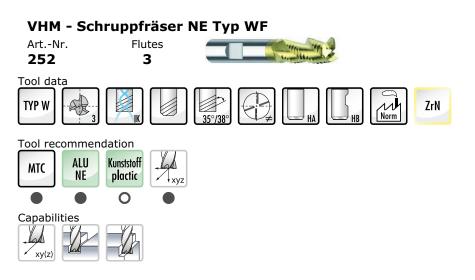


Technical information

Art.-Nr. 252 / 1 - example aluminium

п



Areas of application and special features

HPC roughing mill especially for aluminium and non-ferrous materials. Uneven partition, uneven helix, a small roughing profile and internal cooling through the front edge.

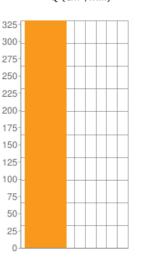
Competitive advantages and profitability

competition to Hoffmann, GW and Ceratizit

Example application

ArtN Mater			ort-chipping
	Inov	vatools -	- Finishing
D1	16,00	mm	Diameter
z	3		Flutes
ae	8,000	mm	Row pitch
ар	16,000	mm	Cutting depth
vc	480,00	m/min	Cutting speed
n	9549	U/min	Rotation speed
fz	0,09000	mm	Feed per tooth
vf	2578,31	mm/min	Feed rate
Q	330,02369000	cm³/min	Material removal rate
hm	0,05730	mm	Middle chipping thickness
K/M		€/std	Machine hourly cost
K/W		€	Tool cost
т		min	Tool life
v		cm³	Processing volume
Тb		min	Process time
€/Ws		€	Cost workpiece

Material removal rate Q (cm³/min)



	Calculator										
D1		mm	Diameter								
z			Flutes								
ae		mm	Row pitch								
ар		mm	Cutting depth								
vc		m/min	Cutting speed								
n		U/min	Rotation speed								
fz		mm	Feed per tooth								
vf		mm/min	Feed rate								
Q		cm³/min	Material removal rate								
hm		mm	Middle chipping thickness								
K/M		€/std	Machine hourly cost								
K/W		€	Tool cost								
т		min	Tool life								
ν		cm³	Processing volume								
Тb		min	Process time								
€/Ws		€	Cost workpiece								

Competitor: Art.-Nr.:



Cutting data and application recommendations

Art.-Nr. 252 / 1 - example aluminium

Roughing Caption:				D1													
ap: 1,00 Good ae:1,00 Applicab			ole applicable		8,00	10,00	12,00	16,00	20,00	25,00							
Material			φ Grad	fz mm													
General steels <500 N/mm² (<1	150 HB)																
General steels <700 N/mm² (<2	205 HB)																
General steels <850 N/mm² (<2	25 HRC)																
Tempering steel <850 N/mm² ((<25 HRC)																
Tempering steel <1000 N/mm²	(<32 HRC)																
Tempering steel <1400 N/mm ² (<44 HRC)																	
Tempered steels 45-55 HRC (1400-2000 N/mi																	
Tempered steels 55-60 HRC (>2000 N/mm²)																	
Tempered steels 60-65 HRC																	
Cast iron <180HB																	
Malleable cast iron																	
Cast iron with nodular graphite																	
Aluminium long-chipping		438	70	0,055	0,071	0,084	0,101	0,126	0,168	0,185							
Aluminium short-chipping		445	65	0,055	0,071	0,084	0,101	0,126	0,168	0,185							
Aluminium alloyed over >8% S		247	45	0,055	0,071	0,084	0,101	0,126	0,168	0,185							
Copper, brass, bronze, red brass		177	55	0,038	0,042	0,046	0,050	0,063	0,076	0,092							
Plastics - thermoplast		283	90	0,038	0,046	0,059	0,063	0,076	0,101	0,126							
Plastics - duroplast																	
GFK/CFK (fibreglass/carbon fibre plastics)																	
Graphite																	
Rust and acid constant steels <700 N/mm² (<20																	
Rust and acid constant steels >700 N/mm² (>20																	
Inconel, Hastelloy, Nimonic, Monel																	
Titanium																	

-	Caption: Ideal		D1	D1	D1	D1	D1	D1	D1	D1	D1	D1	D1	D1	D1	D1
ap: 1,00 Good ae:0,50 Applicabl		ile applicable		8,00	10,00	12,00	16,00	20,00	25,00							
Material	vc m/mir	φ Grad	fz d mm	fz mm												
General steels <500 N/mm² (<150 H	3)															
General steels <700 N/mm² (<205 H	3)															
General steels <850 N/mm² (<25 HR	C)															
Tempering steel <850 N/mm² (<25 H	RC)															
Tempering steel <1000 N/mm ² (<32	HRC)															
Tempering steel <1400 N/mm² (<44 H	IRC)															
Tempered steels 45-55 HRC (1400-200	0 N/mr															
Tempered steels 55-60 HRC (>2000 N/mm²)																
Tempered steels 60-65 HRC																
Cast iron <180HB																
Malleable cast iron																
Cast iron with nodular graphite																
Aluminium long-chipping	620	70	0,065	0,085	0,100	0,120	0,150	0,200	0,220							
Aluminium short-chipping	630	65	0,065	0,085	0,100	0,120	0,150	0,200	0,220							
Aluminium alloyed over >8% S	350	45	0,065	0,085	0,100	0,120	0,150	0,200	0,220							
Copper, brass, bronze, red brass	250	55	0,045	0,050	0,055	0,060	0,075	0,090	0,110							
Plastics - thermoplast	400	90	0,045	0,055	0,070	0,075	0,090	0,120	0,150							
Plastics - duroplast																
GFK/CFK (fibreglass/carbon fibre plastics)																
Graphite																
Rust and acid constant steels <700 N/mm² (<2(
Rust and acid constant steels >700 N/mm² (>20																
Inconel, Hastelloy, Nimonic, Monel																
Titanium																