



LEWA Academy

Course Title: **Repair and Maintenance of LEWA metering pumps (S2EN)**

Organizer:

LEWA GmbH

Venue:

LEWA Headquarters, 71229 Leonberg/German

Audience

Personell which has to install, assemble, commission, operate, maintain and repair LEWA metering pumps.

Objectives

- To know mechanical and hydraulically basics, which applies during operation of metering pumps
- Describe the evolution from plunger pump to diaphragm pump and behaviour in case of failures
- Know the functioning of diaphragm pump heads and main type of seals and valves
- Know the advantage of a triplex pump and how to assemble it referring to operating manual
- List the different types of fluid valves and there applications
- Know aim and strength of CMS Condition Monitoring System
- List four out of five failures impacts and name per impact two possible reasons and two possible correctives
- Be able to fulfil maintenance and repair tasks referring to operating manual

Content

- | | |
|---|---|
| <ul style="list-style-type: none"> ■ Design and properties of metering pumps ■ Technique of drive elements ■ Technique of pump heads <ul style="list-style-type: none"> - Evolution from plunger pump to diaphragm pump ■ Integration of the metering pump into the complete system <ul style="list-style-type: none"> - Accessories - Discharge characteristics - Co-function pump / plant. Pump and pipeline as oscillating system - Pressure amplitudes at under critical operation; pressure shocks. - Operating criteria of reciprocating positive displacement pumps - Damping of pressure and flow pulsation ■ Valves and applications ■ Workshop failure detection and diagnostics | <ul style="list-style-type: none"> ■ Practical training maintenance and repair <ul style="list-style-type: none"> - Drive element assembly, combination of multiplex pumps - Assembly of plunger pump heads, replacing plunger seals - Assembly of diaphragm pump heads - Lapping valves, installation for plungers, setting of valves - Commissioning and test run - Damping of pressure and flow pulsations - Demonstrating with test stands - Installation and adjustment of stroke actuators - Work on different metering pumps ■ Discussion and exchange of experience |
|---|---|