

PadHead™ polishing & grinding head Model C Set Up & Operating Instructions

Mounting - The PadHead™ polishing & grinding head Model C should be mounted to a stubbing/gauging wheel type cone that is suitably matched for the CNC manufacturer. NOTE: the screws holding the stubbing wheel are too short for use with the Head. A screw length of 1½” seems to be the correct length.

Machine Operating Parameters

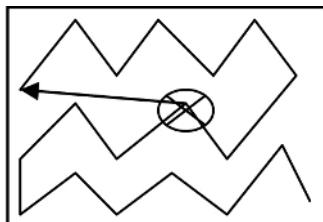
TOOL SET UP
Diameter: 9.25” Height: 6.125” (without cone/pads or brushes)

RPM
Between 400-600 RPM is the safe operating speeds for the spindle. (DO NOT exceed 600 RPM)

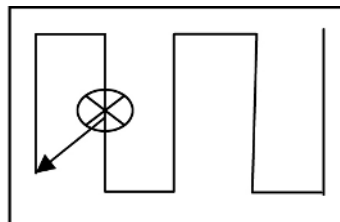
FEED RATE <i>These parameters have proven successful:</i>	
1 Meter/Min up to 6 Meter/Min	<i>Recommended starting point is 3 Meter/Min until comfortable with the tool.</i>
40 In/Min up to 240 In/Min	<i>Recommended starting point is 120 In/Min until comfortable with the tool.</i>

DOWN PRESSURE - Due to the integral springs, we are able to control down pressure, thereby affecting the grinding, polishing and brushing effect. To control the pressure, we are actually telling the head to go deeper into the stone. This can be accomplished by telling the machine that the stone is actually thinner than it is. Our recommendation is to make the initial setting begin at around 6mm (0.25”). If the cutting action is seen to be lacking or you need more pressure, increase this up to a maximum of 100 lbs of pressure through the springs. Adjustments can be made 1mm (0.040”) at a time until the desired cutting is accomplished.

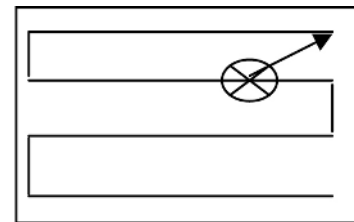
PATTERN GRINDING/POLISHING - A variety of patterns are available and limited only by the programmer’s ability. An over lapping pattern of about half of the diameter (4 to 5”) of the overall tool (roughly 9-1/4”) is recommended. The tool may be programmed to overhang the edge of the slab no more than 2”. *This should give you about 1/4” overhang in the corners maximum.*



Zig-Zag Pattern with circular motions



Horizontal Military



Vertical Military

STARTING THE PROCESS – **The head must enter from above the stone. DO NOT enter from the side of the stone.** The head will be lower than the surface and this will result in a crash of the head into the stone. The head may be spinning when it enters the stone and does not have to be started directly on top of the stone.

NOTE: The parameters included in this document have proven effective in many applications and are guidelines for initial set up and running of the PadHead™ polishing & grinding head Model C. Each machine and material will act differently and it is up to the operator to determine the best operations for their machine for the material they are working.

The PadHead™ polishing & grinding head is patented: **US 8,366,518 B2** and produced in Barre, VT USA