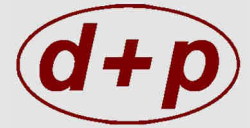


Donner + Pfister AG



Technology for Industry

CH-8855 Wangen-Nuolen

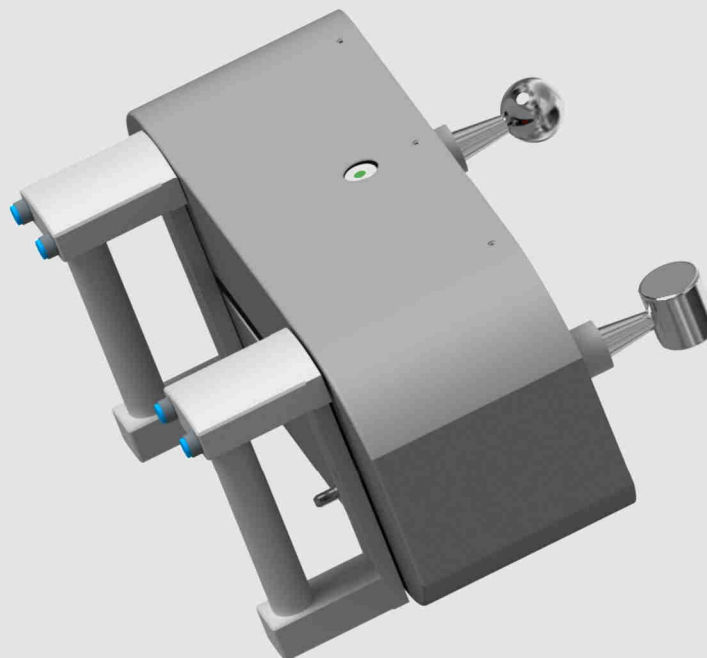
Switzerland

www.dpag.ch

Portable Inspection Solutions:

GEAR RE 32

MEASURING UNIT TO DETERMINE UNKNOWN GEAR GEOMETRY



The measuring Instrument

The compact and portable Gear RE 32 measuring unit offers a precise and compact tool for the reverse engineering of unknown large gears.

With the Gear RE 32 it is easy to find and determine unknown gear characteristics such as normal module, pressure angle, helix angle, profile shift, etc.

How it works

The unit contains a linear axis with a measuring slide for the ball to pin distance **S** and a second slide for the laser sensor position **X**. The distance laser sensor picks up the radii- and the gear flank points **Y**. The pin with the rotary axis β measures the lead.

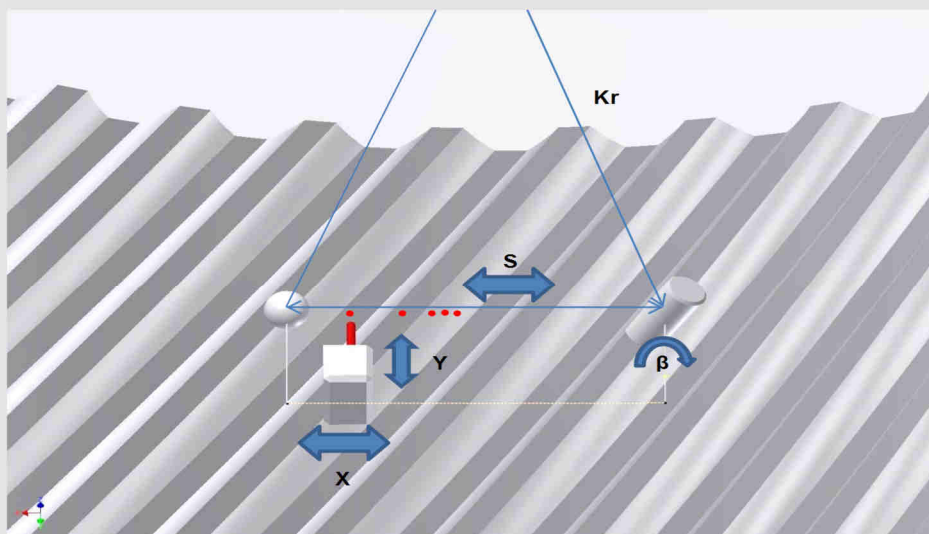
The X axis is motorised, the S slide and the rotary axis β are manual.

The orientation to the gear centre takes place via the distance from the magnetic ball to the pin.

The orientation to the gear axis takes place via the spirit levels or the inclination sensors.

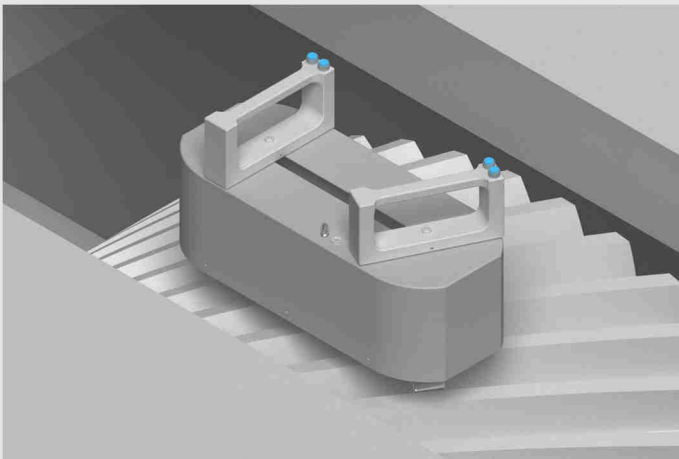
In the first phase of the measuring cycle, the levelled measuring unit orients itself automatically relative to the gear centre. This takes place via the ball to pin distance. The pin is connected to an encoder to measure the helix angle.

In the second phase the laser is navigated to the outer diameter, the root diameter and the flank points with the help of the +/- buttons. The program calculates and proposes a selection of gear parameters according to the points to review.

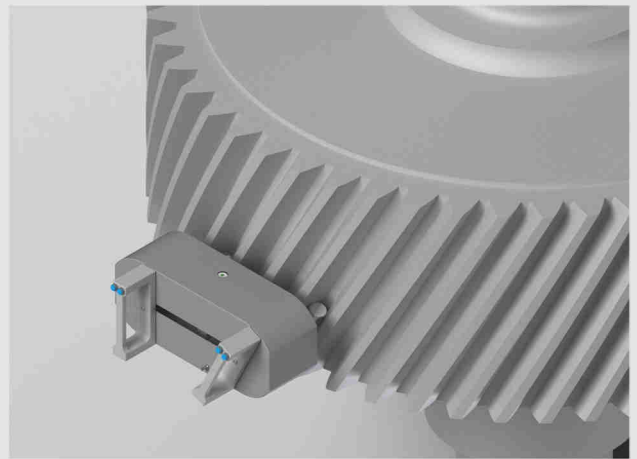


How to operate

- Hold the handles with both hands
- Set the handle distance roughly over an uneven number of teeth
- Let the magnetic ball and pin snap in and adjust the level if necessary
- Navigate the laser and measure the outer diameter, the root diameter and three flank points with the +/- buttons on the handle
- Review the proposed alternative sets of gear parameters based on measured base circle, lead, OD, root and tooth thickness at base circle.
- Select or create a set of gear parameters based on fundamental measured parameters



Vertical application



Horizontal application

Optional

Profile deviation by full scan profile with the laser

Rugged Tablet

Communication to evaluation device



Communication to standard tablet

Operating and Evaluation Software

Guided interactive operating software to obtain the measurements.

The evaluation takes place on a customer-owned or optionally supplied tablet.

Technical Data

	Metric	Inch
Workpiece Diameter min/max	300mm/unlimited	11.811"/unlimited
Standard Module / DP	3 - 32 Mod	8.4666 - 0.793 DP
Larger Modules / DP	on request	on request
Helix angle	+/- 35°	+/- 35°
Approx.net weight	5 kg	11.023 lbs
Dimensions	300 x 300 x 150 mm	11.81" x 11.81" x 5.91"
Colour	Light grey	Light grey

Further information and our overseas representatives can be found on our website
www.dpag.ch



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