



# Error-Proofing Qualifier



**Toyota Way Principle #5**  
*"Build into your equipment the capability of detecting problems and stopping itself. Develop a visual system to alert team that a machine or process needs assistance. Jidoka (machines with human intelligence) is the foundation for "building in" quality.*

The **ePro Q** Process Qualifier will provide your operators with true POKE-YOKE error-proofing and batch counting of fasteners.

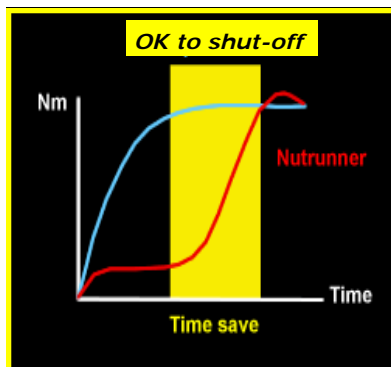
Three software codes are available for use with:

- Shut-off tools (screwdrivers, pulse tools, nutrunners)
- Stall tools (swing bar, stall bar, nutrunners)
- Non shut-off PULSE TOOLS
- Push-to-start screwdrivers
- Pop rivet guns
- RivNut thread inserts

**"Q42"** code is used for "poke-yoke" error proofing with all shut-off tools. The "Q" will learn the air flow signature of the tool when performing a proper fastening cycle during the short set-up program and will compare each time the tool is operated against this "signature." Only full cycles that complete with the tool shutting off will be accepted. Torque accuracy is dependent upon the capability of the power tool selected for the application.

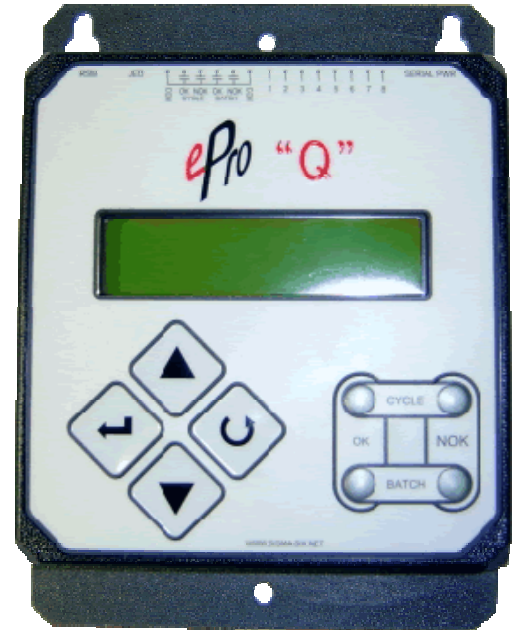
**"Q41"** software is perfect for gear driven stall tools. By monitoring the flow signature of the tool as it comes to stall and shuts-off the tool just before it stops. This insures accuracy and repeatability. Torque reaction is also shortened and much safer.

**"Q39"** code is for non-shutoff pulse tools or impacts. When used with a solenoid shutoff valve (referred to as "QC option"), the "QC" will shut-off the tool when



the target torque has been achieved. Accuracy of +/- 10% is easily achieved with standard pulse tools.

With "Q", **GREEN** / **RED** lights at the air inlet of the tool signals the operator at the end of the cycle.



## "Q" will:

- Learn it's set-up; no PC needed
- **GREEN** light signal "OK" to the operator
- Reject REHITS, slip-offs and early throttle release with **RED** lights to the operator
- Turn non shut-off tools into controlled shut-off
- COUNT only "GOOD" cycles with full POKE-YOKE
- Tie-in to PLC and common networks (EtherNET option)

## "Q" will not:

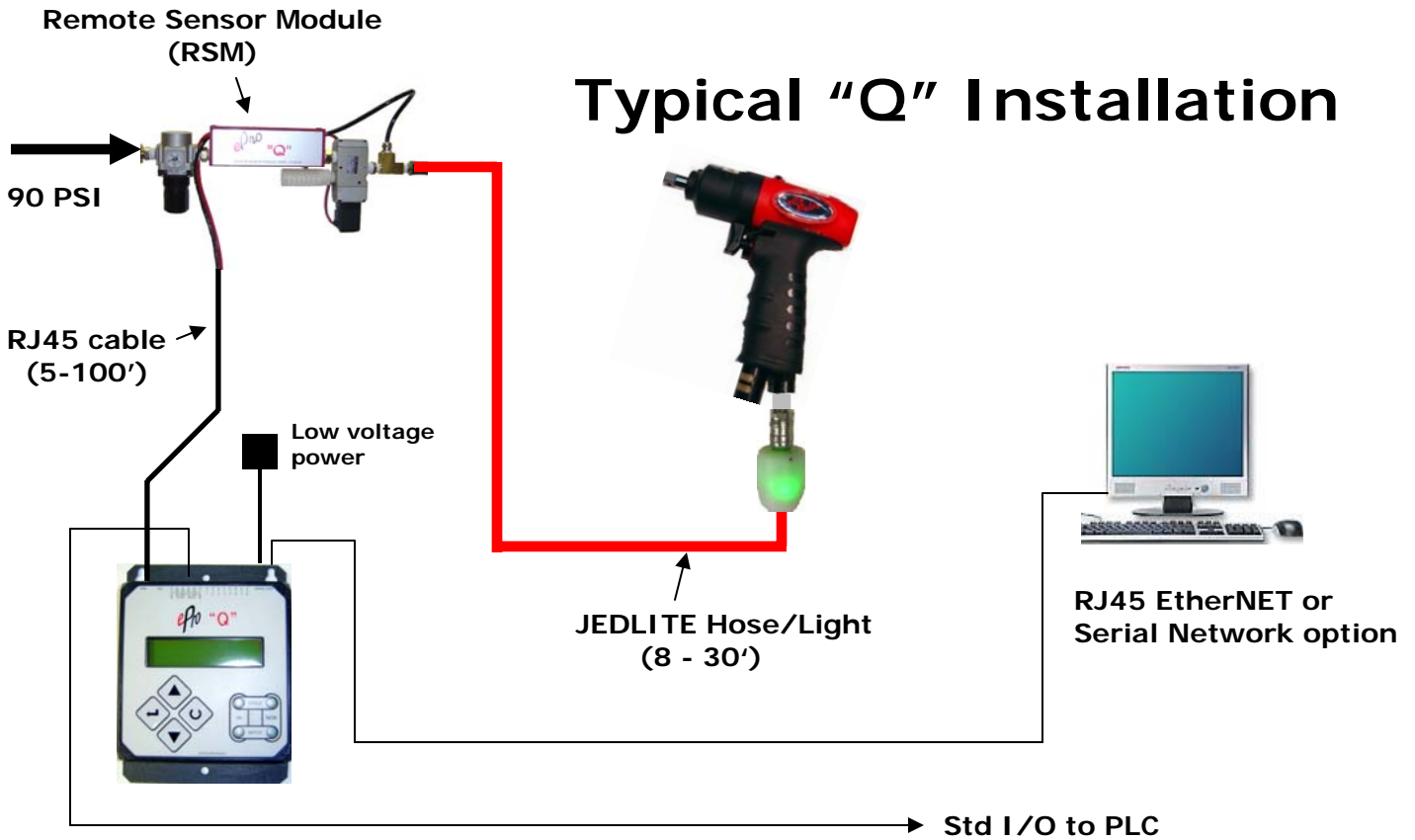
- Require a tube—**EVER** !



**"Q" = Total Process Control**



## Typical "Q" Installation



***ePro Q is compatible with all brands of pneumatic shutoff & non-shutoff tools.***

The "Q" takes a series of mass air flow measurements during set-up and turns the data into a run-down signature to detect OK vs. NOK fastening cycles.

