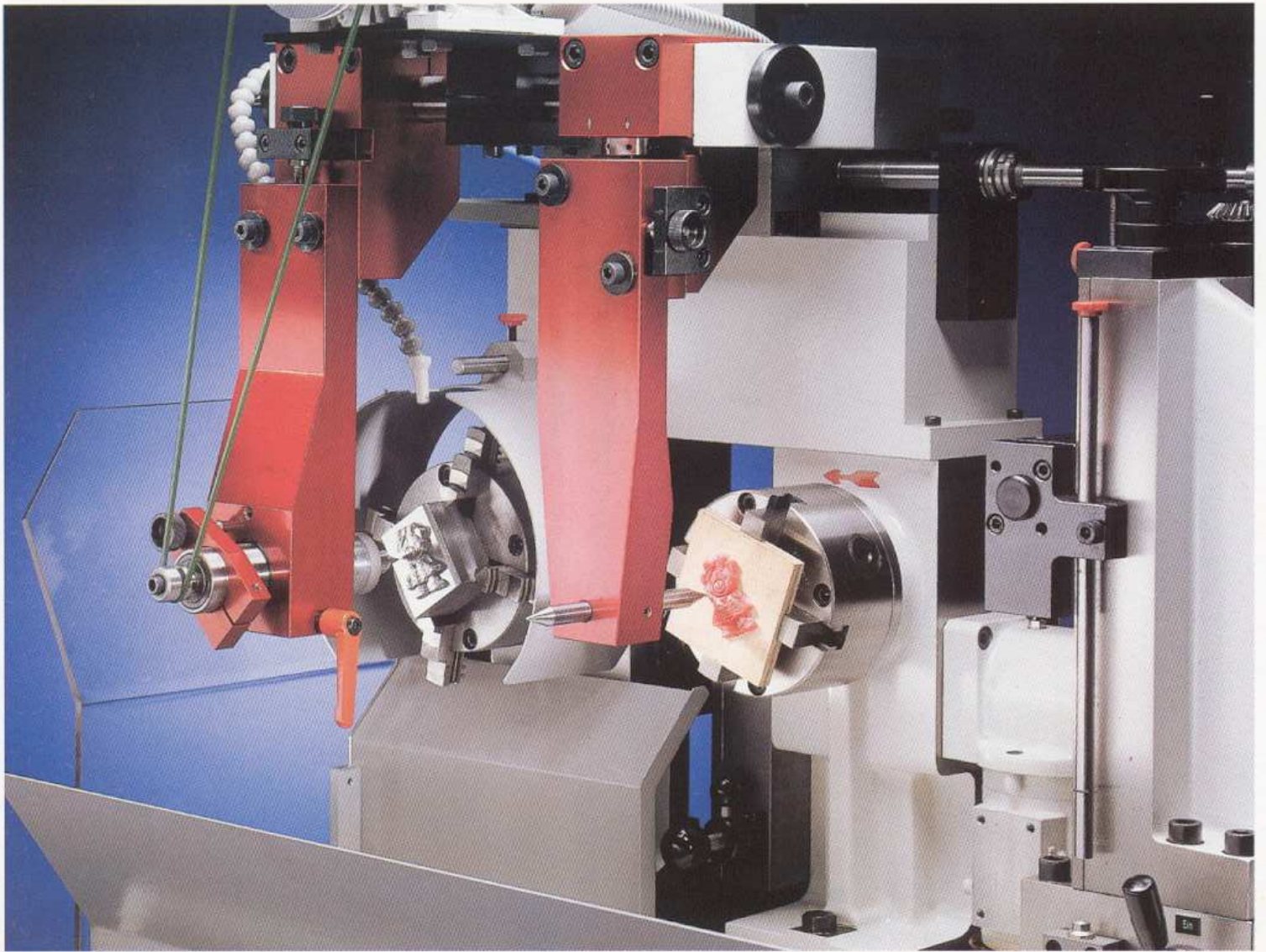


**BEMA**



**SYSTEM**  
**3500**

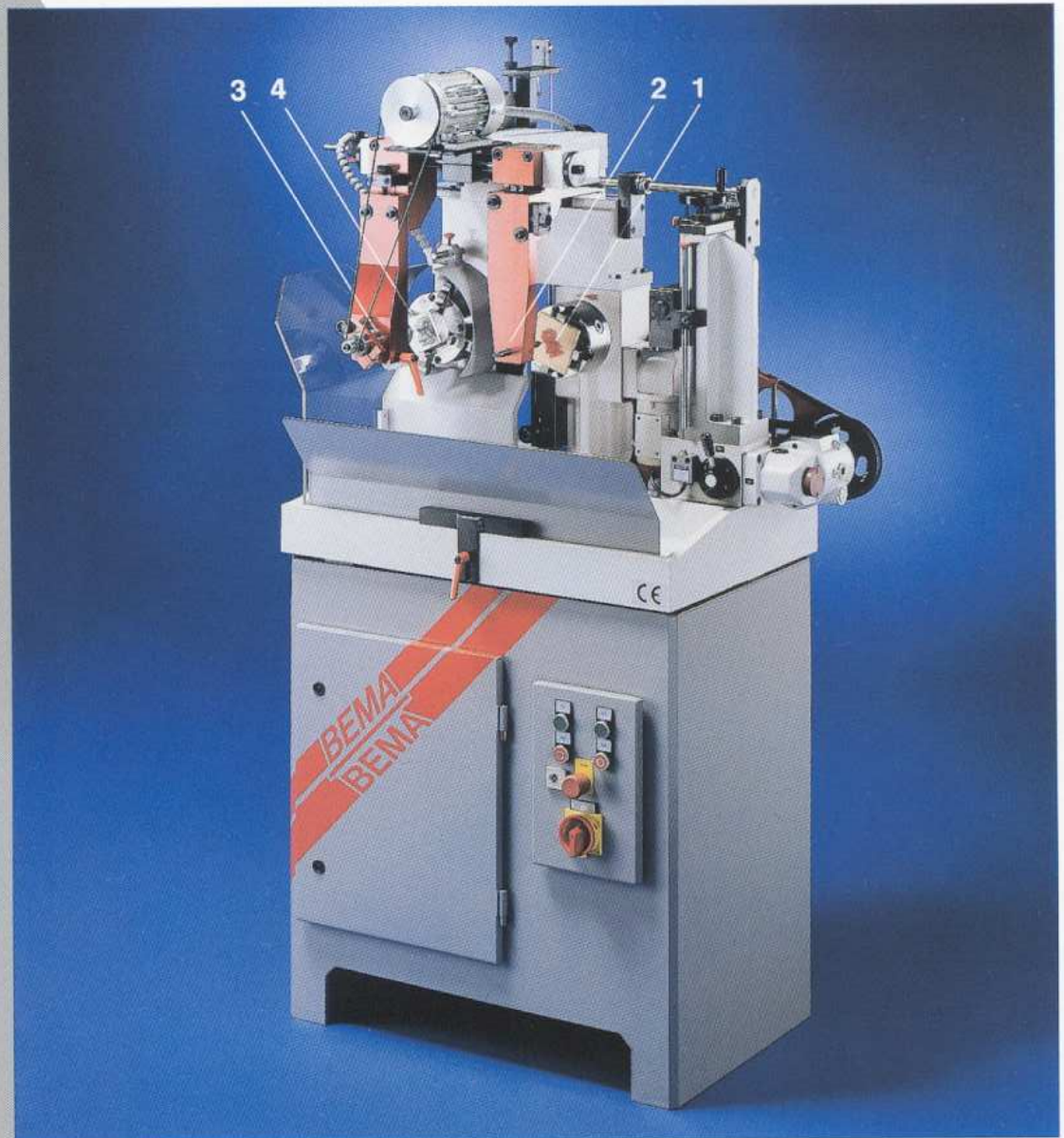
**Three-Dimensional,  
1:1 Copying Machine**

**BEMA**  
**BEMA**

## Three-Dimensional, Copying Machine System 3500

Threedimensional engraver's profile milling which has been successful for several decades of years. A tracing pin (2) serves to scan the metal or duroplastic (1) template. The work piece can be milled at the same time, because there is a solid connection between the tracing pin (2), and a milling spindle (3). The perfect surface quality of the finished work pieces is beyond any competition. Even the slightest cavities get detected. You may, of course, also mill mirror-inverted and vary the sectional heights infinitely. Operators will be completely familiar with the system within less than a day. (4) The die can be engraved geometrically identical or laterally inverted.

The material is tool steel.



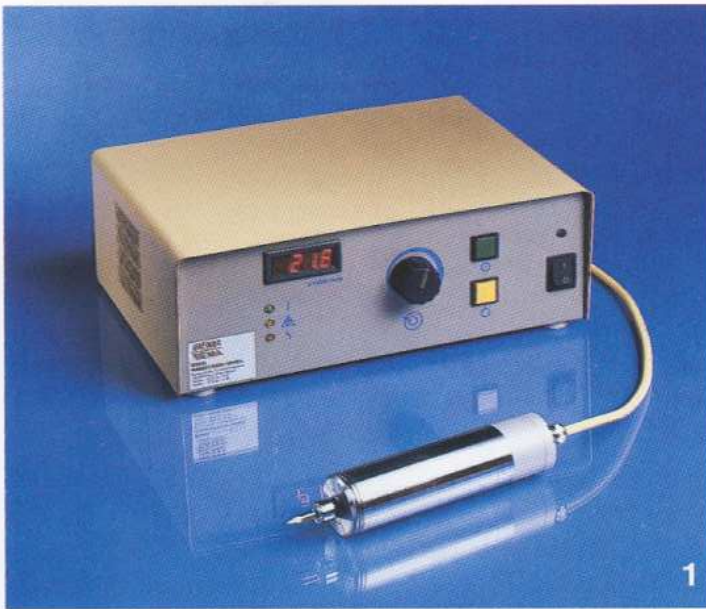
### **BEMA System 3500**

including Standard Accessories:

- Precision-milling Spindel  
Ø 40 x 140 mm, 16.000 U/min,  
maintenance, with draw-in tube  
Ø 6 mm
- Carbide milling cutter Ø 6 mm
- Stylus hard metal 17 Grad
- 2 unite concentric chuck Ø 125 mm
- Pressure weights

Technical Datas:

- Copy 1 : 1 for max. work-piece/model  
diameter 250 mm
- Mirror-inverted transmission right or left  
("Janus-form")
- Automatic circumference speed control  
from work-piece and modell
- Infinitely variable drive



1

## Special Accessories:

### High-Frequency Milling Spindle (Pict. 1)

Using a high-frequency milling spindle, a working speed of 5.000 to 35.000 rpm may be selected in advance.

The use of a high-frequency milling spindle is recommended when high cutting speeds at a constant number of revolutions are required (for example diamond cutting).

The milling spindle is supplied with a transformer.

The speed range (number of revolutions) may be read at the available scale.



2

### The Milling-Graver (Pict. 2)

For an optimal machine output, the chisel form has proven to be the best shape of the milling-cutter.

Carbide milling cutters or diamond milling cutters ground to the shape of a chisel ensure the highest tool life.

For special applications also standard milling-gravers may be used.



3

### Machine system 3500 (Pict. 3)

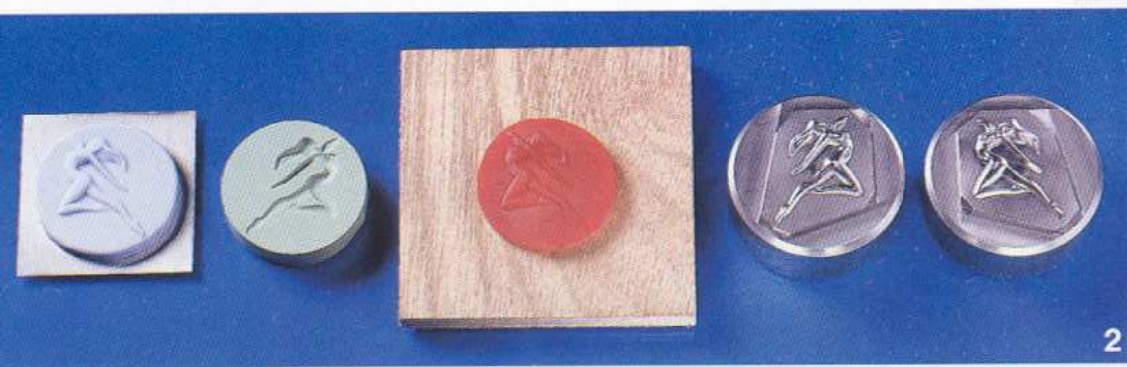
The machine, fully equipped with halogen machine light, high-frequency converter and power driven milling spindle.

## 1 Mirror-Inverted Transmission

The machine is equipped with a reversing gear which allows a synchronous reverse rotation of model and work-piece. It results a mirror-inverted transmission from model to work-piece. This fact enables the production of symmetrical mirror-inverted workpieces ("Janus-form").



1



2

2 Working process: wax model, silicone casting, scanning model, duroplastic. Work piece right hand and left hand.



3

3 Minting tools for coins



4

4 Casting moulds for tin plates and tin goblet.



5

5 Stamping dies for the jewellery industries



6

6 Stamping dies for ring, earring and endrop



7

7 Electrodes for spark erosion machines



8

8 Processing of semi-precious stones such as coral, onyx, agate and pearl-shell