

# EM10



## Specific Advantages of the Unit

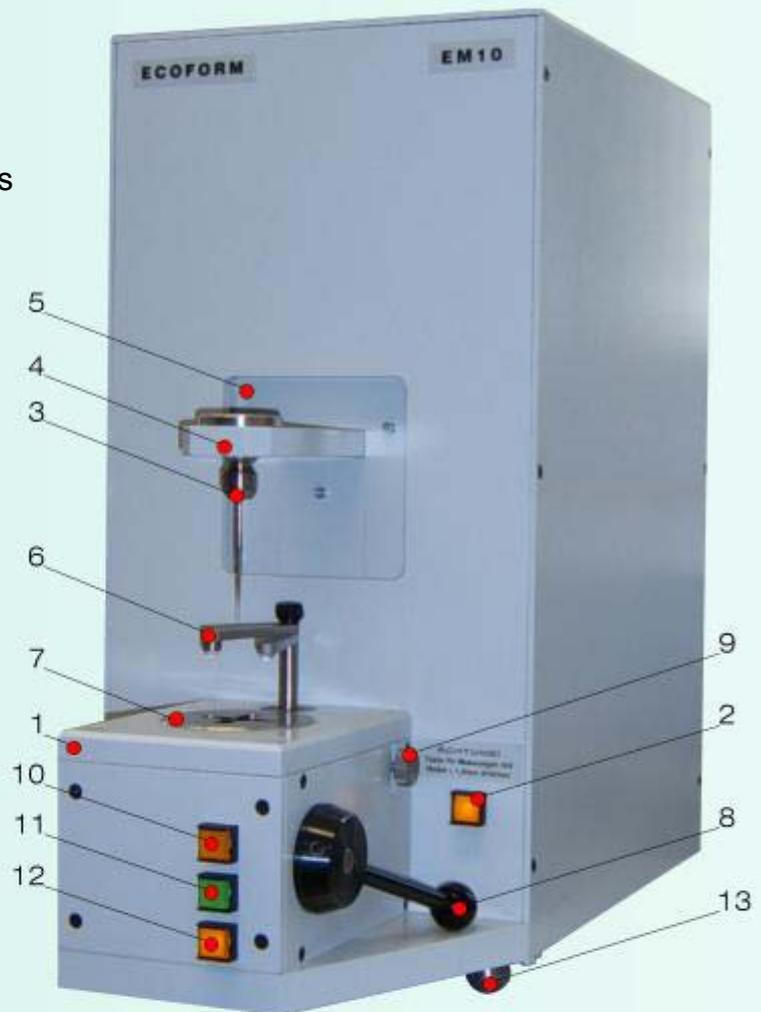
The Profilometer EM10 gives an objective, simple and quick evaluation of the drawing die geometry within approx. 1 minute.

The combined fixing- and calibrating system enables the simple and exact positioning of the drawing die

The evaluation system bases on scientific and technological software

## Equipment

1. Measuring table
2. Button "measuring with needle  $\leq 1.0$  mm"
3. Chucking
4. Measuring arm
5. Shield
6. Tensioning-arms
7. Measuring table – base plane
8. Fixing and centering level
9. Height adjustment of tensioning arms
10. Button "up"
11. Button "start"
12. Button "down"
13. Adjustable feet



## Technical data\*

min./max. inner diameter: 0.5 to 30 mm

min./max. casing dimensions

diameter: 20 to 100 mm

height: 10 to 50 mm

accuracy/repeatability

diameter:  $\pm 3 \mu\text{m}$

angles:  $\pm 0.5^\circ$

bearing length:  $\pm 2.5\%$

dimensions: 520 x 260 x 495 mm

weight: approx. 40 Kg

electric power: 220 to 240V, 50Hz

measuring time: depending on the die  
approx. 1 minute

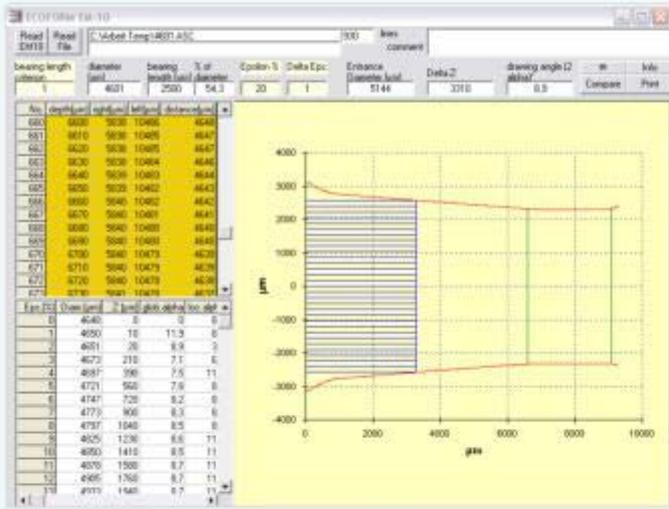
measuring points: all  $10 \mu\text{m}$  of the vertical  
measuring travel

## Advantages for the user

- Increase of the production stability
- Increase of the wire quality
- Better utilization of the stock
- Recognition of poor quality and imperfections of the drawing die surface
- Improvement of the reproducibility of drawing technologies
- Improvement of the quality and die life
- Objective comparison of die profiles between different dies
- Statistical information for research and development of the die and wire quality

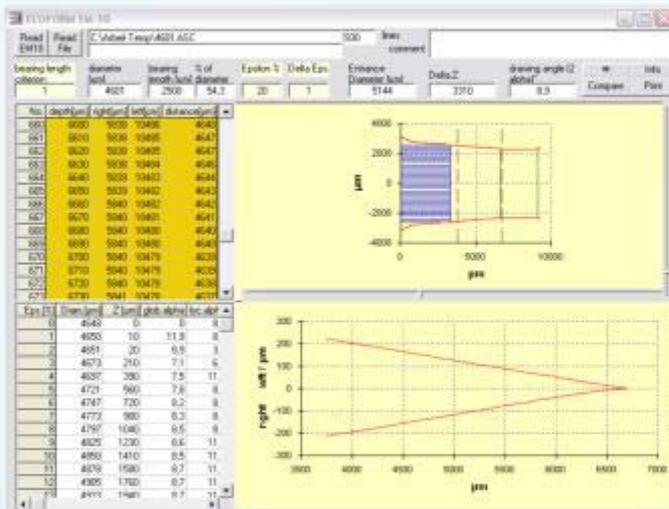
\*Standard, other versions on inquiry

# Comprehensive and quick presentation of the measuring results



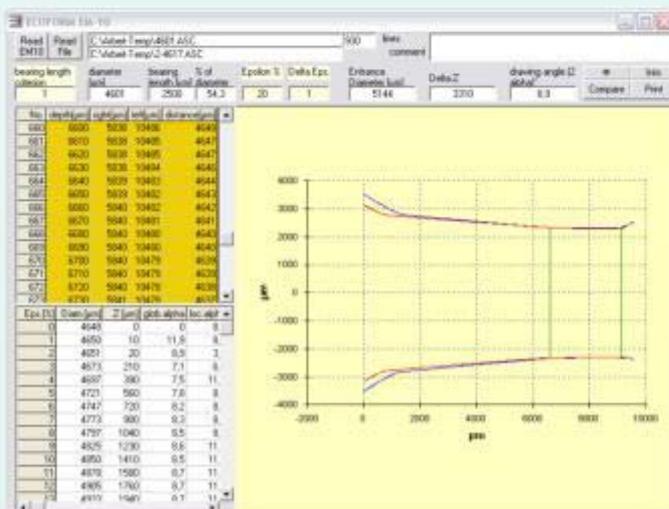
## Graphic presentations of the drawing die profile

- Shows the incoming wire depending on the preselected reduction degree
- Shows the reduction zone, cylindrical bearing and lubricating zone
- Determines the approach line of the incoming wire



## Determined characteristics and cut-out magnification of the graphic presentation

- Diameter
- Cylindrical bearing
- Local and global angles (depending on the reduction degree)



## Direct comparison of two drawing die profiles

- Comparison of the die before and after use
- Comparison of the die before and after reconditioning

# Specification and Measuring Protocol EM10

The Profilometer EM10 gives an uncomplicated, quick, comprehensive and at any time reproducible objective evaluation of the drawing die geometry.

The concept of the measuring system is based on many years of theoretical scientific research and development of the interior profile of drawing dies. This research was practically confirmed through a multitude of wire drawing trials.

The measuring process is very quick and easy. For the preparation of the measuring process the user centers and secures the drawing die with a centering cone. After that the Profilometer EM10 scans with a stylus automatically two opposite sides of the drawing die.

The software displays the measuring results numerically and/or graphically on screen. The information can be saved or printed for your records.

