The new Revolution
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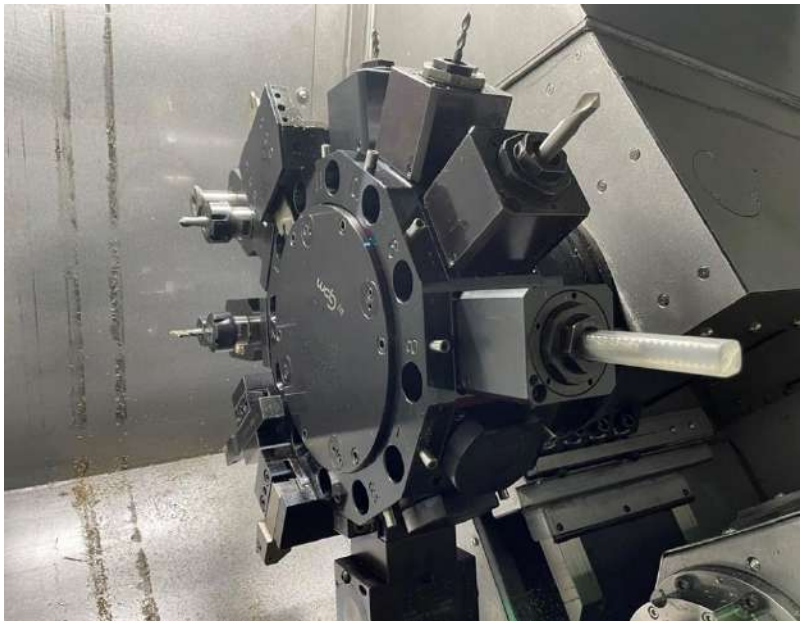
# VDI 徑向刀盤精度調整

# VDI Radial tool disc precision adjustment



調整前,請先移除刀盤上的刀座以策安全。刀塔油壓 50kg, 並 確認 S8 夾緊訊號正常。

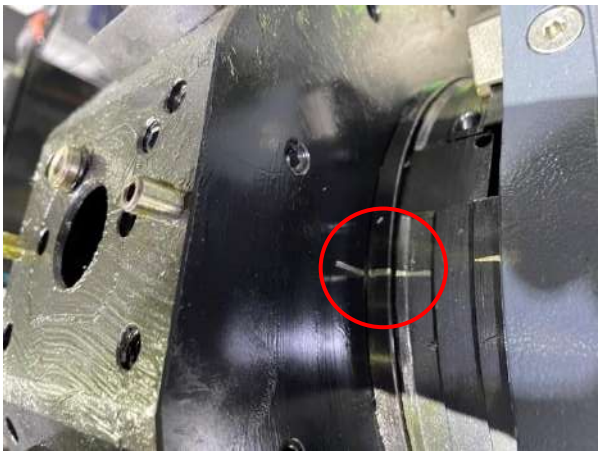
在一號刀原點記號調整刀盤精度，並確認齒輪頭耦合齒是否能正常耦合動力刀座 。

Please remove all tool holders for safety reason before adjusting the tool disc.

Confirm the hydraulic pressure is 50kg, and S8 clamping signal is normal.

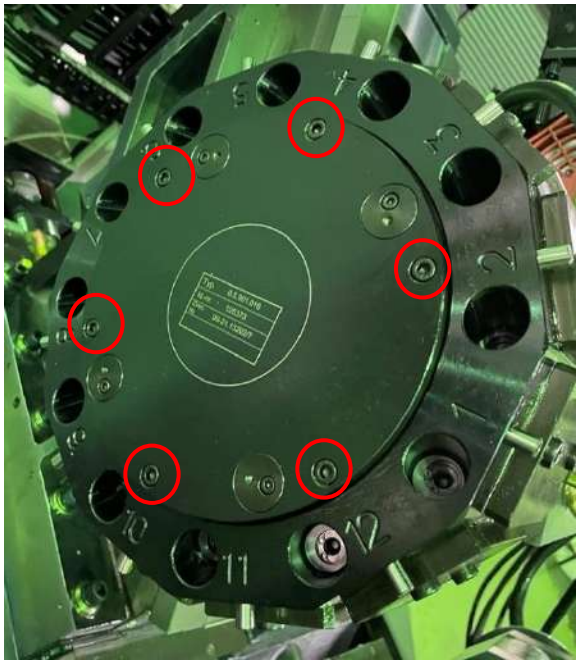
Adjust the tool disc when turret is at T1 origin station aligning with the mark line.

Confirm the gearhead coupling couples with driven tool holder smoothly.



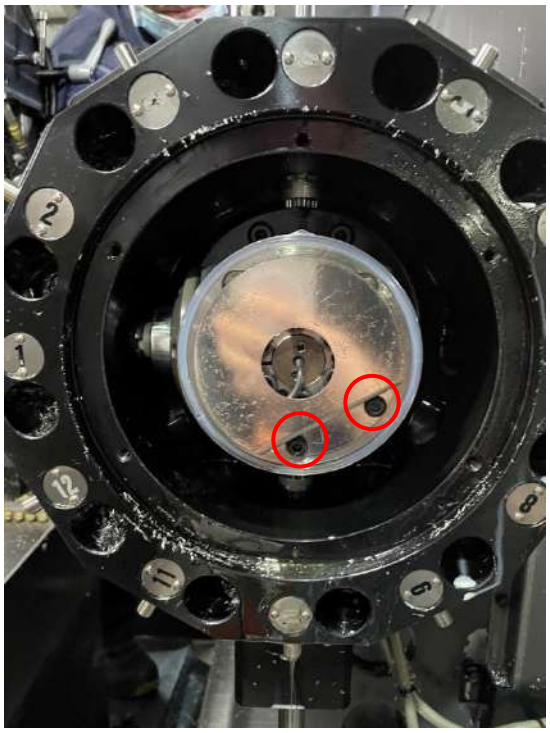
1. 移除螺絲，拆解前蓋。

Remove the screws and disassemble the front cover.



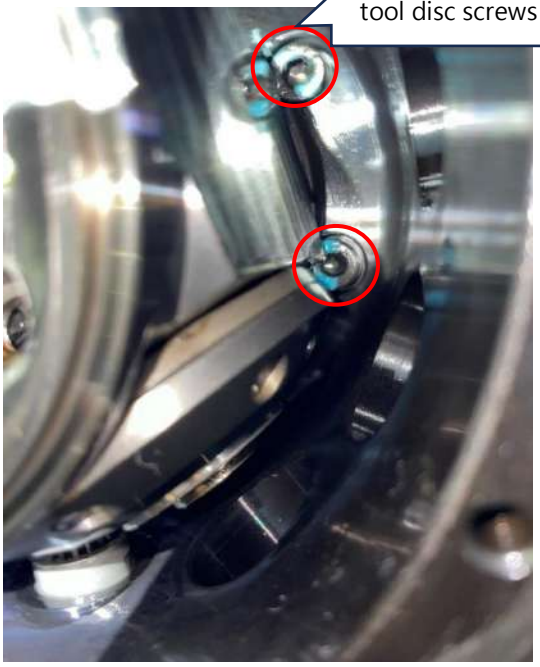
2. 移除螺絲，拆解齒輪頭蓋板。

Remove screws and disassemble the gearhead cover.

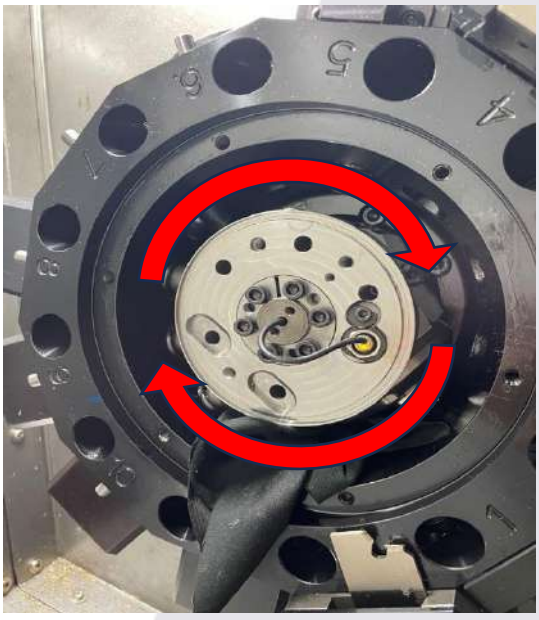


3. 從側邊可直接看到刀盤螺絲，被擋住的刀盤螺絲可放鬆齒輪頭前方的迫緊環，放鬆迫緊環後，便能 360 度旋轉以鬆開其他刀盤螺絲。

Tool disc screws may be seen from the side. The blocked tool disc screws can loosen the tightening ring in front of the gearhead. After loosening the tightening ring, you may rotate 360 degrees and loosen the rest tool disc screws.

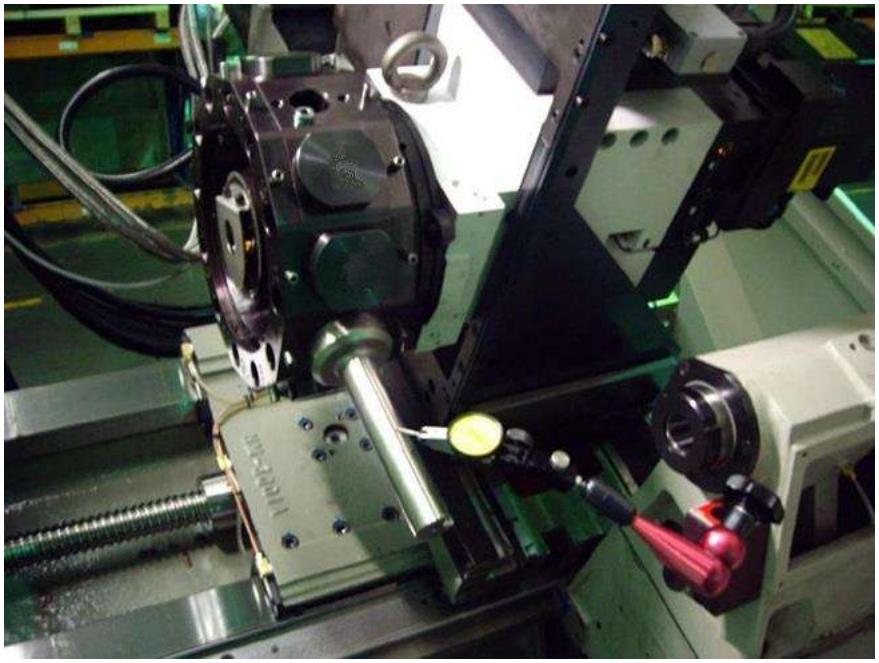




4. 刀盤固定螺絲全部拆鬆後，請使用測試棒來量測刀盤 X 軸平行度。

After loosening all screws, use a testing mandrel to measure accuracy of the x-axis of tool disc.



5. 根據現場量測刀盤平行度是往上或往下來調整刀盤方向(可使用橡膠錘來輕敲打刀盤) 。在調整平行度至 0.01mm 內，以對角方向鎖緊刀盤固定螺絲。刀盤固定螺絲鎖緊並上扭力後，量測齒輪頭 X 軸平行度。

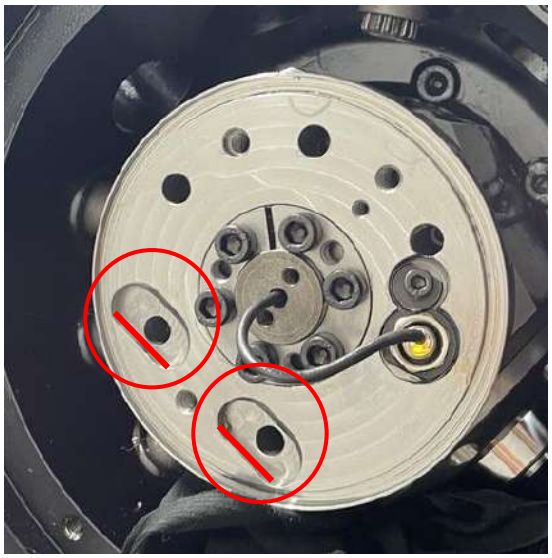
Adjust the tool disc till the x-axis accuracy is within 0.01mm. You may tap on the tool disc to adjust with a plastic hammer. Fasten tool disc screws diagonally by required torque, and then measure the accuracy of the gearhead.

M8 螺絲扭力為 39Nm \ M8 screw torque: 39Nm

M10 螺絲扭力為 77Nm \ M10 screw torque : 77Nm

6. 請量測紅圈處兩點平行度一致(可用記號筆畫一點做記號，確保每次量測為同一點)平行度在 0.01mm 內後在鎖緊迫緊環螺絲。

Measure the parallelism of below (see pic) two spots. The parallelism should be the same. (Make a mark to ensure the measuring point is the same every time doing the measurement.) The parallelism accuracy should be within 0.01mm. Fasten the screw of the tightening ring afterwards.

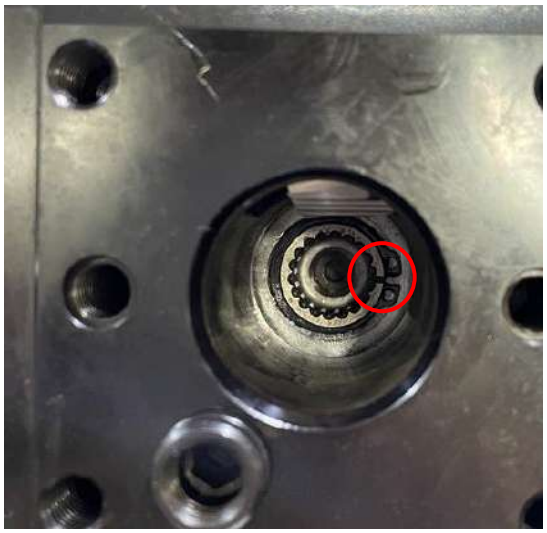


7. 刀盤與齒輪頭皆調整完畢後，測試換刀動作。並量測重復定位精度及定位精度。

After adjusting both the tool disc and gearhead, test indexing to make sure indexing is smooth. Measure the repeating indexing accuracy and positioning accuracy.

8. 齒輪頭需確認 3 點鐘方向

Confirm the gearhead is at 3 o’ clock position.



9.徑向 VDI 刀塔耦合動力刀座時，前蓋必須鎖上。安裝動力刀座，測試手動耦合及換刀動作是否順暢。若刀盤精度或動力刀座耦合不良，依上述動作再次微調。

Turret front cover must be installed before mounting any driven tool holder. Test coupling and indexing manually to confirm the movements are smooth. If the tool disc accuracy is not good or the coupling of driven tool holder is not smooth, follow the above steps to do fine-tune.