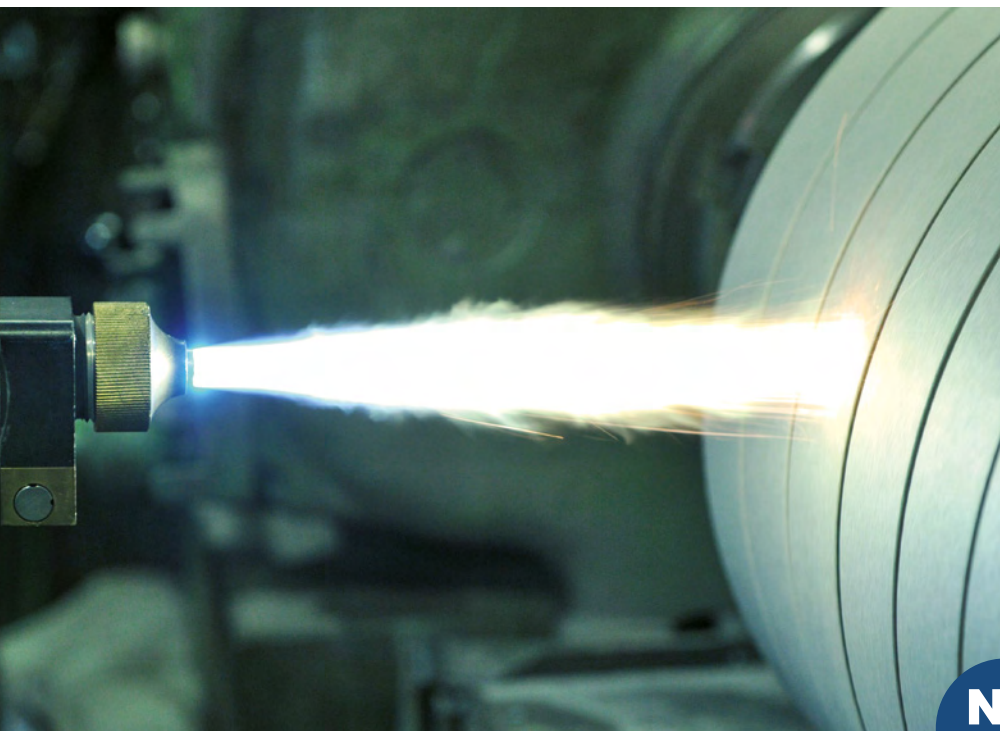




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NABER & WISSMANN

Perfection through precision.

Precision tools for the wire industry





A brand that sets standards.

Since 1981

Trust in a brand does not come out of the blue, but it is built up by a continuously high level of performance: Over the decades, quality, service, innovation, and adherence to deadlines/reliability of delivery have turned Naber & Wissmann into a leading global supplier of precision tools for the wire industry. Founded in 1981 by Ralf Naber and Bernd Wissmann, the company supplies machine manufacturers and users worldwide with high quality drawing tools and other components.

Craftsmanship & high-tech:

With perfection for precision.

Without tradition, there is no future: since its foundation, the company has been based in Hagen/Westphalia – a region which, like no other, has always stood for metalworking, traditional tooling craftsmanship and innovative strength. Computer-aided manufacturing and the skills of the employees are combined to achieve high standards of production which are subject to rigorous quality management (ISO 9001:2008).

The precision tools made by Naber & Wissmann are suitable for all wire-drawing machines on the market. Materials which are designed for concrete application and abrasion-resistant coatings allow for a long service life, high productivity and economic efficiency. Quality, which pays for itself!



Dipl.-Ing. Ralf Naber



Dipl.-Wirt.-Ing. (FH) Catrin Naber



Dipl.-Wirt.-Ing. (FH) Jens Teves-Humme



A hallmark for innovation & service that you can rely upon – even in the future.

From the word go, we do not promise what we cannot deliver. You can always trust our unconditional reliability.

What reliability is worth in terms of material quality is only realised if it is missing and production comes to a halt due to premature wear and tear.

For this reason, we use special wear-resistant materials and surfaces with long service lives. Although signs of wear are hardly avoidable over the long term even with our products, our perfection and precision-calibrated repair service is quickly able to make your drawing stages usable again. This provides you with a favourable price-performance ratio that lasts.

Innovation with a long term effect.

Anyone who knows us, knows that many of our products have been successful on the market for years. However they remain innovative, as on the one hand, they are unsurpassed, and on other, they provide the technical basis for specialisation and modifications requested by the customer.

We are highly reactive for matters which concern you and your needs!



Our quality for your quality:

The quality of the drawing tool determines the surface quality of your wire.



NWS-12/90 drawing tools

The series which is thoroughly hardened.

We recommend our drawing cones, capstans and drawing rings made from high-alloyed, thoroughly hardened special steel for drawing steel wires, steel cord, soft aluminium wires or wires used in the jewellery industry.

Under normal standards, the NWS-12 drawing tools already come to satisfy their users through long service lives and the top surface quality of the wire. Where maximum standards matter in terms of surface quality, e.g. steel cord, our NWS-90 drawing tools are used. NWS drawing tools can be repeatedly re-ground, are easy to service, compact, robust and are not sensitive to impact and thermal shocks.

Long service lives can now be made to be even longer: Use our service for reconditioning used drawing tools!



NWM-74 drawing tools

The series which is thermally-coated.

We have developed our thermally coated NWM-74 drawing tools especially for drawing copper wire, copper alloys and other non-ferrous metals. The coating is alloyed to the base material in a vacuum.

The carbides, borides and silicides contained in the coating lead to extremely abrasion-resistant run surfaces characterised by high reliability and economic efficiency.

On account of their layer thickness, NWS-74 drawing tools can be easily reground, and are characterised by their compactness, robustness, resistance and are very easy to service.

NWM-81/83 drawing tools

The series with a high level of Tungsten carbide.

In contrast to the NWM-74 drawing tools which are similarly thermally coated, the NWM-81/83 drawing tools are characterised by a high level of Tungsten carbide. This makes them particularly suited for drawing steel cord wires.

The NWM-81/83 drawing tools can also be re-ground and are characterised by their compactness, robustness and resistance as important product features. They are also very easy to service. Similar to the NWS-12/90 and NWM-74, the compactness and robustness is achieved by the ability to dispense with adhesive, screw-in or plug-in connectors.



NWK-78 drawing tools

The series which is oxide-ceramic coated.

An oxide-ceramic coating leads to a particularly high quality surface. NWK-78 drawing tools are specially designed for fine drawing machines and for drawing copper and plated copper wires.

Through re-coating, NWK-78 drawing tools which are at the end of their life cycle can attain their nominal diameter and be re-used.

NWZ/A drawing tools

The series made from 100% ceramics.

Drawing tools made from a solid zirconium oxide or aluminium oxide basis (i.e. 100% ceramics) or composite ceramic steel, hold their own under unfavourable drawing conditions due to their resistance to wear and tear. The tools can be re-ground.

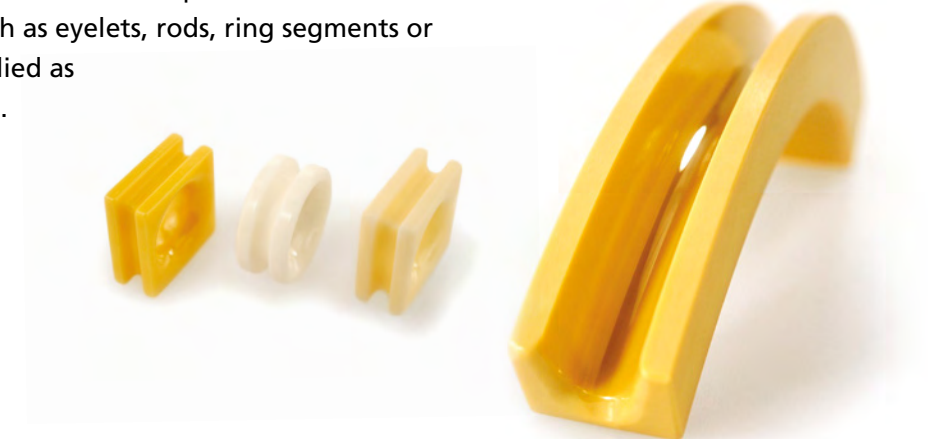
Ring diameters are available up to 500 mm.

NW wire guide rollers

The versatile series.

NW steering, guiding and relocating rollers suit all types of machines. Due to the low own weight and the low moment of inertia, the base plate of the basic design is made of aluminium; the coating of the surface which is exposed to wear and tear takes place using oxide ceramics (NWK-75 or NWK-78) or metal (NWM-86).

In addition, we are also able to supply the rollers made from 100% ceramics or a ceramic aluminium composite. Additional wire guidance elements such as eyelets, rods, ring segments or pipes can also be supplied as a 100% ceramic model.

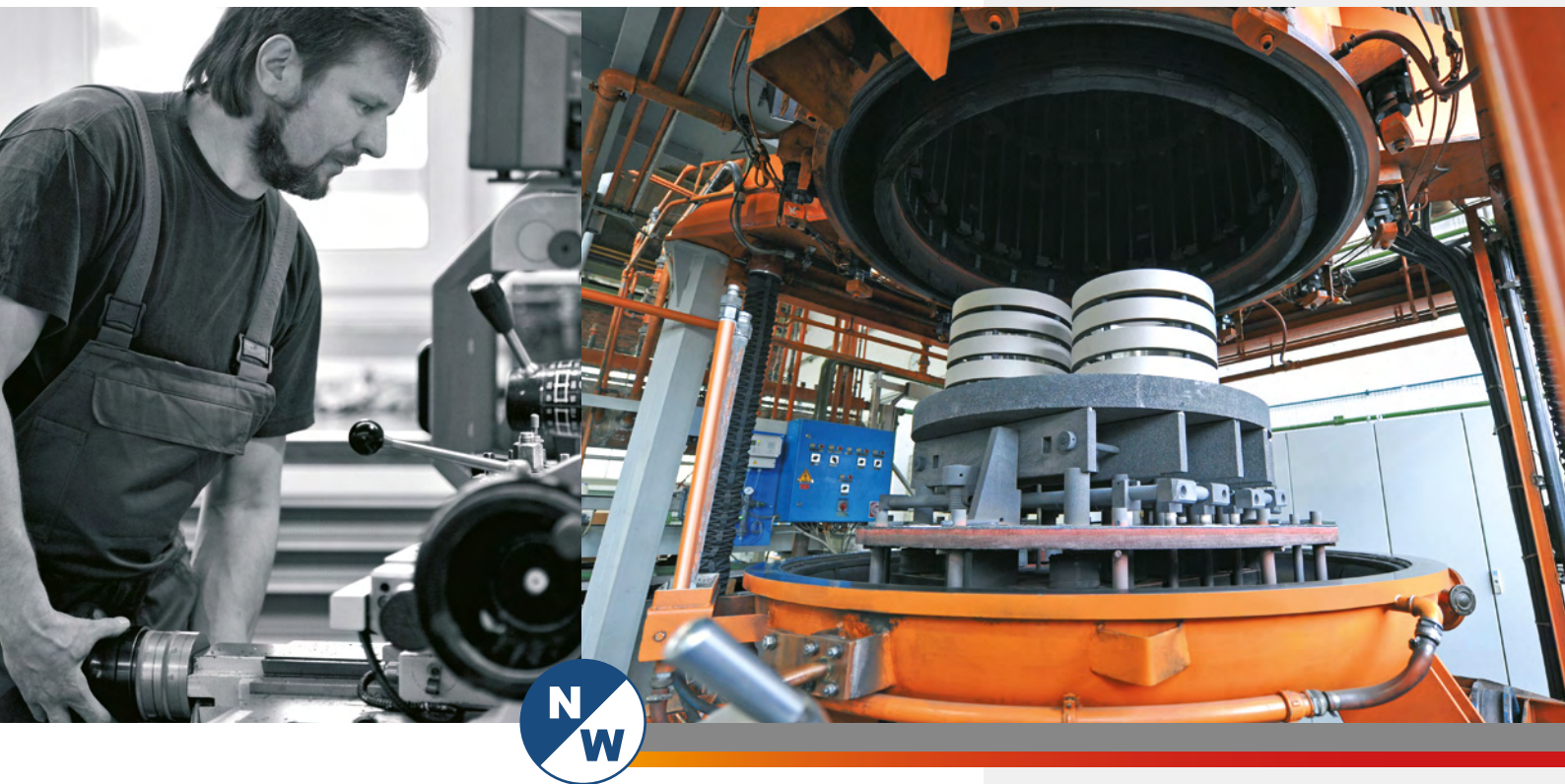


The brand stands out through quality and an attention to detail.

The table shows a summary of the technical features of the products.

NWS drawing tools	NWM-74 drawing tools	NWM-81/83 drawing tools	NWK-78 drawing tools	NWZ/A drawing tools	NW wire guide rollers
thoroughly hardened to 65 HRC ± 2 , can be repeatedly re-ground	variable layer thicknesses up to over 1,5 mm for coarse drawing, and through this can be repeatedly re-ground	layer thickness approx. 0,8 mm, and through this can be repeatedly re-ground	layer thickness approx. 0,25 mm	solid ceramic rings up to a diameter of 500 mm can be supplied	layer thickness up to 0,3 mm
drawing surfaces are ground and polished, roughness depths according to requirements $< 0,05 \mu Ra$	drawing surfaces are diamond ground and polished, roughness depths: standard $< 0,10 \mu Ra$, as needed $< 0,05 \mu Ra$	drawing surfaces are diamond ground and polished, roughness depths: standard $< 0,10 \mu Ra$,	diamond ground surface with roughness values of up to $0,15 \mu Ra$	diamond ground surface with roughness values $< 0,10 \mu Ra$	wire guidance groove is coated so as to be resistant to wear and tear and polished
easy to service and uncomplicated, without adhesive, screw-in or plug-in connectors	easy to service and uncomplicated, without adhesive, screw-in or plug-in connectors	easy to service and uncomplicated, without adhesive, screw-in or plug-in connectors	through a high tech process, a thick layer is achieved as well as an adhesive compound with the base material	easy to service and safe	can be used in wet or dry areas
compact and robust	compact and robust	compact and robust	non-conductive	can be re-ground	
resistant to impact and fracturing	resistant to impact and fracturing	resistant to impact and fracturing	handled in the same way as ceramic materials	in the case of composite constructions, the ceramic rings can be exchanged individually	optionally with ballbearings or plugged-in 'Seeger ring' grooves for re-using available bearings
resistant to thermal shocks	resistant to thermal shocks	resistant to thermal shocks	used drawing levels can be re-coated		aluminium base plate has a low own weight and a low moment of inertia





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