



## **REFERENCE PROCEDURE TORNADO** **X AXIS ONLY (100/200/300)**

1. Ensure parameter No. 22 = 00000010. If not go into MDI mode and page down to PWE on 2<sup>nd</sup> parameter page and set PWE to 1. Ignore any alarms at this stage.
2. Set parameter 22 to 00000010.
3. Press red controls Off button.
4. Press green controls On button.
5. X Axis reference return alarm should appear.
6. Press POS to show axis positions.
7. Clock inside a boring bar toolholder to find the centre line of the toolholder to chuck centre line.
8. Press REL softkey below screen.
9. Press U then CAN. U should now read zero.
10. In MPG mode move X axis in plus direction to the value shown in parameter 708 e.g. 376000 for Tornado 200.
11. In MDI mode return to parameter 22 and set to 00000011.
12. Press red controls Off button.
13. Press green controls On button.
14. The X reference position is now set.
15. Then set PWE to 0.
16. Press RESET on machine and this should clear the alarms.