

Parameters for Circular Thread Cutters

General:

This tool with its special tip grinding is a multifunctional thread cutter and a tapping drill at the same time. It cuts the thread in the same working cycle in which also the thread hole is being milled. These “two tools in one” save you not only an extra tool, but also a lot of time because the tool change process after the hole has been milled becomes obsolete.

Fields of Application:

- Suitable for plastics and non-ferrous metals
- For producing metric internal threads and high-strength cable glands (PG)
- Each thread cutter (except M6) can be used for producing several thread sizes.

Hints for Machining:

- If your thread is deeper than the width of its diameter, you have to drill a tapping hole in advance. Otherwise the chips cannot be removed sufficiently.
- When you cut threads in non-ferrous metals, you should work with liquid cooling – just as if you were milling.
- The circular thread cutter can be used only with a fully 3D capable controller (e. g. all vhf models from CNC 550 on).
- Enter the technical data (please turn over) of each tool that you use into the Tool Magazine of the production software Cenon (click on the button *Parameters* on the Magazine page of the CAM Panel) and set the tool type to *Drill Thread Cutter (DTC)*. For other software packages you have to carry out similar steps.



Thread cutter and tapping drill at the same time

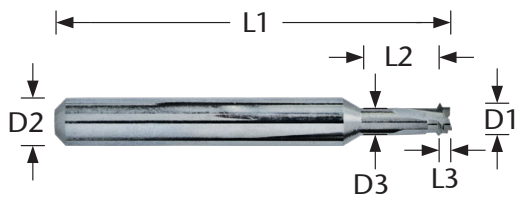
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Please note...

In order to achieve best results with your new precision tool for a long time, you should set your tool parameters according to the following data. However, whether it is actually possible to work with these theoretically determined values for feed rate and rotational speed depends on the interaction of a number of factors. Thus we cannot assume liability for the calculated values. Among others, the following factors determine the machining process:

- additional cooling with compressed air or lubrication?
- power/maximum rotational speed of the spindle
- minimum/maximum feed rate of the CAM system
- controller features (look-ahead path calculation, etc.)
- stiffness of the machine.

Dimensioning Drawing



Technical Data

Article No.	Thread	Pitch	D1 Cutting edge diameter	D2 Shank diameter	D3 Core diameter	L3 Additional depth	L2 Maximum thread depth	L1 Total length
BGF-M02.5-M03	M 2.5	0.450 mm	2.00 mm	6 mm	1.40 mm	1.5 mm	6.5 mm	40 mm
	M 3	0.500 mm						
BGF-M04-M05	M 4	0.700 mm	3.15 mm	6 mm	2.15 mm	1.5 mm	10.5 mm	40 mm
	M 4.5	0.750 mm						
BGF-M06	M 5	0.800 mm	4.80 mm	6 mm	3.40 mm	1.5 mm	10.5 mm	50 mm
	M 6	1.000 mm						
BGF-M08-M10	M 8/9	1.250 mm	5.90 mm	6 mm	4.10 mm	3.2 mm	10.5 mm	50 mm
	M 10/11	1.500 mm						
BGF-M12-M16	M 12	1.750 mm	5.90 mm	6 mm	3.70 mm	3.2 mm	10.5 mm	50 mm
	M 14/16	2.000 mm						
BGF-MKV	M 12/16/20/25/32 M 40/50/63/75	1.500 mm	5.90 mm	6 mm	4.00 mm	3.2 mm	10.5 mm	50 mm
BGF-PG7-PG48	PG 7	1.270 mm	5.90 mm	6 mm	4.30 mm	5.6 mm	8.5 mm	50 mm
	PG 9/11/13,5/16	1.410 mm						
	PG 21/29/36/42/48/48	1.588 mm						

No responsibility is taken for the correctness of this information!

Working Parameters

Article No.	Rotational Speed	Feed Rate in Aluminium/ Non-ferrous Metals	Feed Rate in Plastics
BGF-M2.5-M3	45,000 RPM	4 mm/s	8 mm/s
BGF-M4-M5	25,000 RPM	5 mm/s	10 mm/s
BGF-M6	25,000 RPM	5 mm/s	10 mm/s
BGF-M8-M10	25,000 RPM	6 mm/s	12 mm/s
BGF-M12-M16	25,000 RPM	6 mm/s	12 mm/s
BGF-MKV	25,000 RPM	6 mm/s	12 mm/s
BGF-PG7-PG48	25,000 RPM	6 mm/s	12 mm/s

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