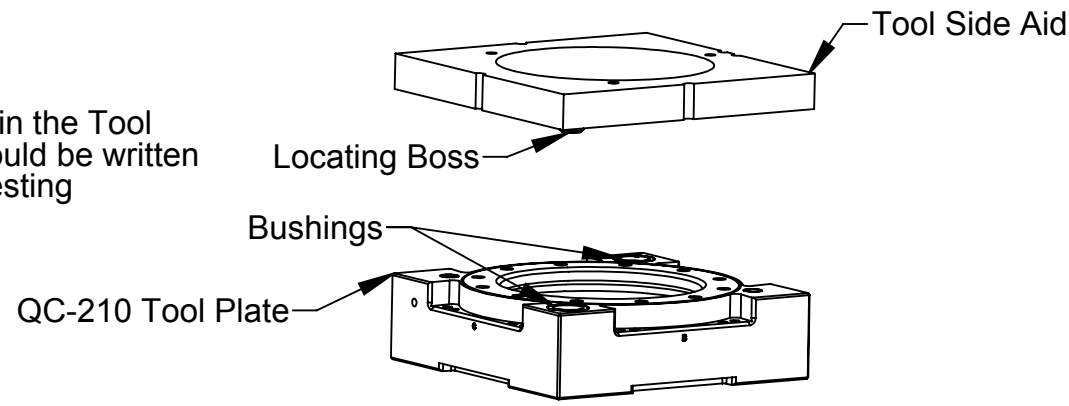
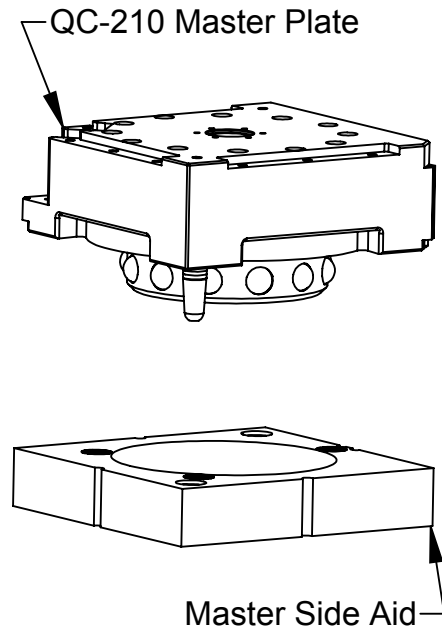


Rev.	Description	Initiator	Date
01	Initial Drawing	DJB	8/31/2017

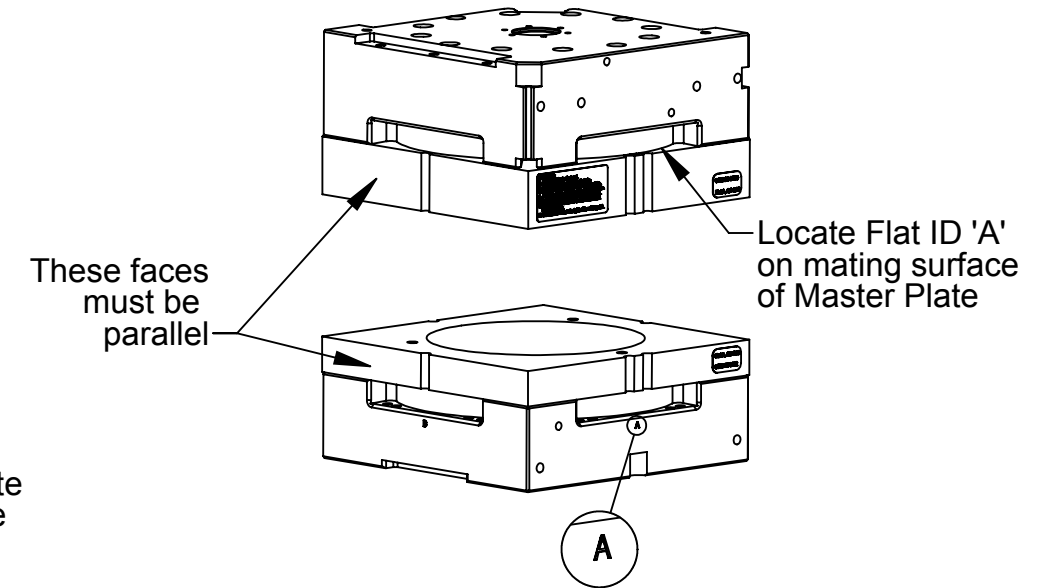
**Step 1:**  
Place the Tool Plate in the Tool Stand. Programs should be written with the Tool Plate resting in the Tool Stand.



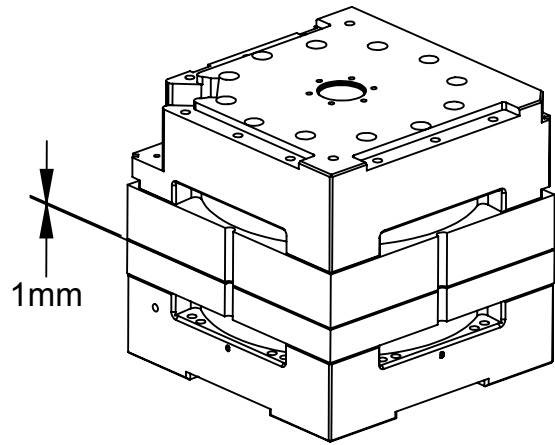
**Step 2:**  
Mount the Tool Side Aid over the Tool Plate by inserting the Locating Bosses into the Bushings. Magnets will ensure the Tool Side Aid will remain in place.



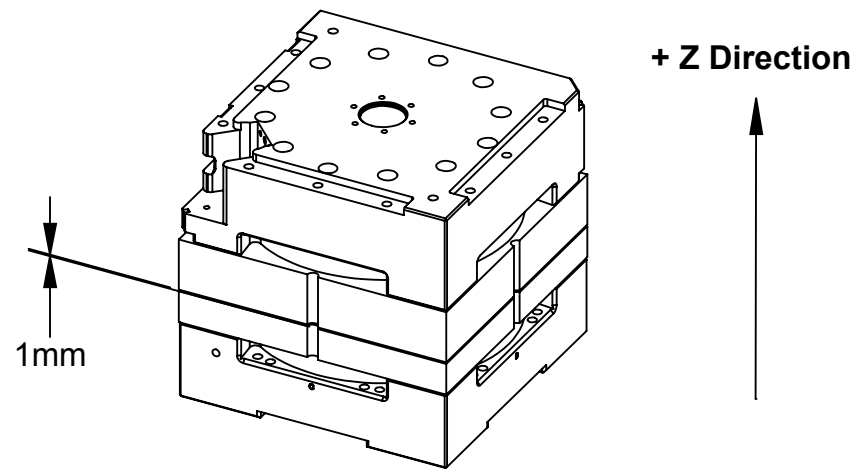
**Step 3:**  
Mount the Master Side Aid to the QC Master Plate ensuring that the taper pins enter the holes in the Master Side Aid. Magnets will ensure the Master Side Aid will remain in place.



**Step 4:**  
Bring the Master Plate Assembly to a position directly over the Tool Plate Assembly. The Master Plate Assembly's face should be parallel to the Tool Plate Assembly's face. Ensure that the orientation of the Master and Tool assemblies are such that the Flat ID's correspond (i.e. 'A' Master to 'A' Tool, etc.).



**Step 5:**  
Move the Master Plate Assembly slowly downward until the Master and Tool Side Aids are approximately 1mm apart.



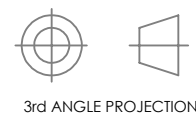
**Step 6:**  
Adjust the position of the robot to correct for any lateral misalignment. Use the edges of the Teaching Aid to align the Tool Side and Master Side.

**Step 7:**  
Record the robot coordinates from Step 6. A correction must now be made to the Axial Tool Coordinate to account for the thickness of the Tool and Master Side Teaching Aids. Only in this way can the correct "Pick-up" and "Replacement" coordinates be determined. Perform the following calculation to determine the "Pick-up" and "Replacement" location:

$$Z \text{ "Pick-up" Coordinate} = (+ Z \text{ Coordinate from Step 6}) - (50\text{mm})$$

NOTES: UNLESS OTHERWISE SPECIFIED.

DO NOT SCALE DRAWING. ALL DIMENSIONS ARE IN MILLIMETERS.



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DRAWN BY: D. Bohle 8/31/2017		TITLE	
CHECKED BY: M. Gala 9/18/2017		QC-210 TEACH3 Instruction Drawing	
PROJECT # 170828-3	SHEET 1 OF 1	SCALE 1:5	SIZE B
		DRAWING NUMBER 9230-20-8004	REVISION 01