

EMP14 aluminium milling system

Precisely 90° for shoulder milling operations

YOUR BENEFITS

- Shoulder milling at precisely 90°
- Wide assortment of nose radii available to choose from (0.008" to 0.197")
- Ideal choice for the aerospace industry
- Highly polished, precision-ground inserts for top-quality surfaces
- New chip space design for optimum chip removal



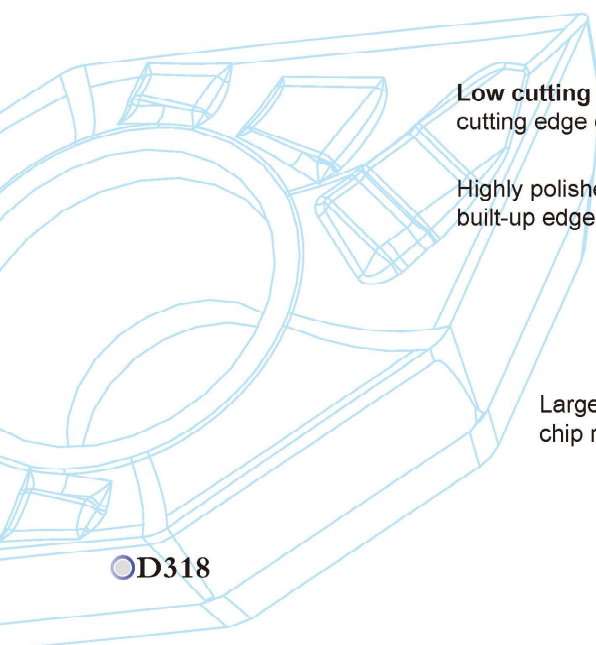
Precision insert seat with $Kr:90^\circ$

Large chip spaces for optimum chip removal

Available as an end mill, indexable head or shell-type milling cutter

Diameter range 1.25"-4.00"

EMP14-2.00"-A0.75"-VP22-04C



Low cutting forces thanks to positive cutting edge design

Highly polished insert reduces formation of built-up edges

Precision-ground insert

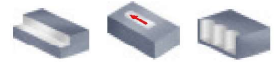
Large chip groove for controlled chip removal



VPGT220530-LP YD101

OD318

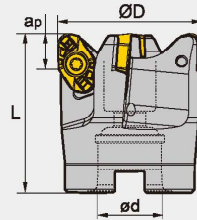
Square shoulder milling tools **Kr:90°**



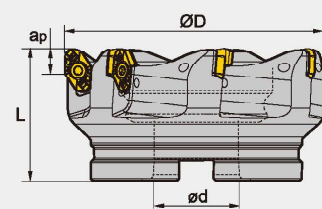
EMP14 N



A type of mounting






B type of mounting



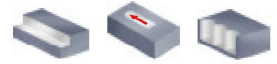
Specification of tools

Type		Dimensions (inch)					
		ØD	ød	L	apmax	Z (Number of teeth)	Insert
EMP14	-2.00"-A0.75"-VP22-04CA	2.00	0.75	1.75	0.40	4	VPGT220502 VPGT220505 VPGT220508 VPGT220510 VPGT220515
	-2.50"-A0.75"-VP22-04CA	2.50	0.75	1.75	0.40	4	VPGT220520 VPGT220525 VPGT220530 VPGT220532
	-3.00"-A1.00"-VP22-05CA	3.00	1.00	2.00	0.40	5	
	-4.00"-A1.25"-VP22-06CA	4.00	1.25	2.50	0.40	6	
	-2.00"-A0.75"-VP22-04C	2.00	0.75	1.75	0.40	4	VPGT220540 VPGT220550
	-2.50"-A0.75"-VP22-04C	2.50	0.75	1.75	0.40	4	
	-3.00"-A1.00"-VP22-05C	3.00	1.00	2.00	0.40	5	
	-4.00"-A1.25"-VP22-06C	4.00	1.25	2.50	0.40	6	

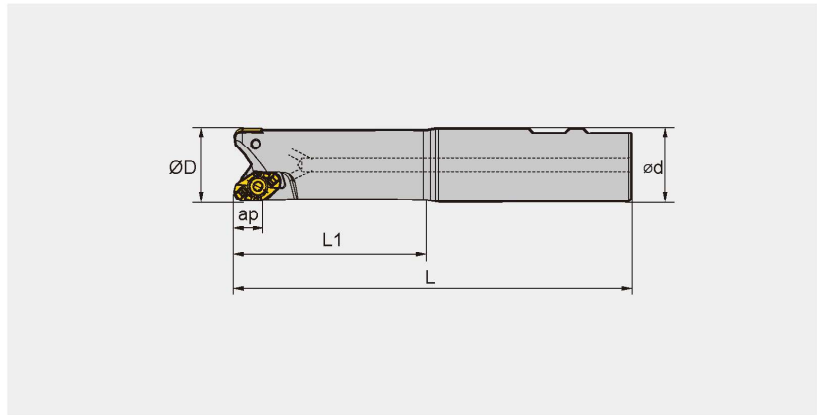
Spare parts

Diameter ØD	Insert specification	Insert screw	Wrench	Sketch of installation
				
Ø2.00"~Ø4.00"	VPGT□□□□-LP	I60M5×11	WT20IT	

Square shoulder milling tools **Kr:90°**






EMP14 N



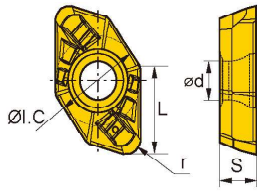
Specification of tools

Type		Dimensions (inch)						Z (Number of teeth)	Insert
		ØD	ød	L	L1	apmax			
EMP14	-1.25"-XP1.25"-VP22-02CA	1.25	1.25	5.00	1.50	0.40	2	VPGT220502- VPGT220532	
	-1.50"-XP1.50"-VP22-03CA	1.50	1.50	5.00	1.50	0.40	2		
	-1.50"-XP1.25"-VP22-03CA	1.50	1.25	5.00	1.50	0.40	2		
	-1.25"-XP1.25"-VP22-02C	1.25	1.25	5.00	1.50	0.40	2	VPGT220540- VPGT220550	
	-1.50"-XP1.50"-VP22-03C	1.50	1.50	5.00	1.50	0.40	2		
	-1.50"-XP1.25"-VP22-03C	1.50	1.25	5.00	1.50	0.40	2		

Spare parts

Diameter ØD	Insert specification	Insert screw	Wrench	Sketch of installation
				
Ø1.25"~Ø1.50"	VPGT□□□□-LP	I60M5×11	WT20IT	

Selection of inserts



😊 Good working conditions 😐 General working conditions 😞 Adverse working conditions

Workpiece material	Steel	Stainless steel	Cast Iron	Ferrite materials	Heat-resistant steel
P	😊😊	😊😊	😊😊	😊😊	😊😊
M	😊😊	😊😊	😊😊	😊😊	😊😊
K	😊😊	😊😊	😊😊	😊😊	😊😊
N	😊😊	😊😊	😊😊	😊😊	😊😊
S	😊😊	😊😊	😊😊	😊😊	😊😊

Insert shape	Type	Dimensions(inch)					Coated grade										Cermet	Cemented carbide							
		L	W	S	ød	r	YBC302	YBM253	YBD152	YBD203	YBD252	YBG105	YBG202	YBG205	YBG205H	YB9320		YBG302	YBS203	YBS303	YNG151	YNG151C	YD101	YD201	
	VPGT220502-LP	0.472	0.500	0.219	0.217	0.008																		○	
	VPGT220505-LP	0.472	0.500	0.219	0.217	0.020																		●	
	VPGT220508-LP	0.472	0.500	0.219	0.217	0.031																		●	
	VPGT220510-LP	0.472	0.500	0.219	0.217	0.039																		●	
	VPGT220515-LP	0.472	0.500	0.219	0.217	0.059																		●	
	VPGT220520-LP	0.472	0.500	0.219	0.217	0.079																		●	
	VPGT220525-LP	0.472	0.500	0.219	0.217	0.098																		●	
	VPGT220530-LP	0.472	0.500	0.219	0.217	0.118																		●	
	VPGT220532-LP	0.472	0.500	0.219	0.217	0.126																		●	
	VPGT220540-LP	0.472	0.500	0.219	0.217	0.157																		●	
	VPGT220550-LP	0.472	0.500	0.219	0.217	0.197																		○	

● Recommended grade ○ Produce according to order

Recommended cutting parameters

Workpiece material	Hardness HB	Grade	Cutting data	
			V(SFPM)	f(IPT)
N Aluminium alloy	--	YD101	1640(1000-10000)	0.008(0.003-0.016)