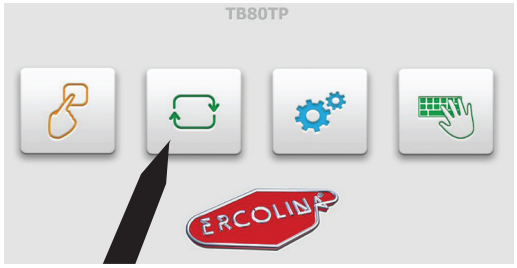
Instructions for Model TB80 - TB100 - TB130 Top Bender®

Automatic Simplified Mode - single bend program

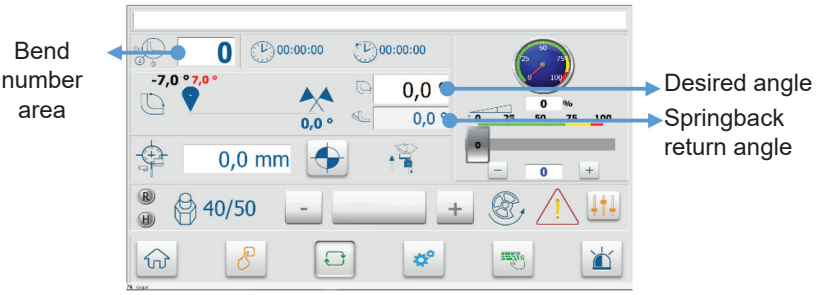
WARNING! Thoroughly read operators manual before attempting to operate machine
(Machine must be connected to correct power source before switching power on! **DO NOT USE** extension cord.)

Execute a single programmed bend.

1. Press Automatic icon from home page or from service bar.



2. The following page will open:



3. *Bend number area*: Press field and use numerical keypad to enter number 0 (zero). Must be zero to run simplified program.

4. *Desired bend angle* and *Springback return angle:* Press fields to enter values from numerical keypad. (Can be edited later.)

"C"-axis will rotate until the software limit in machine data is reached. Alarm is generated.

Alarms area: Alarm symbol will be displayed.

5. Press and hold Bend pedal or + icon on display to make a bend; the status bar will be green. "C"-axis will start moving at speed indicated in Speed area.

6. Machine will automatically stop movement when set value is reached in Automatic Simplified mode.

7. Return "C"-axis to zero after bending by pressing and holding Return pedal or – icon.

If you should press opposite pedal/icon during a rotation machine will immediately stop movement without generating an alarm.

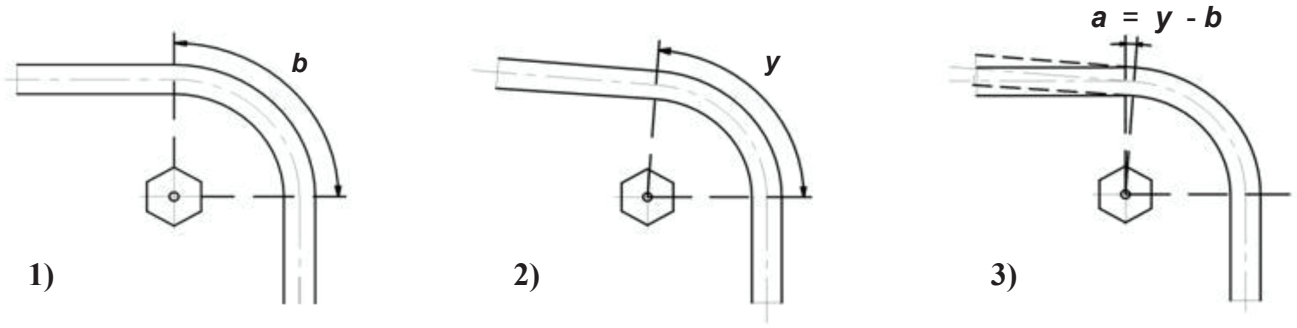
Setting Springback Value

Understanding springback

- Desired angle ***b*** represents value in degrees to be obtained after bending.
- Springback angle ***a*** represents angle in opposite direction of bend in which material returns after being released from the tools.
- The ***y*** angle that represents movement of "C"-axis

Springback angle is difference in degrees between desired bending angle ***b*** and bending angle ***y*** obtained without considering the elasticity of processed material ***a*** = ***y*** - ***b***

To obtain desired angle total bend rotation of "C"-axis equals ***y*** = ***a*** + ***b***.



Use goniometer and measure angle obtained after test bend to determine value of springback return. The difference must be entered in springback return field.

Note: Angle measured with goniometer will be different from rotation value of the "C"-axis because of material elasticity. Make multiple bends and measure angle of each to determine actual springback return angle required.

Note: Rotation angle of "C"-axis cannot exceed 210°. If value entered in springback return field exceeds 210° the angle field will be automatically reduced to maintain limit.

By setting ***b*** = 200, if you enter ***a*** = 20 and therefore ***a*** + ***b*** = 220, the system automatically reduces the value of ***b*** and sets it equal to 190°

Note: entering a value between 0% and 10% in the Speed field, the machine will always move at a minimum speed of 10% while displaying the entered value.