LISTEN.
THINK.
SOLVE.®

# CPF Thailand
# Pakthongchai Feed Mills
# Grinder#2

## Vibration Monitoring System
## OCT 2018

Advance Siam Tech Co., Ltd

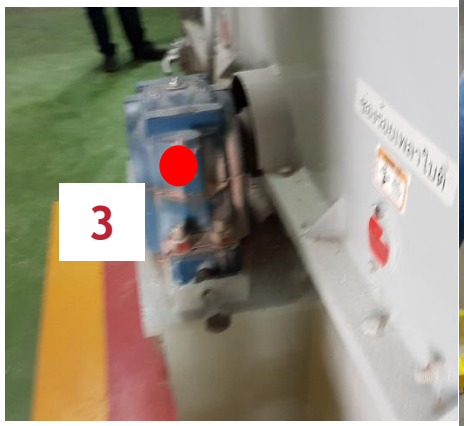
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Allen-Bradley • Rockwell Software

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# Machine Layout

Grinder#2







**POSITION**

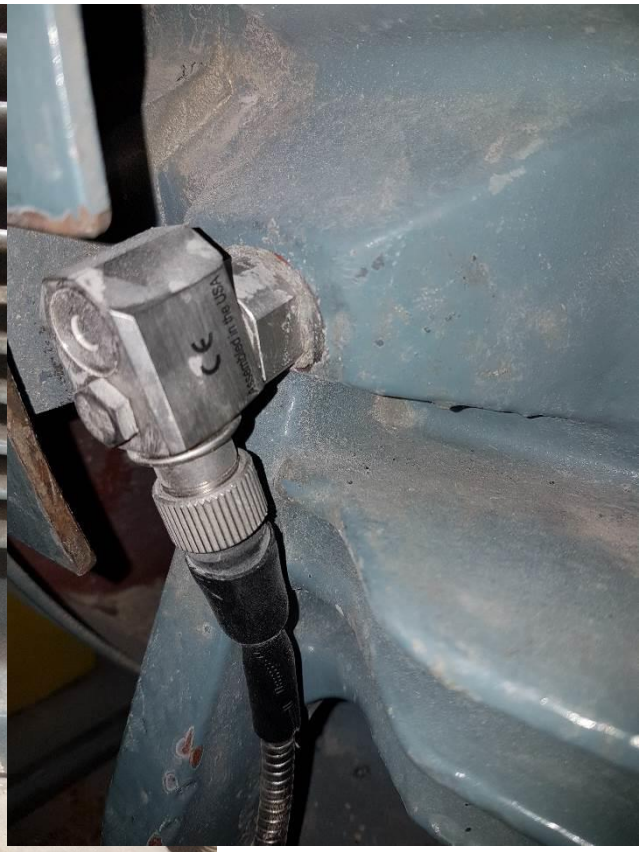
1) MTR-DE-H
2) Grinder-DE-H
3) Grinder-NDE-H

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# Sensor Location (Point#1 MTR-NDE-H)

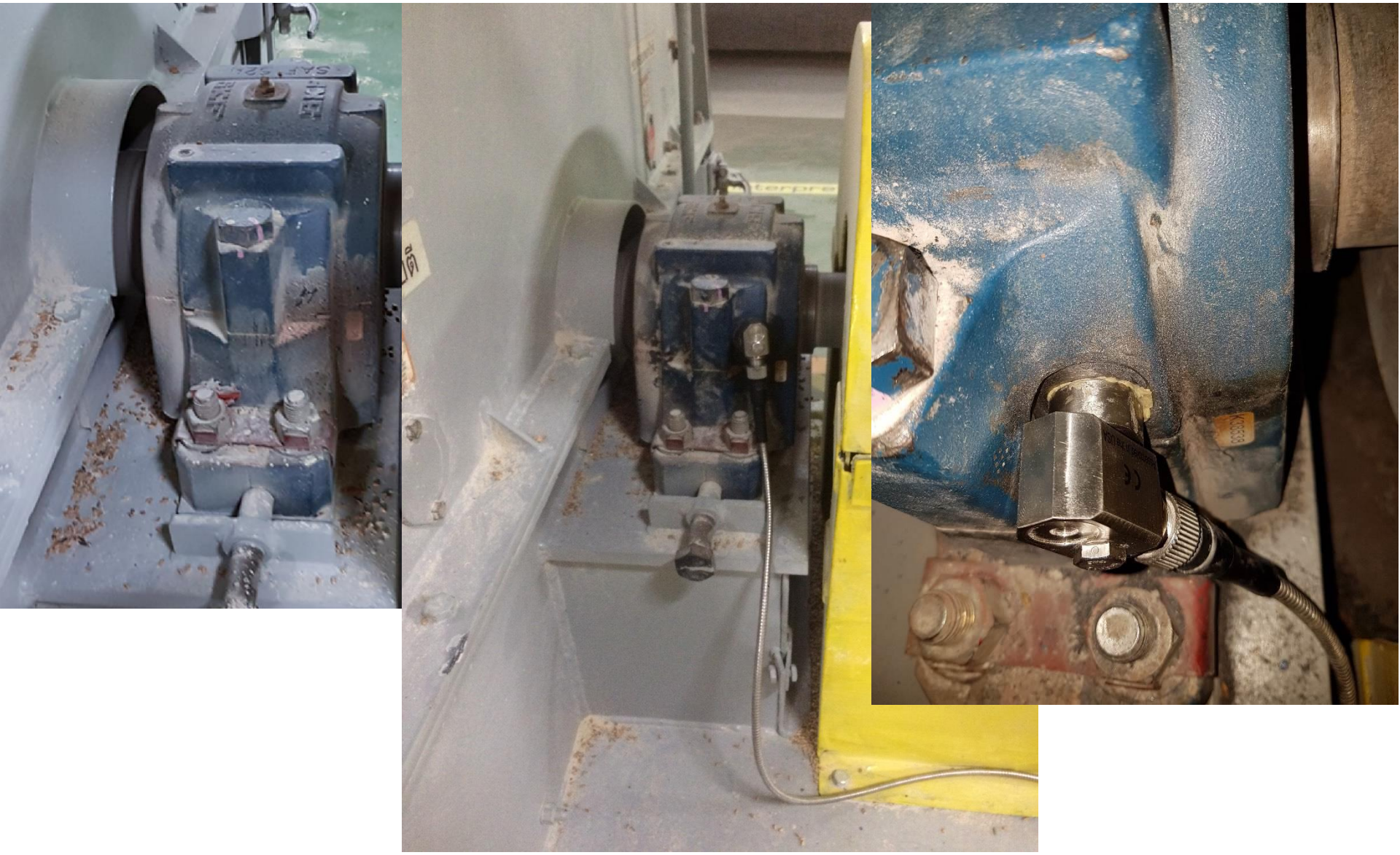






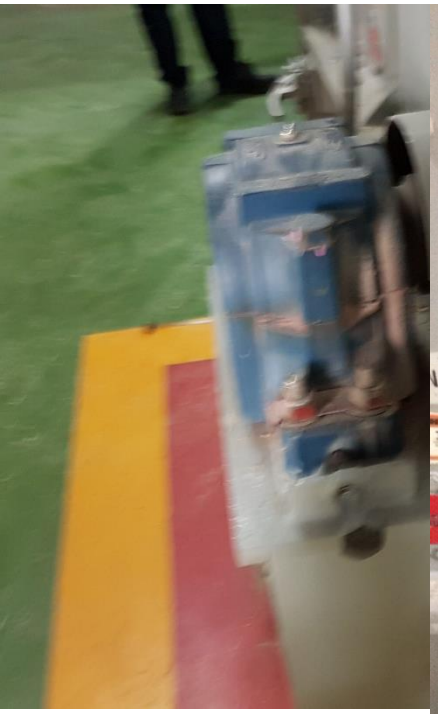
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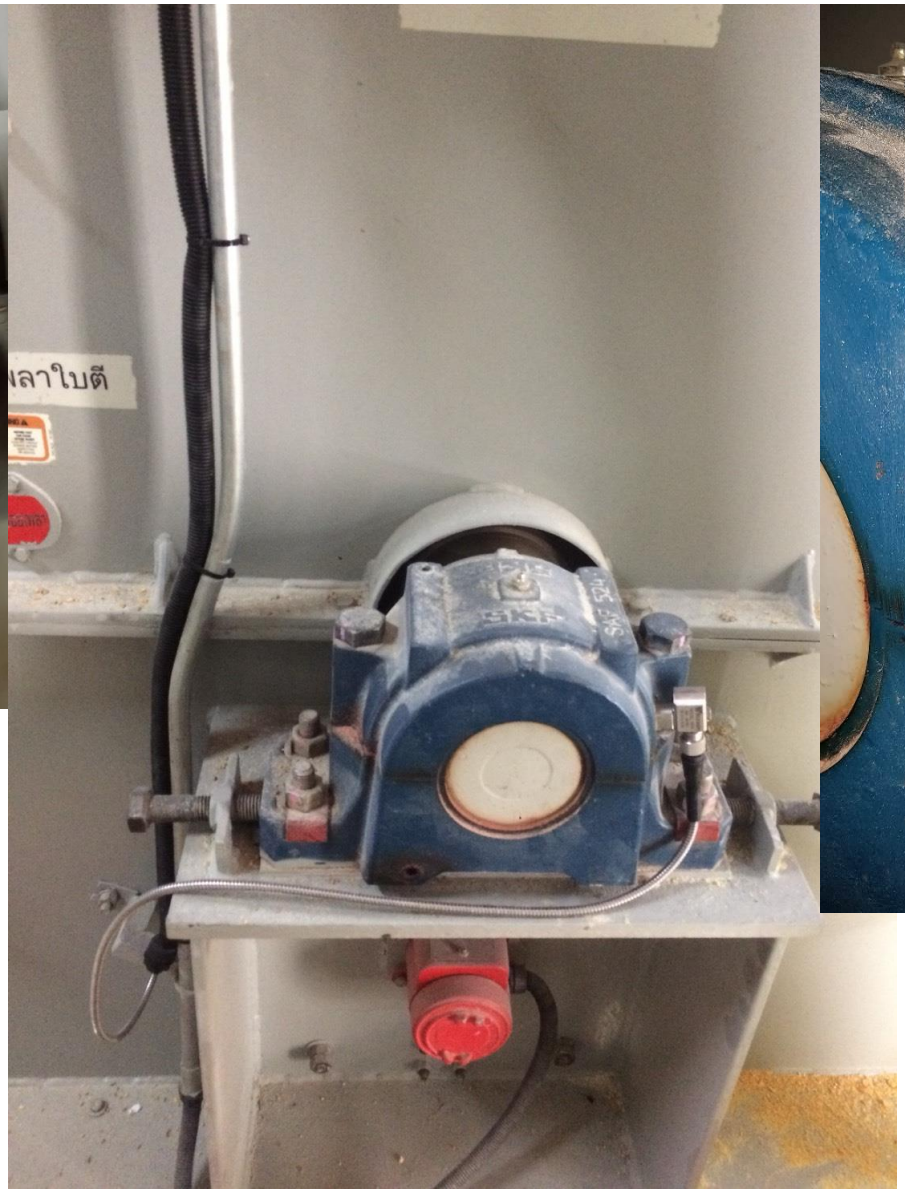
# Sensor Location (Point#2 Grinder-DE-H)



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# Sensor Location (Point#3 Grinder-NDE-H)



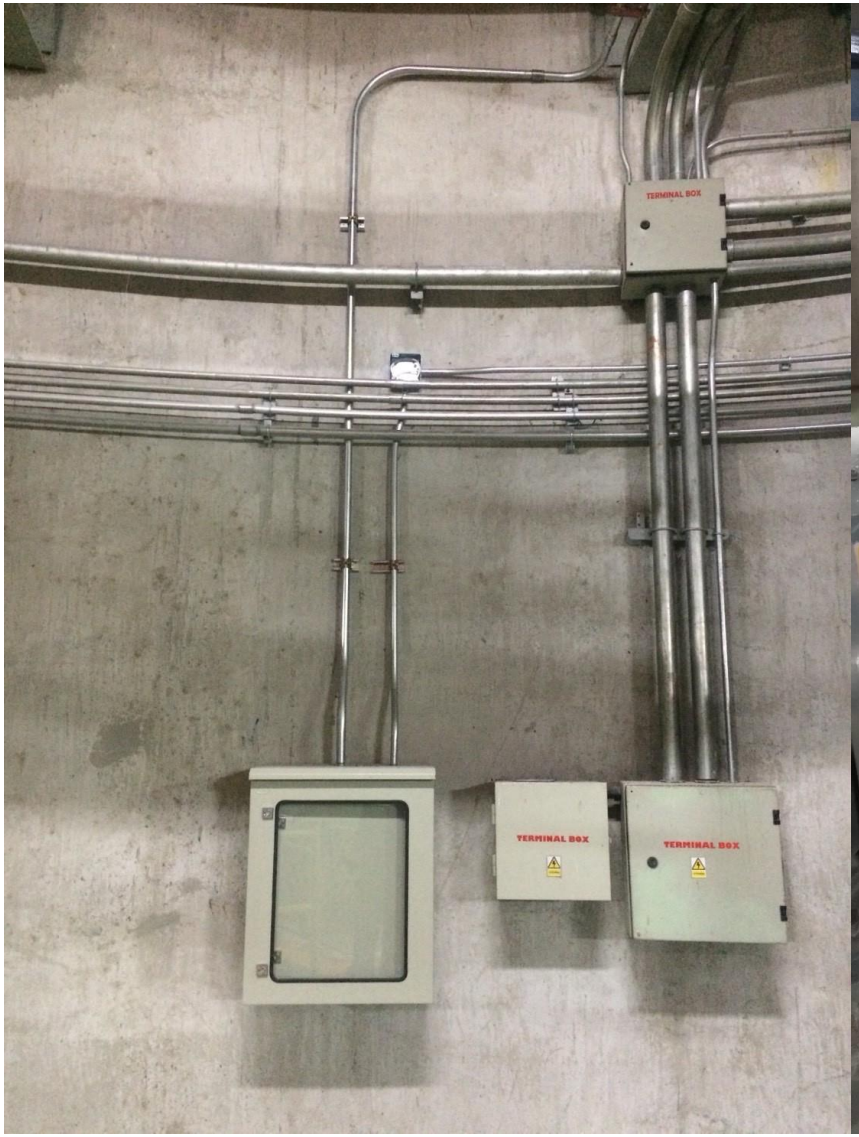






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# Monitor Enclosure Installation & Elect. Works






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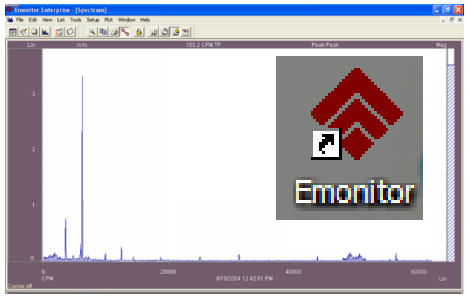
# System Architecture

CPF Network

ETHERNET



SQL SERVER






1444-DYN04-01RA
IP: 10.4.137.246



1769-L30ER
IP: 10.4.137.245



Controller Organizer

- Controller Feed_Pumps
  - Controller Tags
  - Controller Fault Handler
  - Power-Up Handler
- Tasks
  - MainTask
    - MainProgram
    - Unscheduled Programs / Phases
- Motion Groups
  - Ungrouped Axes
- Add-On Instructions
- Data Types
  - User-Defined
  - Strings
  - Add-On-Defined
  - Predefined
  - Module-Defined
- Trends
- Logical Model
- I/O Configuration
  - PointIO
    - [0] 1769-L18ERM-BB1B Feed_Pumps
    - Embedded I/O
      - [1] Embedded Discrete_IO
      - Expansion I/O, 0 Modules
  - Ethernet
    - 1769-L18ERM-BB1B Feed_Pumps
    - 1444-DYN04-01RA/A North_Feed_Pump

Controller Tags - Feed_Pumps(controller)

Scope: Test_Bands  Show: All Tags

| Name | Value | Forc | Style | Data T | Description |
|---|---|---|---|---|---|
| + Local:1:C | {...} | {... | | AB:E... | |
| + Local:1:I | {...} | {... | | AB:E... | |
| + Local:1:O | {...} | {... | | AB:E... | |
| + North_Feed_Pump:C | {...} | {... | | AB:14... | |
| − North_Feed_Pump:I | {...} | {... | | AB:10... | |
| + North_Feed_Pump:I.ModuleStatus | {...} | {... | | AB:14... | |
| + North_Feed_Pump:I.AlarmStatus | {...} | {... | | AB:14... | |
| + North_Feed_Pump:I.RelayStatus | {...} | {... | | AB:14... | |
| North_Feed_Pump:I.Ch0Overall0 | 0.0 | | Float | REAL | Overall |
| North_Feed_Pump:I.Ch0Order0Mag | 0.0 | | Float | REAL | Unbalance |
| North_Feed_Pump:I.Ch0Order1Mag | 0.0 | | Float | REAL | Rub |
| North_Feed_Pump:I.Ch0Order2Mag | 0.0 | | Float | REAL | Misalignment |
| North_Feed_Pump:I.Ch0Order3Mag | 0.0 | | Float | REAL | Looseness |
| North_Feed_Pump:I.Ch0FFTBand0 | 0.0 | | Float | REAL | Rotor Bar |
| North_Feed_Pump:I.Ch0FFTBand1 | 0.0 | | Float | REAL | Laminations |
| North_Feed_Pump:I.Ch0FFTBand2 | 0.0 | | Float | REAL | Bearing Wear (1) |
| North_Feed_Pump:I.Ch0FFTBand3 | 0.0 | | Float | REAL | Bearing Wear (2) |
| North_Feed_Pump:I.Ch0FFTBand4 | 0.0 | | Float | REAL | Bearing Wear (3) |
| North_Feed_Pump:I.Ch0FFTBand5 | 0.0 | | Float | REAL | Bearing Wear (4) |
| North_Feed_Pump:I.Ch0FFTBand6 | 0.0 | | Float | REAL | Flow |
| North_Feed_Pump:I.Ch0FFTBand7 | 0.0 | | Float | REAL | Cavitation |
| North_Feed_Pump:I.Speed0 | 0.0 | | Float | REAL | RPM |
| + North_Feed_Pump:O | {...} | {... | | AB:14... | |
| + South_Feed_Pump:C | {...} | {... | | AB:14... | |

Controller Tags data through OPC

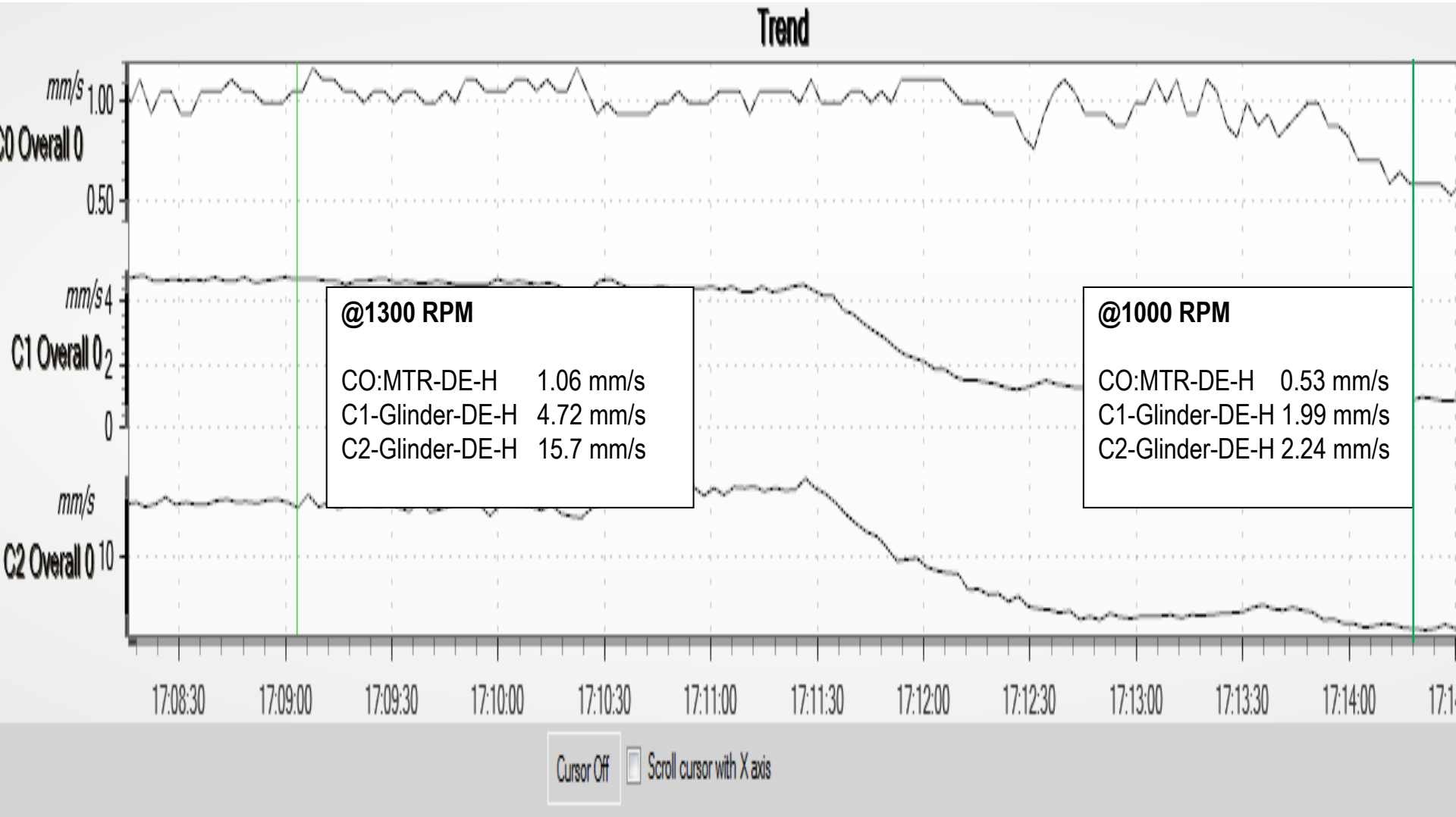


SCHNEIDER

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# Identified the Issue Immediately

## EMONITOR RTA (Real Time Analyzer)




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