



Jonggen

Werkzeugtechnik GmbH & Co. KG



The Power Roughing Cutter

VHM .46W TS35

VHM .47W TS35



Avantages

- High cutting parameters
- Long tool life
- Less tool exchanges
- Smooth running of machine
- High working precision
- Cost reduction
- Machining of hard materials up to 52 HRC possible
- For almost all material suitable
- Available in long and short version

The tool

- Flat-faced Weldon cutter
- Shafts to DIN 6535-B (Weldon)
- Spiral slot angle 45°
- Improved chip space
- Improved cutting geometry
- Chamfer for cutting edge stabilization

The quality “TS35”

Hard metal:

- New hard metal finest-grain carbide type for ISO: K10-K20
- Improved tenacity and very hard wearing

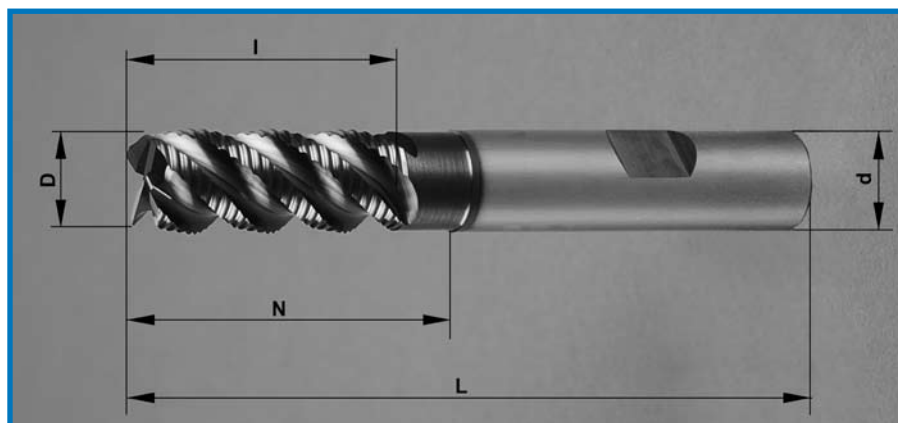
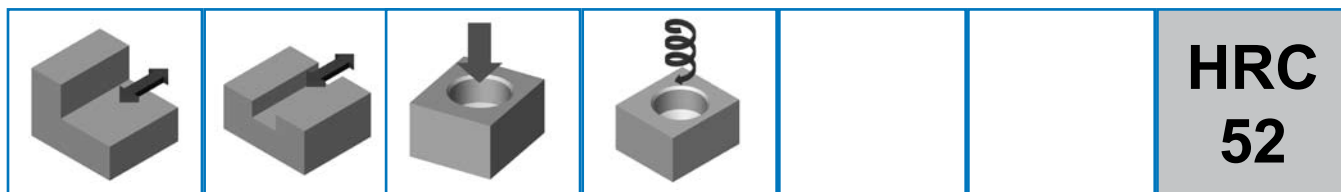
The coating:

- New TiAlN coating
- Very polishing surface
- Very heat-resisting
- Very hard material with high tenacity

Operation example



Technical data and prices



Tolerance \varnothing :
 $\varnothing 6,0 - 20,0 = -0,03$
 $-0,06$

VHM .46W

Order-No.	D	I	N	d	L	Z
VHM 446W-06 TS35	6	9	15	6	55	4
VHM 446W-08 TS35	8	12	20	8	59	4
VHM 446W-10 TS35	10	15	25	10	67	4
VHM 446W-12 TS35	12	18	28	12	74	4
VHM 546W-16 TS35	16	24	34	16	83	5
VHM 546W-20 TS35	20	30	40	20	93	5

VHM .47W

Order-No.	D	I	N	d	L	Z
VHM 447W-06 TS35	6	15	21	6	58	4
VHM 447W-08 TS35	8	20	26	8	64	4
VHM 447W-10 TS35	10	25	31	10	73	4
VHM 447W-12 TS35	12	30	38	12	84	4
VHM 547W-16 TS35	16	35	43	16	93	5
VHM 547W-20 TS35	20	45	53	20	104	5

Cutting speed recommendations

Material (see below)	V _c (m/min)	Feed rates per tooth (f _z) in mm					
		ø 6 mm	ø 8 mm	ø 10 mm	ø 12 mm	ø 16 mm	ø 20 mm
1	160 (140-180)	0,03 (0,02-0,05)	0,04 (0,02-0,06)	0,05 (0,03-0,07)	0,06 (0,04-0,08)	0,06 (0,04-0,08)	0,08 (0,06-0,1)
2	160 (140-180)	0,03 (0,02-0,05)	0,04 (0,02-0,06)	0,05 (0,03-0,07)	0,06 (0,04-0,08)	0,06 (0,04-0,08)	0,08 (0,06-0,1)
3	120 (90-130)	0,03 (0,02-0,05)	0,04 (0,02-0,06)	0,05 (0,03-0,07)	0,06 (0,04-0,08)	0,06 (0,04-0,08)	0,08 (0,06-0,1)
4	120 (80-130)	0,03 (0,02-0,05)	0,04 (0,02-0,06)	0,05 (0,03-0,07)	0,06 (0,04-0,08)	0,06 (0,04-0,08)	0,08 (0,06-0,1)
5	160 (150-170)	0,05 (0,03-0,07)	0,06 (0,04-0,08)	0,07 (0,05-0,09)	0,08 (0,06-0,1)	0,08 (0,06-0,1)	0,1 (0,08-0,12)
6	140 (130-150)	0,05 (0,03-0,07)	0,06 (0,04-0,08)	0,07 (0,05-0,09)	0,08 (0,06-0,1)	0,08 (0,06-0,1)	0,1 (0,08-0,1)
7	130 (120-150)	0,05 (0,03-0,07)	0,06 (0,04-0,08)	0,07 (0,05-0,09)	0,08 (0,06-0,1)	0,08 (0,06-0,1)	0,1 (0,08-0,12)
8	50 (40-80)	0,03 (0,02-0,04)	0,04 (0,03-0,05)	0,05 (0,04-0,06)	0,06 (0,05-0,07)	0,06 (0,05-0,07)	0,08 (0,06-0,1)

Material No.	Material	Treatment / alloy
1	Unalloyed steel Structural steel	annealed 0,15 - 0,45% C HB 125 - 250
2	Low alloyed steel	annealed, tempered HB 180 - 350
3	High grade steel Tool steel	annealed, tempered HB 180 - 330
4	Stainless steel Fine steel	annealed, quenched HB 180 - 330
5	Grey cast iron	ferrite, perlitic
6	Grey cast iron with globular graphite	ferrite, perlitic
7	Temper cast iron	ferrite, perlitic
8	Titanium Titanium alloys	-

Jongen Werkzeugtechnik GmbH & Co. KG

Siemensring 11 · D-47877 Willich

Tel: +49 2154 / 9285-0 · Fax: +49 2154 / 911976

Free Fax: 00 800 / 56 64 36 33

www.jongen.de · email: info@jongen.de