



Master gears, plug and ring gauges,  
setting masters, rolling gears

## Precision tools for measuring, setting, calibration and correction



### Types

- Master gears for single and double flank inspection and runout measurement of gearings
- Setting masters to adjust and calibrate quality control instruments
- Rolling gears to measure noise
- Rolling gears to reduce burrs and nicks
- Plug and ring gauges

### Dimensions

Module	1.0 - 6.0	mm
Diameter	40 - 300	mm
Tooth width	4 - 80	mm
Helix angle	0 - 45	degrees

Quality: 2-6, DIN 3962  
 Geometry: DIN 3970  
 or according to drawing

### Corrections

- Flank corrections
- Topological corrections

### Material

- High speed steel
  - M2
  - ASP 20 23
  - ASP 20 30
- Bearing steel
  - 20 MnCR5
  - 100 MnCr6
  - 100 MnCrW4

### Coatings

- PVD coatings for high speed steel master gears only
- TiN Gold
- TiAlN Futura

Master gears produced in bearing steel do not withstand temperatures exceeding 450°C and are therefore unsuitable for coating. Protective coatings may only be applied to HSS master gears produced with powder technology.

### Plug gauges

Module	0.5 – 6.0 mm
Pitch diameter	20 – 150 mm

### Ring gauges

Module	0.5 – 7.0* mm
Ring outside diameter	20 – 200 mm

- Straight and helical teeth
  - Involute and special profile
- (\*) depending on outside diameter





## Consultancy/analysis optimisation

Our experienced engineering team is readily at your disposal for any questions on profile analysis and design. Existing profiles can be optimised using our internally developed master gear design software.

## Regrinding & recoating

Master gears wear with use and must therefore be reground to ensure quality performance. Star SU is well-equipped for this task.

## Marking

All Star SU checking and setting master gears are engraved according to DIN 3970, or with any requested customer-specific data, and bear an individual tracking number enabling them to be carefully monitored throughout the whole production process.

## Certified quality

Master gear design and production processes are all carried out using special Samputensili software and modern manufacturing methods.

All Star SU checking and setting master gears are fully tested on CNC inspection equipment and are delivered with a certificate of conformity.

We produce master gears on specially designed and optimised machinery in classes from 2 to 6 to DIN 3962, AGMA and BS standards.

We therefore guarantee both the accuracy of our master gears and the quality of the whole manufacturing process.



## Packaging

Our precision tools are always shipped and transported in a specifically developed packaging system.

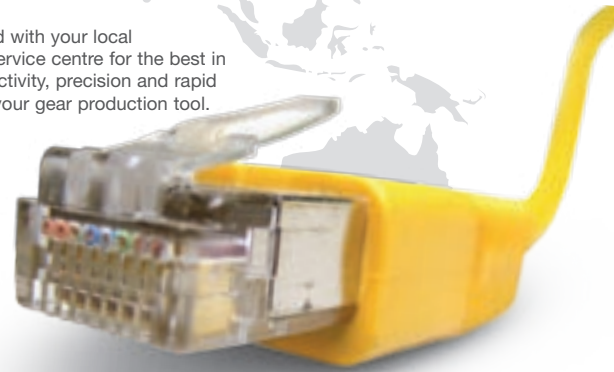
Drawings, documents and checking protocols are safely stored away in a separate pocket integrated in the tool box lid.





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turnaround of your gear production tool.



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