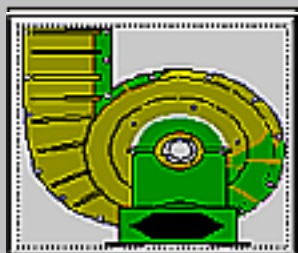
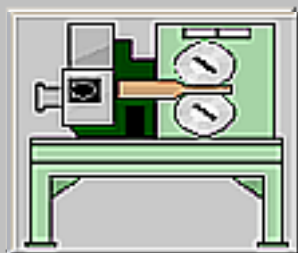


# Comfort 2010

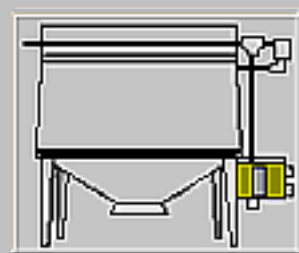
1:38:23 PM



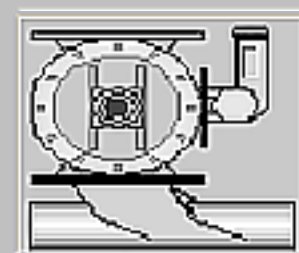
exctracion



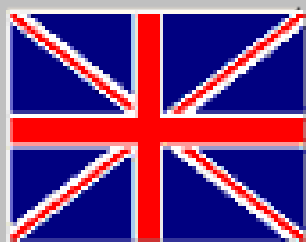
machines



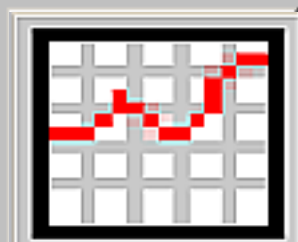
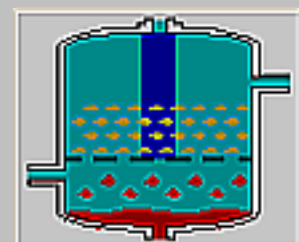
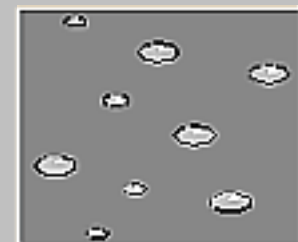
filter-Plant

plant  
layout

fault



English

plant:  
conditionpressure  
increasespark  
extinguishingresidual dust  
cleaning

info

frequency  
converter

service



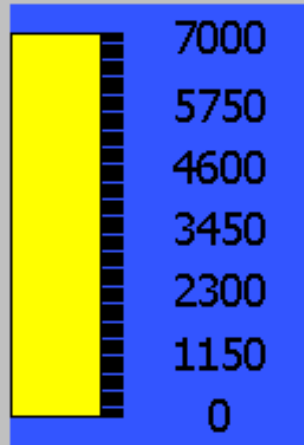
energie



parameters

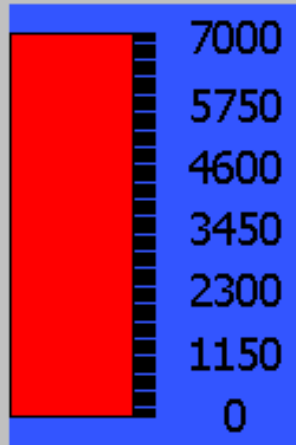
# suction

## Puregas



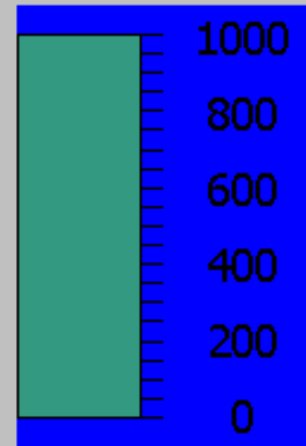
0 PA

## Raw gas

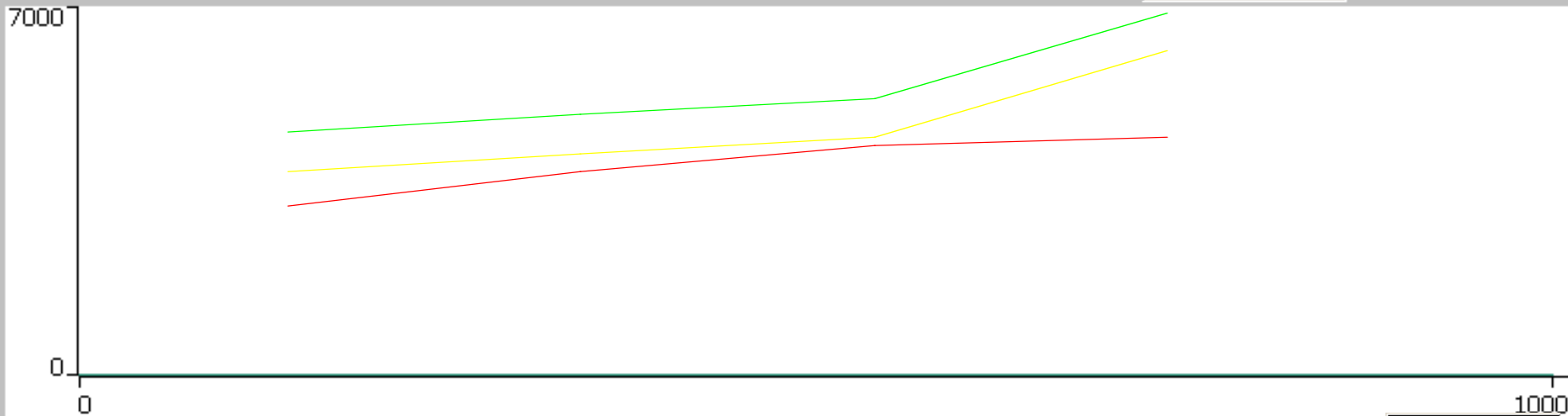


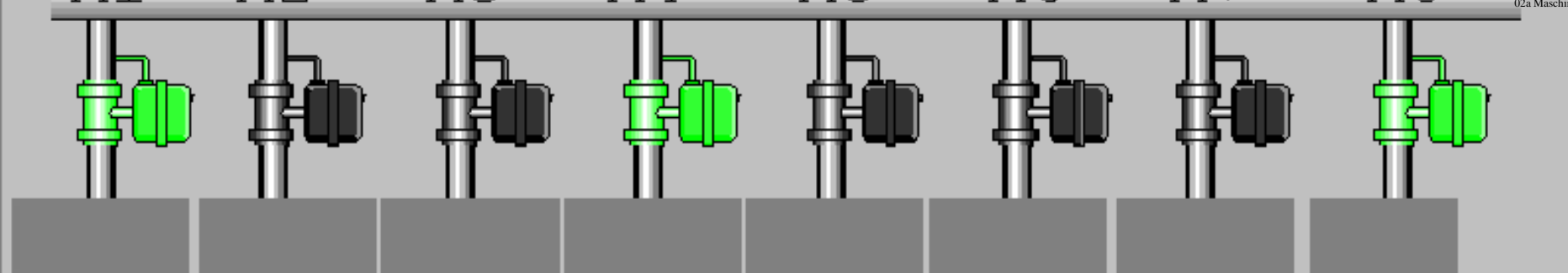
0 PA

## Differential pressure



0 PA





0	0	0	0	0	0	0	0	Kw
---	---	---	---	---	---	---	---	----

0	0	0	0	0	0	0	0	hour
---	---	---	---	---	---	---	---	------

**volume flow adjustment**

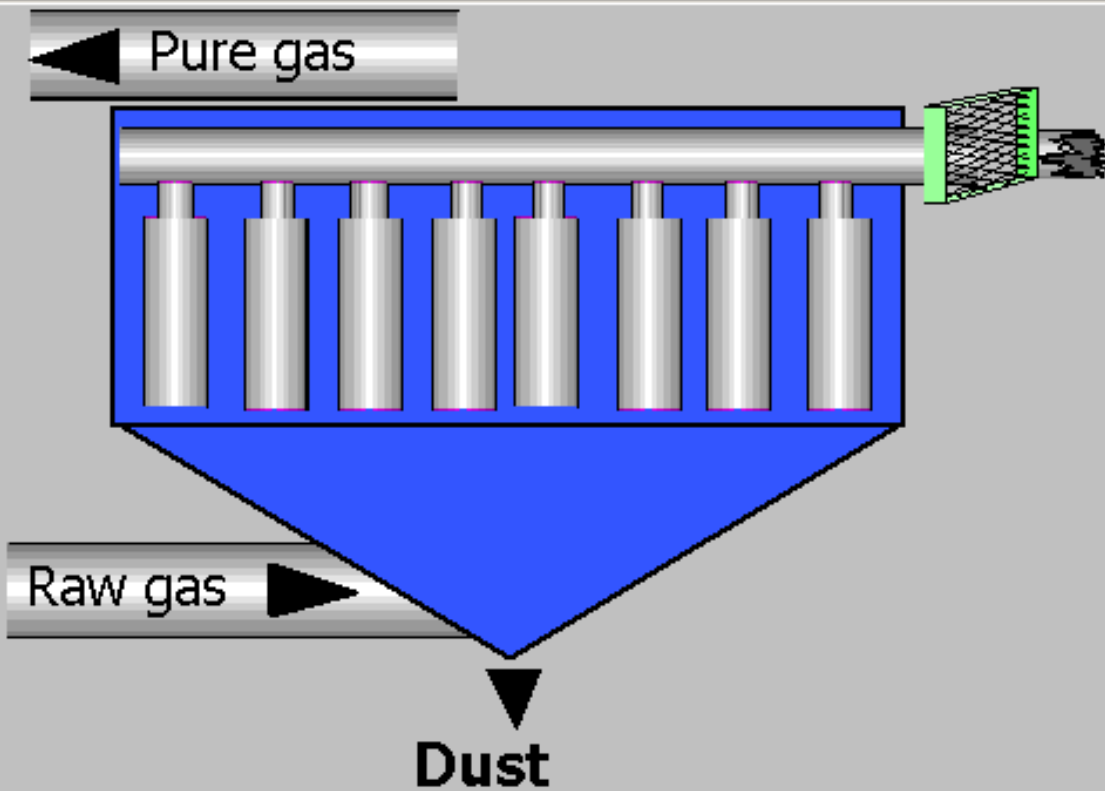
0	0	0	0	0	0	0	0	%
---	---	---	---	---	---	---	---	---

**feeder pipes classification**

0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---



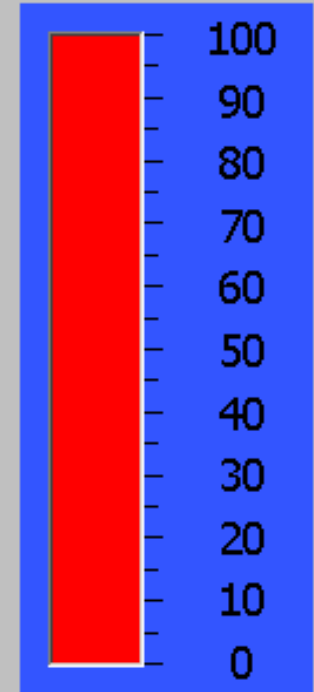
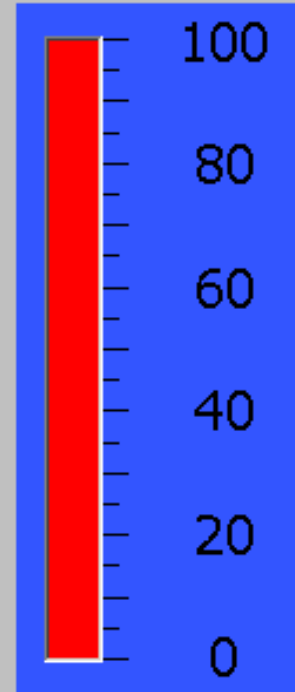
# filter status



fill-level:

filter

silo



0 %

0 %

**return air ON**

clea-  
ning

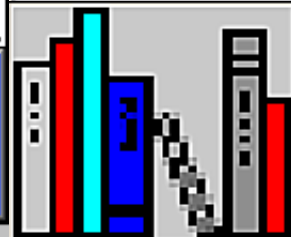
**EXIT**

## Cleaning parameter

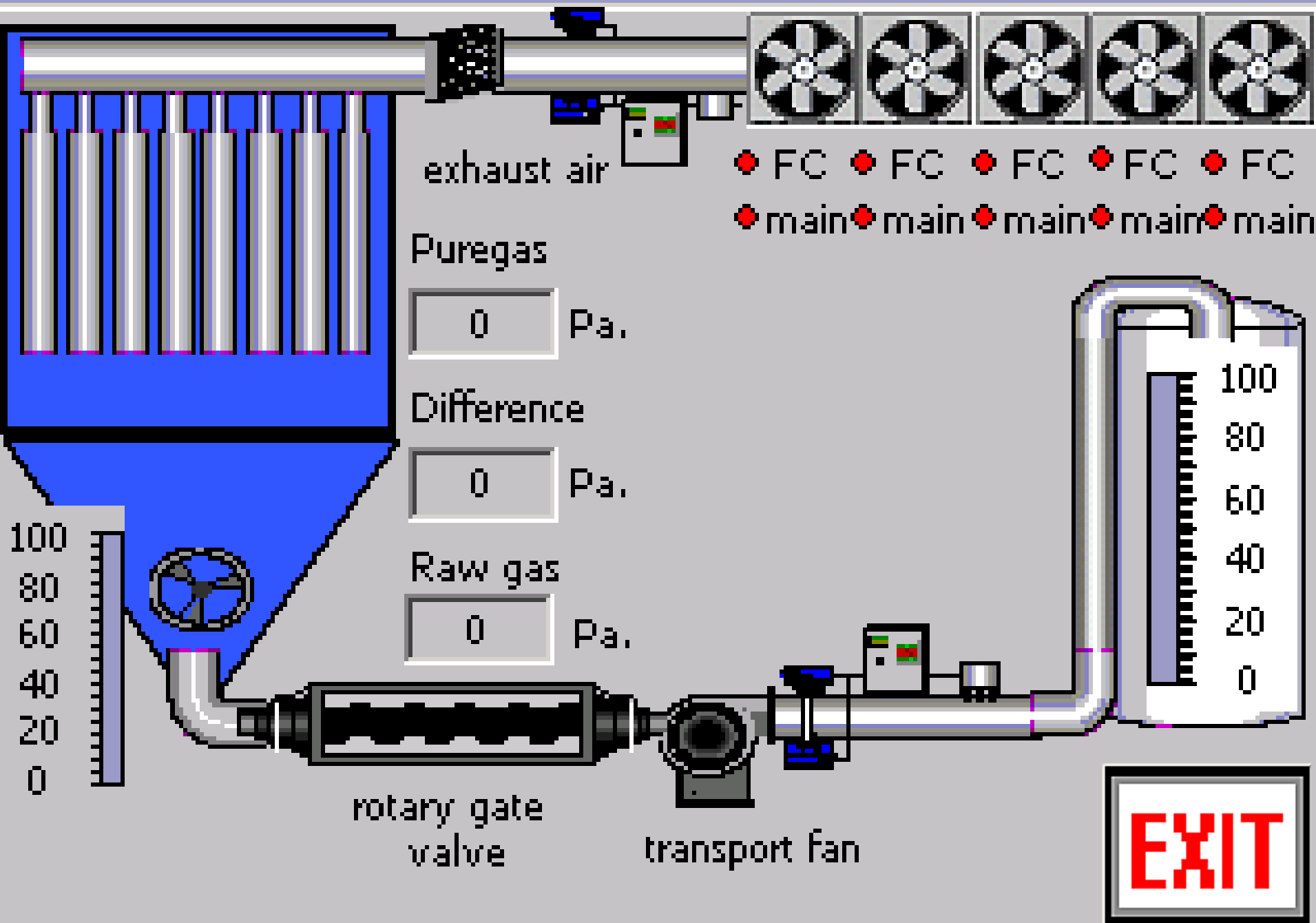
time delay OFFLINE	0	min.
time delay ONLINE	0	min.
Break ONLINE valve / jogging motor	0.0	sec.
Break OFFLINE valve / jogging motor	0.0	sec.
Nr. of Valves	0	
Nr. of OFFLINE cycle	0	
Aktive time valve / jogging motor	0.0	sec.

**pressure analysis**

**EXIT**



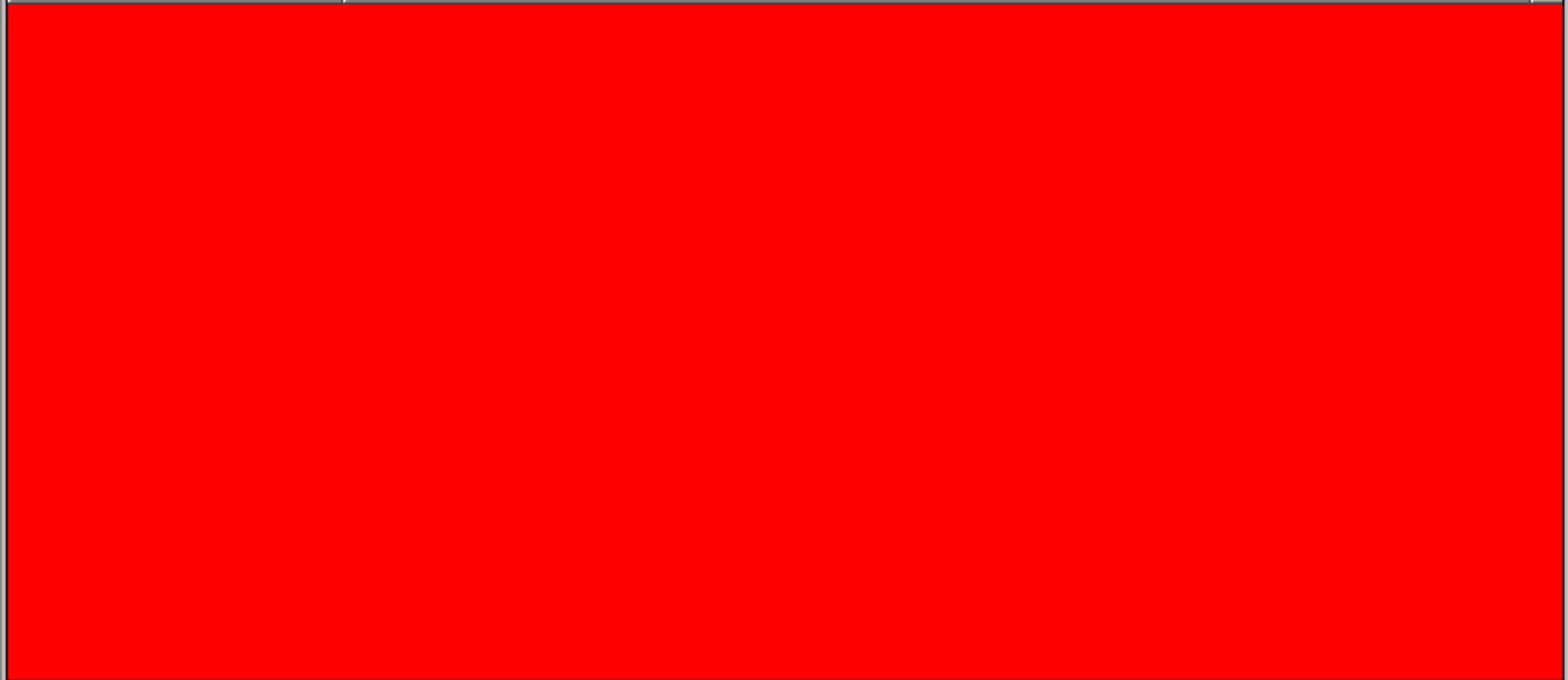
# plant layout



# Failure

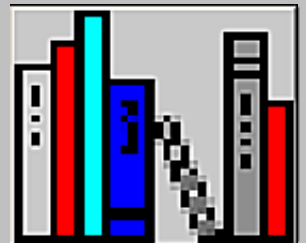
Time

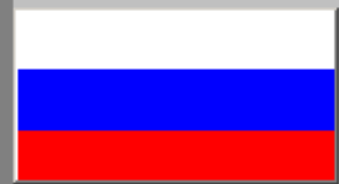
Date



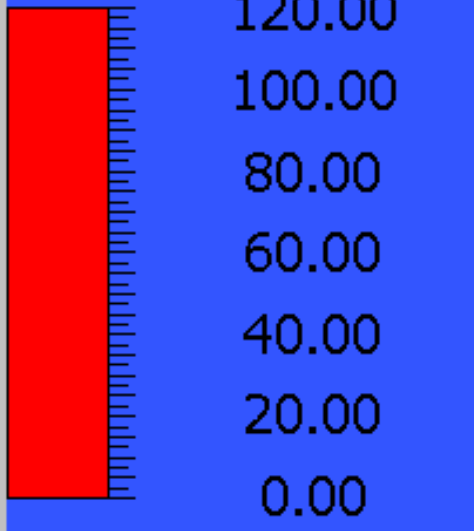
**EXIT**

**Confirmation**

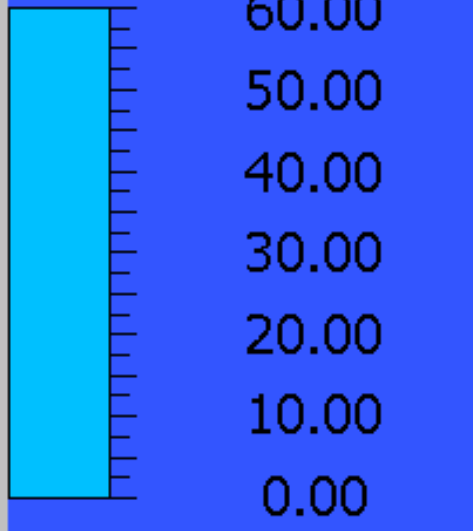




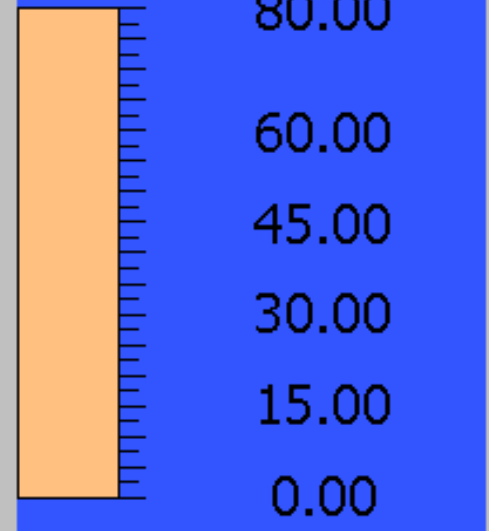




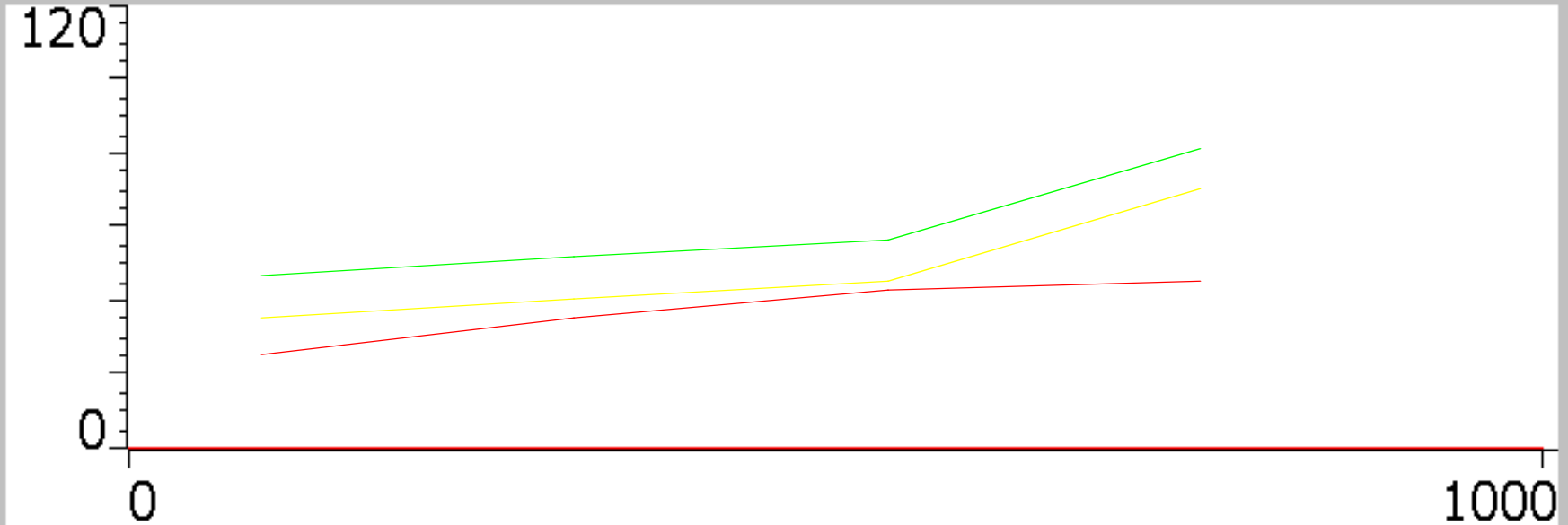
**Ampere [A]**



**Frequency [Hz]**



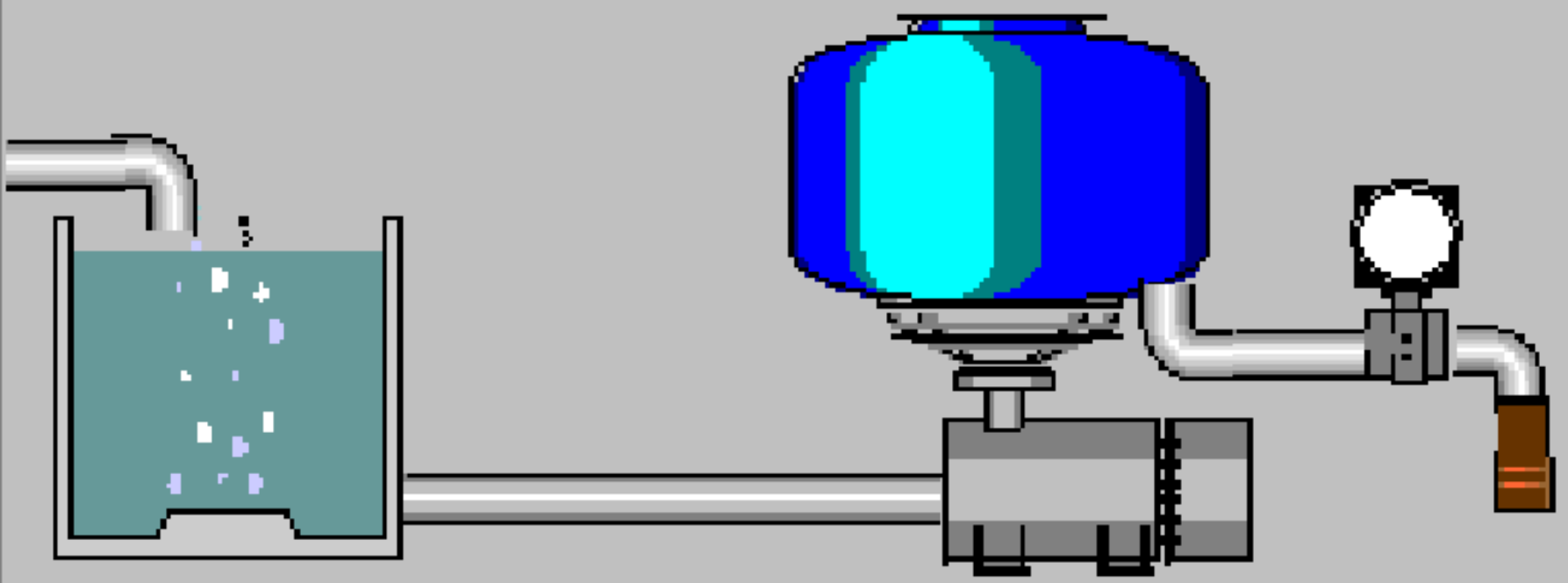
**Kilowatt [KW]**



Energy consumption

**EXIT**

# pressure increase



man. \ auto		Pump	
man.	auto	OFF	ON

**EXIT**

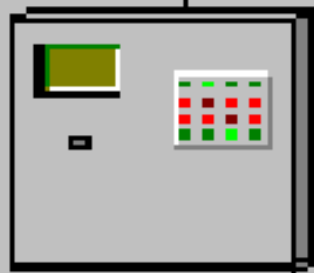
# spark extinguishing



spark counter

0
0
0
0
0
0

filter



# residual dust

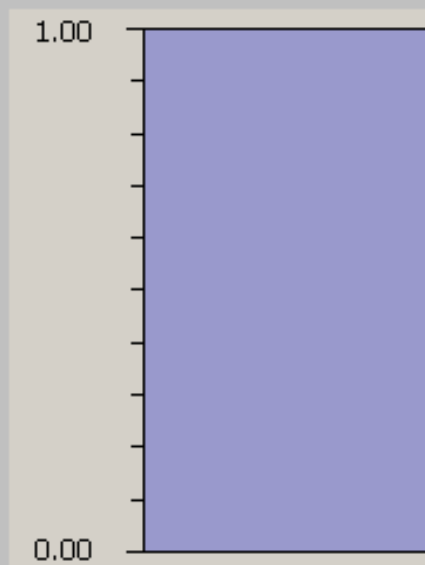
**EXIT**

## Sensor 1:

actual value  mg

limit value 1:  mg

limit value 2:  mg

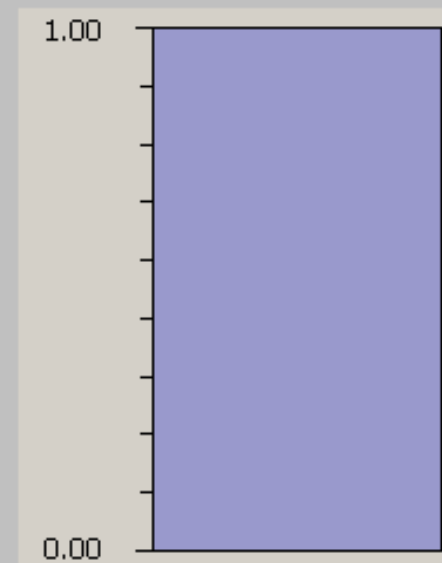


## Sensor 2:

actual value  mg

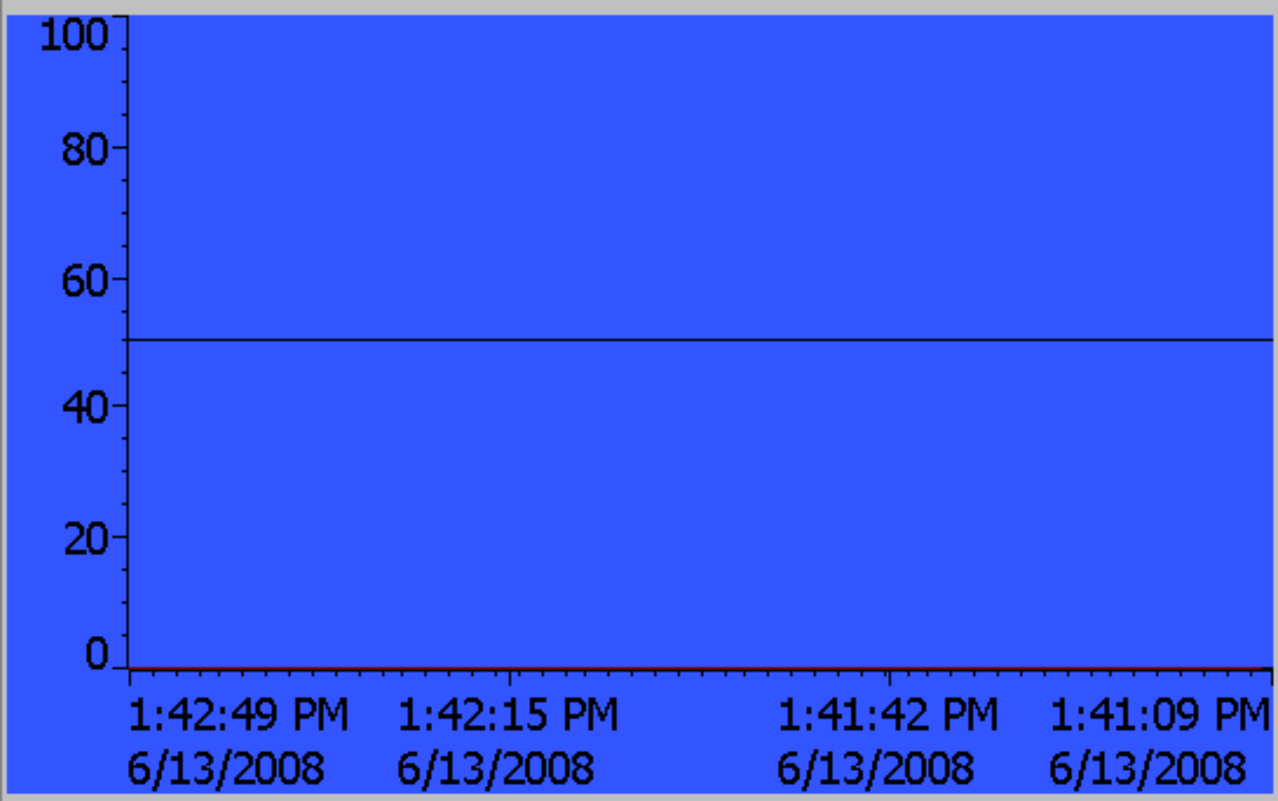
limit value 1:  mg

limit value 2:  mg

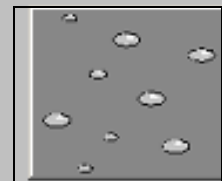




- Resi. dust sensor 1
- Resi. dust sensor 2



- volume flow 1
- volume flow 2
- volume flow 3
- volume flow 4
- volume flow 5
- volume flow 6



# Comfort 2010

## commissioning INFO

**volumeflow adjustment:**

**1.**



**frequency converter:**

**2.**



**plant adjustments:**

**3.**



**EXIT**

# frequency converter: write parameters

act.	new	
0.0	0.0	Jog. Speed [Hz]
0.00	0.00	Ramp up [sec.]
0.00	0.00	Ramp down [sec.]
0	0	Setpoint [Pa.]
0.00	0.00	Motor Power [kw]
0	0	Motor Frequency [Hz]
0.00	0.00	Motor current [A]
0	0	Motor nominal Speed [Ump]
0	0	min. Reference [Hz]
0	0	max. Reference [Hz]

upload

**EXIT**

# Service

Emergency  
discharge



Intensive  
excretion



Volume  
flow



**EXIT**

Cleaning-  
Valve



Emergency  
exhausting



System





# Emergency operation

Turbo Jet

manual

OFF

auto

transport fan

manual

OFF

auto

rotary gate valve

manual

OFF

auto

circular discharge

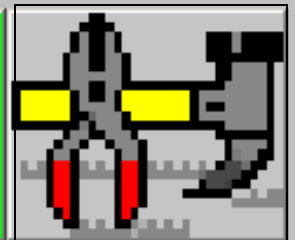
manual

OFF

auto

**EXIT**

emergency  
operation  
-2-

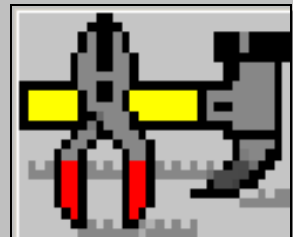


# Intensive excretion

Intensive excretion ON/OFF

OFF

**EXIT**



# adjustments bypassflaps

Bypass flap Nr.:

0

Volume flow 1

0

Bypass flap Nr.:

0

Volume flow 2

0

Bypass flap Nr.:

0

Volume flow

0

Bypass flap Nr.:

0

Volume flow

0

Bypass flap Nr.:

0

Volume flow

0

Bypass flap Nr.:

0

Volume flow

0

**EXIT**



# manual mode cleaning valve

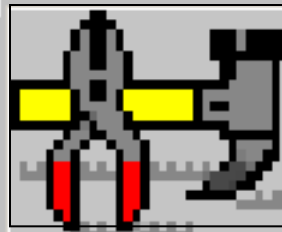
**valve No.:**

0

cleaning  
1 cycle on

cleaning  
impulse on

**EXIT**



# Emergency exhausting

exhaust fan 1

Manual

OFF

Auto

exhaust fan 2

Manual

OFF

Auto

exhaust fan 3

Manual

OFF

Auto

exhaust fan 4

Manual

OFF

Auto

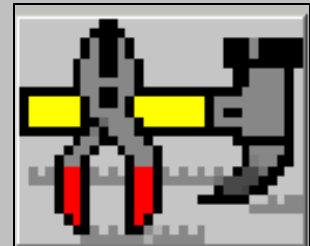
exhaust fan 4

Manual

OFF

Auto

**EXIT**



# Service Monitor

Program Transfer

Display cleaning

Calibrate Display

-

Contrast

+

**EXIT**

## energy calculation

energy total consumption:

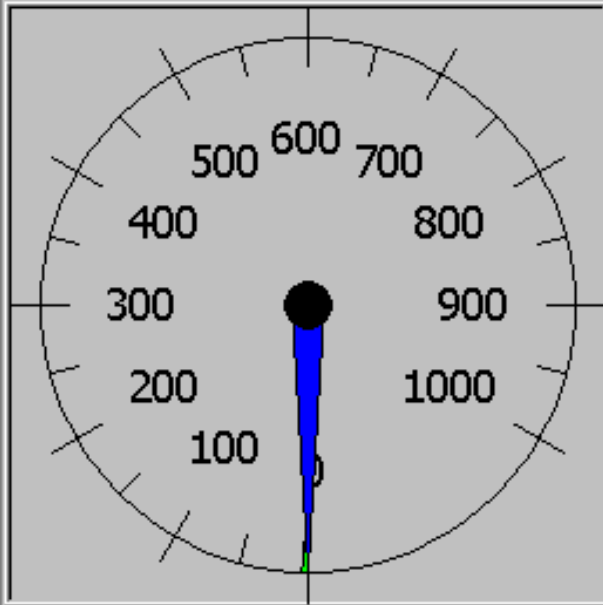
0.00

**KWh x**

0.00

**Price  
KWh =**

0.00

**€uro**

1000

0

0

1000

Energie total consumption:

0

**KW**

# Parameters

pressure control

Cleaning  
-Parameters-Pressure-

Control elements

Cleaning  
-Parameters-Time-

Time monitoring  
-discharge-

Delay timer:  
universal

Actual condition

Settings  
-Fill level-

commis-  
sioning

Failure

Settings  
-Fill level-

**EXIT**



# pressure adjustment

pressure setpoint

0

Pa.

pressure offset

0

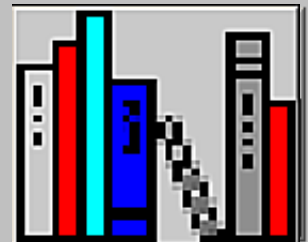
Pa.

Volume flow

0

Pa.

**EXIT**



## Delay timer/ monitoring

Time delay off:  
filling level overflow

0.0

sec.

Time delay off:  
discharge

0.0

sec.

monitoring waste air\back air

0.0

sec.

monitoring:  
fire protection flaps

0.0

sec.

operating time of exhausting

0

min.

fan: elapsed timer

0

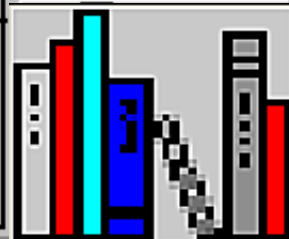
min.



releases

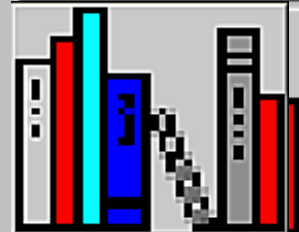


EXIT



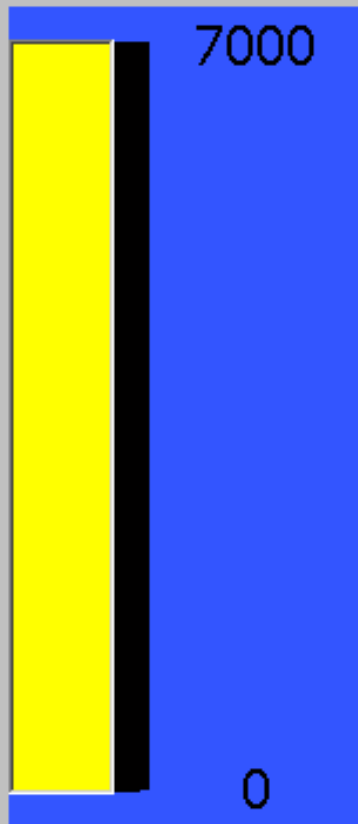
## timer discharge -1-

time delay on: transport fan	0.0	sec.
time delay off: transport fan	0.0	sec.
time delay on: rotary gate valve	0.0	sec.
time delay off: rotary gate valve	0.0	sec.
time delay on: circular discharge	0.0	sec.
delay off: circular discharge	0.0	sec.
time delay on: jogging motor	0.0	sec.
time delay off: jogging motor	0.0	sec.

**EXIT**timer:  
discharge  
-2-

# filter status

Puregas



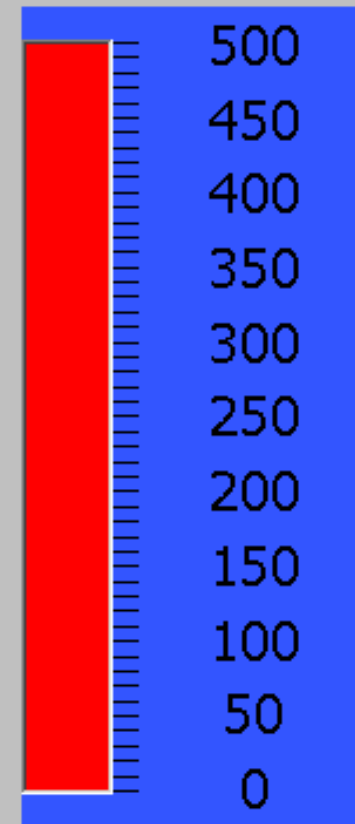
0 PA

Raw gas



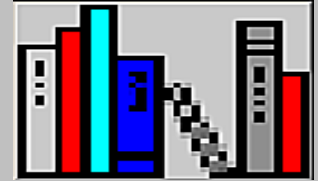
0 PA

Differential pressure



0 PA

**EXIT**



# Limiting differential pressure

cleaning filter ON

0

Pa.

cleaning filter OFF

0

Pa.

filter break

0

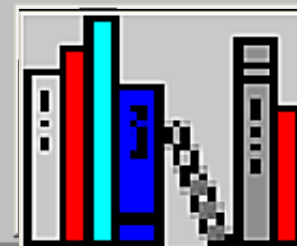
Pa.

filter pressure  
max diff.

0

Pa.

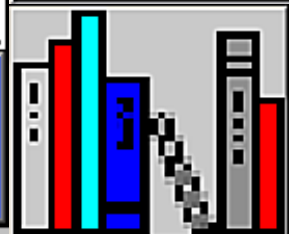
**EXIT**



## Cleaning parameter

time delay OFFLINE	0	min.
time delay ONLINE	0	min.
Break ONLINE valve / jogging motor	0.0	sec.
Break OFFLINE valve / jogging motor	0.0	sec.
Nr. of Valves	0	
Nr. of OFFLINE cycle	0	
Aktive time valve / jogging motor	0.0	sec.

**pressure analysis**



# time delay's

delay on release Value OFF  
exhaust fan

0.0 sec.

slow down timer exhaustfan

0.0 sec.

Time delay: close slide

0 sec.

Time delay: close last slide

0.0 sec.

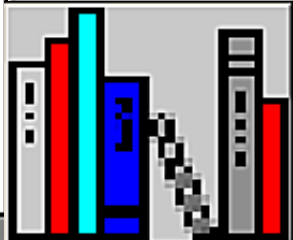
shut off intervall  
intensive suction

0.0 sec.

time delay: discharge  
with suction

0.0 min.

**EXIT**



## filter: limiting value

Fill-Level max.  
Sensor deadpoint

0

cm

Fill-Level total

0

cm

prealarm

0

%

shutdown -overrun-

0

%

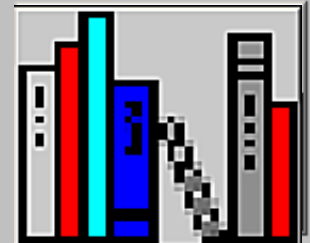
actual fill level

0

%

**EXIT**

Container  
Silo





# returnair channel

return chanel 1



mm

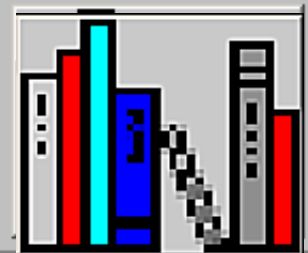
return chanel 2



mm



**EXIT**



# discharge settings

**discharge ON:**

**discharge OFF:**

releases

**EXIT**

Fill-Level

ON

OFF



activation rotary gate valve/transport fan

ON = Fill-level = activation over Fill-level  
 OFF = suction = activation over suction

Operating time

ON

OFF



activation of discharge over suction

OFF = operating time = after fan operating time  
 ON = fan = with fan and oncarriage

circ. discharge puls.

ON







OFF

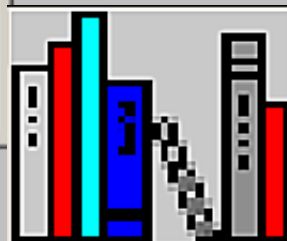


activation circular discharge

ON = dependent on discharge pulsing  
 OFF = continuous operation with fan ON

# monitoring releases

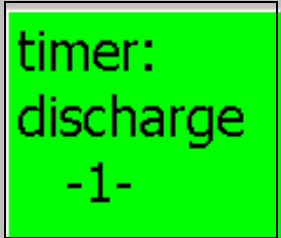
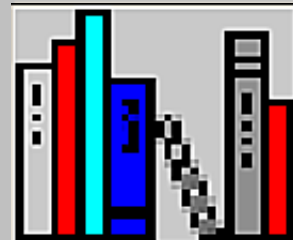
pressure filter-cleaning	Rot.check circ. discharge1
OFF ON	OFF ON
	
pressure transport ventilator	exhaust\return air
OFF ON	OFF ON
	
Rot. check rotary valves 1	fire protection flap
OFF ON	OFF ON
	



## timer: discharge -2-

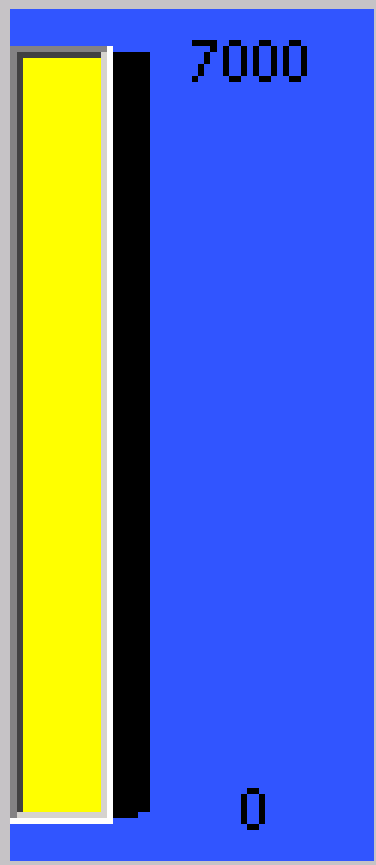
time delay on: transport fan	<input type="text" value="0"/>	sec.
time delay off: transport fan	<input type="text" value="0"/>	sec.
time delay on: rotary gate valve	<input type="text" value="0"/>	sec.
time delay off: rotary gate valve	<input type="text" value="0"/>	sec.
time delay on: circular discharge	<input type="text" value="0"/>	sec.
delay off: circular discharge	<input type="text" value="0"/>	sec.
time delay on: jogging motor	<input type="text" value="0"/>	sec.
time delay off: jogging motor	<input type="text" value="0"/>	sec.


 A red "EXIT" sign with a black border and a white background.


 A green rectangular box containing the text "timer: discharge -1-".


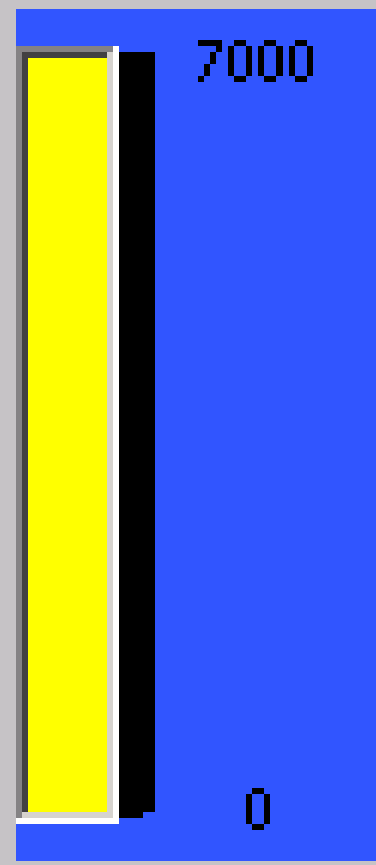
# filter status

Puregas



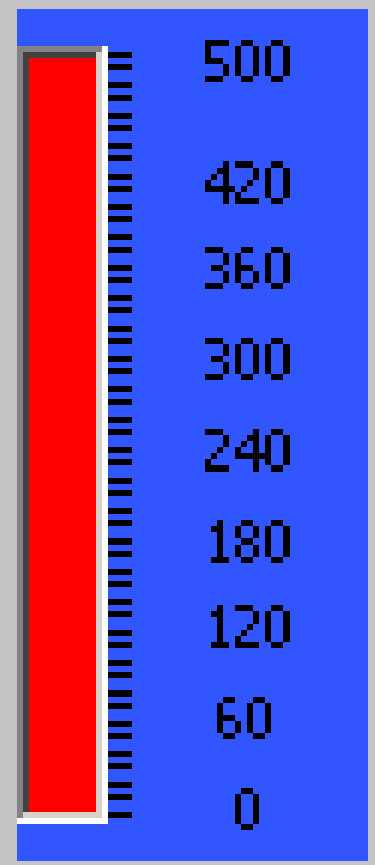
0 PA

Raw gas



0 PA

Differential pressure



0 PA

**EXIT**

