

HFC01 Rougher H
Cutting data recommendations

Material	Material No.	DIN Description Old	R _m /UTS (N/mm ²)	DIN Description New	
P Heat-treatable die steels	1.2311	40CrMnMo7	-1100	40CrMnMo7	
	1.2312	40CrMnMoS8.6		40CrMnMoS8-6	
	1.2738	40CrMnNiMoS8.6.4		40CrMnNiMoS8-6-4	
	1.2711	54NiCrMoV6		54NiCrMoV6	
	Full hardening tool steels	1.2343	X38CrMoV5 1	350-1400	X37CrMoV5 1
		1.2080	X210Cr12		X210Cr12
		1.2379	X155CrVMo12 1		X153CrVMo12 1
		1.2767	X45NiCrMo4		X45NiCrMo4
	Nitriding steels	1.8550	34CrAlNi7	950-1400	34CrAlNi7
		1.8519	31CrMoV9		31CrMoV9
1.7735		14CrMoV6.9	14CrMoV6.9		
1.2344		X40CrMoV5.1	X40CrMoV5-1		
K Grey cast iron	0.6025	GG25	100-400 (120-260 HB)	EN-GJI-250	
	Alloyed grey cast iron	0.6678	GGL-NiCr35 2	150-250 (160-230 HB)	EN-GJLA-XNiCr35-2
	Nodular cast iron	0.7060 0.7070	GGG60 GGG70L	400-800 (120-310 HB)	EN-GJS-600-3 EN-GJS-700-2U
Malleable cast iron	0.8155	GTS55	350-700 (150-280 HB)	EN-GJMB-550-4	
H Hardened steel			45-52 HRC		
			53-56 HRC		
			57-62 HRC		
			63-68 HRC		

Cutting speed v _c (m/min)	Cutting diameter (mm)						Cutting depth a _p (mm) (= a _{p max})
	Feed per tooth f _z (mm/z)						
	Ø 4	Ø 5	Ø 6	Ø 8	Ø 10	Ø 12-20	
240	0.30	0.38	0.45	0.60	0.75	0.90	0.05 x d ₁
220	0.30	0.38	0.45	0.60	0.75	0.90	0.04 x d ₁
	200	0.24	0.30	0.36	0.48	0.60	
	200	0.28	0.35	0.42	0.56	0.70	
	180	0.26	0.33	0.39	0.52	0.65	
160	0.24	0.30	0.36	0.48	0.60	0.70	0.04 x d ₁
	200	0.28	0.35	0.42	0.56	0.70	
	180	0.26	0.33	0.39	0.52	0.65	
200	0.35	0.40	0.55	0.65	0.80	0.95	0.05 x d ₁
	180	0.30	0.35	0.50	0.60	0.75	
	180	0.30	0.35	0.50	0.60	0.75	
	160	0.30	0.35	0.50	0.60	0.75	
160-180	0.16	0.20	0.24	0.32	0.40	0.48	0.04 x d ₁
120-160	0.12	0.15	0.18	0.24	0.30	0.36	0.03 x d ₁
100-120	0.08	0.10	0.12	0.16	0.20	0.24	0.02 x d ₁
80-100	0.06	0.08	0.09	0.12	0.15	0.18	0.01 x d ₁

The cutting data indicated are starting values and must be adjusted to the prevailing conditions.
We recommended to reduce the f_z-value with the long version by 30 %.