

# EXCLUSIVE LINE®

Made by Guhring

## Solid carbide Micro-precision drills Special tools

### Superior in every sense

ExclusiveLine micro-precision drills have proven their exceptional performance capabilities in various volume applications and tool life tests. The tables below document a few application examples with convincing results.

### For special applications: Special solutions to customer requirements

In addition to spiral-fluted standard micro-precision drills without internal cooling from 0.8 mm nominal diameter for drilling depths up to 4xD and 7xD as well as from 1.4 mm nominal diameter with internal cooling for up to 8xD and 15xD, Guhring also provides special tools as part of the ExclusiveLine range.

Including:

- intermediate sizes for the standard range
- stepped tools for multi-diameter holes or countersunk holes
- special lengths up to 30xD drilling depth
- other shank forms
- alternative coatings

A questionnaire for special tools can be found at the end of this brochure.



### Internal cooling increases tool life considerably!

A comparison between a conventional micro-precision drill w/o internal cooling for holes up to 7xD and a 8xD drill with

internal cooling 6408 demonstrates the advantages of internal cooling: Tool life increases considerably.

Guhring no.	Competitor without internal cooling	6408 with internal cooling
Diameter	2.6 mm	2.6 mm
Coating	TiAlN	SuperA
Material group	stainless steel	stainless steel
Material description	105CrMo17	105CrMo17
Drill. depth [mm]	7xD	8xD
Hole type	blind hole	blind hole
Cooling	external	internal 100 bar
Coolant	neat oil	neat oil
Machine type	machining centre	machining centre
$v_c$ [mm/min]	53	53
$f$ [mm/rev.]	0.08	0.06
Tool life	100 workpieces	500 workpieces, end of tool life not reached!