

Technical information

Art.-Nr. 231 / 1 - Fightmax STEEL short

VHM - Schaftfräser Fightmax kurz

Art.-Nr. 231

Flutes











Stahl stee















Tool recommendation















High-quality HPC multi-twist cutter with micro geometry, new solid carbide and polished high performance coating Varacon Plus especially for steel. The Fightmax uses a new milling cutter front for better dipping and ramp cutting.

Competitive advantages and profitability

The durability was increased by a special edge finishing and better production tolerances. Best results in 16MnCr5, 42CrMo4 andToolox 33.

Competition to Hoffmann, Hanita, Maier

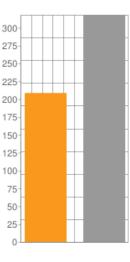
Example application

Art.-Nr.:

Tempering steel $<1000 \text{ N/mm}^2$ (<32 HRC) Material:

Inovatools –									
D1	12,00	mm	Diameter						
z	4		Flutes						
ae	6,000	mm	Row pitch						
ар	12,000	mm	Cutting depth						
vc	255,00	m/min	Cutting speed						
n	6764	U/min	Rotation speed						
fz	0,07000	mm	Feed per tooth						
vf	1893,94	mm/min	Feed rate						
Q	136,36395524	cm³/min	Material removal rate						
hm	0,04456	mm	Middle chipping thickness						
K/M	100	€/std	Machine hourly cost						
K/W	78,8	€	Tool cost						
Т	54,87	min	Tool life						
٧	9072	cm³	Processing volume						
Tb	66,53	min	Process time						
€/Ws	206,43	€	Cost workpiece						





Competitor: Wettbewerber Art.-Nr.: Europa

		Calcul	ator
D1	12,00	mm	Diameter
z	4		Flutes
ae	6	mm	Row pitch
ар	12	mm	Cutting depth
vc	180,01	m/min	Cutting speed
n	4775	U/min	Rotation speed
fz	0,09	mm	Feed per tooth
vf	1718,97	mm/min	Feed rate
Q	123,76575924	cm³/min	Material removal rate
hm	0,05730	mm	Middle chipping thickness
K/M	100	€/std	Machine hourly cost
K/W	85,7	€	Tool cost
Т	32,06	min	Tool life
٧	9072	cm³	Processing volume
Tb	73,30	min	Process time
€/Ws	318,11	€	Cost workpiece





Cutting data and application recommendations

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cutting data and application										****	,		. 5	iux 5		
Roughing Caption	1:		D1	D1	D1	D1	D1	D1	D1	D1	D1	D1	D1	D1	D1	Di
Ideal												-		-		
ap: 1,00 Good ae: 1,00 Applicab			6,00	8,00	10,00	12,00	16,00	20,00								
Limited		able														
Material	vc	φ	fz	fz	fz	fz	fz	fz	fz	fz	fz	fz	fz	fz	fz	fz
		Grad 55	mm 0,034	mm 0,042	mm 0,050	mm 0,059	mm 0,084	mm 0.109	mm	mm	mm	mm	mm	mm	mm	mı
General steels <500 N/mm² (<150 HB) General steels <700 N/mm² (<205 HB)	198 194	50	0,034	-	0,050	0,059	0,084	0,109								
	187	50	0,034	-	0,050	-	-	0,109								
Tempering steel <850 N/mm² (<25 HRC)	180	45	0,034	-	0,050	0,059	0,084	0,109								
Tempering steel <1000 N/mm² (<32 HRC)			-	-	0,050	-	-	-								
Tempering steel <1400 N/mm² (<44 HRC)	131	40	0,034	0,042	0,050	0,059	0,084	0,109								
Hardened steel 45-55 HRC (1400-2000 N/mm	12															-
Hardened steel 55-60 HRC (>2000 N/mm²)																
Hardened steel 60-65 HRC																
Castiron <180HB	156	55	0,034	0,042	0,050	0,059	0,084	0,109								
Malleable cast iron	141	45	0,034	0,042	0,050	0,059	0,084	0,109								
Cast iron with nodular graphite	134	45	0,034	0,042	0,050	0,059	0,084	0,109								
Aluminium long-chipping																
Aluminium short-chipping																
Aluminium alloyed over >8% S																
Copper, brass, bronze, red brass																
Plastics - thermoplast																
Plastics - duroplast																
GFK/CFK (fibreglass/carbon fibre plastics)																
Graphite		1														
Rust and acid constant steels <700 N/mm² (<2	20															
Rust and acid constant steels >700 N/mm² (>2																
Inconel, Hastelloy, Nimonic, Monel																
Titanium																
Finishing Caption Ideal	Caption:		D1	D1	D1	D1	D1	D1	D1	D1	D1	D1	D1	D1	D1	D
ap: 1,00 Good			6,00	8,00	10,00	12,00	16,00	20,00								
	0,50 Applicable Limited applicable															
Material	vc	φ	fz	fz	fz	fz	fz	fz	fz	fz	fz	fz	fz	fz	fz	fz
General steels <500 N/mm² (<150 HB)	m/min	Grad 55	mm 0.040	mm 0,050	mm 0,060	mm 0.070	mm 0,100	mm 0.130	mm	mm	mm	mm	mm	mm	mm	mn
	275	50	-,	-	-	-	0,100									
General steels <700 N/mm² (<205 HB)	265	50					0,100									
Tempering steel <850 N/mm² (<25 HRC)							0,100									
Tempering steel <1000 N/mm² (<32 HRC)		45			_		_									
Tempering steel <1400 N/mm² (<44 HRC)	185	40	0,040	0,050	0,060	0,070	0,100	0,130								
Hardened steel 45-55 HRC (1400-2000 N/mm	11															
Hardened steel 55-60 HRC (>2000 N/mm²)																
Hardened steel 60-65 HRC																
Castiron <180HB	200	55	-	-	-	-	0,100	-								
Malleable cast iron		45					0,100									
Cast iron with nodular graphite	190	45	0,040	0,050	0,060	0,070	0,100	0,130								
Aluminium long-chipping																
Aluminium short-chipping																
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Copper, brass, bronze, red brass																
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