

**SHORT SURVEY ON SEMI-AUTOMATIC MACHINES
FOR WORKING OF ROUND TUNGSTEN CARBIDE DIES :**

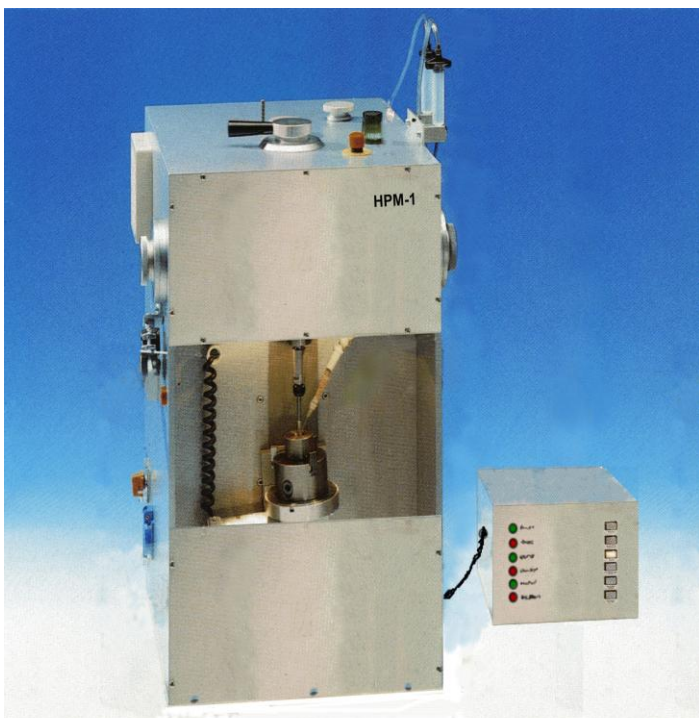
ETC-1/HF:

High speed semiautomatic Tc die processing machine for the precision **grinding and polishing** of **both** the dies' drawing **cone and cylindrical bearing**.

Suitable for the reconditioning and/or production of **round** tc dies and in an extremely short worktime.

Workrange: 0,70 - 20,0 mm Ø
(best within 1 – 10 mm Ø)

Weight: appr. 100 Kgs.



HPM-1 :

This tungsten carbide drawing die machine has been constructed for reworking (grinding +polishing) of conical (+ cylindrical) die-portions and in a diameter **range between approx. 0,50 - 16,00 mm.**

Main Features :

- Control panel in a separate housing
- Equipped with a three jaw chuck dia. 80 mm
- Housing with sound protection.
- Offering automatic down movement of die-table.
- Weight: approx. 80 Kgs.

Available as options :

- automatic diamond suspension supply.
- special fixing system for clamping of needles 8/10 mm.
- three jaw chuck with dia. 100 mm.



AZM-2 :

High Precision Calibrating Machine for sizing/polishing of the cylindrical bearing section of tungsten carbide dies in semi-automatic execution.

Workrange : 0.30 – 6,50 mm Ø

Accuracy: approx. +/- 0.001 mm

Weight: approx. 85 Kgs.

Recommendation :

Ideal in combined use as follows :

HPM-1 – for the conical die-portions

AZM- 2 – for the bearing-calibration

MFF-A : Semi-automatic Machine for tc dies with fine bore-Ø



To work such fine-bore tc dies in **sizes between only 0.15 to 1.50 mm Ø** to needs, requires modern and precise sturdy- but easy to use equipment.

This has been the spur why the **MFF-A** machine machine has been developed, uniting two machines into one, **which can efficiently work both the die-cone and the die-bearing** and for a small to medium throughput of such dies.

All operations are managed by an **OPLC** and a quick pin-change-device for clamping of tapered- or calibration steel workpins and an automatic and programmable diamond suspension/paste feeding have been provided too.