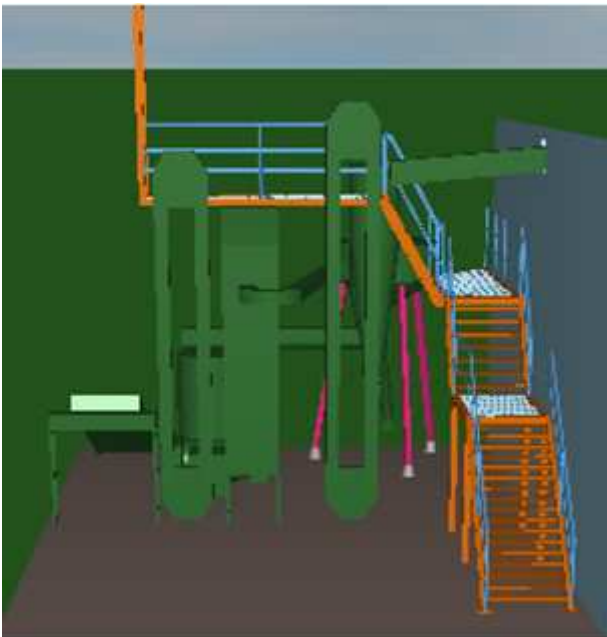
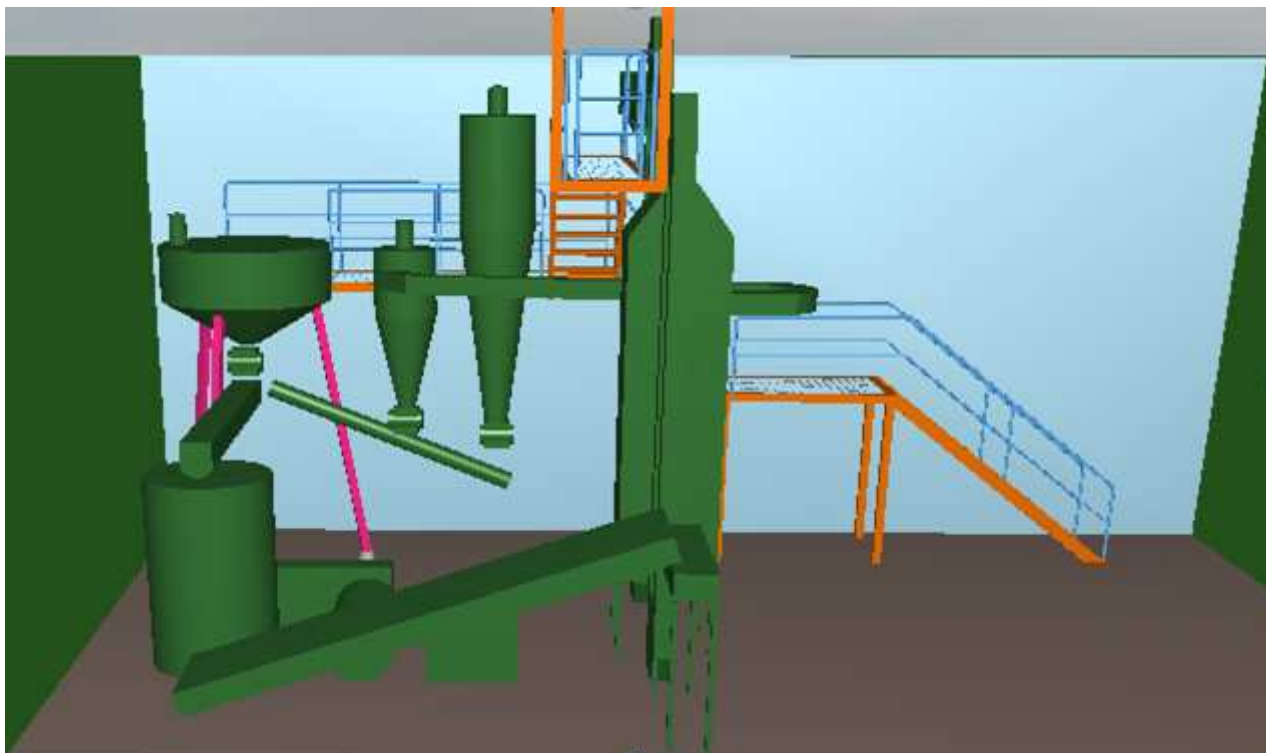
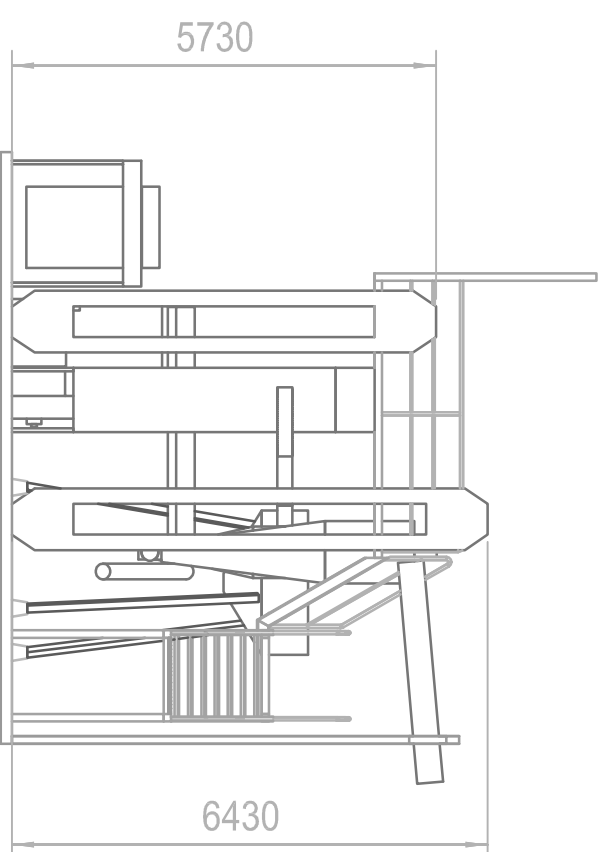
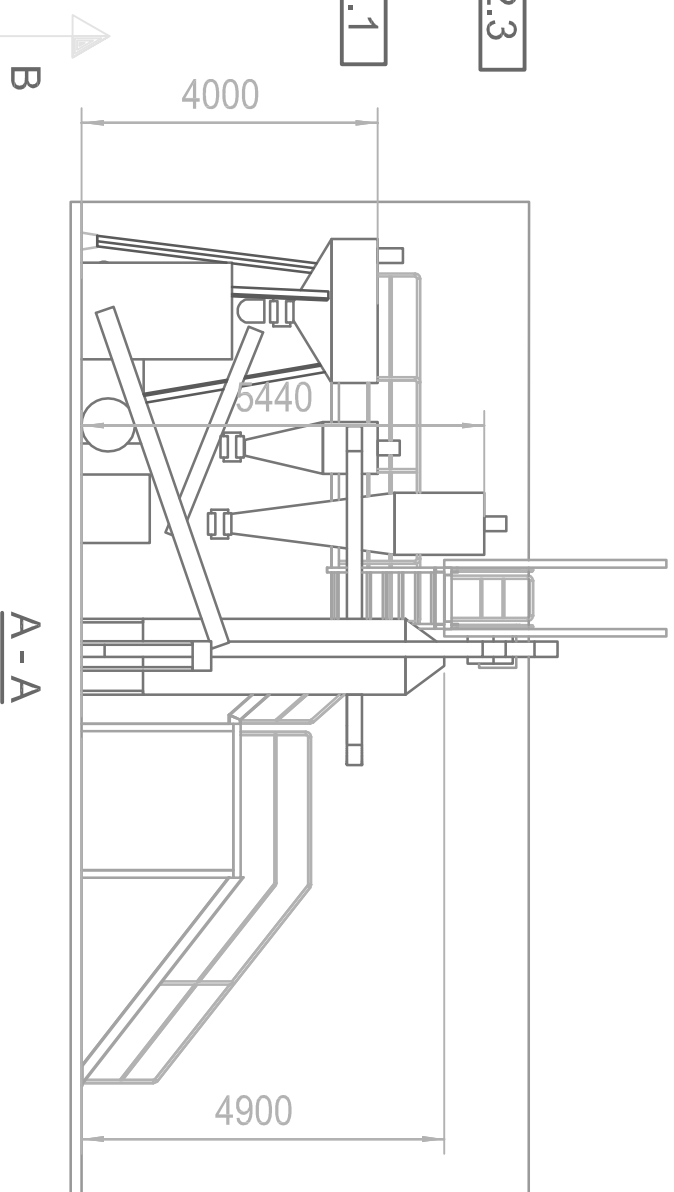
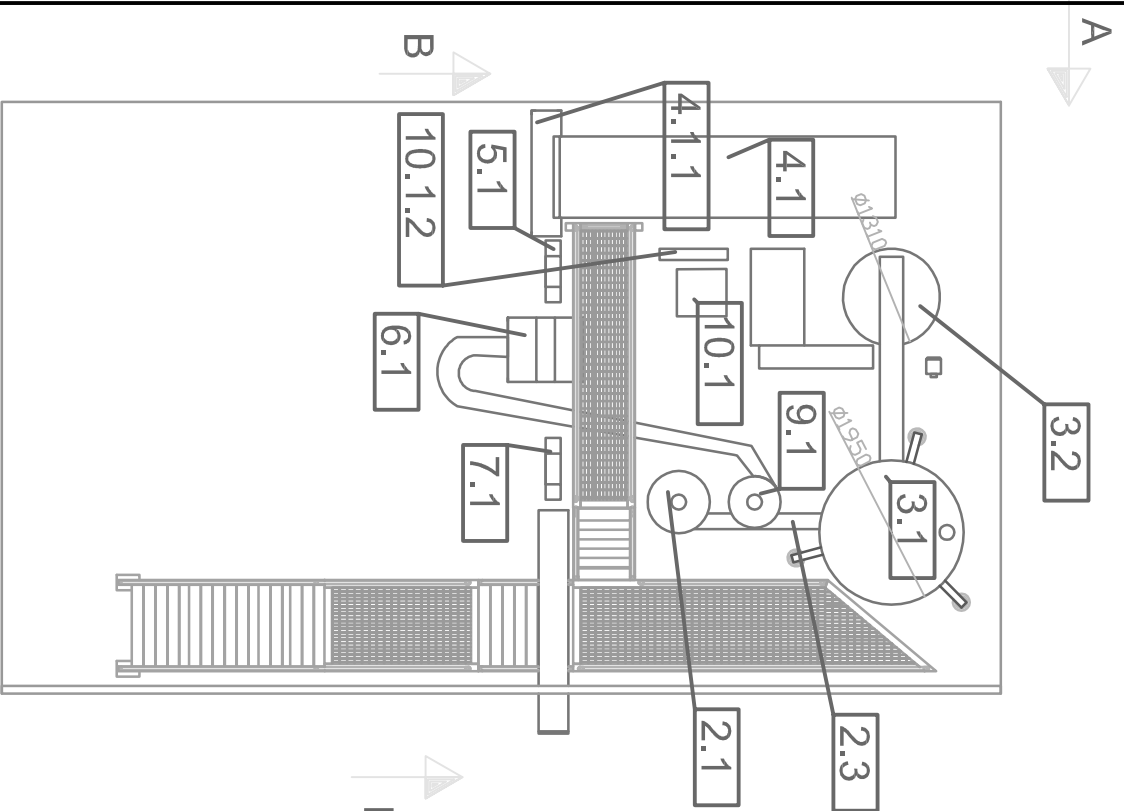


1.	Pos 1.2	Additive ling) / worm conveyor	0,75 kw
2.	Pos 1.3	Worm conveyor no.1	3,0 kw
3.	Pos 1.4	Hammermill	55 kw
4.	Pos 2.1	Rawmaterial cyclone	15 kw
5.	Pos 2.2	A feeder no.1	2.2 kw
6.	Pos 2.3	Worm conveyor no.2	3.0 kw
7.	Pos 3.1	Bufferage	7.5 kw
8.	Pos 3.2	Feed/dosing worm conveyor	1.5 kw
9.	Pos 3.3	Pellet press	200 kw
10.	Pos 4.1	Belt conveyor no.1	1,0 kw
11.	Pos 4.1.1	Screen no.1	1,5 kw
12.	Pos 5.1	Elevator no.1	3,0 kw
13.	Pos 6.1	Cooler/screen no.2	1,5 kw
14.	Pos 7.1	Elevator no.2	3,0 kw
15.	Pos 8.1	Belt conveyor no.2	1,5 kw
16.	Pos 9.1	Dust removing cyclone	11 kw
17.	Pos 9.2	A feeder no.2	1,5 kw
18.	Pos 10.1	Oil cooler	0,75 kw
19.	Pos 10.1.1	Oil pump	0,75 kw
20.	Pos 10.1.2	Hydraul pump	1,0 kw
21.			







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Nimi/ys Name

Piir. Drawn	Suhte Scale	Kok. paino Tol. weight	Kg
Tark. Chkd.	1:100	Kok.paino piir.no/Assembly drawing	Koko Size
Hv. Appvd.	Metr.	Proj.no. 53638	A3

File

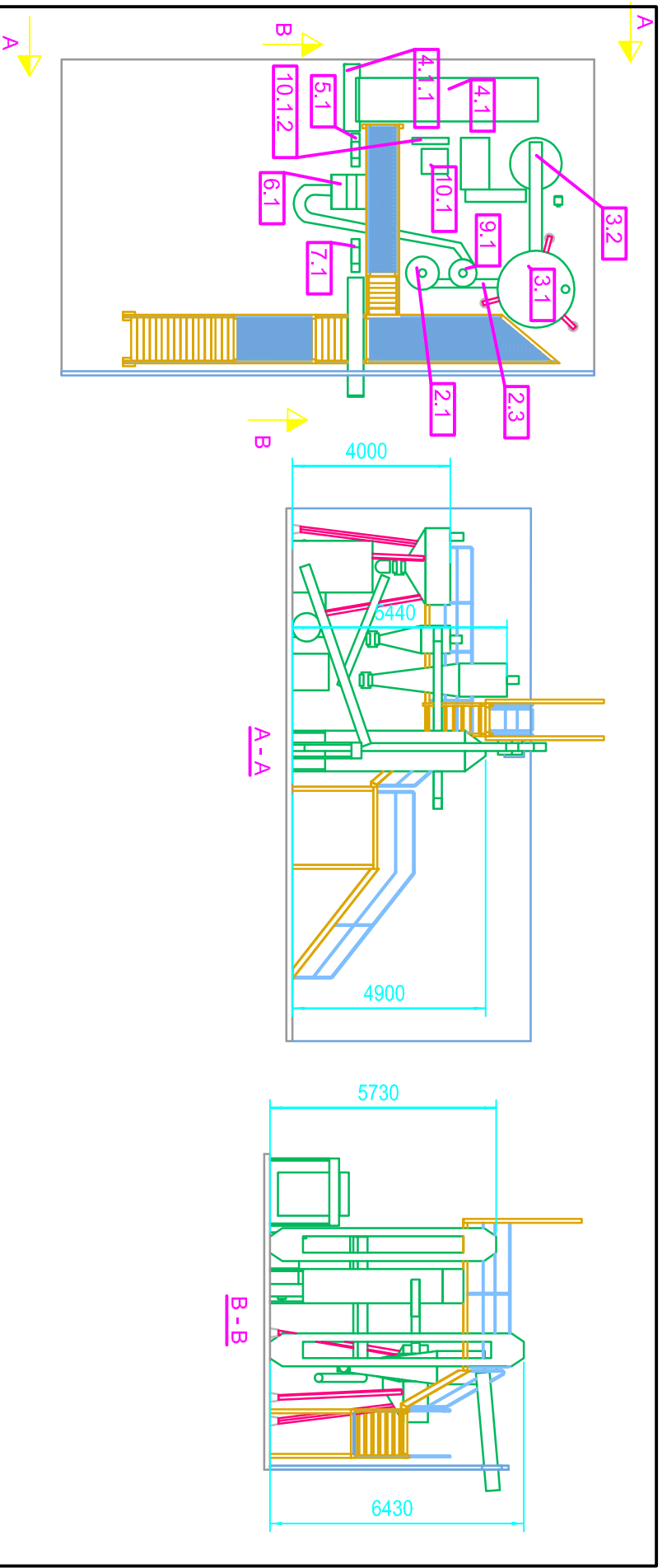
YLÄNEEN BIDENERGIA OY
PELLET PRODUCTION

Piir.no Draw.No.

Muutos Rev.	PVM Date	Muutos Change	Tekijä Maker	Tark. Chkd.	Hv. Appd.

Muutos Revision

-



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<p>ELOMATIC Turku +358 (0)2 412 411</p>	Piiri: Drawn Task Checked Rev. Approved	Suhte Scale 1:100	Koko paino Total weight Kokojano paino/Assembly drawing Koko Size 	Kilo Kg A3
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Muutokset Revis. PVM Date Muutokset Changes Tekijä Author Tark. Checked Hyv. Approved	Muutokset Revis. PVM Date Muutokset Changes Tekijä Author Tark. Checked Hyv. Approved
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Nimike Name Piiri Drawn Tark. Checked Hyv. Approved	Suhte Scale Koko paino Total weight Kokojano paino/Assembly drawing Koko Size 	Kilo Kg A3
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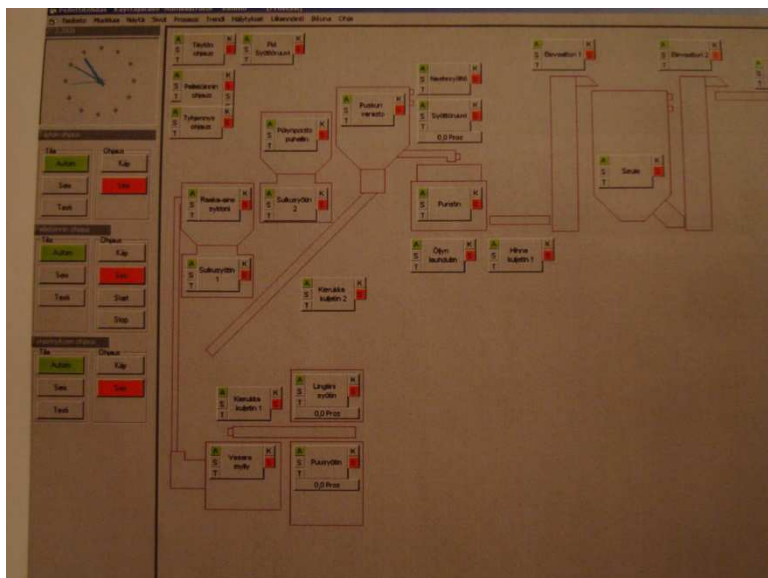
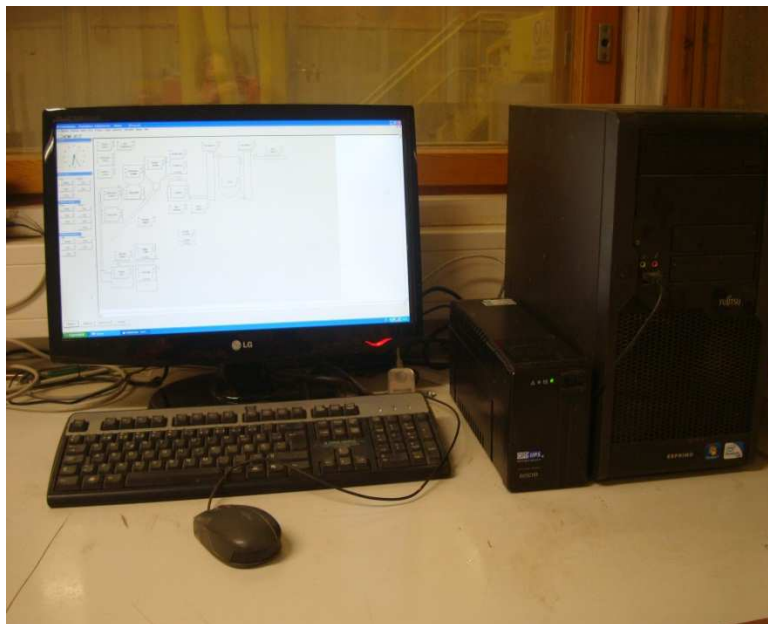
Yläneen Bioenergia Oy, The control system of pellet production

The pellet production line is operated from the computer of the control room. All alarms are visible on the computer monitor.

Stepless production is possible up to 3600 kg/h .

The control system automatically controls optimal production, but also manual control is possible. All conveyors and elevators are provided with rotation sensors and jam sensors. The pellet press is observed automatically, too low or too large value stops production, value is monitored on the computer monitor.

Historical production values of up to 5 days can be retrieved.





There are two control panels in the production rooms. The control panels have the same control possibilities as the computer.

One is situated near the pellet press and the second is situated near hammermill.

The production is controlled by an Omron PLC. It is connected to the computer of the control room.





The control cubicle includes the PLC, soft starters, inverters etc.



PLC Components

Description	Manufacturer	Type
Power unit	Garlo Gavazzi	40T01 SPD 241201
CPU	Omron	01K40 CP1H-XA DT1/D
Remote unit	Omron	02K40 CPM1A-40EDT
Input unit	Omron	03K40 CPM1A-8ED
Analog output unit	Omron	04K40 CP1W-DA041
Touch panel (2 PCS)	Omron	NS5-SQ10-V2
Computer	Fujitsu Siemens	ESPRIMO Windows 7
Screen of computer	LG	W 2243S-PFT 22"

UPS	Opti Ups	TS 650 B (ROHS)
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CPU RS 232 PORT 1 D-9 connection	Cable	PC RS 232 PORT D-9 connection
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