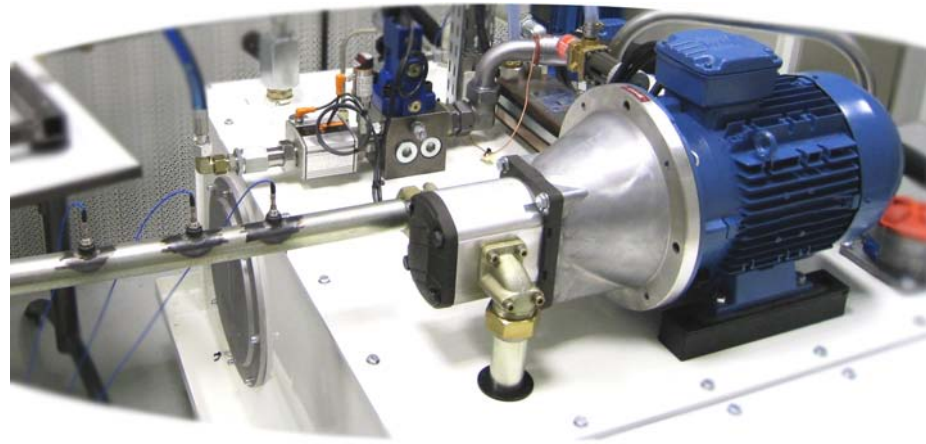


Cell Piping

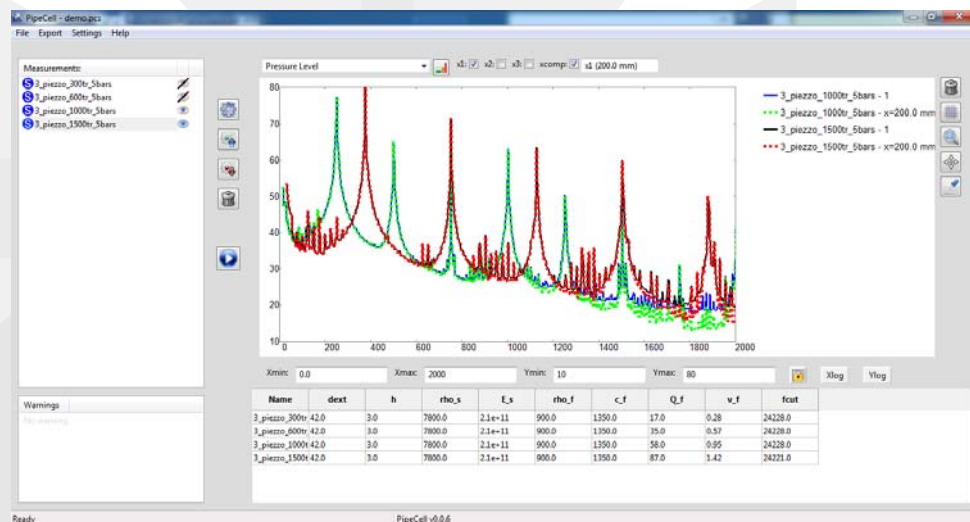
"PipingCell is an advanced measurement and analysis tool for piping applications"



intrusive sensors



non-intrusive sensors



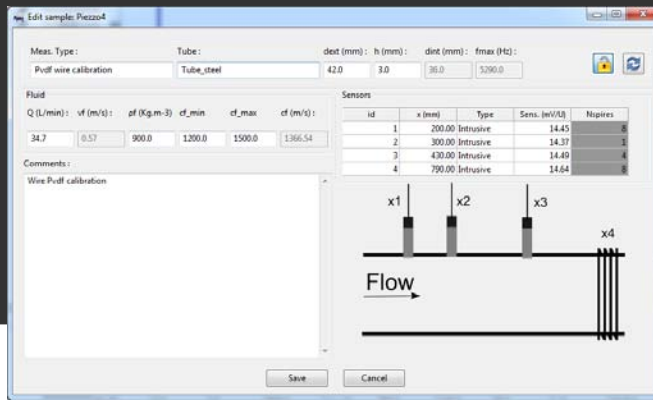
PipingCell enables:

- ↳ either **intrusive** or **non-intrusive** measurement of **pressure pulsations**
- ↳ **mapping** of pressure-induced dynamic stresses along pipe
- ↳ **monitoring** of hydraulic state of internal fluid of connected circuit
- ↳ **intrinsic characterisation** of sources of pressure pulsation (pumps, compressors, ...)

The users **benefit** from a **reactive** and **skilled** hotline service

Prepare to be MATELYS approved !

Cell Piping



BROAD APPLICABILITY

- ↳ Pipe wall **material** (steel, cast iron, copper, PVC, ...)
- ↳ Pipe **diameter** from 10 mm to 2 m
- ↳ Wide range of **operating conditions** (flow speed and head pressure)

TWO TYPES OF SENSORS

- ↳ Classical **intrusive** sensors : Use your existing gear!
- ↳ **External strain sensors** : Avoid to perforate your piping!

POST-PROCESSING OF MEASURED PRESSURE PULSATION

- ↳ Extrapolation of **pressure pulsation along the pipe** from localised measurements
- ↳ Measurement of the **impedance** of hydraulic circuit
- ↳ Measurement of the **actual speed of sound** in the internal fluid/gaz

CHARACTERISATION OF SOURCES OF PRESSURE PULSATION

- ↳ Enables **prediction of pulsations** into a given circuit
- ↳ Uses **multi-load** characterisation procedure
- ↳ Uses **flow-independent** single-step loading circuit
- ↳ **Complete source identification:**
blocked pressure and impedance

KEY FEATURES

- ↳ **Measurement and post-processing** modes
- ↳ Comprehensive **project** organisation
- ↳ Compute actual **fluid-structure coupling**

