

intelligent Fluorescent Penetrant Inspection (iFPI) Systems



REL 9-station intelligent Fluorescent Penetrant Inspection System
Hydrophilic Post-emulsifiable (Type 1, Method D)



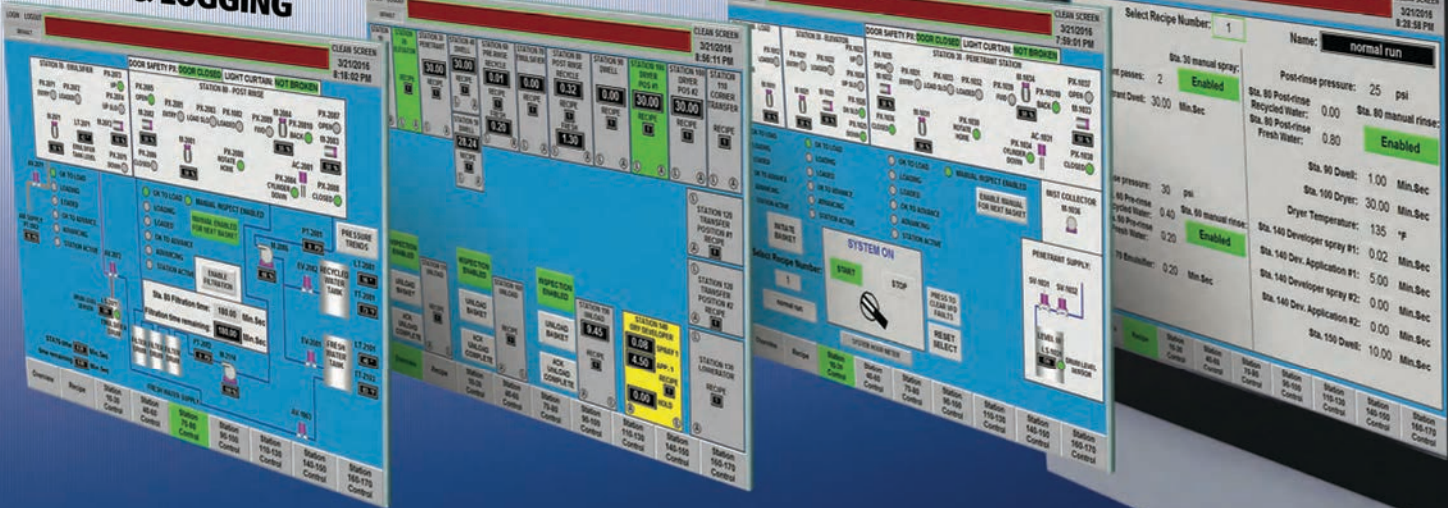
SMART HMI
ROBUST iFPI

PROCESS VARIABLE
DISPLAY & LOGGING

LINE STATUS

SYSTEM INITIATE

RECIPE
SCREEN



MADE IN
THE U.S.A.

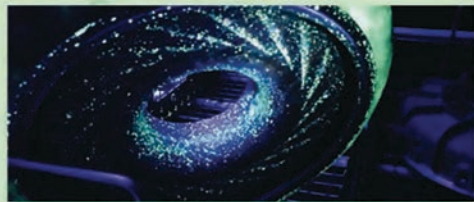
INTELLIGENT PROCESS CONTROL
FROM TOUCH TO GLO

PRECISION NDT EQUIPMENT FOR CRITICAL MRO

EFFICIENT

- ✓ Electrostatic penetrant spray uses 90% less penetrant than immersion dipping
- ✓ Process control reduces water usage, chemical consumption and disposal costs
- ✓ Automated systems increase throughput and reduces manpower and maintenance
- ✓ Greater processing efficiencies lower material and utility costs

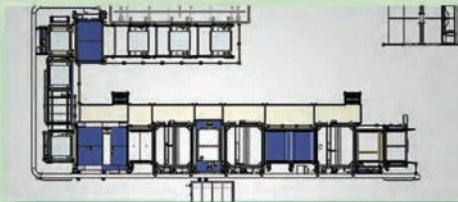
REL's ultra-efficient NDT systems can be engineered for use with specific types of penetrants, developers and removal methods



FLEXIBLE

- ✓ REL's FPI systems are modular in design to maximize plant floor space usage
- ✓ Station layouts are adaptable to allow for large part envelopes
- ✓ Straight line, L-shaped and U-shaped layouts for diverse array of part geometries and sizes
- ✓ Full suite of add-on features and options for tailored system configurations

Modular, U-shaped Fluorescent Penetrant Inspection System with two 90° turns reduces equipment footprint



ACCURATE

- ✓ PLC with Human Machine Interface (HMI) controls processes and different recipes
- ✓ Automated processing results in consistent, reliable and dependable flaw detection
- ✓ Precisely timed wet/dwell/dry stations vastly improves throughput and part outcomes
- ✓ REL's FPI systems eliminate damage from manual processing and improve inspections

Sensors track movement of parts along the conveyor and relay positions to either HMI at the Load Station or Inspection Station



ECO-CLEAN

- ✓ REL FPI systems use dedicated tank farms to reclaim wastewater for parts processing
- ✓ Electrostatic penetrant spray reduces chemical usage (penetrant, emulsifier and developer)
- ✓ Computer controlled pre-rinse and post-rinse stations reduce water usage and cost
- ✓ REL's Near-Zero effluent filtration systems can provide low contaminant levels in wastewater

Rinsing is accomplished using a spray header that creates a curtain of water to cover hard-to-reach areas on parts



SYSTEM FLEXIBILITY

Add-Ons & Options

- Off-site software maintenance & upgrades for remote adjustments/troubleshooting
- Electrostatic dry developer application
- CO2 fire suppression systems
- Automatic emulsifier level fill
- Inspection rooms with multiple entry points
- Carbon filtration for treating in-process water and for low system effluent rates
- System carts to ease transport of parts to and from the conveyor line
- Lift assist devices for damage-free assisted part handling
- Return conveyor to bring empty part carriers back to the load station
- Complete integration of robots for part loading and unloading
- AGV - Unmanned vehicle integration for moving parts to and from the line

MARKETS SERVED

DEFENSE



AEROSPACE



AUTOMOTIVE



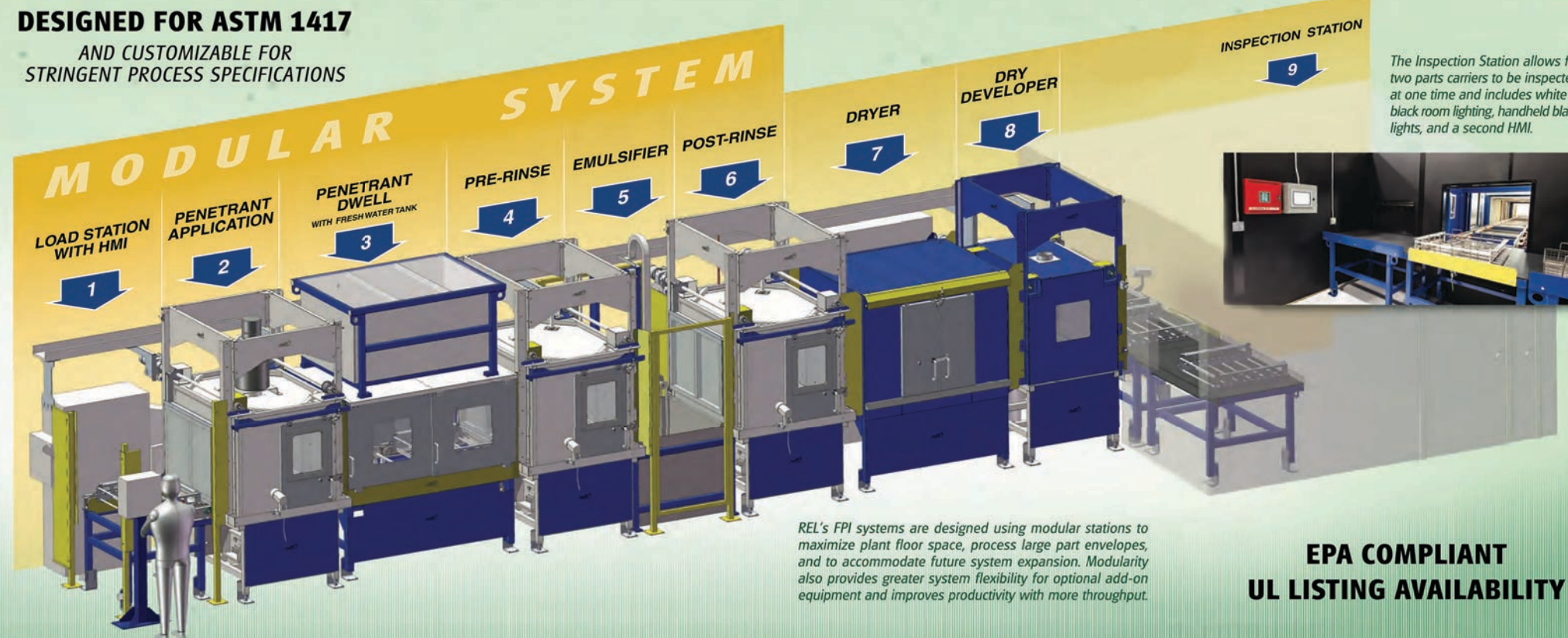
ENERGY



MEDICAL

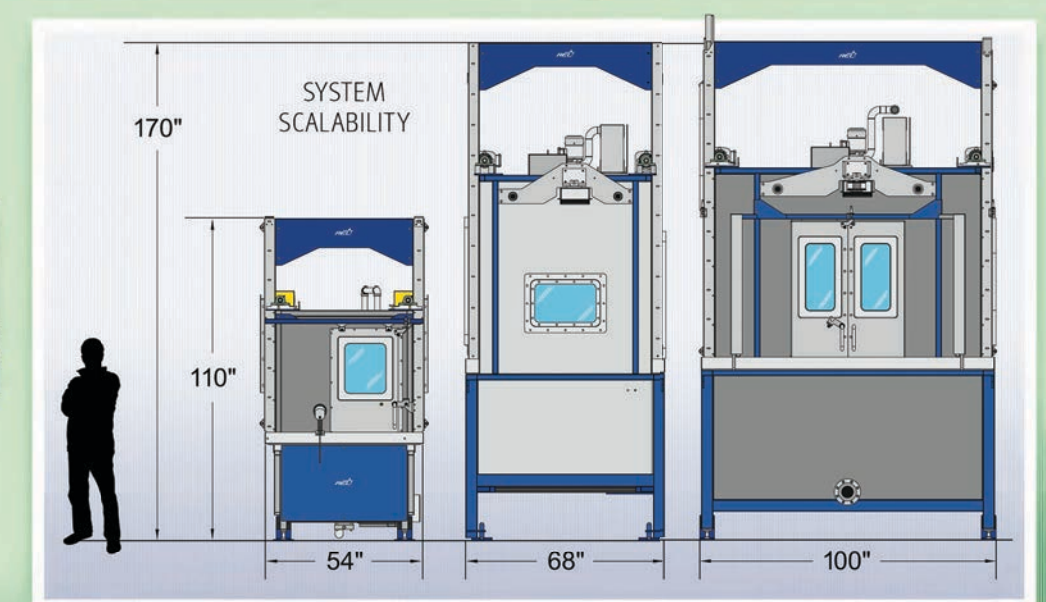


DESIGNED FOR ASTM 1417 AND CUSTOMIZABLE FOR STRINGENT PROCESS SPECIFICATIONS



REL's FPI systems are designed using modular stations to maximize plant floor space, process large part envelopes, and to accommodate future system expansion. Modularity also provides greater system flexibility for optional add-on equipment and improves productivity with more throughput.

**EPA COMPLIANT
UL LISTING AVAILABILITY**



**Turnkey
Automated
iFPI Systems**



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ISO
9001:2015

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