Garant

GARANT Diabolo solid carbide torus cutter R1 0.2, TiAlN, ⌀ DC × L1: 2X22mm

Order data

Order number	206157 2X22
GTIN	4045197934826
Item class	11X

Description

Version:
GARANT Diabolo:
Special geometry, coating and carbide **for hard machining in the high-performance field.**
Suitable even for machining **electrolytic copper**.
Double-relief ground with 2 chamfers hollow ground for high-precision hard machining.
Recess angle α = 16°.
Tolerances:
· **Corner radius: R_1 = ±0.0025 mm.**
· **Neck ⌀: D_1 = 0 / -0.01 mm.**
Note:
At greater tool overhang lengths, use a reduced value for a_p!
Values for:
side milling: $a_p = 0.1 \times D \times a_p corr$
copying: $a_p = 0.05 \times D \times a_p corr$
To calculate the feed rate vf please use the actual speed of the machine (the maximum possible speed)! e.g: vf = 18000 [rpm]× fz [mm/Z]× z

Technical description

Overhang length L_1 incl. recess	22 mm
Feed f_z for copy milling in steel < 65 HRC	0.025 mm
Recess ⌀ D_1	1.91 mm
No. of teeth Z	2
Helix angle	30 degrees
Overall length L	60 mm

Correction factor $a_{p\,corr}$	0.5
Feed f_z for side milling in steel < 65 HRC	0.025 mm
Flute length L_c	2 mm
Corner radius R_1	0.2 mm
Shank ⌀ D_s	4 mm
Cutting edge ⌀ D_C	2 mm
Shank	DIN 6535 HA to h5
Series	Diabolo
Coating	TiAlN
Tool material	Solid carbide
Standard	Manufacturer's standard
Type	H
Tolerance nominal ⌀	0 / -0.005
Direction of infeed	horizontal, oblique and vertical
Cutting width a_e for milling operation	0.05×D for copy milling
Cutting width a_e for milling operation	0.05×D for copy milling
Through-coolant	no
Colour ring	red
Type of product	Torus cutter

User data

	Suitability	V_c	ISO code
Steel < 750 N/mm²	suitable only under restricted conditions	200 m/min	P
Steel < 900 N/mm²	suitable only under restricted conditions	200 m/min	P
Steel < 1100 N/mm²	suitable	190 m/min	P
Steel < 1400 N/mm²	suitable	170 m/min	P
Steel < 50 HRC	suitable	120 m/min	H

Steel < 55 HRC	suitable	100 m/min	H
Steel < 60 HRC	suitable	72 m/min	H
Steel < 65 HRC	suitable	55 m/min	H
Steel < 67 HRC	suitable	50 m/min	H
Steel < 70 HRC	suitable	45 m/min	H
INOX < 900 N/mm^2	suitable	90 m/min	M
INOX > 900 N/mm^2	suitable	80 m/min	M
CuZn	suitable	140 m/min	N
wet maximum	suitable only under restricted conditions		
wet minimum	suitable only under restricted conditions		
dry	suitable		
Air	suitable		