



CONSTANT SURFACE SPEED(FAGOR 800T)

PARAMETER 617(4)=1:actual spindle speed is shown in rpm whether it is working in rpm mode or css mode

G96: spindle speed in feet/min.

G97: spindle speed in revolutions/min

G92 S....: setting of max. spindle S value when in CSS

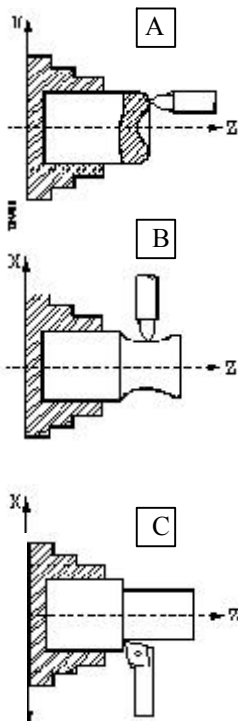
It is recommended that G96 and S.... spindle speed be programmed in the same block. If G96 is programmed alone, the CNC assumes the last Constant Surface Speed used in that mode. If none was previously used, the CNC will issue error 10.

Under CSS, the feedrate values will be applied to the CNC in **inch/revolutions**

The speed of the spindle depends upon the diameter being cut.

When working with CSS, **correct tool calibration** is very important.

If the tools are not calibrated correctly, the CSS will work in reverse. This symptom is always due to incorrect tool measurement.



MEASUREMENT AND LOADING OF TOOL DIMENSIONS

- 1) make sure the machine is homed before you begin
- 2) press **AUX** to get to the main menu
- 3) press **3** for [tool] & then press **2** for [tool measurement]
- 4) the letter **X** will appear, enter the dimension of the part (diameter or radii depending on how the machine is working)
- 5) press **ENTER**
- 6) the letter **Z** will appear, enter the part dimension and press **ENTER**. The Z is usually keyed in with **0{zero}**
- 7) key in tool #, press **T1**(offset #) & **cycle start**
- 8) move the X axis until the part is touched. press the letter **X** and then **ENTER**, the the diameter of the part should appear on the jog screen
- 9) do the same procedure for Z and 0 should appear on the jog screen
- 10) also make sure you are using the correct tool code (F0 - F9).
- 11) follow the same procedure for another tool

EXAMPLE. part dimension is 2 inches diameter. working units are in diameter. If the axes setup is as follows, the X dimension for toolB is a **positive** value. X2 ENTER. The X dimension for toolC is entered with a **negative** value. X-2 ENTER.

To test CSS, Press [CSS]. Rpm will change to css. Key in the proper S value & cycle start, then press M3 or M4 (make sure your in the proper gear range: M41,M42,M43,M44). To set the max S. value, press S & then the arrow up key. The S value will display in **feet/min** or **rpm** with 800T depending on the parameter. Call any tool and jog the X axis to position zero. As you approach zero, the spindle speed will increase. As the tool retracts from X0, the spindle speed reduces.