

Solutions for water-jet cutting

2018 EN



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

Tooling the Future

www.ceratizit.com



Sarah-Jane Breitenreiter,
Customer Service Centre

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

Precise water-jet cutting

Water-jet cutting enables the **precise** and **burr-free cutting** of a variety of materials in industrial-scale production.

Hard Material Solutions by CERATIZIT offers you three focusing tube product lines for this application – **Economy**, **Standard** and now also **Premium**. Particularly wear-resistant carbide grades **protect** the water-jet nozzles from erosion by abrasive materials in the water-jet.

On request our focusing tubes are also available with either integrated or separate mixing chamber to suit your preference. In addition we offer customised catcher cups, based on drawings, in wear-resistant carbide grades.

Environmentally-friendly abrasive cutting can be used in the machining of harder materials such as **stone, metals, ceramics, composite materials** or **glass**.





Advantages & benefits

Advantage

Benefit

Economic efficiency

3-line concept with optimal price-performance ratio; customer-specific special solutions can also be supplied on request



the right solution for every application

Suitable for all modern cutting head systems; supports automatic centring when clamping the tube



particularly flexible and economical

Long tool life and repeatability of the new Premium+ product line



minimised machine downtime resulting in maximum productivity

Technical expertise

All process phases from a single source, from the carbide powder to the ready-to-use solution



top-class product quality, precision and performance at the highest quality level

Close hole tolerances, perfect grind and concentricity



precise working results

Safety

High product availability, orders 24/7 via the E-Techstore



quick and flexible delivery

Worldwide service and sales



comprehensive technical advice on site within 24 hours

Our carbide grades

Our top-quality and individually coordinated carbide grades withstand maximum pressures and are very resistant to wear.

the production of the raw materials and mineral ores through to the composition and ongoing further development of the carbide powder – we can guarantee you supreme quality at all times.

Because we are able to offer the entire process chain from a single source – from

CERATIZIT grade code	Binder [m %]	Density [g/cm ³]	Hardness HV10	Transverse rupture strength [MPa]	[P.S.I.]
UMG01	0,40	15,55	2675	2400	348.000
CTN01L	0,25	15,60	2825	2000	290.000



Three product lines for improved economic efficiency

Focusing tubes are particularly stressed by the severe erosion of the abrasive during water-jet cutting.

Hard Material Solutions by CERATIZIT has developed improved wear protection for this. Constantly high cutting quality is achieved thanks to our optimised carbide grades.

To ensure that you always receive the optimal solution for your application, we have developed **3 innovative lines** for you based on state-of-the-art manufacturing technology:

Economy
Cost-optimised high quality

Standard
Ideal price-performance ratio

NEW

Premium+
Further development of the existing Premium product line: up to 30% more tool life and performance

All water-jet nozzles are offered with CERATIZIT branding, including the matching coloured packaging.

Ordering description for focusing tubes

WJNP+ - 0714 - 102 - 0762 - 25 - 15R - UMG01

Type

External diameter

Internal diameter

Length

Type

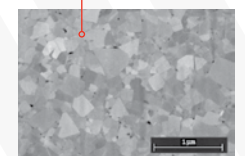
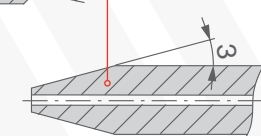
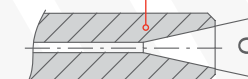
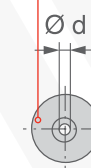
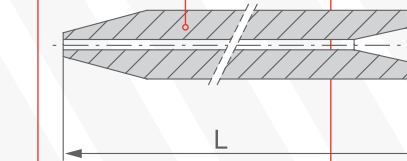
External taper

Grade

WJNR

WJNS

WJNP+



15 = angle
...R = ring
...S = special
...M = mixing chamber
...Q = quadrilateral

Economy-Line

Cost-optimised high quality

WJNR

The **Economy-Line** was specifically developed for applications where cost optimisation is decisive, simultaneously without having to forgo European quality.

Technical specifications

- ▲ Grade UMG01
- ▲ Marked green
- ▲ External diameter and ground front faces
- ▲ Internal diameter and external taper as sintered
- ▲ Greater production tolerances
- ▲ Limited to 4 different water-jet nozzles

Focusing tubes Economy

Type, description	Material	D mm	d mm	L mm	UMG01
WJNR 0635-076-0762-25-15	11783235	6,35	0,76	76,2	•
WJNR 0635-102-0762-25-15	11783236	6,35	1,02	76,2	•
WJNR 0714-076-0762-25-15	11783240	7,14	0,76	76,2	•
WJNR 0714-102-0762-25-15	11783242	7,14	1,02	76,2	•

• = stock item
◦ = limited stock or upon request
Other dimensions upon request

Standard-Line

Ideal price-performance ratio

WJNS

The **Standard-Line** continues the success story of the well-known UMG01 focusing tubes. The long tool life* guarantees you highly efficient cutting processes. The all-rounder nozzle has proved its worth in standard applications as well as in demanding industrial contexts.

The Standard-Line stands for excellent quality in many applications with constant cutting performance in all materials and geometries.

Technical specifications

- ▲ Grade UMG01
- ▲ Marked white
- ▲ All surfaces ground
- ▲ Wire-eroded internal diameter
- ▲ Proven tolerances

*The tool life varies according to the operational and working conditions of the customer requirements, for example with regards to the material to be cut, the wall thickness, the mounting of the nozzle, the throughput, etc.

Extract from our product portfolio (additional dimensions upon request)

Type, description	Material	D mm	d mm	L mm
WJNS 0635-076-0762-25-15	6234852	6,35	0,76	76,2
WJNS 0635-091-0762-25-15	6261074	6,35	0,91	76,2
WJNS 0600-102-0700-25-15	6260218	6,00	1,02	70,0
WJNS 0714-076-0762-25-15	6234943	7,14	0,76	76,2
WJNS 0714-102-0762-25-15	6210224	7,14	1,02	76,2
WJNS 0714-102-1016-25-15	6248003	7,14	1,02	101,6
WJNS 0762-102-0762-25-15	6225154	7,62	1,02	76,2
WJNS 0900-076-0762-40-15M	6254177	9,00	0,76	76,2
WJNS 0943-076-0762-25-15	6234942	9,43	0,76	76,2
WJNS 0635-102-0762-25-15	6210222	6,35	1,02	76,2
WJNS 0714-102-1016-25-15	11198317	7,14	1,02	101,6
WJNS 0714-102-1200-25-15	6259385	7,14	1,02	120,0
WJNS 0714-089-1016-25-15	11589859	7,14	0,89	101,6
WJNS 0714-076-1016-25-15	6268298	7,14	0,76	101,6
WJNS 0635-102-1016-25-15	11240041	6,35	1,02	101,6

Premium+ -Line

Up to 30% increase in tool life

WJNP+



The **Premium+ line** represents a further development of our Premium line. Premium+ is perfectly suited for demanding cutting applications, for example with exotic and compound materials, split cuts or precision cuts.

Long tool life and reliability of the focusing tubes ensure minimum machine downtime, and thus maximum productivity and cost savings. With its exceptional quality features, Premium+ sets new performance standards for water-jet cutting.

Technical specifications

- ▲ Grade CTN01L
- ▲ Marked blue
- ▲ Successor of the UltraMant 3000 and Premium nozzles
- ▲ All surfaces ground
- ▲ Wire-eroded internal diameter
- ▲ Proven tolerances
- ▲ New geometry and adapted production process
- ▲ Same product variety as with our established Standard-Line
- ▲ Customised variants possible on request

Extract from our product portfolio (additional dimensions upon request)

Type, description	Material	D mm	d mm	L mm
WJNP+ 0635-076-0762-32-15	12432555	6,35	0,76	76,2
WJNP+ 0635-102-0762-32-15	12432562	6,35	1,02	76,2
WJNP+ 0714-076-0762-32-15	12432549	7,14	0,76	76,2
WJNP+ 0714-076-1016-32-15	12432559	7,14	0,76	101,6
WJNP+ 0714-102-0762-32-15	12432527	7,14	1,02	76,2
WJNP+ 0714-102-1016-32-15	12432519	7,14	1,02	101,6
WJNP+ 0797-076-1016-32-15	12432543	7,97	0,76	101,6
WJNP+ 0714-102-1016-25-15	12432516	7,14	1,02	101,6
WJNP+ 0900-076-0762-40-15M	12432522	9,00	0,76	76,2
WJNP+ 0714-102-1016-32-15R	12432535	7,14	1,02	101,6
WJNP+ 0797-102-1016-32-15	12432545	7,97	1,02	101,6
WJNP+ 0714-076-1016-32-15	12432548	7,14	0,76	101,6
WJNP+ 0714-089-1016-32-15	12432552	7,14	0,89	101,6
WJNP+ 0900-102-0762-40-15M	12432557	9,00	1,02	76,6
WJNP+ 0635-102-1016-32-15	12432563	6,35	1,02	101,6



E-Techstore the benefit to you

Improved economic efficiency is just one **click away**: simply order online from our E-Techstore.

Here we offer you a comprehensive product range for wear protection **24 hours a day**.

You will receive up-to-date detailed technical information and graphic illustrations for all solutions in the E-Techstore.



e-techstore.com
24/24 7/7

Your benefits:

- ▲ **Product availability check**
- ▲ Easy access with filtering for a **quick overview**
- ▲ Orders are **automatically** forwarded on to the responsible sales organisation
- ▲ **Fast delivery**: availability from the Kempten warehouse, 24 hours within Europe if in stock

Hard Material Solutions by CERATIZIT

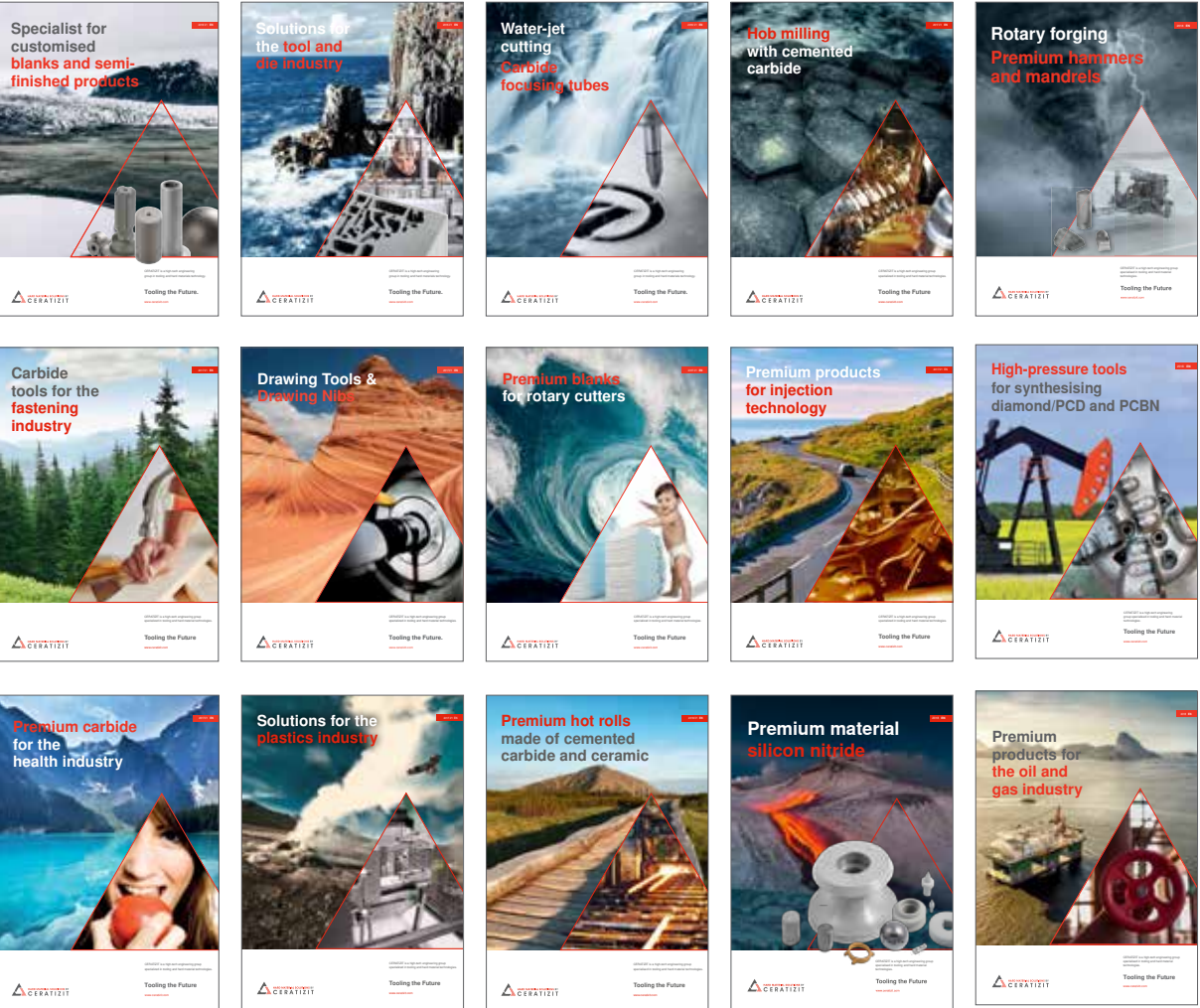
wear protection for all applications
and industries

▲ **Individual carbide solutions** for your application

▲ **Tools** for metal forming

▲ **High-performance components** for tool construction

Extract from our product portfolio



CERATIZIT Group Carbide pioneer and global player

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 **global 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 industries.

Facts and figures



1 headquarters
Mamer / Luxembourg



34
production sites



70
sales subsidiaries



9,000
employees



> 100,000
different products



> 1000
patents and utility models



> 200
employees in R&D



> 10
innovation awards



30%
new products created
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

Austria

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

Brazil

CERATIZIT América Latina Ltda.
Campinas, São Paulo 13069-310
T. +55 19 3115 9500
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 Xiamen
CN-361022 Xiamen
T. +86 592 666 1000
E. sales@cbceratizit.com

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 Empfingen 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 UK Ltd.
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

Indonesia

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

Italy

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

Mexico

CERATIZIT México, S.A. de C.V.
MX-76900 Corregidora, 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 Herramientas de
Precisión S.L.
ES-28660 Boadilla del Monte (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