**Bolt Hole Circle**

The Bolt Hole Circle function allows the operator to set a desired number of holes in a circular pattern. While most projects will most likely consist of holes evenly spaced around a complete circle, Bolt Hole Circle further allows the operator to designate a starting and stopping angle, such that if the holes were desired to be evenly spaced only along an arc of only 60 degrees then this too would be quite possible. Aside from a less than complete circle, choosing the starting and stopping angles allows the operator to very specifically designate at which angle the “bolt hole” pattern starts and ends.

The parameters required to be entered for Bolt Hole Circle are the following:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center</td>
<td>CENTER</td>
</tr>
<tr>
<td>Diameter</td>
<td>DIA</td>
</tr>
<tr>
<td>Number of Holes</td>
<td>NO. HOLE</td>
</tr>
<tr>
<td>Starting Angle</td>
<td>ST. ANGLE</td>
</tr>
<tr>
<td>Ending Angle</td>
<td>END. ANG</td>
</tr>
</tbody>
</table>

Angular Direction:
- Clockwise = Negative angle
- Counter clockwise = Positive angle

**Bolt Hole Circle - Setup**

Center coordinates (CENTRE).........X = 0.000  
Diameter (DIA).........................80.000  
Number Holes (NO HOLE)..............5  
Starting angle (ST ANG)...............30 degrees  
End angle (END ANG)...................60 degrees

Step 1: Locate your hole center and press the \( \text{Bolt Hole Circle} \) function key

Step 2: Enter the Center coordinates
Step 3: Enter the Diameter (DIA)

Step 4: Enter the number of holes (NO HOLE)

Step 5: Enter the start angle (ST ANG)

Step 6: Enter the end angle (END ANG)

At this point, all parameters for the Bolt Hole Circle function have been programmed.
The Operator can now to select which hole to move to, then simply move the machine to zero the display, which means the target hole has been reached.

To move to the next hole

Move the machine to zero the display

Once the display has zeroed, this means target hole #2 is centered

To move to the previous hole

Move the machine to zero the display

Once the display has zeroed, this means target hole #1 is centered

To temporarily return to the ABS coordinate system, press the “0” key.

Presently in Bolt Hole Circle function

Temporarily in ABS coordinate system

To return to the Bolt Hole Circle function, press the “0” key.

Back in Bolt Hole Circle function

To exit Bolt Hole Circle function and permanently return to the ABS coordinate system, press the Bolt Hole Circle function key.

Presently in Bolt Hole Circle function

Permanently back in ABS coordinate system