



# Swii'Flo®

## User Guide



Original User Guide



## TABLE OF CONTENTS

TABLE OF CONTENTS	
DISCLAIMER	
GENERAL INFORMATION	
WATER QUALITY .....	1
GENERAL SAFETY RULES HANDWINCH .....	3
2.2. MINIMUM PRESSURE AND FLOW .....	4
2.3. MINIMUM HEIGHT OF WATER TANK .....	4
2.4. DIAMETER OF SUPPLYING TUBES .....	4
3. WATER PANEL .....	5
3.1. FILTER CLEANING, WHEN, HOW? .....	6
3.2. OPERATION OF THE VALVES .....	9
NORMAL OPERATION .....	9
OPERATION WITH MEDICATOR .....	10
TO CHECK AND TO CLEAN THE MEDICATOR .....	11
DIVIDED HOUSES - NORMAL OPERATION .....	12
DIVIDED HOUSES - OPTION: MEDICATION .....	13
4. TO ADJUST THE LINE HEIGHT .....	14
4.1. TO ADJUST HEIGHT OF COMPLETE LINE .....	14
4.2. TO ADJUST LINE WITH 3 HOLE STRING ADJUSTER .....	15
4.3. TO ADJUST LINE WITH THE SUSPENSION SCREW .....	15
5. OPERATION OF THE SYSTEM .....	16
5.1. MODE OF THE PRESSURE REGULATOR .....	16
5.2. TO REGULATE THE PRESSURE .....	16
5.3. TO USE THE END UNIT .....	18
5.4. TO USE THE INTERMEDIATE SHUT OFF VALVE .....	18
5.5. FLOW OF NIPPLES .....	19
6. TO CLEAN THE SYSTEM .....	21
6.1. MANUAL FLUSHING .....	21
6.2. FLUSHING USING THE OVERFLOW .....	22
6.3. AUTOMATIC FLUSHING (OPERATION EXPLAINED IN CONTROLLER MANUAL) ..	23
7. TO ADMINISTER VACCINE OR MEDICATION .....	24
8. PERCH PROTECTION AND THE SYSTEM .....	26
8.1. ELECTRICAL PERCH PROTECTION .....	26
8.2. SPINSOFT .....	26
MAINTENANCE INSTRUCTIONS .....	27
TROUBLE SHOOTING GUIDE .....	28
HOUSE CHART .....	31
HAND WINCH: TROUBLE SHOOTING GUIDE - MAINTENANCE .....	33
DECLARATION OF INCORPORATION OF PARTLY COMPLETED MACHINERY	
EC-DECLARATION OF CONFORMITY	

## Disclaimer

The original, authoritative version of this manual is the English version produced by ROXELL BV. Subsequent changes to any manual made by any third party have not been reviewed nor authenticated by Roxell. Such changes may include, but are not limited to, translation into languages other than English, and additions to or deletions from the original content. Roxell disclaims responsibility for any and all damages, injuries, warranty claims and/or any other claims associated with such changes, in as much as such changes result in content that is different from the authoritative Roxell-published English version of the manual. For current product installation and operation information, please contact the customer service and/or technical service departments of Roxell. Should you observe any questionable content in any manual, please notify Roxell immediately in writing to: ROXELL BV - Industrielaan 13, 9990 Maldegem - Belgium.

# General information

**!** **IMPORTANT:** These instructions must be read, understood and all points observed by the user, the responsible and operating personnel.

## Obey the legal regulations and the applicable rules

This concerns, among other things, the European regulations and directives transposed into national legislation and/or the laws, safety and accident prevention regulations that apply in the user's country.

During assembly, operation and maintenance of the installation the legal regulations concerned and the applicable technical rules must be obeyed.

## Intended use

The installation has been designed solely for intensive livestock use and has been developed according to the applicable rules of good workmanship. Extra loading of the product is therefore prohibited. Any other use is considered to be improper use. The manufacturer is not responsible for damage resulting therefrom. The user bears sole responsibility. The manufacturer can determine from the system data whether the product was used in accordance with the specified use.

## Not-intended use

All use different than described in [Intended Use](#) is at the responsibility of the end user.

## Liability

The (extended) warranty will not apply if any of the following has occurred: failure by the customer to inspect the delivered goods and report visible defects within 8 days of delivery with respect to the products, improper handling, transportation, modification or repair; accidents, defective or improper use; improper or defective assembly, installation, connection or maintenance (having regard to Roxell's most current assembly, installation, connection and maintenance manuals); improper modifications or manipulations of the operating system, hardware or any other software of the product by the customer; force majeure; negligence, lack of supervision or of maintenance on the part of customer; normal wear and tear; use of cleansing agents and disinfectants that are excluded in Roxell's most current use and maintenance manuals; use of cleansing agents and disinfectants in violation with the instructions received from the suppliers; or use of the products in an ATEX- surrounding.

The (extended) warranty shall not apply in the event of a defect caused either by materials or accessories supplied by or services rendered by the customer; or by an intervention by a person or entity which is not authorized or qualified for carrying out such intervention. Furthermore, the (extended) warranty will only apply if the products are used in livestock houses and if all parts or components of the products are supplied by Roxell.

Roxell will not be liable for any damages caused due to improper or defective use, assembly, installation, connection or maintenance of the products. In this respect, the customer expressly acknowledges that (i) all use, assembly, installation, connection or maintenance must be done in accordance with Roxell's most current assembly, installation, connection and maintenance manuals and (ii) the electrical installation on which the products must be connected must be done in accordance with applicable local legislation on electrical installations. Furthermore, the products must be tested both mechanically and electrically by the customer in accordance with state of the art techniques and applicable local legislation.

## Personnel qualifications

### User

The person who uses a function or operation of a product for their work or who works on the product. The user must be able to read the instructions for use and fully understand them. The user has knowledge of the functioning and construction of the installation.

## Technically trained person

An expert who can assemble and maintain the installation (**mechanically/electrically**), and resolve malfunctions. On the basis of his/her technical training and experience, he/she has sufficient knowledge to be able to assess activities, recognize possible dangers and rectify dangerous situations.

## Storage

Put all parts to be assembled in a room or at a location where the not yet assembled components are protected against weather influences.

## Transport

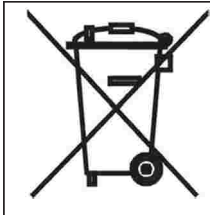
Depending on the size of the parts and according to local circumstances and local legislation, the parts of the machine have to be transported with a forklift.

The forklift must be operated by a qualified person and in accordance with the rules of good workmanship. When lifting the load, always check if the center of gravity of the load is stable.

## Dismantling

Dismantle the installation and its components in accordance with the environmental legislation of the country or the local authorities applicable at that time. All functioning products and exchange parts must be stored and disposed of in accordance with the applicable environmental regulations.

## Environmental information for customers in the European Union



The European legislation requires that equipment marked with this symbol on the product or packaging must not be collected with unsorted household waste. This symbol indicates that the waste electrical and electronic equipment (WEEE) cannot be disposed of in the regular household waste. We highly recommend that you bring your product to an official collection point so that an expert can remove the waste electrical and electronic equipment. Inform yourself of local legislation on separate collection of waste electrical and electronic equipment. Respect the local regulations and never dispose of the product together with household waste.

## Information about waste disposal - electrical/electronic material for companies

### 1. In the European Union

If you have used the product for commercial purposes and you want to dispose of it, contact Roxell, who will give you information about the return of the product. It is possible that you will have to pay a disposal charge for the return and recycling. Small products (and small quantities) can be processed by the local collection agencies.

### 2. In other countries outside the European Union

If you want to dispose of this product, contact the local authorities for information concerning the correct disposal procedure.

## The level of noise emission

The noise level of the installation in operation does not exceed 70 dB(A).

## LOTOTO = Lock Out - Tag Out - Try Out

Before you begin: Everyone needs his own lock and tag (label), which can't be removed by other persons. Inform all the persons who are influenced by the procedure.

### 1 To block

- Localize all sources of energy (electric, hydraulic, pneumatic).
- Switch off.
- Take the relevant installation or process out of operation and lock it against reuse. You can do this by placing a padlock or other blocking mechanism (Lock Out).

### 2 To mark

Attach a sign, label or sticker to the padlock or blocking mechanism to reveal the nature and the expected duration of the work to other persons (Tag Out).

### 3 To check

- Check if the source of energy is switched off.
- Remove any remaining energy.
- Check that the installation or process is actually safe (Try Out).

## Use personal protective equipment

Ensure you wear personal protective equipment (gloves, dust masks...).

## Illuminance - sufficient lighting

- **A minimum illuminance of 200 lux is necessary** during usage, maintenance and installation.
- Provide at the installation **(portable) emergency lighting in case of power failure**.

## Electrical equipment, control panels, components and drive units








- To operate control panels, there must be **at least 70 cm of free space**.
- Control panels must **always remain closed**. The key of the control panel must be in possession of an authorized person. Only an electrically trained person (see above) shall carry out maintenance activities inside the control panels.
- The necessary measures must be taken by the user to keep out **rats, mice and other vermin from the control panels**.
- If electrical equipment, control panels, components and drive units are damaged, the system must be stopped **immediately!**
- Electrical equipment, control panels, components and drive units should **never be sprayed with water or other liquid!**
- Electrical equipment, control panels, components and drive units should **never be covered with any material**.

## Information about the residual risks - used safety signs

There are three levels of danger, which you can recognize from the following signal words:

- **DANGER**
- **WARNING**
- **CAUTION**

The nature and source of the imminent danger and possible consequences of not obeying warnings is stated here!

Symbol	Meaning
	<b>DANGER</b> indicates a direct imminent danger that can result in a serious or even fatal accident if the safety measures are not respected.
	<b>WARNING</b> indicates a possible imminent danger that can result in a serious accident or damage to the product if the safety measures are not respected.
	<b>CAUTION</b> indicates possible, dangerous situations that can result in minor physical injury or material damage if the safety measures are not respected.
	This symbol refers to supporting information.
	Allowed
	Not allowed
	This symbol will be used to draw your attention to matters that are of great importance for your safety. <b>It means: warning - follow the safety instructions. Disconnect the current and read the safety rules. In short: be alert. Ignoring these instructions can cause serious injuries or even death.</b>

# WATER QUALITY



## Warning

**The health of the animals depends on the quality of their daily drinking water.**

The water quality depends on:

- The phosphate, nitride, nitrite, chloride, iron, calcium and other concentrations.
- The deposits in the lines.
- The administration of medication.
- Cleaning and disinfection.

**Have the water checked at regular intervals!**

Maximum allowable concentration:

Ammonia	< 1 mg/l	(3.78mg/GAL)	Sulfates	< 100 mg/l	(378mg/GAL)
Chlorides	< 200 mg/l	(757mg/GAL)	Iron	< 0,2 mg/l	(0.76mg/GAL)
Phosphates	< 0,01 mg/l	(0.038mg/GAL)	Salt	< 1 mg/l	(3.78mg/GAL)
Manganese	< 0,1 mg/l	(0.38mg/GAL)	pH-value	5-8	
Nitrate	< 0,25 mg/l	(0.95mg/GAL)	Hardness	<15	
Nitrite	< 0,1 mg/l	(0.38mg/GAL)	(°DH)		

Source: European Water Framework Directive 2000/60/EC

<p><b>Phosphates/Nitrogens:</b></p> <p>Algal growth:</p> <p>Algae are organisms that use carbon dioxide as source of carbon for the production of new cell material. The required energy is provided by sunlight.</p> <p>Algae blooms occur in standing or slowly moving water, usually having a high phosphate and nitrogen load (ammonia and nitrate).</p> <p>Optimal growth temperature for algae:</p> <p>18-45°C, pH value: 5-8.</p> <p>Algae death due to lack of light and/or nutrients leads to mineralization by bacteria with oxygen consumption.</p>	
Impact on water	pH increase due to large amounts of carbon dioxide that are extracted from the water.
Impact on system	Cause: Loosened micro culture substances. Effect: Valve/nipples leakages.
Action	Remove deposits using stabilized hydrogen peroxide (H <sub>2</sub> O <sub>2</sub> ) based products.
<p><b>Nitrate/Nitrite:</b></p> <p>Nitrate concentration &gt; 0.25 mg/l: sandy soils with intensive livestock farming.</p> <p>Ammonia concentration &gt; 1 mg/l: in peaty soils.</p> <p>Water from these soils usually has higher nitrite content. Unfit for consumption!</p>	
<p>Impact on health</p> <div style="text-align: center;">   <b>Danger</b> </div>	<p><b>Direct consumption of nitrite is deadly!</b></p> <p>Nitrate is converted to ammonia in the body. One of the intermediate compounds is nitrite.</p> <p>When the chemical reaction is not completed (for some time), death ensues.</p>
Action	Nitrate concentration ≤ 0.25 mg/l / Nitrite concentration ≤ 0.1 mg/l!



<b>Iron:</b> When water is pumped to the surface, iron occurs in its soluble ferrous form. The insoluble ferrous ions oxidize upon exposure to air or dissolved oxygen. These and other chemical reactions cause insoluble gelatinous deposits.	
Impact on water	Hardly any impact on health. Neutralizes the effectiveness of medication. Alters the taste, resulting in decreased water consumption.
Impact on system	Cause: Gelatinous compounds. Effect: Harmful to nipples, electric water valves if used.
Action	Eliminate the iron from the system if iron content > 0.2 mg/l!

<b>Calcium:</b> Hardness: Any deposits in the lines will usually remain there. If a chemical reaction takes place between mineral substances present, some inorganic compounds can serve as energy and nutrient source for the micro-organisms living in the water.	
Impact on health	Not harmful. Alters the taste, resulting in decreased water consumption.
Impact on system	Cause: Water becomes more conductive. Effect: Corrosion and calcium deposits.
Action	Soften the water.

<b>Medication</b>	
Harmful effects of medication	Some substances in the medication may loosen the organic deposits in the lines. Antibiotics: high risk of strong and rapid growth of moulds that use the sugar of some medicines as nutrient, resulting in gelatinous deposits.
Impact on health	Products lose their effectiveness.
Impact on system	Cause: Some substances in the medication may loosen the organic deposits in the lines. Effect: Nipple leakages. Cause: Gelatinous deposits. Effect: Obstructions.
Action	Make sure lines are clean before administering medication. Clean the drinking system at regular intervals. Disinfect and flush properly after each medication. Residues of cleaning agents may reduce the effectiveness of the medicines.

<b>Cleaning and disinfection</b>	
Keep in mind the strength of the solutions and follow the supplier's instructions for use! Always read the instructions of cleaning agents and disinfectants! Check whether the product may be used in an occupied house! Be aware of the implications of the combined use of different types of cleaning agents and disinfectants!	
Calcium and iron deposits (inorganic)	Remove by using acid agents.
Bacteria and moulds	Remove by using a chlorine-based disinfectant.
Organic deposits	Remove by using an alkaline cleaning agent.
Clean and disinfect the lines at regular intervals. Most agents only work properly with regular cleaning. Disinfect and flush properly after each medication.	

## HAND WINCH

### GENERAL SAFETY RULES

Handler voor drinklijnen voor pluimvee  
Hand winch for drinking lines for poultry

### IMPORTANT



DANGER

Carefully read the following instructions before **USING**  
the system

1. **PAY ATTENTION** when **WINCHING UP** or **WINCHING DOWN** the drinking lines:
  - **STOP** the handling in case of any malfunctioning.
  - **NEVER** stand **UNDERNEATH** the load when winching up or putting down the drinking lines.
2. **NEVER ALLOW UNAUTHORIZED PERSONS ENTER** the house during your absence.
3. **DON'T** wear **loose** clothing.
4. Only **adults** may handle the hand winch.
5. Only use the hand winch for **suspension of a ROXELL drinking line**.
6. Only use the hand winch with the **supplied handle**.
7. **ALWAYS** check the **condition of the hand winch and the cable** before operating.  
A **ravelled, kinked or damaged cable** must be replaced **IMMEDIATELY**.  
A **loose or damaged hand winch** must be replaced **IMMEDIATELY**.
8. **ALWAYS** check before use, if the **cable tie** on the drum weldment is ok.
9. **ALWAYS** check before use, if the **cable is not damaged**.
10. **ALWAYS** check that there are **at least 4 cable windings** on the drum weldment.
11. **NEVER** touch the **cable** and the **rotating parts** of the hand winch when in use.
12. Only use the hand winch when **NOBODY** is standing **underneath the load**.
13. **ALWAYS** look **at the load** while using the hand winch.
14. Always turn the handle **fluently**.
15. **PREVENT** that the load makes a **shocking movement**.
16. **Don't use water** to clean the hand winch.



**FORBIDDEN: NEVER** use the hand winch to lift persons.



**DANGER:** Getting jammed by the handle may cause **SERIOUS INJURIES**.

## 2.2. MINIMUM PRESSURE AND FLOW



**WARNING**

**Max. ingoing pressure is 9 bar!**

<b>Pressure range:</b>		<b>Roxell Water panel &amp; pump suitable for:</b>	
	Water tank	Pump	
Regular operation:	≥ 0,4 Bar	2 - 3 Bar	Restriction / No restriction /
Automatic flushing:	-	2 - 3 Bar	Light programme no light programme
Flow:	≥ 10 l/min/line		5 regulators 8 regulators

## 2.3. MINIMUM HEIGHT OF WATER TANK

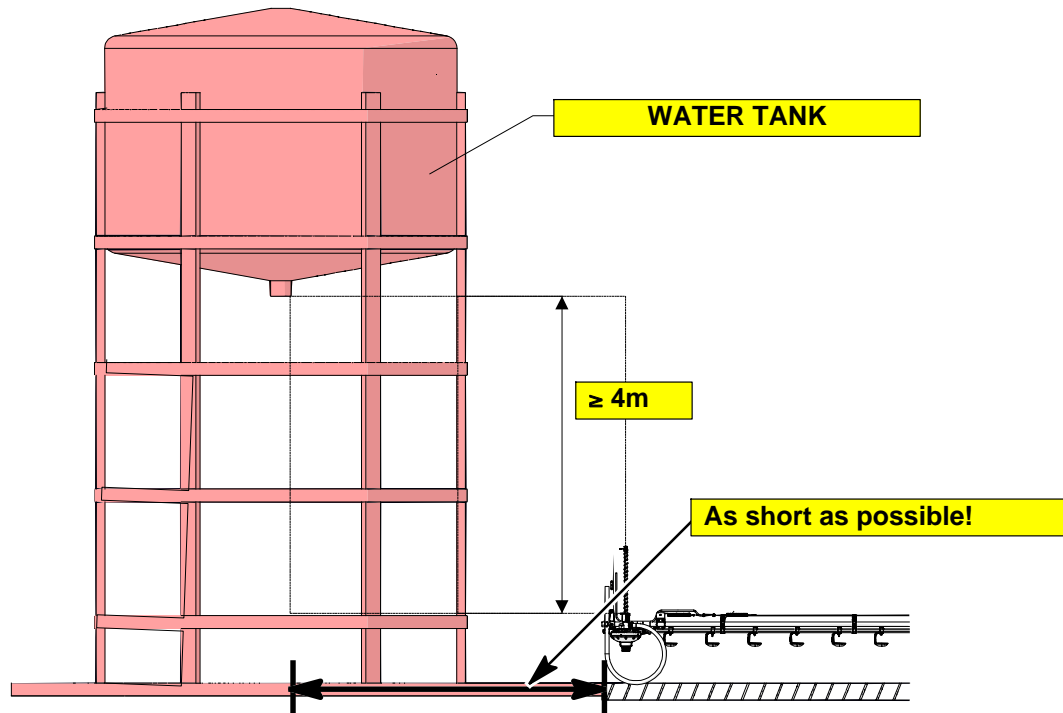


FIGURE 1.

## 2.4. DIAMETER OF SUPPLYING TUBES

Water supply specification after filter			
	Inside diameter inch		Pump capacity
	Pressure regulator in front 2-3 lines / house:	Pressure regulator central	
2-3 lines / house:	1"	1"	3 Bar - 50 l/min
4-5 lines / house:	1"	1 1/2 "	3 Bar - 50 l/min
6-7 lines / house:	1 1/2 "	1 1/2 "	3 Bar - 80 l/min

Dn	Fe ( " )	PVC ( " )	PVC ( mm )
	D	D x d	D x s
1"	1"	1 " x 3/4 "	Ø 32 x 2.4 mm
1 1/2"	1 1/2 "	1 1/2 " x 1 1/4"	Ø 50 x 3.7 mm

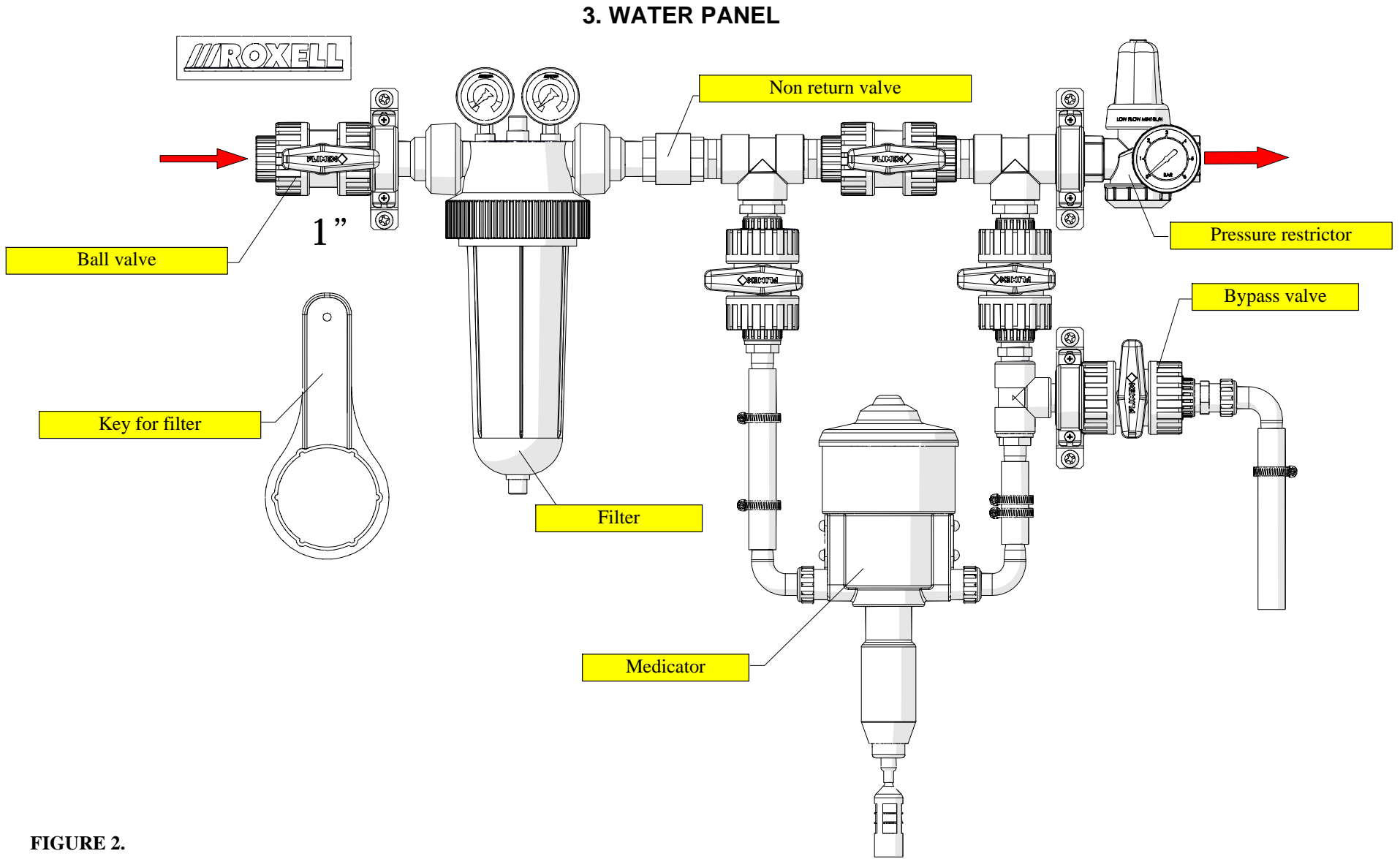


FIGURE 2.

### 3.1. FILTER CLEANING, WHEN, HOW?

**General rule:** when the difference between the inlet and outlet gauges  $> 0.5$  bar!

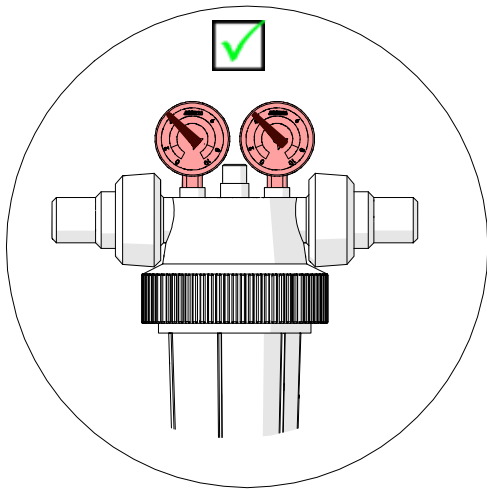


FIGURE 3.

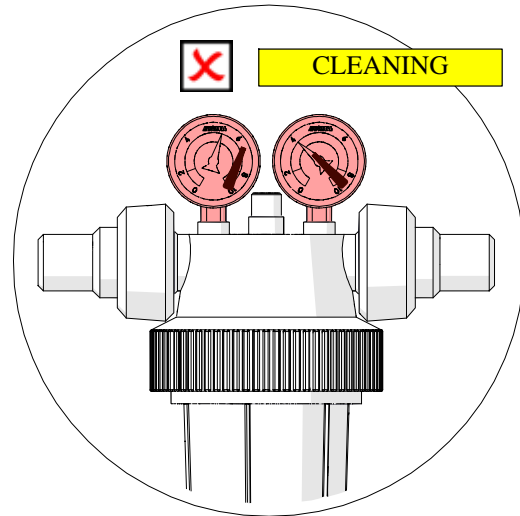
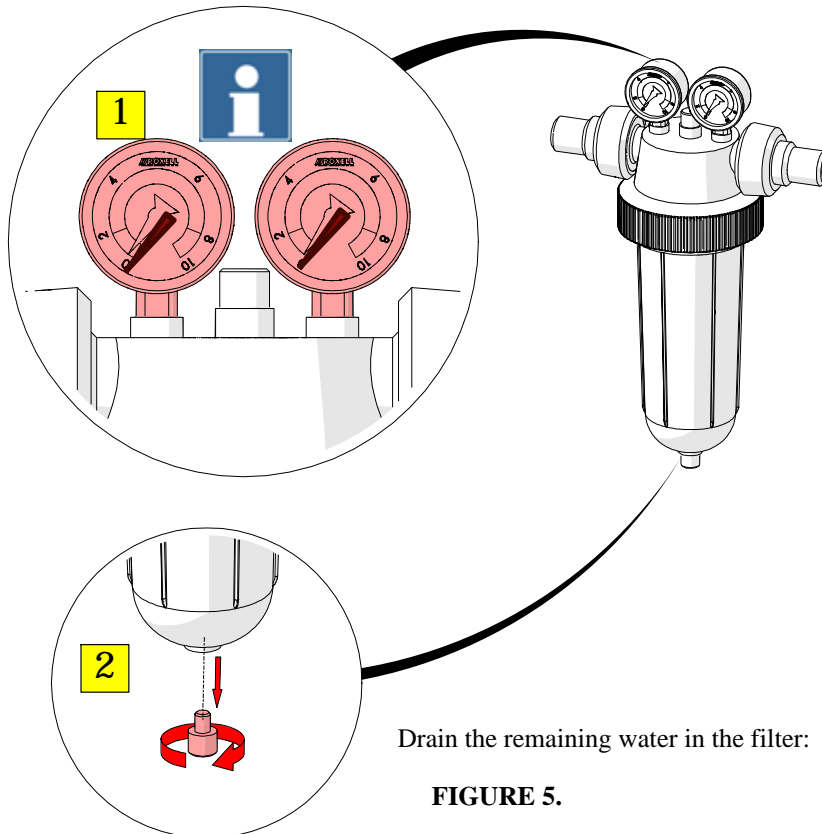


FIGURE 4.

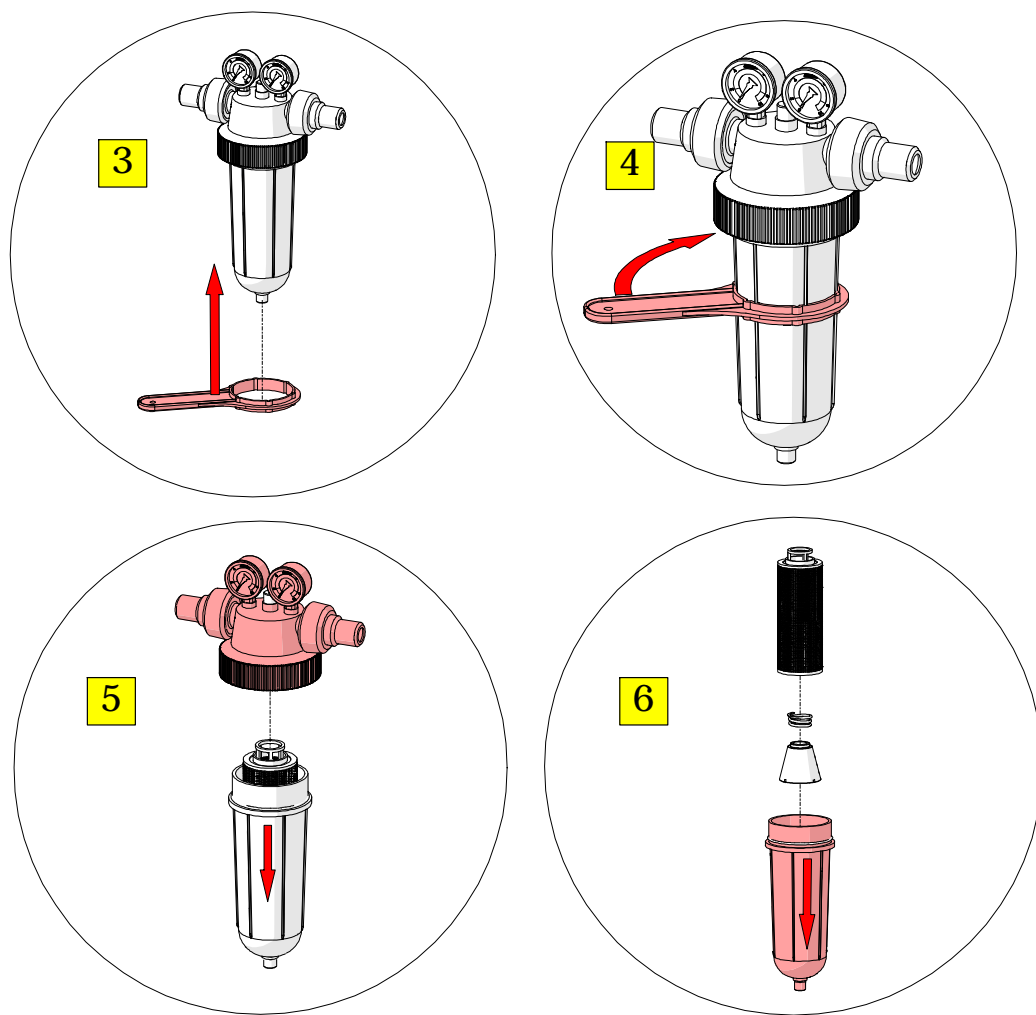
#### TO CLEAN THE FILTER:

Check if there is no pressure on the system, gauges on 0:

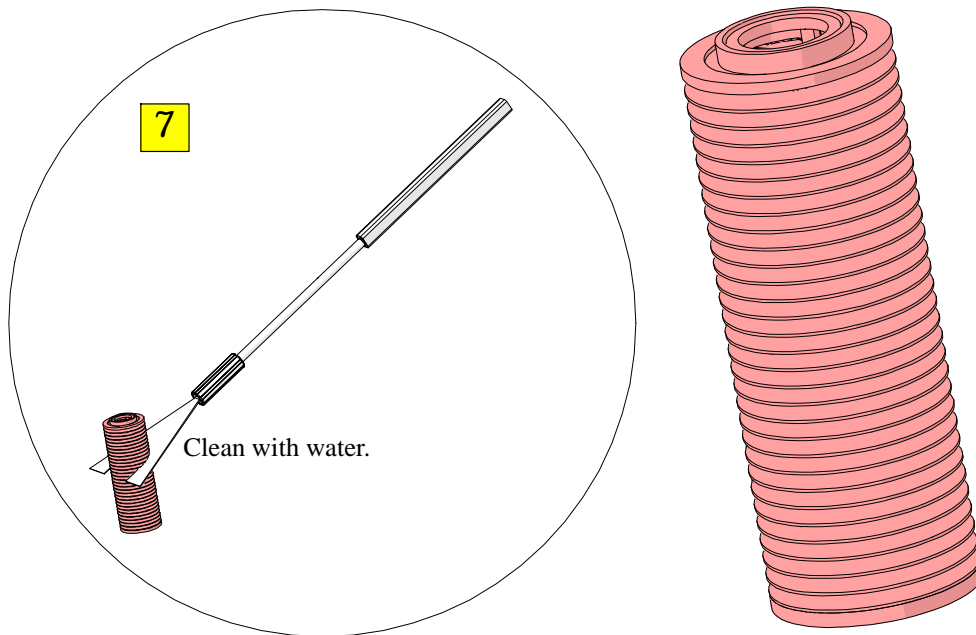


Drain the remaining water in the filter:

FIGURE 5.

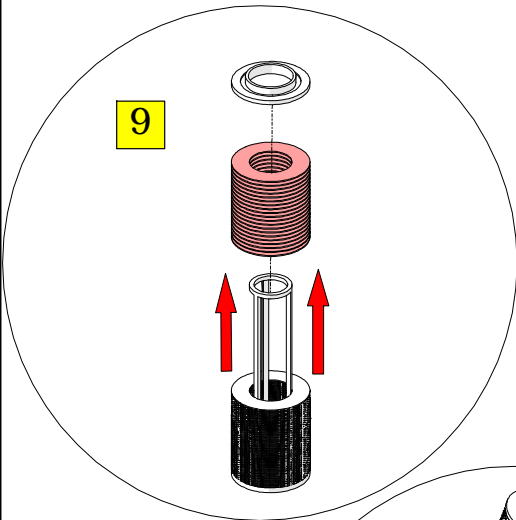
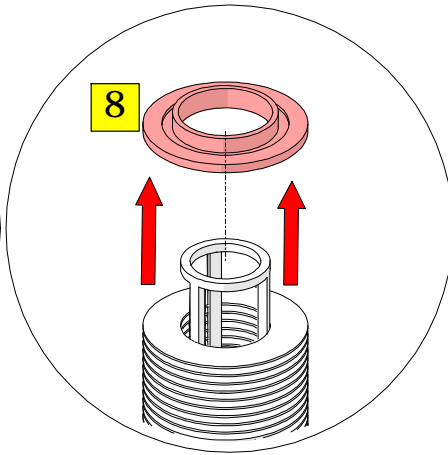
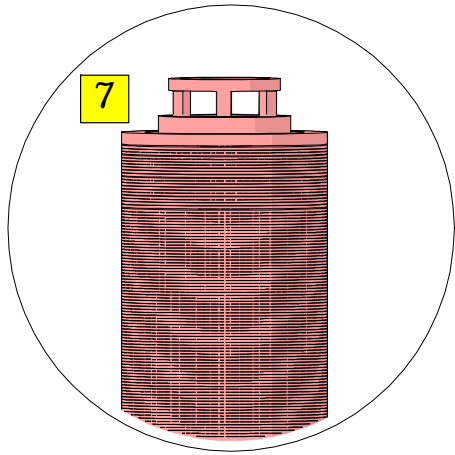


**REGULAR CLEANING:**

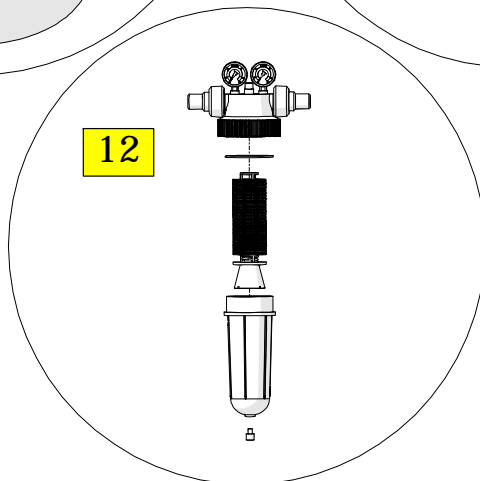
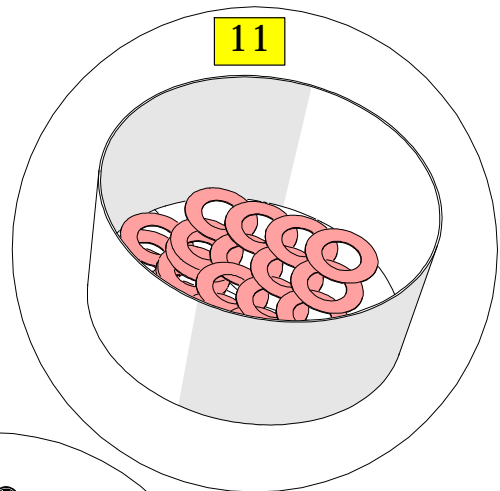
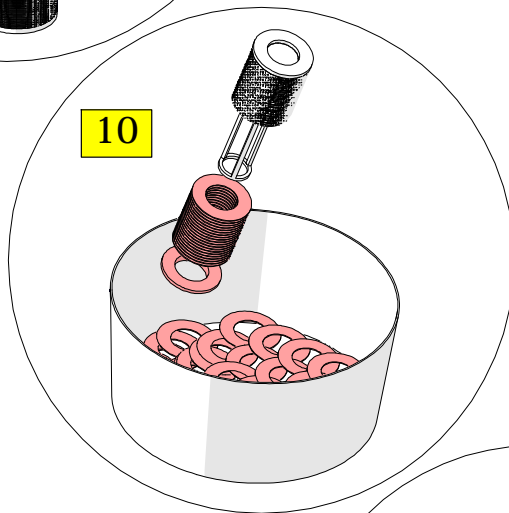


**FIGURE 6.**

**OR: INTENSIVE CLEANING:**



See topic 2.1 Cleaning and disinfection.



**FIGURE 7.**

### 3.2. OPERATION OF THE VALVES

#### NORMAL OPERATION

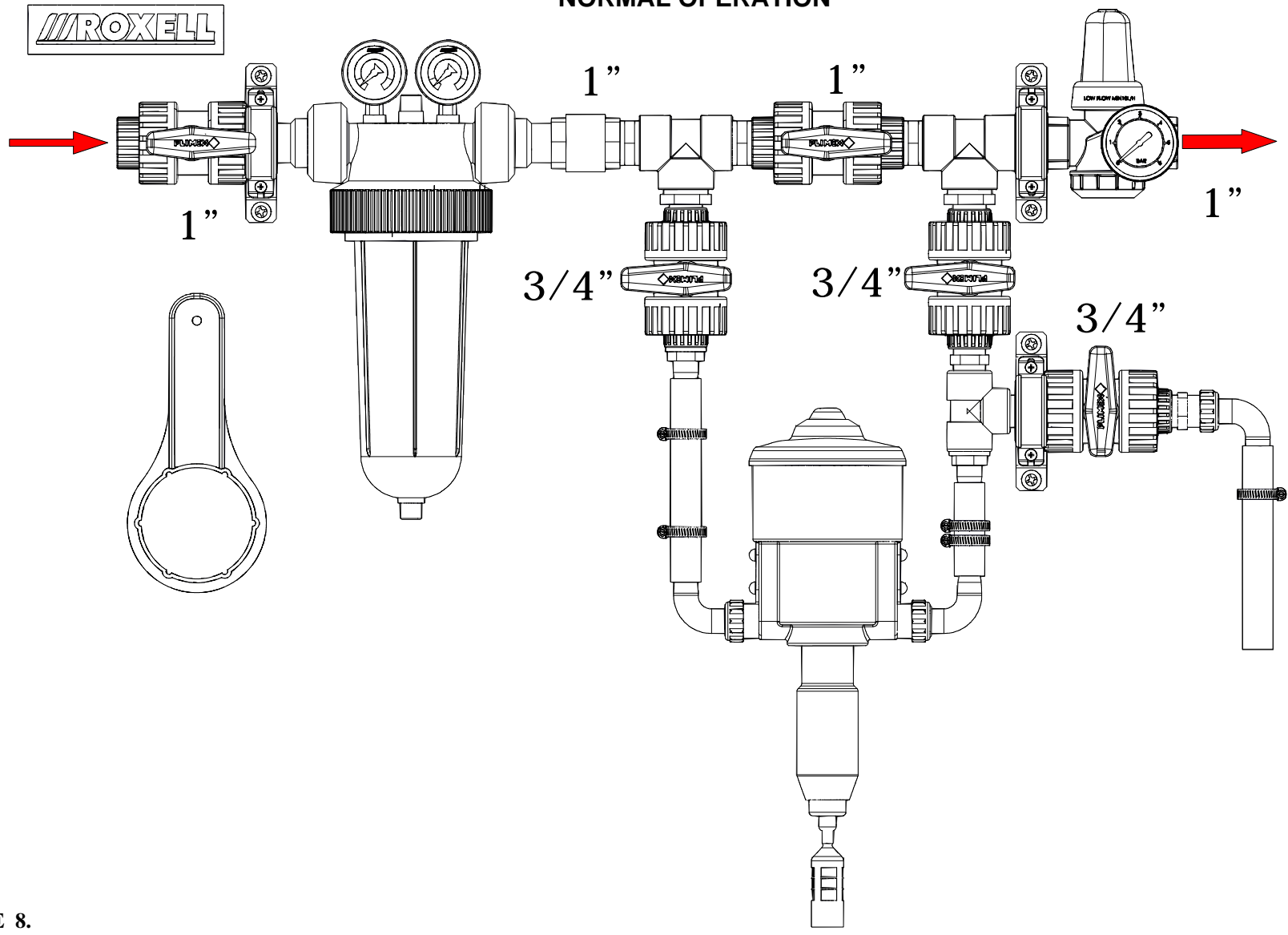


FIGURE 8.



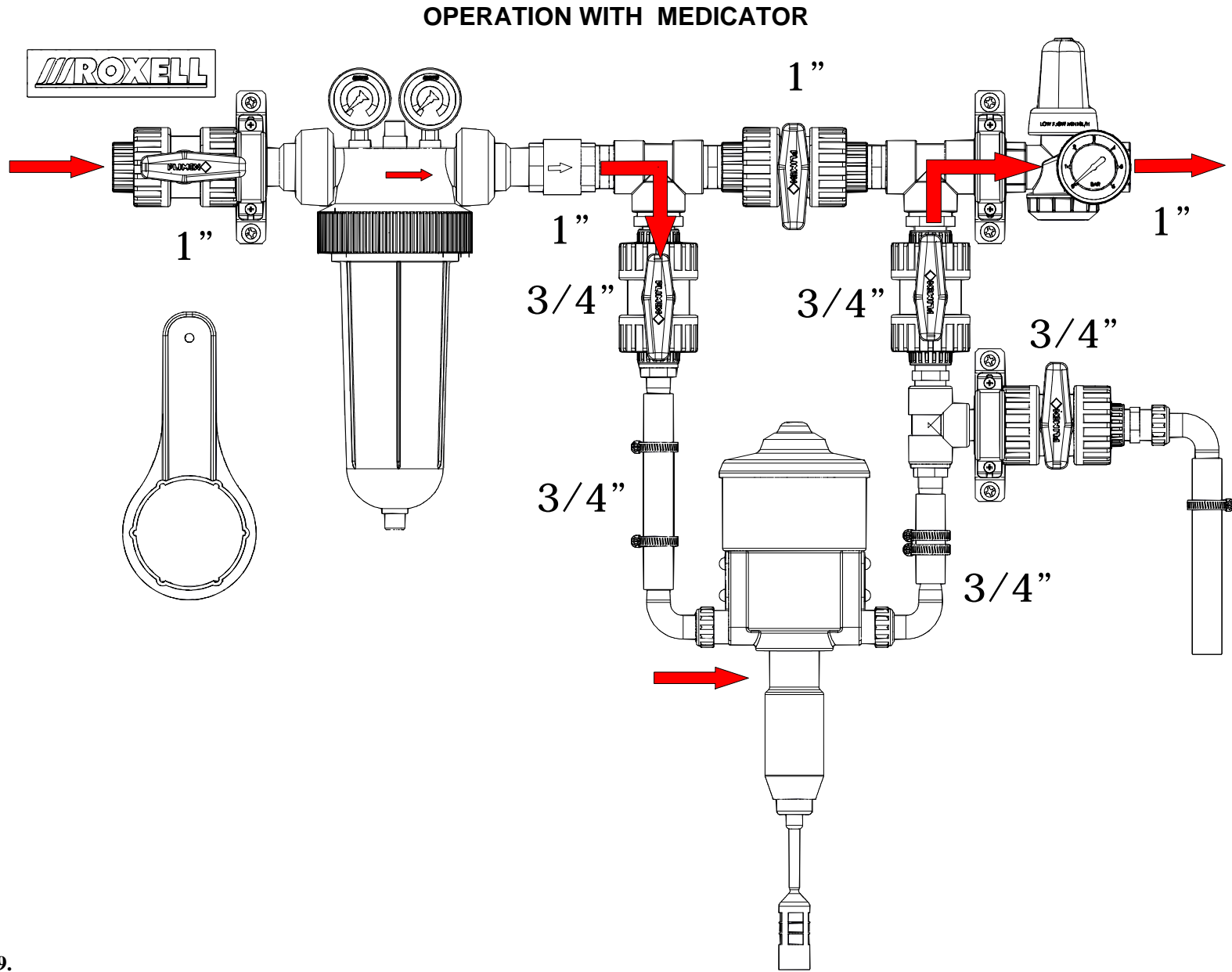


FIGURE 9.

### TO CHECK AND TO CLEAN THE MEDICATOR

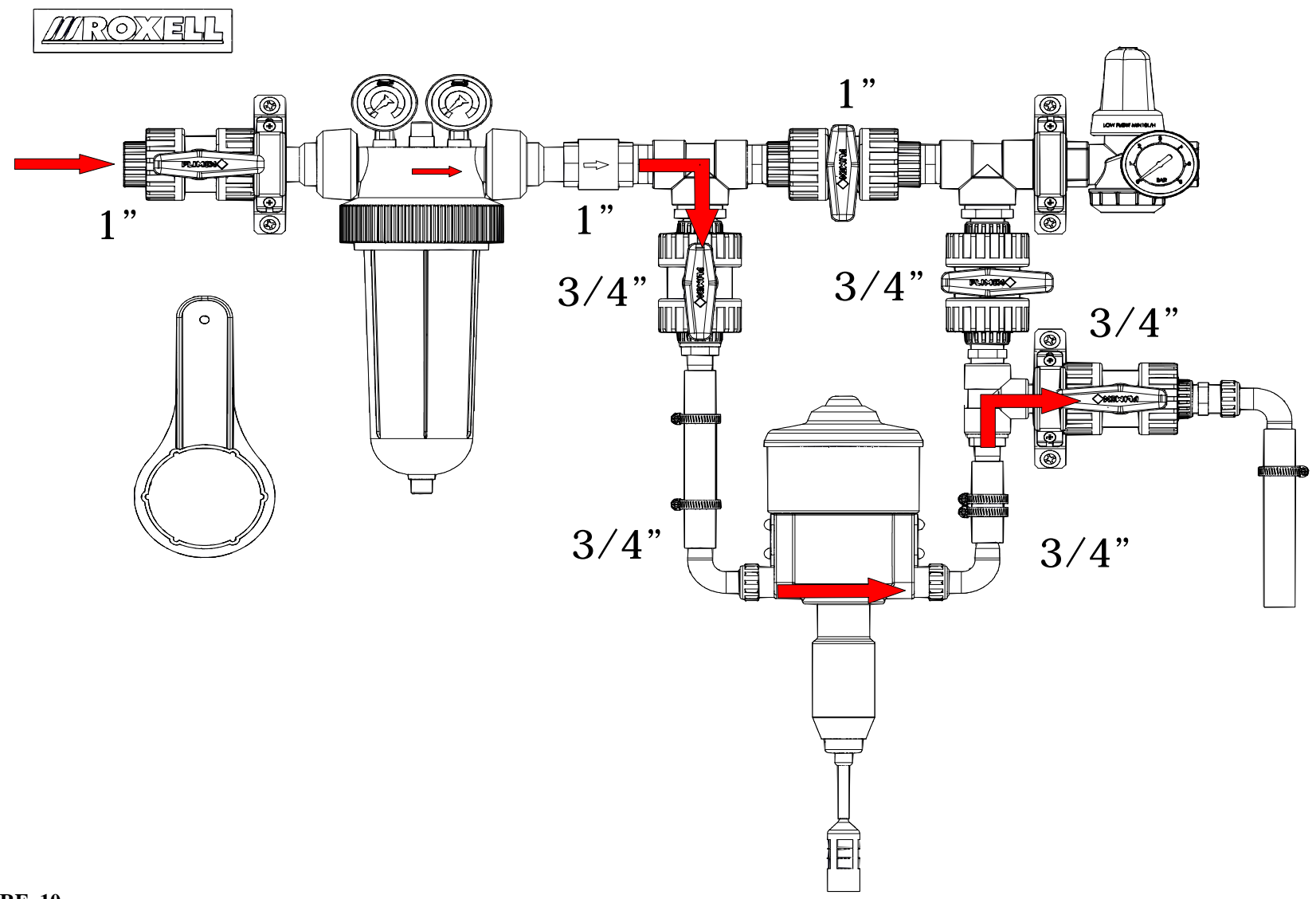


FIGURE 10.

### DIVIDED HOUSES - NORMAL OPERATION

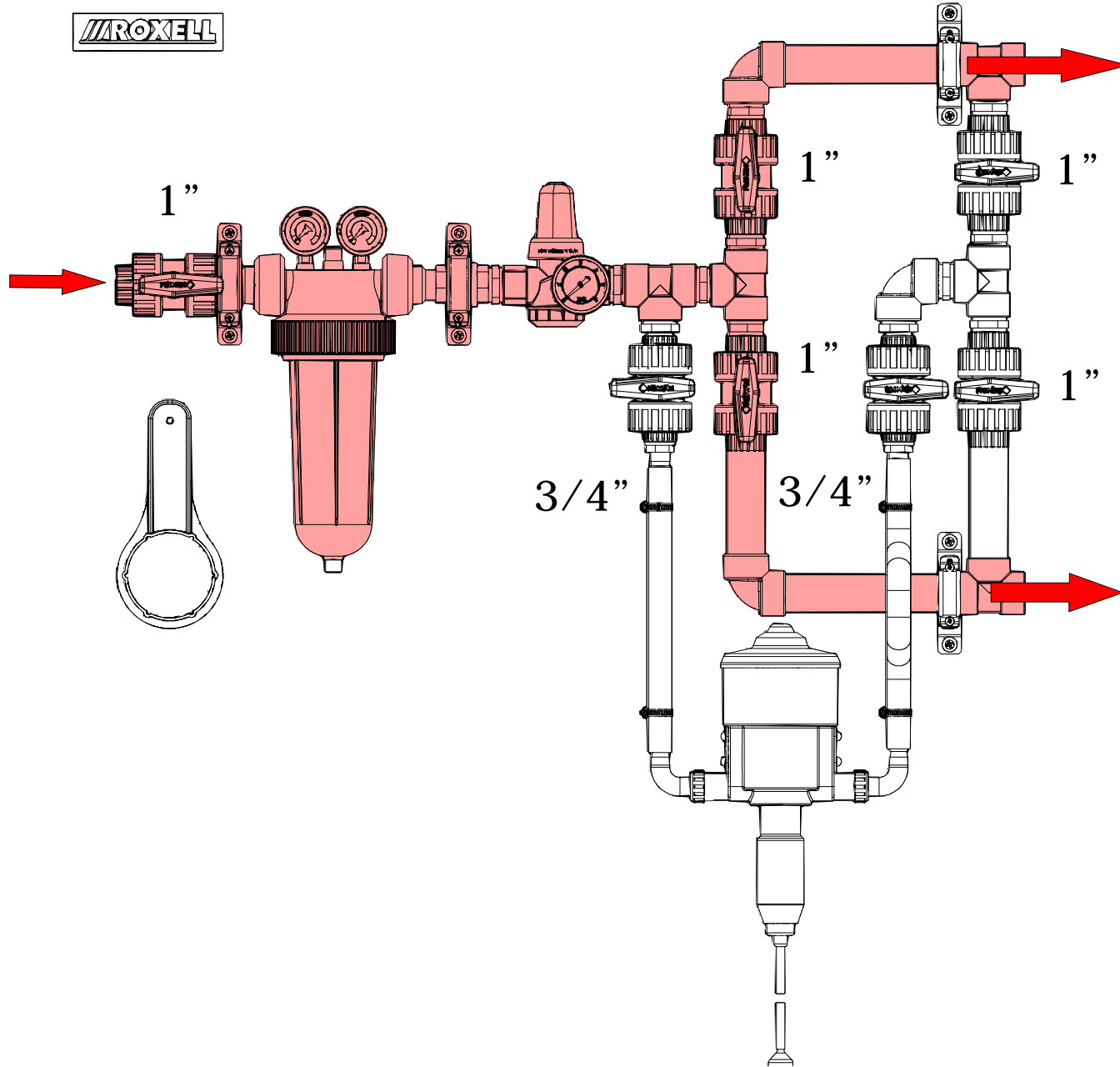


FIGURE 11.

### DIVIDED HOUSES - OPTION: MEDICATION

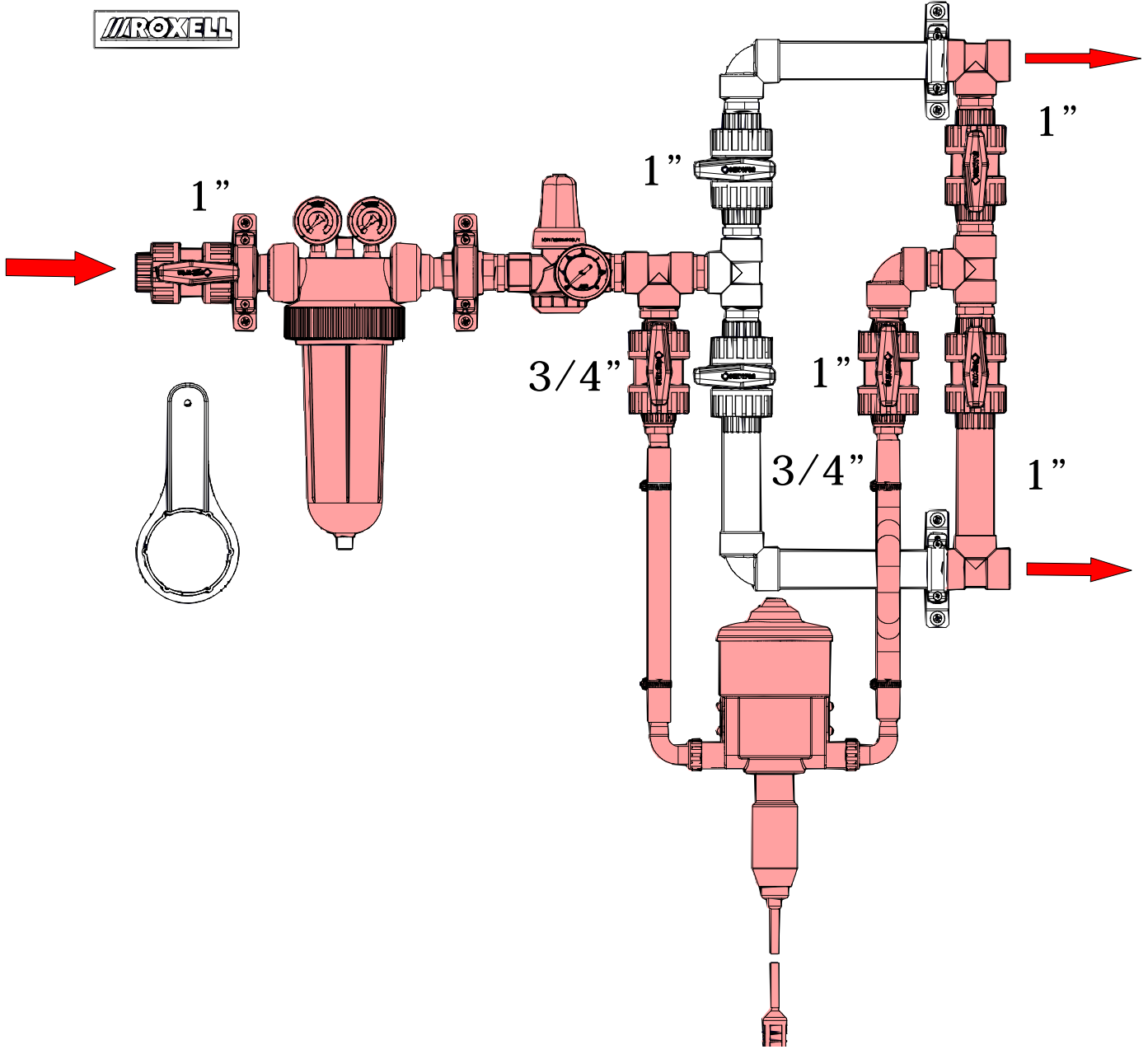


FIGURE 12.

## 4. TO ADJUST THE LINE HEIGHT

### 4.1. TO ADJUST HEIGHT OF COMPLETE LINE

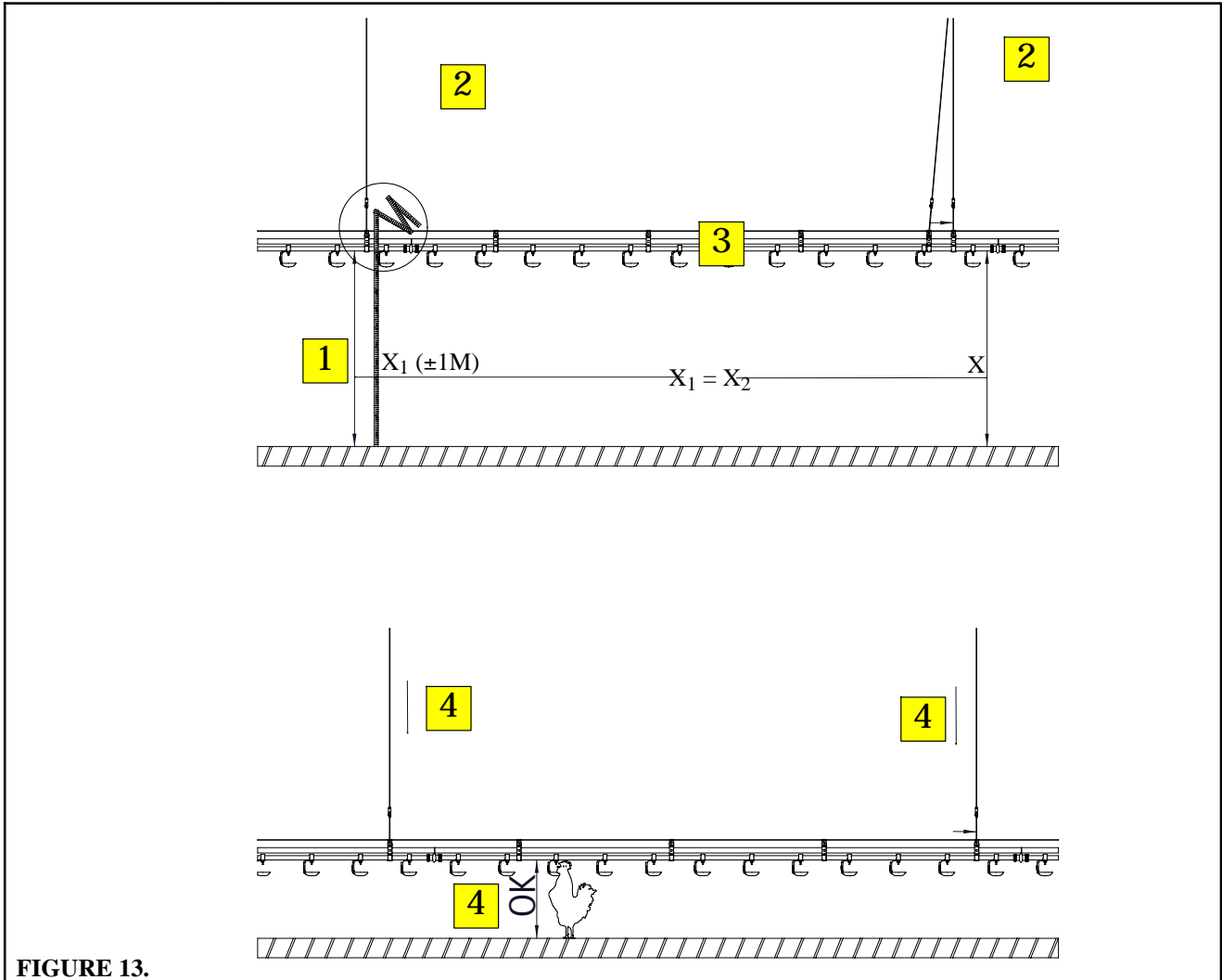


FIGURE 13.

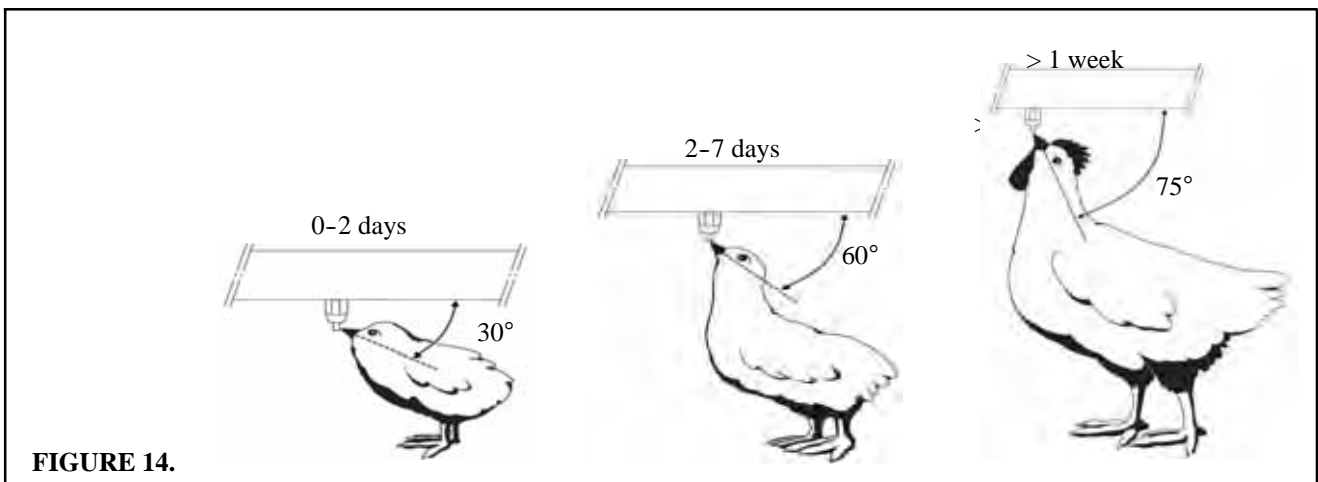


FIGURE 14.

### 4.2. TO ADJUST LINE WITH 3 HOLE STRING ADJUSTER

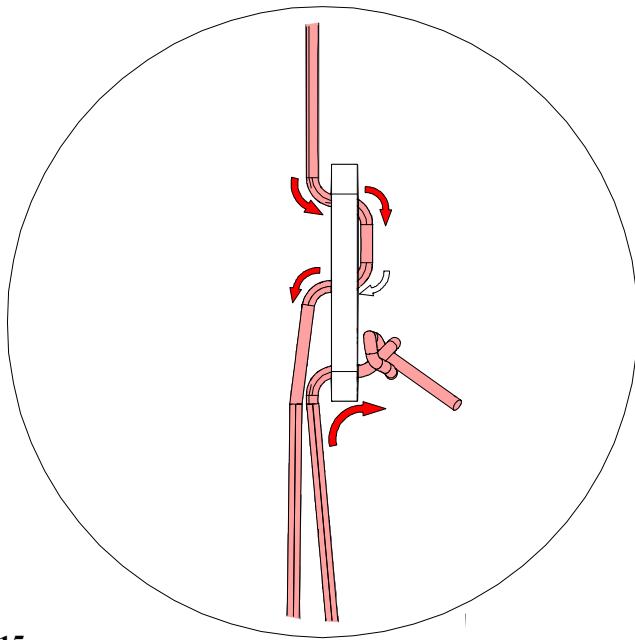


FIGURE 15.

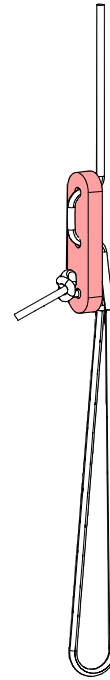


FIGURE 16.

### 4.3. TO ADJUST LINE WITH THE SUSPENSION SCREW

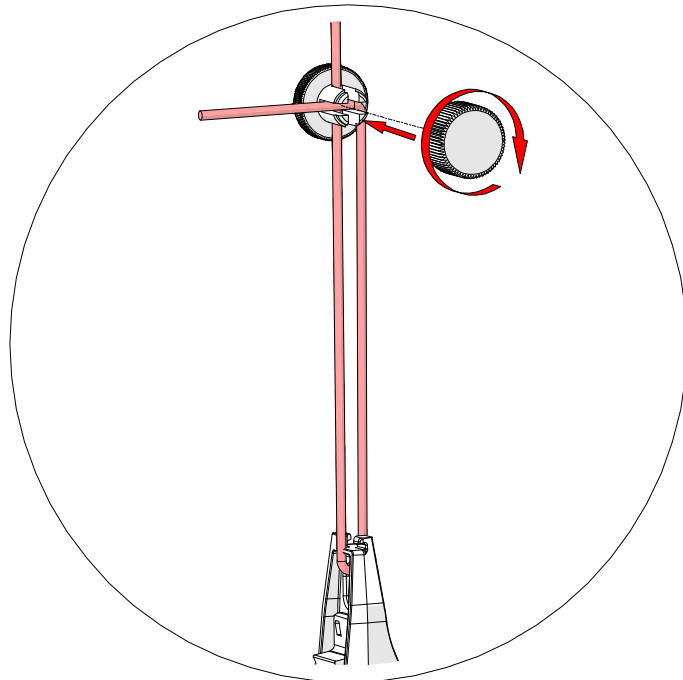
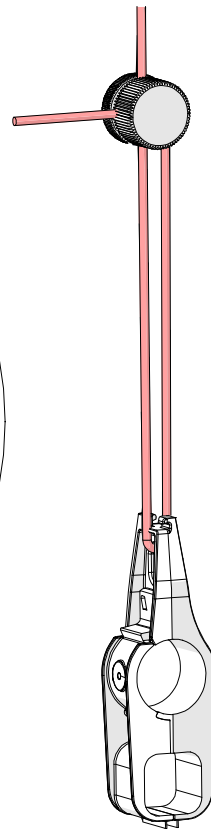
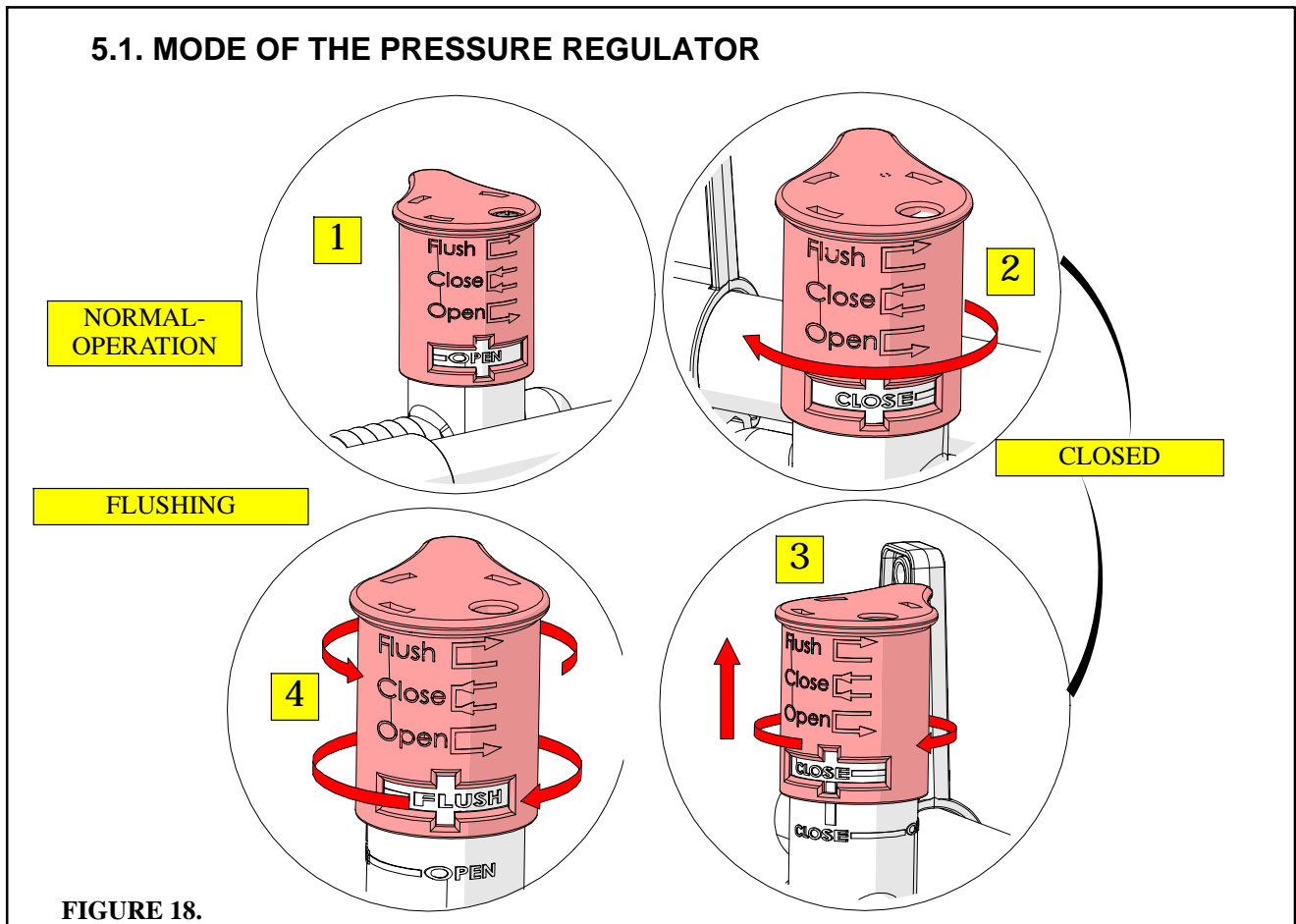


FIGURE 17.

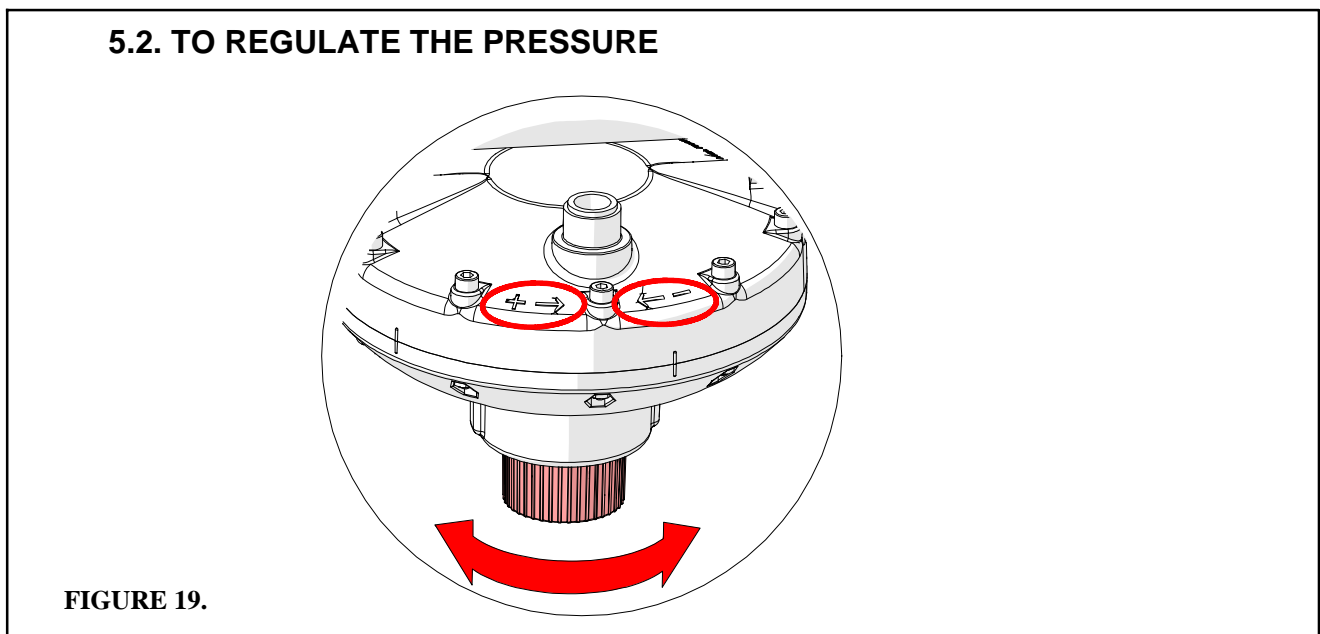


## 5. OPERATION OF THE SYSTEM

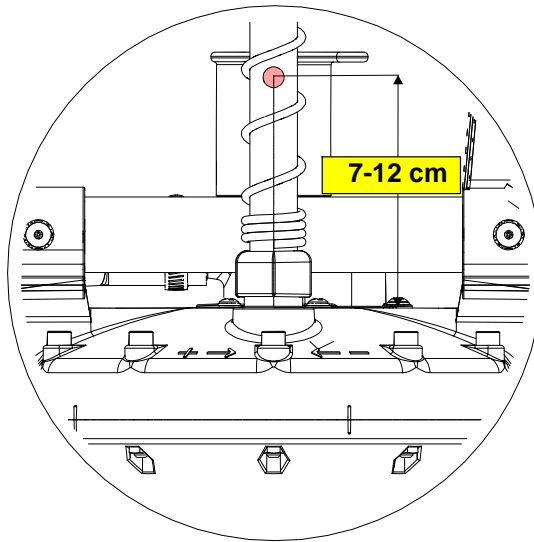
### 5.1. MODE OF THE PRESSURE REGULATOR



### 5.2. TO REGULATE THE PRESSURE

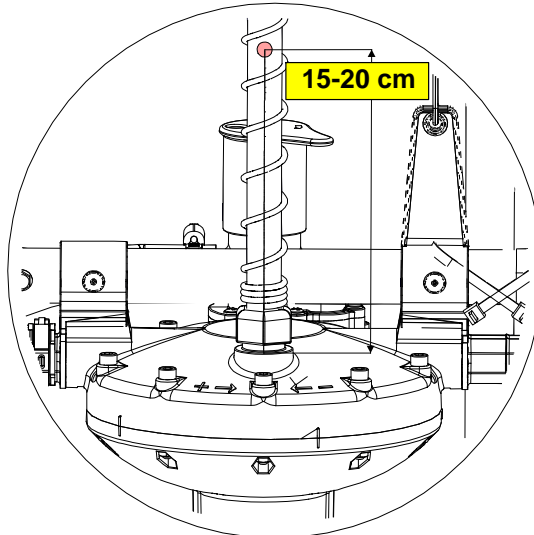


0-7 days:



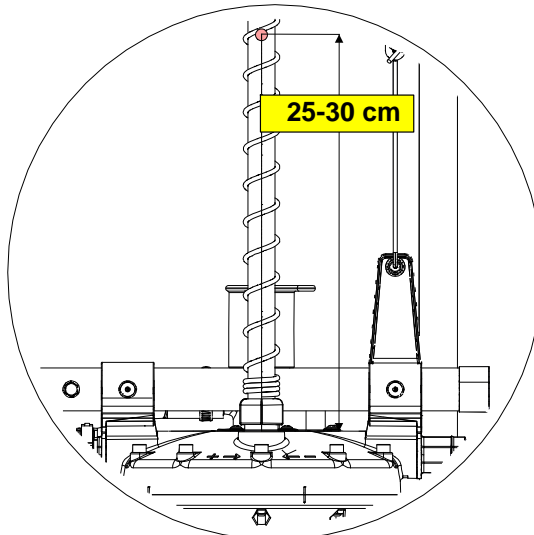
**FIGURE 20.**

7-21 days:



**FIGURE 21.**

21 days - end of the flock:



**FIGURE 22.**



### 5.3. TO USE THE END UNIT

OPERATION MODE

FLUSHING MODE

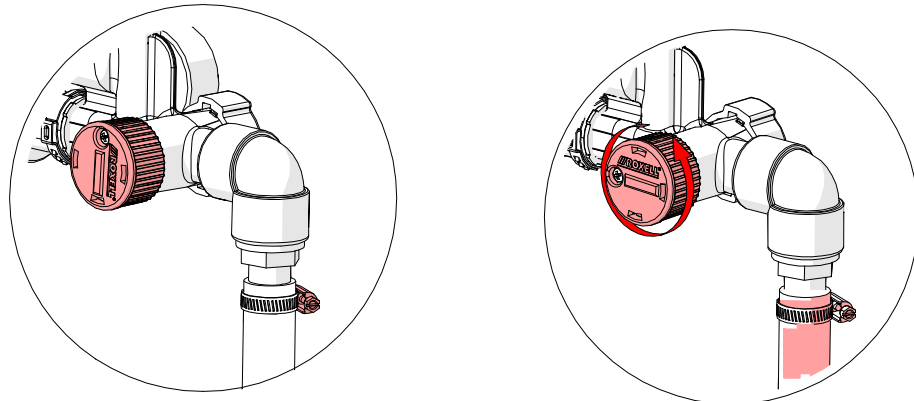


FIGURE 23.

### 5.4. TO USE THE INTERMEDIATE SHUT OFF VALVE

Situation: The whole house

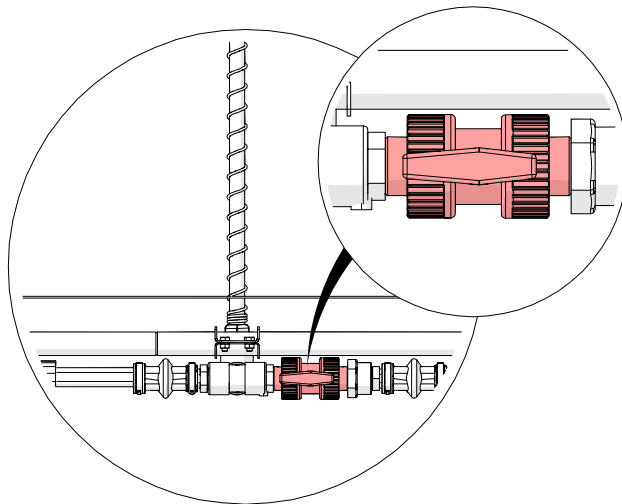


FIGURE 24.

Situation: Partial brooding

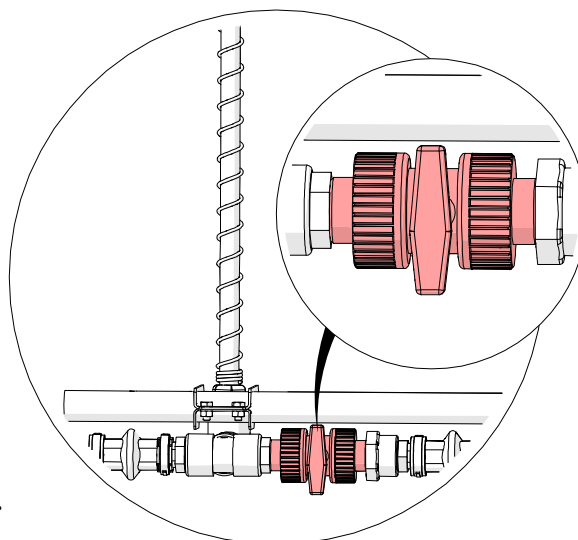
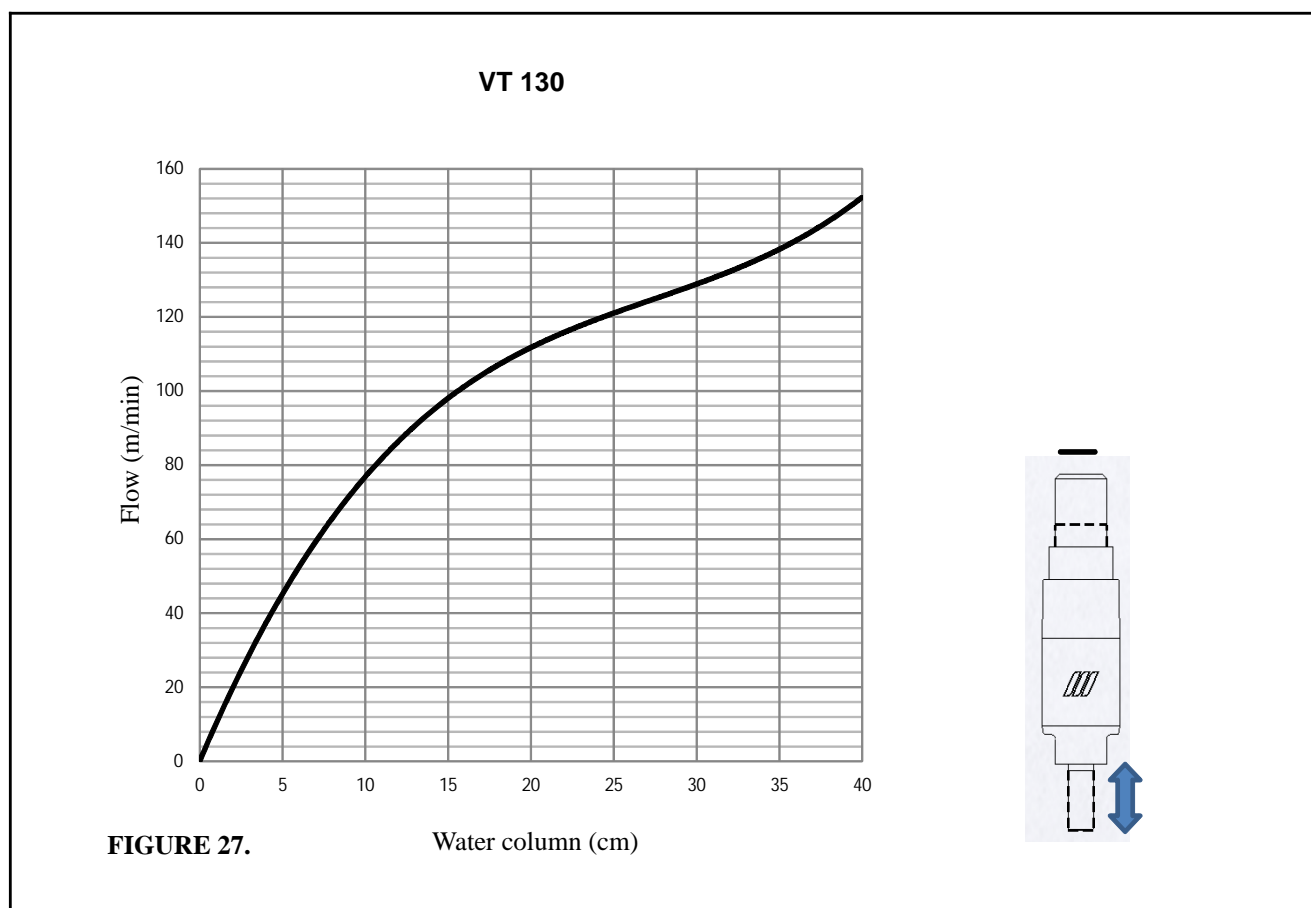
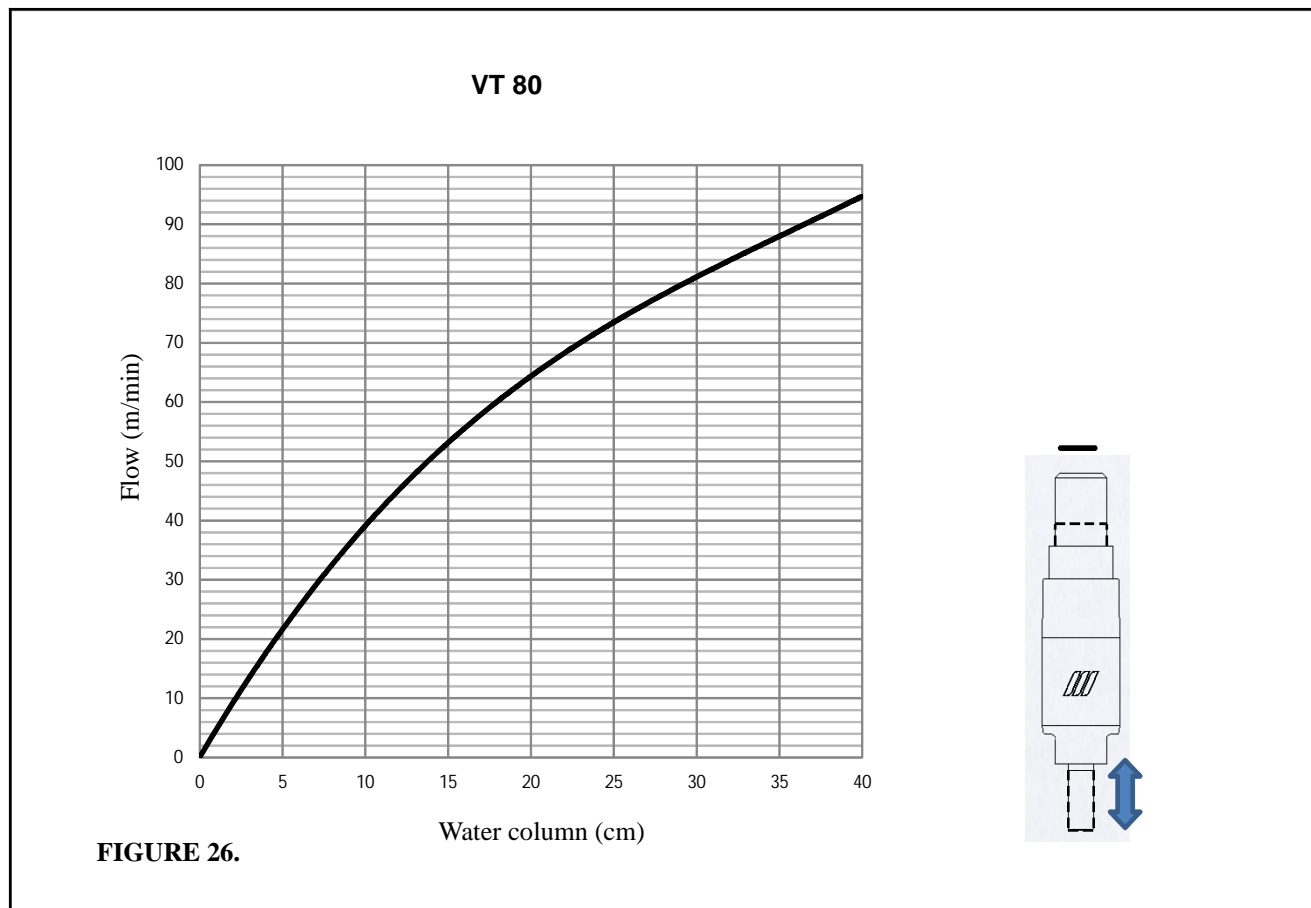
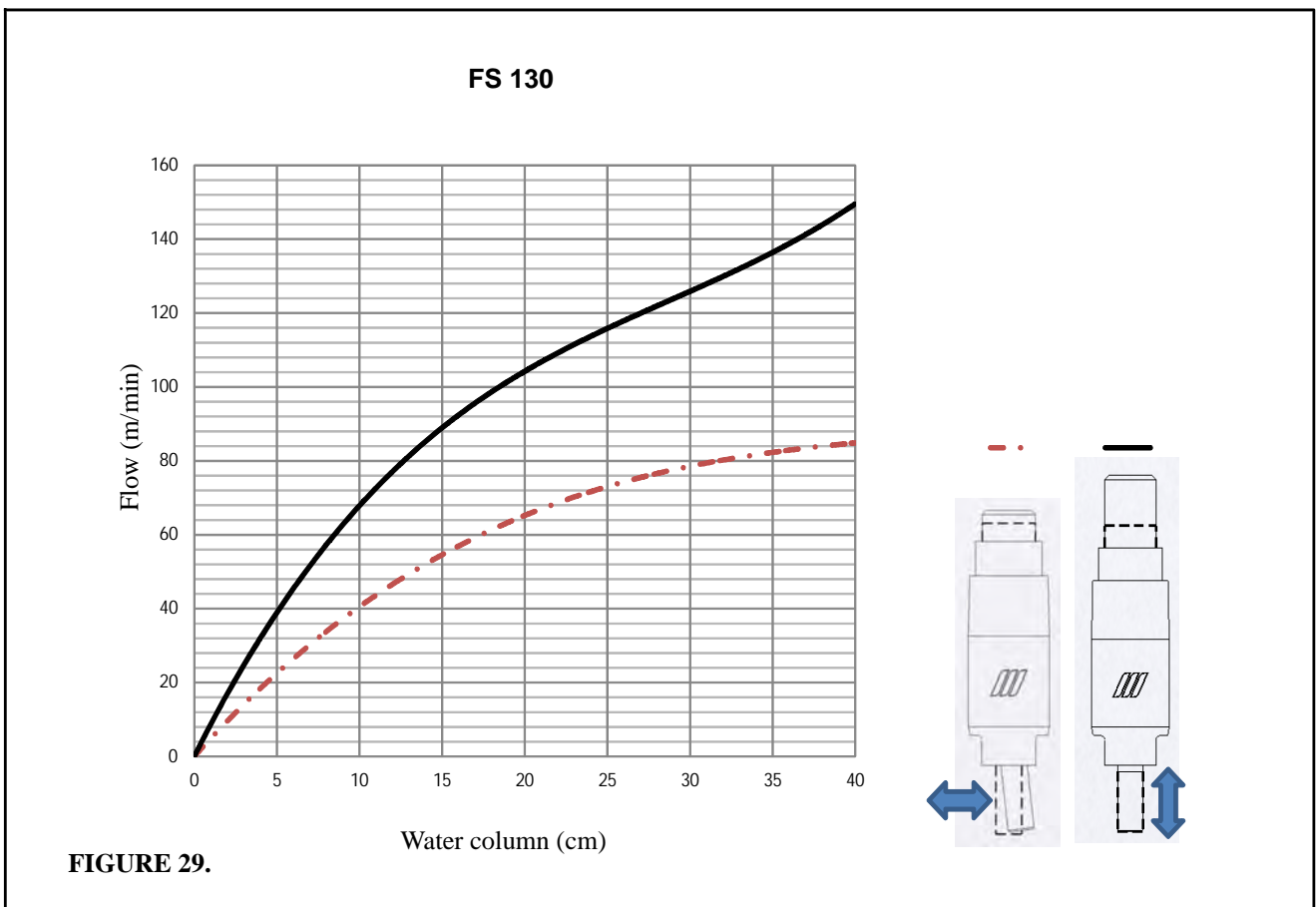
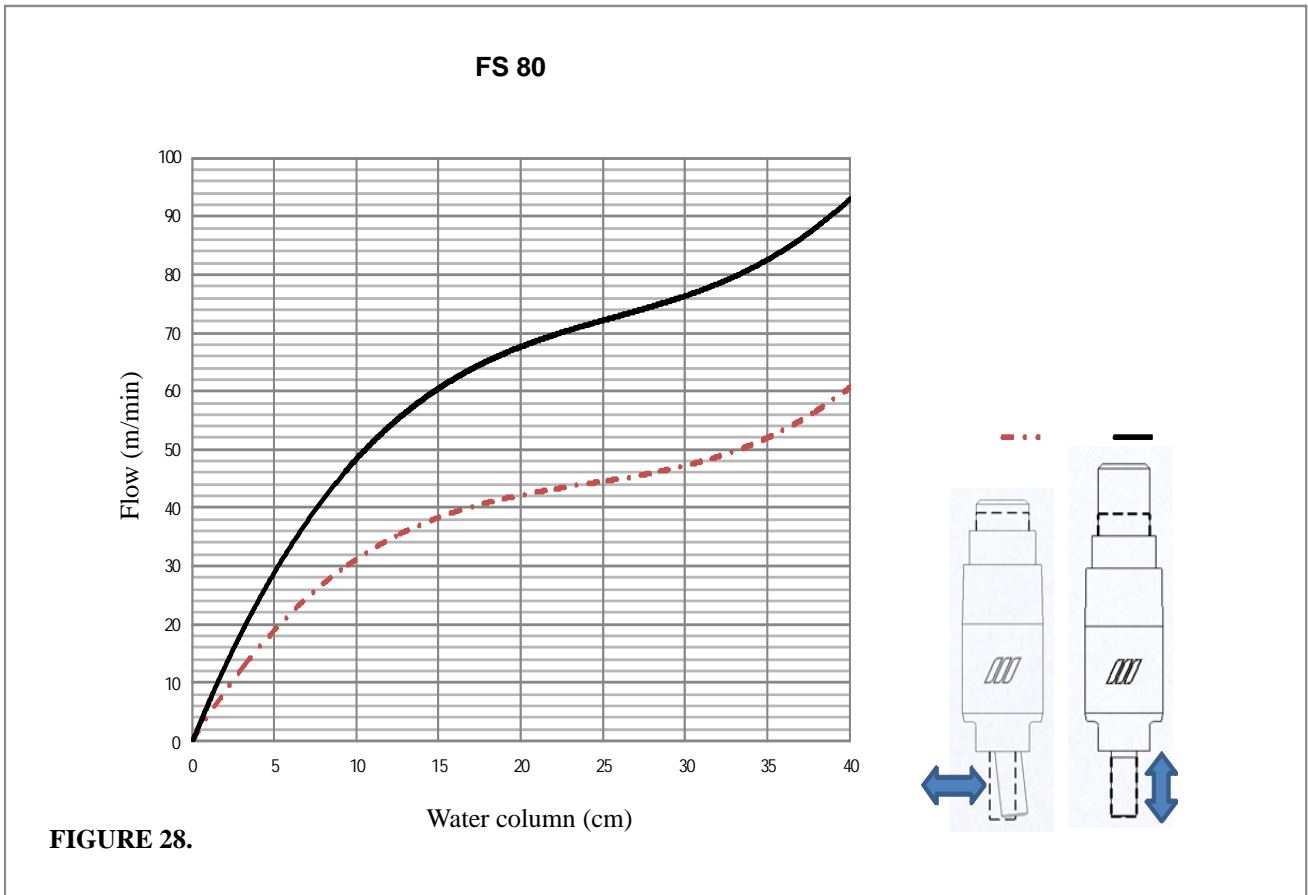


FIGURE 25.

### 5.5. FLOW OF NIPPLES

Pressure measured from top of the hose pillar of the pressure regulator.





## 6. TO CLEAN THE SYSTEM



In order to maintain the correct functioning of the drinking system, cleaning (flushing) should be performed on a regular basis.

### 6.1. MANUAL FLUSHING

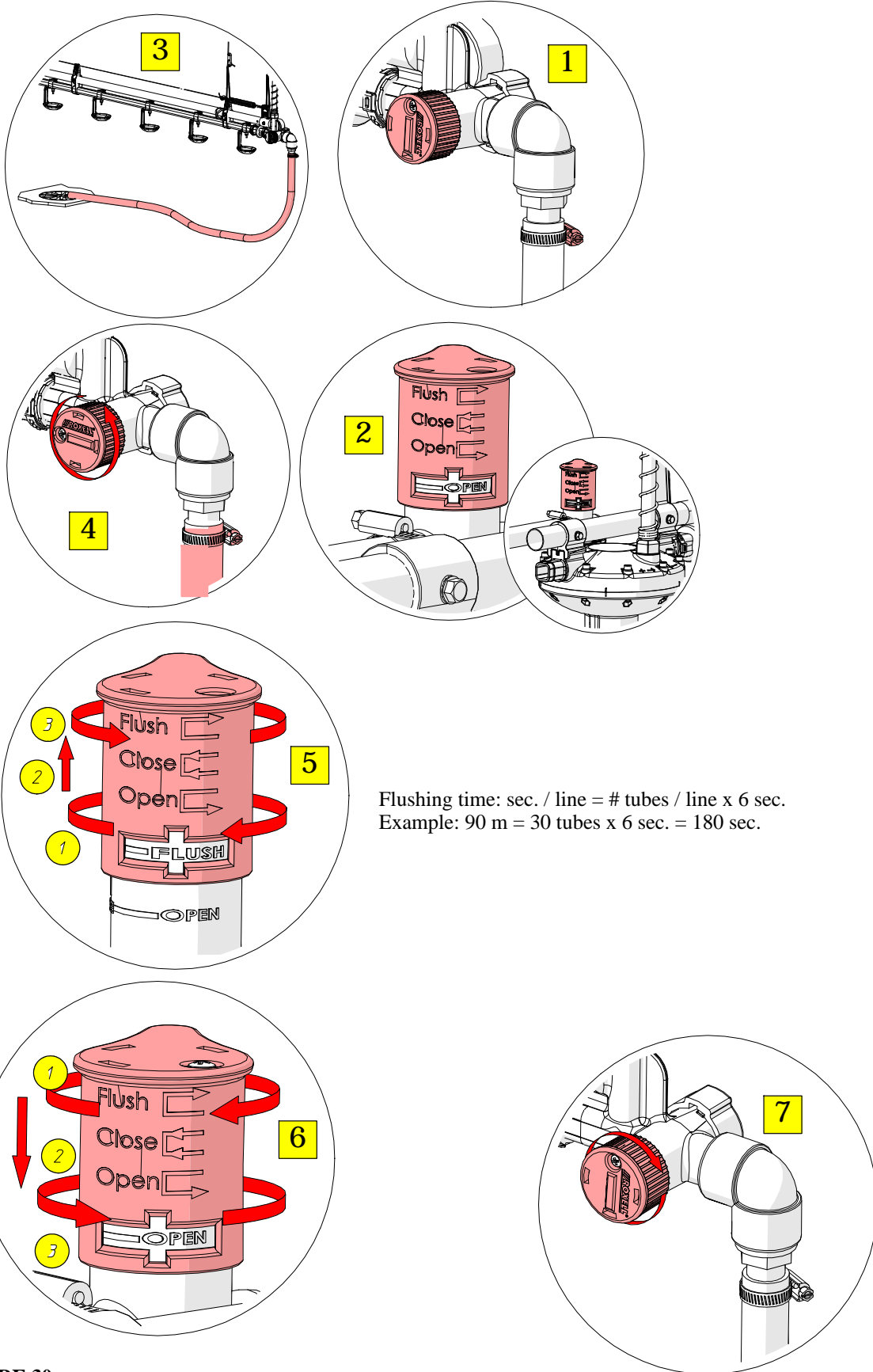
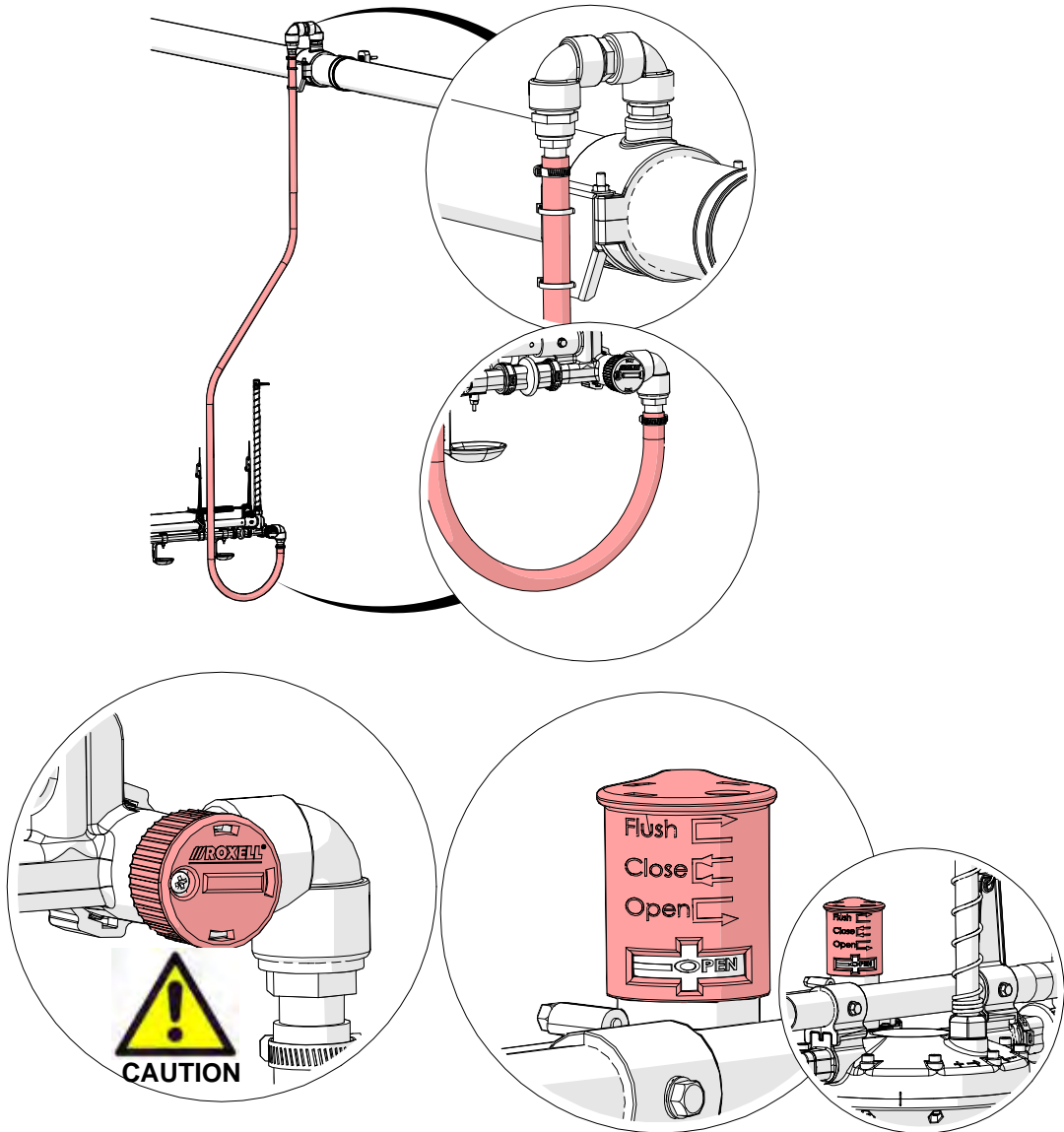


FIGURE 30.

6.2. FLUSHING USING THE OVERFLOW



Flushing time: sec. / line = # tubes / line x 6 sec.  
 Example: 90 m = 30 tubes x 6 sec. = 180 sec.

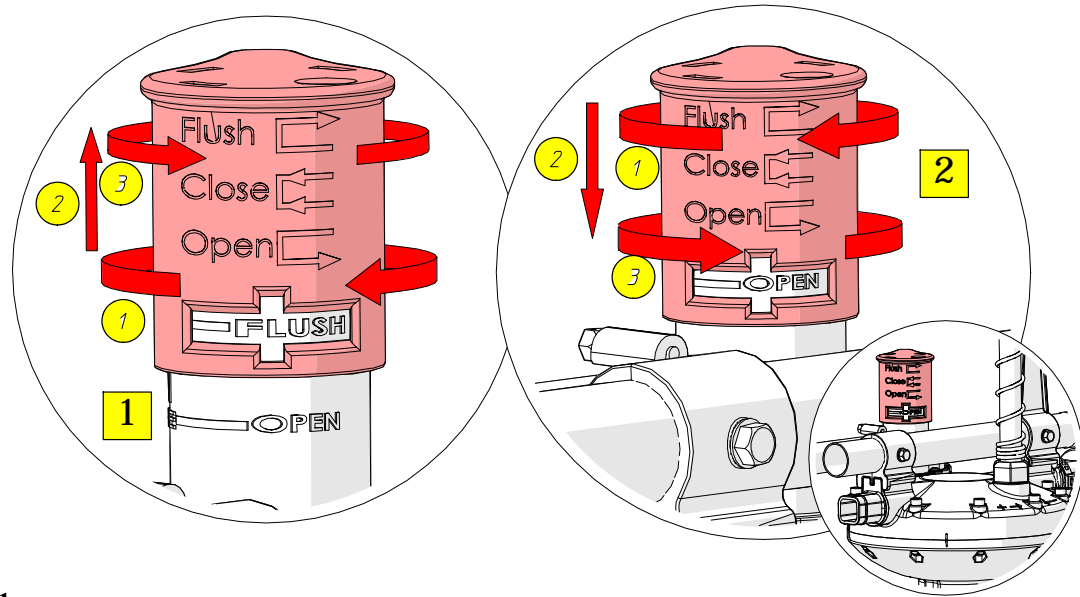
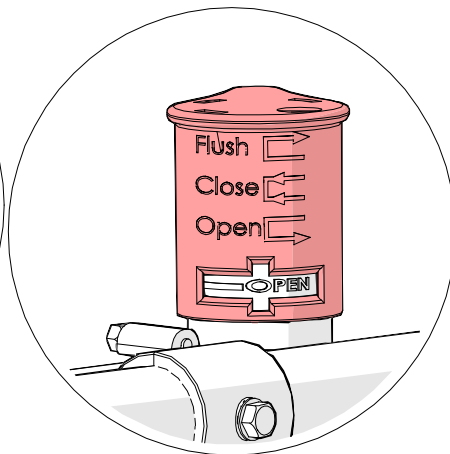
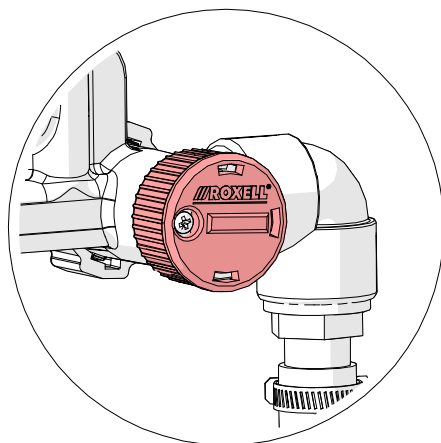
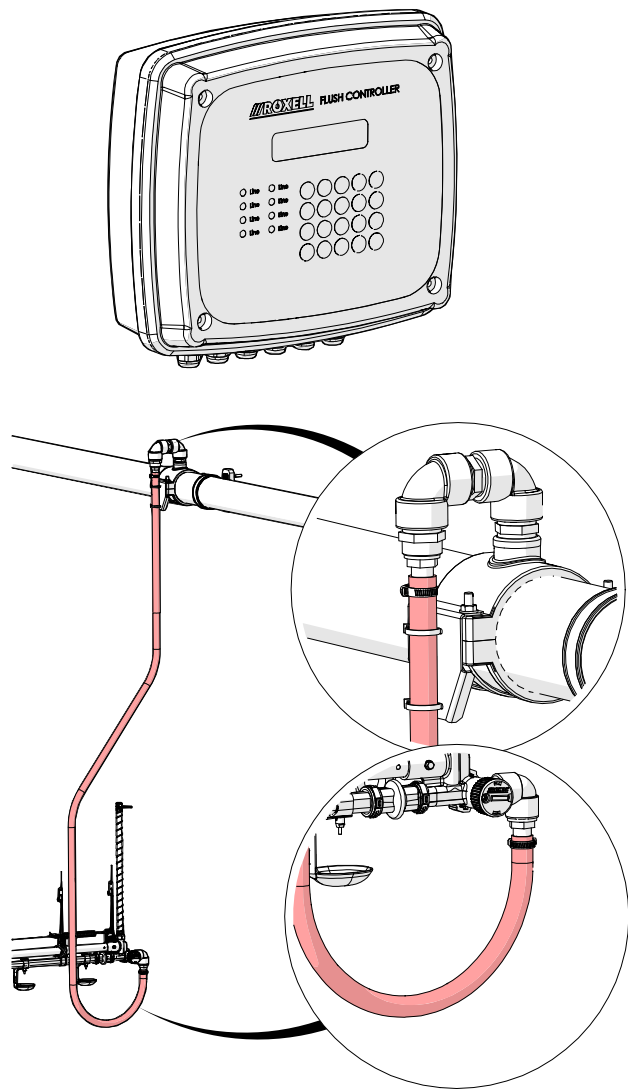


FIGURE 31.

**6.3. AUTOMATIC FLUSHING (OPERATION EXPLAINED IN CONTROLLER MANUAL)**



**CAUTION**

**FIGURE 32.**

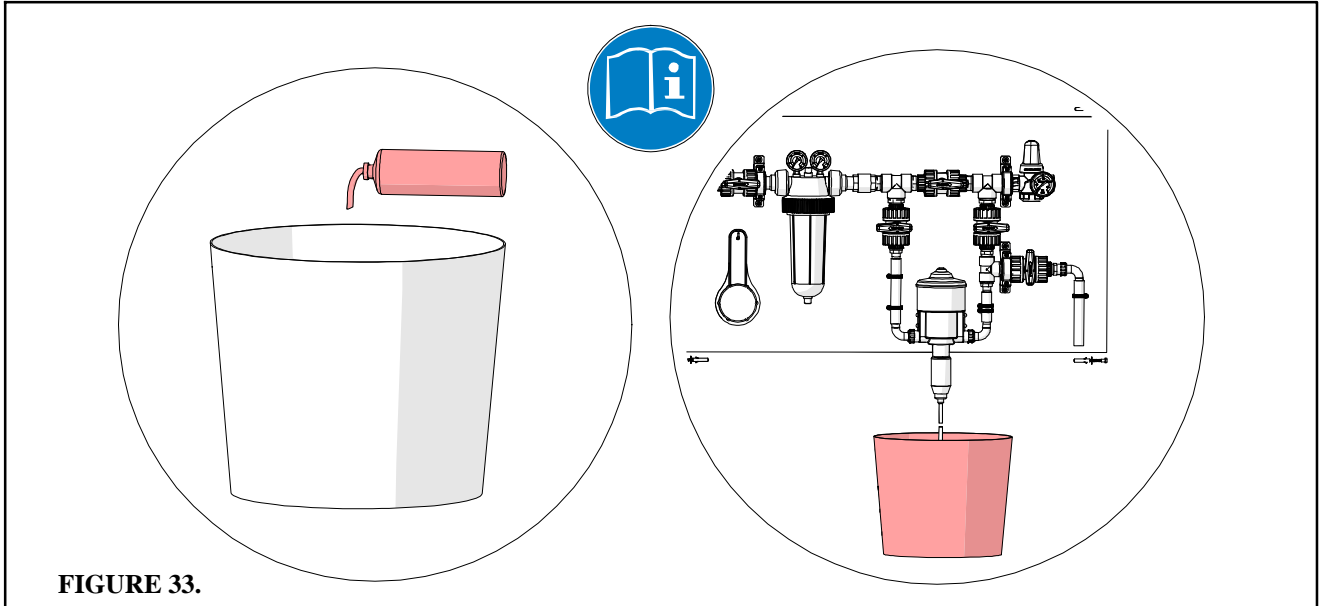
## 7. TO ADMINISTER VACCINE OR MEDICATION

### HOW TO DO



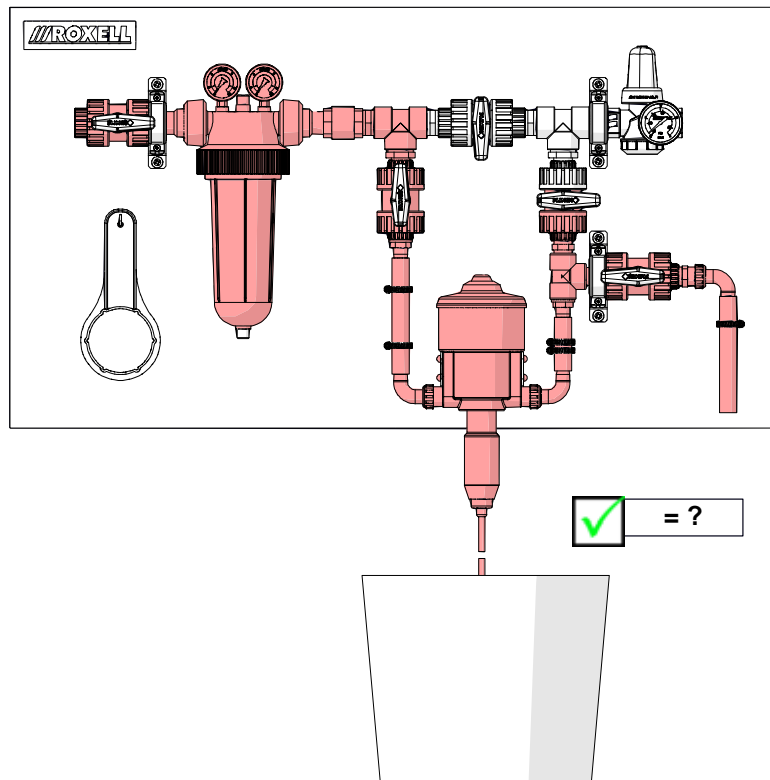
**CAUTION**

Note: Follow the instructions of the additive supplier !



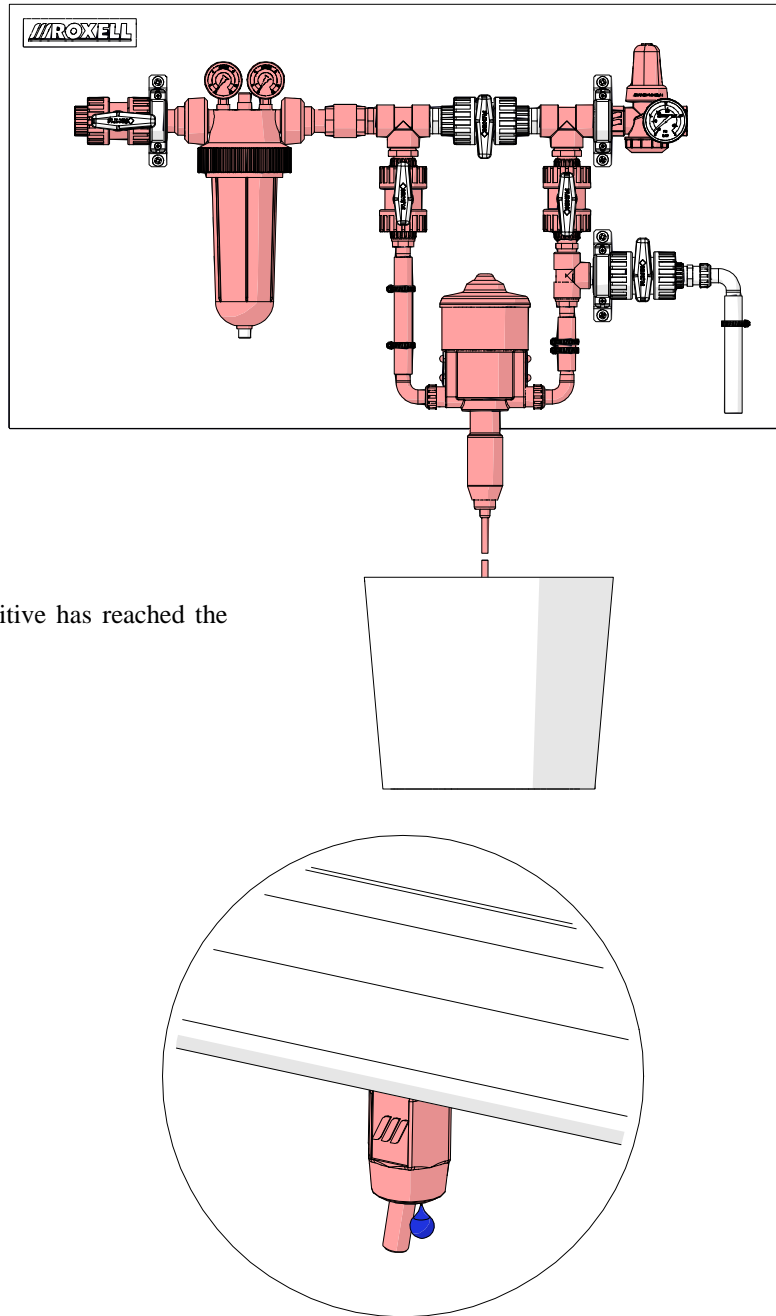
**FIGURE 33.**

Check function of medicator.



**FIGURE 34.**

To administer the additives.



Check that the additive has reached the end of the line.

FIGURE 35.



CAUTION

**ALWAYS** clean the system before and after administering!



## 8. PERCH PROTECTION AND THE SYSTEM

### 8.1. ELECTRICAL PERCH PROTECTION



**When entering the house, FIRST switch off the electrical power!**

The line height should be correct depending on the age of the birds.

### 8.2 SPINSOFT

- The line height should be correct depending on the age of the birds.
- Keep the cable under tension.
- At the beginning some birds might perch on the system. They will find themselves unstable, so they will find it not attractive.
- They will learn not to perch on the system.

## MAINTENANCE INSTRUCTIONS



**Switch off the main switch first.  
Use personal protective equipment.**

**ACTIONS IN GREY BACKGROUND MUST BE DONE BY A TECHNICALLY TRAINED PERSON.**

	At first system startup	During the flock	Between 2 flocks	Every 6 months
<b>Filter</b>	Check differential pressure and clean filter cartridge if necessary.	Check differential pressure daily and clean filter cartridge if necessary.	Clean filter cartridge quickly as described in the instructions.	Clean filter cartridge carefully as described in the instructions.
<b>Flushing the system (recommended: 1 min/10m drinking line)</b>	Always	After adding products to the water (vaccine, medication, etc.) 2x per week When the temperature of the water in the drinking line is too high.	Always	
<b>Poultry perch system: - Electric - SpinSoft</b>	Check mechanical tension on the cable. Spinsoft: check movability of the spinners.	Daily: check that no animals are perching on the drinking line.	Check mechanical tension on the cable. For spinsoft, check movability of the spinners.	
<b>Water supply</b>	Check for sufficient supply flow and pressure.	Daily: check for sufficient supply flow and pressure.	Check for sufficient supply flow and pressure.	
<b>Cleaning</b>			Clean all components to ensure system hygiene. Empty drip cups after cleaning so that no residue remains in the cups.	
<b>Diaphragm valves of automatic flush system</b>	Check proper closure of valves.	Check that no water escapes via the drain for flushing when the valves are not operated.		
<b>Drain system</b>			When there is a risk of the lines freezing up.	
<b>Suspension system</b>	Check the main cable and the other suspension system components for possible damage. Check the operation of the hand winch.		Check the main cable and the other suspension system components for possible damage. Check the operation of the hand winch.	Check the main cable and the other suspension system components for possible damage. Check the operation of the hand winch.

## TROUBLE SHOOTING GUIDE



**Switch off the main switch first.  
Use personal protective equipment.**

**ACTIONS IN GREY BACKGROUND MUST BE DONE BY A TECHNICALLY TRAINED PERSON.**



**Caution**

### IMPORTANT

**If you must replace leaking nipples, remove them carefully.  
Screw the nipples vertically into the pipe, so that you do not deform the screw thread.  
Do not screw the nipple too deep.**

PROBLEM	CAUSE	CORRECTIVE ACTION
1. Leaking nipples.	a. Dirt in the system when starting up.	- Rinse the lines before using them.
	b. Bad water quality.	- Have the water tested by a renowned specialist and take action if needed.
	c. Vaccines/medicines.	- Rinse the lines before and after administering additives.
	d. Water is polluted.	- Regularly clean the filter cartridge. Use clear water.
	e. Wear of nipples.	- Regularly adjust the height of the lines.
	f. Use of certain detergents/disinfectants/medecines.	- Consult the list of allowed products and check specifications of suppliers before using any of them.
	g. Nipple is not suitable for the type of bird.	- Consult the recommendations types of bird/nipple.
2. Water wastage.	h. Water supply at the wrong spot.	- See instructions for the maximum length per water supply point.
	i. Scope is too high.	- Install the water supply at the correct position. Refer to instructions on the slope regulator.
	j. Incorrect height of the line.	- Adjust the height.
	k. Wrong combination of nipple/type of bird.	- Consult the recommendations types of bird/nipple.
	l. Drip cup is not suitable for the type of bird.	- Consult the recommendations types of bird/nipple.
	m. Water pressure set too high.	- Adjust water pressure as recommended, as a function of the age of the animal.
3. Water consumption too low.	a. Incorrect level of the line : - Uneven floor. - height of the line.	- Level the litter on the floor. - Adjust the height. - Regularly adjust the height of the line.
	b. Water is too hot.	- Rinse every hour with fresh, cool water. You can use the RFC (Roxell Flushing Controller) to do this automatically.
	c. Nipple is not suitable for the type of bird.	- Consult the recommendations types of bird-nipple.
	d. Water pressure is too low.	- Adjust the water pressure.
	e. Nipples are silted up (vaccination/medicines).	- Refer to the supplier's instructions for the specific means to be used to release the nipples. Follow the specifications and instructions for use of these means.
	f. A large number of nipples are blocked by a too high content of calcium/iron.	
	g. Pollution of individual nipples.	- Move the nipple bars a few times to and fro until the dirt comes off or replace the complete nipple.

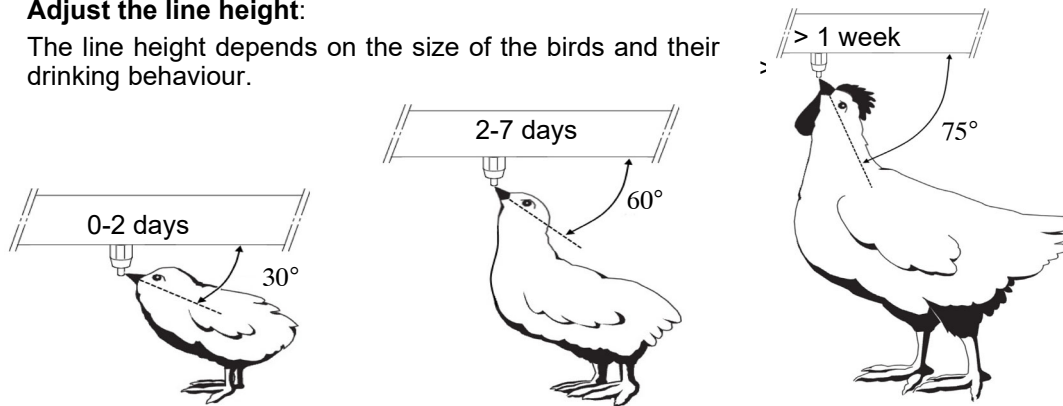
PROBLEM	CAUSE	CORRECTIVE ACTION
	h. Debeaked birds.	- Install start cups.
	i. Not enough water consumption by day-olds.	- Increase pressure. - Increase lighting.
	j. Too many birds per nipple.	- Adjust the stocking rate.
	k. Use of another system during rearing of layers/breeders.	- Temporarily reduce the water pressure and use start cups.
	l. Drip cup too large (starting period) or too small (end of the flock).	- Consult the recommendations types of bird/nipples/drip cups.
4. Contamination of the drip cups.	a. Not enough birds per drip cup.	- Temporarily use less lines. Check the individual nipples.
	b. Nipples are silted up (calcium/iron).	- Agitate the nipples to let water through them to rinse.
5. Obstruction to the movement of birds.	a. Lines are suspended too low.	- Adjust the height.
6. The synthetic material of the drip cup is affected.	a. Use of non-authorized products.	- Consult the list of allowed products before using any of them.
7. Leaking connectors.	a. Incorrect installation. Too high pressure.	- Use the correct tools and follow the instructions. - Check position of the flush button on the pressure regulator. - Check if valve of the end unit is open during flushing.
8. Connectors get loose.	a. Too much water pressure on the line.	- First open end valve for flushing in case of manual flushing. Maximum water pressure = 3 BAR.
	b. Incorrect procedure when rinsing.	- See instructions part 1.
	c. Broken clamp ring 19802941.	- Replace clamp ring and follow the instructions.
9. Deformed tubes.	a. Heat source is too close.	- Remove the heat source, so that the line is no longer exposed to a temperature of more than 50°C.
10. Perching animals in case of electric poultry perch system.	a. No cable for poultry perch guard installed.	- Install cables for poultry perch guard or perch protection system when needed.
	b. Cable for poultry perch guard is not electrified.	- Make a correct connection to the poultry perch guard.(turn on). Check on short circuits.
	c. Cable for poultry perch guard not stretched enough.	- Control by expert.
	d. Wrong connection between the poultry perch guard and the line.	- Wrong connection between the poultry perch guard and the line.
	e. There is no earthing.	- Provide correct earthing.
	f. The animals tend to perch on the line.	- For breeders/layers : winch up the lines every evening and/or encourage the birds from the lines before switching off the lights.

<b>PROBLEM</b>	<b>CAUSE</b>	<b>CORRECTIVE ACTION</b>
11. Perching animals in case of SpinSoft poultry perch system.	a. Spinners touch the suspension tube. They do not move smoothly around the cable.	- Check if clearance between hangers and wings is sufficient according to the instructions. - Check if no dirt has accumulated in the cable guide of the spinners. Clean the cable guide if necessary.
	b. The cable sags too much. Not enough tension on the cable when the animals try to perch on the SpinSoft system.	- Check tension on the cable and readjust in accordance with the instructions.
12. The line sags.	a. Individual suspension points at incorrect height.	- Suspend the line at the correct height.
13. Deformed suspensions.	a. Cable is stretched too much.	- Adjust the stretch on the cable.
	b. Birds perch on the line.	- See actions in case of birds perching on the system.
14. Connector at the water tank/pressure regulator is broken.	a. Lines are winched up too high.	- Pay attention when winching up the lines.
		- Replace.
15. Water pressure on the line is too high.	a. Water pressure not set correctly.	- Put in correct position.
	b. Diaphragm valve of the automatic flush system is leaking.	- Check diaphragm valve for leakage. - Replace diaphragm if necessary.
16. Twisting of the water tank/pressure regulator.	c. Incorrect connection of the water hose.	- See the instructions part 1
17. Water level in the breather unit difficult to read.	a. Inadequate cleaning.	- Clean using a brush (02206258).
18. Water pressure at the end of the line is too low/high.	a. Angle of floor slope too great (> 15 cm water supply point).	- Install extra water supply points (see sloping regulator).
	b. Length of line per water supply points is too high.	- Check the number of water supply points per line and install extra water supply points if necessary.
19. Suspension cord loose.	a. Incorrect fixing of the three hole string adjuster / adjusting plate.	- Incorrect fixing of the three hole string adjuster / adjusting plate.
20. Insufficient water supply in the house.	a. Water pressure is too low.	- Check the pump.
	b. Diameter of supply tube is too small.	- See the instructions part 1.
21. Difference between incoming and outgoing pressure in the filter.	a. Contamination of filter set.	- Regularly clean the filter cartridge. Use clear water.
22. Leaks at the screw thread.	a. Nipple removed carelessly. Nipple not screwed in vertically or too deep.	- Use sealing material. If necessary, replace the part which leaks. If there are several leaks, replace the tube partly or completely.
23. Nipples discolour.	a. Corrosive substances (acid) in the water.	- Stop administering additives. Contact your supplier of additives.
24. Insufficient water consumption when starting up the layers (production) at the age of 16-18 weeks.	a. Birds have been reared on another system. b. Not enough adaptation time.	- Longer period with light (24 hours). - Maximum light intensity. - Trigger all nipples until drops appear and/ or until there is water in the drip cup. - Reduce the water pressure to 10 cm.

### Line height

#### Adjust the line height:

The line height depends on the size of the birds and their drinking behaviour.



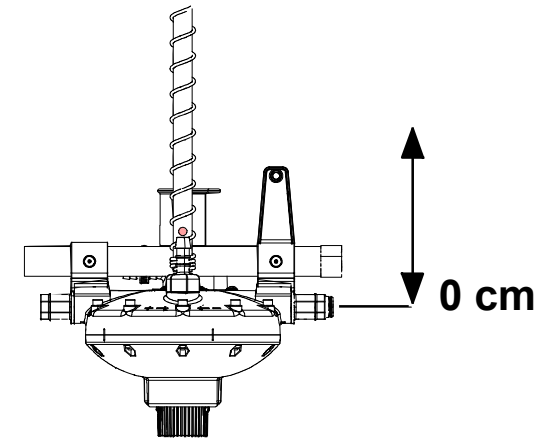
### Water pressure

- Adjust the water pressure depending on the age of the birds.
- Reduce the water pressure, if the litter under the drinking lines is wet.
- Adjust the pressure regulator, if the water consumption is too low.

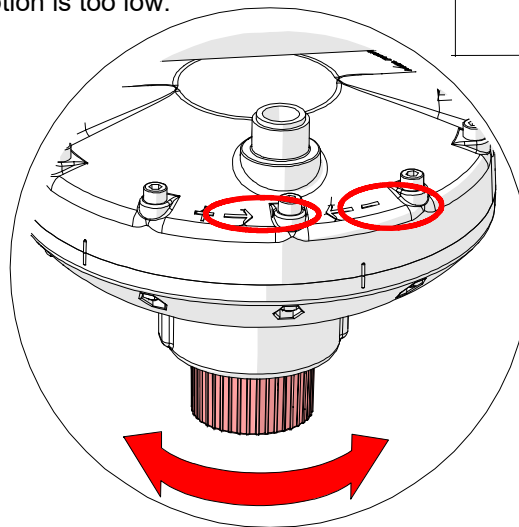
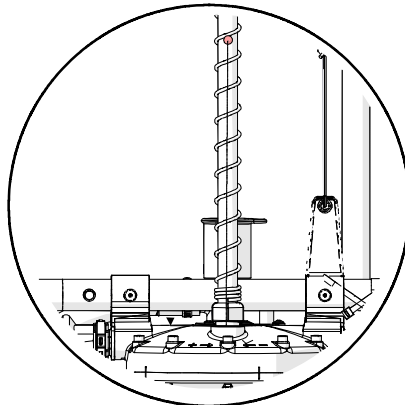
### Operation of the drinking system

General guidelines for the water pressure (water column) in function of the age of the birds::

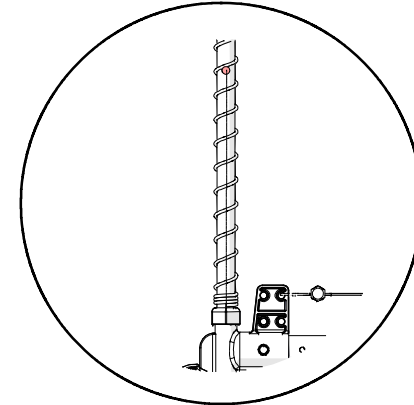
Age [days]	Water column [cm]
0 - 7	7 - 10
7 - 21	10 - 20
21 - end of the flock	20 - 35



### Water pressure in the pressure regulator



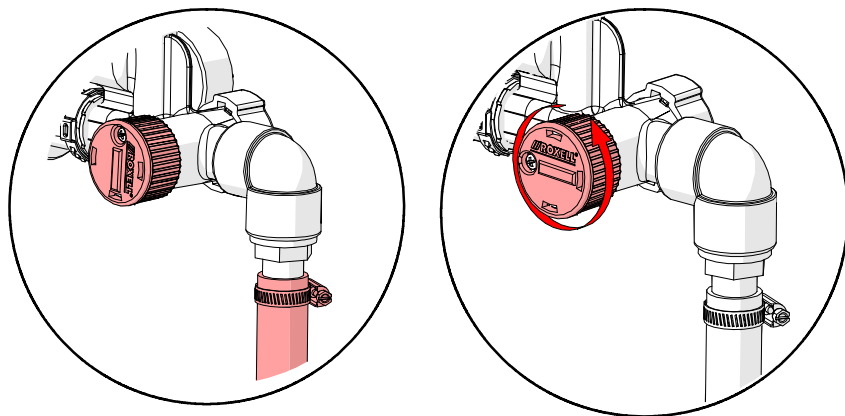
### Water pressure in the end unit



# Swii'Flo®

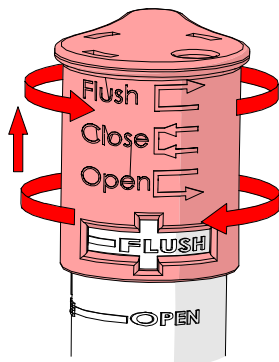
## Manual flushing

1. Connect the end unit to the drain hose.
2. Put the end unit valve in the flushing position.



## Flushing position of the end unit

1. Put the pressure regulator operation valve into the flushing position.
2. Flush the lines one after another (max. 3 bar/40 Psi).
3. Put all components back into their original position after flushing.



## House chart

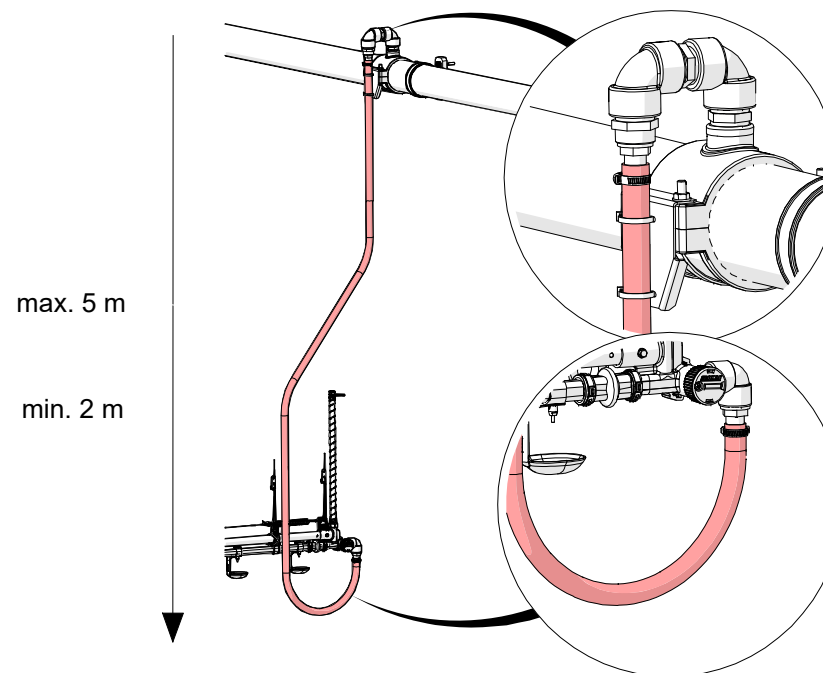
# ROXELL®

## Flushing with overflow

Proceed as described in Manual Flushing.

The end unit is connected to the drain pipe (overflow).

1. Put always the end unit valve in flushing position.
2. Put the pressure regulator operation valve into the flushing position.
3. Put all components back into their original position.



We recommend a maximum height of 5 m for the drainage system.  
The minimum height is 2 m.

## HAND WINCH TROUBLE SHOOTING GUIDE



**Not respecting above-mentioned instructions can cause physical injury or material damage.  
Use personal protective equipment.**

**DANGER**

**ACTIONS IN GREY BACKGROUND MUST BE DONE BY A TECHNICALLY TRAINED PERSON.**



**CAUTION**

**SEE TO IT THAT YOU FIRST REMOVE EACH ELEMENT WHICH CAN OBSTRUCT A SAFE OPERATION OF THE SYSTEM!**

PROBLEM	CAUSE	CORRECTIVE ACTION
1. Brake doesn't work.	a. Screw thread on the drive shaft or the handle is damaged.	- Replace the hand winch.
	b. Screw thread on the drive shaft or the handle is dirty.	- Clean the hand winch dry.
		- When <b>not ok</b> , please ask a technically trained person.
	c. Brake disks are dirty.	- Clean the hand winch dry. - When <b>not ok</b> , please ask a technically trained person.
2. Winching up doesn't work.	a. Load is too heavy.	- Limit the load till max. 300 kg.
	b. Cable to load is blocked somewhere.	- Release the cable.
	c. Drum weldment or drive shaft of the hand winch is blocked because of dirt or rust.	- Clean the hand winch and grease where necessary.
3. Putting down the load doesn't work.	a. Safety lock is switched on.	- Take the handle and unlock the safety lock.
	b. Cable to load is blocked somewhere.	- Release the cable.
	c. Drum weldment or drive shaft of the hand winch is blocked because of dirt or rust.	- Clean the hand winch and grease where necessary.

### MAINTENANCE INSTRUCTIONS



**DANGER**

**Use personal protection equipment.**

- Remove all dirt and dust after each batch or at least every 6 months.
- See to it that the handle turns fluently on the screw thread of the main shaft.
- Don't use water to clean the hand winch.
- Use grease to grease moving parts.





**Inbouwverklaring betreffende niet voltooide machines (Richtlijn 2006/42/EG, Bijlage II.1.B)**  
**Declaration of incorporation of partly completed machinery (Directive 2006/42/EC, Annex II.1.B)**

Fabrikant/Manufacturer:  
Roxell BV, Industrielaan 13, 9990 Maldegem  
Tel: +32 50 72 91 72  
Fax: +32 50 71 67 21

Verklaart geheel onder eigen verantwoordelijkheid dat het product:  
Declares on its own responsibility that the product:

Sparkcup/Sparknipple/Swii'Flo Nr: 025.../022...  
Drinksysteem voor pluimvee (met pomp).  
Drinking system for poultry (with pump).

Waarop deze verklaring betrekking heeft, in overeenstemming is met:

- de volgende richtlijnen: 2006/42/EG (Machinery Directive); 2014/30/EU (Electromagnetic Compatibility);
- de geharmoniseerde Europese Normen: EN ISO 12100:2010; EN ISO 13854:2019; EN ISO 13857:2019; EN IEC 60204-1:2018; EN IEC 61439-1:2021; EN IEC 61439-2:2021.

**Het is verboden bovengenoemd product in gebruik te stellen voordat de machine waarin het wordt ingebouwd in overeenstemming met de bepalingen van de Machinerichtlijn is verklaard.**

Tevens verbindt de fabrikant (of zijn gemachtigde) zich om op met redenen omkleed verzoek van de nationale autoriteiten de relevante informatie over deze niet voltooide machine door te geven. De wijze van doorgifte is digitaal. De wijze van informatieverstrekking laat de intellectueel-eigendomsrechten van de fabrikant van de niet voltooide machine onverlet.

(NL)

Relating to this declaration, is in accordance with

- The following directives 2006/42/EC (Machinery Directive); 2014/30/EU (Electromagnetic Compatibility).
- The harmonised European standards: EN ISO 12100:2010; EN ISO 13854:2019; EN ISO 13857:2019; EN IEC 60204-1:2018; EN IEC 61439-1:2021; EN IEC 61439-2:2021.

**This product must not be put into service until the machinery into which it is to be incorporated has been declared in conformity with the provisions of the Machinery Directive.**

The manufacturer (or its agent) also undertakes, at the duly reasoned request of the national authorities, to provide the relevant information concerning this partly completed machinery. The method of transmission will be digital. The manner in which the information is provided does not prejudice the manufacturer's intellectual property rights concerning the partly completed machinery.

(EN)

02001204

Plaats, Datum / Place, Date : Maldegem, 01/01/2023

Dhr. Gino Van Landuyt  
Managing Director

"This part may only be filled out if all built-in subparts are delivered by Roxell"

**EG-verklaring van overeenstemming (Richtlijn 2006/42/EG, Bijlage II.1.A)**  
**EC-declaration of conformity (Directive 2006/42/EC, Annex II.1A)**

Wij/We

(naam installateur/name fitter)

(volledig adres en land/complete address)

Verklaren geheel onder eigen verantwoording de  
Declare completely on own justification that

(naam machine/name machinery)

(nummer CE-label/number CE-label)

In een installatie te hebben ingebouwd geheel volgens de Roxell-voorschriften en in overeenstemming met de bepalingen van de Machinerichtlijn.

Has been incorporated in conformity with the provisions of the Machinery Directive and the prescriptions of Roxell BV.

(plaats, datum/place, date)

(naam, handtekening/name, signature)

De EG-verklaring van overeenstemming / inbouwverklaring betreft uitsluitend de machine of niet voltooide machine in de toestand waarin zij op de markt is gebracht, met uitsluiting van de later bijvoorbeeld door de verdeler en/of installateur en/of eindgebruiker toegevoegde componenten en/of verrichte bewerkingen.

The EC-declaration of conformity / declaration of incorporation relates exclusively to the machinery or partly completed machine in the state in which it was placed on the market and excludes components which are added and/or operations carried out thereafter for instance by the distributor and/or the installer and/or the final user.



**UK Declaration of Incorporation of partly completed machinery**  
Supply of Machinery (Safety) Regulations 2008

Manufacturer:

Roxell BV, Industrielaan 13, 9990 Maldegem

Tel: +32 50 72 91 72

Fax: +32 50 71 67 21

Declares on its own responsibility that the product:

Sparkcup/Sparknipple/Swii'Flo Nr: 025.../022...

Drinking system for poultry (with pump).

Relating to this declaration is in accordance with the essential requirements of

- The following Statutory Instruments:
  - o Supply of Machinery (Safety) Regulations 2008
  - o Electromagnetic Compatibility Regulations 2016
- The following Designated standards:

BS EN ISO 12100:2010; BS EN ISO 13854:2019; BS EN ISO 13857:2019;  
BS EN IEC 60204-1:2018; BS EN IEC 61439-1:2021; BS EN IEC 61439-2:2021.

**This product must not be put into service until the machinery into which it is to be incorporated has been declared in conformity with the provisions of the Machinery Directive.**

The manufacturer (or its agent) also undertakes, at the duly reasoned request of the national authorities, to provide the relevant information concerning this partly completed machinery. The method of transmission will be digital. The manner in which the information is provided does not prejudice the manufacturer's intellectual property rights concerning the partly completed machinery.

Place, Date: Maldegem, 01/01/2023

.....  
Dhr. Gino Van Landuyt  
Managing Director

"This part may only be filled out if all built-in subparts are delivered by Roxell"

**UK Declaration of Conformity**  
Supply of Machinery (Safety) Regulations 2008

We \_\_\_\_\_

(name installer)

\_\_\_\_\_  
(complete address)

Declare completely on own justification that

\_\_\_\_\_  
(name machinery)

\_\_\_\_\_  
(number UKCA-marking)

has been incorporated in conformity with the provisions Supply of Machinery (Safety) Regulations 2008 and the prescriptions of Roxell BV.

\_\_\_\_\_  
(place, date)

\_\_\_\_\_  
(name, signature)

The UK Declaration of Conformity / Declaration of Incorporation relates exclusively to the machinery or partly completed machine in the state in which it was placed on the market and excludes components which are added and/or operations carried out thereafter for instance by the distributor and/or the installer and/or the end user.



**EG-verklaring van overeenstemming** (*Richtlijn 2006/42/EG, Bijlage II.1.A*)  
**EC-declaration of conformity** (*Directive 2006/42/EC, Annex II.1.A*)

Fabrikant/Manufacturer:  
Roxell BV, Industrielaan 13, 9990 Maldegem  
Tel: +32 50 72 91 72  
Fax: +32 50 71 67 21

Verklaart geheel onder eigen verantwoordelijkheid dat het product:  
Declares on its own responsibility that the product:

Winching system Nr: 00102368 / 00102087  
Liersysteem voor voer- en drinklijnen; manueel en gemotoriseerd  
Winching system for feed- and drink lines; manual and motorised  
Nummer CE-label/number CE-label : \_\_\_\_\_

Waarop deze verklaring betrekking heeft, in overeenstemming is met:

- de volgende richtlijnen: 2006/42/EG (Machinerichtlijn); 2014/30/EU (Elektromagnetische Compatibiliteit);
- de geharmoniseerde Europese Normen: EN ISO 12100:2010; EN ISO 13854:2019; EN ISO 13857:2019; gemotoriseerd: EN IEC 60204-1:2018; EN IEC 61439-1:2021; EN IEC 61439-2:2021.

De EG-verklaring van overeenstemming / inbouwverklaring betreft uitsluitend de machine of niet voltooide machine in de toestand waarin zij op de markt is gebracht, met uitsluiting van de later door bijvoorbeeld de verdeler en/of installateur en/of eindgebruiker toegevoegde componenten en/of verrichte bewerkingen.

**(NL)**

Relating to this declaration is in accordance with

- The following directives 2006/42/EC (Machinery Directive); 2014/30/EU (Electromagnetic Compatibility).
- The harmonised European standards: EN ISO 12100:2010; EN ISO 13854:2019; EN ISO 13857:2019; motorised: EN IEC 60204-1:2018; EN IEC 61439-1:2021; EN IEC 61439-2:2021.

The EC-declaration of conformity / declaration of incorporation relates exclusively to the machinery or partly completed machine in the state in which it was placed on the market and excludes components which are added and/or operations carried out thereafter for instance by the distributor and/or the installer and/or the final user.

**(EN)**

Plaats, Datum / Place, Date: Maldegem, 01/01/2023

.....  
Dhr. Gino Van Landuyt  
Managing Director



## UK Declaration of Conformity

Supply of Machinery (Safety) Regulations 2008

Manufacturer:

Roxell BV, Industrielaan 13, 9990 Maldegem

Tel: +32 50 72 91 72

Fax: +32 50 71 67 21

Declares on its own responsibility that the product:

Winching system Nr: 00102368 / 00102087

Winching system for feed- and drink lines; manual and motorised

Number UKCA-marking: \_\_\_\_\_

Relating to this declaration is in accordance with the essential requirements of

- The following Statutory Instruments:
  - o Supply of Machinery (Safety) Regulations 2008
  - o Electromagnetic Compatibility Regulations 2016
- The following Designated standards:

BS EN ISO 12100:2010; BS EN ISO 13854:2019; BS EN ISO 13857:2019; BS EN IEC 60204-1:2018; BS EN IEC 61439-1:2021; BS EN IEC 61439-2:2021.

The UK Declaration of Conformity / Declaration of Incorporation relates exclusively to the machinery or partly completed machine in the state in which it was placed on the market and excludes components which are added and/or operations carried out thereafter for instance by the distributor and/or the installer and/or the end user.

Place, Date: Maldegem, 01/01/2023

.....  
Dhr. Gino Van Landuyt  
Managing Director

A blank sheet of lined paper with horizontal ruling lines spaced evenly down the page.



ROXELL BV - Industrielaan 13, 9990 Maldegem (Belgium)  
Tel. +32 50 72 91 72 - [info@roxell.com](mailto:info@roxell.com) - [www.roxell.com](http://www.roxell.com)

ROXELL USA Inc. - 720 Industrial Park Road, Anderson MO 64831 (USA)  
Tel. +1 417 845 6065 - [info.usa@roxell.com](mailto:info.usa@roxell.com) - [www.roxell.com](http://www.roxell.com)

ROXELL Malaysia - No. 49, Jalan Permata 2/KS9, Taman Perindustrian Air Hitam, 41200 Klang, Selangor (Malaysia)  
Tel. +60 3 3123 1767 - [info.malaysia@roxell.com](mailto:info.malaysia@roxell.com) - [www.roxell.com](http://www.roxell.com)

ROXELL Россия - ООО «Рокселл» ОГРН 1157746055026  
123060, Россия, город Москва, улица Маршала Рыбалко, дом 2, корпус 9, офис 909.1  
Телефон: +7 495 983 30 15 - Адрес электронной почты: [info.russia@roxell.com](mailto:info.russia@roxell.com) - [www.roxell.com](http://www.roxell.com)