

# Basics of hydraulics

Ready to boost your hydraulic know-how? Whether you're brushing up on the basics or diving into practical applications, this two-day training event is designed to give you the tools, insights, and confidence to work smarter with hydraulics in real-world industrial settings.



## Get Hands-On with Hydraulics - 2-Day Training Course

### Who is the training suitable for?

For fitters, mechanics and supervisors working in industry. The course is also suitable for those working in the sales of hydraulic components or in customer service.

### Content of the training

#### Day 1 - The Fundamentals

First we kick things off at 9:00 AM with a warm welcome before jumping into the essential building blocks of hydraulic systems. You'll get a clear grasp of key **terms, units, and principles**, from **hydraulic balance** and **fluid compressibility** to **flow types** and **hydraulic losses**.

After lunch, we'll decode **hydraulic symbols**, learn to **read schematics**, and explore complete systems. We'll also cover **safety best practices**—a must in any hydraulic setup—and round off the day with insights on **contamination control**, filtering, and keeping your systems clean and efficient.

#### Day 2 - From Theory to Practice

Time to get your hands on the hardware. We start with the most common hydraulic components—how they're built, how they work, and how to use them effectively.

Then it's into the **hydraulic lab**, where you'll practice:

- Pump and valve adjustments**
- Pressure and flow regulation**
- Working with a cross-cut swashplate piston pump**
- Testing relief valve connections**
- Observing flow losses and understanding laminar vs. turbulent flow**

This course isn't just about theory—it's about applying what you learn in real-life situations. Whether you're new to hydraulics or want to sharpen your skills, this training will help you take your knowledge to the next level.

### Contact

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### Experts

#### Mikko Makkonen

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## Upcoming trainings

### Basics of hydraulics

**Location:** Taitotalo, Valimotie 8, 00380 HELSINKI

**Timespan:** 19.-20.10.2026

**Register by:** 6.10.2026

**Duration:** 2 päivää

**Hinta:** 990,00 € + VAT 25,5 % The full price including VAT 1 242,45 €

## Lisätieto

### Basics of hydraulics

19.10.2026 - 20.10.2026

Taitotalo, Valimotie 8, 00380 HELSINKI

#### **Maanantai 19.10.2026**

Basic of hydraulics 1. päivä

Taitotalo, Valimotie 8, 00380 HELSINKI

V110 Teorialuokka, Valimotie 8

#### **9.00-10.45**

Fundamentals of Hydraulics

Makkonen Mikko, koulutusasiantuntija, Taitotalo

#### **10.45-12.30**

Symbols, Diagram Reading and Systems

Makkonen Mikko, koulutusasiantuntija, Taitotalo

#### **12.30-13.15**

Lounas

#### **13.15-14.00**

Safety and Safe Practices in Hydraulics

Makkonen Mikko, koulutusasiantuntija, Taitotalo

#### **14.00-16.00**

Practical Exercises

Makkonen Mikko, koulutusasiantuntija, Taitotalo

#### **Tiistai 20.10.2026**

Basic of hydraulics 2. päivä

#### **8.00-9.00**

Hydraulic Condition Monitoring

Makkonen Mikko, koulutusasiantuntija, Taitotalo

#### **9.00-11.30**

Hydraulic Measuring Instruments and Sensors

Makkonen Mikko, koulutusasiantuntija, Taitotalo

#### **11.30-12.15**

Lounas

#### **12.15-13.00**

Electrical Control (Direct, Servo, and Proportional)

Makkonen Mikko, koulutusasiantuntija, Taitotalo

#### **13.00-16.00**

Practical Exercises

Makkonen Mikko, koulutusasiantuntija, Taitotalo