Booster Advanced / Professional

Content EN

1. Description

The Booster in the Chameleon Plus range is a completely functioning pumping station that supplies pressurised water to connected satellite hygiene stations. Therefore the Booster must be supplied with water in sufficient quantity and power according to specifications.

The station is then ready for hygiene duties.

The Booster is fitted with a frequency controlled pump which ensures a constant working pressure independent of usage pattern.

Important: Do not use the water from the system for applications other than cleaning.

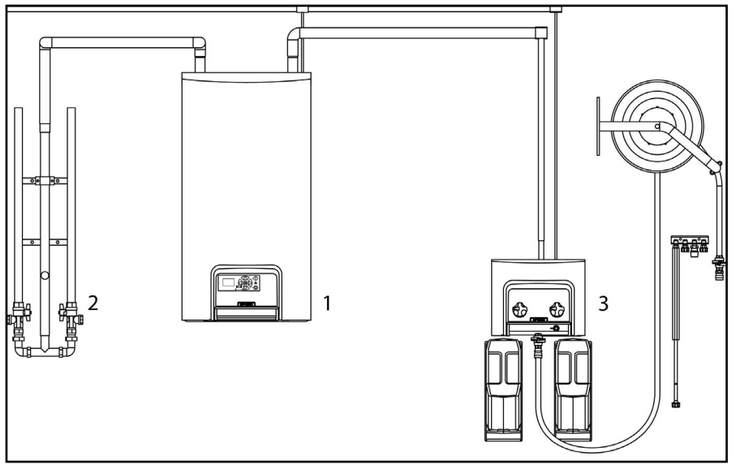


Fig. 1 110001493

A typical Wall Booster installation is shown in fig. 1
- Booster (1)
- Mixing system (2)
- Satellite (3)

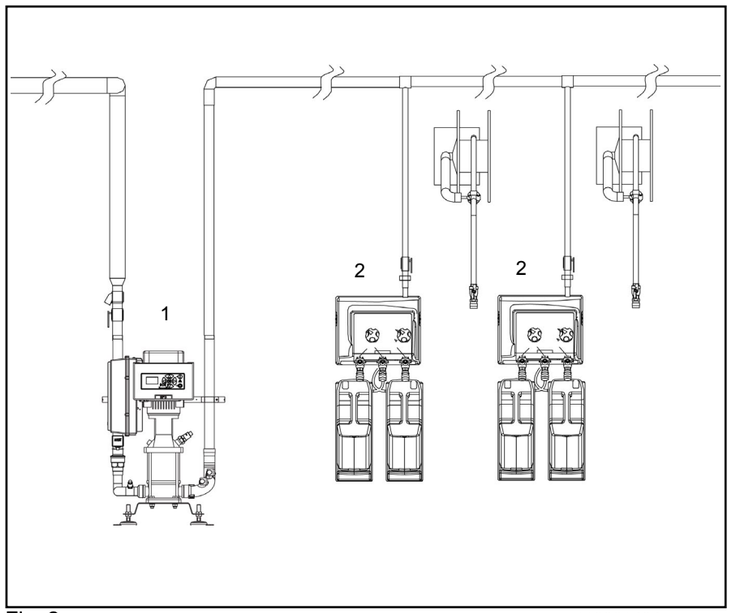


Fig. 2 110001494

A typical Floor Booster installation is shown in fig. 2
- Booster (1)
- Satellite (2)

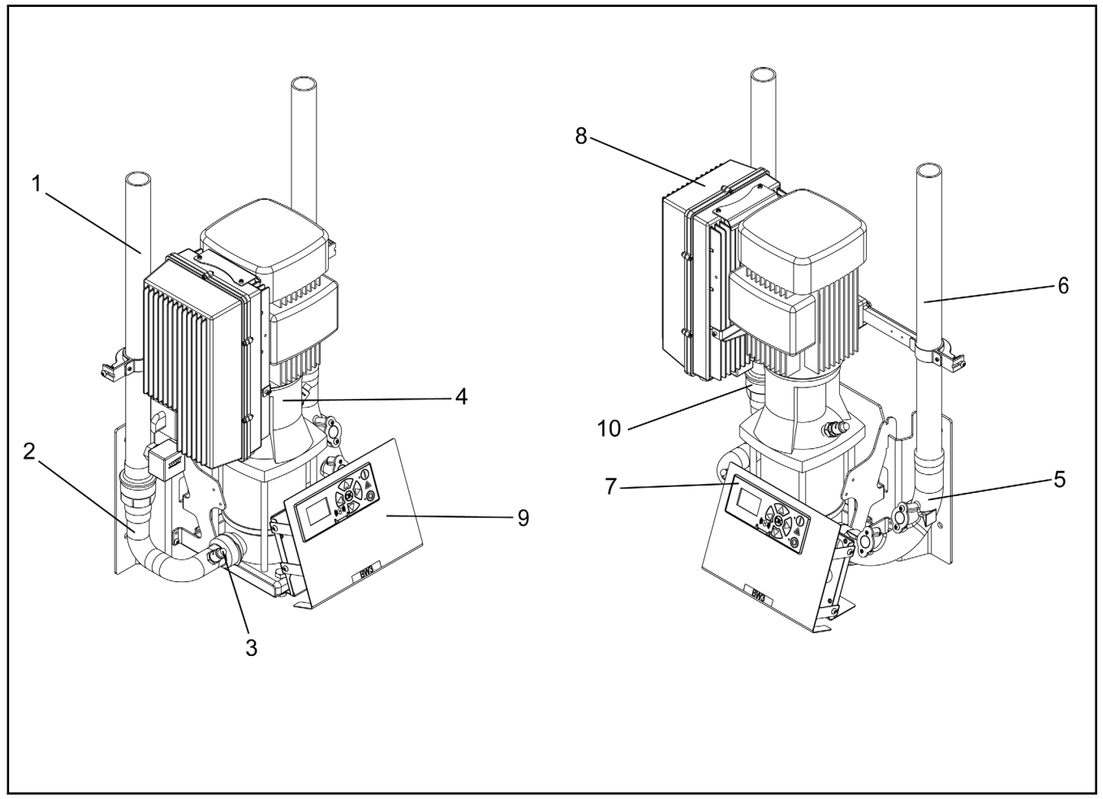


Fig. 3

110001495

1.1 Booster BW3

(Fig. 4).

1. Water inlet
2. Manifold inlet
3. Trigger sensor, flow sensor
4. Pump
5. Manifold outlet
6. Outlet pipe
7. Display
8. El-box
9. Operation panel
10. Pressure sensor (Outlet)
11. • **O** Pushbutton.Stop
12. • **I** Pushbutton.Start
13. • △ Lamp. Alight by error

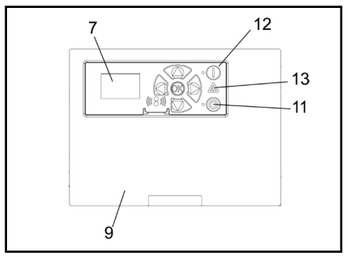


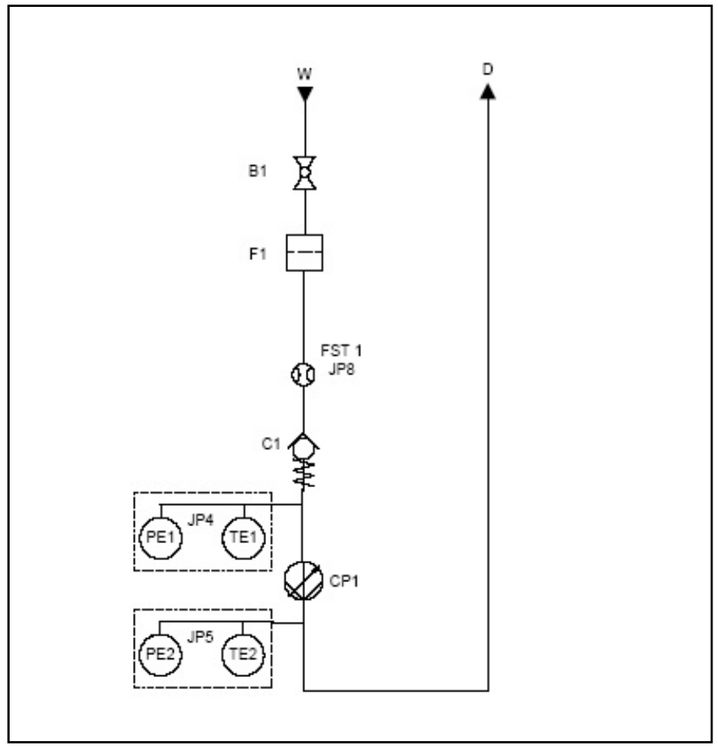
Fig. 4

110001496

1.2 Operating Diagrams acc. ISO14617

BW3 Booster

B. Ball valve.
F. Filter.
FST. Flowsensor and -trigger.
C. Check valve.
PE. Pressure sensor.
TE. Temperature sensor.
CP. Centrifugal pump.
D. Outlet.
W. Water inlet.
SN : Socket no.



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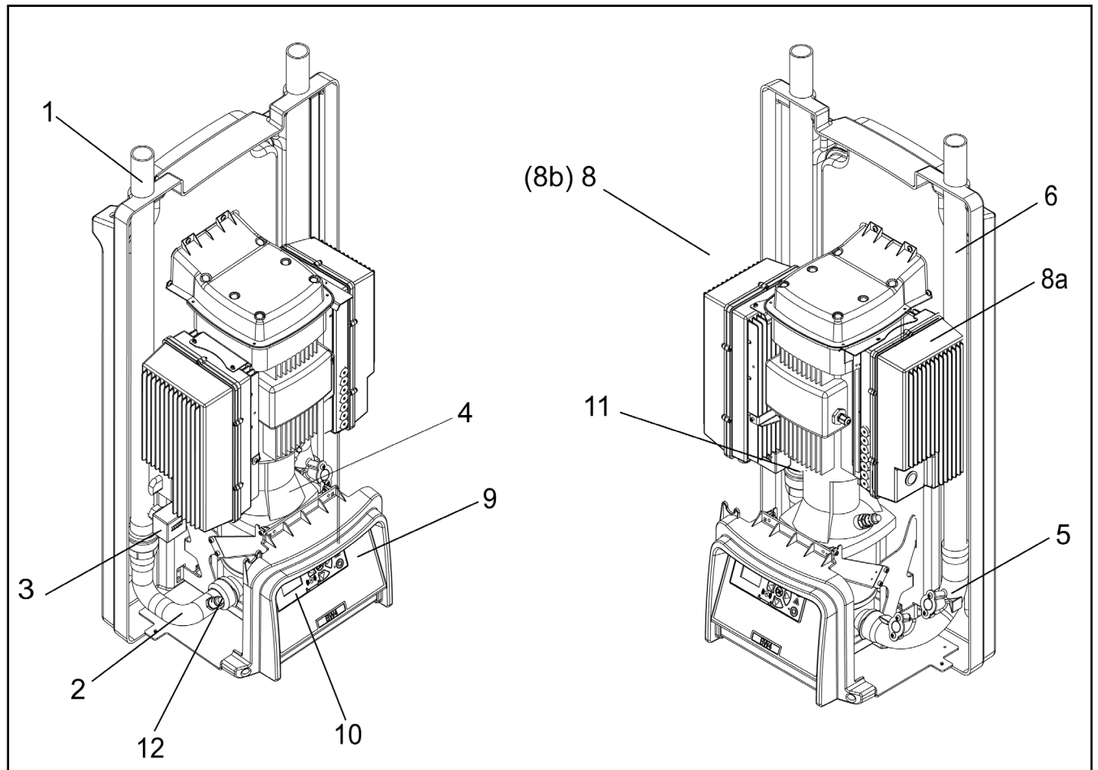


Fig. 5

1.3 Advanced Booster BW4 - BW7

(Fig. 5).

1. Water inlet
2. Manifold inlet
3. Trigger sensor, flow sensor
4. Pump
5. Manifold outlet
6. Outlet pipe
7. Display
8. El- box (BW4)

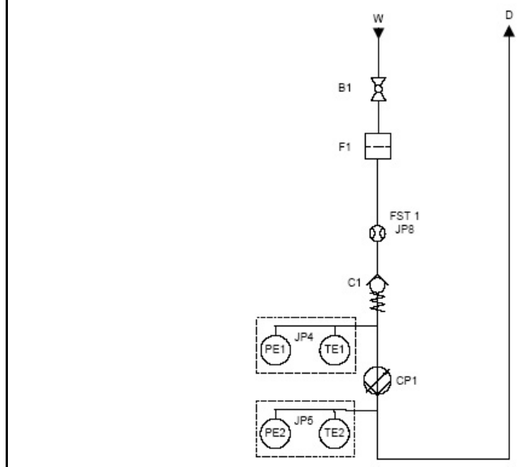
8a. Inverter box
8b. Filter box (only used on BW8)

9. Operations panel
10. Navigation buttoms
11. Pressur sensor (Outlet)
12. Pressur sensor (Inlet)
13. Label
14. Name Label
15. • **O** Pushbutton.Stop
16. • **I** Pushbutton.Start
17. • ∆ Lamp. Alight by error

1.4 Operating Diagrams acc. ISO14617

Advanced Booster BW4 - BW87

B. Ball valve.
F. Filter.
FST. Flowsensor and -trigger.
C. Check valve.
PE. Pressure sensor.
TE. Temperature sensor.
CP. Centrifugal pump.
D. Outlet.
W. Water inlet.
SN : Socket no.



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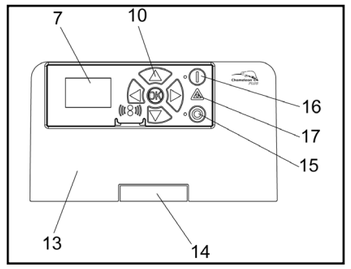

Fig. 6

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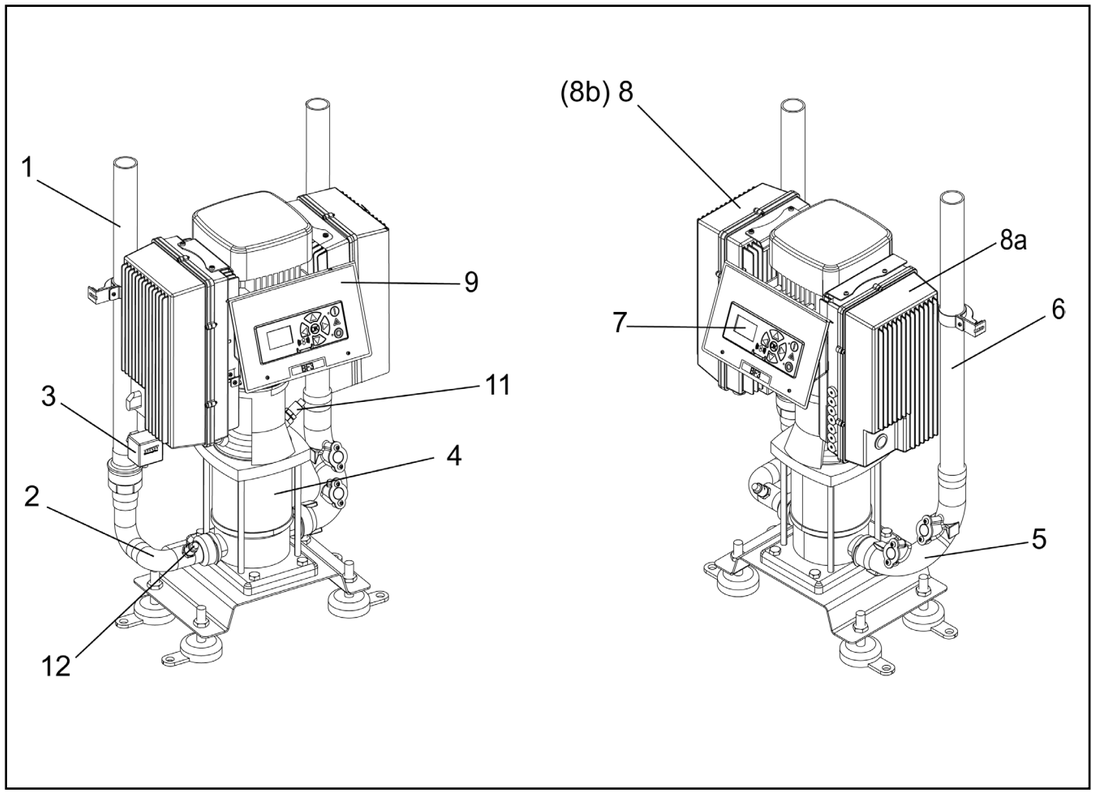


Fig. 7

110001499

1.5 Advanced Booster BF3 - BF4 - BF8

(Fig. 6).

1. Water inlet
2. Manifold inlet
3. Trigger sensor, flow sensor
4. Pump
5. Manifold outlet
6. Outlet pipe
7. Display
8. El- box (BF3 - BF4)

8a. Inverter box

8b. Filter box (only used on BF8 and bigger)

9. Operations panel
10. Navigation buttoms
11. Pressur sensor (Outlet)
12. Pressur sensor (Inlet)
13. Label
14. Name Label
15. • **O** Pushbutton.Stop
16. • **I** Pushbutton.Start
17. • Δ Lamp. Alight by error

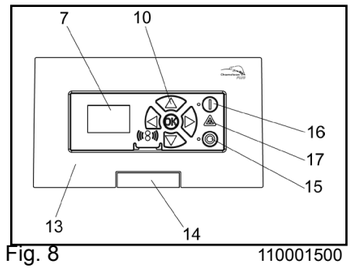


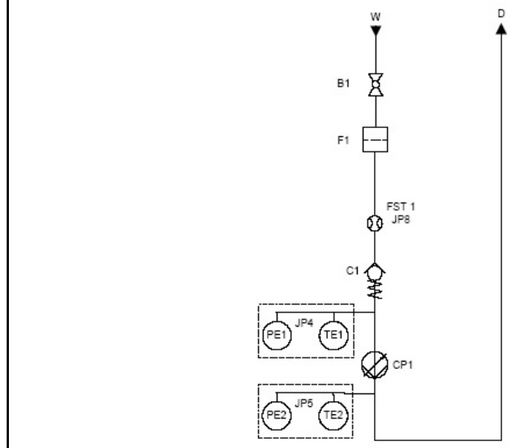
Fig. 8

110001500

1.6 Operating Diagrams acc. ISO14617

Advanced Booster BF3 - BF4 - BF8

B. Ball valve.
F. Filter.
FST. Flowsensor and -trigger.
C. Check valve.
PE. Pressure sensor.
TE. Temperature sensor.
CP. Centrifugal pump.
D. Outlet.
W. Water inlet.
SN : Socket no.



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2. Maintenance

The Booster unit is maintenance free. However, we recommend cleaning the booster unit in connection with the occasional cleaning of the other equipment in the area. The filter must be cleaned at convenient intervals (approx. every 1-3 months) depending of the amount of impurities in the water.

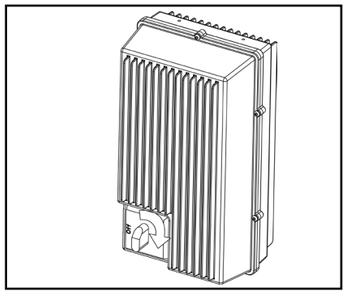


Fig. 13 0627106

2.1 Filter

1. Press **“0”** on the control panel to stop the Booster.
2. Interrupt the master switch (Fig. 13).
3. Close the water inlet .
4. Open a tap to release the system of pressure.
5. Remove the filter (A, Fig. 18) and place it in a descaling solution.
   Note: MB systems are not delivered with a factory mounted filter. In case a filter

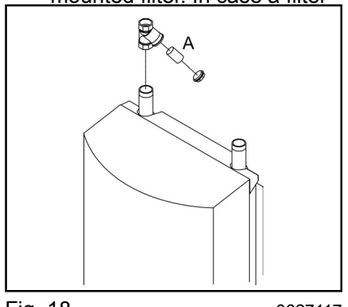


Fig. 18 0627117

   is mounted in a MB system, the descaling procedure is exactly the same until the scale is dissolved.
6. Rinse the cleaned filter thoroughly and remount.

2.2 Before a longer production stop

If long production stops are planned (more than 6 months) and the pump is drained, it is recommended that the pump is secured as follows:

1. Remove the coupling safety guard.
2. Spray a couple of drops of silicone oil onto the axle between the top section and the coupling.

Carefully follow the instructions given in the manual provided by the pump supplier.

3. Start

3.1 New system

In order to ensure a problem-free start up of a new system the pipe system must be flushed and bled.

Bleeding the pipe system

1. Turn on the water supply to rinse and bleed the entire system. If satellites are installed open the tap furthest away until no air or dirt comes out. Then rinse and bleed the next tap and continue until the tap closest to you has been rinsed and bled.
2. Mount satellites, if any

Bleeding the pump

3. Press **“0”** on the control panel to stop the Booster.
4. Loosen the relief plug (A, Fig 14) 1-2 revolutions until water and air begin to flow out.
   Note. Never loosen the relief plug while the pump is running as this may damage the packing and cause personal injury.
5. Tighten the relief plug again
6. Start the pump so that all remaining air pockets are forced up to the top of the pump.

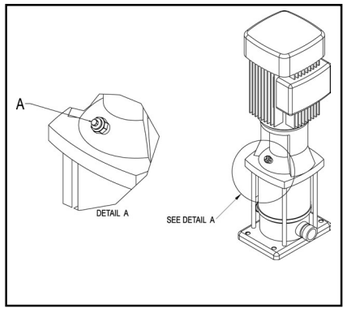


Fig. 14 0627131

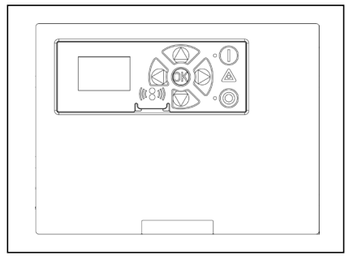


Fig. 16 110001503

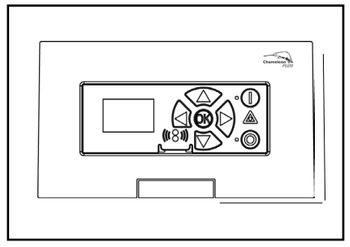


Fig. 17 110001504

7. Stop the pump.
8. Loosen the relief plug 1-2 revolutions again and bleed the system until only water flows out.
9. Tighten the relief plug once more.

The Booster is now ready for operation. Press **“I”** on the control panel. (see fig. 16 and 17).

4. Daily operation

4.1 Start

1. Check that water supplies for the system are open.
2. Press **“I”** on the control board in order to start up the unit.

4.2 Stop

1. Press **“0”** on the control panel to stop.
2. Turn off the water supply.
3. Switch off the air supply.

Note. Due to the following it is very important always to switch off both water and air supply after use:

- If the air supply is open when the main station or satellites are not in use, air might leak into the water line. If this happens, the system must be bled once more.
- The water separator, which is a part of the air regulator, is only to be emptied when the air supply is closed.

After a long time production stop (holidays etc) it might be necessary to bleed the piping system and the booster unit again.

5. Service

Service may only be carried out by authorized and qualified personnel.

Warning: The system must only be serviced when there is no voltage or pressure on the system.

1. Turn off the main switch at the control box (Fig. 13)
2. Open a water outlet to depressurise the system.

5.1 Components

5.1.1 Pump / motor

Pump/motor are maintenance free, see section 2.2

5.1.2 Control system

Maintenance free
If defective: Call service technician

5.1.3 Flow trigger

Maintenance-free.
If defective, replace the flow switch.

5.1.3.1 Adjustments of flow switch

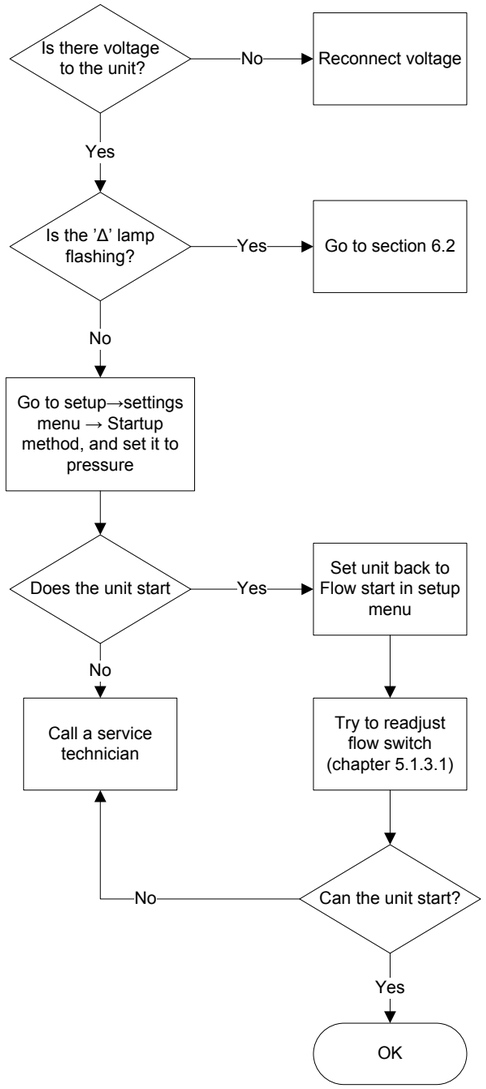
1. Press "0" on the control panel to stop the system.
2. Remove the cover.
3. Turn the "rinse/foam" handle to foam position.
4. Activate the spray handle on the outlet hose so water runs out.
5. Check that the flow switch is turned the correct way (the wire must follow the flow direction).
6. Turn the brass screw at the bottom of the hole until 2 green diodes light up.
7. Close the spray handle again and check that the red diode lights up.
8. Mount the cover.

5.1.4 Non-return valve / inlet side

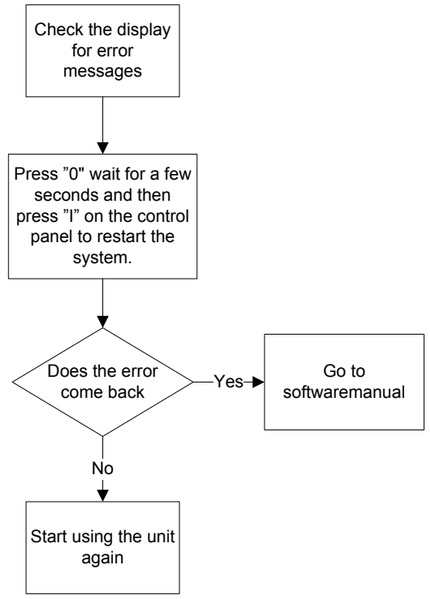
Maintenance - free.
If defective, replace the non-return valve.

6. Troubleshooting

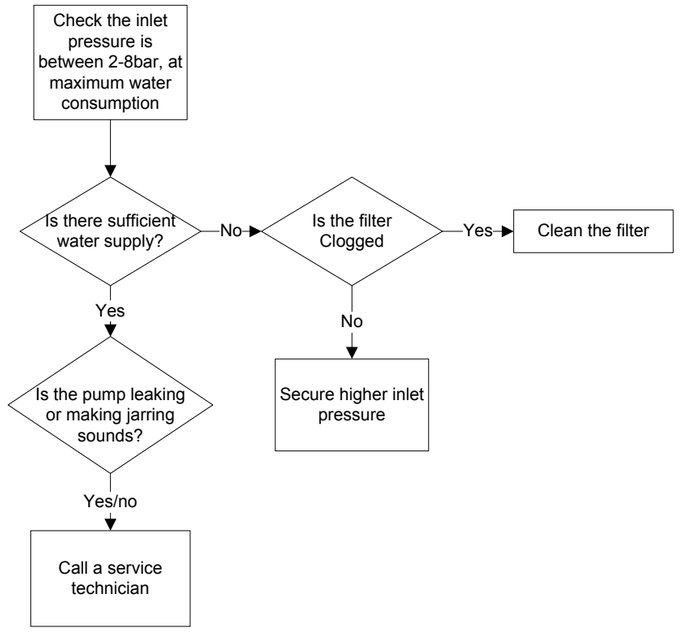
6.1 The unit does not start



6.2 The "Δ"- lamp on the control panel is on



6.3 If the inlet pressure is low or unstable



7. Recommended spare parts

The recommended spare parts are marked with * in the spare part manual.

8. Specifications

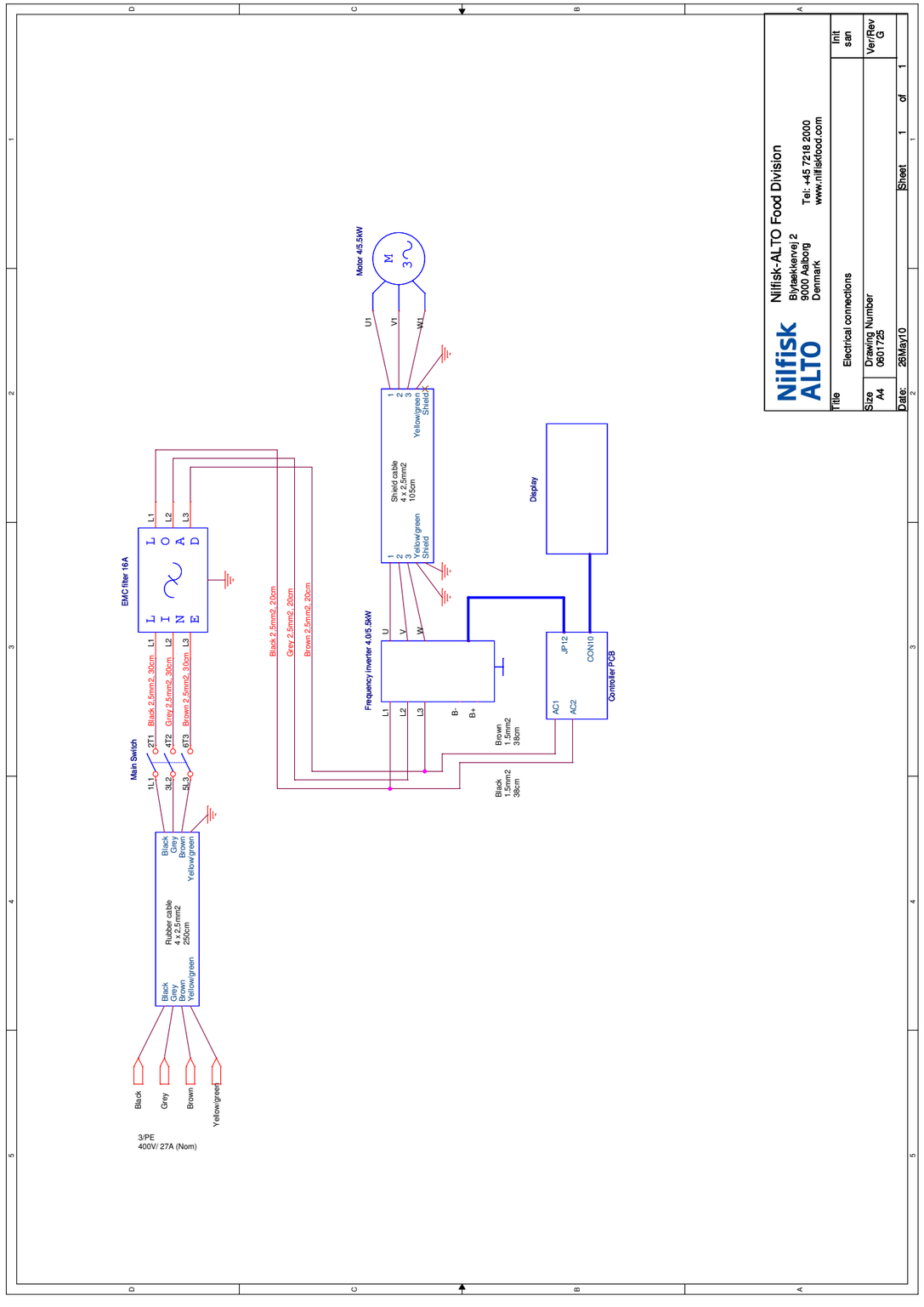
Technical Data		Booster/Main station.				
		Advanced*	Proff.***			
Water	**Unit.**	**3 (4 kW)**	**3 (4 kW)**	**4 (5.5 kW)**	**7 (10 kW)*** **	**8 (10 kW)*** **
Max. Outlet pressure.	bar	25	22	25	22	25
Consumption during rinsing. 1)	L/min	90	90	120	220	220
Consumption during foaming.	L/min	30	30	40	80	80
Min. supply pressure.	bar	2	2	2	2	2
Max. supply pressure.	bar	8	8	8	8	8
Min. water supply.	L/min	100	100	135	265	265
Max. water temp.	°C	70	70	70	70	70
Pipe dimension inlet Ø	inch	1.1/4"	1.1/4"	1.1/4"	2"	2"
Pipe dimension outlet Ø	inch	1.1/4"	1.1/4"	1.1/4"	2"	2"
Electricity						
Supply voltage	V	3/PE 400 V ±10% *BF162 booster 16 480V/60Hz US: 3/PE 480 V ±10%*				
Frequency	Hz	50/60 Hz 48 0%…62 +0%				
Motor load (kW)	kW	4	4	5.5	10	10
		Installation to EN 60204-1				
Nominal current	A	10.6	10,6	14.2	27	27
Fuse	A	16	16	20	35	35
L1, L2, L3, PE	mm2	2.5	2.5	2.5	6	6
General						
Sound level ISO 11202	dB	Below 70	Below 70	Below 70	Below 70	Below 70
Dimensions	mm	1070 x 550 x 375	785 x 550 x 375	1074 x 557 x 382	1074 x 557 x 382	990x535x364
Weight (kg)	kg	85	60	75	75	80

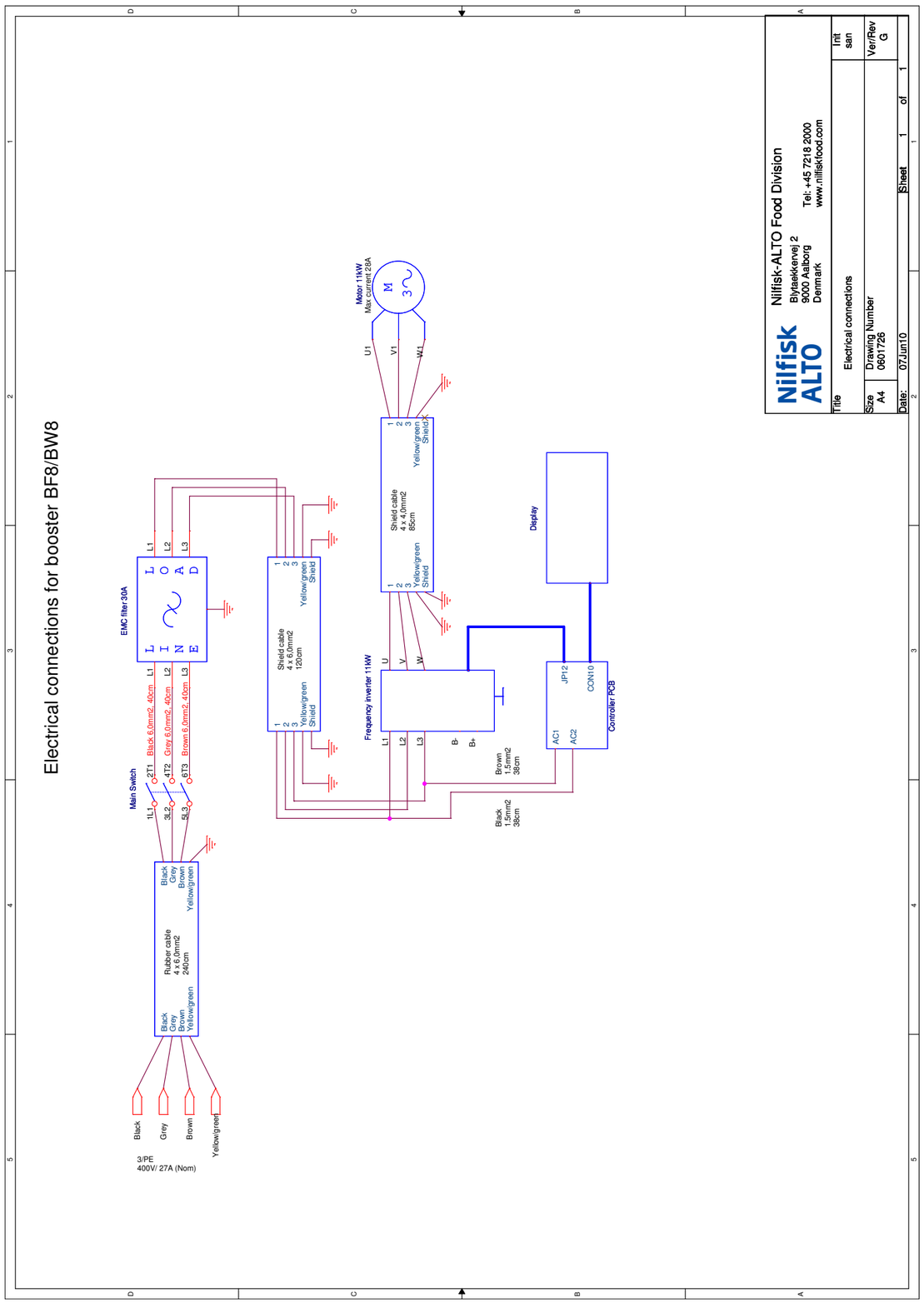
All specifications are based on 4 bar supply pressure

Note:
* Pump pressure 20 bar + inlet pressure max. 25 bar
*** Pump pressure 20 bar + inlet pressure max. 22 bar
**** Pump pressure 33 bar + inlet pressure max. 37 bar

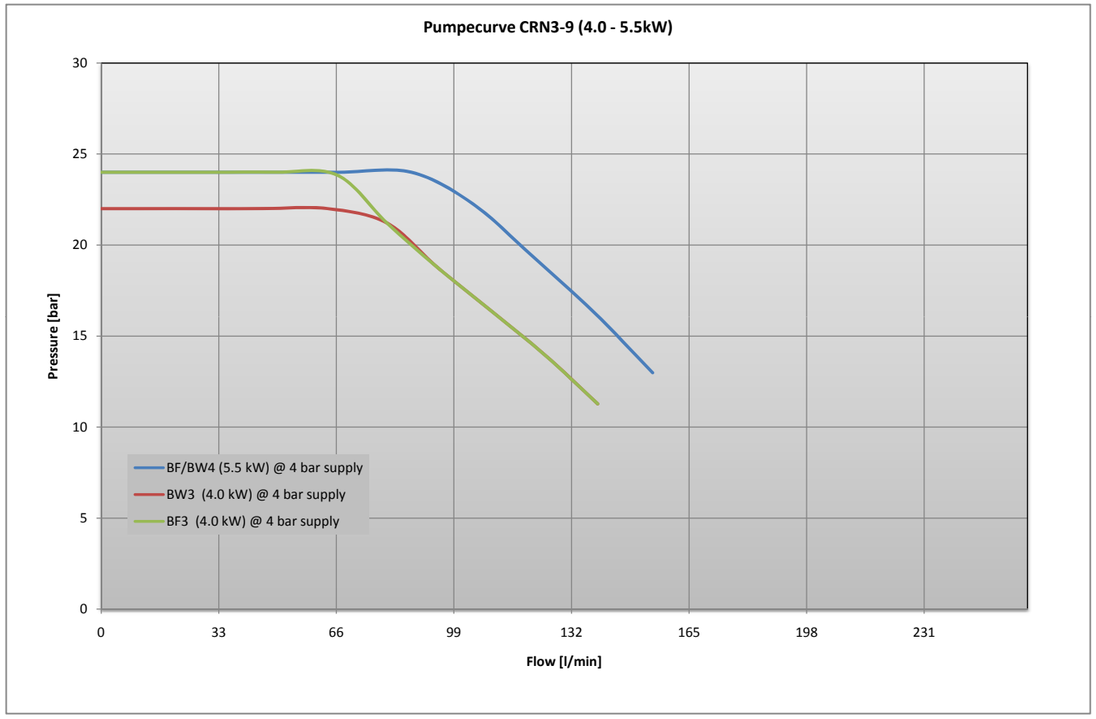
1) 1 user per 30l/min.

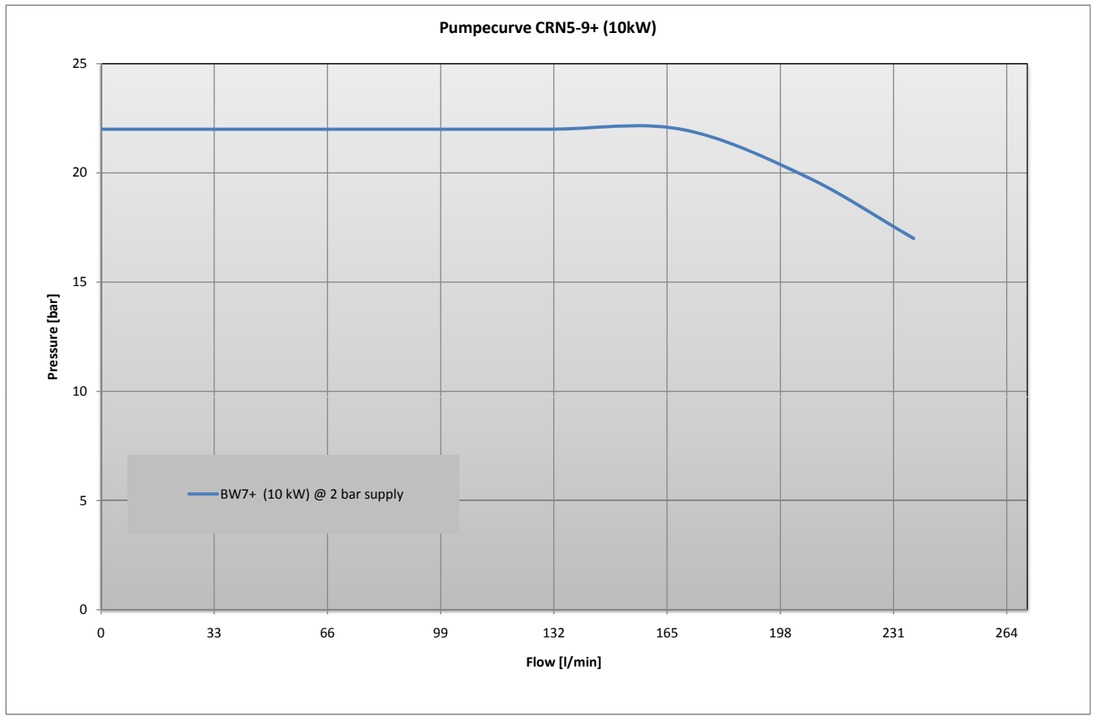
9. Electric diagram

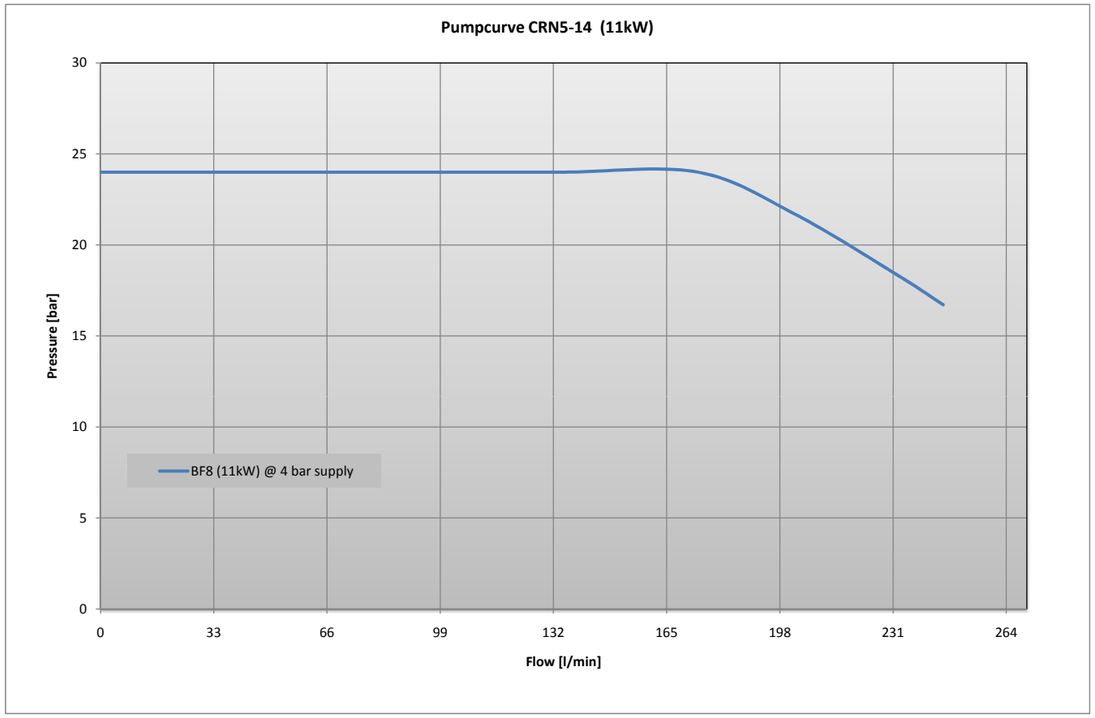




10. Pump curve






Pumpcurve CRN5-14 (11kW)
Pressure [bar]
30
25
20
15
10
5
0
0
33
66
99
132
165
198
231
264
Flow [l/min]
BF8 (11kW) @ 4 bar supply

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