TOOLROOM SOLUTIONS

OFFICE
8824 Old Block House Ln
Spotsylvania,VA 22551-3512

PHONE
+1-540-940-5977

EMAIL
ed@toolroom.solutions

Setting the C-axis zero position in a machine with the HMC 500/600 control

Attention: This procedure is for trained service personnel only!

A mistake could cause severe mechanical damage to the machine!

To proceed, the following tools are necessary:

- Keyboard must be attached to the MMI control
- Machine calibration arbor, micron indicator, and magnetic base disk must be available
- Review the technical documentation "Setting the motor encoder zero position on HMC 500 & 600 Indramat Diax 04 drives"

Procedure :

1. Power up the machine with the key switch in manual position. **"Do not** reference the machine!" All movements have to be done in manual mode.
2. Install the test bar in the workhead and check the runout. (Runout should be less than 0.01 mm at the end of the bar.) If the runout is greater than 0.01 mm rotate the bar in the chuck by 90° and check again. If the runout is still greater than than 0.01 mm, check your chuck and collet. If the runout is still greater than 0.01 mm your A-axis needs to be repaired!
3. Install the magnetic base and the indicator on the spindle head
4. Move the Y- and the Z-axis into a position that allows the indicator to measure the side of the calibration bar.
5. Move the X-axis in and out and check the indicator readout
6. Correct the C-axis position in small steps until the indicator shows 0 while you are moving along the test bar. Use the full length of the test bar to get a better result.

7. Now follow the procedure “Setting the motor encoder zero position on HMC 500 & 600 Indramat Diax 04 drives “
8. Reference the machine with a 20% feed rate and “Ref All Move“
9. Set absolute zero with “ABS All Set“
10. Re-qualify at least the C-axis, preferably the whole machine