

FLUID POWER AND LUBRIFICATION APPLICATION: How to make and keep clean fluid circuits?

Program:

Physico-chemical characterization of fluids (2h)

- Physical characteristics of liquids (viscosity, surface tension, specific gravity)
- Characteristics of particulate pollution (particle size distribution in number or in volume)

Quantification of particulate pollution (2h)

- Introduction to fluid particulate cleanliness standards (cleanliness code – extraction method)

Characteristics and specifications of filter media and filters for maintaining fluid clean (3h)

Description of performance properties, measurement methods, and the content of relevant national and international standards

- Structural properties (pore size distribution)
- Hydraulic properties (permeability)
- Separative properties (particulate filtration efficiency, retention capacity)
- Mechanical properties (resistance to cyclic flow fatigue, behaviour to high differential pressure, vibration)
- Chemical and thermal compatibility properties

Training objectives:

- Determine the level of particulate contamination in hydraulic fluids
- Acquire a basic understanding of liquid filtration to ensure the long-term cleanliness of hydraulic fluids

Pedagogical devices and resources: The training will be delivered in the form of an oral presentation, based on a video presentation widely illustrated with appropriate technical documents – discussions. Visits to the testing laboratories, the pilot hall and laboratory will be also organized.

Expected results: Be able to recommend filtration requirements and discuss them with hydraulic engineers

Prerequisites: Knowledge of basic vocabulary relative to liquid flows

Trainer: Nicolas PETILLON, Technical Manager

Attendees: Engineers, technicians from Production, Processes, R&D, Environment, Methods, etc.

Place of the training: IFTS at FOULAYRONNES (47 510)

Duration: 1 day = 7 h (from 9:00am to 12:30pm and 2:00pm to 5:30pm)

Dates: June, 10th 2026

Trainees: Please give the details: Name, First name, Position and Email address (1 registration form to fill by person)

Training certificate: A training certificate will be sent by email at the end of the training

Accessibility: All participants are invited to contact the Disability Representative to find out about access and participation in this training course, if they so wish.