

Milling Cutters for Non-Ferrous & Plastic Materials

Application:

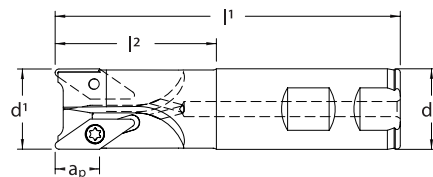
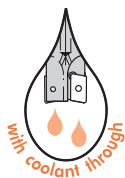
- High speed milling of
 - aluminum alloys
 - copper alloys
 - plastic materials
- Can be used for edge and slot milling, as well as axial plunge milling
- Excellent for deep cavity work
- Suitable for soft non-ferrous materials
- Up to .500" depth of cut
- Exceptionally high feed rates (over 200 IPM)
- Maximum metal removal on any machine
- Wide range of product available

Features / Benefits

- High positive geometry insert with wave shape topography eliminates edge build-up and provides efficient chip removal
- End mills designed with coolant bore holes directed toward cutting edges
- New insert grade TK10MP is specifically designed for the machining of aluminum and non-ferrous materials that require high cutting speeds
- New grade ALP-XL has an extremely smooth self lubricating surface coupled with the latest coating technology ensures frictionless chip removal resulting in significant increases in tool life when machining materials with less than 10% silicon such as 6061 and 7075 aluminum.

featuring

MAXICOOLTM
through coolant technology



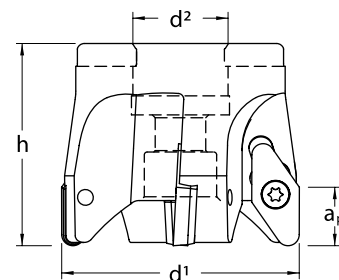
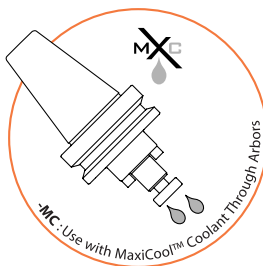
End Mills Optimized Design for Aluminum

Designation	d ¹	d ²	l ¹	l ²	Max. a _p	Max Plunge	flutes	Insert	Insert Screw	Wrench
VP90-0750C	.750	.750	3.28	1.25	.40	.200	2	VPGT-221-ALM	LF-89972	T8F
VP90-1000XC	1.000	1.000	4.28	2.00	.40	.200	3			
VP90-1000C	1.000	1.000	4.28	2.00	.53	.250	2	VPGT-333-ALM	LF-51706	T15F
VP90-1250C	1.250	1.250	4.28	2.00	.53	.250	2			
VP90-1500C	1.500	1.250	4.28	2.00	.53	.250	3			

Extra Length End Mills Optimized Design for Aluminum

Designation	d ¹	d ²	l ¹	l ²	Max. a _p	Max Plunge	flutes	Insert	Insert Screw	Wrench
VP90CY-0750-XLC	.750	.750	6.75	1.25	.40	.200	2	VPGT-221-ALM	LF-89972	T8F
VP90CY-1000X-XLC	1.000	1.000	8.00	2.00	.40	.200	3			
VP90CY-1000-XLC	1.000	1.000	8.00	2.00	.53	.250	2	VPGT-333-ALM	LF-51706	T15F
VP90CY-1250-XLC	1.250	1.250	8.00	2.00	.53	.250	2			
VP90CY-1500-XLC	1.500	1.250	8.00	2.00	.53	.250	3			

Milling Cutters for Non-Ferrous & Plastic Materials and Inserts



Face Mills Optimized Design for Aluminum

Designation	d ¹	d ²	h	Max. a _p	Max Plunge	No. of inserts	Insert	Insert Screw	Wrench
VP90-2000-MC	2.00	.750	2.12	.53	.250	4	VPGT-333-ALM	LF-51706	T15F
VC90-2000-MC	2.00	.750	2.12	.59	.300	3	VCGT-43.58-ALM	C-1250	T20F
VC90-2500-MC	2.50	1.000	2.12	.59	.300	4			
VC90-3000-MC	3.00	1.000	2.12	.59	.300	5			
VC90-4000	4.00	1.500	2.12	.59	.300	6			

Face Mills Optimized Design for Aluminum

Designation	d ¹	d ²	h	Max. a _p	Max Plunge	No. of inserts	Insert	Insert Screw	Wrench
VC90-2500AL-3-MC	2.50	1.000	2.12	.59	.300	3	VCGT-43.58-ALM	C-1250	T20F
VC90-3000AL-3-MC	3.00	1.000	2.12	.59	.300	3			
VC90-4000AL-4	4.00	1.500	2.12	.59	.300	4			

Insert Grade Descriptions:

TK10M

Uncoated K10/C2 wear resistant grade, suited for machining of non-ferrous materials, high temp. alloys as well as synthetic materials including fiberglass, graphite and plastic. Recommended to run with coolant only when materials require wet machining.

TK10MP

TiAlN coating. Recommended grade for high speed machining of aluminum and non-ferrous materials. Good wear resistance. Designed to be used with coolant.

TK10TB

PVD diamond film coating offering greatly extended tool life over conventional carbide. recommended specifically for synthetic materials such as graphite.



V90 Inserts

Insert	Designation	Dimensions						TK10MP	TK10TB	TK10M
		l	s	r	d	d ¹	a	Coated	Dia. Coated	Uncoated
	VCGT-43.58-ALM	.87	7/32	.118	1/2	.216	7°	■		■
	VPGT-221-ALM	.437	1/8	1/64	1/4	.110	11°	■	■	■
	VPGT-333-ALM	.654	3/16	3/64	3/8	.173	11°	■	■	■