Neoboss

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ROLL TAPS

Better materials, **optimized coatings**, **advanced geometries** and a high-tech production process lead to **prolonged tool-life** and assure **smooth performance**.

The usage of roll taps depends on the characteristic features of the material of the workpiece. **Cold forming abilities** are necessary, as well as **endurance of the lubrication**.

These materials are well suited:

- steels with min. 8% ductility and a tensile strength of 1.400 N/mm^2
- stainless steels
- aluminium and aluminium alloys up to 10% Si
- zinc and long-chipping non-ferrous metal alloys

Your advantages

- higher cutting speed is possible
- higher stability of the thread through uninterrupted fibre orientation - 20% higher resistance to tearing
- no spoil in cutting, narrower tolerances in the produced threads possible
- no chipping problems, thus also suitable for deep coreholes
- higher security against fracture
- no need for regrinding
- extended interval between tool changes

Torque

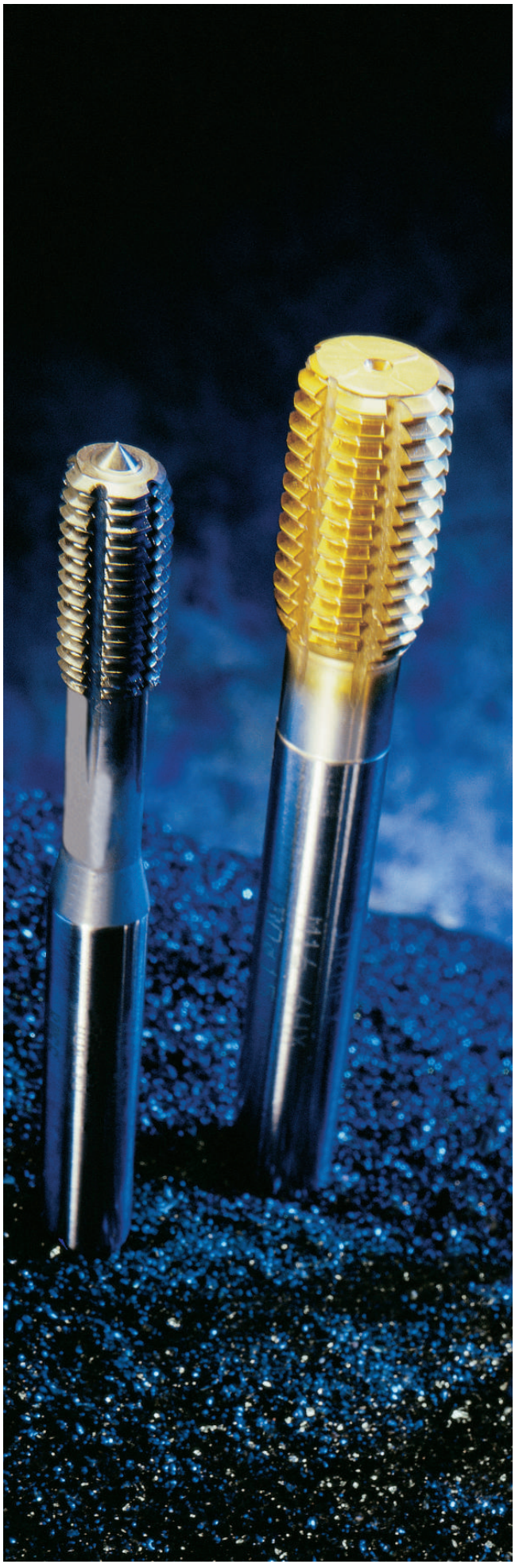
When forming, the torque is about 2,5 - 6 times higher than it is in thread cutting. The torque depends on the pitch "P" of the tool, on the lubrication and on the quality of the surface of the boring hole.

Difference between cut and rolled internal threads:

Fibre course of a cut internal thread

Fibre course of a rolled internal thread

Neoboss roll taps – for the production of chipless internal threads.



Corehole diameter

The diameter of the core hole plays an **important role** in roll tapping. **The tolerances for boring are smaller than for thread cutting**. These tolerances are mandatory standards according to DIN 13 chapter 50.

The **maximum pitch which can be roll tapped** is 3,0 mm. The **maximum depth of the thread** depends on the **length of the roll tap and on the lubrication**.

Cutting speed

For **coated roll taps** we recommend a cutting speed of v_c = 20-30 m/min **for steels**.

For **aluminium- and copper-alloys**, our recommendation is v_c = 30-40 m/min

Range of products

These taps are also available with internal cooling against extra charge.

These taps are available in DIN 371 and DIN 374/376.

HSSE DIN 371

Material	Steel < 800 N/mm²	Steel < 800 N/mm²	Steel < 800 N/mm²	Alu Si
Catalogue-No.	4060/80	4061/80	4063/80	4064
Version	Form C	Form C	Form D	Form C
Surface	TiN	TiN	TiN	CrN
Tolerance	6HX	6GX	6HX	6HX

PM DIN 371

Above 1.000 N/mm² we strictly recommend oil as cooling lubricant.

Material	Steel <1200N/mm²	Steel <1200N/mm²	Steel <1200N/mm²	Steel <1200N/mm²	Steel <1200N/mm²
Catalogue-No.	4065/80	4066/80	4076/80	4077/80	4067/80
Version	Form E	Form E	Form C	Form C	Form F
Surface	TiN	TiN	TiN	TiN	TiN
Tolerance	6HX	6GX	6HX	6GX	6HX

PM DIN 371

Above 1.000 N/mm² we strictly recommend oil as cooling lubricant.

Material	VA-Steel	VA-Steel	VA-Steel	VA-Steel
Catalogue-No.	4072/81	4073/81	4069/81	4070/81
Version	Form E	Form E	Form C	Form C
Surface	TiCN	TiCN	TiCN	TiCN
Tolerance	6HX	6GX	6HX	6GX

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