# Applied Fluid Power

## Maintenance, Troubleshooting & Vacuum Technology

FESTO

Level 2

This **Applied Fluid Power** certification expands upon the foundational skills learned in Fluid Power. The program is divided into two integrated modules: **Maintenance & Troubleshooting** and **Vacuum Technology**. Learners develop advanced competencies in setting up, analyzing, and maintaining electro-pneumatic systems while gaining specialized knowledge in vacuum-based handling technologies.

Through hands-on training using industrial-grade components, students diagnose faults, interpret electro-pneumatic schematics, and apply troubleshooting methodologies that reflect real-world applications in automation and robotics.

**Industry Recognized Certification Topics**

**Maintenance & Troubleshooting Module (Fluid Power Systems)**

- Setup and commissioning of pneumatic/electro-pneumatic systems
- GRAFCET-based control task analysis (DIN EN 60848)
- Pneumatic/electro-pneumatic circuit design
- Component failure modes and behavior
- Disassembly, inspection, and repair practices
- Root cause analysis
- Electro-pneumatic troubleshooting

**Vacuum Technology Module**

- Introduction to vacuum systems and principles
- Generation and application of vacuum in handling systems
- Vacuum component types and selection
- Suction cup design and material compatibility
- Designing simple vacuum-based automation circuits

**Units - 10 / Labs - 7**

**Industry Recognized Certification Competencies**

- System Commissioning & Setup
- Troubleshooting & Diagnostics
- Standards & Control Interpretation
- Component Integration
- Vacuum System Design
- Circuit Design and Analysis