cutting speed V <sub>c</sub> (m/min)	d <sub>1</sub> - diameter in mm					f <sub>z</sub> - feed per tooth in mm					
				Ap	Ae	Ø3	Ø4	Ø5	Ø6	Ø8	Ø10	Ø12	Ø16	Ø20
<b>P</b> Carbon steel and Alloy steel < 25 HRC	<0.2d <sub>1</sub>	<0.3d <sub>1</sub>	110-130	0.02	0.025	0.03	0.035	0.05	0.06	0.065	0.075	0.09		
				60-80		0.015	0.02	0.025	0.028	0.04	0.048	0.052	0.06	0.07
<b>M</b> Stainless steel	<0.15d <sub>1</sub>	<0.2d <sub>1</sub>	55-75			0.015	0.02	0.025	0.028	0.04	0.048	0.052	0.06	0.07
				55-75		0.015	0.02	0.025	0.028	0.04	0.048	0.052	0.06	0.07
<b>S</b> Titanium alloy	<0.15d <sub>1</sub>	<0.2d <sub>1</sub>	40-60			0.012	0.015	0.018	0.02	0.03	0.035	0.04	0.05	0.06
				25-35		0.01	0.012	0.015	0.018	0.025	0.032	0.038	0.046	0.055

1. The figures to be adjusted according to machining shape, rigidity of machine and work clamping

2. For high alloyed steels (&gt;12% Cr), INOX, cutting speed must be reduced by 20-30% when used emulsion