

## Manual Zeiss “EM900N“

### Pulling specimen cartridge out of the TEM and inserting the grid into the cartridge

- The **Goniometer** must be in the middle; **Filament** and **High Tension** must be switched off; valve **V3** must be closed.
- Pull out the cartridge along the guided slit until the end.
- Turn the large rippled wheel fully counterclockwise.
- Screw the key into the cartridge.
- Pull out the cartridge and place it on the cartridge holder.
- Use the fork spanner to lift the movable part of the cartridge into an upright position. Fix it with the movable bracket of the cartridge holder.
- Place the clamp mounting device onto the cap, fix the cap with the ring, and unscrew the cap of the cartridge.
- Unscrew the cap by turning the clamp mounting device counterclockwise.
- Insert the grid onto the cartridge neck, place the cap onto the neck again, and fix it by turning the clamp mounting device clockwise. Remove the clamp mounting device by lifting the ring
- Place the movable part of the cartridge in vertical position again using the movable bracket of the cartridge holder.
- Control if the cap is fixed by lifting the entire cartridge vertical and softly shaking it.

### Inserting the Specimen cartridge in the TEM, evacuating the column, and starting the high voltage and emission

- Insert the cartridge into the column and unscrew the key
- Tap the back of the cartridge gently to ensure that it is correctly seated.
- Turn large rippled wheel fully clockwise
- Choose the index card at the Software
- Press the button “**Airlock**” at the panel
- Unlock the cartridge by pressing the **Red Button**, push in until it stops and turn it clockwise until the “**3- o`clock position**” is reached.
- When the field “**Move**” (in the Software) turns green, insert the specimen cartridge completely in the column (you will hear two noise from the valves at that time!!)
- When the fields “**Move**” (in the Software) and “**Airlock**” (on the Panel) do not light up any longer and the field “**Vacuum**” is completely green – open the valve **V3**
- Click “**High Tension**” and wait for the green field
- Click “**Filament**” and wait for the green field
- the beam should now be visible on the screen.