

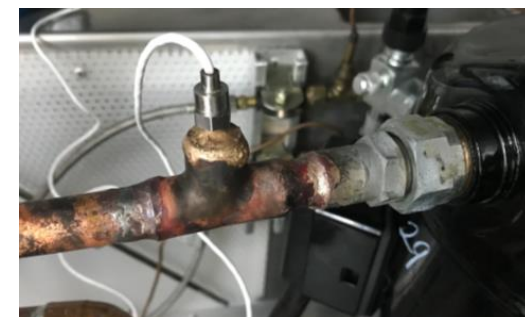
## Project Description

Experimental tests on positive displacement compressors with a focus on high frequency data sampling at the compressor discharge

- Quantifying of pressure fluctuation
- Reduction of pulsation may reduce noise

## Approach

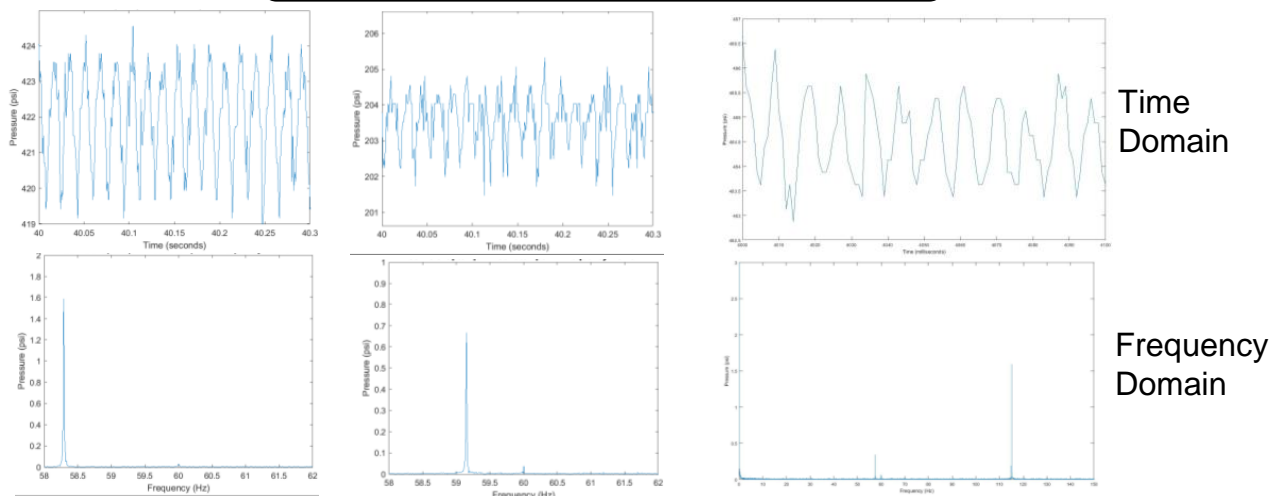
- High frequency pressure sampling at the discharge of a compressor mounted inside a calorimeter
  - Sampling discharge pressure at 1000 Hz
  - Use of Fast Fourier Transform to identify pulsation frequency and magnitude



## Discussion

- Peak frequencies dependent on discharge rate (60 or 120 Hz)
- Magnitude limited to  $\pm 1.5$  psi
- Internal measurements necessary to determine pulsation reduction due to muffling devices

## Results



**Current compressor muffling devices have room for improvement**