How does it work

- **What is needed to perform a measurement**

- **Hardware**
  - 1 iiTRAK per compressor
  - 2 AA batteries per iiTRAK
  - 1 CF card per iiTRAK
  - 1 CF card reader
- **Software**
  - ME Box Configurator
    - Start-up the measurement
    - Download the results
  - ACMBPG95
    - Analyse the measurement
    - Simulate with “best fitted” installation
    - Create repport

Agenda

- Goal of the training
- What is the iiTRAK
- Why do I need the iiTRAK
- How does it work
- **ME BOX CONFIGURATOR**
- ACMBPG95
- Datasheet
- Graph
- Simulation
- Report
- Summary

ME BOX Configurator

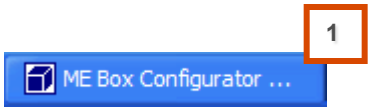
- **Used for the following tasks**

- Create a configuration
- Start a measurement
- Download the measurement
- Analyse the data
- Visualize the graph of the measurement
- Export part of the graph in bitmap (pictures)
- Export the measured data to the ACMBPG95

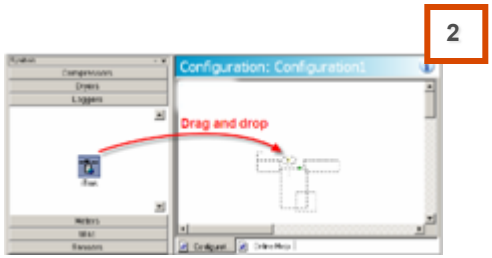
ME BOX Configurator

- **Steps to create a configuration**

1. Open the ME Box Configurator

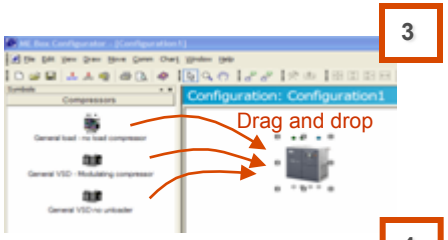


2. Drag and Drop an iiTRAK

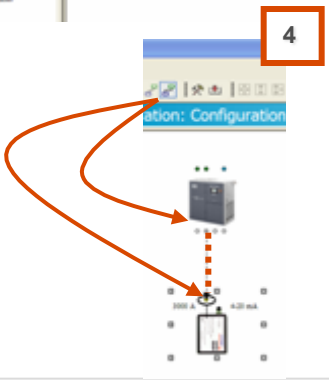


3. Drag and Drop a compressor

- Choose the compressor depending on your needs
  - General Load/Noload compressor
  - General VSD/Modulating compressor
  - General VSD/No unloader



4. Link the iiTRAK and the compressor



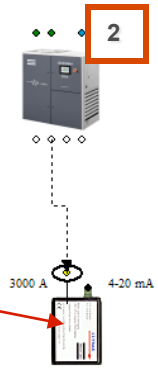
*** *Repeat steps 2 to 4 for each compressor to be measured*

SHOW ANIMATION

ME BOX Configurator

- **Steps to Configure the iiTRAK**

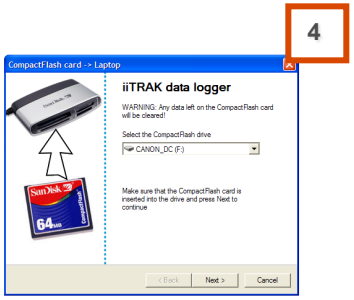
1. Save the configuration



2. Click on the iiTRAK to activate it

3. Click on the configuration button

4. Locate the CF card reader



5. Extract CF from the reader and put it in the iiTRAK when counter comes to 00

SHOW ANIMATION

ME BOX Configurator

- **Steps to Start the Measurement**

1. Configure the iiTRAK(s)
2. Go to the customer
3. Stop the machine
4. Open the machine
5. Connect the iiTRAK
6. Close the machine
7. Start the machine
8. Writhe the CRITICAL INFORMATION

ME BOX Configurator

- **Steps to Start the Measurement**

1

Configure iiTRAK at home
Go to the Customer

2

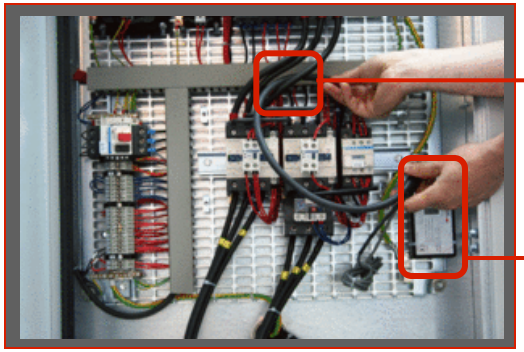
3

Stop the machine

4

Open the cubicle
(Do not place the iiTRAK in the Cubicle of a Frequency Driven Machine => attach iiTRAK in the main Switch Cabinet)

INSIDE THE CUBICLE



5 **Close the machine**

6 **Start-up the machine**

7 **Write down the critical information** (*see next slide*)

*** *Repeat steps 3 to 7 for each compressor to be measured*

ME BOX Configurator

• LOAD – NOLOAD

BRAND :

MODEL :

CONTROLL : *E/P Controll* *OR* *Elektronic control*

Powersize kW :

Serial Nr :

FAD l/s :

Idling time :

Max starts/h :

Load pressure :

Unload pressure:

kW LOAD :

kW No-Load :

	AT BEGINNING	AT END	DURING MEASUREMENT
DATE + HOUR			
LOADED HOURS			
UNLOADED HOURS			
STOPED HOURS			

• FREQUENCY DRIVEN

BRAND :

MODEL :

Powersize :

Serial Nr :

FAD : MIN = Max =

Unloader : Yes / No

Setpoint (bar) :

Indirect Stop (bar):

Direct Stop (bar):

Max speed kW :

Min speed kW :

NoLoad kW :

	AT BEGINNING	AT END	DURING MEASUREMENT
DATE + HOUR			
RUNNING HOURS			
Volume of Compressed air produced			
STOPED HOURS			

ME BOX Configurator

- **Steps to Stop the Measurement**

1

Go to the Customer

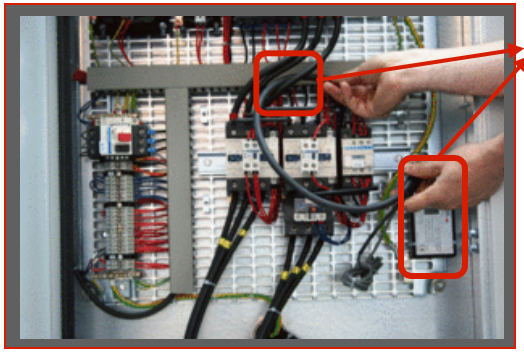
2

Stop the machine

3

Open the cubicle

INSIDE THE CUBICLE



Disconnect the iiTRAK

STOP the iiTRAK by pressing the red button. (*the led blinks for a few seconds to show that the iiTRAK is stopping*)

4 **Close the machine**

5 **Start-up the machine**

6 **Write down the missing critical information**

*** *Repeat steps 2 to 6 for each measured compressor*

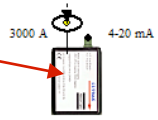
ME BOX Configurator

- **Steps to Download a Measurement**

SHOW ANIMATION

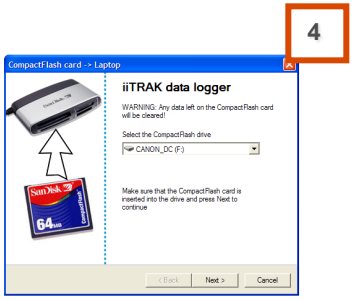
1. Open the configuration

2. Click on the iiTRAK to activate it

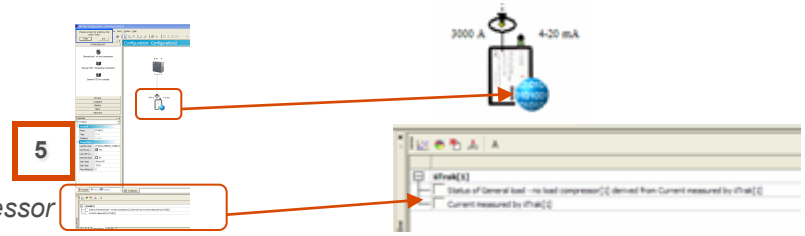


3. Click on the download button

4. Locate the CF card reader



5. New functions have appeared at the bottom of the screen (iiTRAK download logo appears)



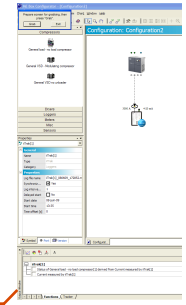
*** *Repeat steps 2 to 5 for each measured compressor*

ME BOX Configurator

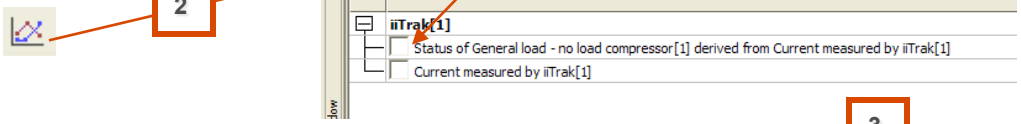
- **Steps to Analyse the data**

1. Click on one of the functions

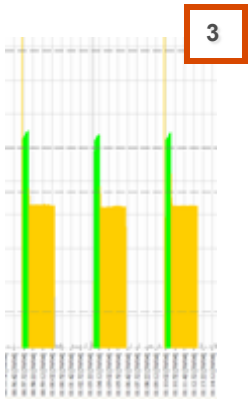
- « Status of General Load-Noload Compressor »
- « Status of General VSD – Modulating Compressor »
- « Status of General VSD no unloader »



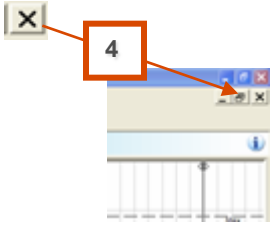
2. Click on the Graph icon



3. Adjust the lines (see next slide for explanation)



4. Close the Graph with the top right icon



*** *Repeat steps 1 to 4 for each measured compressor*

SHOW ANIMATION

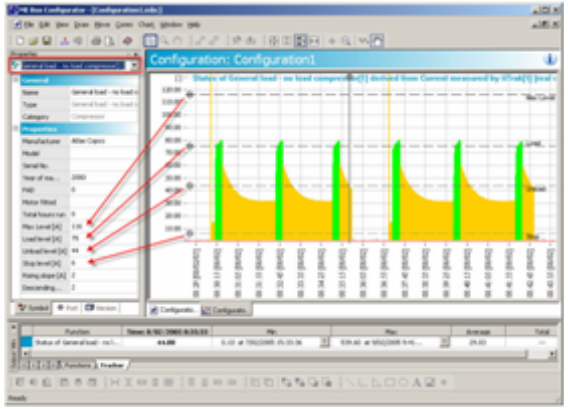
ME BOX Configurator

- **Adjust the lines for LOAD / NOLOAD Compressors**

- There are 4 lines : MAX – LOAD – NOLOAD - STOP
  - **Below STOP line => STATUS = Stopped (Grey)**
  - **Between UNLOAD and STOP lines => STATUS = Unloaded (Yellow)**
  - **Between LOAD and UNLOAD lines => STATUS is depending on the current slope (Yellow OR Green)**
  - **Between MAX and LOAD lines => STATUS is LOADED (Green)**
  - **Above MAX line => STATUS is Unloaded (Yellow)**

You can move the lines by:

1. Sliding them
2. Filling in the correct values



ME BOX Configurator

- **Adjust the lines for Frequency Driven Compressors**

- There are 4 lines : MAX LOAD – MIN LOAD – UNLOAD – STOP
  - **Below STOP line => STATUS = Stopped (Grey)**
  - **Between UNLOAD and STOP lines => STATUS = Unloaded (Yellow)**
  - **Between MIN LOAD and UNLOAD lines => STATUS is depending on the current slope (Yellow OR Green)**
  - **Between MIN LOAD and MAX LOAD lines => STATUS is LOADED (Green)**
  - **Above MAX LOAD line => STATUS is LOADED (Green)**

You can move the lines by:

1. Sliding them
2. Filling in the correct values