

Milling tools made by
JONGEN!

C10

Face Milling



THE TOOL

- ☞ Especially efficient face milling cutter for the roughing and finishing machining
- ☞ Axial depth of cut max. 5 mm, with 8 effective cutting edges
- ☞ Tools are made of tempered and solid tool steel in order to resist highest charges
- ☞ Thanks to the nickel-coated surfaces of the tools, a higher resistance can be obtained against reweldings and corrosion

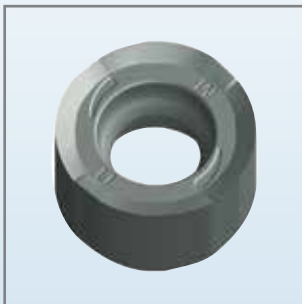
CHARACTERISTICS

- ☞ Face milling tool designed for high grade steel, steel, duplex steel, titanium and cast iron processing.
- ☞ The new face milling generation satisfies with an high number of cutting edges, soft cutting manner and the effectively positive rake angle. The plane chamfer is designed to achieve optimal surface qualities.
- ☞ Due to the positive geometry the tools are applicable at almost every kind of machine.

THE INSERT

- ☞ 8 effective cutting edges
axial depth of cut max. 5 mm

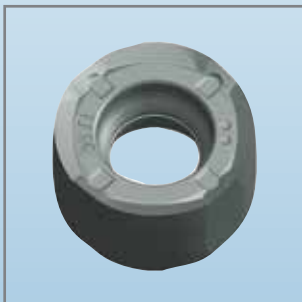
JMC10-124H



Precision sintered with highly positive chip breaker, chamfered and rounded edge.

- ☞ Designed for tough machining / Roughing and stable tool holders.

JMC10-124S



Precision ground with highly positive chip breaker, chamfered and rounded edge.

- ☞ Designed for light machining / Finishing and unstable tool holders and adhesive materials

- ☞ Application areas: all kind of steels and high-grade steels, hard-to-machine materials as well as cast iron materials.

Inserts' fitting



Following carbide qualities are offered:

HC45



Code 41, ISO-Classification P30-35

Very tough fine grain quality with a thick power nitride coating for middle - high cutting speeds and high feed rates. This quality is suitable for dry milling and can also be adopted with cooling. Application areas are roughing and finishing of almost all steels such as structural steel, tool steel, heat-treatable steel as well as unalloyed, low alloyed and high alloyed steel, and also cast-qualities such as grey cast iron, globular graphite cast iron etc.

HC30



Code 52, ISO-Classification M25-M30

Hard wearing and tough finest grain carbide with power nitride coating for middle cutting speeds and middle feed rates. This quality is suitable for dry milling and can also be adopted with cooling. Application areas are roughing and finishing high grade steel as well as high alloyed materials.

HC32



Code 51, ISO-Classification M25-30

Wear resistant and tough finest grain carbide with a power nitride coating for middle to high cutting speeds, with mean feed rates per tooth. This carbide quality can be adopted for dry milling and for milling operations with air cooling. The application areas are roughing and finishing of high grade steels, tool steels and high alloyed steels.

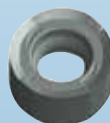
XC35



Code 46, Iso-Classification M20-M30

Wear resistant and tough finest grain hard metal quality with power nitride coating. On the basis of the experience gained wet machining is preferably to be adopted with this quality; however the dry processing is also possible. XC35 has been especially developed for processing stainless steel, duplex steel and high-alloyed materials, but also for titanium etc. .

HT20



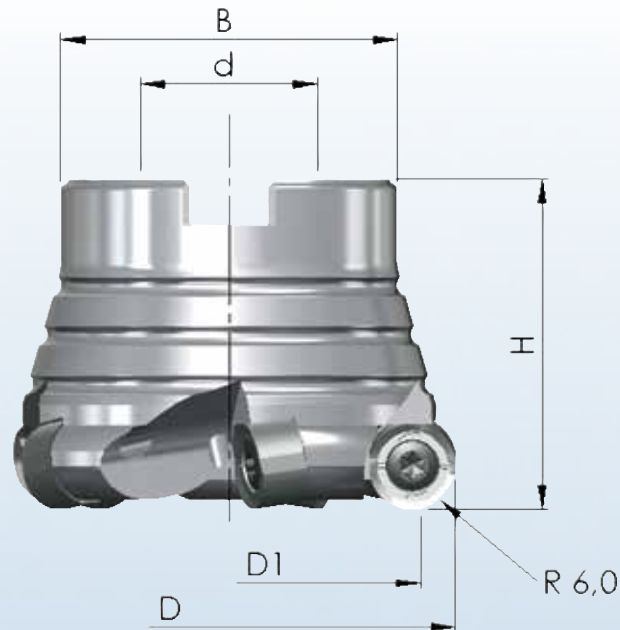
Code 32, ISO-Classification K15-K20

Very hard wearing fine grain carbide with an AlTiN- Nanocomposit-coating for middle – high cutting speeds with high feed rates. This quality is suitable for dry milling and can also be adopted with cooling. Application areas are roughing and finishing of cast iron materials, e.g. grey-, tempered-, vermicular-, graphite- and globular graphite cast iron.

TECHNICAL DATA

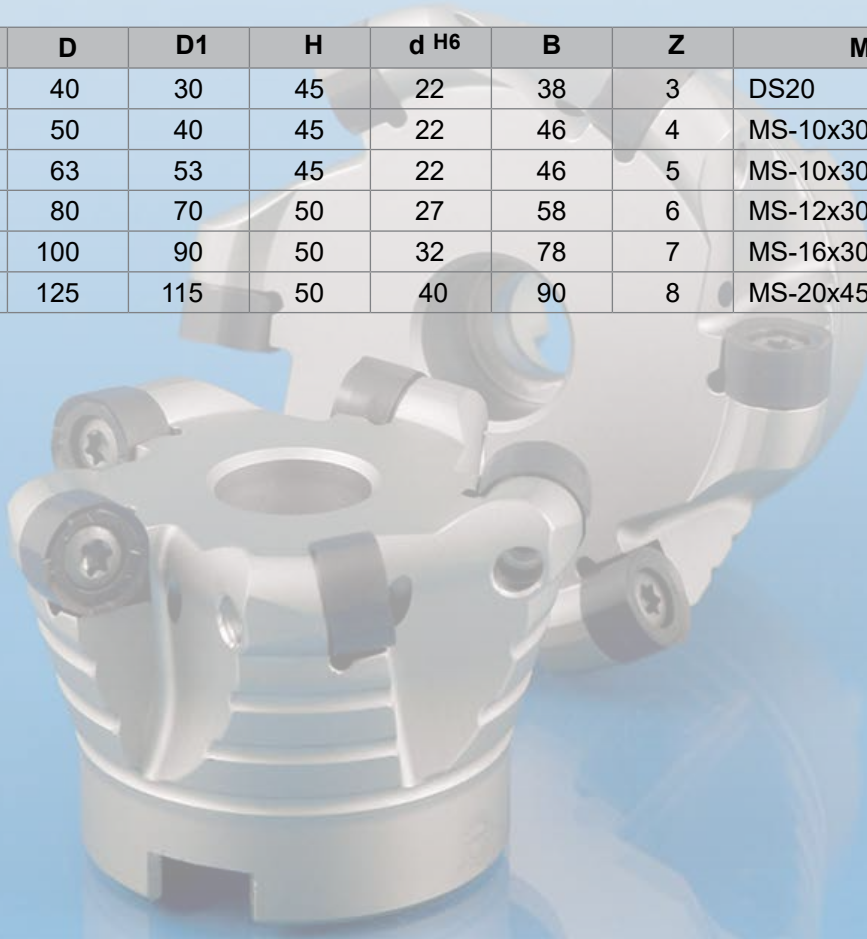


SHELL TYPE MILL

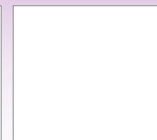
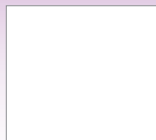
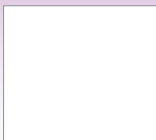


Order-Nr.	D	D1	H	d H6	B	Z	MS
00RN-040-124-3	40	30	45	22	38	3	DS20
00RN-050-124-4	50	40	45	22	46	4	MS-10x30-912
00RN-063-124-5	63	53	45	22	46	5	MS-10x30-912
00RN-080-124-6	80	70	50	27	58	6	MS-12x30-912
00RN-100-124-7	100	90	50	32	78	7	MS-16x30-6912
00RN-125-124-8	125	115	50	40	90	8	MS-20x45-7991

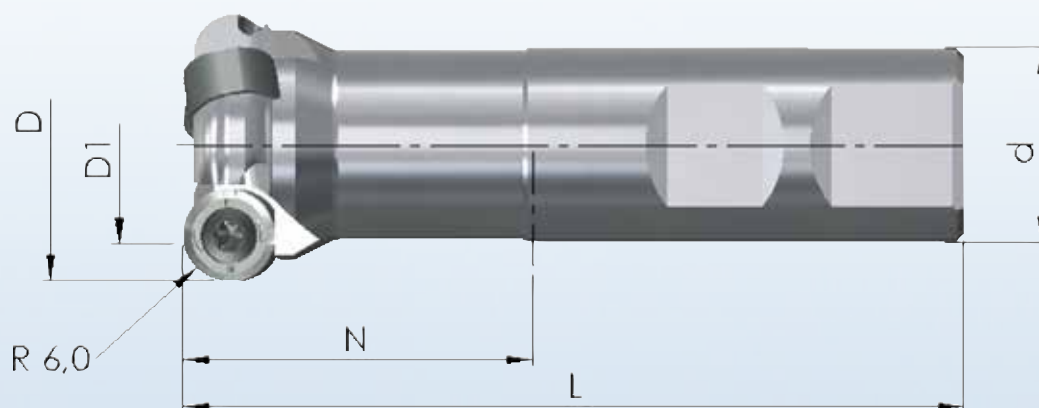
MS= Central screw



TECHNICAL DATA

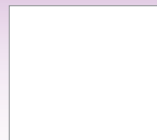
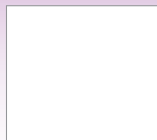
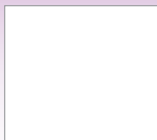


SHANK TYPE MILL DIN 1835-B (WELDON)

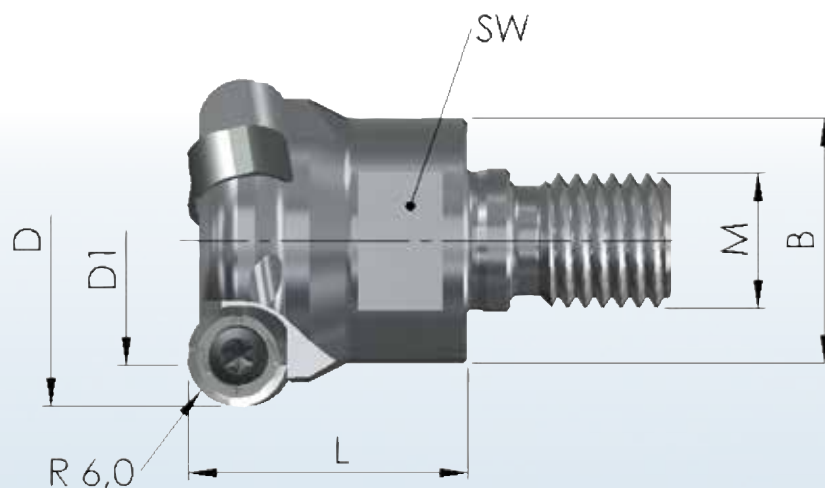


Order-Nr.	D	D1	L	d _{h6}	N	Z
00RN-28-124-2	28	18	100	25	44	2
00RN-32-124-2	32	22	100	25	44	2
00RN-36-124-25-3	36	26	100	25	44	3
00RN-40-124-25-3	40	30	100	25	44	3
00RN-36-124-32-3	36	26	100	32	40	3
00RN-40-124-32-3	40	30	100	32	40	3

TECHNICAL DATA














SCREW-IN CUTTERS



Order-Nr.	D	D1	L	M	B	SW	Z
ESF-28-M12-124-2	28	18	33	M12	24	18	2
ESF-32-M16-124-2	32	22	33	M16	29	24	2
ESF-40-M16-124-3	40	30	33	M16	29	24	3



Inserts

		HC45 (code 41)	HC30 (code 52)	HC32 (code 51)	XC35 (code 46)	HT20 (code 32)		
 JMC10-124H ø12,0 x 6,68								
	f_z [mm]	0,20 (0,15-0,30)		0,20 (0,15-0,30)		0,20 (0,15-0,30)		
 JMC10-124S ø12,0 x 6,68								
	f_z [mm]	0,15 (0,10-0,30)	0,15 (0,10-0,30)		0,15 (0,10-0,30)			
	VPE	10	10	10	10	10		




H Designed for tough machining / Roughing and stable tool holders

S Designed for light machining / Finishing and unstable tool holders and adhesive materials

V_c [m/min]	steel	stainless	cast iron	non-ferrous metals	highly heat-resistant	tempered
HC45	250 (200 - 350)	240 (140 - 300)	240 (130 - 280)			
HC30	160 (120 - 220)	200 (100 - 300)			60 (40 - 200)	
HC32	250 (200 - 350)	240 (140 - 300)			60 (40 - 200)	
HT20			260 (180 - 350)			80 (40 - 120)
XC35	160 (120 - 220)	200 (100 - 300)			60 (40 - 200)	

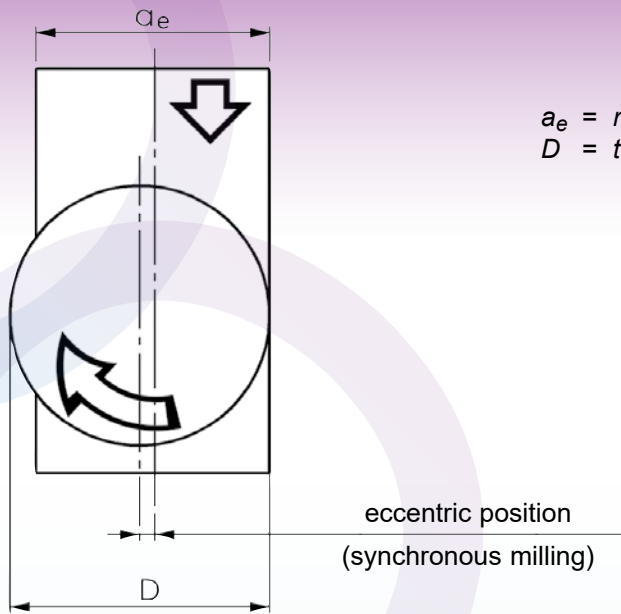
The indicated cutting data are approximate values. Depending on material, machining process and holding fixture adjustments shall be done in the fields V_c and f_z .

Spare Parts

	SS 4,5-1	Tightening torque 4,6-4,8 Nm	Fixing screw
	T 20	Screw driver	
	100 g	Heavy duty grease	

ELECTION OF THE OPTIMAL TOOL

Optimal choice of tool diameter:



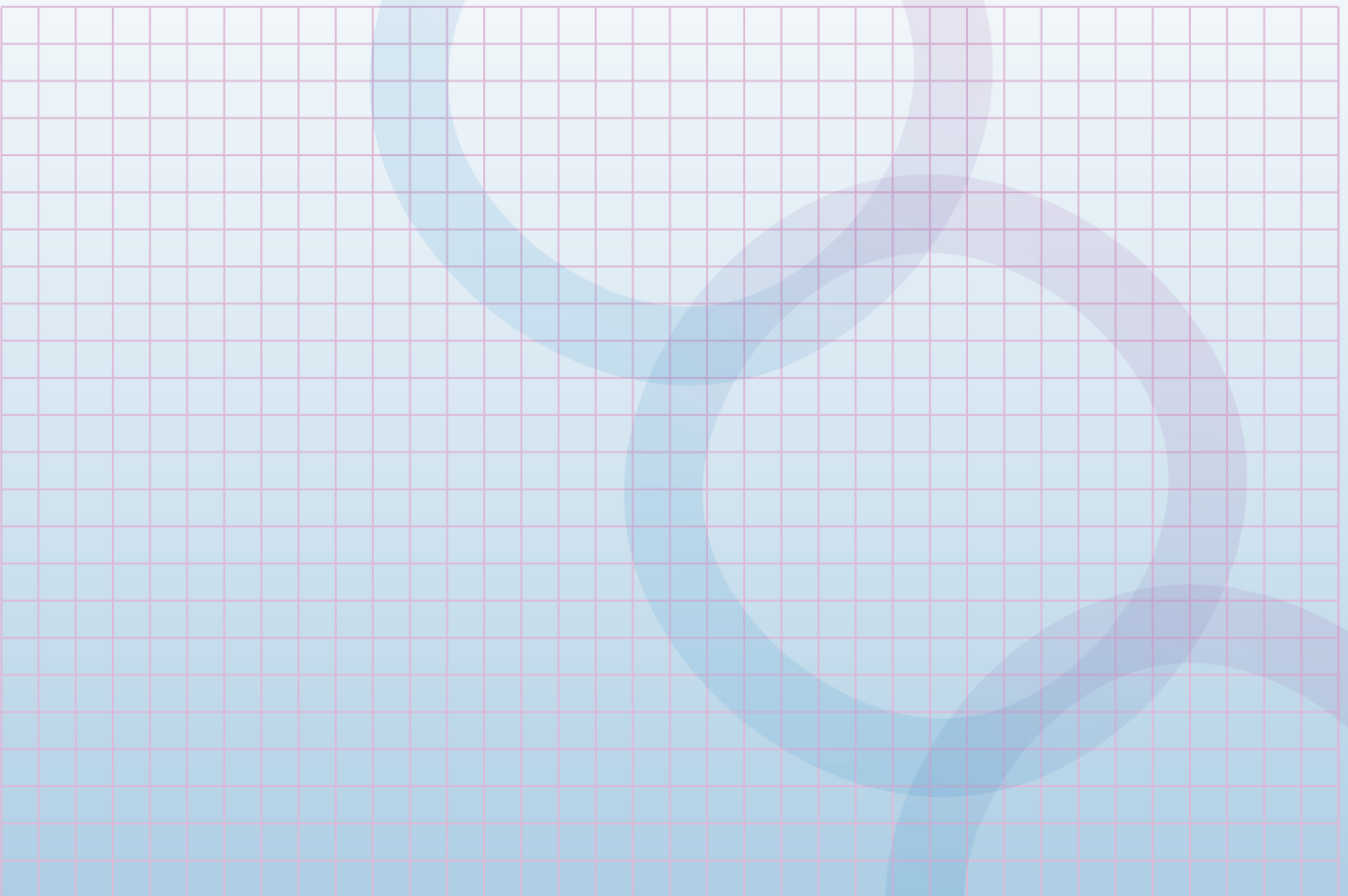
a_e = radial depth of cut
 D = tool diameter

Calculation example:

$$a_e = 50 \text{ mm}$$

$$D = 50 \times 1,2 = 60$$

→ Here the correct tool diam. would be 63 mm.



Errors and omissions excepted!