



Schnyder Gear Cutting Tools:

more know-how,
precision, reliability





Code W

Hobs

in HSS-E* or CARBIDE for Spur and Helical Gears



W - EV

Dry cutting

With optimized cutting angles in special CARBIDE with AlTiN-Coating; Modul 0.20-2.50

Skiving

In CARBIDE for hard-cutting; Modul 0.50-3.00, negative rake angle up to 20°, Norm: DIN 3972 II, AGMA, BS etc.

Pre-Cutting Modul 1 and larger

To optimize this process careful pre-cutting in soft stage is required. Please ask for pre-cutting Hobs in HSS-E* or CARBIDE with or without protuberance.

W - EV

Involute gears

8 DP-250 DP

Norms:

DIN 867 U2-N2, 3972 I-II-III,
58400 U1-N1, NF: E22-011,
Cétéhor, AGMA,
BS 978 Pl. F1-F2, 4582

Quality:

DIN 3968 AA-A-B
DIN 58413 5-7-9

(Inspection report against request)

Extra Quality:

AAA with inspection report

W - KBW

Serrations

8 DP-250 DP

Norms:

DIN 5481A, SAE, BS 2059
NF: E22-151

W - ZW

Involute splines

8 DP-250 DP

Norms:

DIN 5480, 5481, 5482
ANSI: Involute Splines,
Involute Serrations
NF: E22-141, E22-144, BS 3550

W - ZR

Timing belt pulleys

Pitch 1.50-20.0 mm

Norms:

DIN 7721, ISO 5294, HTD, AT,
Isoran RPP, BANDO

W - ZY

Cycloidal gears

Modul 0.06-1.25

Norms:

DIN 58425,
NHS 56702-56703 a-b-c,
56704, EVJ



Code W

Hobs

in HSS-E* or CARBIDE for Spur and Helical Gears



W-KRV

Conikron bevel gear
in CPM or CARBIDE
as per Conikron
1- or 2-starts
Norms: DIN 867, AGMA

W-SR

Worm gears
Shell or shank type
Single or multiple thread
Radial or tangential feed
8 DP-120 DP

W-SG

Multiple-Worms / Threads
8 DP-120 DP
Norms:
to Gear Hobs W-EV
and special tooth form

W-KR

Sprockets
Pitch 3.0-19.05 mm
Norms:
DIN 8197, ASA B29

W-EZ

Fly cutters
for face Gears and Specials
18 DP-120 DP

W-SE

Ratchets
Specials
18 DP-120 DP

W-RR

Knurls
Norm: DIN 82
tailored to specific needs

W-KW

Parallel splines
6 DP-32 DP
Norms:
DIN 5463, 5470, E22-131, SAE

W-SP

Special tooth form



Code F

Cutters
in HSS-E* or CARBIDE



F-M

Modul cutters
8 DP-250 DP

Norms:
DIN 867 U2-N2, 3972 I-II-III,
58400 U1-N1, NF: E22-011,
Cétéhor, AGMA, BS 978 Pl. F1-F2

F-ZM

Whirling

F-ZS

Racks

As single row or multiple;
Cutters in Sets with straight
or helical flutes
10 DP-120 DP

F-SG

Worms / Threads
to cut single or 2-start worms

Involute, Corticalis, Specials
8 DP-150 DP

Norms:
DIN 11-13-867,
ISO, UNF, UNC

F-IG

Automatics

for screw machines
Pitch 0.20-1.50
Norm: DIN 13

F-SL

Key slots
Pitch 3.0-19.05 mm

F-KB

Notches

to cut Notches to ISO
and DIN 50115

F-SP

Special tooth form
as per customer drawings



Code S

Shaper cutters / Skiving disc



S - EV

Involutes

S - KBW

Serrations

S - CG

Crown gears

S - KW

Parallel splines

S - SP

Special tooth forms

S - ZW

Involute splines

S - ZR

Timing belt pulleys

Gear Shaper Cutters in HSS-E* or CARBIDE; Disc or shank Type
8 DP-180 DP; to specifications request

Code R

Cold Rolling Tools



R - ZH

R - GW

Roll dies

R - ZH

Mandrels bushings

R - SP

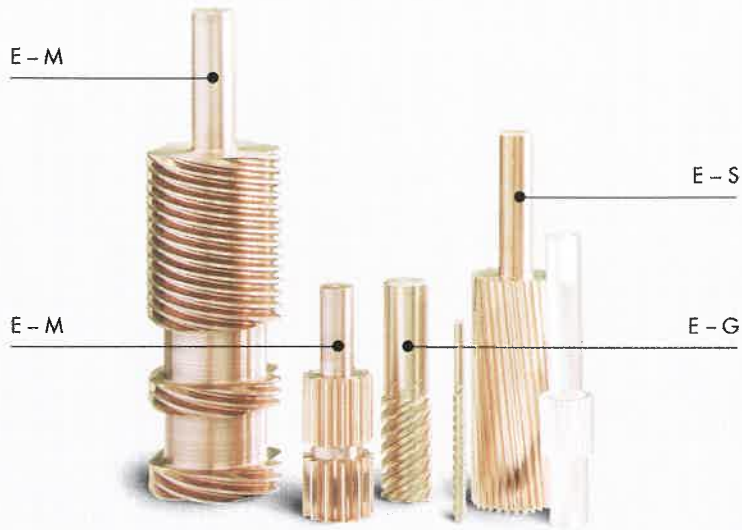
Special roll dies

In Cr-Steel or CARBIDE; Single or multiple starts or annular threads
Pitch 0.20-1.00 mm, Norm: DIN 13 or Specials



Code E

EDM-Electrodes / Galvanomodels



E-M

Multiple electrodes

E-V

Roughing electrodes

E-S

Finishing electrodes

E-G

Galvanomodels

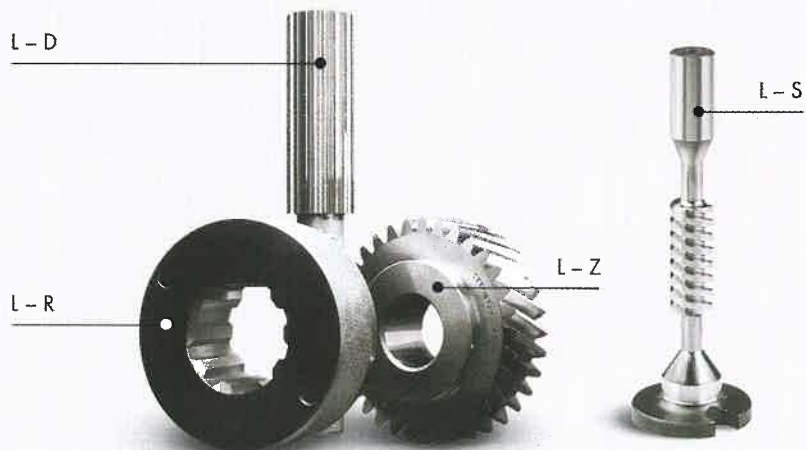
A basic tool in Electrolyte- or Tungsten-Copper for thermoplastic gears.
Single or multiple steps as roughing or finishing.
Cylindrical or helical up to 60°. Galvanomodels are used as an electroforming master.

Involute Specials

8 DP-200 DP, Norms: to Gear Hobs

Code L

Master Gages



L-R

Rings

L-D

Plugs

L-Z

Gears

L-S

Worms

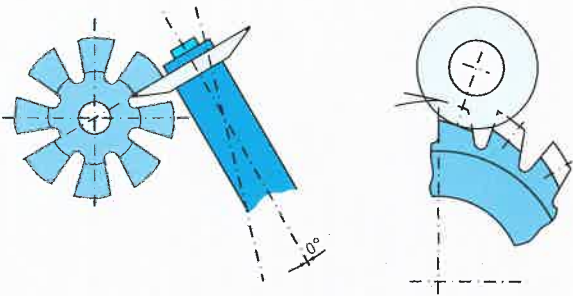
Dimensions: to DIN 58420, AGMA or Specials, as per customers drawings in ASP 23 or CARBIDE



Inspection and QC Services • Specialized Engineering • Metallurgical Services

Our Services

- Cutting sample and prototype Gears
- Grinding or skiving prototype Gears
- Complete tool re-sharpening
- Tool re-conditioning incl. re-coating



The tool's cutting face is resharpened and the entire hob reprofiled; at the same time the residual coating is removed mechanically.

Coatings

The following low-temperature coatings are available:

- TiN Titanium Nitride HV \approx 2300 = Low friction and anti-welding characteristics
- TiCN Titanium Carbonitrid HV \approx 3000
- TiAlN Titanium Aluminium Nitride HV \approx 3300 is ideal for high-temperature conditions, e.g. dry cutting
- AlTiN Aluminium Titanium Nitride HV \approx 3500 with a high aluminium content, only for carbide hobs. For high cutting speeds or hard hobbing.

We recommend these special coatings be applied only on precision ground tools in high speed steels and carbide.



Inspection and QC Services

- Complete measuring of Gear hobs to DIN 3968 and 58413 on our Klingelnberg P26 Equipment
- Complete measuring of spur and helical gears to DIN 3960/62
- Furnishing of inspection reports related to gear technology



* Metallurgical Services

Through many years of in-house heat treating experience, we supply most of our gear cutting tools to the following specifications:

to DIN	to USA/ANSI	Type
S 2-10-1-8	M 42	CPM M 42
S 6-5-3-8	-	ASP 30
S 6-7-6-10	M 48	ASP 60/CPM 76

- A selection of various types of carbide, with over 400 different types of blanks from stock, allows us to provide the best possible service. Please ask for specific Stock-Lists.

Specialized Engineering

- Gear engineering service available on a contract basis
- Service calculations on hobbing machine and gear tool set-ups

Stock Delivery

Standard Gear Hobs are available from stock to DIN 867, 3972 II, 58400 as well as to AGMA 207.06, BS 978, BS 5482 and NF E22-011, E22-141, 151 also for most timing belt pulleys in precision Class A, AA and AAA. Please ask for specific Stock-Lists.



A look behind the scenes ...



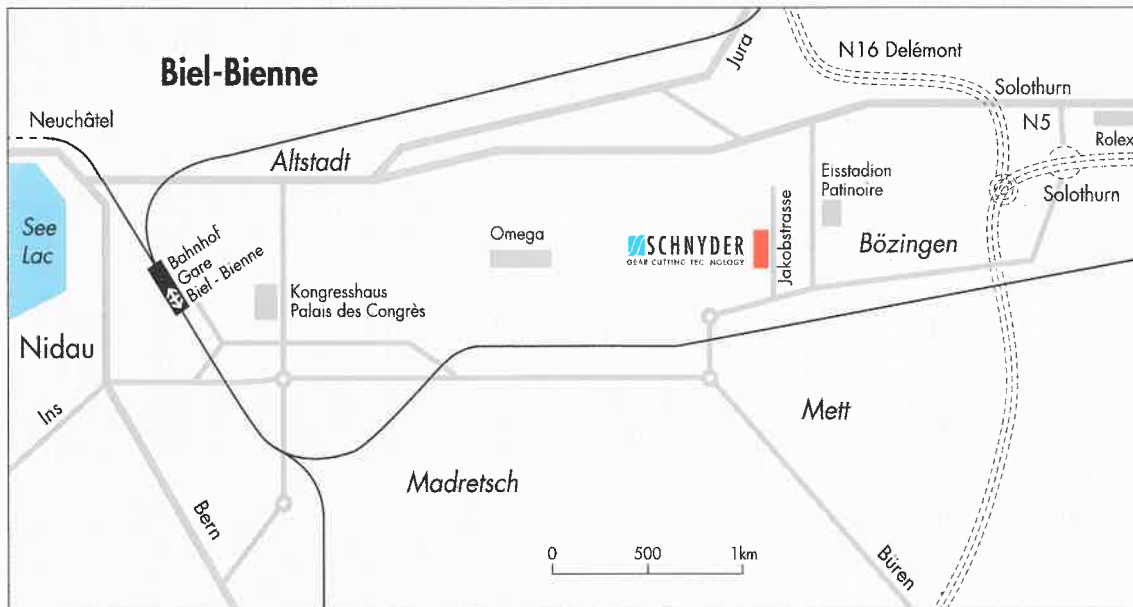
Efficiency: At the new location, nine of these modern CNC form-relieved grinding machines are on line.



Environmental protection and security: Microscopic tears must be avoided at all costs in solid carbide grinding. This high-volume cooling and micro-filtering plant has been installed in the basement.



Quality control: The analysis laboratory uses the most modern testing methods.



Represented by: