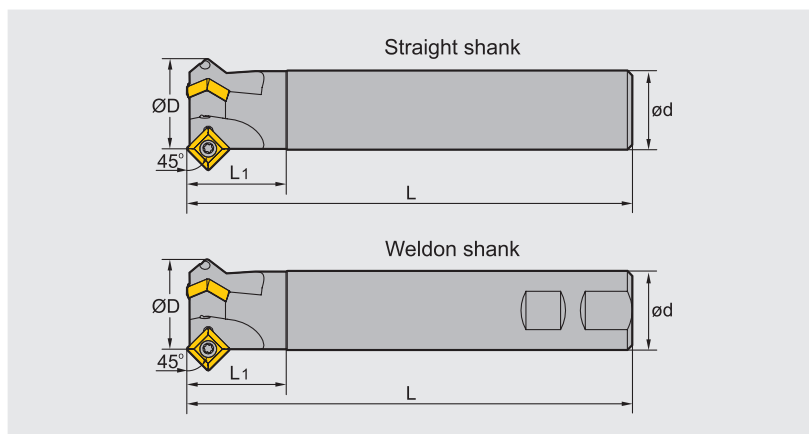


Chamfer milling tools

Kr:45°



CMA01



Specification of tools

Type		Dimensions(inch)				
		ØD	ød	L	L ₁	Z (Number of teeth)
CMA01 Straight shank	-0.50"-G0.75"-SP12-01	0.50	0.75	4.00	1.50	1
	-1.00"-G1.00"-SP12-02	1.00	1.00	5.00	1.50	2
	-1.25"-G1.25"-SP12-03	1.25	1.25	7.00	1.50	3
Weldon	-0.50"-XP0.75"-SP12-01	0.50	0.75	4.00	1.50	1
	-1.00"-XP1.00"-SP12-02	1.00	1.00	5.00	1.50	2
	-1.25"-XP1.25"-SP12-03	1.25	1.25	7.00	1.50	3

D

Spare parts

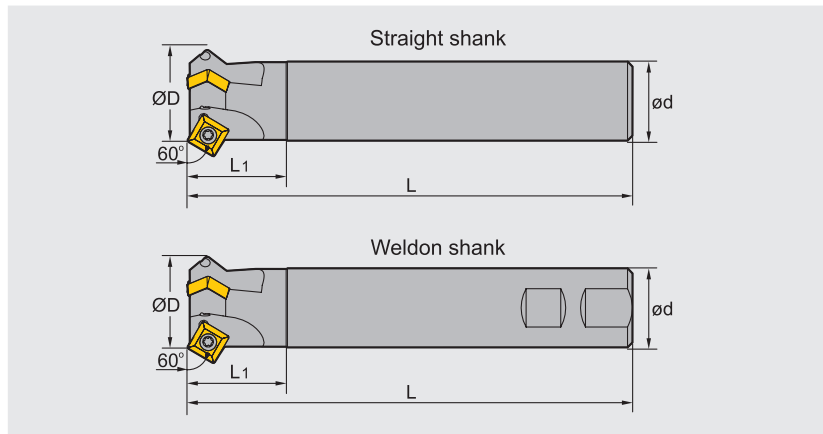
Diameter ØD	Screw	Wrench	Sketch of installation
Ø0.50"~Ø1.25"	I43M5×11	WT20IS	

Chamfer milling tools

Kr:60°



CMD01



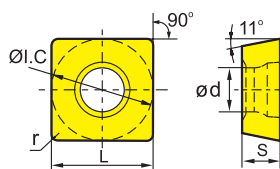
Specification of tools

Type		Dimensions(inch)				
		ØD	ød	L	L ₁	Z (Number of teeth)
CMD01 Straight shank	-0.50" -G0.75" -SP12-01	0.50	0.75	4.00	1.50	1
	-1.00" -G1.00" -SP12-02	1.00	1.00	5.00	1.50	2
	-1.25" -G1.25" -SP12-03	1.25	1.25	7.00	1.50	3
Weldon shank	-0.50" -XP0.75" -SP12-01	0.50	0.75	4.00	1.50	1
	-1.00" -XP1.00" -SP12-02	1.00	1.00	3.00	1.50	2
	-1.25" -XP1.25" -SP12-03	1.25	1.25	7.00	1.50	3

Spare parts

Diameter ØD	Screw	Wrench	Sketch of installation
Ø0.50"~Ø1.25"	I43M5×11	WT20IS	

Selection of inserts



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

[illegible][illegible]

● Recommended grade ○ Produce according to order

Recommended cutting parameters

Workpiece material		Hardness HB	Insert grade	Cutting parameters	
				Cutting speed(SFPM)	Feed speed (IPT)
P	Low-carbon steel, Soft steel	≤180	YBM253 YBC302	600(300-800)	0.01(0.004~0.016)
			YBM253 YBG302	500(300-650)	0.012(0.004~0.02)
	High-carbon steel, Alloy steel	180-280	YBM253 YBC302	500(300-700)	0.012(0.004~0.016)
			YBM253 YBG302	400(300-600)	0.012(0.004~0.02)
	Alloy tool steel	280-350	YBM253 YBC302	400(260-600)	0.012(0.004~0.016)
			YBM253 YBG302	300(260-500)	0.012(0.004~0.02)
M	Stainless steel	≤270	YBM253 YBC302	400(260-600)	0.012(0.004~0.016)
			YBM253 YBG302	300(260-500)	0.012(0.004~0.02)
K	Cast iron	180-250	YBG302	400(300-600)	0.016(0.004~0.02)

Common problems and solutions for milling

Main points of solution and inspection			Selection of tool material		Cutting condition					Tool shape								Machine clamping system		
			Material with higher hardness	Material with perfect toughness	Cutting speed	Feed rate	Cutting depth	Change the diameter and width of milling tools	Cutting liquid	Rake angle	Approach angle	Strength of cutting edge	Number of teeth	Increase the width of chip pocket	Examine the geometry shape of Minor cutting edge.	Check the end face run-out	Improve the rigidity of tool	Clamping system of workpiece	Overhang of tool	Power gap
Failure																				
Fracture of tool nose	Severe abrasion on clearance face	Improper cutting condition			↓				✓											
		Unsuitable geometry shape of cutting edge	✓							↑		↓								
	Severe abrasion on rake face	Improper cutting condition			↓	↓	↓		✓											
		Unsuitable geometry shape of cutting edge	✓							↑	↓	↓								
	Fracture of cutting edge	Improper cutting condition				↓	↓													
		Unsuitable geometry shape of cutting edge		✓							↓	↑			✓	✓	✓	✓	✓	
	Thermal cracking	Improper cutting condition			↓	↓	↓		✓											
		Unsuitable geometry shape of cutting edge								↑		↓								
	Build-up edge	Improper cutting condition			↑	↑			✓											
		Unsuitable geometry shape of cutting edge								↑		↓								
Machining precision	Bad surface roughness	Abrasion of tool Great vibration of milling tool	✓		↑	↓	↓		✓			↓			Wiper	✓				
	Burrs occurring	Unsuitable geometry shape of cutting edge			↓	↓	↓	✓												
		Improper geometry shape of cutting edge								↑	↑	↓			✓					
	Side collapse	Unsuitable geometry shape of cutting edge				↓	↓													
		Unsuitable geometry shape of cutting edge								↑	↓	↓	↑		✓		✓			
	Planeness and parallelism deterioration	Improper geometry Improper technique				↓	↓			↑	↑		↓		✓	✓	✓	✓	✓	
Other	Great vibration	Cutting condition Improper technology			↓	↓	↓	✓		↑	↑	↓				✓	✓	✓	✓	
	Chips twisting and jamming	Improper cutting condition			↑	↑↓		✓	✓				↓							
		Unsuitable geometry shape of cutting edge								↑			↓	✓						