

BIW/TRUNNION SOLUTIONS

ROBOTIC WELDING
POSITIONERS



TRUNNION SOLUTIONS

SINGLE HORIZONTAL AXIS - FREE STANDING

STANDARD FEATURES:

- High Precision, low-backlash, "Planetary Plus" gearbox with hollow shaft
- WEISS installed and tested servo motor or interface kit for your preferred motor
- CW, CCW, and oscillating rotation
- Tailstock support with high radial load flange bearing, hollow shaft
- Integrated homing pin
- Overall height and span are customizable



TH185 HORIZONTAL AXIS TRUNNION APPLICATION EXAMPLES

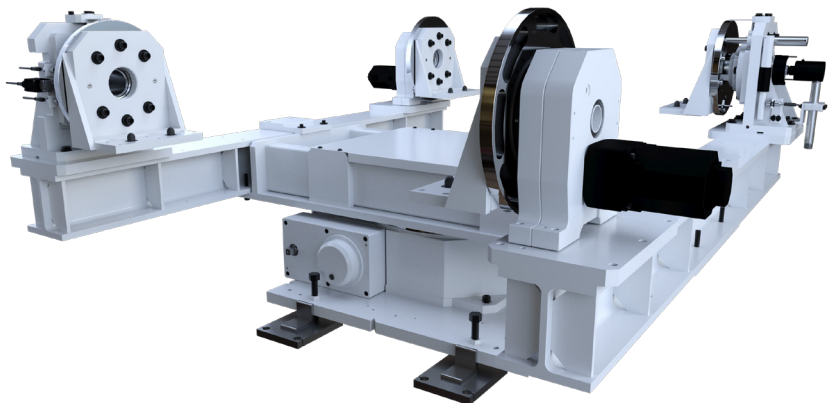
Customer Payload (kg)	Span (mm)	Inertia (kgm ²)	Time for 90° Move	E-stop Time
500	2,500	55	1.35	0.2
1,200	3,000	200	1.35	0.3
2,000	4,000	350	1.50	0.4

The payload, span and inertia values include the part and tooling mounted between the headstock and tailstock. COG of tooling and part is located on rotation axis and centered between headstock and tailstock. Above examples are for 3000 RPM motor, 10 Nm motor torque and 20 Nm E-stop torque.

3 AXIS - H-FRAME

STANDARD FEATURES:

- CR Series heavy duty freely programmable rotary indexing table used for vertical axis
- H-frame with a robust steel weldment
- Overall length and width are customizable
- Headstock and tailstock are same as above
- Quick E-stop times



VERTICAL AXIS TRUNNION APPLICATION EXAMPLES

Model	Customer Payload Per Side (kg)	Total Load (kg)	Inertia (kgm ²)	Time for 180° Move	E-stop Time
CR700S	500	3,000	4,000	3.5	0.5
	800	3,600	5,000	4.1	0.5
CR900S	1,200	5,200	9,500	4.1	0.5
	2,000	7,000	15,000	5.5	0.5

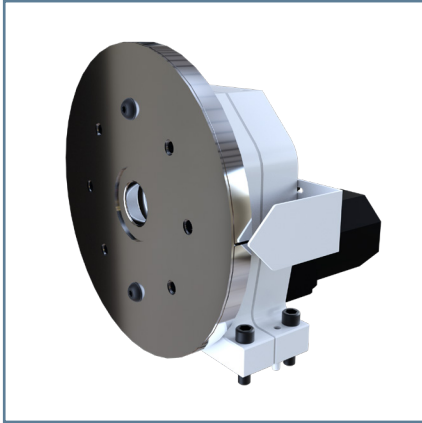
The total load and inertia include everything mounted to the vertical axis rotary table.

TRUNNION EXAMPLES AND OPTIONS

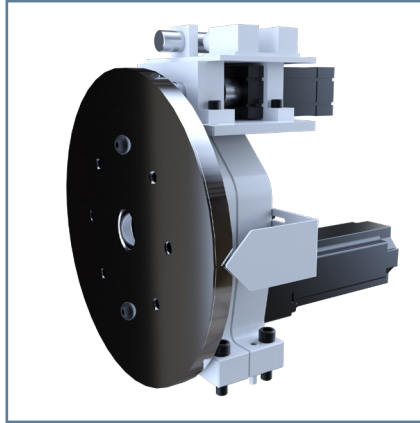
BENEFITS/VALUES

Additional features available to aid in positioning, locking, assembling equipment between headstock and tailstock. Our WEISS engineering team is ready to work with you on any application-specific customization required.

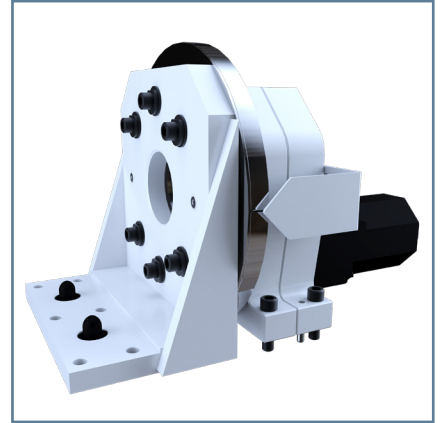
**STANDARD
HEADSTOCK**



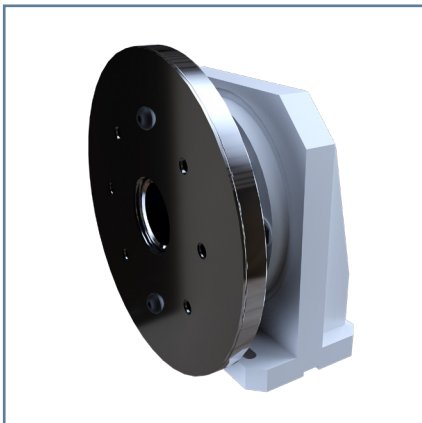
**HEADSTOCK WITH LOCKOUT
PIN OPTION**



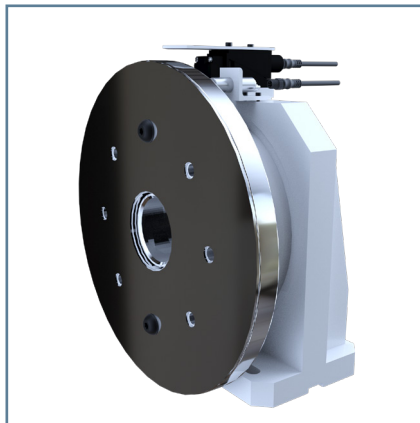
**HEADSTOCK AND TAILSTOCK
SHELF MOUNT OPTION**



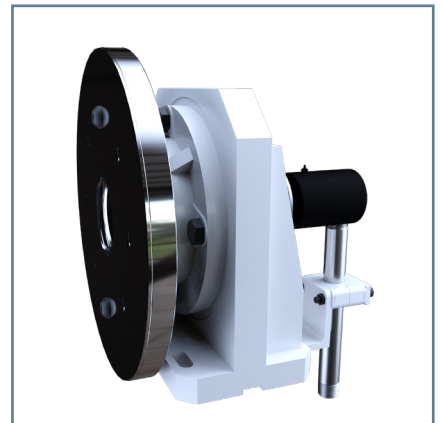
**STANDARD
TAILSTOCK**



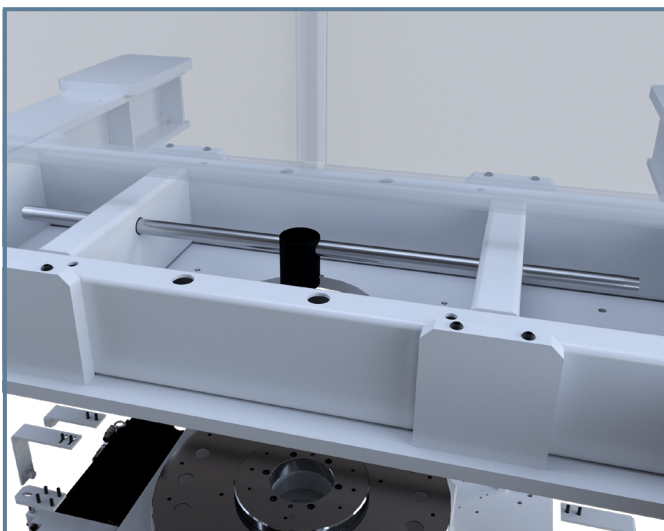
**TAILSTOCK
SWITCH KIT OPTION**



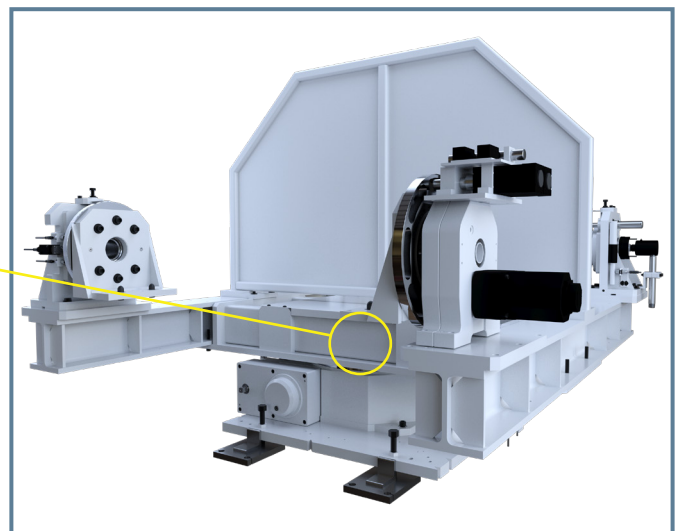
**TAILSTOCK ROTARY
AIR UNION OPTION**



**H-FRAME W/OPTIONAL ROTARY UNION
(INCLUDES PIPING TO END FOR EASY CONNECTION)**



**H-FRAME WITH OPTIONAL
WELD SPLASH GUARD/FLYSWATTER**

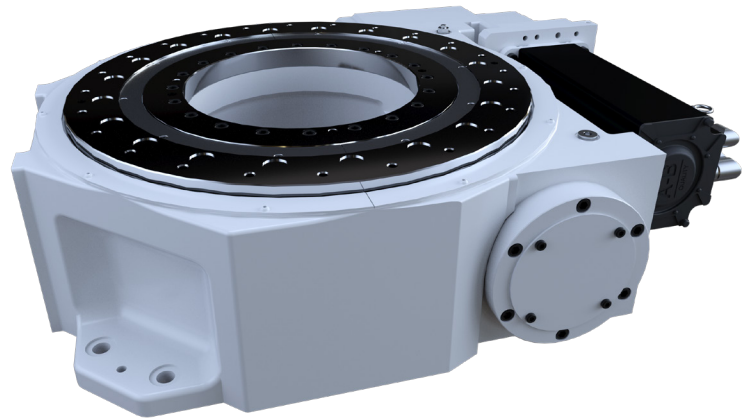


BIW SOLUTIONS

SINGLE VERTICAL AXIS

CR INDEX TABLE STANDARD FEATURES:

- Requires 15% less floor space per standard cell
- Fastest index times in the industry
 - More work time per station
- Fastest E-stop time in the industry
 - Shorter walk time for operator optimizing weld time
- Integrated homing pin for easy table set up
- Large open center for cable management
- Low profile table
- No shot pin required for repeatability



BIW INDEX TABLE & PANEL DETAILS:

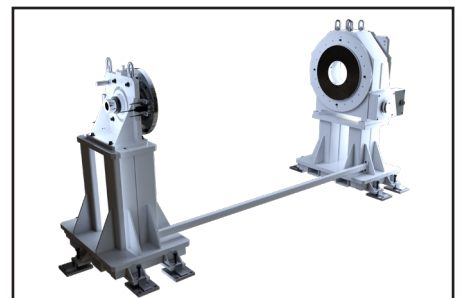
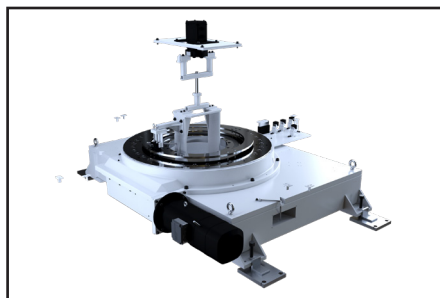
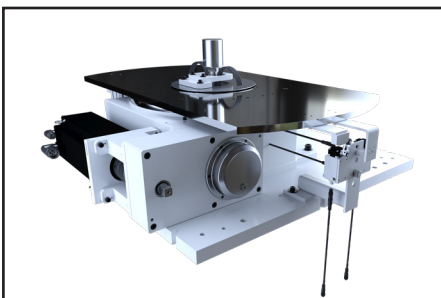
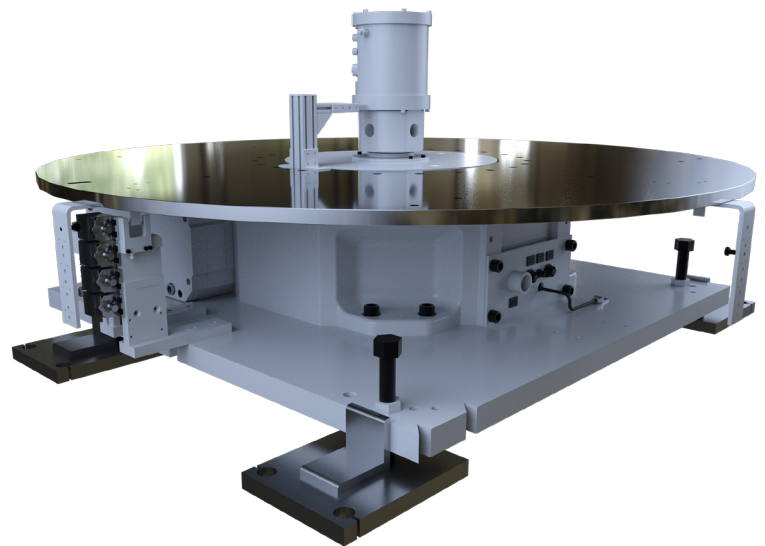
- Pre-programmed standard panels
- Standard panels can be used with multiple Weiss servo tables
- Properly sized DB resistor
- Programmed point to point
- Both Allen Bradley and Siemens packages available
- Repeatable to +/- 250 encoder counts

BIW PANEL AND INDEXER VALIDATIONS:

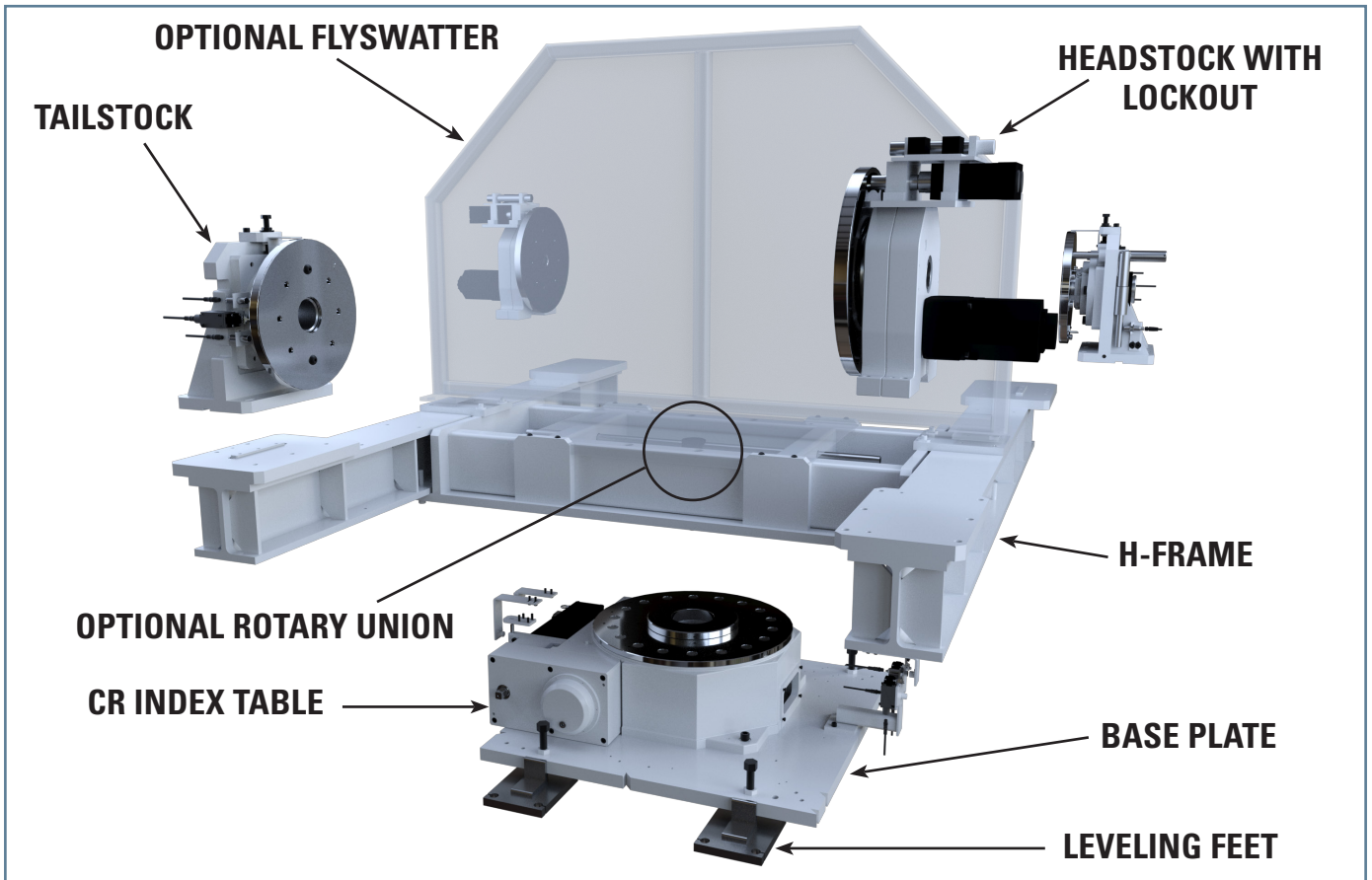
- Motors pre-tuned to drive prior to shipment
- Drive is pre-loaded with motor data and tested
- On site Validations of the system available upon request
 - Verify proper index time/e-stop time prior to shipment from builder

WEISS BIW PACKAGES:

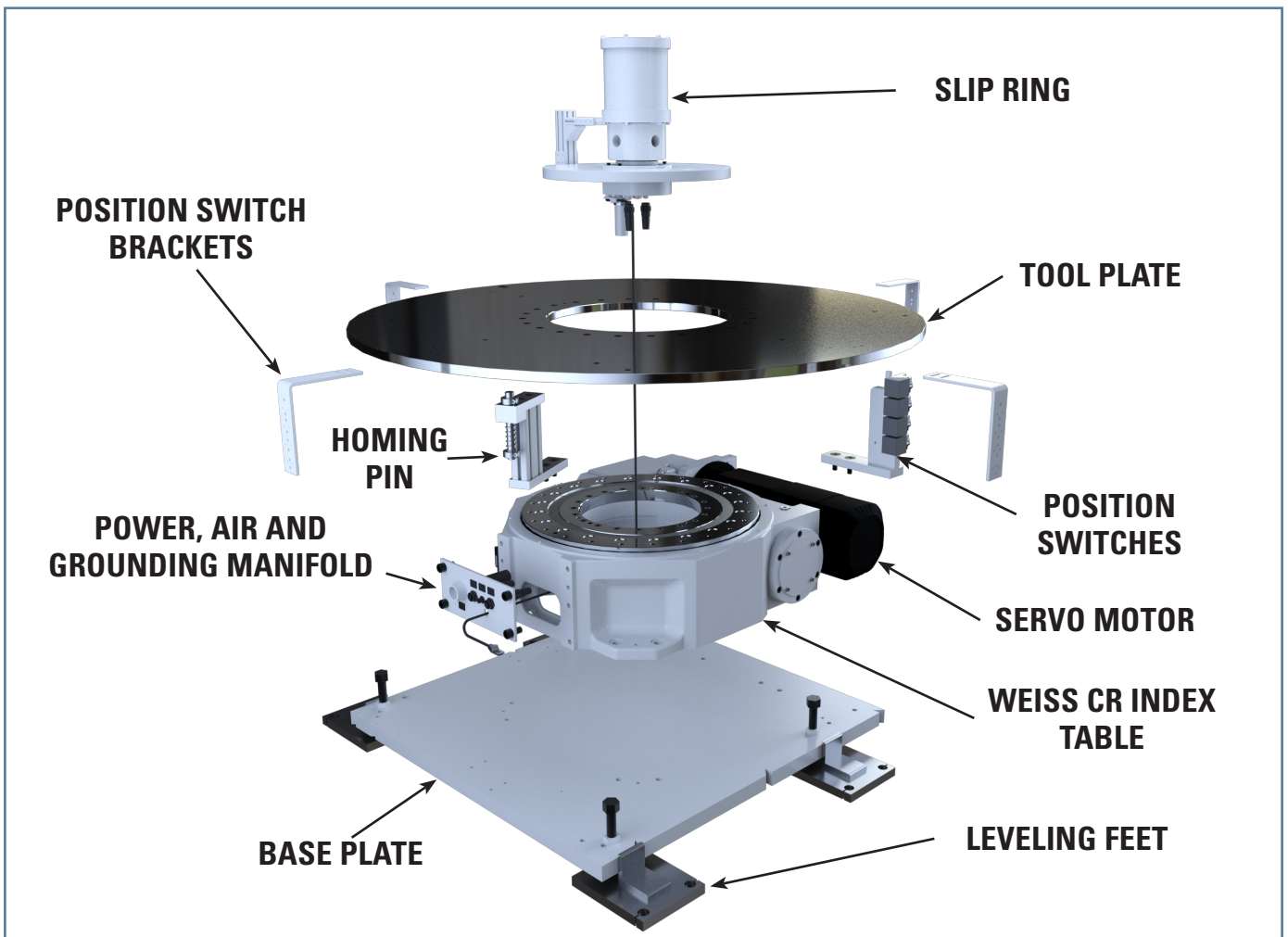
- In position and over travel switches available
- Pre-designed cable management for air, power, communication and grounding cables
- Weiss slip ring available pre-wired to a manifold for convenient assembly
- Common base plate with certified leveling feet and anchors
- Top plate available with switches and brackets installed
- Complete system set up and run point to point for easy integration



EXPLODED H-FRAME ASSEMBLY



EXPLODED BIW 4-STATION ASSEMBLY





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