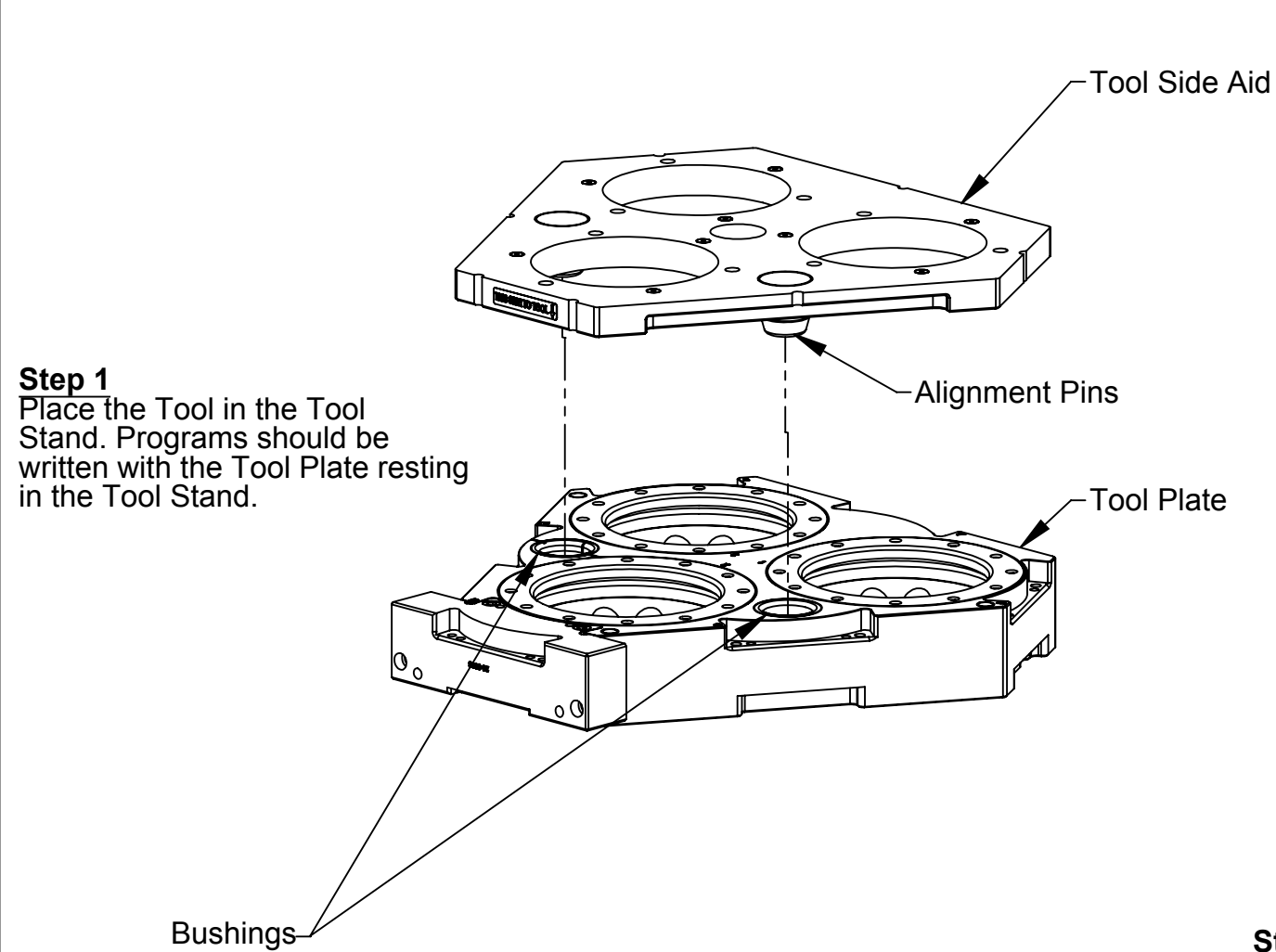
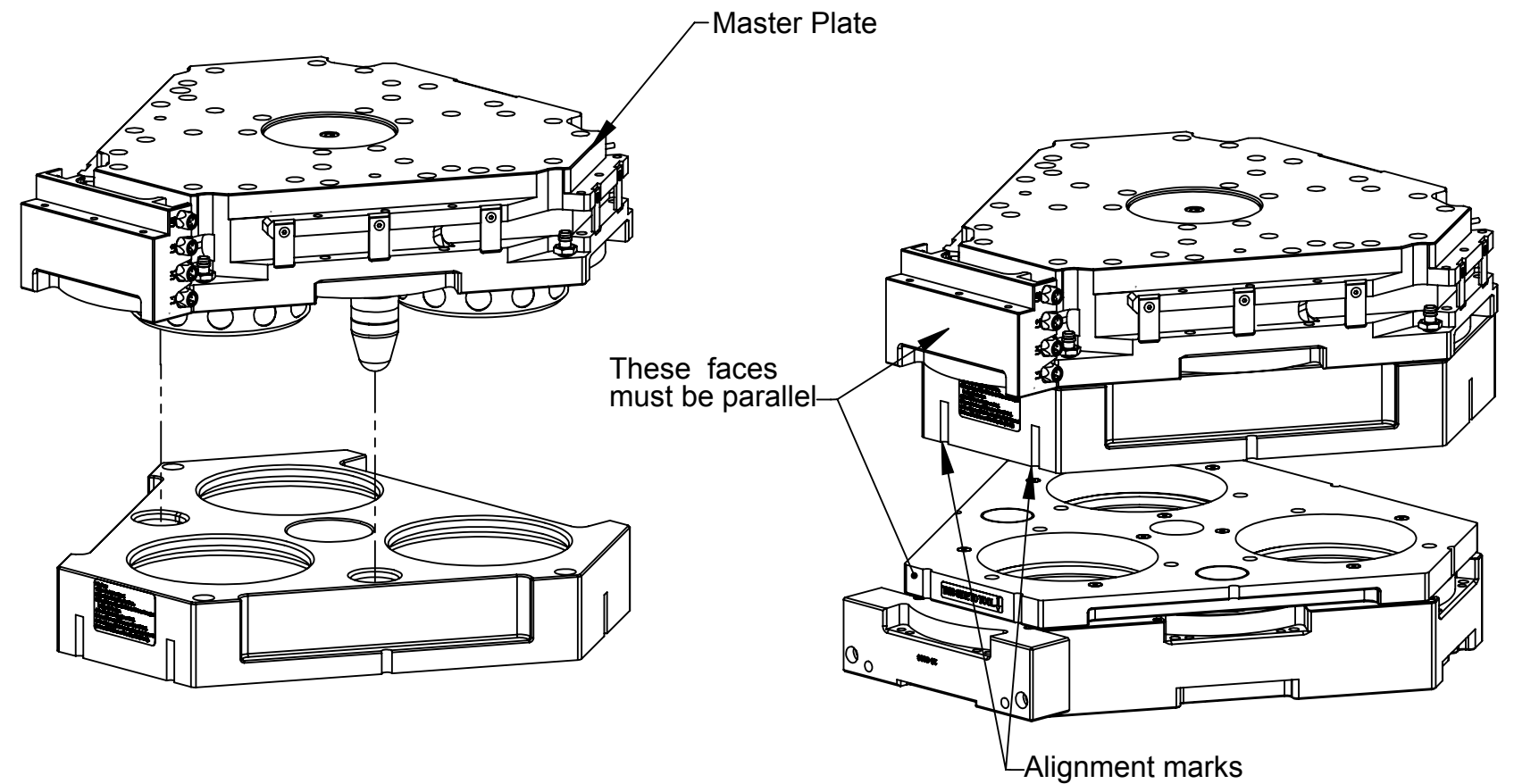


Rev.	Description	Initiator	Date
01	Initial Drawing	ERDO	1/7/2014
02	ECO 12273: Changed arrow formatting, updated 9005-20-2286.	DBoh	6/20/2014



Step 2:
Mount the Tool Side aid over the Tool Plate by inserting the Locating Pins into the Bushings.



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 Alignment marks correspond.

NOTES: UNLESS OTHERWISE SPECIFIED.

DO NOT SCALE DRAWING. ALL DIMENSIONS ARE IN MILLIMETERS.



3rd ANGLE PROJECTION

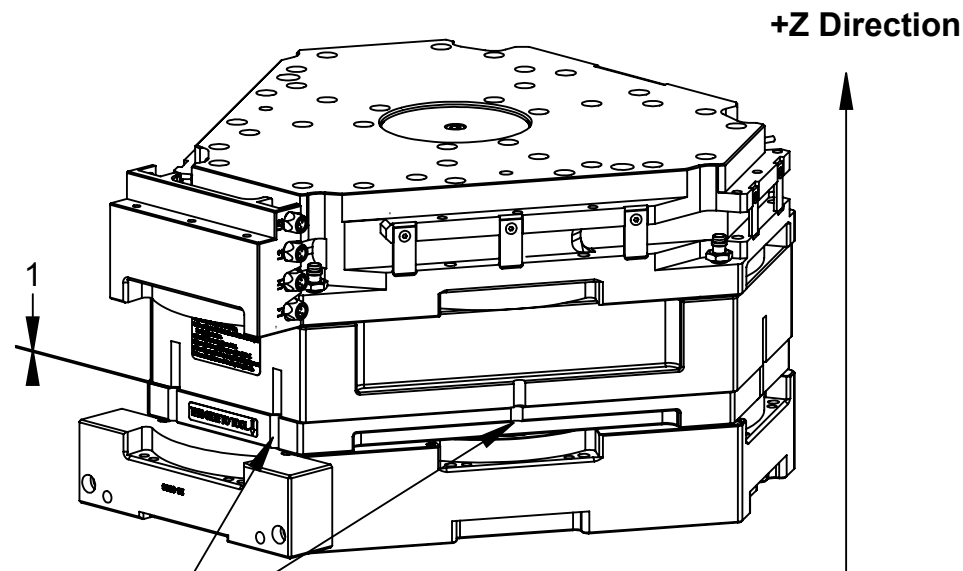
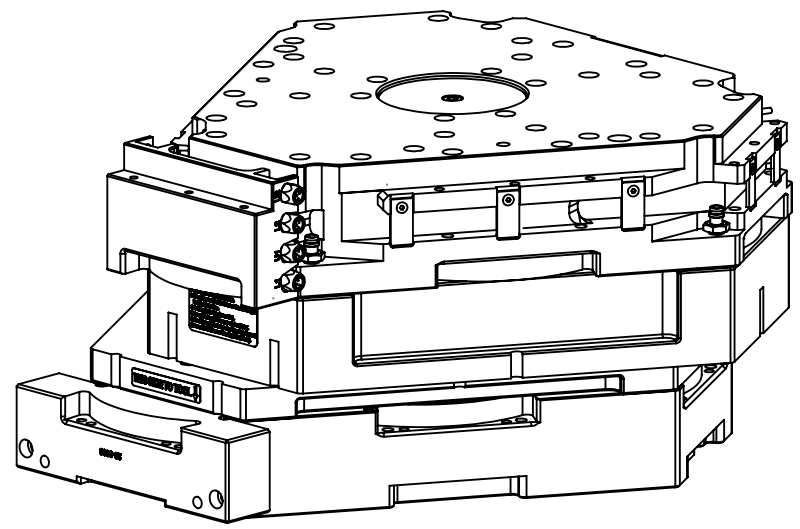


1031 Goodworth Drive, Apex, NC 27539, USA
Tel: +1.919.772.0115 Email: info@ati-ia.com
Fax: +1.919.772.8259 www.ati-ia.com
ISO 9001 Registered Company

PROPERTY OF ATI INDUSTRIAL AUTOMATION, INC. NOT TO BE REPRODUCED IN ANY MANNER EXCEPT ON ORDER OR WITH PRIOR WRITTEN AUTHORIZATION OF ATI.

DRAWN BY: E. Donkor 1/7/2014		TITLE	
CHECKED BY: D. Norton 1/16/2014		QC-1210 Alignment Teaching Aids	
PROJECT # 140103-2 SHEET 1 OF 2	SCALE 1:4	SIZE B	DRAWING NUMBER 9230-20-7701
			REVISION 02

Rev.	Description	Initiator	Date
-	See Sheet1	-	-



Ensure that the Tool Side and Master Side Alignment Marks are precisely aligned.

Step 7
Record the robot coordinates from Step 6. A correction must now be made to the Z 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:

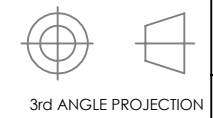
$$Z \text{ "Pick-up" Coordinate} = (Z \text{ Coordinate from Step 6}) - (70\text{mm})$$

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 Alignment Marks to align the Tool Side and Master Side Aids.

NOTES: UNLESS OTHERWISE SPECIFIED.

DO NOT SCALE DRAWING. ALL DIMENSIONS ARE IN MILLIMETERS.



1031 Goodworth Drive, Apex, NC 27539, USA
Tel: +1.919.772.0115 Email: info@ati-ia.com
Fax: +1.919.772.8259 www.ati-ia.com
ISO 9001 Registered Company

PROPERTY OF ATI INDUSTRIAL AUTOMATION, INC. NOT TO BE REPRODUCED IN ANY MANNER EXCEPT ON ORDER OR WITH PRIOR WRITTEN AUTHORIZATION OF ATI.

DRAWN BY: E. Donkor 1/7/2014		TITLE	
CHECKED BY: D. Norton 1/16/2014		QC-1210 Alignment Teaching Aids	
PROJECT #	140103-2	SHEET	OF 2
SCALE	1:3	SIZE	B
DRAWING NUMBER		REVISION	
9230-20-7701		02	