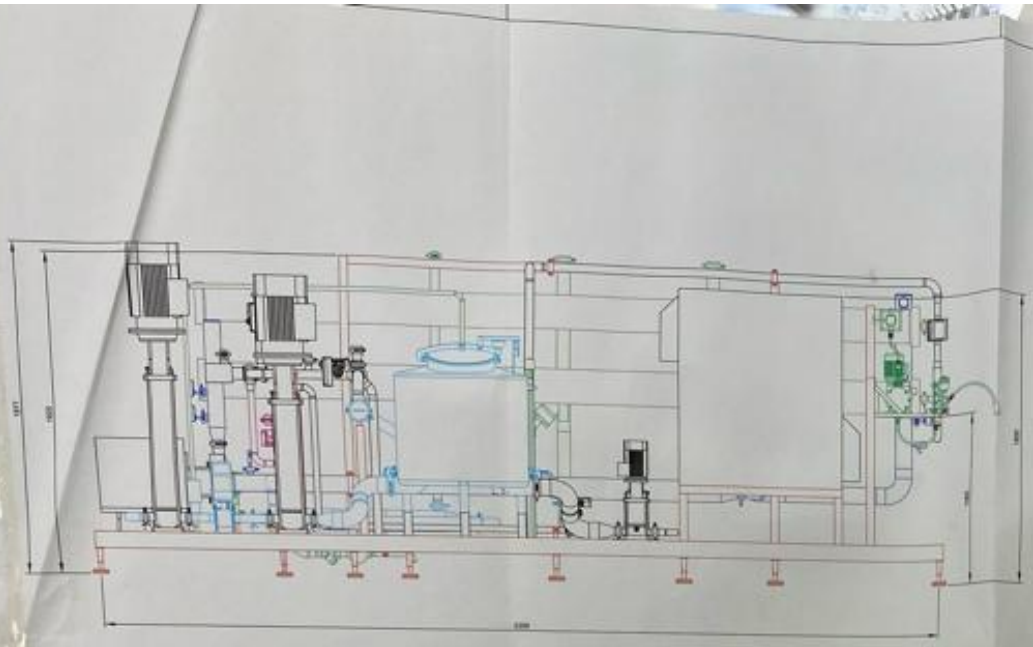
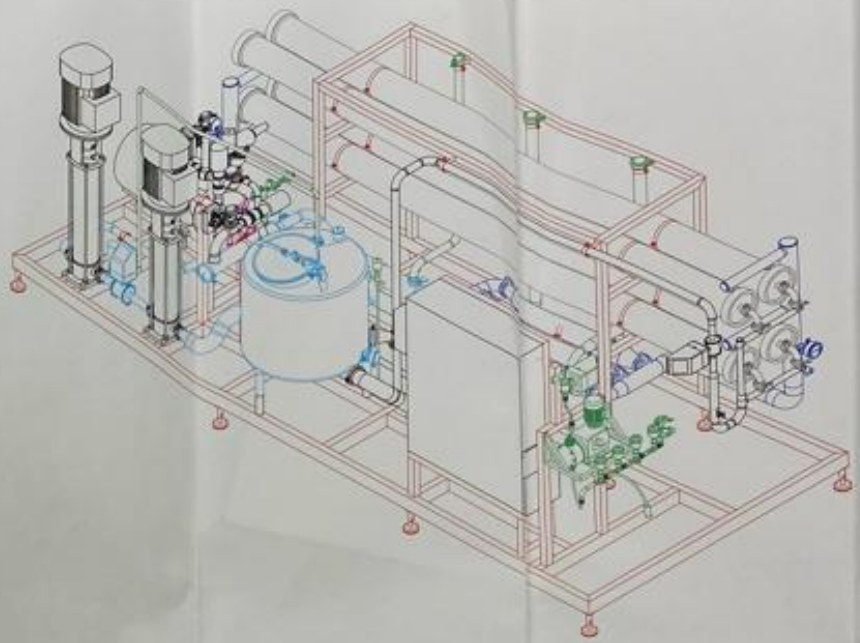
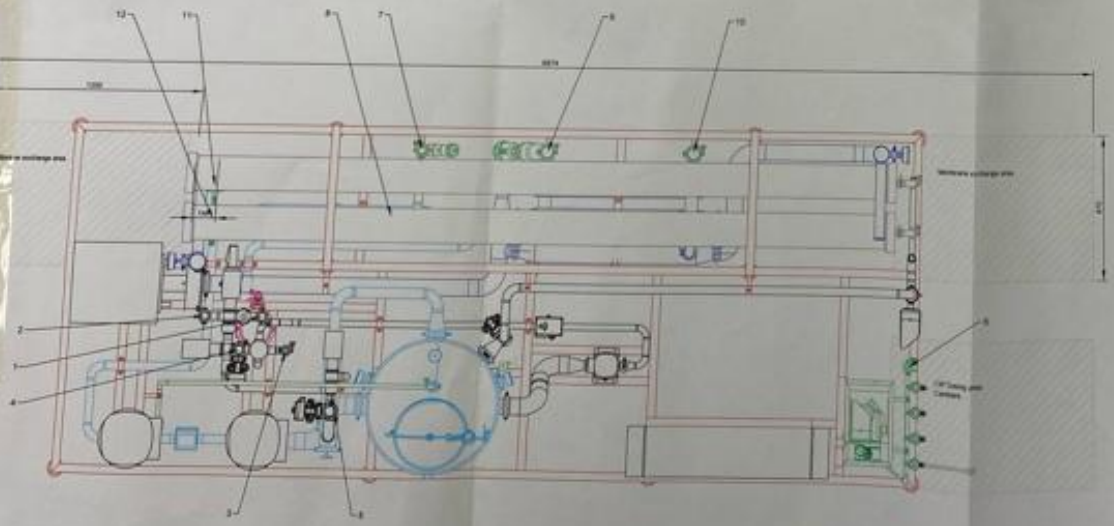
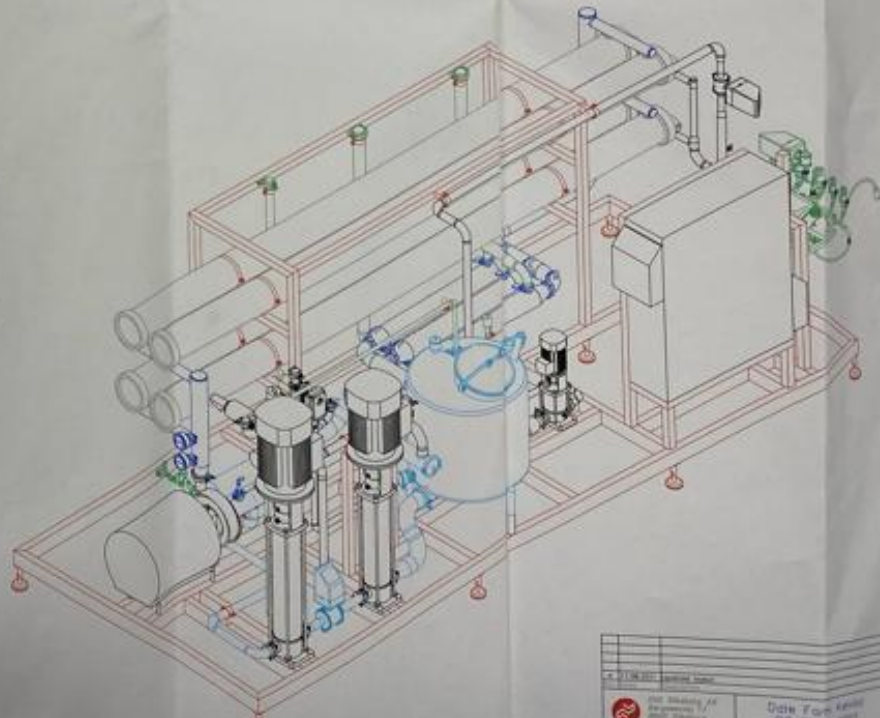
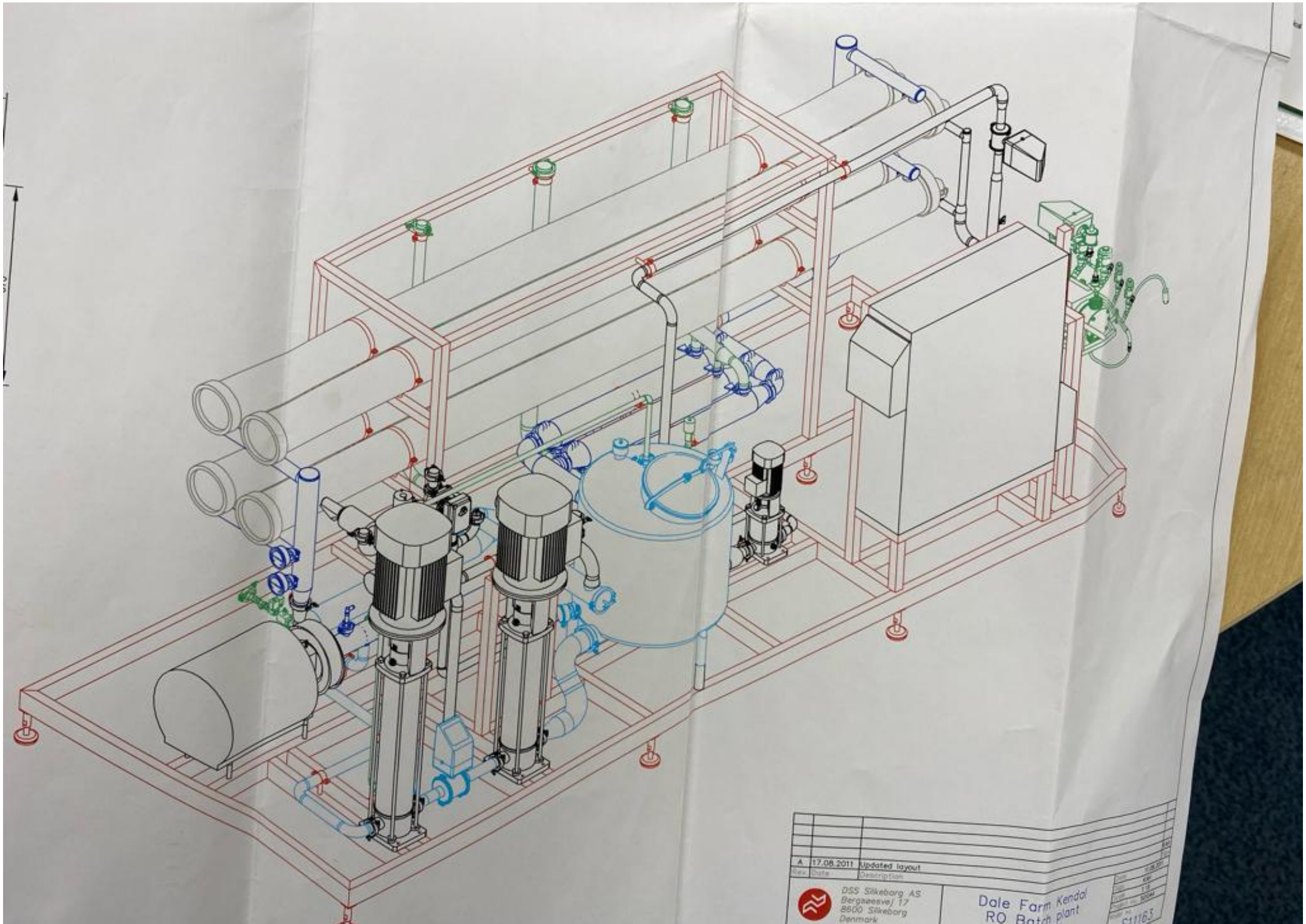
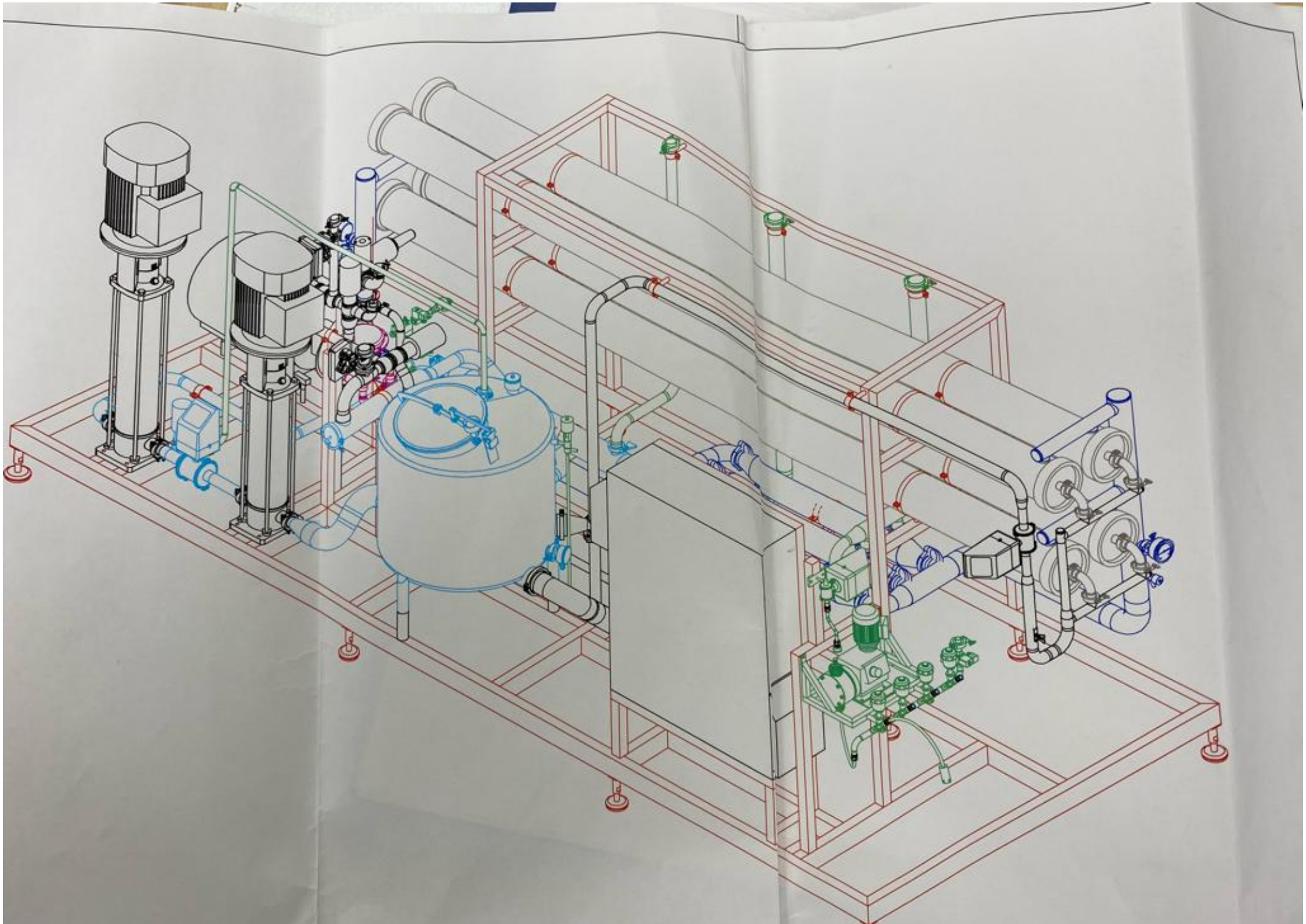


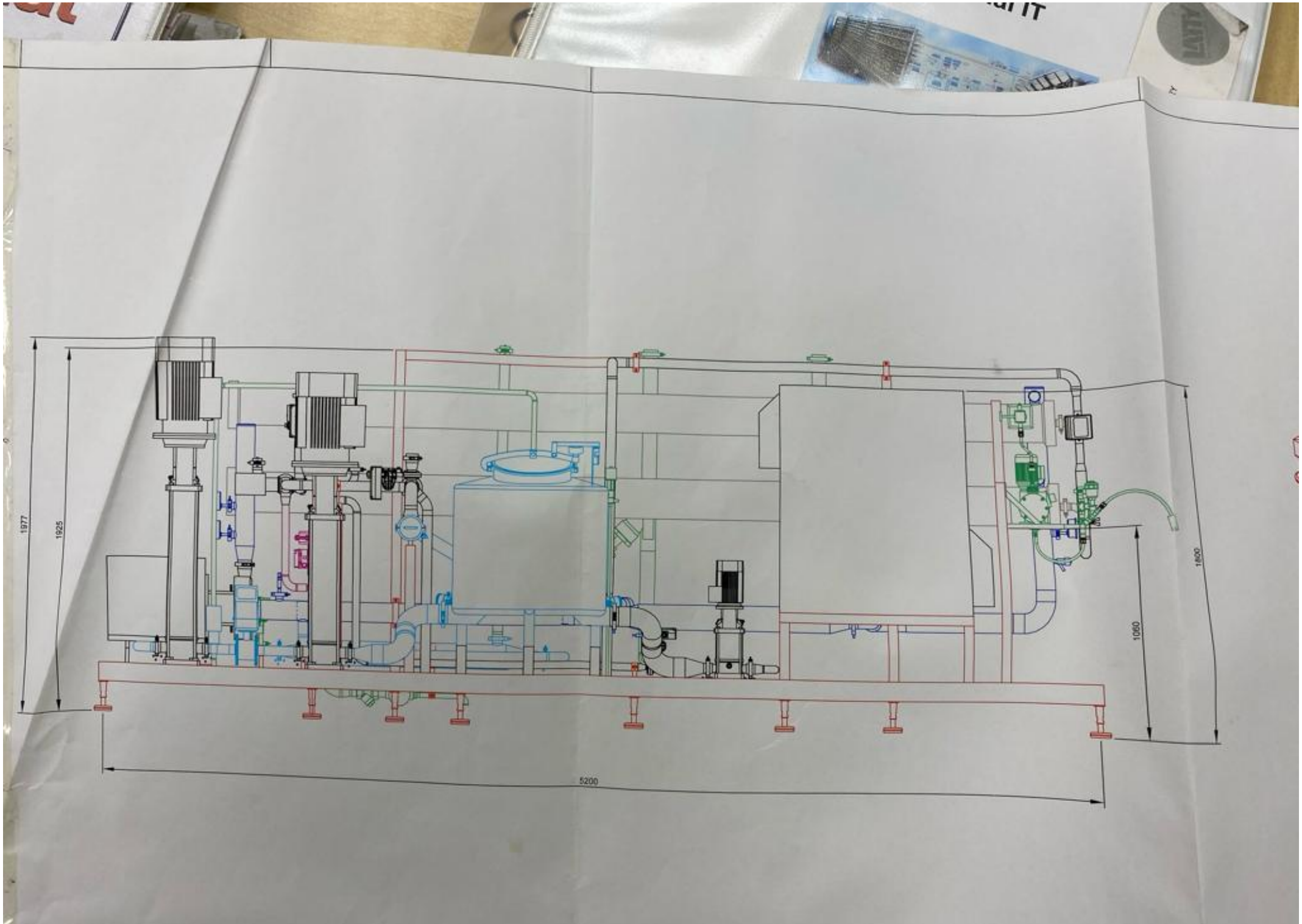


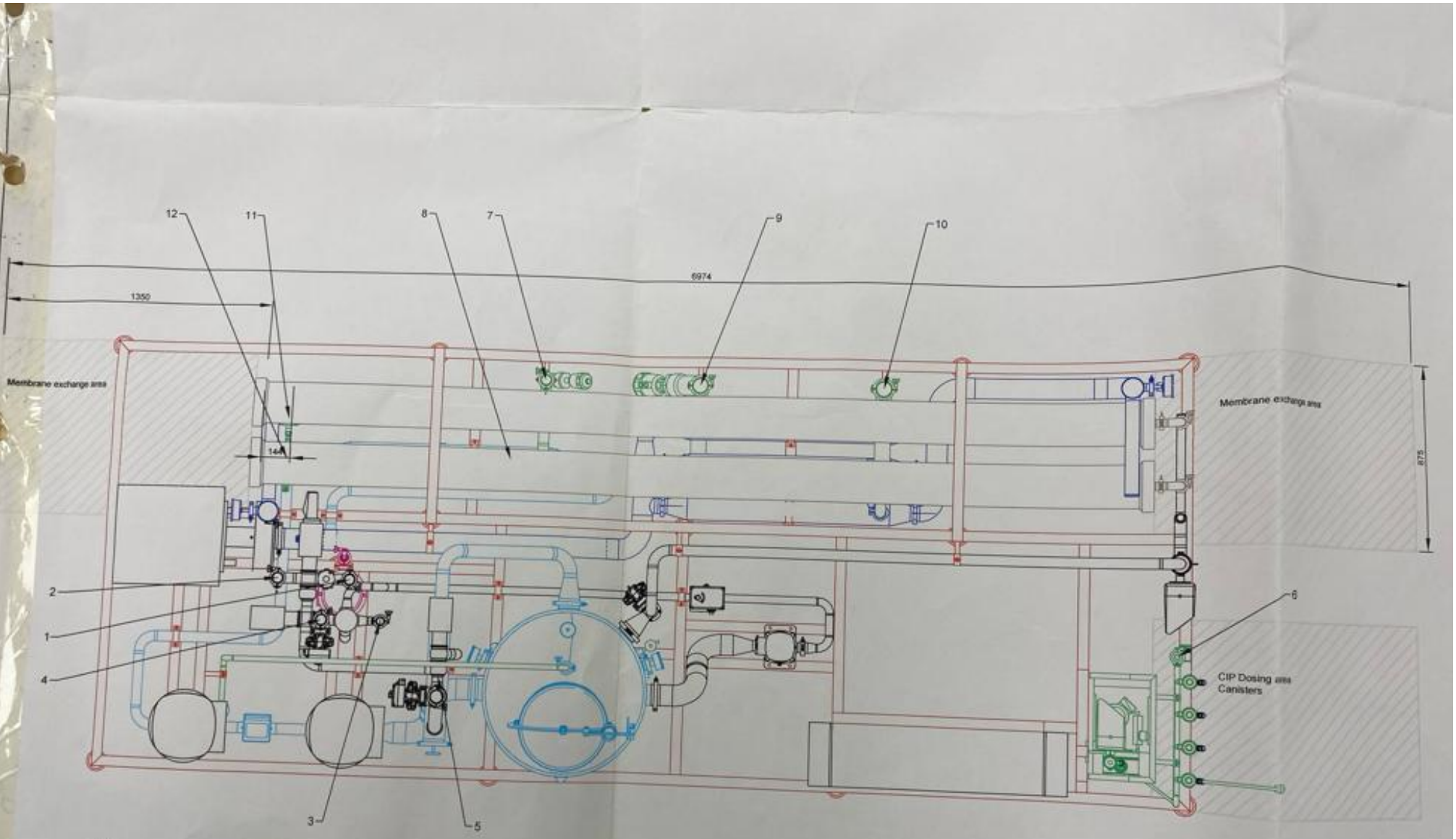




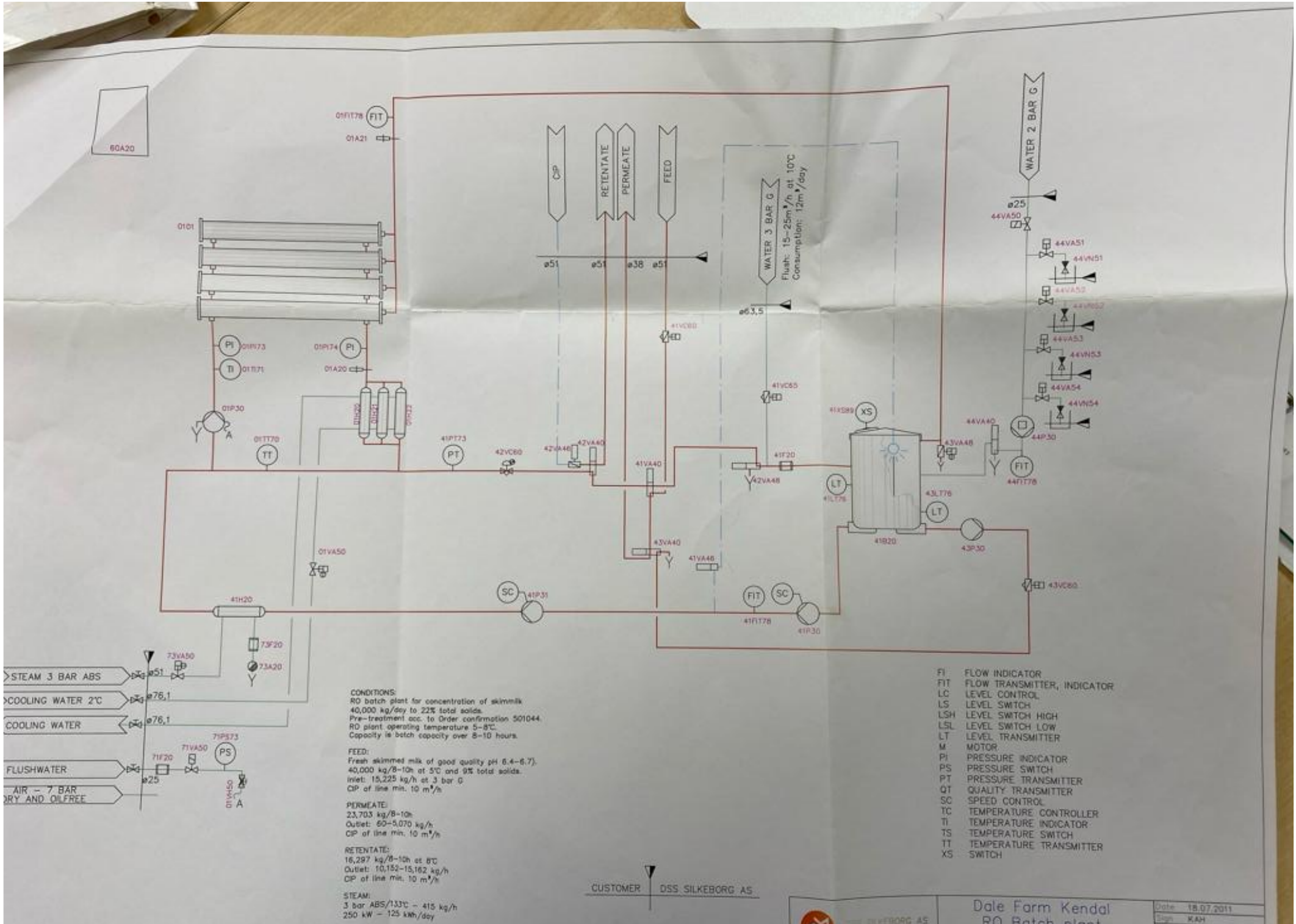

A 17.08.2011 Updated layout
Rev. Date Description
DSS Silkeborg AS
Bergaaesvej 17
8600 Silkeborg
Denmark
Dale Farm Kendal
RO Batch plant




1977
1925
1820
1060
5200



1) CIP in
2) Retentate out
3) Permeate out
4) Feed in
5) Water in
6) Water CIP dosing
7) Steam in
8) Condensate on floor
9) Cooling water in
10) Cooling water out
11) Seal flush water for pumps
12) Flush water on floor



CONDITIONS:
RO batch plant for concentration of skimmilk
40,000 kg/day to 22% total solids.
Pre-treatment acc. to Order confirmation 501044.
RO plant operating temperature 5–8°C.
Capacity is batch capacity over 8–10 hours.

FEED:
Fresh skimmed milk of good quality pH 6.4–6.7).
40,000 kg/8–10h at 5°C and 9% total solids.
inlet: 15,225 kg/h at 3 bar G
CIP of line min. 10 m³/h

PERMEATE:
23,703 kg/8–10h
Outlet: 60–5,070 kg/h
CIP of line min. 10 m³/h

RETENTATE:
16,297 kg/8–10h at 8°C
Outlet: 10,152–15,162 kg/h
CIP of line min. 10 m³/h

STEAM:
3 bar ABS/133°C – 415 kg/h
250 kW – 125 kWh/day

FI FLOW INDICATOR
FIT FLOW TRANSMITTER, INDICATOR
LC LEVEL CONTROL
LS LEVEL SWITCH
LSH LEVEL SWITCH HIGH
LSL LEVEL SWITCH LOW
LT LEVEL TRANSMITTER
M MOTOR
PI PRESSURE INDICATOR
PS PRESSURE SWITCH
PT PRESSURE TRANSMITTER
QT QUALITY TRANSMITTER
SC SPEED CONTROL
TC TEMPERATURE CONTROLLER
TI TEMPERATURE INDICATOR
TS TEMPERATURE SWITCH
TT TEMPERATURE TRANSMITTER
XS SWITCH

CUSTOMER | DSS SILKEBORG AS

Dale Farm Kendal
RO Batch plant

Date 18.07.2011
Sign KAH

73A20

CONDITIONS:
RO batch plant for concentration of skimmilk
40,000 kg/day to 22% total solids.
Pre-treatment acc. to Order confirmation 501044.
RO plant operating temperature 5-8°C.
Capacity is batch capacity over 8-10 hours.

FEED:
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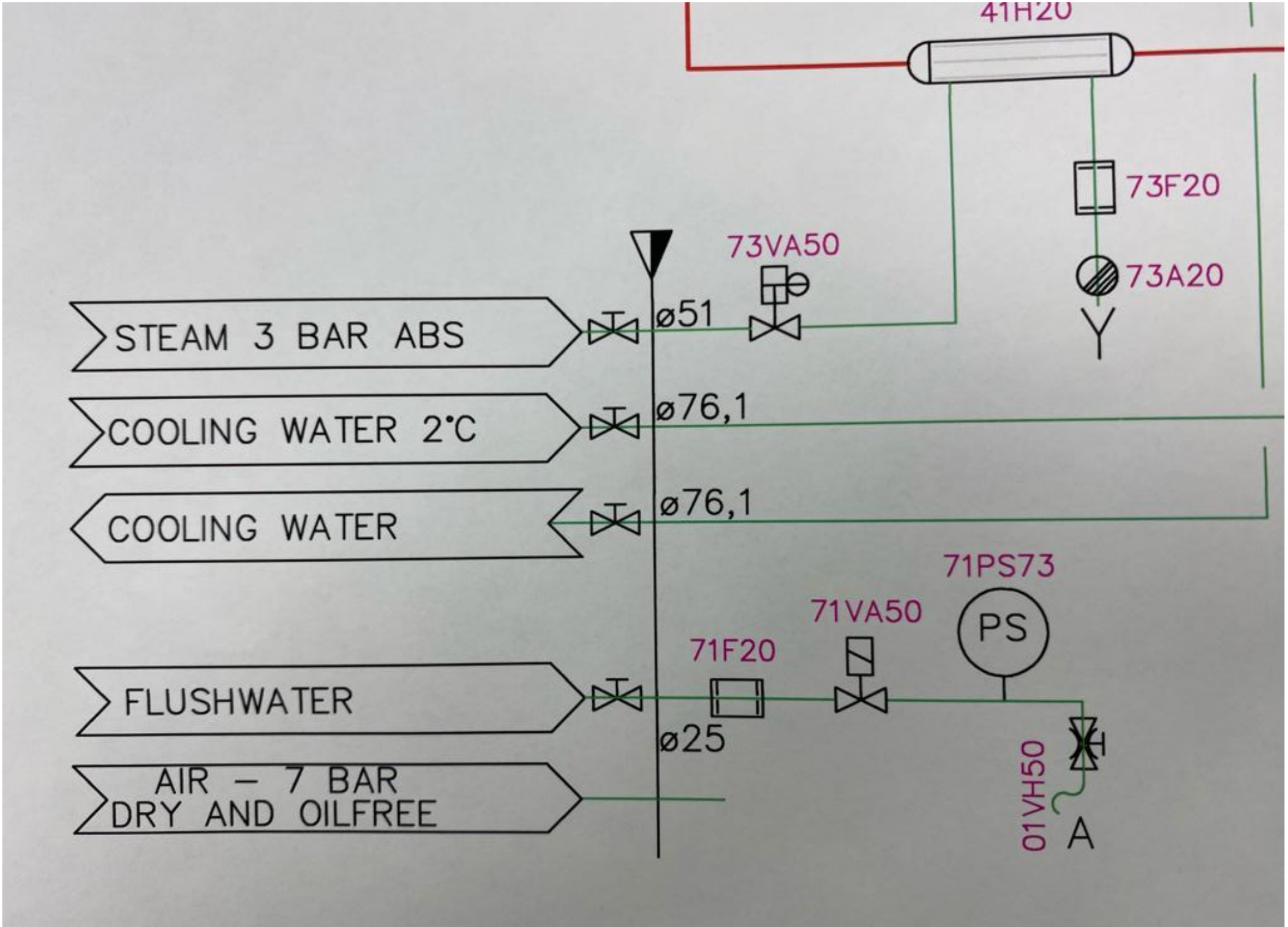
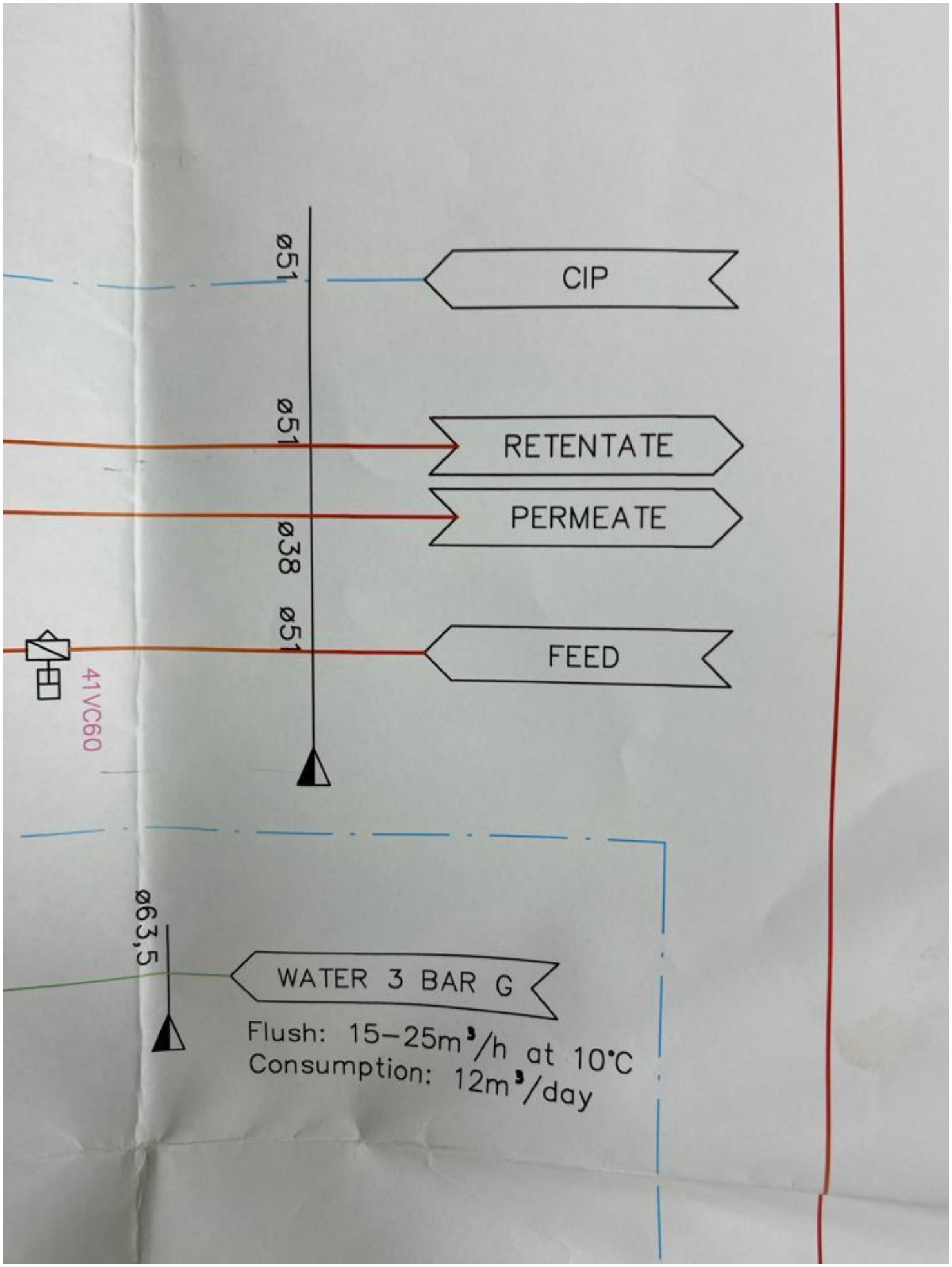
16,297 kg/8-10h at 8°C
Outlet: 10,152-15,162 kg/h
CIP of line min. 10 m^3/h

CUSTOM

STEAM:
3 bar ABS/133°C - 415 kg/h
250 kW - 125 kWh/day

COOLING:
Icewater 27.5 m^3/h at 2°C

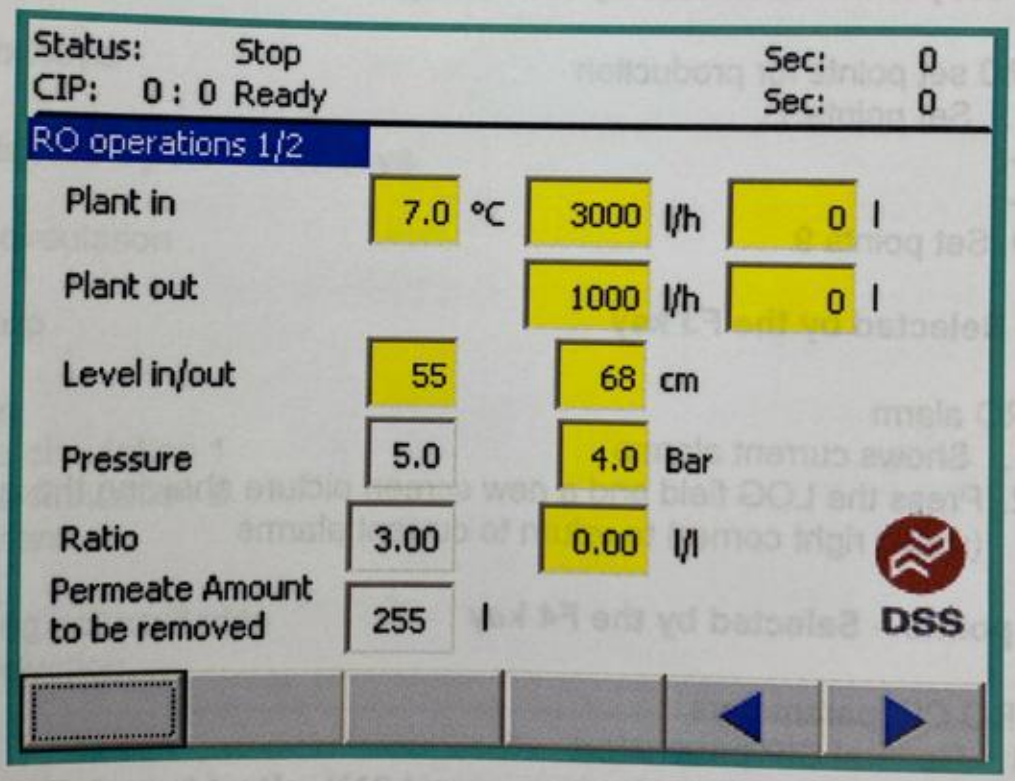

41H20
73F20
73A20
73VA50
STEAM 3 BAR ABS
ø51
COOLING WATER 2°C
ø76,1
COOLING WATER
ø76,1
71PS73
71VA50
PS
71F20
FLUSHWATER
ø25
AIR – 7 BAR
DRY AND OILFREE
01VH50
A


ø51
CIP
ø51
RETENTATE
PERMEATE
ø38
ø51
FEED
41VC60
ø63,5
WATER 3 BAR G
Flush: 15–25m³/h at 10°C
Consumption: 12m³/day

Use of the keyboard

The keyboard layout reflects the daily operating sequences. Operating fields, placed at th
bottom of the screen, are soft keys operated by touching the screen. The function of these
depends on the selected picture. The 2 arrows pointing left and right (on the picture below
used to change screen pictures within a group. All other keys have fixed functions.

The input fields all have a white background (see the example below) and are selected by
touching the screen.



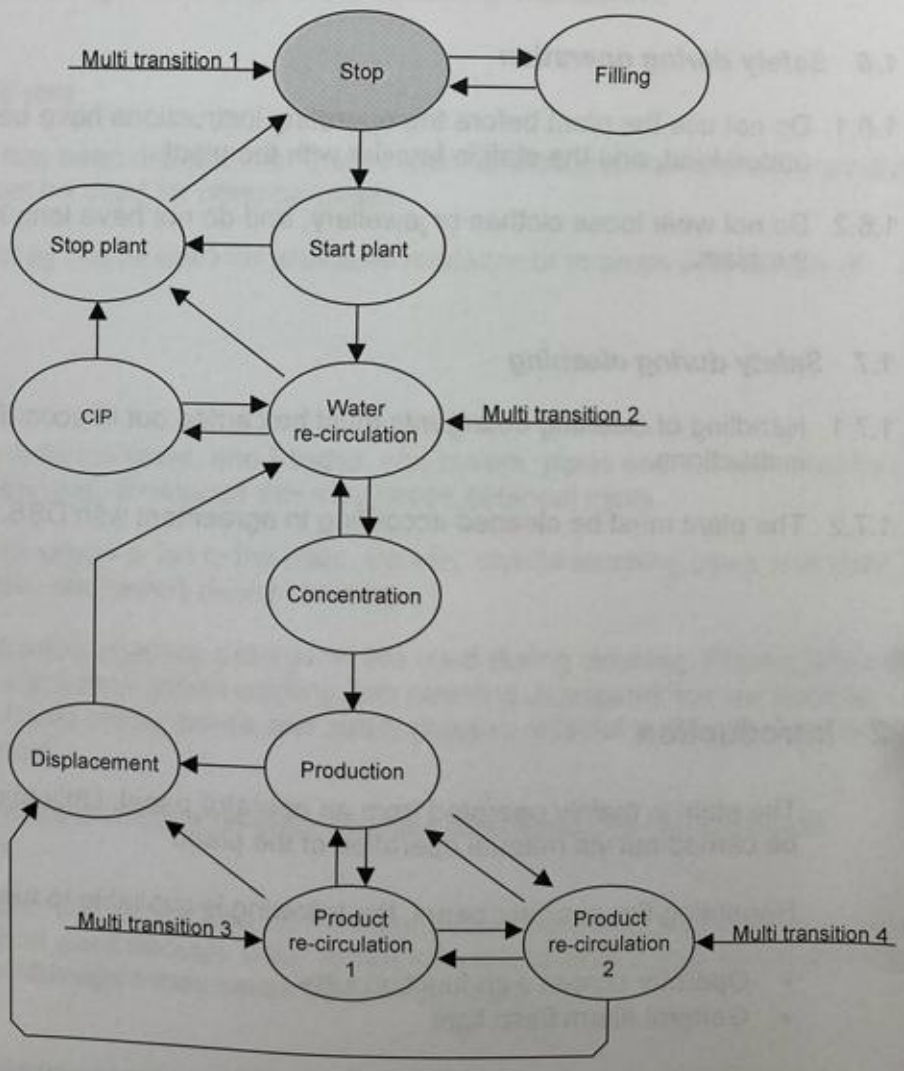
Depending on the input field type, data can be entered in different ways. First touch the fie
the screen, then:

By keying in a value and pressing enter at the input pop-up
By selecting data from a drop down list and pressing enter at the input pop-up
By toggling directly at the input field at the screen

3 General information

3.1 States of the plant

The plant will usually be in a stationary state. If it is not in a stationary state it is changing from one state to another. The following describes the plant's different states:



DSS

MEMBRANE FILTRATION FOR THE DAIRY INDUSTRY

Declaration of Conformity for Machinery

Machinery Directive 2006/42/EC, Annex II A

Manufacturer: DSS SILKEBORG AS
BERGSØESVEJ 17
DK-8600 SILKEBORG
DENMARK

Hereby declares that:

Product:

Type: RO Batch Plant
No: 501044
Year: 2011

- is in conformity with the following directives:

2006/42/EC (Machinery directive)
2006/95/EC (Low voltage directive)
2004/108/EC (EMC Directive)

- and that the below (parts/clauses of) harmonized standards have been applied:

EN ISO 12100-1 (Safety of machinery)
EN ISO 12100-2 (Safety of machinery)
EN 1672-2, Food Processing Machinery, Part 2: Hygiene demands
EN 60204-1 Electrical equipment of machines - Part 1: General requirements

Technical dossier drawn up by:
Name: Karsten Hedegaard
Title: *Project Manager*
Address: DSS Silkeborg AS
Bergsøesvej 17, DK-8600 Silkeborg, DENMARK

Date: 21/9-2011

Signed by: Susanne Greve
Title: *Manager, Projects Dept.*
Address: DSS Silkeborg AS
Bergsøesvej 17, DK-8600 Silkeborg, DENMARK