

EXTRUDER SHAFTS

ENDLESS PRECISION



EFFICIENT
DURABLE
HIGH STRENGTH

ERNST GROB AG

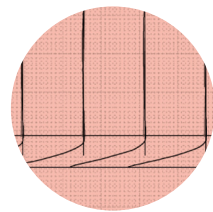
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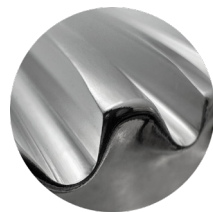


WHY COLD FORMING?

Large diameters
Large modules
Long profiles



Constant accuracy and dimensional stability throughout the entire profile



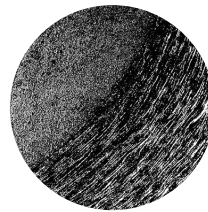
Very high surface quality



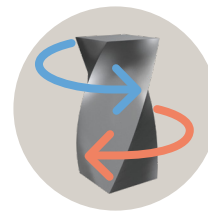
More durable



Various tooth geometries
Involute and special profiles



Improved microstructure through cold forming



Higher torsional strength through chipless cold forming



Cost savings



FACTS & WORTH KNOWING

WHETHER PRODUCED ON YOUR OWN MACHINE OR FOR YOU IN OUR SUBCONTRACTING DEPARTMENT – COLD FORMED PRECISION SPLINES PROVIDES YOU WITH MARKET ADVANTAGES.

QUALITY

- Surface roughness (Ra 0.4) or better
- Consistent accuracy even over very long splines
- Constant dimensional accuracy, as there is no tool wear
- Minimal distortion during hardening

FLEXIBILITY

- Spline diameters up to \varnothing 250 mm
- Up to module 7
- Splines up to 15 m long
→ Larger dimensions upon request
- Various tooth geometries can be formed
- Forming of high-strength and stainless steels
- Freely programmable forming parameters

PROCESS-RELATED ADVANTAGES

- Microstructure improvement through work hardening
 - No cutting of natural material grain flow
 - Optimal root fillet
- This leads to an improvement in mechanical properties such as homogeneity, superficial surface hardness (up to 50%), torsional strength and yield strength, resulting in a significant increase in the lifespan of the spline

COST SAVINGS/EFFICIENCY

- Short cycle times
- Resource-saving due to chipless forming process
- Fewer manufacturing steps as post-processing (e.g., grinding) is usually not necessary
- Low tooling costs
- Highly efficient machines
- Reduced part and handling costs through optimized processes

