

## Integrated Assembly Nutrunner

Introducing Coretec Integrated Assembly Nutrunners: Designed for those who demand precision, speed, and control, these systems come fully equipped with advanced torque and angle feedback, comprehensive signature analysis, and seamless data collection, all wrapped in an easy-to-use, cost-effective solution.



## Control, Precision & Reliability

### At A Cost That Has The Competition Nervous

In the fast-paced world of manufacturing automation, success hinges on three critical aspects: Speed, Control, and Cost. With a solid track record of over 1000 Nutrunner installations across North America, Coretec has established itself as a go-to source for cutting-edge automated fastening technologies.

***Detects cross-threading ensures spec compliance, and pinpoints yield points with precision.***

The evolution of manufacturing demands precision in torque and angle control far beyond the old practice of tightening to a preset maximum torque. It's about implementing a smarter, more calculated approach to ensure each fastening action meets today's high-quality standards.

## Why choose Coretec Nutrunner?

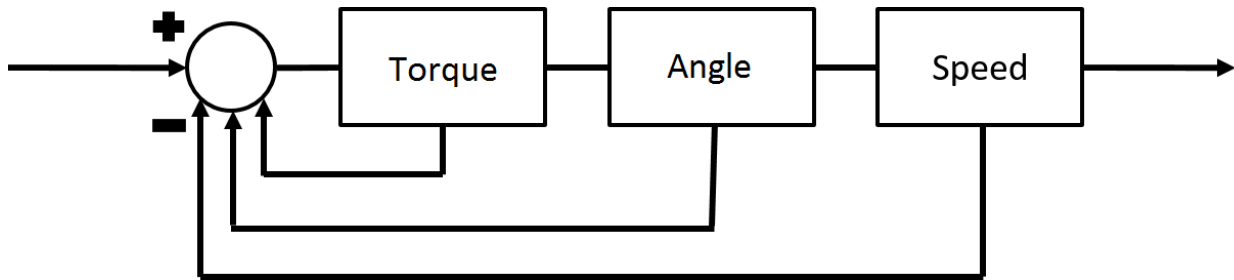
Coretec sets a new standard for reliability, marrying productivity with precision. By employing an integrated approach that adjusts torque for the specific yield point of each bolt, Coretec Nutrunners ensure optimized fastening strength and longevity.

***It's time to take control of your assembly process.  
Simply monitoring is not enough.***

Coretec Electric Nut Runners are powered by electromagnetic motors coupled with planetary gear packs and custom-designed torque sensors. Built-in encoders provide precise control based on displacement and speed, available across a wide range of Torque Ranges from 2 Nm to 255 Nm.

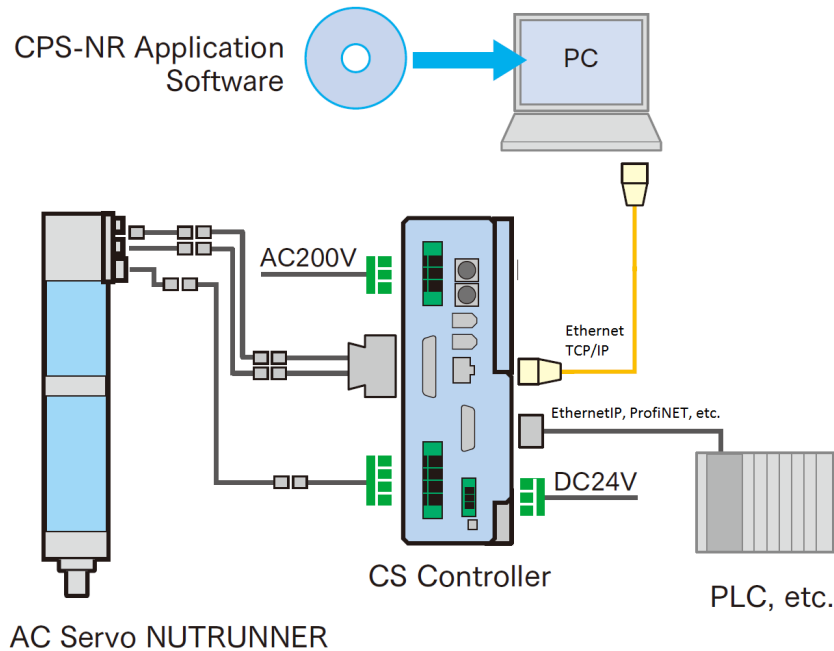


But true control in the fastening process goes beyond just displacement and speed; it requires a deep understanding of the torques involved. Coretec's system excels in fastening and monitoring torque, speed, and angle with the highest accuracy, enabling detailed signature analysis for reliable pass/fail decisions. This comprehensive approach ensures that Coretec Nutrunners not only meet but exceed the rigorous demands of modern manufacturing, offering unparalleled precision and value.



## System Overview

- Tool with Torque Sensor, Encoder
- All Interconnecting Cables
- Controller with Digital I/O, Profinet, EthernetIP, DeviceNET, etc.
- Configuration and Data Collection Software
- Optional PC for Data Collection of up to 32 Tools



## Intelligent Tool Design

Coretec's Nutrunner Tool revolutionizes integration within assembly systems. Delivered fully assembled, it eliminates the hassle of combining numerous components manually. The inclusion of an integrated amplifier and chip ensures the Controller immediately recognizes the tool, removing the need for any calibration.

***Maintain fewer parts and experience less downtime.***

Each system comes with a certified torque sensor, rigorously tested to guarantee performance right out of the box. Thanks to the tool's ID chip, recalibrations are a thing of the past, streamlining changeovers without any time lost.

Featuring Coretec's robust planetary gear pack, the Nutrunner offers consistent, durable performance across various torque ranges without altering the tool's form factor. For tailored solutions, engaging with one of our application engineers can optimize your application's performance today.

## Compact Controller Design

- One of the most compact controllers on the market measuring 65 x 230 x 196 mm
- PC independent Control and Evaluation
  - PC is for Data Collection *ONLY*
- “Knows” which Servo Press Tool is connected
- Power Requirements
  - 220 VAC for motor
  - 24 VDC supply for controller
- Comprehensive PLC Interface Options
  - Digital I/O, EthernetIP, Profibus, Profinet, CC-Link DeviceNet
  - All Parameters can be read/set PLC (i.e. live load, peak force/stroke, set serial numbers, program limits, pass/fail criteria, etc)



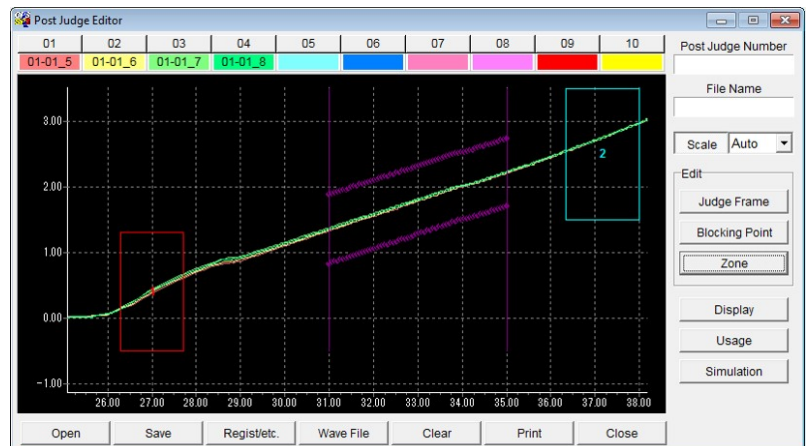
## Control & Signature Analysis

Coretec's sophisticated approach to assembly combines Torque, Angle, and Speed feedback to craft program steps that guarantee precise turn-down while detecting cross-threading and bolt yield. A master controller orchestrates this intricate dance of precision.

***Optimal monitoring and control, all within your budget.***

The intuitive Dial, Drag and Drop Interface simplifies the setup process, enabling you to:

- Set various limits, such as Peak Force and Final Stroke, along with custom definitions.
- Define up to 32 Zones for creating tolerance envelopes.
- Organize data and controls across up to 4 distinct frames (windows), enhancing visibility and manageability.



This user-friendly interface ensures that achieving high-level control and comprehensive process monitoring is accessible, efficient, and cost-effective.

## Plug and Play Data Collection

Modern manufacturing demands efficient part tracking and comprehensive data collection. Coretec simplifies this necessity with its Windows PC software, enabling instant capture of part numbers, serial numbers, and detailed numerical and graphical data from up to 32 presses with just a single click.

The system seamlessly supports all standard communication protocols, including ProfiNET, EthernetIP, DeviceNET, etc., and offers standard digital I/O for easy integration.

*Part tracking is essential; so let's make it simple.*

