

**Garant**
**End milling head, radius = 0.5 mm, HB730, Ø D h10: 12mm**

**Order data**

Order number	210210 12
GTIN	4045197522924
Item class	21M

**Description**
**Note:**

 Standard application values for  $a_{p,max} \leq 0.5 \times D$ .

**Technical description**

Cutter Ø D	12 mm
Flute length $L_2$	9 mm
Head length l	16 mm
Feed $f_z$ for side milling in steel < 900 N/mm <sup>2</sup>	0.06 mm
Feed $f_z$ for slot milling in steel < 900 N/mm <sup>2</sup>	0.04 mm
Arbor size	12 mm
Corner rounding $r_v$	0,5
Number of cutting edges Z	4
Series	TopCut
Grade	HB730
Tool material	Solid carbide
Standard	Manufacturer's standard
Type	N

Helix angle	40 degrees
Direction of infeed	horizontal, oblique and vertical
Cutting width $a_e$ for milling operation	0.3×D for side milling mm
Cutting width $a_e$ for milling operation	Full slot cutting depth 1×D mm
Through-coolant	no
suitable arbor	GARANT TopCut
Type of product	Cutter insert for milling

## User data

	Suitability	$V_c$	ISO code
Steel < 500 N/mm <sup>2</sup>	suitable	210 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	170 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	150 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	130 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable only under restricted conditions	110 m/min	P
Steel < 55 HRC	suitable only under restricted conditions	50 m/min	H
Steel < 60 HRC	suitable only under restricted conditions	40 m/min	H
INOX < 900 N/mm <sup>2</sup>	suitable	80 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable only under restricted conditions	50 m/min	M
Ti > 850 N/mm <sup>2</sup>	suitable only under restricted conditions	80 m/min	S
GG(G)	suitable	160 m/min	K
Oil	suitable only under restricted conditions		
wet maximum	suitable		
wet minimum	suitable only under restricted conditions		

dry	suitable only under restricted conditions
Air	suitable

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## Accessories

Plug-in adapter for torque wrench Type 10X4	219986 10X4
Assembly wrench Type 10X4	219987 10X4