

## Integrated Nutrunner System for Assembly

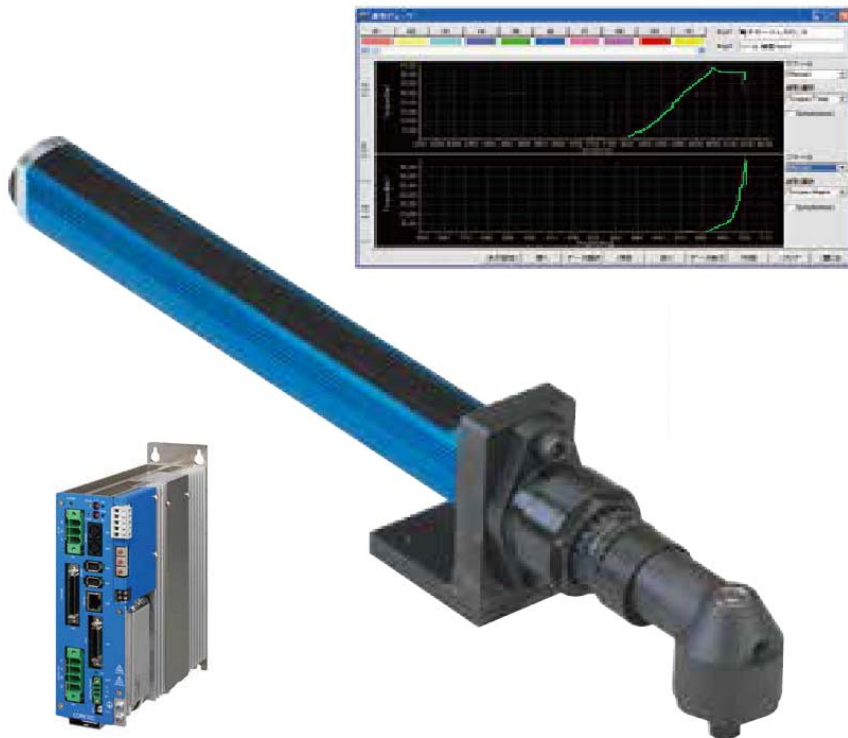
Coretec Nutrunners are durable, integrated fastening systems, with torque & angle feedback, signature analysis & data collection. Looking for a superior tightening speed & control, in a simple to program, cost effective package? You've found it.

### *Control, Precision & Reliability At A Cost That Has The Competition Nervous*

In manufacturing automation there are three keys to better processes: Speed, Control and Cost. With over 1000 nutrunner installations in North America, Coretec has long been a trusted name in automated fastening systems.

*A turn key solution that detects cross threads, meet specs and yield points for multiple tools.*

The process of screw driving, nut fastening or in general applying torque, requires torque and angle control. In today's manufacturing environment, process control is paramount. It is no longer good enough to blindly tighten to a max torque!



## What Makes A Coretec Nutrunner Different?



We achieve maximum reliability without sacrificing productivity, by tightening with an integrated tool that torques to where each individual bolt yields.

Coretec is pioneer in a well established industry, providing the control and monitoring capabilities needed to increase efficiency, at a cost that demonstrates our commitment to providing precision and value.

*It's time to take control of your assembly process.*

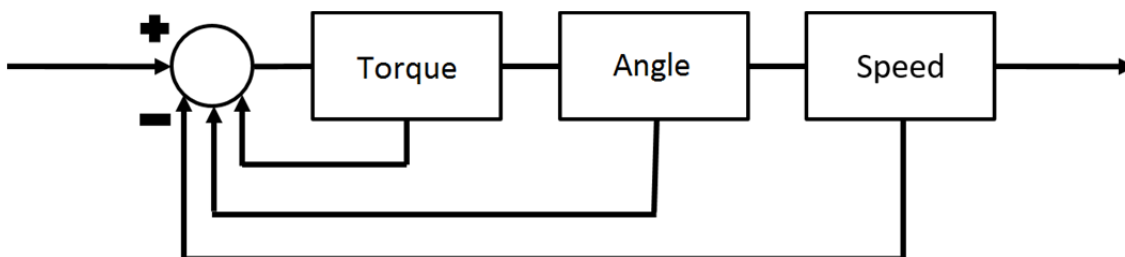
*Simply monitoring is not enough.*

Electric Nut Runners feature an electromagnetic motor coupled to a planetary gear pack, then through a custom designed torque sensor. Virtually all electric motors have built in encoders, allowing them to control based on displacement and speed.

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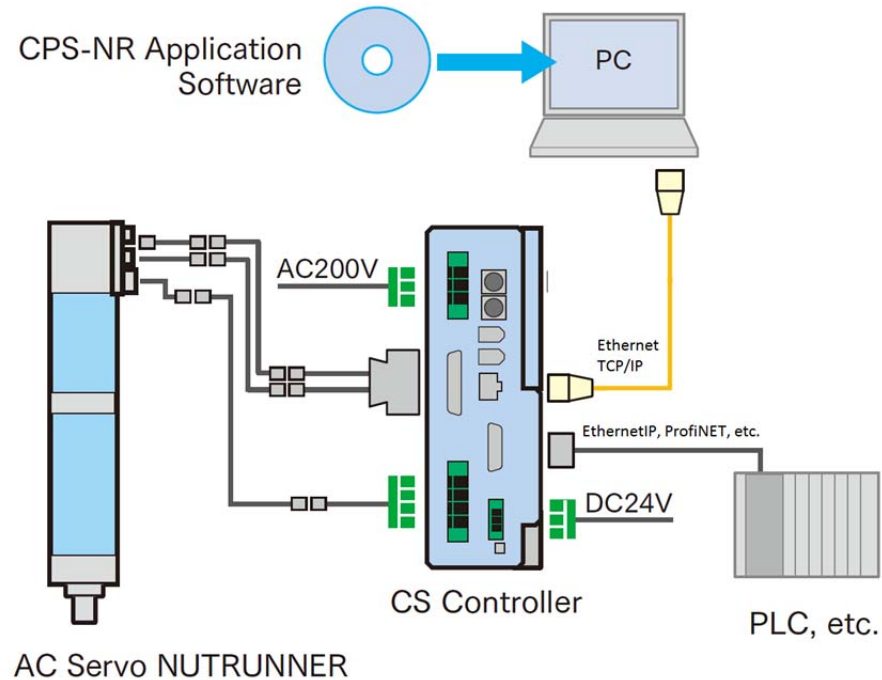
However, controlling only on displacement and speed is missing half of the equation for controlling press processes, we need to know the torques associated with these processes. To goal is to fasten and monitor torque, speed and angle in order to accurately judge the signature and decide pass/fail.

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## 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

Our Nutrunner Tool is supplied as part of an integrated system. It arrives already assembled, so there's no need to piece a whole bunch of parts together. We've also integrated the amplifier and chip so the Controller knows what Tool is connected and there is no calibration needed.

### *Maintain Less Parts and Have Less Down Time*

The system is delivered with a certified torque sensor, which has been thoroughly tested after being built. The tool has an ID chip, so there's no calibrations needed, and no loss time during changeover.

Coretec's planetary gear pack delivers reliable performance and durability, allowing for multiple torque ranges for the same form factor. Talk with an application engineer about your application today!

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## Compact Controller Design



- One of the most compact controllers on the market measurement 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)
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## Control & Signature Analysis

Torque, Angle & Speed feedback allows for program steps that ensure proper turn down, with the ability to detect for cross threading & bolt yield. A master controller

*Superior control and 100% process monitoring doesn't have to break the budget.*



Dial in, Drag and Drop Interface allows you to:

- Limits (e.g. Peak Force, Final Stroke, User Definable, etc.)
- Up to 32 Zones (Tolerance Envelopes)
- Up to 4 Frames (Windows)

## Plug and Play Data Collection

These says manufacturing processes require part tracking and data collection. The Windows PC software takes the part numbers, serial numbers, numerical and graphical data from up to 32 presses, with just the click of a button..

All of the standard communication protocols including ProfiNET, EthernetIP, DeviceNET, etc.) are available, as well as standard digital I/O.

*Part Tracking is here to stay, it might as well be easy!*

