

Jongen UNI-MILL

VHM 650W Cutter

for T-slots made to DIN 650



Milling tools made by JONGEN !



The Tool

This solid carbide T-slot-cutter has been designed for manufacturing T-slots made to to DIN 650.

The application areas are the processing of all usual steels, cast iron-materials and conditionally also stainless steels, as well as difficult to mill materials.

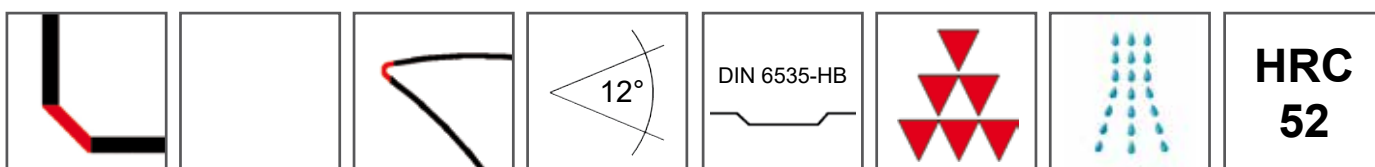
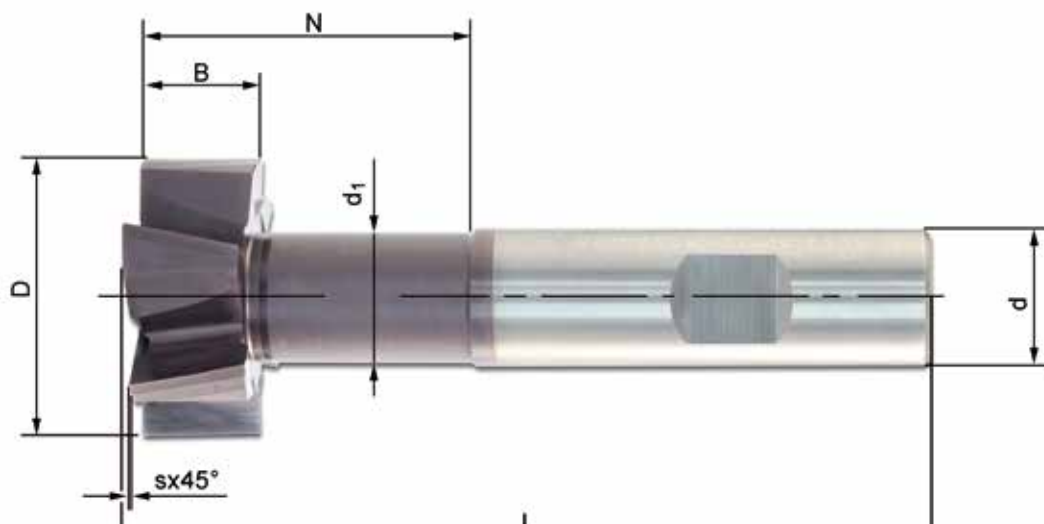
Product Features

Characteristics	Your advantage
VHM T-slot-cutter	Production of T-slots made to DIN 650
Central cooling channel	Optimal cooling on the cutting edge Supporting of the chip flow
3-effective cutting edges	High productivity
Holder made to DIN 6535-HB (Weldon)	Stable mounting of the tool
Optimized macro geometry	High edge stability
Optimized micro geometry	Long tool life
The carbide	Finest grain carbide K10-K20 Highest tenacity with very good wear properties
The coating	TiAlN-nano-composite coating Very even layer surface High heat and oxidation resistance
Carbide + Coating = The quality TS35	High tool lives with high processing parameters Universally applicable
Regrinding capability of the tools	High cost-benefit factor

Application areas



Technical Data



Order-No.	D_{d11}	s	$d_{1 h12}$	B_{d11}	L	n	d_{h6}	Z_{eff}	Z
VHM 650W-12,5-6 TS35	12,5	0,20x45°	5	6	66	14	10	3	6
VHM 650W-16-8 TS35	16,0	0,20x45°	7	8	70	19	10	3	6
VHM 650W-18-8 TS35	18,0	0,20x45°	8	8	73	22	12	3	6
VHM 650W-21-9 TS35	21,0	0,20x45°	10	9	74	26	12	3	6
VHM 650W-25-11 TS35	25,0	0,20x45°	12	11	84	29	16	3	6
VHM 650W-28-12 TS35	28,0	0,20x45°	13	12	87	33	16	3	6
VHM 650W-32-14 TS35	32,0	0,20x45°	15	14	90	37	16	3	6

The tools are designed as upper tolerance limit to grant the re-grinding capability.



PARAMETERS

Material	ae [mm]	Vc [m/min]	ø 12,5 fz [mm]	ø 16 fz [mm]	ø 18 fz [mm]	ø 21 fz [mm]	ø 25 fz [mm]	ø 28 fz [mm]	ø 32 fz [mm]
Structural steel, Unalloyed steel <180 HB	-0,25xD	120 (100-140)	0,07 (0,04-0,09)	0,10 (0,06-0,12)	0,11 (0,09-0,13)	0,12 (0,08-0,14)	0,13 (0,10-0,16)	0,14 (0,12-0,18)	0,14 (0,12-0,18)
	1xD		0,04 (0,02-0,06)	0,05 (0,04-0,07)	0,06 (0,05-0,09)	0,06 (0,05-0,09)	0,07 (0,06-0,10)	0,08 (0,07-0,11)	0,08 (0,07-0,11)
Tool steel, Heat-treatable steel, Alloyed steel 130-350 HB	-0,25xD	100 (80-140)	0,07 (0,04-0,09)	0,10 (0,06-0,12)	0,11 (0,09-0,13)	0,12 (0,08-0,14)	0,13 (0,10-0,16)	0,14 (0,12-0,18)	0,14 (0,12-0,18)
	1xD		0,04 (0,02-0,06)	0,05 (0,02-0,08)	0,06 (0,05-0,09)	0,06 (0,05-0,09)	0,07 (0,06-0,10)	0,08 (0,07-0,11)	0,08 (0,07-0,11)
Stainless-steel, High grade steel, High alloyed steel >270 HB	-0,25xD	80 (50-100)	0,04 (0,02-0,06)	0,06 (0,04-0,08)	0,07 (0,05-0,09)	0,08 (0,06-0,10)	0,10 (0,08-0,12)	0,12 (0,09-0,14)	0,12 (0,09-0,14)
	1xD		0,02 (0,02-0,06)	0,04 (0,02-0,06)	0,05 (0,03-0,07)	0,05 (0,03-0,07)	0,06 (0,04-0,06)	0,07 (0,05-0,09)	0,07 (0,05-0,09)
Grey cast iron <800 N/mm ²	-0,25xD	120 (100-140)	0,07 (0,04-0,09)	0,10 (0,06-0,12)	0,11 (0,09-0,13)	0,12 (0,08-0,14)	0,13 (0,10-0,16)	0,14 (0,12-0,18)	0,14 (0,12-0,18)
	1xD		0,04 (0,02-0,06)	0,05 (0,02-0,08)	0,06 (0,05-0,09)	0,06 (0,05-0,09)	0,07 (0,06-0,10)	0,08 (0,07-0,11)	0,08 (0,07-0,11)
Globular graphite cast iron <350 N/mm ²	-0,25xD	100 (80-140)	0,07 (0,04-0,09)	0,10 (0,06-0,12)	0,11 (0,09-0,13)	0,12 (0,08-0,14)	0,13 (0,10-0,16)	0,14 (0,12-0,18)	0,14 (0,12-0,18)
	1xD		0,04 (0,02-0,06)	0,05 (0,02-0,08)	0,06 (0,05-0,09)	0,06 (0,05-0,09)	0,07 (0,06-0,10)	0,08 (0,07-0,11)	0,08 (0,07-0,11)

* The above mentioned data are standard values.
Up and down corrections are possible depending on the machine type, tool and holding fixture.