

## Rib Measuring System Series RM

for the automated geometric measurement of concrete steel according to international standards

for hot and cold rolled rebar with 2, 3 or 4 or 6 rows of ribs and a length of approximately 200 - 500 mm and diameters  $\varnothing$  3 – 50 mm

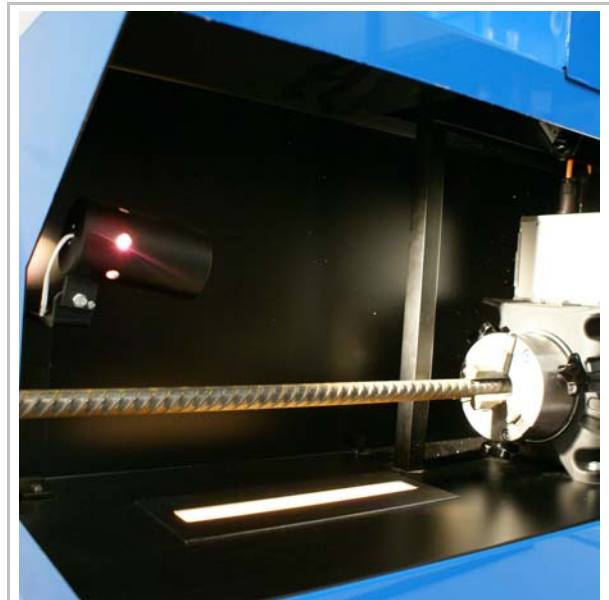
The concrete steel rod to be tested is clamped horizontally in the measurement unit, which is mounted on a work bench; it is illuminated at high contrast by means of rotation, using vertical lighting or back lighting depending on the measured variable. The test piece is optically recorded at high resolution by three black and white CCD cameras from various angles, and is presented in a window on the computer monitor. A computer and an image processing unit digitize each image.

The measurement principle is based on a search for black-to-white transitions, and the object boundaries are determined from the grey stages using a gradient process.

The device is calibrated with the use of tested round rods, which have incisions at precisely defined intervals. The calibration takes place automatically and can be repeated at any given time.

### Measurements obtained:

- rod cross-section and diameter
- rib height at the centre and at the quarter-points
- centre distance of the ribs
- head width of the ribs
- inclination of the ribs to the rod axis
- distance between rows of ribs
- specific rib area: determination of difference according to DIN 488, Part 2 and other international standards.



### Technical Data:

### RM 302

No of Cameras:	3
Specimen Diameter:	$\varnothing$ 3 – 50 mm
Specimen Length:	approx. 200 – 500 mm
Operating Temperature:	-0°C up to 40° C
Operation Humidity:	up to 90 %.