

EM 11

SYSTEM SOLUTION FOR THE MEASURING AND ANALYSIS
OF MANDRELS



Device technical and operating advantages

The EM11 guarantees objective, easy and shoots up from the mandrel diameter independent judgment of the mandrill geometry in a time of approx. 1 minute.

The high precision allows concurrent measuring out of the mandrel diameters, angles and radii.

The clamping system allows an easy and exact positioning of the mandrills.

The evaluation software is based on academically technological basic knowledge.

Device description

1. stationary clamping spike
2. moveable clamping spike
3. scanner
4. vibration-cushioned stand
5. start / stop
6. emergency stop



Technical Data*

Dimension of mandrel

Height: 15 mm to 190 mm
Diameter: up to 80 mm

Measuring area

Diameter: up to 80 mm
Max. measuring height: 160 mm

metering precision: diameter: $\pm 3 \mu\text{m}$
angle: $\pm 0,5^\circ$
length: $\pm 0,5 \%$

Device dimensions: 520 x 260 x 495 mm
Gewicht: ca. 40 kg

elec. connection: 220 to 240 Volt, 50 Hz

metering time: as a function of measuring object; approx. 1 min. per mandrel

Use for the user

- Rise of the production stability
- Increase of the tube size accuracy
- Better use of the mandrel continuance by production of a mandrel file → Supply of signs for a data bank construction
- Improvement of the ability for reproduction of drawing-technologies
- Recognize from treatment mistakes of the mandrels with the help of numerical evaluation
- Basis for the development of new pipe qualities and -technologies
- Objective comparability of mandrels profiles

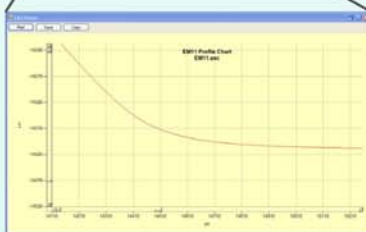
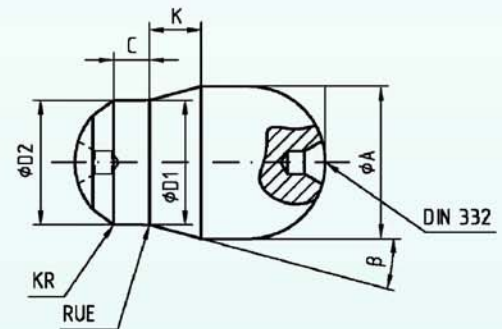
*Standard, extendable by customer wish

Comprehensive immediate numerical and graphic representation of the measurement result



Representation of the measurement

- Graphic and numerical representation of the measurement as well as the most important characteristics
- Production of a measuring protocol to store and print out
- Transference possibility of the most important characteristics in an EXCEL file:



Graphic evaluation

- Representation of the measurement as a line profile
- Any increasing of the measurement graphic possibly
- Recognize from scour, defect in workmanship and tears possibly



Comparison of to measurements

- Comparison of the mandrel before and after use
- Comparison of the mandrel before and after reconditioning
- Comparison of different geometry in regard to the end product

Measuring protocol EM11

After easy clamping and measured of the mandrel a measuring protocol which contains the most important characteristics as well as a graphic representation of the mandrills can be provided. Besides the set values are held on, so that any time the result can be checked.

