TRAK® MACHINE TOOLS

SOUTHWESTERN INDUSTRIES, INC.

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White Paper

Machining Left Hand OD and ID Threads

Procedure for all ProtoTRAK Lathes

Steps for machining left-hand O.D. threads:

1. Mount tool: You can use either an O.D. or I.D. threading tool. Mount the tool to approach the backside of the part—facing you. See Figure 1 for a photo of an O.D. tool mount.

2. ProtoTRAK Tool Setup: Go to SET-UP, TOOL SETUP. Select THREAD **OD** even if you're using an I.D. tool. Touch off the tool, and enter a **negative** number for "X."

3. Program Event: Since the threads will be machined from the backside of the part, enter **negative** numbers for all "X Begin" and all "X END." Extra position events might be necessary before and after the thread event so that the machine can safely position around the part. See Figure 2 for an example of a left-hand O.D. threading event.

4. Run: Go to RUN mode, and run the program with the spindle in reverse (REV).

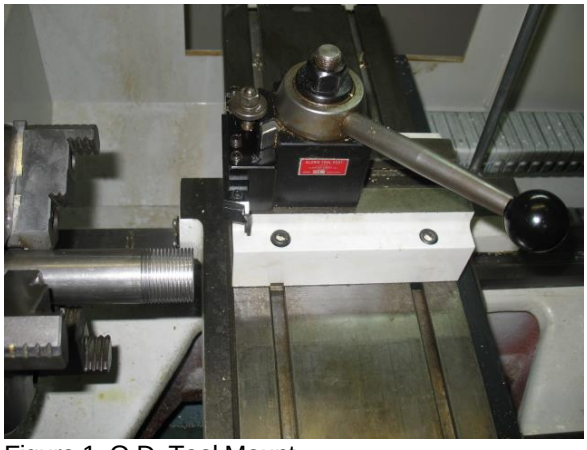

Figure 1, O.D. Tool Mount

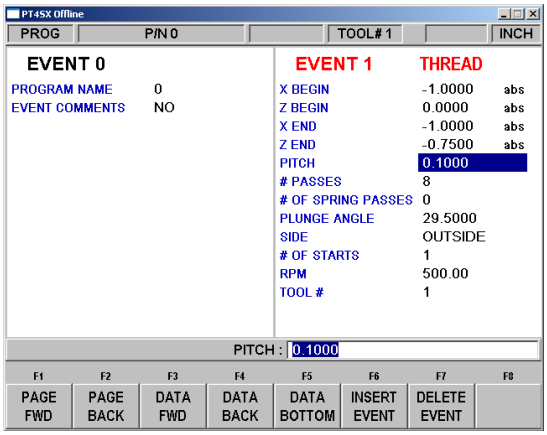

Figure 2, Left-hand O.D. Threading Event

Steps for machining left-hand I.D. threads:

1. Mount tool: You **must** use a tool that's designed for left-hand I.D. threading (see Figure 3). Mount this tool to approach the backside of the part—facing away from you.

2. ProtoTRAK Tool Setup: Go to SET-UP, TOOL SETUP. Touch off the tool, and enter a **negative** number for "X."

3. Program Event: Since the threads will be machined from the backside of the part, enter **negative** numbers for all "X Begin" and all "X END." Extra position events might be necessary before and after the thread event so that the machine can safely position around the part. See Figure 4 for an example of a left-hand I.D. threading event.

4. Run: Go to RUN mode, and run the program with the spindle in reverse (REV).

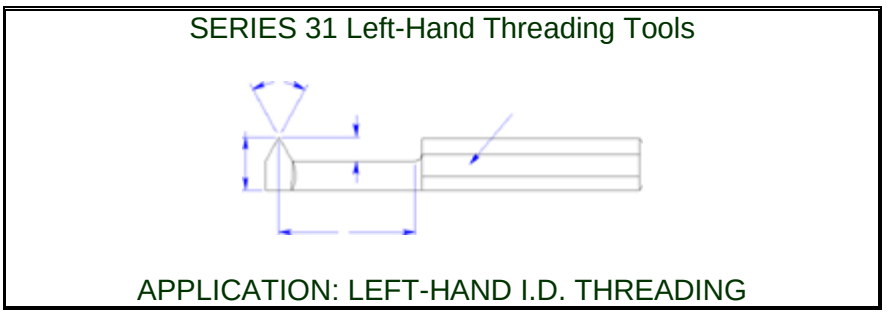

Figure 3

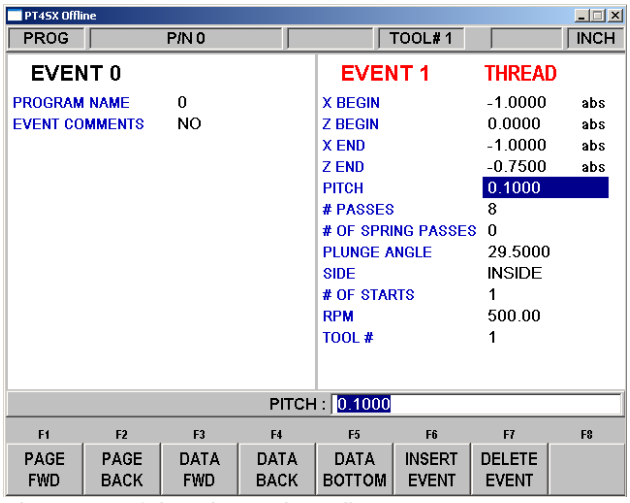

Figure 4, Left-hand I.D. Threading Event