

AFC3000 APPLICATIONS

FULLY AUTOMATIC FASTENING



Fully automatic multi-spindle fastening systems can be configured for fixed or flexible spindle requirements. The use of our various fieldbus interfaces reduces field wiring to the station PLC while providing easy integration into the assembly line. A variety of data collection options are available.

SEMI-AUTOMATIC FASTENING

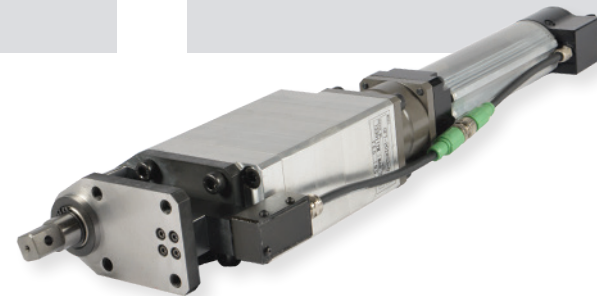


Semi-automatic fastening allows manual loading and unloading of parts while the assembly operation is completed automatically. One master controller provides total sequencing function internally to the fastening systems for up to 32 spindles. The need for time consuming and complicated PLC programming to sequence the spindles is eliminated.

MANUALLY OPERATED FASTENING



Manually operated single or multi-spindle fastening systems, which can be suspended from Ergo Arms or spring balancers, are able to be configured for fixed or flexible spindle requirements. Spindle positioning can be done automatically or manually.



WIDE VARIETY OF MANUFACTURING INDUSTRY USES

For use in all manufacturing/assembly industries requiring high speed precise fastening, high repeatability, robust durability and low/no maintenance all in a small package. "Set it and forget it."

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CERTIFIED ISO 9001

FEC's ever improving and expanding product line currently offers:



The key to the excellent reputation we've earned with our extended customer base is the expertise of our engineering and manufacturing staff in the design and production of our assembly systems. Additionally, the service-oriented nature of our operation ensures support from initial equipment concept through installation and beyond.



AFC3000

FIXTURED MULTI-SPINDLE ELECTRIC NUTRUNNER "THE NEXT GENERATION"



FEC
AUTOMATION SYSTEMS

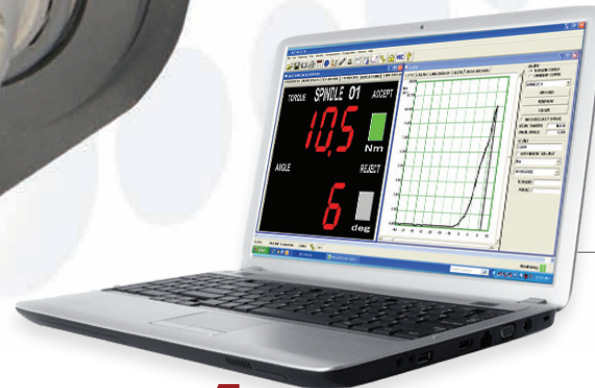
AFC3000

FASTENING EVOLUTION FOR AN EVER-CHANGING ASSEMBLY WORLD

POWERFUL, STATE-OF-THE-ART FASTENING SOLUTIONS

EVOLUTION IN FASTENING TECHNOLOGY

Evolved from over 30 years of electric fastening experience, FEC's latest system, the AFC3000, provides our smallest and fastest tools to date. Additionally, the marriage of the multi controller function into each spindle controller eliminates the need for a "Multi Unit" and allows the flexibility of each controller to be setup as a "Master" or "Slave". All that power in a smaller package.



FASTENING INTO THE NEXT GENERATION.

SIZE, SPEED AND PERFORMANCE ARE DRIVING THE FUTURE OF FASTENING TECHNOLOGY TODAY

TOOLS

STRAIGHT & OFFSET TOOLS

Our smallest, fastest and lightest tools yet! Available in straight and offset configuration, with sizes from 10-300Nm in CFT model, 300+ Nm in the NFT model and now the 0.8 Nm & 2.4Nm Micro-Nutrunner (MFT) tools!



CONTROLLERS

Three controller models cover the full range of tool sizes. As a result of circuit miniaturization reducing the overall size, the back panel mounted controllers save valuable plant floor space and safely allow all electrical connections to be contained within the electrical enclosure.

CONTROLLER OPTIONS

- Field bus interface modules
- Compact flash and RS-232 input and output module

AFC3000 USER CONSOLE SOFTWARE

Software is a Windows® based programming interface that allows users to :

- Communicate/program and monitor up to 32 spindles at the same time
- Read/write/edit and check operational parameters
- Display/save and print resultant data
- Monitor and setup I/O & fastening data output

1 PRODUCTIVITY

- High speed, single cable tools up to 3000rpm allow reduced cycle time for robot or flexing applications
- "On the Fly" parameter selection allows multiple models to be run using different target torque/angle set points
- Internally controlled spindle sequencing provides fast and simple setup for complicated spindle sequencing and reject retry strategies

2 FLEXIBILITY

- Embedded multi-function into single unit - configurable as Master or Slave unit
- "No Cost" AFC3000 software allows easy setup/monitoring
- Up to 32 selectable sequences/parameters
- Fieldbus interfaces available for I/O connection and data messaging (Ethernet I/P, Devicenet, Profibus, CC Link, etc.)

3 ACCURACY

- Permanent magnet motor/resolver provides accurate control of both torque and angle
- Optional Overshoot Damper (Pat. Pend.) reduces overshoot in high speed applications
- Intelligent Tool ID ensures proper tool and accuracy

4 ENVIRONMENTALLY FRIENDLY

- Reduces energy, noise, heat, space requirements and maintenance over non electric systems
- Low energy consumption due to digital motor control
- Small, compact size saves plant floor space and is less weight

AVAILABLE SPINDLE ASSEMBLIES

Spindle assemblies come standard with two inches of stroke allowing for socket travel during fastening rundown.

