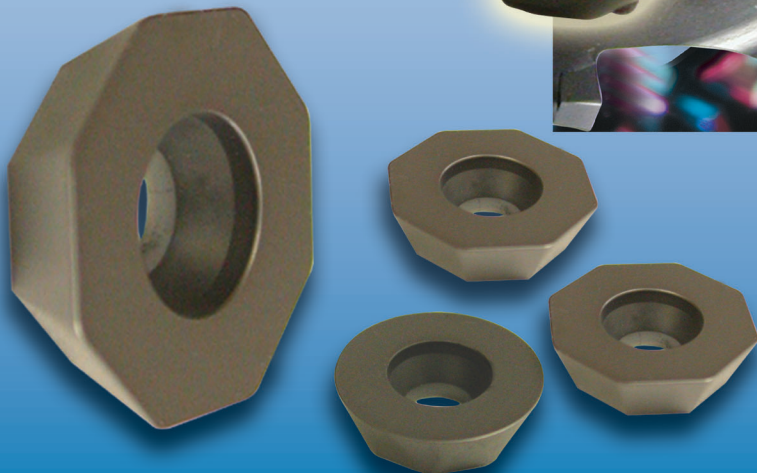


RT45V ... FOR HIGH SPEED MILLING

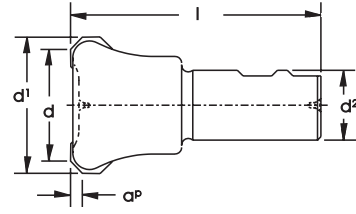
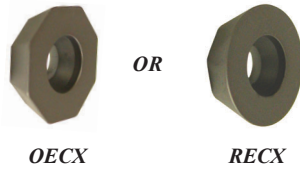
- Three insert sizes: 1", 5/8", and 3/4" allowing the selection of the most economical size for your applications
- Tools hold both round and octogon style inserts
- Two edge geometries: iK1 for steels; iP1 for stainless and non ferrous material
- Tool geometry allows for efficient use of machine horsepower



- Suitable for low horsepower machines
- Latest coatings deliver excellent performance at high surface feeds
- Full range of tools: 1" - 2" in End Mill style; 2" - 8" in Face Mill style
- Smooth cutting positive/negative design
- Up to 8 cutting edges per insert; lowers per edge cost
- Close tolerance cutter bodies
- Inserts are precision ground
- Unequal flute spacing eliminates vibration resulting in better finishes and longer tool life

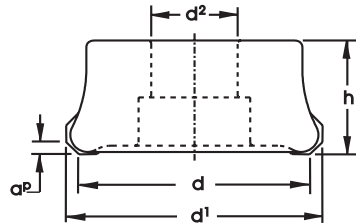
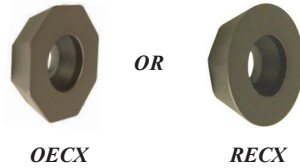


RT45V END AND FACE MILLS



DESIGNATION	DIMENSIONS						INSERT	SPARE PARTS				
	d	d ¹	d ²	l	Max. α ^P	Flutes		Insert Screw	Wrench			
RT45VE-125-075-OE4C	1.250	1.550	.750	4.25	.140 / .250	3	OECX-432 RECX-43	CE73382	214.80.012			
RT45VE-150-075-OE4C	1.500	1.800	.750	4.25	.140 / .250	3						
RT45VE-200-100-OE4C	2.000	2.300	1.000	4.50	.140 / .250	4						
RT45VE-200-125-OE4C	2.000	2.300	1.250	4.50	.140 / .250	4						
RT45VE-250-125-OE4C	2.500	2.790	1.250	4.50	.140 / .250	5	OECX-534 RECX-53	CE73921	214.80.076			
RT45VE-125-075-OE5C	1.250	1.616	.750	4.25	.173 / .312	2						
RT45VE-125-100-OE5C	1.250	1.616	1.000	4.50	.173 / .312	2						
RT45VE-150-075-OE5C	1.500	1.866	.750	4.25	.173 / .312	3						
RT45VE-150-100-OE5C	1.500	1.866	1.000	4.50	.173 / .312	3						
RT45VE-200-100-OE5C	2.000	2.366	1.000	4.50	.173 / .312	3						
RT45VE-200-125-OE5C	2.000	2.366	1.250	4.50	.173 / .312	3						
RT45VE-250-125-OE5C	2.500	2.866	1.250	4.50	.173 / .312	4						
RT45VE-200-125-OE6C	2.000	2.440	1.250	4.50	.208 / .375	3				OECX-634 RECX-63	CE73921	214.80.076
RT45VE-250-125-OE6C	2.500	2.940	1.250	4.50	.208 / .375	4						

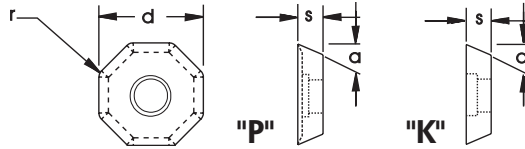
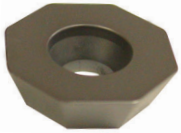
REMEMBER TO USE COPASLIP® ANTI-SEIZE COMPOUND ON ALL INSERT SCREWS.



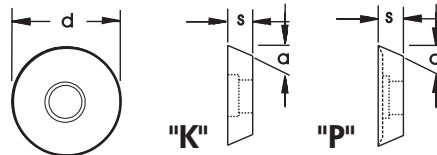
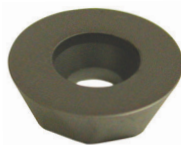
DESIGNATION	DIMENSIONS							INSERT	SPARE PARTS				
	d	d ¹	d ²	h	Max. α ^P	Flutes	lbs.		Insert Screw	Wrench			
RT45VF-200-075-OE4	2.000	2.300	.750	2.00	.140/.250	4	2.00	OECX-432 RECX-43	CE73382	214.80.012			
RT45VF-250-075-OE4	2.500	2.800	.750	2.00	.140/.250	5	2.75						
RT45VF-250-100-OE4	2.500	2.800	1.000	2.00	.140/.250	5	2.75						
RT45VF-300-100-OE4	3.000	3.300	1.000	2.00	.140/.250	6	3.50						
RT45VF-400-150-OE4	4.000	4.290	1.500	2.00	.140/.250	6	5.00	OECX-534 RECX-53	CE73921	214.80.076			
RT45VF-200-075-OE5	2.000	2.366	.750	2.00	.173/.312	3	2.00						
RT45VF-250-100-OE5	2.500	2.866	1.000	2.00	.173/.312	4	2.75						
RT45VF-300-100-OE5	3.000	3.366	1.000	2.00	.173/.312	5	3.50						
RT45VF-400-150-OE5	4.000	4.366	1.500	2.00	.173/.312	6	5.00						
RT45VF-500-150-OE5	5.000	5.366	1.500	2.00	.173/.312	6	7.75						
RT45VF-800-200-OE5	8.000	8.380	2.000	2.00	.173/.312	9	21.00						
RT45VF-200-075-OE6	2.000	2.440	.750	2.00	.208/.375	3	2.00				OECX-634 RECX-63	CE73921	214.80.076
RT45VF-250-100-OE6	2.500	2.940	1.000	2.00	.208/.375	4	2.75						
RT45VF-300-100-OE6	3.000	3.440	1.000	2.00	.208/.375	4	3.50						
RT45VF-400-150-OE6	4.000	4.440	1.500	2.00	.208/.375	5	5.00						
RT45VF-500-150-OE6	5.000	5.440	1.500	2.00	.208/.375	6	7.75						
RT45VF-600-200-OE6	6.000	6.440	2.000	2.00	.208/.375	7	9.00						

REMEMBER TO USE COPASLIP® ANTI-SEIZE COMPOUND ON ALL INSERT SCREWS.

RT45V INSERTS AND GRADES



OECX- ...					
COATED			UNCOATED		
SLK	SLX	SLP	SP25	SK35	
Geometry: K = K-Land Edge					
OECX-432-K	.500	.188	.032	23°	● ● ● ● ●
OECX-534-K	.625	.188	.062	23°	● ● ● ● ●
OECX-634-K	.750	.188	.062	23°	● ● ● ● ●
Geometry: P = Dish Face					
OECX-432-P	.500	.188	.032	23°	● ● ● ● ●
OECX-534-P	.625	.188	.062	23°	● ● ● ● ●
OECX-634-P	.750	.188	.062	23°	● ● ● ● ●



RECX- ...					
COATED			UNCOATED		
SLK	SLX	SLP	SP25	SK35	
Geometry: K = K-Land Edge					
RECX-43-K	.500	.188	.250	23°	● ● ● ● ●
RECX-53-K	.625	.188	.312	23°	● ● ● ● ●
RECX-63-K	.750	.188	.375	23°	● ● ● ● ●
Geometry: P = Dish Face					
RECX-43-P	.500	.188	.250	23°	● ● ● ● ●
RECX-53-P	.625	.188	.312	23°	● ● ● ● ●
RECX-63-P	.750	.188	.375	23°	● ● ● ● ●

GRADES

- SLK** (C1-C2 / P40-P25, M30-M20, K40-K20)
 - PVD AlTiN coated grade, high speed range, and excellent wear resistance, medium shock resistance. Semi roughing to finishing applications. Excellent choice for hi-temp, 300 Series stainless and cast iron.
- SLX** (C5-C6 / P40-P15)
 - PVD AlTiN coated, general purpose milling of ferrous materials at high speeds. Excellent impact and wear resistant. Used in roughing to finishing of steels.
- SLP** (C5-C6 / P30-P20, M20-M10)
 - PVD TiN coated roughing to general purpose milling, very tough grade used in roughing steel and stainless steel.
- SP25** (C5-C6 / P25)
 - Uncoated grade used in general milling of steel and stainless steel.
- SK35** (C2 / K20)
 - Uncoated grade used in machining aluminum alloys and titanium based materials.

RT45V CUTTING DATA

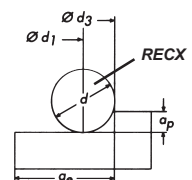
CUTTING DATA FOR RT45V END MILLS AND FACE MILLS					Coated		Uncoated			
ISO 513	MILLING CUTTER / MATERIAL				SLK	SLX	SLP	SP25	SK35	
P	Cutter	Max. a_p	Carbide Insert		Feed f_z inches per tooth ²⁾					
	RT45VE/VF	.140	OECX/RECX 43		---	.003 - .010	.003 - .010	.003 - .010	---	
	RT45VE/VF	.170	OECX/RECX 53		---	.003 - .012	.003 - .012	.003 - .012	---	
	RT45VE/VF	.210	OECX/RECX 63		---	.003 - .015	.003 - .015	.003 - .015	---	
	Work Material	Condition	Hardness HB	Mat. Gr.	Cutting Speeds in SFPM					
	Carbon steel,	< 0.25% C	annealed	125	1	---	800 - 1350	700 - 1000	350 - 700	---
	Unalloyed steel,	\geq 0.25% C	annealed	190	2	---	800 - 1350	700 - 1000	350 - 700	---
	cast steel and free cutting steel	< 0.55% C	heat-treated	250	3	---	700 - 1100	630 - 950	330 - 675	---
		\geq 0.55% C	annealed	220	4	---	800 - 1350	700 - 1000	350 - 700	---
			heat-treated	300	5	---	700 - 1100	630 - 950	330 - 675	---
Low alloy steel and cast steel		annealed	200	6	---	800 - 1350	700 - 1000	350 - 700	---	
		heat-treated	275	7	---	700 - 1100	630 - 950	330 - 675	---	
		heat-treated	300	8	---	650 - 1000	620 - 900	300 - 650	---	
		heat-treated	350	9	---	600 - 950	580 - 580	300 - 650	---	
High alloy steel, cast steel & tool steel		annealed	200	10	---	800 - 1150	700 - 950	350 - 650	---	
		heat-treated	325	11	---	700 - 1000	650 - 900	300 - 600	---	
M	Cutter	Max. a_p	Carbide Insert		Feed f_z as inches per tooth ²⁾					
	RT45VE/VF	.140	OECX/RECX 43		.003 - .006	.003 - .006	.003 - .006	.003 - .006	.003 - .006	
	RT45VE/VF	.170	OECX/RECX 53		.003 - .008	.003 - .008	.003 - .008	.003 - .008	.003 - .008	
	RT45VE/VF	.210	OECX/RECX 63		.003 - .012	.003 - .012	.003 - .012	.003 - .012	.003 - .012	
	Work Material	Condition	Hardness HB	Mat. Gr.	Cutting Speeds in SFPM					
	400 series Stainless & cast steel	ferrit./mart.	200	12	---	850 - 1200	560 - 900	265 - 535	---	
		martensitic	240	13	---	580 - 950	540 - 850	245 - 500	---	
	300 series Stainless & cast steel	austenitic	180	14	800 - 1100	---	---	---	400 - 600	

FOR USE WITH RECX INSERTS

¹⁾ The feeds per tooth f_z are valid for face milling with width of cut $a_e \geq 40\%$ of the cutter diameter and max. depth of cut a_p . For smaller widths and depths of cut, the figures in the tables should be converted using correction factors tables below. (d = diameter of insert, d_1 = cutter diameter).

f_z factor	$a_e : d_1$ SFPM factor
9	1.6
6.3	1.5
4.3	1.4
3.2	1.3
2.2	1.2
1.6	1.1
1.1	1

f_z factor	$a_e : d_1$ SFPM factor
9	1.6
6.3	1.5
4.3	1.4
3.2	1.3
2.2	1.2
1.6	1.1
1.1	1



Legend:
 a_e - width of cut d_{d1} - effective cutter diameter
 d - insert diameter a_p - depth of cut
 d_{d3} - nominal cutter diameter

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