Section 8: Tool Changer

Turret (ATC), Open for Loading; Using the TC,1 Command

1) From the command mode type TC,1 then press the ENTER button. The ATC will open and remain open until the MANUAL button is pressed. If the Z axis is not at the cold start position the control will enter the waiting state. Press the START button to return to the cold start position then ATC will open.

2) Use the TURRET CW and the TURRET CCW buttons to rotate the turret.

3) Press the MANUAL button to close the ATC. This will bring the head down. If a tool is under the spindle, the tool will be loaded into the spindle and the ATC will move back to its home position.

Note: When loading tools into the turret to run a program, place tool number one in the turret and use the TURRET CW button to put the next tool in the turret until all the tools are placed in the turret. Rotate the turret until the first tool is in the number one position before setting the tool order. (See Turret (ATC), ESTABLISH TOOL ORDER; USING THE SETTO COMMAND to establish tool order.)

Tool Changer Crash

1) Press the JOG button to get the Turret into home position.

2) Move to the cold start position using either JOG or the power off procedure: Type SETCS and press ENTER. Type HO and press Enter, then press START.

3) Type CS and press the ENTER button. See POWER ON.

4) Use the TURRET CCW or CW button to rotate the turret until there is an open turret location directly opposing the spindle.

5) From the command mode type SETTO. This will establish this location as tool number one.

6) Type TC,1 to open the tool changer.

7) Rotate the turret with the TURRET CCW or CW buttons until tool number one is directly under the spindle, then press the MANUAL button to pick up tool number one.

8) Type SETTO to establish this location as tool number one.

Turret Loading, Putting Tools in the Tool Changer

When placing tools in the turret, the location of tool number one can be any convenient turret location. (See TURRET (ATC), ESTABLISH TOOL ORDER; USING THE SETTO COMMAND)
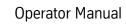
1) After the turret is open, move the turret around until there is an open spot directly in front of the open door.

   a. Or take the tool out of the location directly in front of the open door. (See the TC,1 command, to open the turret door.)

2) Place tool #1 in the turret lid by aligning the clip with the V flange of the tool holder.

   a. The tongue in the back of the clip must go into the key slot on the tool holder, for the tool to be seated properly.

3) Push the TURRET CW button, and then place the next tool in the turret lid.

   a. The remaining tools are all placed into the turret lid, in sequential order. Press the TURRET CW button, after each tool is placed into the lid.

4) Use either the TURRET CW or TURRET CCW button to rotate the turret lid around so that tool number one, from the program, is directly under the spindle.

5) Press the MANUAL button to bring the head down over tool number one.

6) From the command mode type, SETTO then press the ENTER button. This will establish this location as tool number one. (See TURRET (ATC), ESTABLISH TOOL ORDER; USING THE SETTO COMMAND)

Turret (ATC), Establish Tool Order; Using the SETTO Command

The turret is not numbered, so it is up to the operator to establish Turret Location number one. Then the control will sequentially number the remaining locations (CW viewed from the top). This allows for multiple tool groups from various jobs to be placed in the turret at one time. At the beginning of each job, the operator will rotate the turret and establish a new turret location number one for each new job.

1) Open the ATC and use either the TURRET CW or TURRET CCW button to rotate the turret to the number one location. (see TURRET (ATC), OPEN FOR LOADING; USING THE TC,1 COMMAND)

2) Press the MANUAL button to close the ATC. This will bring the head down. If a tool is in location number one, the tool will be loaded into the spindle and the ATC will move back to its home position.

3) From the command mode type SETTO then press the ENTER button. The SETTO command will establish this turret location as turret location number one.

Note: The RI command will also establish tool order when the tool table is cleared.

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