

# Condence monitoring concept: Compressor

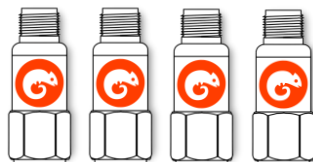
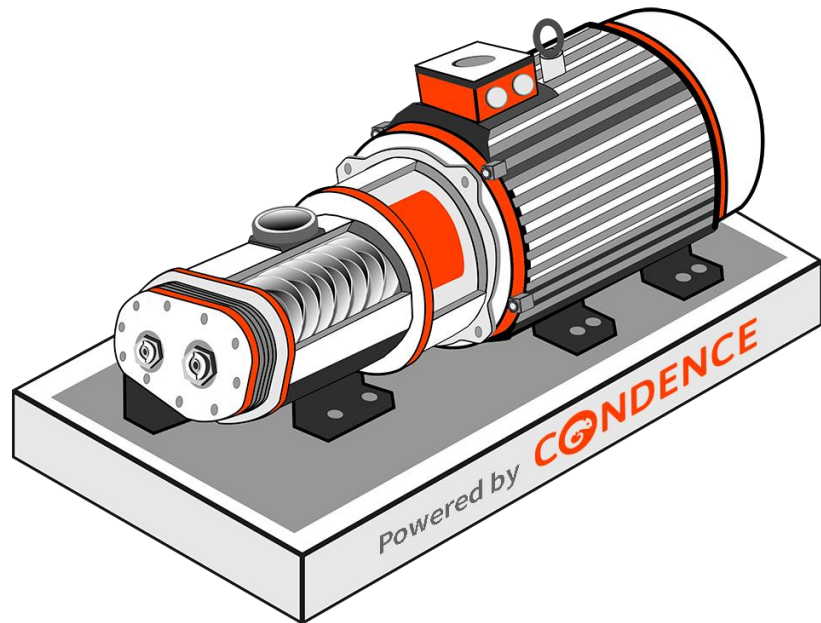


**CONDENCE**



# Condence monitoring concept: Compressor

## Holistic view of compressor monitoring metrics



### Examples of monitored metrics in a compressor

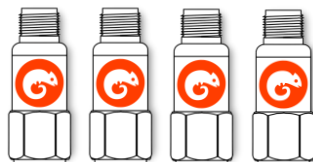
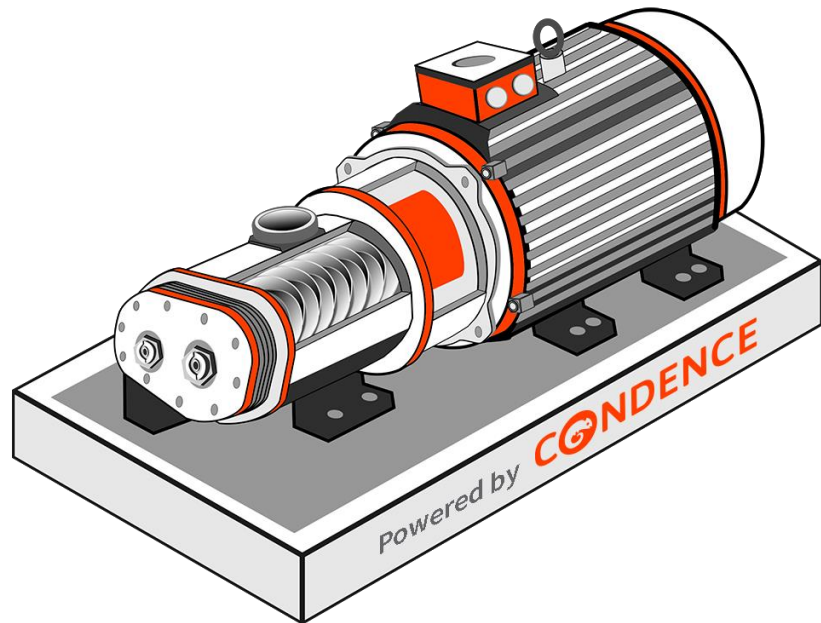
- Vibration
- Oil
- Temperature(s)
- Pressure(s)
- Peak current
- Activity reporting (running times & periods)
- Pressure/Flow

### What can we detect by monitoring these metrics?

- Bearing failures
- Mechanical
  - Imbalance, Misalignment and looseness
- Oil condition
- Oil particles (signs of wear)
- Temperature changes
- Performance decrease
- Changes in power consumption
- Running times, optimization of asset use

# Condence monitoring concept: Compressor

Monitoring richest health metrics



## Accuracy = time

Uses IEPE sensing technology to capture high frequency vibration  
Wide frequency bandwidth translates into time, **time to react**



## Flexibility over complexity

Compressors come in different types, shapes and design which sets special requirements for condition monitoring. Condence's capability to combine methods (e.g. vibration & oil analysis) and adjusting analyses from the cloud makes it perfect for compressor monitoring.



## Continuous & online

Based on continuous sampling ( e.g. every 5 min) and edge computing technology Maximised **time to react** even with fast evolving failures



## Eliminating surprise / risk

- Unplanned work is more expensive
- Unplanned downtime is expensive



## Enable condition based maintenance

Decisions and maintenance based on actual asset condition

- Know when you need to change the oil
- Know when you need to add lubricant to bearings
- Remove unnecessary manual work (inspection & repairs)
- Minimise human error via automatic alarms and data availability

# Monitoring view: Default dashboard structure

## Condense components

### Status Map

Image of what is being monitored, e.g. sensor placement and direction

### Notifications Display

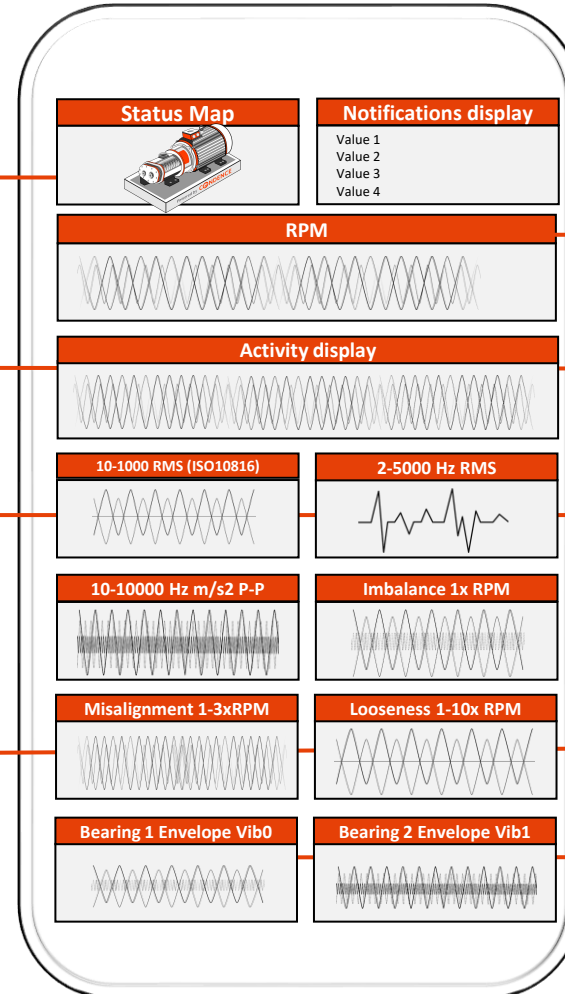
Displays what has happened / triggered thresholds during the selected time period. Easy configuration and adjustment of notifications in the cloud UI

### Trend view widgets

Trend widget displays the calculated / sourced data as a line chart (one or more). Trend widget has plenty of tools available for further analysis and exports.

### Activity Display

This period component displays summarised period data as a list view which can be expanded. The period component can be used for monitoring running hours of machinery with detailed information like motor starts and stops or in what times are the assets being used.



## Default concept metrics

### RPM

Mandatory and important information in variable speed assets.

### General vibration analyses

- Various frequency ranges
  - Acceleration and velocity (e.g. ISO10816)
- With Condense you can easily build your preferred measurements and analyses in the cloud UI

### Mechanical

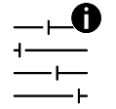
Multiples of RPM to detect mechanical phenomena's like imbalance, misalignment and looseness


### Bearing failures


Early detection of bearing failures via enveloping high frequency vibration. Failure stages 1-4

# Condition based maintenance

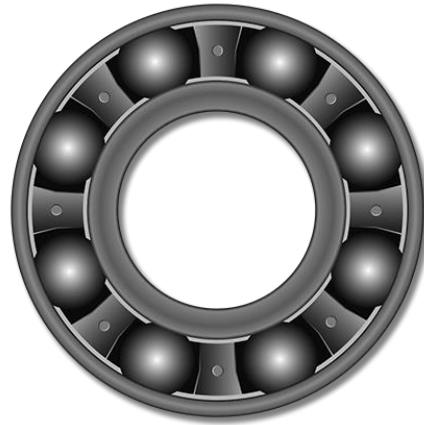
## Create suggestive notifications





1   
Set suggestive severities and thresholds for them

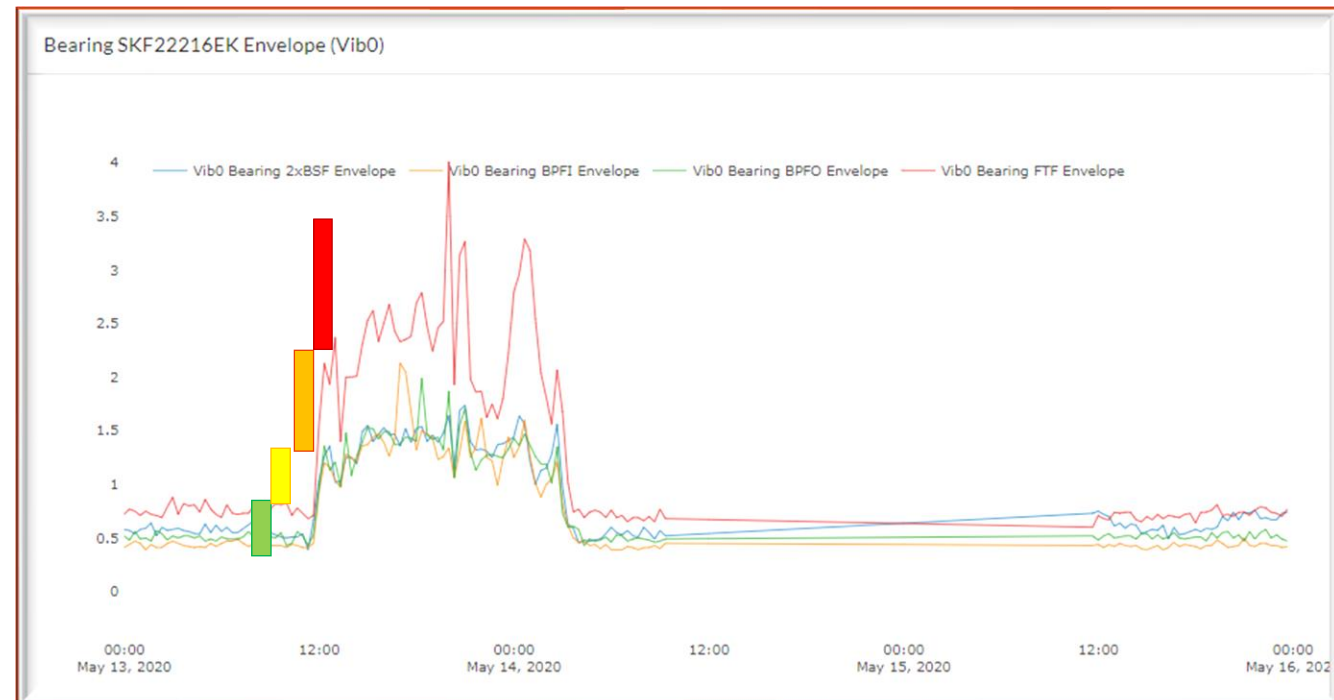
2   
Automatic system notifications to trigger workflows

3   
Notifications based on actual asset condition

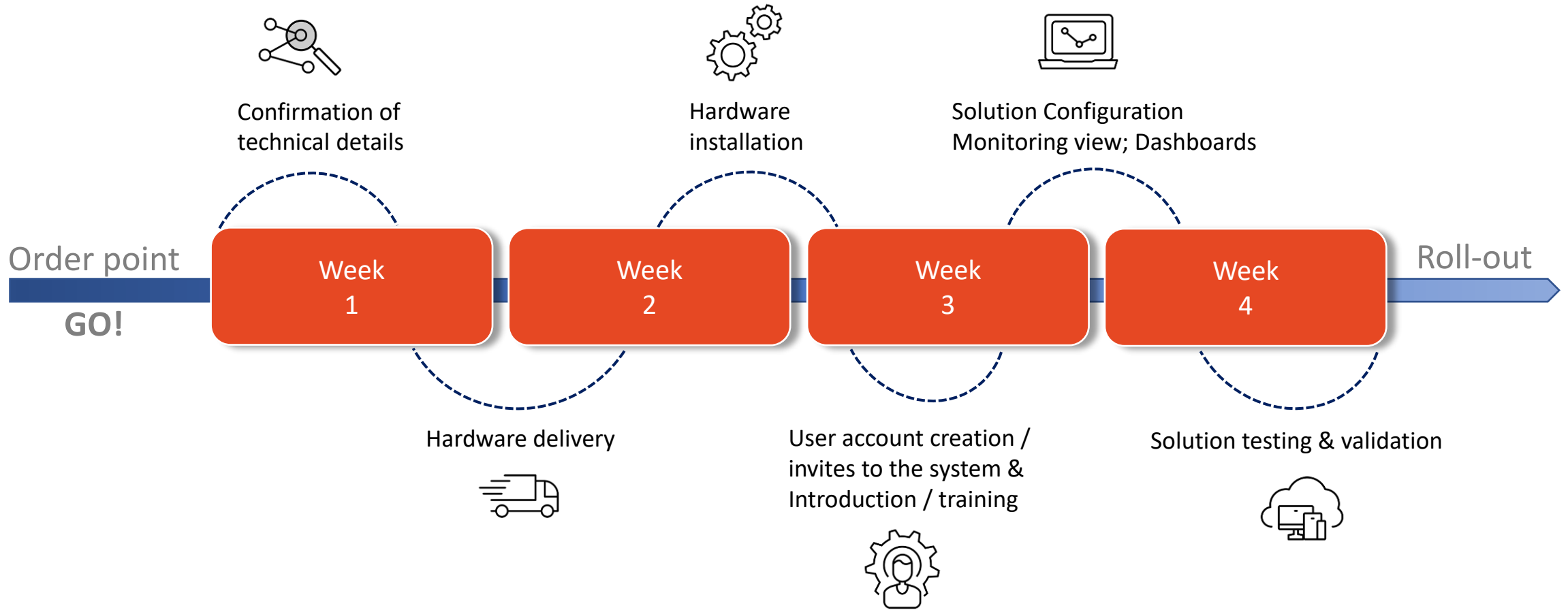
4   
Condition based maintenance (CBM)

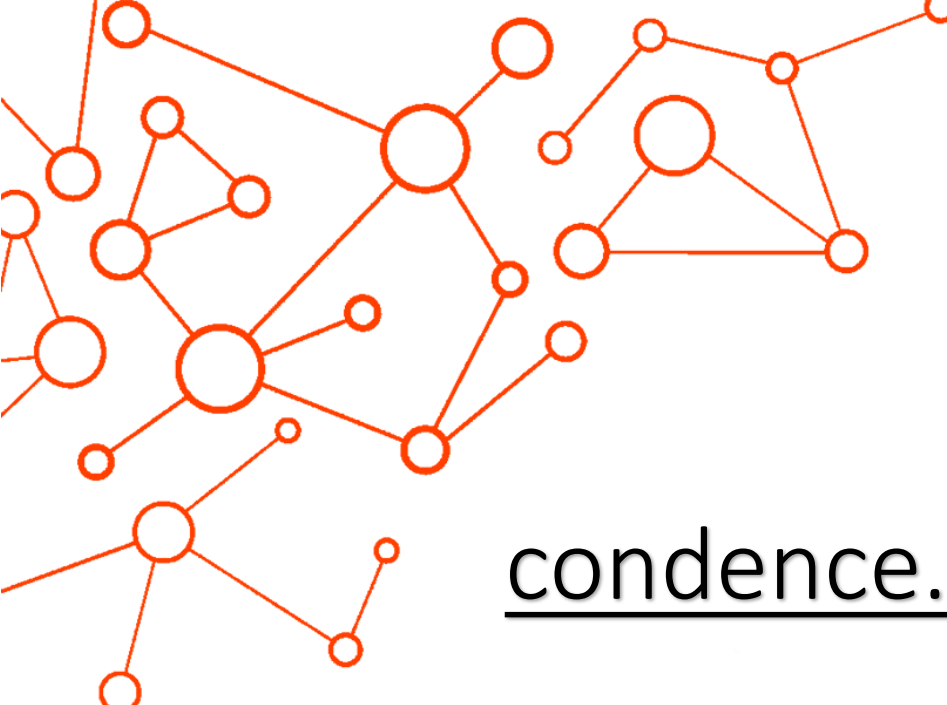


-  Maintenance action needed
-  Plan for bearing check and lubrication
-  Follow elevated vibration levels
-  Normal vibration range



# Delivery timeline





Read more at:  
[condence.io/condence-compressor/](https://condence.io/condence-compressor/)

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