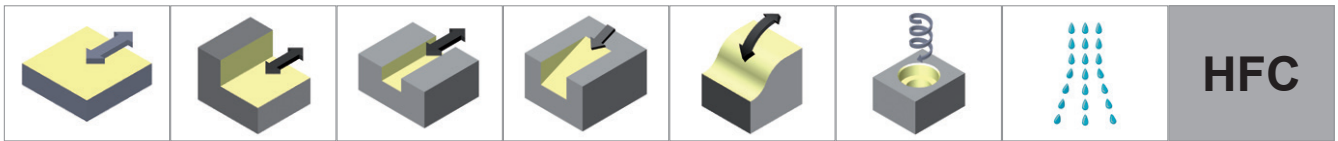
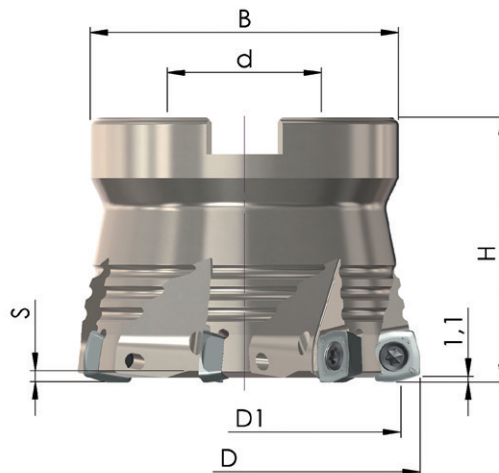
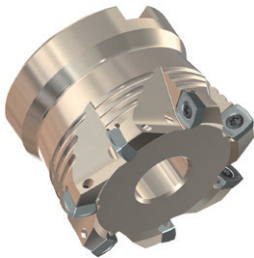


## H17 HFC-Fräser *HFC milling cutters, Fraise UGV (Usinage grande vitesse), Frese HFC (High feed cutting)*



**Aufsteckfräser** *Shell type mills, Fraises à alésage, Frese per attacco a manicotto*

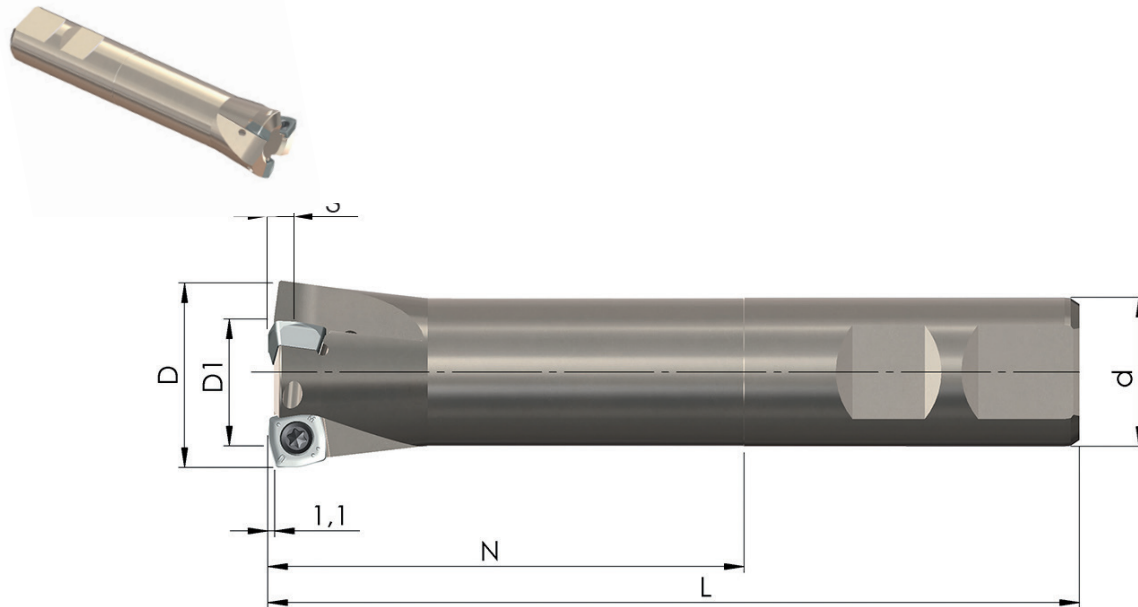


Bestell-Nr. <i>Order-No., Référence, Codice</i>	D	D <sub>1</sub>	H	d	B	S	Z	MS
00PP-040-09-4	40	30,0	40	16	38	2,25	4	MS-8x25-912
00PP-042-09-4	42	32,0	40	16	38	2,25	4	MS-8x25-912
00PP-050-09-5	50	40,0	40	22	46	2,25	5	MS-10x25-912
00PP-052-09-5	52	42,0	40	22	46	2,25	5	MS-10x25-912
00PP-063-09-5	63	53,0	50	27	58	2,25	5	MS-12x35-912
00PP-066-09-5	66	56,0	50	27	58	2,25	5	MS-12x35-912
<b>Enge Teilung</b> <i>close pitch, à pas réduit, a passo stretto:</i>								
00PP-042-09-5	42	32,0	40	16	38	2,25	5	MS-8x25-912
00PP-050-09-6	50	40,0	40	22	46	2,25	6	MS-10x25-912
00PP-052-09-6	52	42,0	40	22	46	2,25	6	MS-10x25-912
00PP-063-09-7	63	53,0	50	27	58	2,25	7	MS-12x35-912
00PP-066-09-7	66	56,0	50	27	58	2,25	7	MS-12x35-912
<b>Extra enge Teilung</b> <i>extra close pitch, pas extrêmement réduit, a passo extra stretto:</i>								
00PP-040-09-6	40	30,0	40	16	38	2,25	6	MS-8x25-912
00PP-042-09-6	42	32,0	40	16	38	2,25	6	MS-8x25-912
00PP-050-09-7	50	40,0	40	22	46	2,25	7	MS-10x25-912
00PP-052-09-7	52	42,0	40	22	46	2,25	7	MS-10x25-912
00PP-063-09-8	63	53,0	50	27	58	2,25	8	MS-12x35-912
00PP-066-09-8	66	56,0	50	27	58	2,25	8	MS-12x35-912

MS= Mittenschraube *Central screw, Vis centrale, Vite centrale di fissaggio*

## H17 HFC-Fräser *HFC milling cutters, Fraise UGV (Usinage grande vitesse), Frese HFC (High feed cutting)*

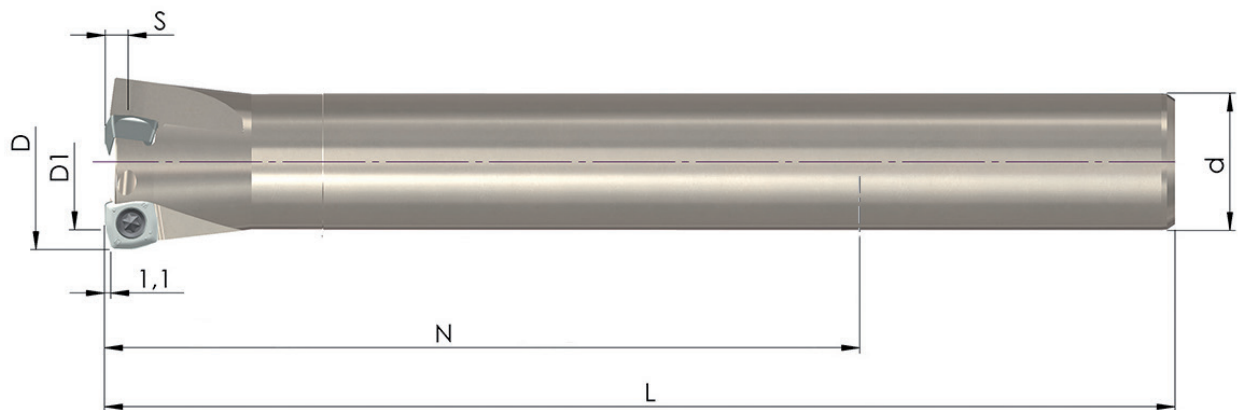
Schafffräser DIN 1835-B *Shank type mills, Fraises à queue Weldon, Frese a gambo Weldon*



Bestell-Nr. <i>Order-No., Référence, Codice</i>	D	D <sub>1</sub>	N	d	L	S	Z
00PP-20-09-2-80	20	10,0	80	20	130	2,25	2
00PP-22-09-2-80	22	12,0	80	20	130	2,25	2
00PP-22-09-2-125	22	12,0	125	20	175	2,25	2
00PP-25-09-3-80	25	15,0	80	25	136	2,25	3
00PP-25-09-3-125	25	15,0	125	25	181	2,25	3
00PP-32-09-3-80	32	22,0	80	25	136	2,25	3
00PP-32-09-3-125	32	22,0	125	25	181	2,25	3
00PP-35-09-3-80	35	25,0	80	25	136	2,25	3
00PP-35-09-3-125	35	25,0	125	25	181	2,25	3

## H17 HFC-Fräser *HFC milling cutters, Fraise UGV (Usinage grande vitesse), Frese HFC (High feed cutting)*

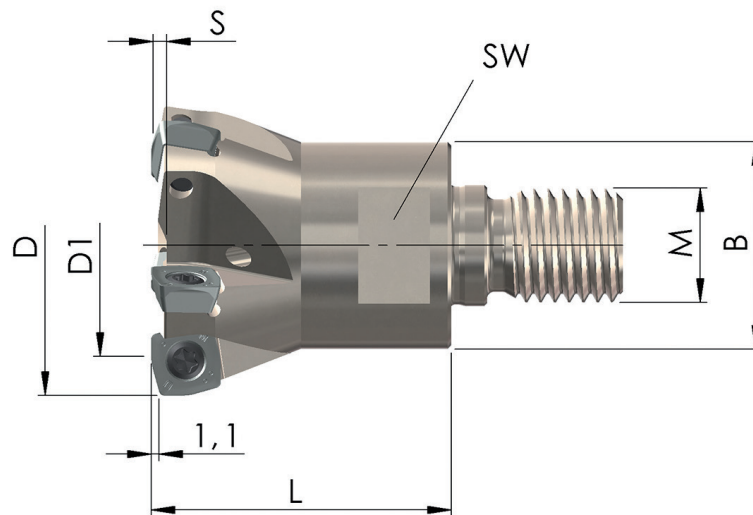
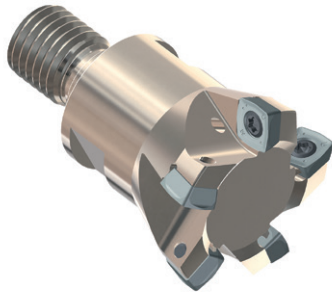
Schafffräser DIN 1835-A *Shank type mills, Fraises à queue, Frese a gambo*



Bestell-Nr. <i>Order-No., Référence, Codice</i>	D	D <sub>1</sub>	N	d	L	S	Z
00PP-20-16-09-2-160	20	10,0	112	16	160	2,25	2
00PP-22-20-09-2-160	22	12,0	110	20	160	2,25	2
00PP-25-20-09-3-170	25	15,0	120	20	170	2,25	3
00PP-32-25-09-3-195	32	22,0	139	25	195	2,25	3
00PP-35-25-09-3-195	35	25,0	139	25	195	2,25	3

## H17 HFC-Fräser *HFC milling cutters, Fraise UGV (Usinage grande vitesse), Frese HFC (High feed cutting)*











**Einschraubfräser** *Screw-In cutters, Fraises à queue fileté, Frese con attacco filettato*















Bestell-Nr. <i>Order-No., Référence, Codice</i>	D	D <sub>1</sub>	L	M	B	SW	S	Z
<b>ESF-20-M10-09-2</b>	20	10,0	32	M10	18	16	2,25	2
<b>ESF-22-M10-09-2</b>	22	12,0	32	M10	18	16	2,25	2
<b>ESF-25-M12-09-2</b>	25	15,0	32	M12	21	18	2,25	2
<b>ESF-32-M16-09-3</b>	32	22,0	42	M16	29	24	2,25	3
<b>ESF-35-M16-09-3</b>	35	25,0	42	M16	29	24	2,25	3
<b>ESF-42-M16-09-4</b>	42	32,0	42	M16	29	24	2,25	4
<b>Enge Teilung</b> <i>close pitch, à pas réduit, a passo stretto:</i>								
<b>ESF-25-M12-09-3</b>	25	15,0	32	M12	21	18	2,25	3
<b>ESF-32-M16-09-4</b>	32	22,0	42	M16	29	24	2,25	4
<b>ESF-35-M16-09-4</b>	35	25,0	42	M16	29	24	2,25	4
<b>ESF-42-M16-09-5</b>	42	32,0	42	M16	29	24	2,25	5

## H17 Fräswendepplatten und Schnittdaten

Milling inserts and parameters, Plaquettes de fraisage et paramètres, Inserti e parametri di taglio

			HC45 (code 41)	HC42 (code 57)	HT45 (code 31)	HT32 (code 33)	HC30 (code 52)	XC35 (code 46)	XC34 (code 64)
	<b>JMH17-09MR08-</b> IK 9,6x4,0 R0,8	Bestell-Nr.	<b>H17LG -41-A</b>	<b>H17KF -57-A</b>			<b>H17JE -52-A</b>		
		$f_z$ [mm]	0,90 (0,60-1,50)	0,90 (0,60-1,50)			0,90 (0,60-1,50)		
	<b>JMH17-09HR08-</b> IK 9,6x4,0 R0,8	Bestell-Nr.			<b>H17GC -31-A</b>	<b>H17FB -33-A</b>		<b>H17HD -46-A</b>	<b>H17AM -64-A</b>
		$f_z$ [mm]			0,80 (0,50-1,50)	0,80 (0,50-1,50)		0,80 (0,50-1,50)	0,80 (0,50-1,50)
	<b>JMH17-09SR08-</b> IK 9,6x4,0 R0,8	Bestell-Nr.			<b>H17PL -31-A</b>	<b>H17NJ -33-A</b>			
		$f_z$ [mm]			0,70 (0,50-1,50)	0,70 (0,50-1,50)			
			20	20	20	20	20	20	20

			XC40 (code 66)	HT20 (code 32)					
	<b>JMH17-09MR08-</b> IK 9,6x4,0 R0,8	Bestell-Nr.		<b>H17MH -32-A</b>					
		$f_z$ [mm]		0,90 (0,60-1,50)					
	<b>JMH17-09HR08-</b> IK 9,6x4,0 R0,8	Bestell-Nr.	<b>H17TN -66-A</b>	<b>H17EA -32-A</b>					
		$f_z$ [mm]	0,80 (0,50-1,50)	0,80 (0,50-1,50)					
	<b>JMH17-09SR08-</b> IK 9,6x4,0 R0,8	Bestell-Nr.		<b>H17OK -32-A</b>					
		$f_z$ [mm]		0,70 (0,50-1,50)					
			20	20					

$V_c$ [m/min]	Stahl Steel Acier Acciaio	Rostfrei Stainless Acier inoxydable Inossidabile	Guss Cast iron Fonte Ghisa	NE-Metalle Non-ferrous metals Non ferreux Metalli non ferrosi	Hochwarmfest Highly heat-resistant Superalliages Resistente al calore	Gehärtet Tempered Aciers traités Temprato
HC45	250 (200 - 350)	240 (140 - 300)	240 (130 - 280)			
HC42	200 (140 - 300)	160 (100 - 300)	240 (130 - 280)		60 (40 - 200)	
HT45	250 (200 - 350)	240 (140 - 300)	240 (130 - 280)			
HT32	250 (200 - 350)	240 (140 - 300)			60 (40 - 200)	
HC30	160 (120 - 220)	200 (100 - 300)			60 (40 - 200)	
XC35		120 (60 - 180)			80 (60 - 120)	
XC34		120 (60 - 180)			80 (60 - 120)	
XC40		200 (80 - 260)			100 (60 - 180)	
		150 (60 - 220)			80 (40 - 140)	
HT20			260 (180 - 350)			80 (40 - 120)

## Ersatzteile *Spare parts, Pièces de rechange, Parti di ricambio*



**SS 4,0-1**  
(M = 3,2-3,3 Nm)



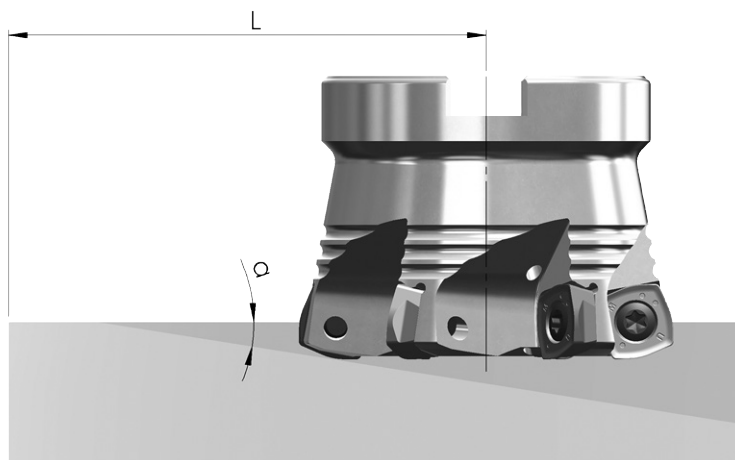
**T 15**



**100g**

## H17 Rampingwinkel

*Ramping angle type, Angle de ramping, Angolo rampa inserti*



D	Ramping- winkel <i>Ramping angle type Angle de ramping Angolo rampa inserti</i> max. $\alpha$ (°)	Bearbeitungs- weg <i>Processing path Distance parcourue lunghezza di lavorazione</i> min. L (mm)	$a_p$ max. $\phi/2$	$\phi$ WP <i>Insert Plaqueette Inserti</i>	WP <i>Insert Plaqueette Inserti</i>
20	6,0	10	1,10	9,60	JMH17 (FP 09H, FP 09S, FP 09M)
25	4,1	15	1,10	9,60	
32	2,8	22	1,10	9,60	
35	2,5	25	1,10	9,60	
40	2,1	30	1,10	9,60	
42	1,9	32	1,10	9,60	
50	1,6	40	1,10	9,60	
52	1,5	42	1,10	9,60	
63	1,2	53	1,10	9,60	
66	1,1	56	1,10	9,60	

## H17 Anwendungshinweise

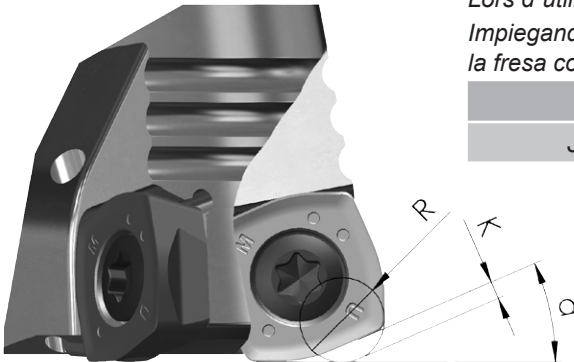
Indications of application, Conseils d'utilisation, Indicazioni d'impiego

Beim Einsatz empfehlen wir die ProgrammierEinstellung entsprechend eines Fräsers mit Radius. -siehe Tabelle-

The programming is recommended in compliance with a tool with radius. -see table-

Lors d'utilisation nous conseillons une programmation sur la base d'une fraise à rayon.

Impiegando la fresa vi proponiamo di considerare riguardo la programmazione secondo la fresa con il raggio



	R	K	α
JMH17 (FP 09)	1,9	0,8	15,7°

K= Nicht zerspanter Bereich

free milling area, partie non-usinée, il campo non asportato

Bei Zustellungen größer Maß „ap“ ist der Zahnvorschub um ca. 30% zu reduzieren  
Zustellung max. siehe Maß „b“.

If the feed increment is bigger than "ap", the feed rate per tooth must be reduced to 30%. Max. feed increment see measure „b“.

Lors de passes plus importantes que « ap » il faut impérativement réduire d'environ 30 % l'avance à la dent. Hauteur max de coupe voir « b »

Nel caso d'impegno della fresa che supera la misura "ap", l'avanzamento al dente bisogna ridurre di ca. 30%. Impegno massimo vedi misura "b"

	ap	b	R
JMH17 (FP 09)	1,1	1,9	0,8

