

USER QUICK GUIDE



Always wear suitable protective equipment when working on the BOVIBOOSTER
Always disconnect the electrical supply when working on the system



GENERAL INFORMATION

The Bovibooster system is designed solely for automatic hoof wash and disinfection in robotic milking systems

During start-up (first 1-7 days), it might be preferable to wash at low pressure or without pressure boosting (turn OFF the Pressure Booster), to minimize stress to the cows

WASH and DISINFECTION settings should be adjusted according to the degree of hoof problems in the herd, in order to exploit the use of water and hoof product best possible

To obtain maximum effect of the system, set WASH and DISINFECTION selector switch to ON, wash-time to 4 sec. and wash-pressure to high

It is important to remember, that the Bovibooster is a preventive rather than a curative system. In order to achieve optimal efficiency of the system, you have to supplement with other treatment methods



To protect the system against frost damage, during periods of temperatures below 0 °C, it is recommended to turn off the system and empty it of water

SELECTOR SWITCH SETTINGS BBCWD/BBCWDD/BBPWDS/BBPBAT



Changes in settings should only be performed by qualified personnel



WASH Selector Switch:

ON: Wash after every milking

OFF: No wash or disinfection

Program: Wash ON from 06:00-18:00 - Wash OFF from 18:00-06:00



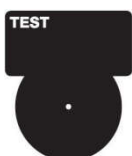
DISINFECTION Selector Switch:

ON: Disinfection after every wash

OFF: No disinfection

Program: Disinfection ON after every wash, Tuesday, Thursday and Saturday. Disinfection OFF rest of the week

The PLC clock have to be set correctly, for the PROGRAM times and days to be correct (see ZEN quick guide)



TEST Button:

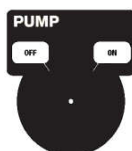
Single push (BBCWD): Test wash program

Single push (BBPWDS): Test wash program/start system/restart system

Double push: 10/15 sec. test

Hold for 3 sec.: Manual disinfectant feed/Reset periodic maintenance interval

Controller display indicates maintenance for every 12.000 disinfection treatments



PUMP Selector Switch:

ON: System ON

OFF: System OFF/Reset system after an error



Installation instructions

CONTROLLER PARAMETER ADJUSTMENTS



Remove the control box cover to gain access to the controller keys

Wash pressure adjustment



Disinf	:	.	.	.	.	.	.
00000000	:	.	.	.	.	.	.
Press	:	:	H	i	g	h	.
Wash	:	:	4	.	s	e	c

Push the **ALT** key to show the BB menu



Disinf	:	.	.	.	.	.	.
00000000	:	.	.	.	.	.	.
Press	:	:	L	o	w	.	.
Wash	:	:	4	.	s	e	c

Hold down the **ALT** key and simultaneously press the **LEFT** button to switch between high and low pressure

Wash time adjustment



Disinf	:	.	.	.	.	.	.
00000000	:	.	.	.	.	.	.
Press	:	:	L	o	w	.	.
Wash	:	:	4	.	s	e	c

Push the **ALT** key to show the BB menu



Disinf	:	.	.	.	.	.	.
00000000	:	.	.	.	.	.	.
Press	:	:	H	i	g	h	.
Wash	:	:	2	.	s	e	c

Hold down the **ALT** key and simultaneously press the **DOWN** button to toggle between 2, 3 and 4 sec. washing

PERISTALTIC PUMP

The **PR** peristaltic pump dosage of hoof product can be adjusted from about **1-9 ml / treatment**. (Old model)

The **NPR** peristaltic pump dosage of hoof product can be adjusted from about **2-16 ml / treatment**. (New model)



Remove the disinfection pump cover. The speed of the pump is controlled by turning on the small adjustment screw with a small flat headed screwdriver, see illustration. Turning the screw clockwise increases the speed of the pump.



We always recommend to dilute the hoof product with water, in the ratio 1:1. If the hoof product is too viscous, strain on the pump might get too high.



Part no.:
SEKO NPR



Part no.:
SEKO PR

NOZZLE BARS

Always perform a weekly visual inspection of the nozzles. Check nozzle spray pattern and direction.

Different nozzle sizes with different spray angles are available upon request

LELY

LELY nozzle bars are designed with two vertical adjustable nozzles. The spray direction should be parallel with the robot floor towards the "target area", see illustration

DELAVAL

DeLaval nozzle bars are designed with four horizontal adjustable nozzles. The spray direction should be parallel with the robot floor towards the "target area", see illustration



Perfect spray pattern impact



Target area



See spray pattern video illustrations at www.bovibooster.com/videos or scan QR code



MAINTENANCE



Always wear suitable protective equipment when servicing the BOVIBOOSTER
Always disconnect the electrical supply when carrying out maintenance on the system



Always perform a weekly visual inspection of the system. Check for leaks, nozzle spray pattern/direction and check the disinfection treatment

PERISTALTIC PUMP



Clean the suction filter after every hoof product container replacement

Replace the santoprene squeeze tubing for every 12.000 disinfection treatments, to maintain optimal operation and to avoid a tube leakage. See Controller display disinfection counter.

The system will automatically turn off disinfection after 12.000 disinfection

- Set the **DISINFECTION** selector switch in **OFF** position
- Remove the disinfection pump cover
- Remove the squeeze tube as illustrated
- Install the new squeeze tube as illustrated
- Move the suction and delivery tube from the old squeeze tube to the new
- Lubricate the squeeze tube with silicone grease
- Turn the pump wheel three rounds by hand
- Refit the pump cover
- Hold the **TEST** button for 3 sec. to reset the internal disinfection counter
- Hold the **TEST** button and manually operate the pump, until the tubes are free of air
- Set the **DISINFECTION** selector switch back to **ON** or **PROGRAM** position



Replacement foot filter
Part no.: SEKOFF



Santoprene squeeze tube
Part no.: SEKOSPT

NOZZLE BAR



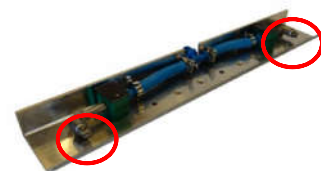
Always perform a weekly visual inspection of the nozzles. Check nozzle spray pattern and direction, the nozzle spray direction should be parallel with the robot floor

The nozzles have to be checked and possibly cleaned for deposition or replaced, for approx. every 8.000 - 12.000 disinfection treatments, to maintain optimal wash and disinfection effect

All nozzle bar hoses, pipes and fittings needs to be cleaned or replaced once every year

LELY

- Set the **WASH** selector switch to **OFF** position
- Remove the two nozzles by hand or use a nose plier, turn the nozzles one-quarter turn counterclockwise
- Do a 10/15 sec. test wash, by pushing **TEST** button two times
- Fit two new or cleaned nozzles
- Do another 10/15 sec. test wash, by pushing **TEST** button two times
- Check spray pattern and direction
- Set the **WASH** selector switch back to **ON** or **PROGRAM** position



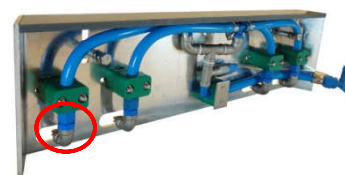
Quickjet nozzles are available with 25(standard) or 40 degree spray angle.



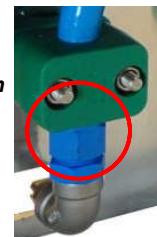
Part No.: QPTA2515
Part No.: QPTA4015

DELAVAL

- Set the **WASH** selector switch to **OFF** position
- Remove the nozzle bar by removing the two front-mounted 8 mm bolts with a 5mm Allen key
- Remove the four nozzle fittings, use a 20mm wrench to loosen the blue coupling nuts
- Do a 10/15 sec. test wash, by pushing **TEST** button two times
- Fit four new or cleaned nozzles to the 1/4" elbows and refit the nozzle fittings
- Adjust the nozzle angles and tighten the couplings
- Do another 10/15 sec. test wash, by pushing **TEST** button two times
- Check spray pattern and direction
- Set the **WASH** selector switch back to **ON** or **PROGRAM** position



Use a 20 mm wrench to loosen coupling nut



Complete nozzle fittings, for easy nozzle replacement are available upon request

NOZZLE BAR INJECTION VALVE

If the hoof product used is compatible with the injection valve FKM (viton) seal, no maintenance of the valve should be necessary



Replacement nozzle
Part no.: KY4010



Replacement injection valve
Part no.: 1020103BRS

PRESSURE VESSELS



Check gas pre-charge pressure for every **2 months** or for **max. every 20.000 pump operations** (see controller display). Add compressed air or nitrogen if necessary. When refilling the pressure vessel ensure there is no water in the tank

- Set the pump selector switch to **OFF** position or disconnect the power supply
- Shut the water supply valve
- Shut the outlet ball valve (BBPBAT only)
- Open the pressure relief valve gently
- Wait until the pressure drops to 0 bar (see pressure gauge)
- Remove the **air valve** cap and nut
- Check precharge pressure with a suitable pressure gauge
- Refill if necessary the pressure vessel to **7-8 bar** with compressed air or nitrogen, use a suitable blow gun
- Refit the air valve nut and cap, **make sure to tighten the air valve nut firmly**
- Open the water supply valve
- Ensure the system is fully primed and then close the pressure release valve
- Open the outlet ball valve (BBPBAT only)
- Restart/turn ON the system

Air valve cap



Pressure relief valve



Outlet ball valve (BBPBAT)



Ball valve (DE2516P)



The pump must not run dry. Ensure the system is fully primed before starting/restarting the system. Use the pressure release valve to purge the system of air. If the has stopped and the display shows error, do not try to restart before the pump has cooled down