

**Garant**
**Ball nose slot drill HSS-PM, TiAlN, Ø e8 DC: 22mm**

**Order data**

Order number	194302 22
GTIN	4045197110220
Item class	11W

**Description**
**Version:**

Centre cutting edge geometry for plunging.  
For the most demanding metal removal rates.

**Note:**

For milling concave slots or for milling radius transitions.  
Suitable for use as a copy mill and for mould making.  
 $f_z$  for  $a_p$   $0.05 \times D$ .

**Technical description**

No. of teeth Z	2
Feed $f_z$ for copy milling in steel $< 750 \text{ N/mm}^2$	0.076 mm
Cutting edge $\varnothing D_c$	22 mm
Shank $\varnothing D_s$	20 mm
Overall length L	88 mm
Flute length $L_c$	22 mm
Helix angle	30 degrees
Radius R	11 mm
Coating	TiAlN
Tool material	HSS PM
Type	N

Tolerance nominal $\varnothing$	e8
Direction of infeed	horizontal, oblique and vertical
Cutting width $a_e$ for milling operation	0.05×D for copy milling
Shank	DIN 1835 B to h6
Through-coolant	no
Colour ring	without
Type of product	Ball-nosed slot drill

## User data

	Suitability	$V_c$	ISO code
Aluminium (short chipping)	suitable only under restricted conditions	138 m/min	N
Alu > 10% Si	suitable only under restricted conditions	110 m/min	N
Steel < 500 N/mm <sup>2</sup>	suitable	83 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	64 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	64 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	37 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable only under restricted conditions	32 m/min	P
INOX < 900 N/mm <sup>2</sup>	suitable	23 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable only under restricted conditions	18 m/min	M
GG(G)	suitable only under restricted conditions	55 m/min	K
CuZn	suitable only under restricted conditions	110 m/min	N
Uni	suitable		
wet maximum	suitable		
dry	suitable		

