

**Garant**
**Face torus milling head, with internal coolant supply, HB730, Ø D h10: 12mm**


## Order data

Order number	210310 12
GTIN	4045197523266
Item class	21M

## Description

### Note:

**Comply strictly with  $a_{p,max}$ ! Recommended application values ( $v_c$  and  $f_z$ ) apply also to  $a_{p,max}$ .**

## Technical description

Programming radius $R_p$	2.205 mm
Flute length $L_2$	9 mm
Milling head Ø D	12 mm
maximum cutting depth $a_{p,max}$ in steel < 900 N/mm <sup>2</sup>	0.6 mm
Head length l	16 mm
Corner radius	1.8 mm
Feed $f_z$ in steel < 900 N/mm <sup>2</sup>	0.6 mm
Arbor size	12 mm
Number of cutting edges Z	5
Grade	HB730
Tool material	Solid carbide
Standard	Manufacturer's standard
Type	N

Helix angle	45 degrees
Direction of infeed	horizontal and oblique
Cutting width $a_e$ for milling operation	$0.05 \times D$ for side milling
Machining strategy	HPC
Through-coolant	yes
Shank type	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

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