

Total Tooling Overview



Cutting Tools



Support & Know-How



Availability

TOTAL TOOLING = QUALITY x SERVICE²



Cutting Tools



For every application the right solution

High quality tools exclusively for metal cutting

We offer a comprehensive specialised product range for the metal cutting industry encompassing thousands of articles which are available ex-stock. For every application the ideal tooling solution. WNT, your specialist for metal cutting, offers everything between the machine spindle and the table.

WNT MASTERTOOL

Just ONE Name

MASTERTOOL from WNT stands for quality

All Mastertool products are of a consistently high quality. Depending on the application, choose between premium tools from the Mastertool Performance range and quality tools from the Mastertool Standard range. In both cases you will receive top functionality that will optimize your productivity. Every tool is rigorously tested and carefully selected according to our strict quality standards before we include it in our product range. One part number guarantees delivery of the identical product every time, all produced in Europe. This is guaranteed by one name, WNT MASTERTOOL.

Premium quality tools for high performance.

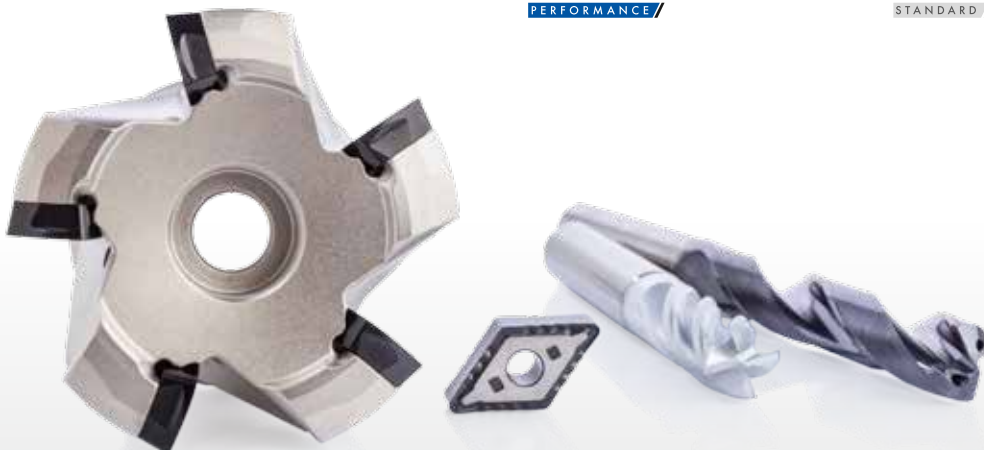
The premium quality tools from the **WNT Mastertool Performance** product line have been designed for specific applications and are distinguished by their outstanding performance. If you make high demands on the performance of your production and want to achieve the very best results, we recommend the Premium tools in this product line.

WNT MASTERTOOL
PERFORMANCE

Quality tools for standard applications.

The quality tools of the **WNT Mastertool Standard** product line are high quality, powerful and reliable and enjoy the highest trust of our customers worldwide. Tools from this product line are the first choice for many standard applications and guarantee optimal results.

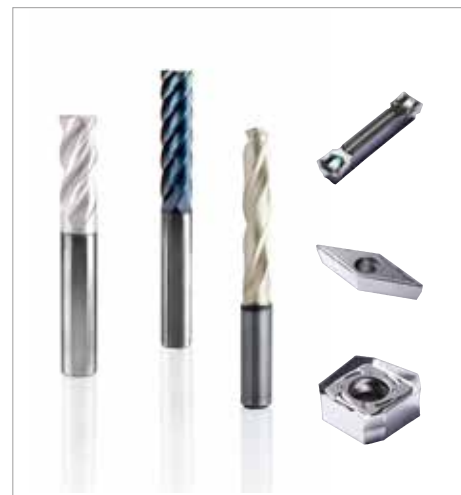
WNT MASTERTOOL
STANDARD



Present right from the start

95 years of experience in powder metallurgy

As a member of a worldwide operating company group WNT profits from an expertise in powder metallurgy that has been acquired over decades. This knowledge encompasses all steps in the manufacture of carbide, from powder production through to the finished product.



New for old

WNT Restart – regrind instead of buying new

We know what to do with your used precision tool, you will receive it back with the original finish, original coating and original geometry. As good as new and ready to be used in the machine again. Use this Service² from WNT.

WNT 
RESTART

Support & Know-How



Your competent partner on-site

Technical advice from your WNT Technical Sales engineer

There is a simple reason why we like to support our customers: we want the best for them. And the best solutions are developed when we work together. Thanks to many years of practical experience our experts are able to quickly recognize your individual needs and assist you in optimizing your productivity. Use this Service² from WNT.



Unique in metal cutting

THE WNT Catalogue – the tool for your daily work

Know-how for the technician both in printed form as well as online: with 50,000 articles WNT offers the largest product range for the metal cutting industry available from one source. WNT provides all relevant data for metal cutting, comprehensive and detailed.

Stay in touch with the latest technology together with us

The WNT Technical Training

Our engineers are provided with constant training to keep them up to speed on all technical matters. We will gladly share this knowledge with you. Use our Service² for the further education of your metal cutting technicians in the WNT Technical Centre.



WNT TECHNICAL TRAINING

Always up to date

Current information for the technician

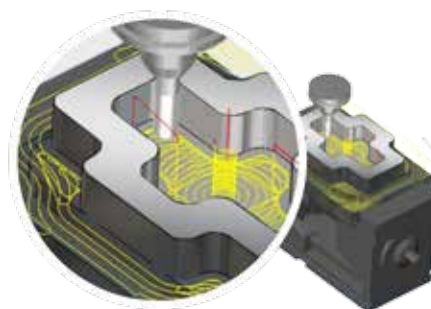
We keep you regularly informed about trends and innovations in metal cutting through our publications about the latest products, technical information and useful application tips.



Tool data always at your fingertips

Cutting data and CAD models for day-to-day assistance

In addition to detailed cutting data we also offer 2D and 3D models to assist you with your tool management or for simulating an operation. All data for this Service² is available for you in our Online Shop.



Competent advice also available on call

Application engineers with know-how

An application engineer is always available by phone to answer your application-specific questions. Even if they are not on-site with you, our experts are always ready to listen to your concerns. Use our Service² by telephone Monday to Friday from 8:00am – 6:30pm. The Freephone number is 0800 073 2 073.



Availability

Placing your order is quick and easy

The WNT Customer Service Centre

You can reach our Customer Service Centre Monday to Friday from 8:00am – 6:30pm. Just call and you will be helped immediately by one competent person with no holding time, who will directly answer your questions and get your order processed, that's what we mean by Service².



WNT homepage and online catalogue

In the WNT homepage and online catalogue you can select your tool with a mouse click, 24 hours a day, 7 days a week.

www.wnt-china.com



We have 50,000 articles in stock – for you!

Availability of 99% thanks to the most modern logistics

Why would you want to keep your own stock? We can do it for you! With the most modern logistics center in the metal cutting industry we guarantee you delivery the next day. And we mean that for 50,000 products with an availability of 99%.



WNT 
TOOL-XPRESS

Delivery next day not some day

**WNT Tool-Xpress – order up to 6:30pm,
receive it tomorrow**



WNT Product Overview

Drilling
Threading
Turning
Milling
Tool Holding

WNT Drilling Tools

Solid Carbide Drilling

WTX High Performance Solid Carbide drilling Tools

Perfection in drilling with maximum performance at the same time.

WTX solid carbide drills have been well known to technicians for years already. WNT offers the appropriate WTX drill for every application: WTX-UNI, WTX-VA, WTX-AL, WTX-Ti, WTX-Change. The range is completed by the WTX-Mini for the smallest holes from Ø 0.1 mm, as well as our WTX-TB deep hole drills that can be used up to depths of 50xD.



UNI

High-performance solid carbide drill for universal application, for all materials up to 1200 N/mm²

VA

- first choice for corrosion and acid resistant steels for volume production

GG

- for cast materials to 250 HB
- straight flutes

Change

- Replaceable head drills with the performance level of a solid carbide drill, from Ø 12.0 mm to 41.0 mm

Quattro 4F

- Replaceable head drills with the performance level of a solid carbide drill, from Ø 12.0 mm to 41.0 mm

TB

- solid carbide deep hole drill, up to 50xD without peck drilling
- 4 or 6 facet head geometry for excellent alignment accuracy

AL

- Solid carbide high performance drill specially for the machining of aluminium, copper and brass
- 6 facet geometry for excellent hole quality

Ti

- Specialist for cost effective machining of Titanium, Titanium Alloys and Heat Resistant Alloys

MINI

- solid carbide micro drill for the precise manufacture of very small holes from Ø 0.1 to 2.9 mm

Indexable insert drilling

C900 Indexable Insert Drilling

High feed rate with maximum process reliability.

HighFeedDrill C900 is the WNT indexable insert drill with a 4-edged geometry and newly developed broad application grade for extremely high feeds and high metal removal rates. The range includes: 2xD, 3xD, 4xD and 5xD in various diameters. The optimum combination of efficiency and process security with easy handling.



Reaming and Countersinking

HSR Solid Carbide High Speed Reamer

WNT has the appropriate reamers for every material.

Standard carbide reamers, and high speed reamers.

For the highest runout accuracy:

HSR-UNI, -VA, -H and -AL high-performance reamers – for every application the right reamer.



WNT Thread Cutting Tools

HSS taps

WNT offers a wide range of taps and thread formers. For each application area the right taps are available. For universal application Type UNI, as well as specialists for stainless steel, Type VA, cast iron Type GG and aluminium Type AL. Type UNI HSS-PM Taps made from powder steel combined with a TiCN coating offer highest possible tool life for universal applications.



Circular and Thread Milling

To manufacture threads, WNT offers solid carbide thread milling cutters as well as thread milling cutters with indexable carbide inserts. In addition to thread cutting applications, grooving, chamfering, cutting off, milling and full radius milling are possible using the proven insert system of MiniMill as the optimal solution.



Thread turning

Full profile or partial profile, you can select. Full profile inserts for a fixed pitch or partial profile inserts with 55° or 60° flank angle for high flexibility are available. With the CCN 20 grade for steel and stainless steel machining we offer you the best grade in this field.



WNT Turning Tools

Turning Tools

The WNT turning inserts range can be relied on, especially with the Dragonskin coated grades, where each insert is a specialist in its field. Whether machining steel, stainless steel, high temperature alloy or cast iron, the WNT Dragonskin grades enable you to consistently achieve the longest service life every time. The highest stability and process security are also guaranteed by the use of WNT XpressClamp and IsoClamp toolholders.



Grooving Tools

With WNT grooving tools, everything is under control – even difficult plunging applications with tough to control chips or high temperature development.

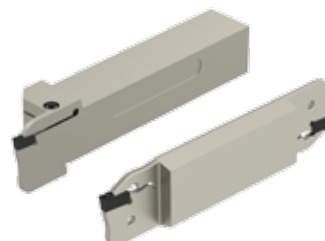


The tool holding systems MonoClamp for individual tools and ModularClamp for modules perfectly complement the system.

For parting, grooving and groove turning as well as the production of circlip grooves the double ended grooving system GX with highest flexibility is available.



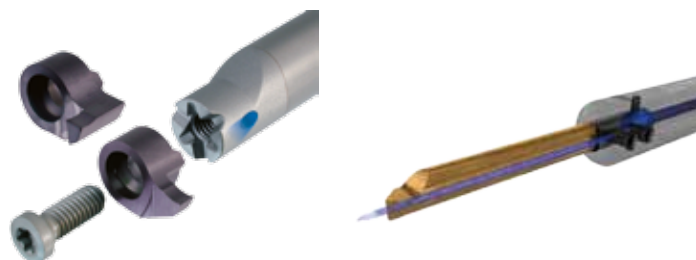
For the highest requirements when parting off, grooving and turning the SX system was developed: designed using finite element modeling, it combines high stability with optimum distribution of forces.



Miniature turning tools

Efficiency in the millimeter range?

Economically process small workpieces with tools from WNT. The miniature turning tools UltraMini and MiniCut are suitable for turning from 0.5 mm and 8.0 mm workpiece diameters respectively. Typical application: machining of high precision contours in small bores with sharp cutting edges. CWX500 is suitable as a universal coating for all materials.



WNT Milling Tools

Solid Carbide Milling

With WNT solid carbide milling tools you always achieve good results: we carry all tool types, from roughing to finishing, from hard machining to HPC cutting. In addition, end mills with different edge preparations, ball nosed cutters, torus cutters. Also special cutters for machining titanium and titanium alloys. For the highest demands, we have our HPC-cutters: the specialists for high performance machining of steel, cast iron and stainless steel. WNT offers a wide range



SilverLine

Universal HPC milling cutters for high volume machining in various materials.



BlueLine

The FIRST Choice for machining of hardened steel up to 70 HRC



AluLine

A wide range of special solid carbide cutters for machining aluminium. Available uncoated with Ti 1005 or DLC coating



MonsterMill

Type MCR with roughing teeth for small chips and reduced cutting pressure.



Type TCR the First Choice for machining of heat resistant alloys including titanium and titanium alloys.



Milling tools with indexable inserts

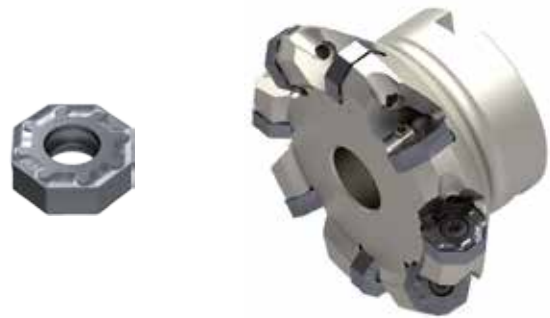
WNT indexable milling systems have tools for face milling, shoulder milling, and high feed milling. All WNT indexable insert milling tools use the extra hard highlight coating for increased durability and longer life of the toolholder. All new WNT indexable inserts use Dragonskin – the next generation of coating technology. The perfect combination of ultra modern high performance substrates and novel coating structures allows high cutting speeds and increased process security. Unlimited application possibilities puts everything that has gone before in the shade! A proven – up to 80 % – increase in performance with the new Dragonskin coating technology offers a significant competitive advantage. Dragonskin is our optimal solution for machining steel, stainless steel, cast iron and heat resistant alloys.



Face Milling Systems

System 2730 OAKU

The double sided 2730 milling system is a robust milling system with stable indexable inserts for medium cutting depths and for final machining, whereby a high surface quality will be achieved on the workpieces. Furthermore the tool has 16 cutting edges per insert for an optimal price performance ratio. This cutter is usable on universal milling machines, and also under unstable conditions.



System 2740 OFHT / SFHT

The single sided 2740 milling system with low power consumption, developed for finishing of chrome and nickel steels, as well as for the machining of titanium and titanium alloys. The 2740 face milling system is the first WNT milling system that can be fitted with two completely different types of indexable insert. Thereby it offers 4 or 8 cutting edges.



System HFC – High Feed Cutter

The single sided High Feed Cutter for maximum metal removal in the shortest time by milling at highest feed rates. Feed rates of up to 3.0 mm per tooth are achievable.



Shoulder Milling Systems

System 4910 SNHU

Unique – the 90° shoulder milling System 4910. This system allows an exact 90° profile with 8 cutting edges per insert. Maximum efficiency guaranteed when shoulder milling.

With the extremely stable double sided inserts the highest cutting data is possible, very smooth running even with less powerful machines and thin walled components.



System 2011 XDKT

The milling system 2011 for universal applications in every industry. A wide range of modern indexable inserts, grades and chip breakers as well as numerous tool holders for almost any application are available. Extremely positive positioning of the indexable inserts. As a result, the milling cutter cuts easily and smoothly.



Button Milling System

System 2510 RS

The Button insert cutter for form milling and profiling. The system 2510 RS is excellent suitable for rough machining and difficult to machine materials.

The System combines high feed rates with maximum stability. Full utilization of insert during machining is guaranteed with the indexing system.



WNT Tool Holding

Rotating Toolholders

WNT has the right toolholder in the program for every rotating tool. Besides standard sidelock holders (Weldon), ER collet chucks and shell mill adapters in MAS-BT and HSK (DIN 69893), we also offer heat shrink holders balanced to 2.5 G at a speed of 25,000 rev/min. and hydro-chucks. A further mark of reliability: our Centro P collet chucks for the highest requirements of concentricity, repeatability and vibration damping.



Precision Collet Chuck Centro P

Universal, simple and reliable in use

Thanks to the high system accuracy of 3 μm and the versatility, both HPC milling and finishing with Centro-P chucks has been proven for years.

Together with the coated collets Centro-P set an example in performance and durability. High precision and concentricity is ensured in the long term.



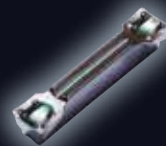
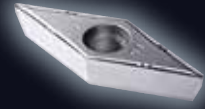
High Pressure Chuck

HPC milling with optimum damping.

The high pressure chuck is the perfect holder for our WNT HPC Milling cutters. High holding forces and torque transmission achieved together with a 3 μm run-out. Further more, no additional peripherals required.



LEGENDARY PERFORMANCE



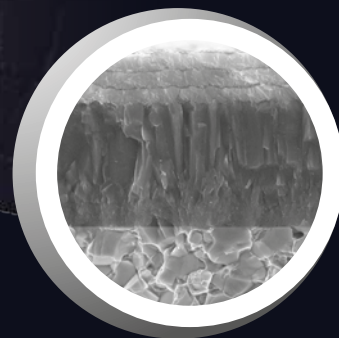
DRAGONSKIN

Introducing the next generation Dragonskin high performance coating technology from WNT.

New advanced coating structures mean even higher durability, faster cutting speeds and improved process security leading to increases in tool life of up to 80 % on a wide range of applications. For more information or to receive a free product sample, contact us now.

Dragonskin – the right Dragon for every material type

The Dragonskin product category Dragonskin ensures that tools with the WNT high performance coating technology are quickly recognizable, and easy to identify. All products that have these special properties are confirmed by the Dragonskin symbol and the corresponding colour code.



New Dragonskin Coating



The first choice for machining non, low and high alloyed steels



The first choice for machining austenitic, ferritic and martensitic stainless steels



The first choice for machining all abrasive non-ferrous metals



The first choice for the machining of gray, ductile and malleable irons and sintered



The first choice for machining heat resistant alloys based on nickel, chromium, cobalt and titanium

The first part of the paper discusses the importance of the research and the objectives of the study. It highlights the need for a comprehensive understanding of the subject matter and the role of the researcher in this process. The second part of the paper presents the methodology used in the study, including the data collection methods and the analysis techniques. The third part of the paper discusses the results of the study and the conclusions drawn from the findings. The final part of the paper provides a summary of the key points and offers suggestions for future research.