



AGI

Screw Tightening and Assembly Capabilities





Manual Tabletop Screw Tightening Assembly Station

AGI can Design and Build a Low Cost Closed Loop Torque Controlled Screw Tightening and Assembly Solution for your Assembly Applications where Cost and Space are Limited, but Accuracy and Quality is Expected. AGI Offers Manual Screw Systems that Include:

- ASG-SD2500 Transducerized Closed Loop Torque Controlled Driver and X-PAQ Controller
- Linear Torque Arm and Tool Balancer
- Dedicated Machined Nest for Part Assembly
- Hinged Lid with Screw Guides to Protect your Product from Damage.
- Hinged Lid with Integrated Sensor and Locking Latch verify Batch Complete and Good Run Downs.
- Click Series PLC Control and Power Supply Integrated with the X-PAQ and fixture
- Small NEMA Enclosure for System Controls
- Integrated Red/Green Light with Audible Alarm
- Compact System for Limited Work Surface



Cost Range: \$10k-\$30K



Semi-Automated Screw Tightening Assembly Station

Semi-Automated Screw Machines are Ideal for Medium to High Volume Applications. The Closed Loop Torque Controlled System Validates the Manufacturing Process Requirements Prior to Releasing the Part to the Operator. Integrated Barcode Scanner Provides Traceability and Data Export to Plant MES Networks.

- ASG-SD2500 Transducerized Closed Loop Torque Controlled Driver and X-PAQ Controller
- ASG Auto Feed Screw System, with Dual Vibratory Low Noise Feeder Bowls
- Linear Torque Arm and Tool Balancer
- Proface HMI for Operator Interface which Includes UUT Recipe Editor and Maintenance Screens
- Integrated Barcode Scanner for Data Logging Torque Values and Serial Numbers to your MES System
- Design Files and Software Programs are Included in the Deliverables. AGI's Experienced Controls Engineers with preferred PLC's: Allen Bradley, Omron, Mitsubishi





Semi-Automated Screw Tightening Assembly Station cont.

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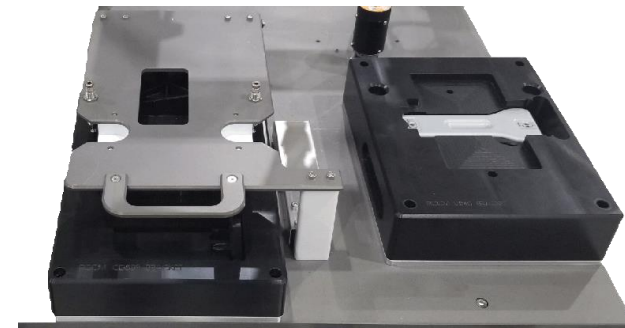
Integrating an X-PAQ with a Premium Torque Arm with Absolute Encoders Provides Feedback to Disable or Enable the Handheld Tool Based Upon Preprogrammed Characteristics for Proper Fastener Sequence

Complete Error-Proofing

- Ensures Correct Fastener Sequencing
- Accurate and Repeatable Torque
- Maintains Tool Alignment with Fasteners
- Increases Quality
- Reduce or Eliminate Rework

Intuitive and User Friendly HMI

- Visual Sequence Guide Using CAD Drawings or Assembly Photos
- Stores up to 500 Assembly Sequences
- Digital I/O Allows Interfacing with Controllers and Onboard System PLC



- Quick Change Tooling
- Designed with Poka-yokes for Anti Reversal
- Screw Guides to protect products from damage.
- Part Profile Mistake-proofing to Prevent Mis-Loading Parts

Cost Range: \$50k-\$150K



Automated Robotic Screw System

For High Volume, Speed and Precision Applications AGI Develops Turnkey Automated Screw Systems that are Modular and Expandable. Features Include:

- ASG-SD2500 Driver and X-PAQ Controller
- Visumatic VPM Screw Feed Module with Low Noise Vibratory Bowl Feeder on Drawer Slide for Easy Access
- Dual Axis IAI Linear Actuators with Absolute Encoder for Precision UUT Position
- Keyence Standup Light Curtain for Open Access for Load and Unload
- Keyence GT-2 High-Accuracy Digital Contact Sensor for Screw Height Verification
- Integrated Barcode Scanner for Logging Torque and Assembly Data
- Quick Change Tooling for Modular Fixtures, with Hypertronic and SMC quick change connections
- Proface HMI and Biometric Scanner for Operation and Failed UUT Displacement
- Rugged Welded and 80/20 Frame



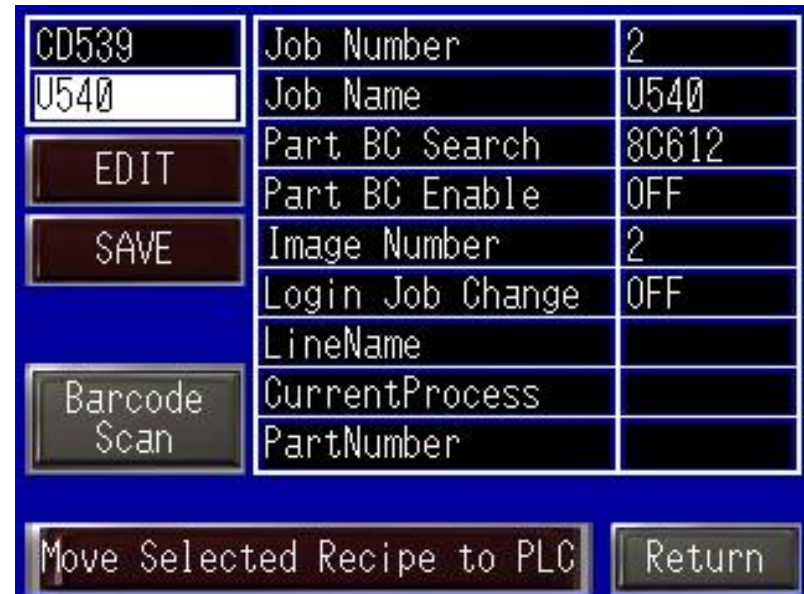
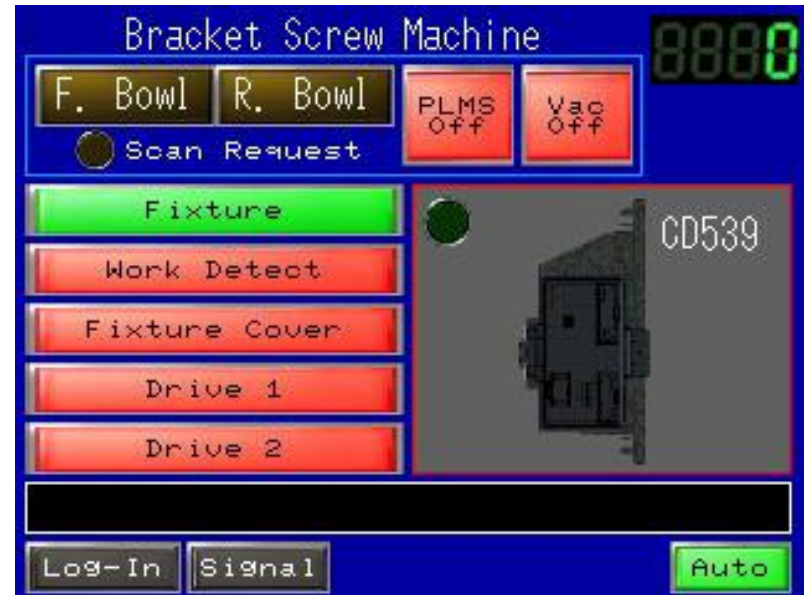
[Click Here Video 4 2 21 1 - YouTube](#)



Automated Robotic Screw System cont.

Our Intuitive Menu Driven Software Allows our Customers to Change, Customize and Maintain the System without External Software or other Devices. Examples:

- Straightforward Screens are Simple to Follow and Understand
- Assembly Recipe Editor Allows you to Create or Modify Existing Assemblies
- Adjustable Limits for Pass/Fail Requirements
- I/O Maintenance Screen to Verify or Debug Peripheral Equipment



Cost Range: \$100k-\$200K



**AGI has the Resources and Experience to Provide a
Trouble Free Solution for your Manufacturing Needs**

Thank You!

www.AGInc.com

