5 Gear tools

GLOOR gear tools are produced with gear profiles to customers' specifications.

Hob cutters are available ex stock in AA quality to DIN867.

GLOOR gear tools are logarithmically relief ground.

Carbide hob cutters, involute

– To customers' requirements or as per standard
– Up from module 0.05
– With logarithmic relief grinding
– DIN 867-U2 / AA + AAA / 1gg right-hand in stock

More than just tools

Article: 040

Non-standard dimensions and versions are possible on request.

We can produce up from module 0.05.

We can also produce multi-start cutters.

Can be produced up to AAA quality.

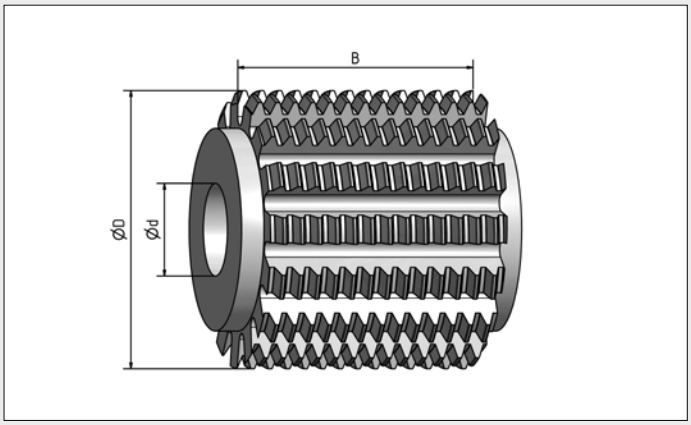
The standard number of teeth of the cutters is 12 to 15.

Outside-Ø (D)	Width (B)	Bore-Ø (d)	Module
6	3	3.50	0.05-0.15
6	4	3.50	0.05-0.15
6	5	3.50	0.05-0.015
8	3	3.50	0.05-0.15
8	4	3.50	0.05-0.15
8	5	3.50	0.05-0.015
10	3	3.50/4.50/5.50	0.05-0.15
10	4	3.50/4.50/5.50	0.05-0.15
10	5	3.50/4.50/5.50	0.05-0.15
10	6	3.50/4.50/5.50	0.08-0.20
12	3	3.50/4.50/5.50	0.05-0.15
12	4	3.50/4.50/5.50	0.05-0.15
12	5	3.50/4.50/5.50	0.05-0.15
12	6	3.50/4.50/5.50	0.08-0.20
16	5	8	0.10-0.50
16	8/5	8	0.20-0.50
16	10/7	8	0.25-0.60

Outside-Ø (D)	Width (B)	Bore-Ø (d)	Module
16	12/9	8	0.30-0.70
18	5	8	0.10-0.50
18	8/5	8	0.20-0.50
18	10/7	8	0.25-0.60
18	12/9	8	0.30-0.70
24	5	8	0.10-0.70
24	8/5	8	0.20-0.70
24	10/7	8	0.25-1.00
24	12/9	8	0.30-1.00
24	15/13	8	0.40-1.00
24	20/17	8/10	0.50-1.00
24	25/21	8/10	0.70-1.00
32	8/5	8/10	0.15-1.00
32	10/7	8/10	0.20-1.25
32	15/13	10/13	0.40-1.25
32	20/17	10/13	0.50-1.25
32	25/21	10/13	0.70-1.25

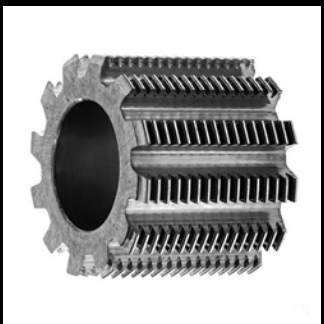
Carbide hob cutters, involute

We can produce hob cutters in the following dimensions:
Outside ∅ = 6 to 50 mm
Width = 3 to 30 mm
Module = up from 0.05



Carbide hob cutters, cycloidal

– To customers' requirements or as per standard
– Up from module 0.05
– With logarithmic relief grinding



More than just tools

Article: 041

Non-standard dimensions and versions are possible on request.

We can produce up from module 0.05.

We can also produce multi-start cutters.

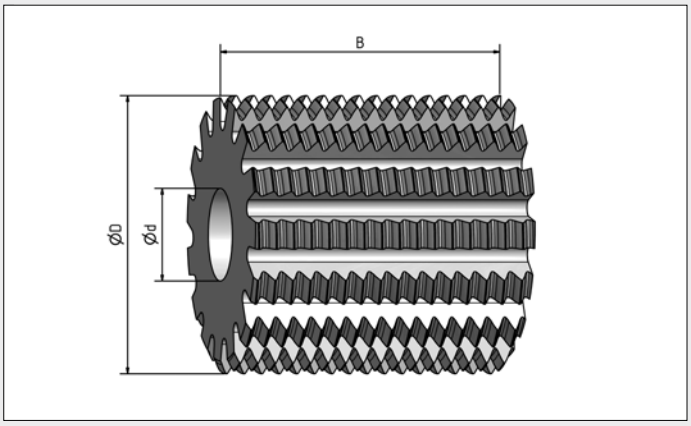
Can be produced up to AAA quality.

The standard number of teeth of the cutters is 12 to 15.

Outside-∅ (D)	Width (B)	Bore-∅ (d)	Module
6	3	3.50	0.05-0.15
6	4	3.50	0.05-0.15
6	5	3.50	0.05-0.15
8	3	3.50	0.05-0.15
8	4	3.50	0.05-0.15
8	5	3.50	0.05-0.15
10	3	3.50/4.50	0.05-0.20
10	4	3.50/4.50	0.05-0.20
10	5	3.50/4.50	0.07-0.30
10	6	4.50/4.50	0.10-0.30
12	3	3.50/4.50	0.05-0.20
12	4	3.50/4.50	0.05-0.20
12	5	3.50/4.5	0.07-0.30
12	6	3.50/4.5	0.10-0.30
16	5	5	0.10-0.50
16	8	8	0.20-0.50
16	10	8	0.25-0.60
16	12	8	0.30-0.80
18	5	5	0.10-0.50
18	8	8	0.20-0.50
18	10	8	0.25-0.60
18	12	8	0.30-0.80
24	5	8	0.10-0.70
24	8	8	0.20-0.70
24	10	8	0.25-1.00
24	12	8	0.30-1.00
24	15	8	0.40-1.00
24	20	8/10	0.50-1.00
32	8	8/10	0.15-1.25
32	10	8/10	0.20-1.25
32	15	8/10	0.40-1.25

Carbide hob cutters, cycloidal

We can produce hob cutters in the following dimensions:
Outside ∅ = 6 to 32 mm
Width = 3 to 30 mm
Module = up from 0.05



Carbide hob cutters for special shapes

– To customers' requirements
– Up from module 0.05
– With logarithmic relief grinding

More than just tools

Article: 044

Non-standard dimensions and versions are possible on request.

We can produce up from module 0.05.

We can also produce multi-start cutters.

Can be produced up to AAA quality.

The standard number of teeth of the cutters is 12 to 15.

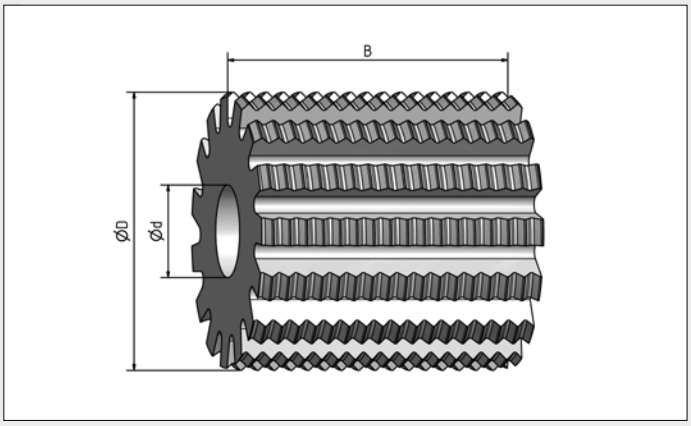
Almost all symmetrical and some asymmetricaltooth geometries can be produced.

With the help of specialist software it is possible to decide whether a hob cutter for non-standard shapes is suitable for the respective tooth profile or whether another cutter isrequired, such as an adjustable hob cutter.

Outside-∅ (D)	Width (B)	Bore-∅ (d)	Module
6	3	3.50	0.05-0.15
6	4	3.50	0.05-0.15
6	5	3.50	0.07-0.15
8	3	3.50	0.05-0.15
8	4	3.50	0.05-0.15
8	5	3.50	0.07-0.15
10	3	3.50/4.50	0.06-0.20
10	4	3.50/4.50	0.06-0.20
10	5	3.50/4.50	0.07-0.30
10	6	3.50/4.50	0.10-0.30
12	3	3.50/4.50	0.06-0.20
12	4	3.50/4.50	0.06-0.20
12	5	3.50/4.50	0.07-0.30
12	6	3.50/4.50	0.10-0.30
16	5	5	0.10-0.50
16	8	8	0.20-0.50
16	10	8	0.25-0.60
16	12	8	0.30-0.80
18	5	5	0.10-0.50
18	8	8	0.20-0.50
18	10	8	0.25-0.60
18	12	8	0.30-0.80
24	5	8	0.10-0.70
24	8	8	0.20-0.70
24	10	8	0.25-1.00
24	12	8	0.30-1.00
24	15	8	0.40-1.00
24	20	8/10	0.50-1.00
32	8	8/10	0.15-1.25
32	10	8/10	0.20-1.25
32	15	8/10	0.40-1.25

Carbide hob cutters for special shapes

We can produce hob cutters in the following dimensions:
Outside ∅ = 6 to 32 mm
Width = 3 to 30 mm
Module = up from 0.05



Carbide gear milling cutters

– To customers' requirements
– With logarithmic relief grinding
– Can be produced with overlapping and non-overlapping profile
– Can be ground up to AAA quality

More than just tools

Article: 003

Non-standard dimensions and versions are possible on request.

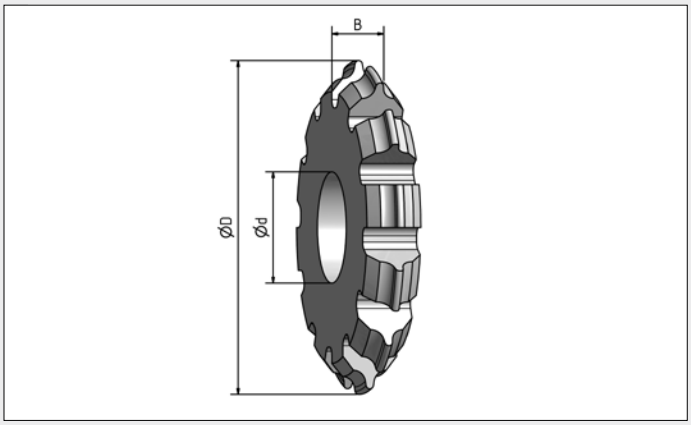
Can be produced up to AAA quality. The standard number of teeth of the cutters is 12.

These tools are also very often used with shanks.

∅ D	Breite	∅ d
8	2	3.50
10	2	4.50
10	2	5
10	3	5
12	2	4.50
12	2	5
12	3	5
14	2	5
14	3	5
16	2	5
16	3	5
20	3	5
20	4	5
25	3	8
25	4	8
30	3	8
30	4	8
40	3	10
40	4	10
40	5	10

Carbide gear milling cutters

We can produce gear milling cutters in the following dimensions:
Outside ∅ = 6 to 80 mm
Width = 2 to 30 mm
Module = up from 0.05



Carbide gear milling cutters with shank

– To customers' requirements
– With logarithmic relief grinding
– Can also be produced with overlapping profile

More than just tools

Article: 025

The Carbide gear milling cutters with shank are logarithmically relief ground.

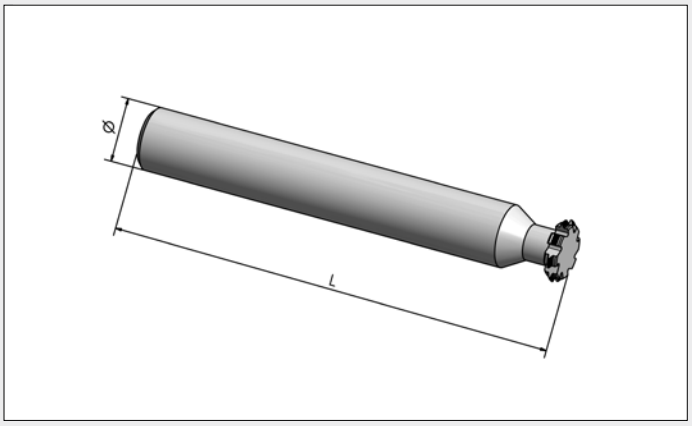
Can be produced up to AAA quality.

The standard number of teeth of the cutters is 12.

Outside-∅ (D)	L	Teeth
3	32	3
4	32	3
5	32	4
6	32	6
8	50	8

Carbide gear milling cutters with shank

We can produce gear milling cutters in the following dimensions:
Shank-∅ = 3 to 10 mm
Module = up from 0.05



Carbide bevel gear hobs

– Up from module 0.05
– To customers' requirements or as per standard
– With logarithmic relief grinding

More than just tools

Article: 0473

Non-standard dimensions and versions are possible on request.

Can be produced up from module 0.05.

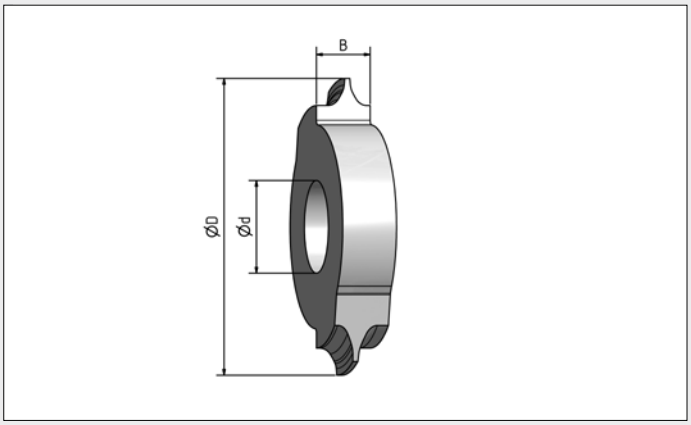
The standard number of teeth of these cutters is 2 or 4.

These cutters are used to produce straight toothed bevel gearsin a hob cutting process.

Outside-Ø (D)	Width (B)	Bore-Ø (d)	Teeth
10	2	4.50	2
12	2	4.50	2
12	3	4.50	2
16	2	8.00	2
16	3	8.00	2
18	2	8.00	2
18	3	8.00	2
20	3	8.00	2
24	3	8.00	2
32	3	10.00	2

Carbide bevel gear hobs

We can produce bevel gear hobs in the following dimensions:
Outside ∅ = 10 to 32 mm
Width = 2 to 8 mm
Module = up from 0.05



Carbide gear milling cutters, conical gears

– With overlapping profile, hence no burrs
– Use same cutter for right-hand and left-hand threads
– Very high thread quality
– Only one cutter for all threads with the same pitch

More than just tools

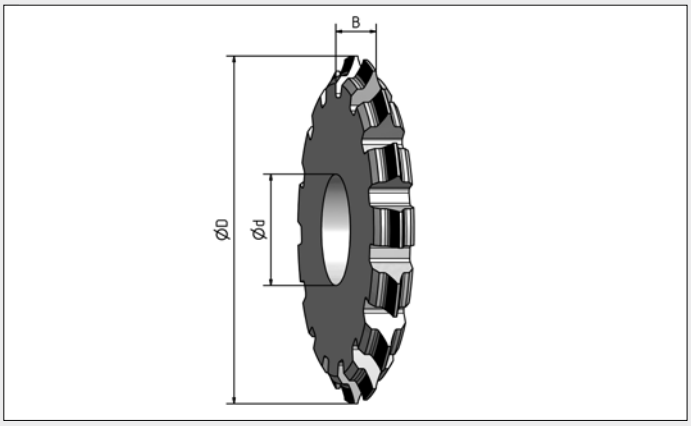
Article: 0031

Non-standard dimensions and versions are possible on request.

These cutters are used to produce straight toothed gear wheels tooth gap by tooth gap.

Carbide gear milling cutters, conical gears

We can produce conical gear cutters in the following dimensions:
Outside ∅ = 4 to 200 mm
Width max. = 80 mm
Number of teeth = 1 to 200



Carbide crown wheel cutters

– To customers' requirements
– Up from module 0.05
– With logarithmic relief grinding

More than just tools

Article: 047

Non-standard dimensions and versions are possible on request.

We can produce up from module 0.05.

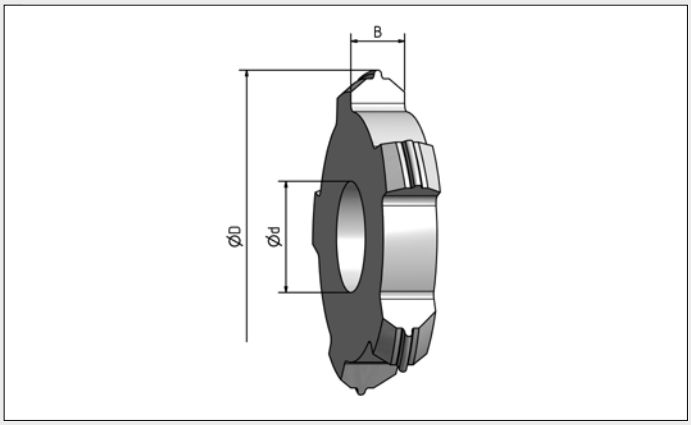
The standard number of teeth of the cutters is 3, 4 or 5.

These cutters are used to produce crown gear wheels using the hob machining method.

Outside-∅ (D)	Width (B)	Bore-∅ (d)	Teeth
8	2	4.50	3/4/5
10	2	4.50	3/4/5
12	2	4.50	3/4/5
16	2	4.50	3/4/5

Carbide crown wheel cutters

We can produce crown wheel cutters in the following dimensions:
Outside ∅ = 10 to 12 mm
Width = 2 mm
Module = up from 0.05



Carbide 1-pass hob cutters

– To customers' requirements
– With logarithmic relief grinding
– Up from module 0.05

More than just tools

Article: 0472

Non-standard dimensions and versions are possible on request.

We can produce up from module 0.05.

Can be produced up to AAA quality.

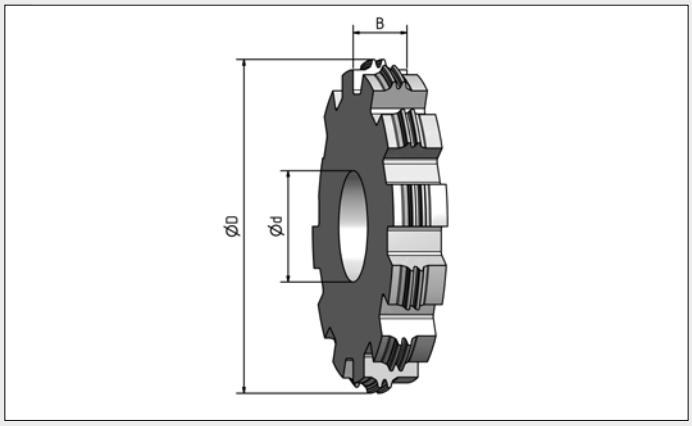
The standard number of teeth of the cutters is 12.

These cutters can be used to produce special crown wheels and also some conical gear wheels using the hob method.

Outside-∅ (D)	Width (B)	Bore-∅ (d)
12	2	4.5
24	2	8
18	2	8
32	2	10

Carbide 1-pass hob cutters

We can produce 1-pass hob cutters in the following dimensions:
Outside ∅ = 12 to 24 mm
Width = 2 to 8 mm
Module = up from 0.05



Carbide profile hob cutters

– To customers' requirements or as per standard
– Up from module 0.05
– With logarithmic relief grinding

More than just tools

Article: 0471

Non-standard dimensions and versions are possible on request.

Can be produced up from module 0.05.

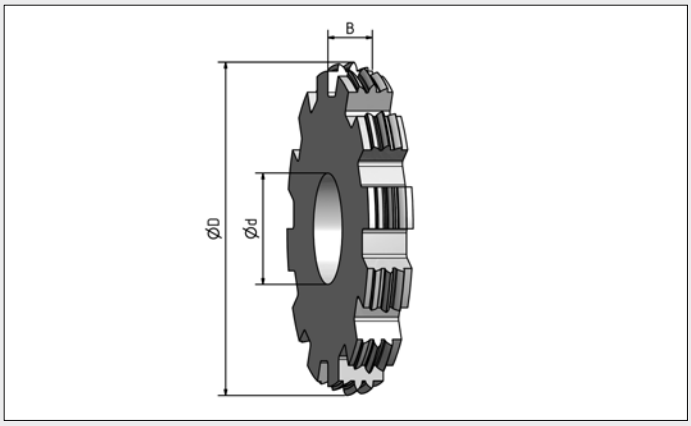
The standard number of teeth of these cutters is 10 to 12.

These cutters can be used to produce special crown wheel-sin the hob machining process.

Outside-Ø (D)	Width (B)	Bore-Ø (d)	Teeth
10	3	4.5	10/12
10	4	4.5	10/12
10	5	4.5	10/12
10	6	4.5	10/12
12	3	4.5	10/12
12	4	4.5	10/12
12	5	4.5	10/12
12	6	4.5	10/12
16	3	8	10/12
16	4-5	8	10/12
16	6	8	10/12
16	8	8	10/12
16	10	8	10/12
16	12	8	10/12
18	3	8	10/12
18	4-5	8	10/12
18	6	8	10/12
18	8	8	10/12
18	10	8	10/12
18	12	8	10/12
20	3-4	8	10/12
24	3-4	8	10/12
24	5	8	10/12
24	6	8	10/12
24	8	8	10/12
24	10	8	10/12
24	12	8	10/12
32	6	8	10/12
32	8	8/10	10/12
32	10	8/10	10/12
32	12	10	10/12

Carbide profile hob cutters

We can produce profile hobs in the following dimensions:
Outside ∅ = 10 to 32 mm
Width = 2 to 8 mm
Module = up from 0.05



Carbide single position hob cutters

– To customers' requirements
– Up from module 0.05
– With logarithmic relief grinding

More than just tools

Article: 043

Non-standard dimensions and versions are possible on request.

We can produce up from module 0.05.Can be produced up to AAA quality.

The standard number of teeth of the cutters is 10.

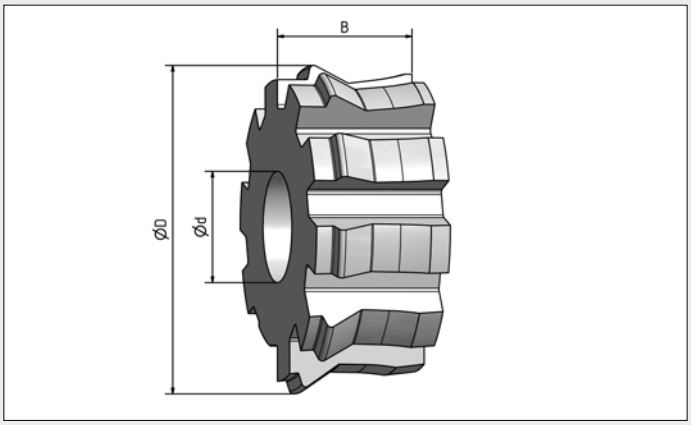
These cutters can be used to produce almost any asymmetrical toothing, which cannot be produced using common hob cutters.

On the machine, single position hob cutters can only be used in one position.

Outside-∅ (D)	Width (B)	Drilling-∅ (d)	Module
6	3	3.5	0.06-0.15
6	4	3.5	0.06-0.15
6	5	3.5	0.07-0.15
8	3	3.5	0.06-0.15
8	4	3.5	0.06-0.15
8	5	3.5	0.07-0.15
10	3	3.5/4.5/5	0.06-0.15
10	4	3.5/4.5/5	0.06-0.15
10	5	3.5/4.5/5	0.06-0.15
10	6	3.5/4.5/5	0.08-0.20
12	3	3.5/4.5/5	0.06-0.15
12	4	3.5/4.5/5	0.06-0.15
12	5	3.5/4.5/5	0.06-0.15
12	6	3.5/4.5/5	0.08-0.20
16	5	8	0.10-0.50
16	8/5	8	0.20-0.50
16	10/7	8	0.25-0.60
16	12/9	8	0.30-0.70
18	5	8	0.10-0.50
18	8/5	8	0.10-0.50
18	10/7	8	0.25-0.60
18	12/9	8	0.30-0.70
24	5	8	0.10-0.70
24	8/5	8	0.20-0.70
24	10/7	8	0.25-1.00
24	12/9	8	0.30-1.00
24	15/12	8	0.40-1.00
24	20/17	8/10	0.50-1.00
24	25/21	8/10	0.70-1.00
32	8/5	8/10	0.15-1.00
32	10/7	8/10	0.20-1.25
32	15/12	10/13	0.40-1.25
32	20/17	10/13	0.50-1.25
32	25/21	10/13	0.70-1.25

Carbide single position hob cutters

We can produce hob cutters in the following dimensions:
Outside ∅ = 10 to 32 mm
Width = 2 to 8 mm
Module = up from 0.05



Carbide punching tools for internal gears

– Entire internal gearing can be produced with one segment
– or tooth gap by tooth gap

More than just tools

Article:

Most internal toothing is produced with punching tools for internal gears.

These can be used in a number of different versions. For example, it is possible to grind the entire internal toothing, only one segment tooth gap by tooth gap.

The tools can also be arranged with one or several pre-cutters.

In all versions the profile can be produced with or without overlap.

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