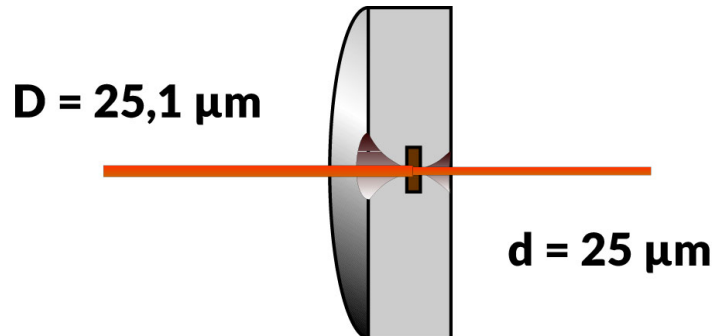


The most precise measurement method

Dies sets - Multiwire machines

New or refurbished dies

- Recommended for $\varnothing < 0.20 \text{ mm}$



The elongation measurement is the most reliable method to control a set of dies, especially for small diameters.

Example for a wire $\varnothing 0,025\text{mm}$ (25 μm) :

- Today, there is no device able to give with extreme accuracy the absolute value of a $\varnothing 25$ microns wire.
- Only a comparative measure allows to establish the difference between two 25,0 μm and 25,1 μm wires.
- The most precise method to check that difference is the elongation control (closer to real drawing conditions).
- For that purpose, let's insert a $\varnothing 25,1\mu\text{m}$ wire through a $\varnothing 25\mu\text{m}$ drawing die and draw 1000mm (1m) of this wire. A $\varnothing 25\mu\text{m}$ wire will stand out, but 1008,016 mm length, meaning 8mm longer.
- These 8 mm, which represent the 0.1 μm difference between the wire before and after drawing, are very easy to read on a graduated scale.

Calculation :

- Elongation = $(\text{entering wire } \varnothing^2 / \text{die } \varnothing^2) - 1$
- In the example :
Elongation : $(25,1^2 / 25^2) - 1 = 0,008016 \text{ m}$,
meaning 8,016mm - **Elongation 0,8 %**

