

Hob milling with cemented carbide



CERATIZIT is a high-tech engineering group specialized in tooling and hard material technologies.

Sarah-Jane Breitenreiter,
Customer Service Centre

**Together towards
profitable growth: we can
give you the decisive
competitive advantage.**

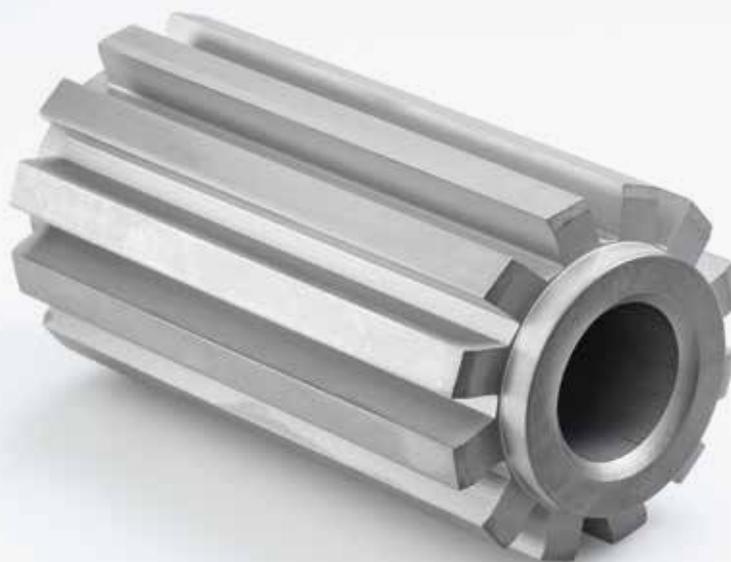
Maximum efficiency for gear wheels – with carbide blanks for the hob industry

As a tool manufacturer you naturally expect only the best: to get **the solution you need** for the **cost-effective production** of gear wheels just when you need it. Hard Material Solutions by CERATIZIT specialises in the production of hobs, and offers you **favourable delivery times** and **customer-specific carbide blanks** for hobs, peel milling cutters and gear cutters which guarantee a consistently high metallurgical quality at all times. And to ensure that 'customer-specific' is not just an empty phrase, our team in Empfingen in South Germany will assist you as partners right from the first contact.

Passion – precision – process reliability

Whether you make delicate gear wheels for the watch industry, supply the automotive sector or produce gear wheels for special gears – the experts at Hard Material Solutions by CERATIZIT can develop **exactly the product you need**. Working with you as partners we will create your carbide hobs for large-batch and high-volume production. As a leading carbide manufacturer our expertise covers the **entire process chain of cemented carbide production**, up to provision of the blanks which are of course delivered just in time to your production department.

Benefit from maximum process reliability while increasing production efficiency on a permanent basis – with hobs from Hard Material Solutions by CERATIZIT.





Advantages and benefits

Advantages

Benefits

Online configurator in the E-Techstore for automated blank production around the clock	→	Immediate preparation of a quotation, time saving
Near net shape for the minimum possible grinding allowance, close sintering tolerances	→	Speedy and economical processing thanks to reduced grinding work
Premium carbide grades for maximum tool life	→	Longer service life = reduced payback time
Higher cutting speeds compared to steel or PM steel	→	Faster gear wheel production
5-axis machining	→	Reliable production of the most complex geometries
Stock management and production procedures specially tailored to hob blanks	→	The optimised process chain guarantees minimum delivery times.
Hobs are also suitable for dry machining	→	Versatile application of CERATIZIT blanks for hobs

Dialogue – efficiency – progress

Our online configurator makes ordering of hobs a revolutionary experience. In just a few steps you can now create your individual blank here, when and wherever you wish.

Alternatively, you can of course still send us a drawing which will be used as a basis for your individual calculation and for the **design of your near-net-shape hob blank**. This minimises the costs for you – efficiency starts right away with the enquiry, and continues well into the production process. As a result CERATIZIT products offer the ideal conditions for **final products with a perfect finish**.

Ultramodern cutting machines can handle **even the most demanding gear geometries**, in batch sizes between 1 and 250 items.

We stand for **more customer benefit** in gear wheel production – with premium hobs from one of the world's leading carbide experts.



Preform



Sintered part

Choose from the following options

Not only are hobs highly productive, they are extremely flexible. Any number of teeth, all kinds of profile displacements and any inclination angle you specify can be obtained.

One challenge, one solution and one choice:
Hard Material Solutions by CERATIZIT.

Shank-type hobs with gashes
Internal product code: WFSN



Hobs with bore
Internal product code: WFBN



Shank-type hobs with gashes and thread
Internal product code: WFSG



Hobs with bore, gashes and thread
Internal product code: WFBG



Gear cutters
Internal product code: ZFBN



Special hobs
Internal product code:
Shank type: WFSX
Type of bore: WFBX



Hobs in a new light – from Hard Material Solutions by CERATIZIT

Ordering description for hobs

WFSG 065-203/150-16 CTS20L

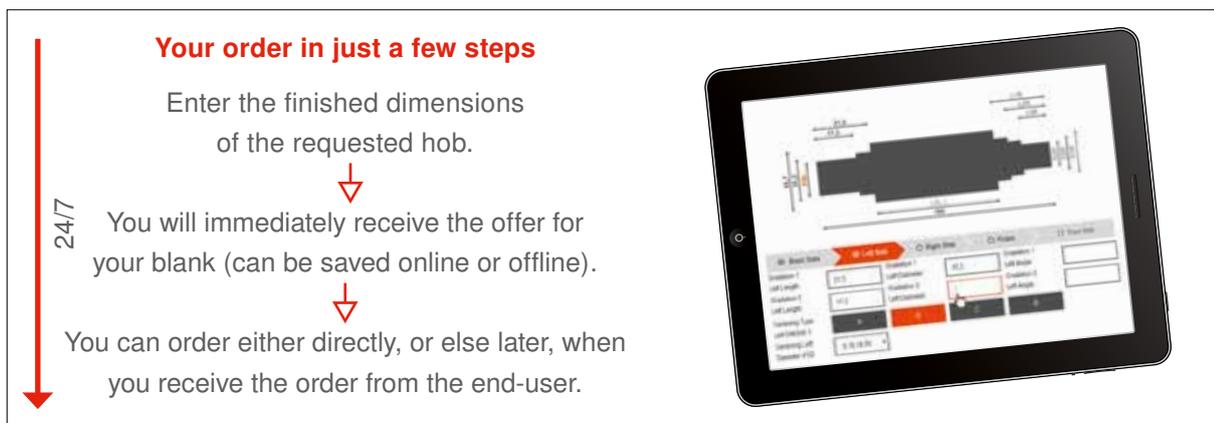
a	b	c					
(a)			External diameter	Total length	Cutting edge length	Number of gashes	Carbide grade
WF.. hobs			in mm	(rounded to nearest mm)	(rounded to nearest mm)		
ZF.. gashing			(rounded to nearest mm)				
(b)							
S shank							
B bore type							
(c)							
N gashes, neutral without thread							
G gashes with thread							
(*) Special hobs based on drawing							
* Additional information							



Online configurator – the benefits of automation

With its online configurator, the E-Techstore now offers new possibilities. You can build your individual hob blanks very easily with just a few clicks. Try out the new configurator feature in our E-Techstore online shop, when and wherever you want!

Benefit from automated quotations to your exact conditions. You can then save your configuration for later processing and final ordering, or order directly!



Your benefits at a glance

Complete flexibility and unimaginable celerity

Receive your quotation around the clock, after just a few clicks in our E-Techstore. Our configurator designs the blank for your hob, calculates the price and offers you a customised product, all on a fully automated basis.

Easy data input and quick checking

The configurator defines your product in an easy and intuitive way. By visualising the 2D drawing together with the entered dimensions, you can check your input quickly and reliably by comparing the sketch of your enquiry with the displayed drawing.

New networking possibilities

Our configurator prepares the routing, the bill of materials and a 3D model including a 2D drawing of the ordered blank. Based on this networking, our production kicks in only a few

moments after your order has been placed. Upon request we can send you the 3D model (STEP) and the 2D drawing (PDF) within one hour. So the drawing can be approved within a short time and your article defined in your CAD data from the blank right through to the finished product.

Tooling the Future

The online configurator has created the basis for fully automated order handling. On the road to paperless production, product definition based exclusively on 3D data and many other interim goals associated with networked production we are one step ahead.

Premium carbide for reliable processes

Your premium carbide solutions withstand the highest loads while showing little wear. For the production of customer-specific hobs CERATIZIT offers a number of carbide grades. Based on the geometry and application, we will

be happy to offer you the optimum grade. All cutting edges of our hob blanks are extremely stable thanks to the very homogeneous carbide, which guarantees reliable processes.

Application fields

Hobs may be used for example for the production of gear wheels, worm wheels or gear racks in the following sectors:

- ▲ Automotive
- ▲ Mechanical engineering
- ▲ Watch industry
- ▲ Power engineering



Hard Material Solutions by CERATIZIT

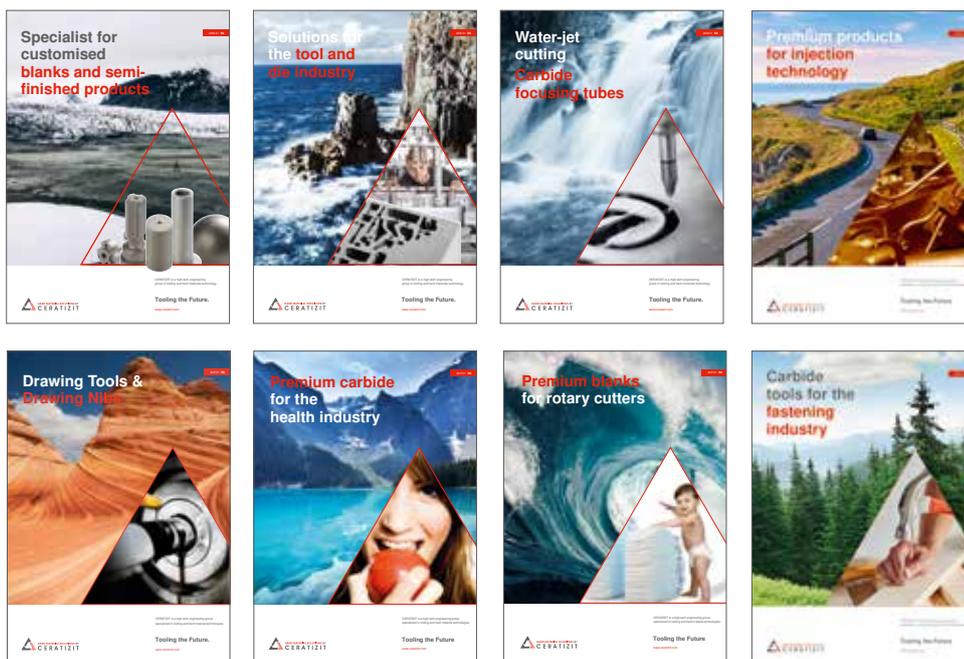
Wear protection for all applications and industries



- ▲ Individual carbide solutions for your application
- ▲ Tools for metal forming
- ▲ High-performance components for tool construction



Extract from our product portfolio



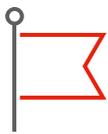
The CERATIZIT Group

For over **95 years**, CERATIZIT has been a **pioneer** developing exceptional hard material products for cutting tools and wear protection.

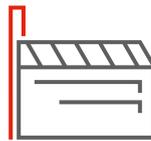
The privately owned company, based in Mamer, Luxembourg, develops and manufactures highly specialised carbide cutting tools, inserts and rods made of hard materials as well as wear parts.

The CERATIZIT Group is the **market leader** in several wear part application areas, and successfully develops new types of cemented carbide, cermet and ceramic grades which are used for instance in the wood, metal and stone working industry.

Facts and figures



1 headquarters
Mamer, Luxembourg



27
production sites



> 60
sales subsidiaries



> 6,000
employees



> 100,000
different products



> 600
patents and
utility models



> 100
employees in R&D



> 10
innovation awards



30%
of products developed
in the last 5 years

Headquarters

CERATIZIT S.A.
LU-8232 Mamer
T. +352 31 20 85-1
E. info@ceratizit.com

www.ceratizit.com

Sales

Austria
CERATIZIT Austria GmbH
AT-6600 Reutte
T. +43 5672 200-0
E. info.austria@ceratizit.com

Brazil
CERATIZIT América Latina Ltda.
BR-06453-002 Barueri, São Paulo
T. +55 11 4133 2300
E. info.americalatina@ceratizit.com

Bulgaria
CERATIZIT Bulgaria AG
BG-5301 Gabrovo
T. +359 66 812 206
E. info.bulgaria@ceratizit.com

China
CB-CERATIZIT Tianjin
CN-300384 Tianjin
T. +86 22 5810 7000

Czech Republic /Slovak Republic
CERATIZIT Office Czech Republic
CZ-594 01 Velké Meziříčí
T. +420 566 520 341
E. info.czechrepublic@ceratizit.com

France/Luxembourg/Belgium
CERATIZIT Luxembourg S.à r.l.
LU-8232 Mamer
T. +352 31 20 85-1
E. info@ceratizit.com

Germany
CERATIZIT Deutschland GmbH
DE-72186 Empfingen
T. +49 7485 99802 0
E. info.deutschland@ceratizit.com

CERATIZIT Hitzacker GmbH
DE-29456 Hitzacker
T. +49 5862 969 100
E. info.hitzacker@ceratizit.com

Great Britain
CERATIZIT Office UK
UK-Sheffield S9 1XU
Toll Free 0800 048 4877 / 4878
T. +44 1925 261 161
E. info.uk@ceratizit.com

Hungary
CERATIZIT Office Hungary
HU-1138 Budapest
T. +36 1 437 0930
E. info.hungary@ceratizit.com

India
CERATIZIT India Pvt. Ltd.
IN-Bengaluru 560099
T. +91 80 4043 1262
E. ctindia.south@ceratizit.com

CERATIZIT India Pvt. Ltd.
IN-Chennai 600037
T. +91 44 4269 4350
E. ctindia.south@ceratizit.com

CERATIZIT India Pvt. Ltd.
IN-Coimbatore 641009
T. +91 4224 273 373
E. ctindia.south@ceratizit.com

CERATIZIT India Pvt. Ltd.
IN-Gurgaon 122002
T. +91 124 4018 481
E. ctindia.north@ceratizit.com

CERATIZIT India Pvt. Ltd.
IN-Pune 411018
T. +91 20 6529 0628
E. ctindia.west@ceratizit.com

Indonesia
CB-CERATIZIT Indonesia
ID-17530 Bekasi
T. +62-21-2961-2351

Italy
CERATIZIT Italia S.p.A.
IT-22040 Alserio (CO)
T. +39 031 6349 211
E. info.italia@ceratizit.com

Japan
CERATIZIT Japan Co., Ltd.
JP-3-13-9, Mizuho, Suruga-ku
T. +81 54 268 1060
E. info.japan@ceratizit.com

Mexico
CERATIZIT México, S.A. de C.V.
MX-76040 Querétaro, QRO
T. +52 442 225 9173
E. info.mexico@ceratizit.com

Netherlands
CERATIZIT Nederland B.V.
NL-4707 AT Roosendaal
T. +31 165 55 08 00
E. info.nederland@ceratizit.com

Poland
CERATIZIT Office Poland
PL-30-443 Kraków
T. +48 12 252 8591
E. info.polska@ceratizit.com

Spain / Portugal
CERATIZIT Ibérica S.L.
ES-28031 Madrid
T. +34 91 351 0609
E. info.iberica@ceratizit.com

Switzerland
CERATIZIT Schweiz AG
CH-Orpund 2552
T. +41 32 344 93 93

Taiwan
CB-CERATIZIT Tamsui
TW-25152-Tamsui
T. +886 2 2622 1668

USA / Canada
CERATIZIT USA, Inc.
US-Warren, MI 48089-1833
Toll free +1-800-783-2280
T. +1-586-759-2280
E. info.usa@ceratizit.com