

### Equipment



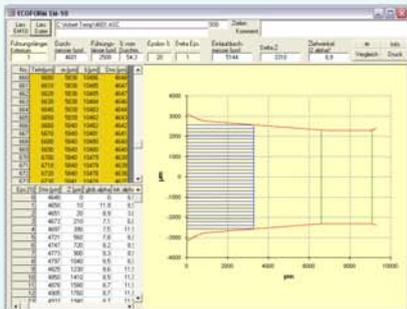
### Principle of operation

- Automatic measurement by removing the die profile by means of carbide metal measuring needles
- Computer based detection amongst others of drawing angles ( local and global), bearing length and bearing diameter
- Graphic and numerical presentation of the die profile information on display and measuring printout
- Zoom of the graphical presentation
- Defect detection (amongst others annulus marks, inner scour...)
- Comparison of die profiles between different dies
- Statistical information for research and development

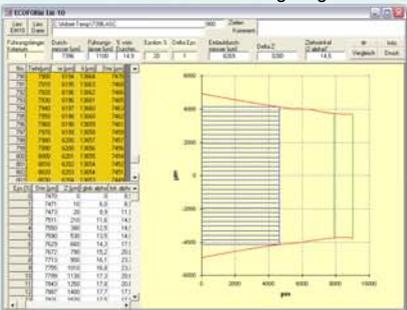
### Technical data\*

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:	± 3 µm
angles:	± 0.5°
bearing length:	± 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 µm of the vertical measuring travel

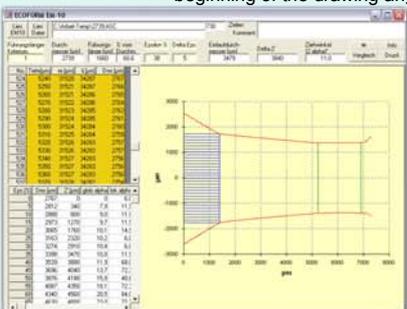
A – normal die situation



B – incorrect scour, short bearing length

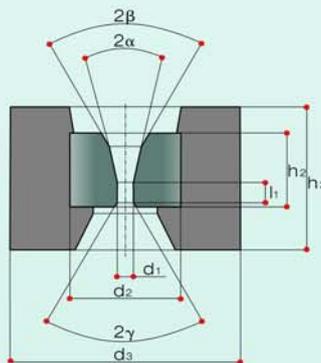


C – incorrect overriding of wire at the beginning of the drawing angle

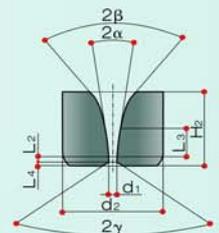


### Options for the user

- Graphical presentation of the concrete geometrical circumstances by deformation in the die
- Increase of information relating to gradient of angle in a selected die array
- Identification of die fashioning defects based on detailed local die angle presentation



- $d_1$  - bearing diameter
- $d_2$  - die diameter
- $d_3$  - casing diameter
- $H_2, h_2$  - die elevation
- $h_3$  - casing elevation
- $L_2, l_2$  - bearing length
- $L_3$  - angles length
- $L_4$  - elevation of exit hole
- $2\alpha$  - drawing angle
- $2\beta$  - entry hole angle
- $2\gamma$  - exit hole angle



\* Standard, extensions on customer request