



JONGEN

Werkzeugtechnik



**High-Efficiency
Side Milling Cutters**

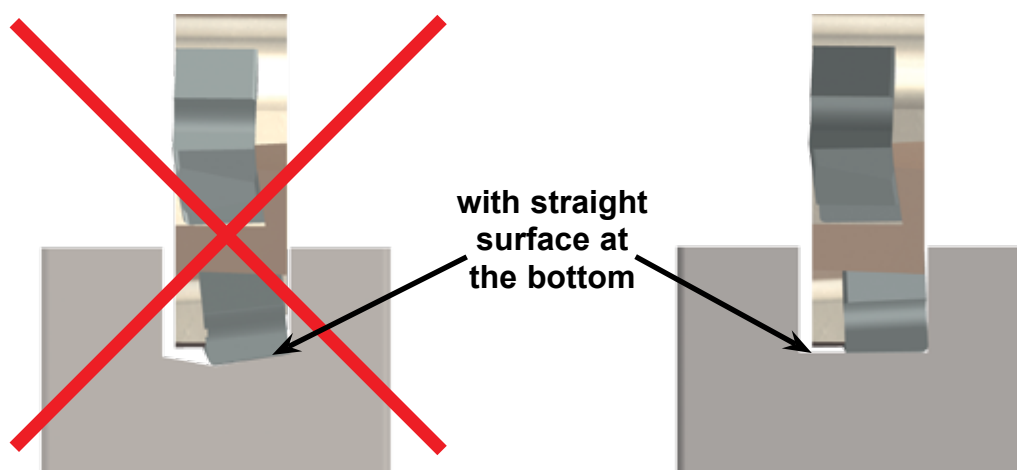


Product Characteristics

Side milling cutters are available in versions made to DIN 138 and shell type side milling cutters are available in versions made to DIN 8030-A.

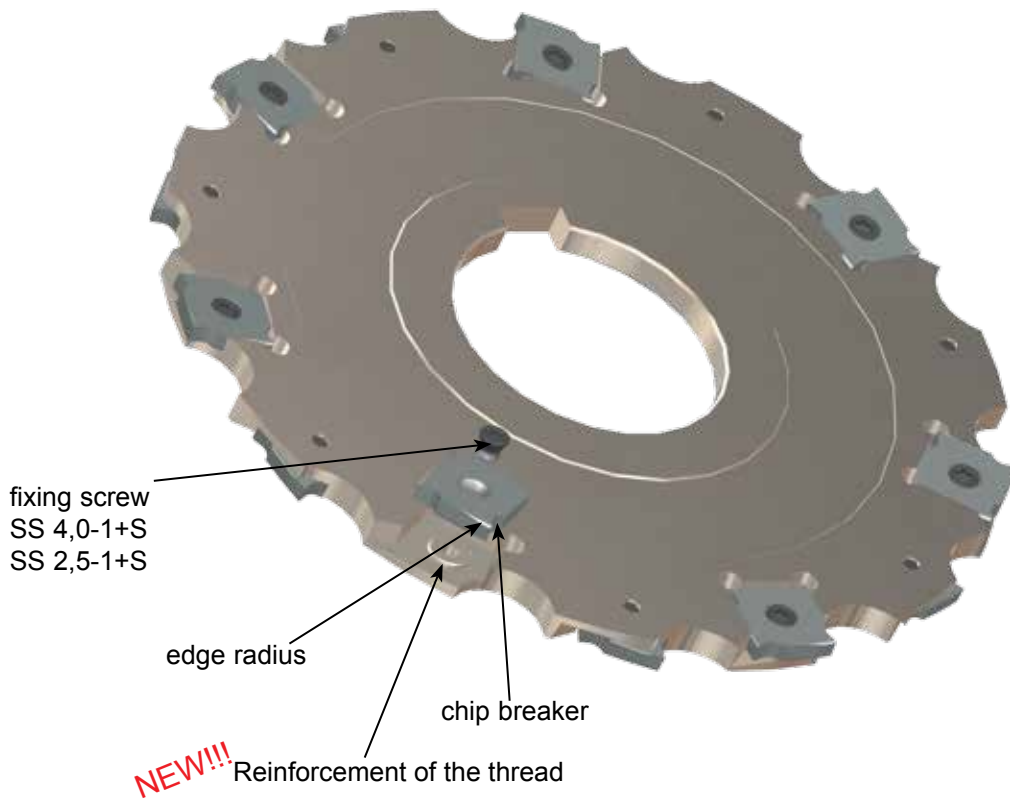
Diameters are: 63-250 mm, depending on the available version

- ✓ Cutting widths: 4-9 mm
- ✓ The tool bodies offer highest precision without complicated adjusting
- ✓ Highest stability due to embedded inserts
- ✓ Very smooth running of the machine
- ✓ Close tip spacing
- ✓ Highest precision and constant tool life thanks to completely ground inserts.
- ✓ 4 real cutting edges per insert
- ✓ NEW: with reinforcement of the thread in the insert seat area
- ✓ Stabilized cutting edge with edge radius 0,4 mm for the qualities HT45 and HT20
Stabilized cutting edge with edge radius 0,2 mm for the quality K15M
- ✓ Straight surface at the bottom, surface quality = Rz 25-30
- ✓ Suitable for almost all materials

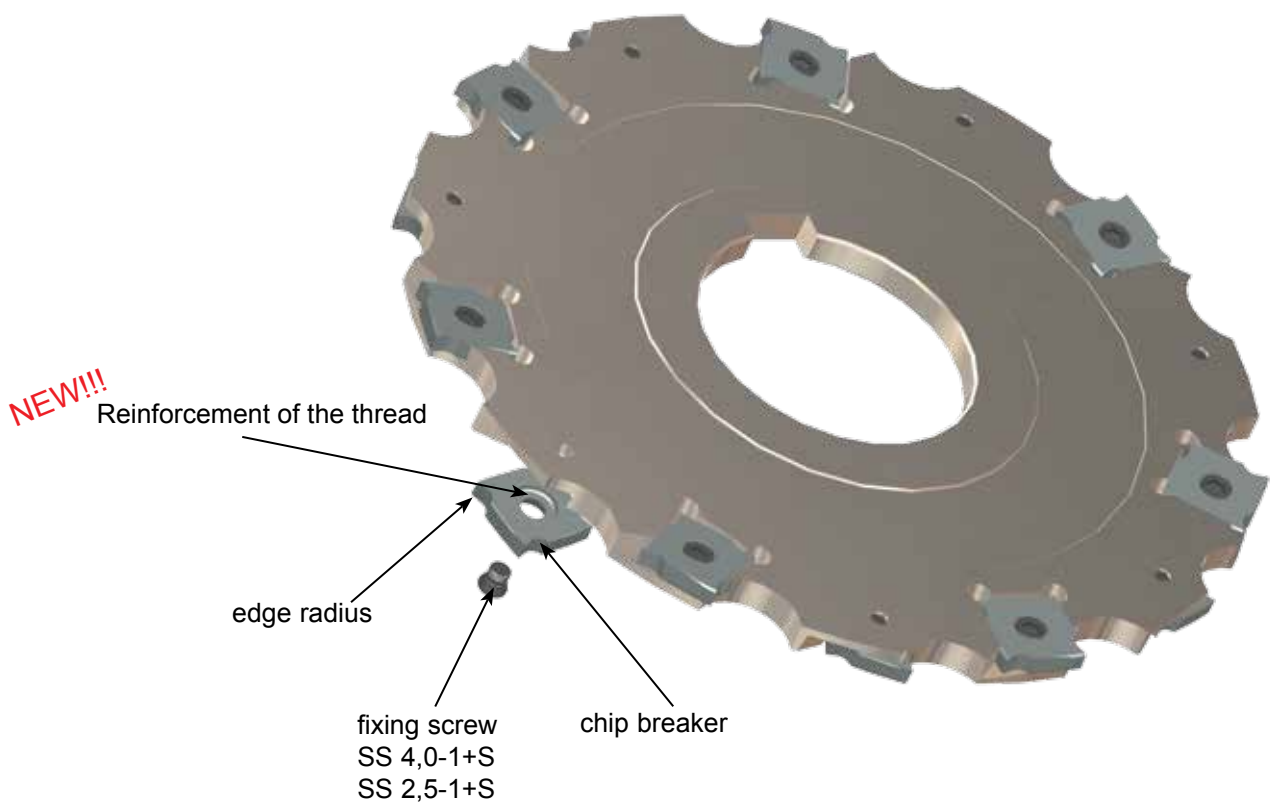


Inserts' fitting

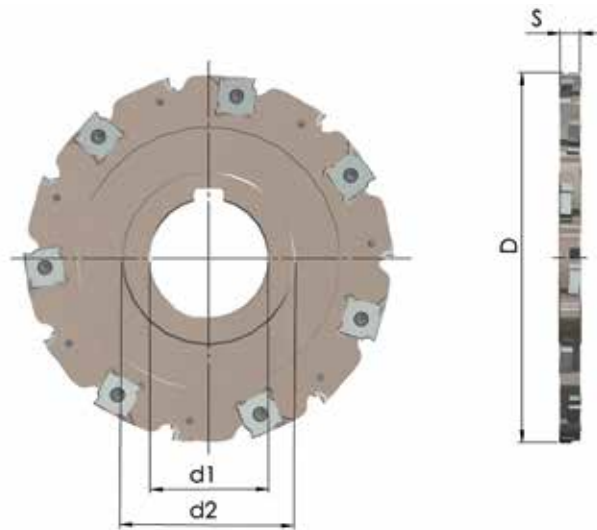
Inserts FP 9...-R



Inserts FP 9...-L



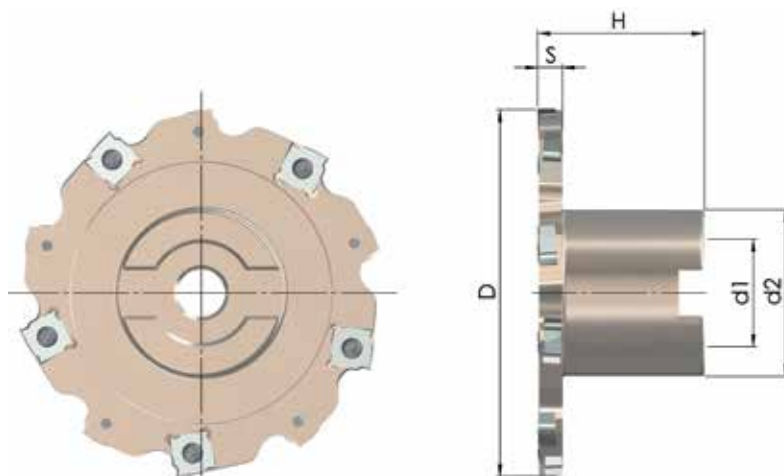
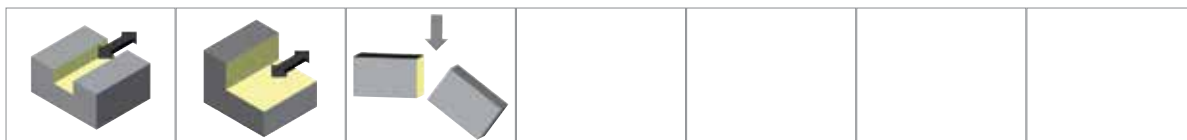
Side Milling Cutter (DIN 138)



Order-No.	D	S _{h11}	d ₁ ^{H6}	d ₂	zz	z _{eff.}	WP
SF 063-04-4	63	4	22	34	4x2	4	FP 98
SF 063-05-4	63	5	22	34	4x2	4	FP 97
SF 063-06-4	63	6	22	34	4x2	4	FP 96
SF 080-04-5	80	4	27	41	5x2	5	FP 98
SF 080-05-5	80	5	27	41	5x2	5	FP 97
SF 080-06-5	80	6	27	41	5x2	5	FP 96
SF 080-07-4	80	7	27	41	4x2	4	FP 94
SF 080-08-4	80	8	27	41	4x2	4	FP 94
SF 080-09-4	80	9	27	41	4x2	4	FP 94
SF 100-04-7	100	4	32	47	7x2	7	FP 98
SF 100-05-7	100	5	32	47	7x2	7	FP 97
SF 100-06-7	100	6	32	47	7x2	7	FP 96
SF 100-07-5	100	7	32	47	5x2	5	FP 94
SF 100-08-5	100	8	32	47	5x2	5	FP 94
SF 100-09-5	100	9	32	47	5x2	5	FP 94
SF 125-04-9	125	4	32	47	9x2	9	FP 98
SF 125-05-9	125	5	32	47	9x2	9	FP 97
SF 125-06-9	125	6	32	47	9x2	9	FP 96
SF 125-07-6	125	7	32	47	6x2	6	FP 94
SF 125-08-6	125	8	32	47	6x2	6	FP 94
SF 125-09-6	125	9	32	47	6x2	6	FP 94
SF 160-04-11	160	4	40	55	11x2	11	FP 98
SF 160-05-11	160	5	40	55	11x2	11	FP 97
SF 160-06-11	160	6	40	55	11x2	11	FP 96
SF 160-07-8	160	7	40	55	8x2	8	FP 94
SF 160-08-8	160	8	40	55	8x2	8	FP 94
SF 160-09-8	160	9	40	55	8x2	8	FP 94
SF 200-07-10	200	7	40	55	10x2	10	FP 94
SF 200-08-10	200	8	40	55	10x2	10	FP 94
SF 200-09-10	200	9	40	55	10x2	10	FP 94
SF 250-08-12	250	8	50	69	12x2	12	FP 94
SF 250-09-12	250	9	50	69	12x2	12	FP 94

Other dimensions available on demand.

Side Milling Cutter (DIN 8030-A)
















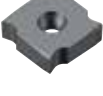


















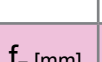




Order-No.	D	H	S _{h11}	d ₁ ^{H6}	d ₂	zz	z _{eff.}	WP	MS
SFA 063-04-4	63	40	4	16	32	4x2	4	FP 98	MS-8x25-912
SFA 063-05-4	63	40	5	16	32	4x2	4	FP 97	MS-8x25-912
SFA 063-06-4	63	40	6	16	32	4x2	4	FP 96	MS-8x25-912
SFA 080-04-5	80	40	4	22	40	5x2	5	FP 98	MS-10x25-912
SFA 080-05-5	80	40	5	22	40	5x2	5	FP 97	MS-10x25-912
SFA 080-06-5	80	40	6	22	40	5x2	5	FP 96	MS-10x25-912
SFA 080-07-4	80	40	7	22	40	4x2	4	FP 94	MS-10x25-912
SFA 080-08-4	80	40	8	22	40	4x2	4	FP 94	MS-10x25-912
SFA 080-09-4	80	40	9	22	40	4x2	4	FP 94	MS-10x25-912
SFA 100-04-7	100	45	4	27	45	7x2	7	FP 98	MS-12x30-912
SFA 100-05-7	100	45	5	27	45	7x2	7	FP 97	MS-12x30-912
SFA 100-06-7	100	45	6	27	45	7x2	7	FP 96	MS-12x30-912
SFA 100-07-5	100	45	7	27	45	5x2	5	FP 94	MS-12x30-912
SFA 100-08-5	100	45	8	27	45	5x2	5	FP 94	MS-12x30-912
SFA 100-09-5	100	45	9	27	45	5x2	5	FP 94	MS-12x30-912
SFA 125-04-9	125	50	4	32	58	9x2	9	FP 98	MS-16x30-912
SFA 125-05-9	125	50	5	32	58	9x2	9	FP 97	MS-16x30-912
SFA 125-06-9	125	50	6	32	58	9x2	9	FP 96	MS-16x30-912
SFA 125-07-6	125	50	7	32	58	6x2	6	FP 94	MS-16x30-912
SFA 125-08-6	125	50	8	32	58	6x2	6	FP 94	MS-16x30-912
SFA 125-09-6	125	50	9	32	58	6x2	6	FP 94	MS-16x30-912
SFA 160-05-11	160	63	5	40	68	11x2	11	FP 97	MS-20x40-912
SFA 160-06-11	160	63	6	40	68	11x2	11	FP 96	MS-20x40-912
SFA 160-07-8	160	63	7	40	68	8x2	8	FP 94	MS-20x40-912
SFA 160-08-8	160	63	8	40	68	8x2	8	FP 94	MS-20x40-912
SFA 160-09-8	160	63	9	40	68	8x2	8	FP 94	MS-20x40-912

Other dimensions available on demand.

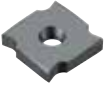



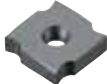


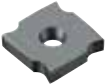



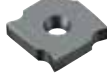



WP = inserts
MS = central screw

Milling inserts and parameters

		HT45 (code 31)	HT20 (code 32)	K15M (code 8)				
	FP 94-R (S1) 11,0x11,0x4,7 r=0,4							
	f_z [mm]	0,25 (0,15-0,35)	0,25 (0,15-0,35)					
	FP 94-R (S1) 11,0x11,0x4,7 r=0,2							
	f_z [mm]			0,25 (0,15-0,35)				
	FP 94-L (S1) 11,0x11,0x4,7 r=0,4							
	f_z [mm]	0,25 (0,15-0,35)	0,25 (0,15-0,35)					
	FP 94-L (S1) 11,0x11,0x4,7 r=0,2							
	f_z [mm]			0,25 (0,15-0,35)				
	FP 96-R (S4) 11,0x11,0x3,2 r=0,4							
	f_z [mm]	0,15 (0,05-0,25)	0,25 (0,15-0,35)					
	FP 96-R (S4) 10,0x10,0x3,2 r=0,2							
	f_z [mm]			0,25 (0,15-0,35)				
	FP 96-L (S4) 10,0x10,0x3,2 r=0,4							
	f_z [mm]	0,15 (0,05-0,25)	0,25 (0,15-0,35)					
	FP 96-L (S4) 10,0x10,0x3,2 r=0,2							
	f_z [mm]			0,25 (0,15-0,35)				
	FP 97-R (S3) 10,0x10,0x2,7 r=0,4							
	f_z [mm]	0,10 (0,05-0,20)	0,15 (0,05-0,25)					
	FP 97-R (S3) 10,0x10,0x2,7 r=0,2							
	f_z [mm]			0,20 (0,10-0,30)				
	FP 97-L (S3) 10,0x10,0x2,7 r=0,4							
	f_z [mm]	0,10 (0,05-0,20)	0,15 (0,05-0,25)					
	FP 97-L (S3) 10,0x10,0x2,7 r=0,2							
	f_z [mm]			0,20 (0,10-0,30)				
	VPE	10	10	10				

Other edge radiuses can be offered on demand.




Milling inserts and parameters

		HT45 (code 31)	HT20 (code 32)	K15M (code 8)				
 FP 98-R (S2) 10,0x10,0x2,2 r=0,4								
	f_z [mm]	0,10 (0,05-0,20)	0,15 (0,05-0,25)					
 FP 98-R (S2) 10,0x10,0x2,2 r=0,2								
	f_z [mm]			0,20 (0,10-0,30)				
 FP 98-L (S2) 10,0x10,0x2,2 r=0,4								
	f_z [mm]	0,10 (0,05-0,20)	0,15 (0,05-0,25)					
 FP 98-L (S2) 10,0x10,0x2,2 r=0,2								
	f_z [mm]			0,20 (0,10-0,30)				
	VPE	10	10	10				




Other edge radiuses can be offered on demand.

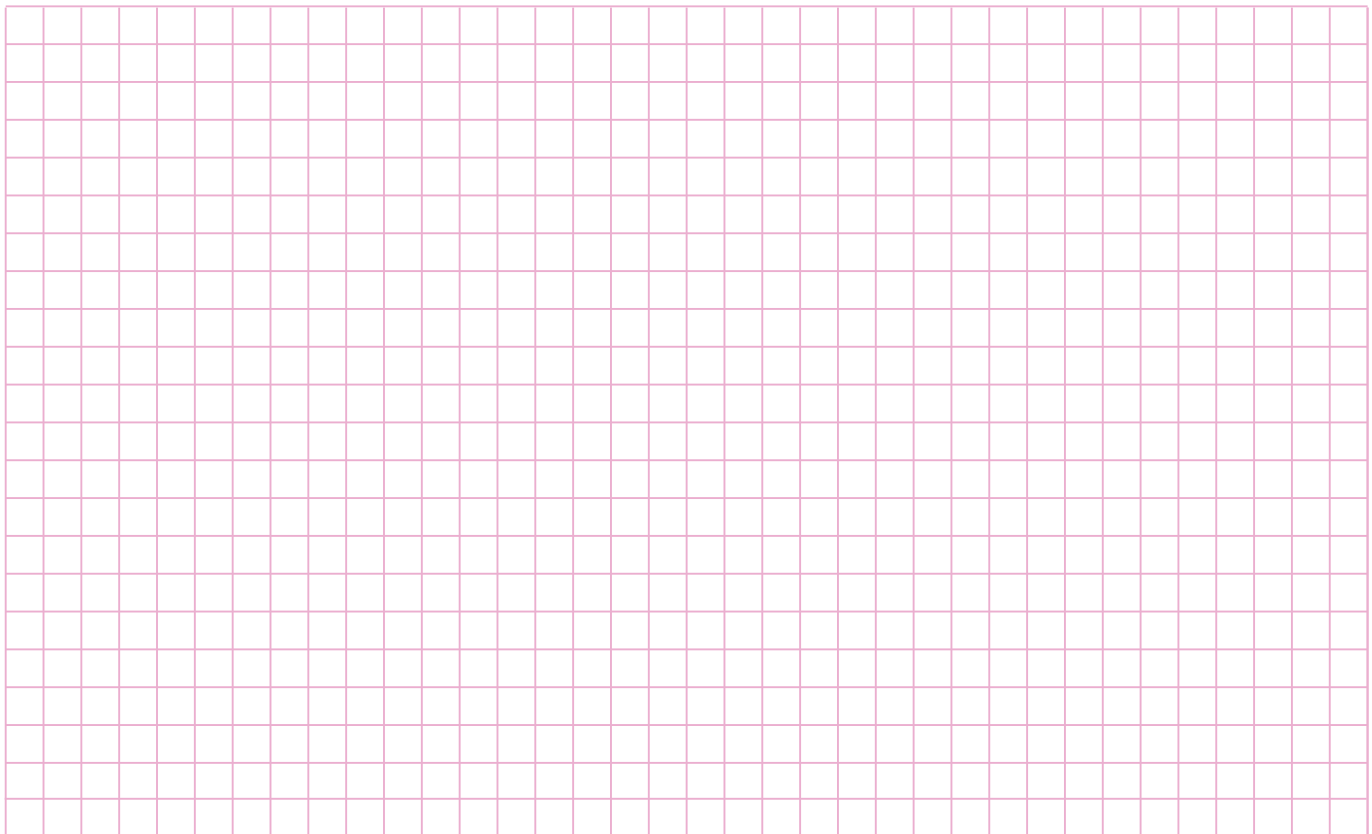
V_c [m/min]	steel	stainless	cast iron	non-ferrous metals	highly heat-resistant	tempered
HT45	250 (200 - 350)	240 (140 - 300)				
HT20			260 (180 - 350)		60 (40 - 200)	80 (40 - 120)
K15M				400 (300 - 600)		

Spare parts

	for FP 94	SS 4,0-1+S** (M=3,0-3,1 Nm)	Fixing screw
	for FP 96 for FP 97 for FP 98	SS 2,5-1+4 (M=0,5-0,6 Nm)	Fixing screw
	for FP 96 for FP 97 for FP 98	SS 2,5-1+5 SS 2,5-1+6 (M=0,8-0,9 Nm)	Fixing screw

** for orders of the fixing screws please replace "S" with the cutting width

	for FP 94	T 15	Screwdriver
	for FP 96 for FP 97 for FP 98	T 08	Screwdriver
	for all	100 g	Heavy duty grease



05/13

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Errors and omissions excepted!