MOUNTED UNIT

user manual

Serial number

Edition **3**
10 - 2010

INDEX

IMPORTANT SAFETY NOTE

The information published in this booklet regards the pointed out with relevant symbols in order to safeguard operational aspects of the operator unit installed on the people from risks. Remember that prudence is irreplaceable. machine. It is however necessary that you carefully read the Safety is also in the hands of all the operators who interact general safety regulations published in Booklet 1 and those with the machine.

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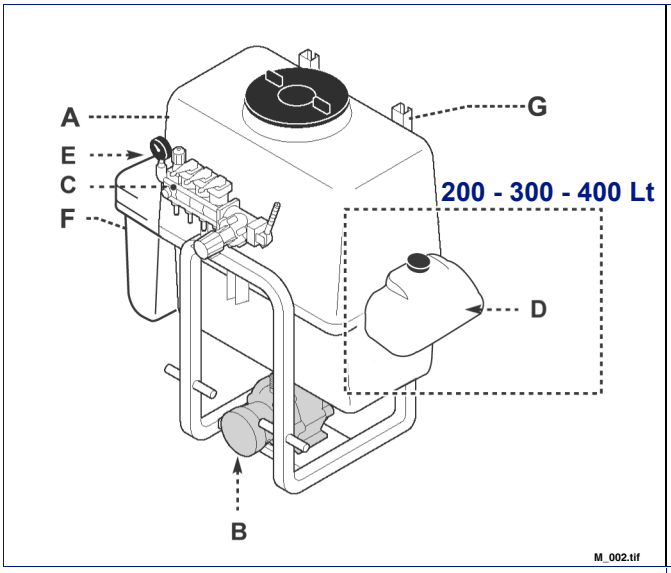
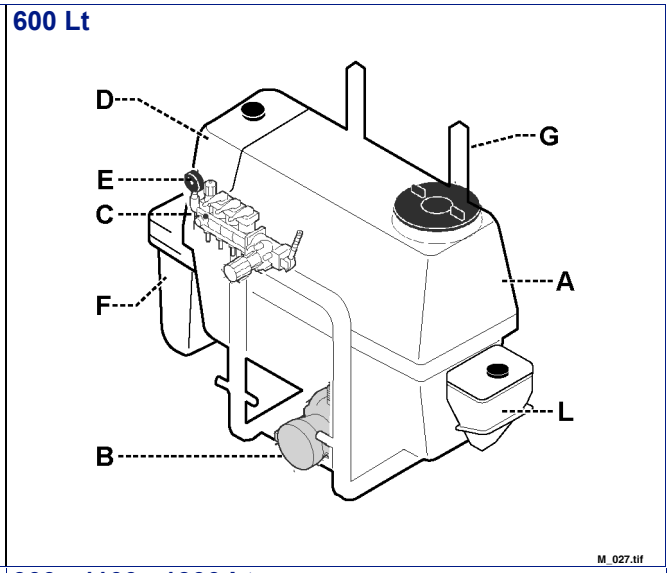
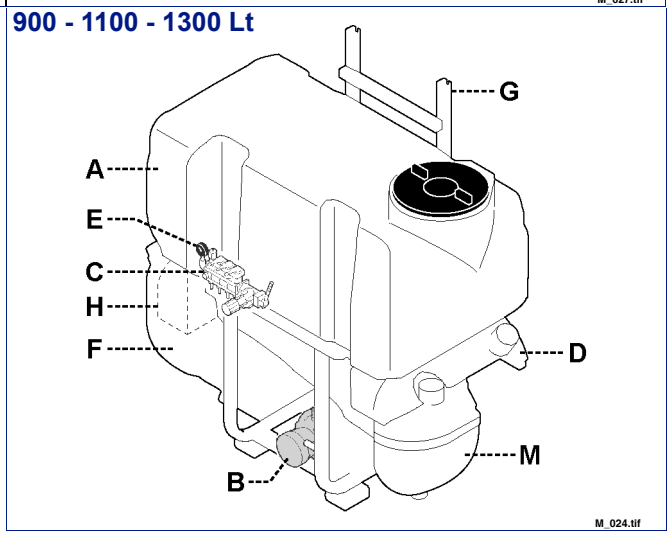
TECHNICAL INFORMATION

MAIN COMPONENTS







A) Spray product tank.
B) Pump.
C) Water control unit
D) Clean water tank for hand washing.
E) Pressure gauge to measure the working pressure
F) Clean water tank for system washing.
G) Sliding guides for boom lifting
H) Container for clothes
L) Mixer (upon request) (see specific brochure)
M) Mixer (upon request)

Information concerning components that is not included in this manual is detailed in the relevant instruction manuals.

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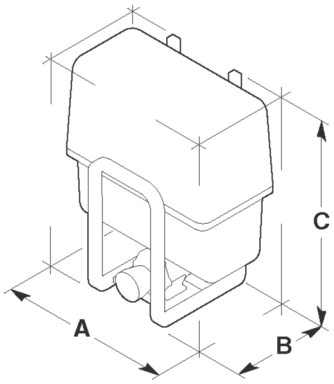
TECHNICAL SPECIFICATIONS

Models vary according to drawbar type and tank size.



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Model (Lt)	Capacity (Lt)	Size(mm)			Weight (kg)
		A	B	C	
200	200	1430	930	1500	96
300	300	1430	930	1500	99
400	400	1430	930	1500	110
600	600	1700	1040	1670	153
900	800	1900	1150	2060	260
1100	1000	1900	1150	2060	268
1300	1200	1900	1150	2060	280

Residual volume

The liquid volume that cannot be properly distributed (technical residue) does not exceed 0.5% of nominal volume plus 2 litres per boom meter.

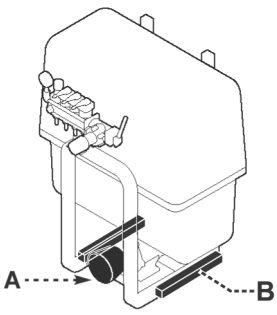
SAFETY DEVICES

A) Cardan shaft guard: to avoid entanglement with parts of the body.

B) Sprayer anti-overturn protection foot: to avoid the overturn risk of the sprayer when it is disconnected from the tractor.

Caution - Warning

Check daily that all safety devices are correctly installed and in working order.



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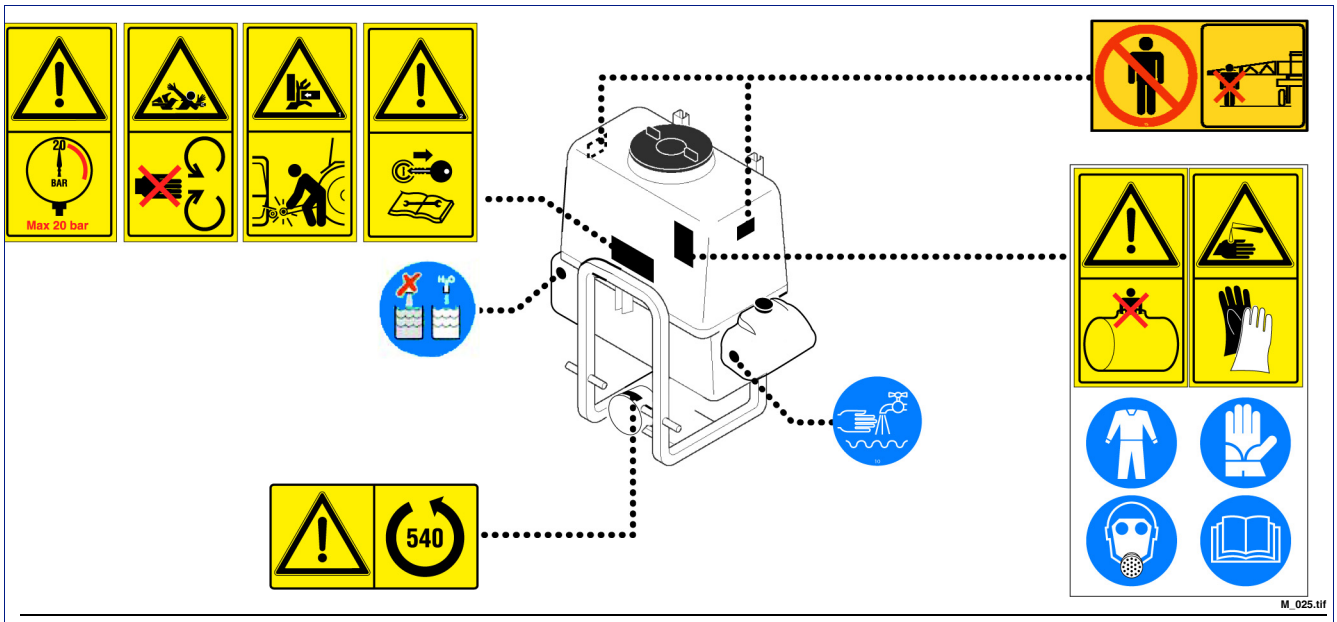
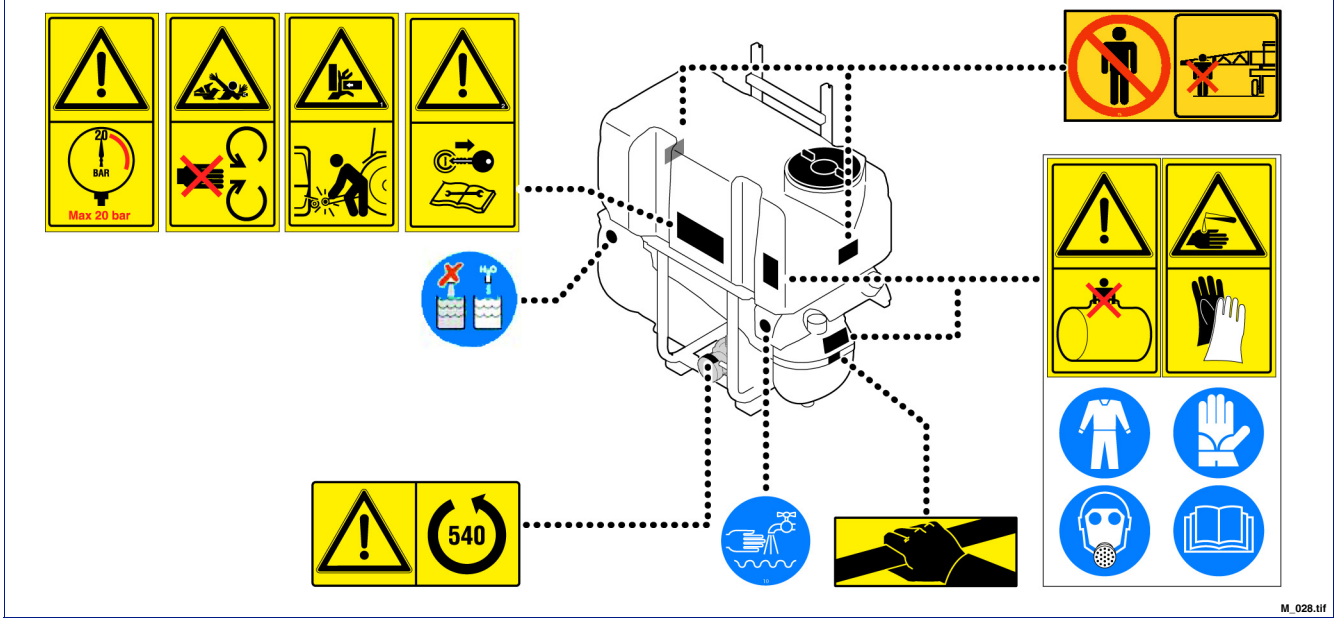
POSITION OF SIGNALS

The figure shows the location of all safety plates, while their meaning is explained in booklet 1.

Important

Make sure that all plates are legible. If they are not, clean or replace, if necessary, ensuring the new ones are placed in the original position.





INFORMATION ABOUT HANDLING AND INSTALLATION

TRANSPORTING

Loading and transporting can be carried out in different ways, according to the destination. In all cases the equipment must not be packaged.

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LOADING AND UNLOADING

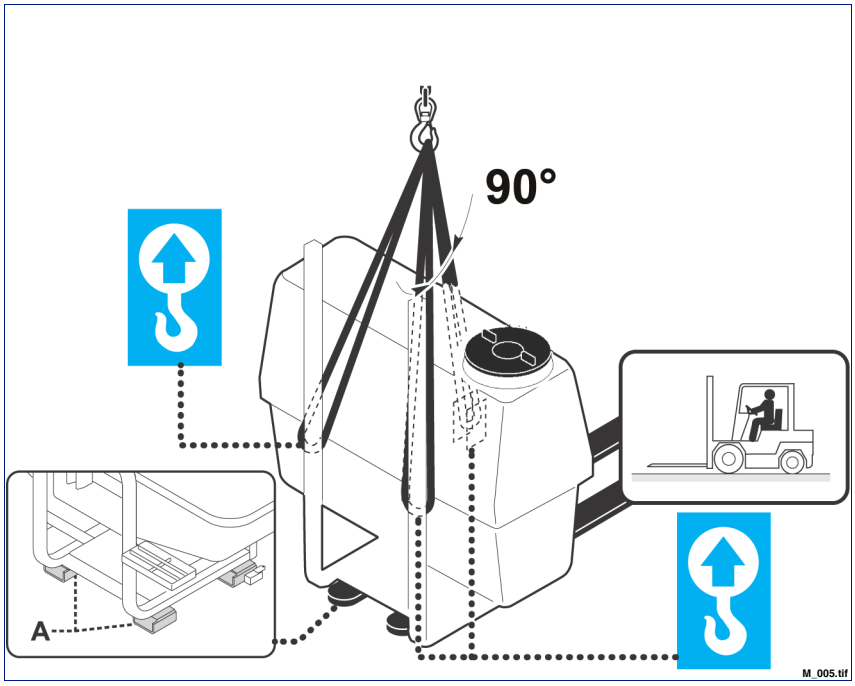
Danger - Warning

Lifting and handling must be carried out with the tank empty and using appropriate equipment, by skilled staff specialized in this kind of operation.

1 - Prepare a lifting hook with an adequate loading capacity and connect as shown in the figure below.

2 - Lift slowly, move very gently and avoid all swinging.

3 - Load onto the vehicle and secure using ropes and chocks.



Important

For models 900 - 1100- 1300, insert the forks of the truck into lifting saddles (A).

INFORMATION ABOUT USE

CONNECTING THE EQUIPMENT TO TRACTOR

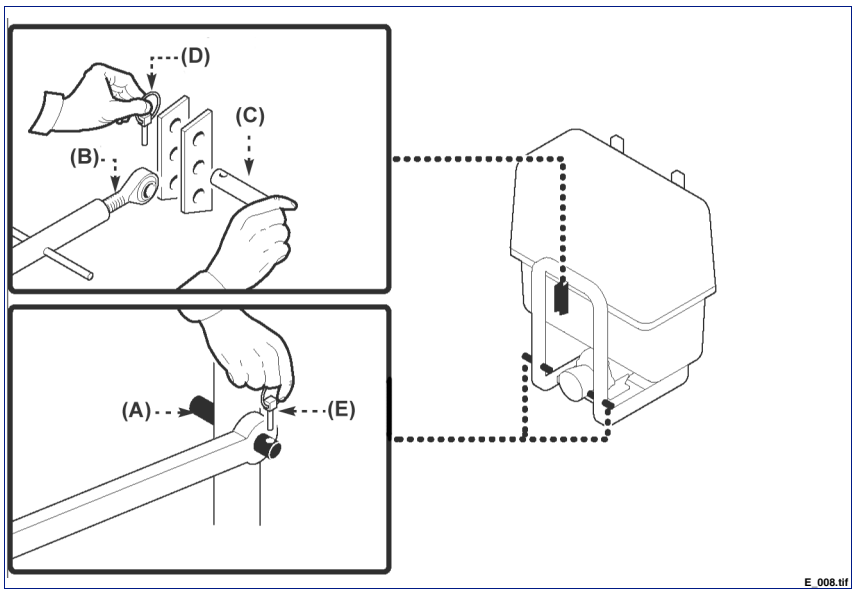
Proceed as follows:

1 - Place the arms of the tractor height adjuster level with pins **(A)**.

2 - Stop the engine, apply the parking brake and disengage the ignition key;

3 - Fix the height adjuster arms to pins **(A)** and insert locking pin **(E)**.

4 - Adjust the top link arm **(B)** length and fix it to the equipment by means of pin **(C)** and locking pin **(D)**.



Danger - Warning

Make sure that pins and locking pins are in the correct position and check their conditions.

5 - Start the tractor engine and perform the lifting by means of the relevant control.

6 - Adjust the top link arm **(B)** until the equipment is parallel to the ground.

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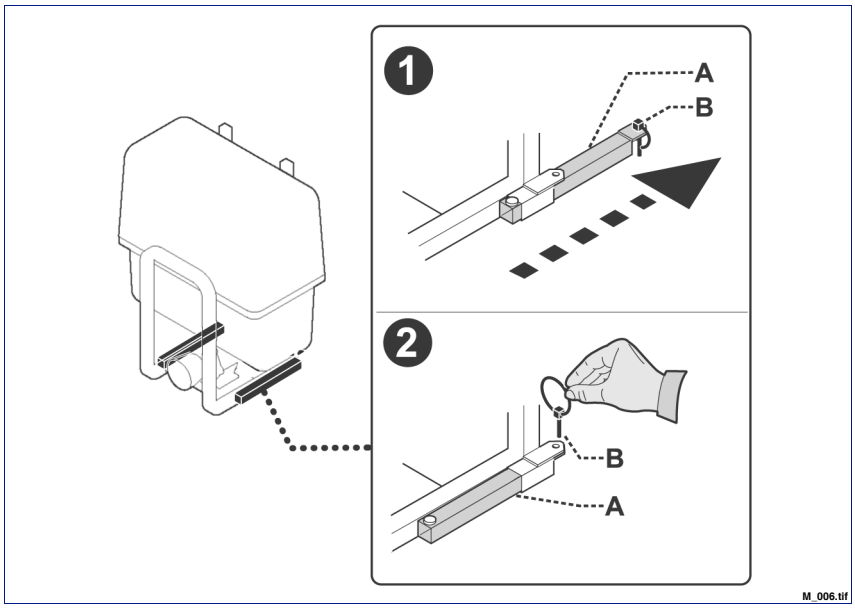
ANTI-OVERTURN PROTECTION FEET

Anti-overturn protection feet **(A)** increase the sprayer stability when the sprayer is not connected to the tractor.

Position 1 - position of the anti-overturn protection feet when parking the equipment.

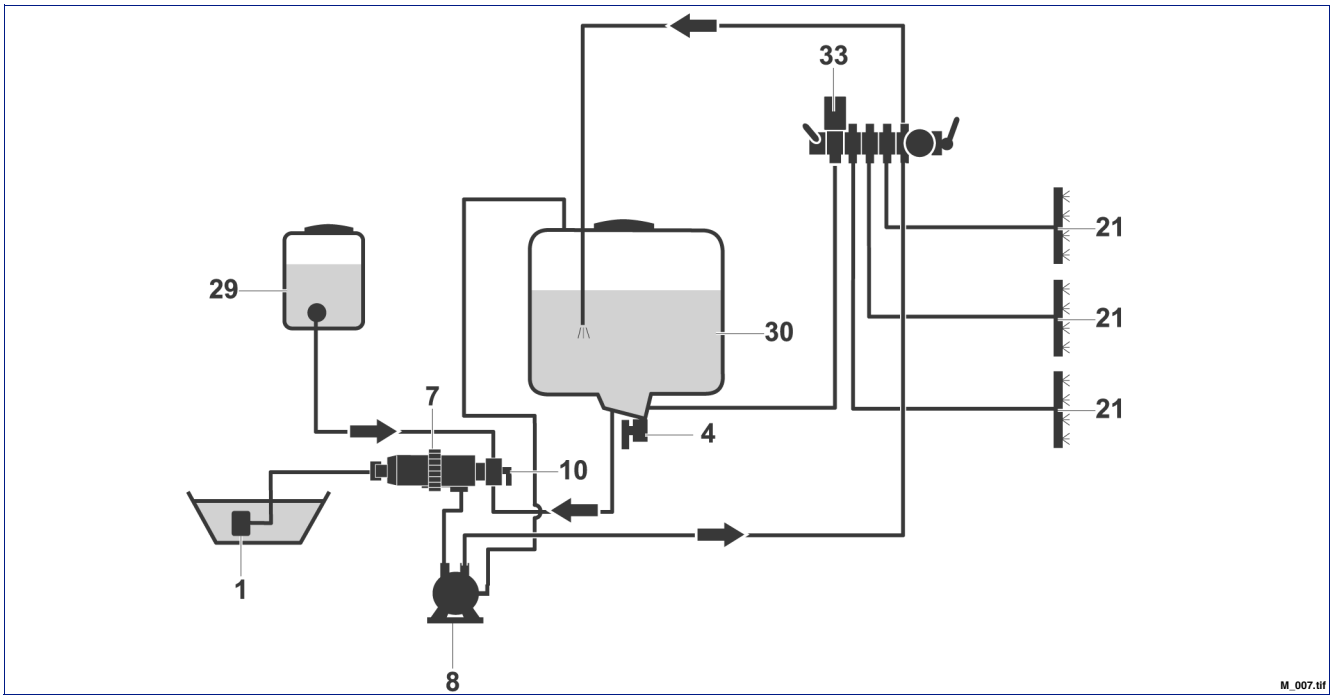
Position 2 - position of the anti-overturn protection feet when the equipment is operating.

Remove safety pins **(B)** and position the feet in the desired position. Insert the safety pins.



SYSTEM DIAGRAMS

Standard water system plan with manual control unit



Legend

1 - Suction filter (filling)	**10** - 3-way ball valve	**33** - Control unit
4 - Tank emptying valve	**21** - Stainless steel pipes	
7 - Suction filter	**29** - Clear water tank	
8 - Diaphragm pump	**30** - Product tank	

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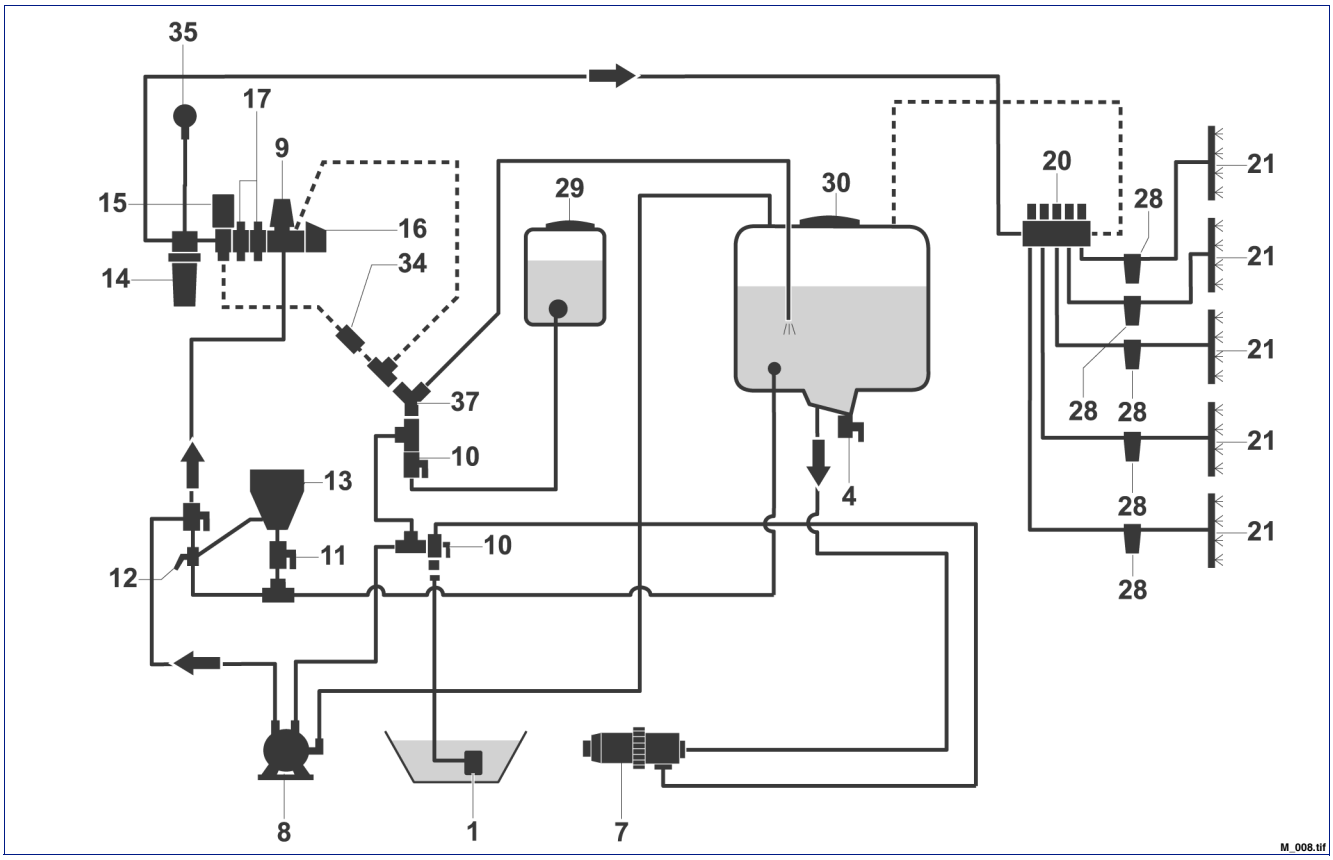
Water system plan with electric control unit, Mixer, and system washing unit with non-return valve (600 Lt)



Legend

1 - Suction filter (filling)
4 - Tank emptying valve
7 - Suction filter
8 - Diaphragm pump
9 - Maximum pressure control valve
10 - 3-way ball valve
11 - Product transfer valve
12 - Container washing lever-operated control valve
13 - Mixer
14 - Control unit line filter
15 - Pressure control engine
16 - Main engine
17 - Tank inside washing valve
20 - Solenoid valve assembly
21 - Stainless steel pipes
28 - Distribution line filters
29 - Clear water tank
30 - Product tank
34 - Non-return valve
35 - Pressure gauge
37 - 3-way valve

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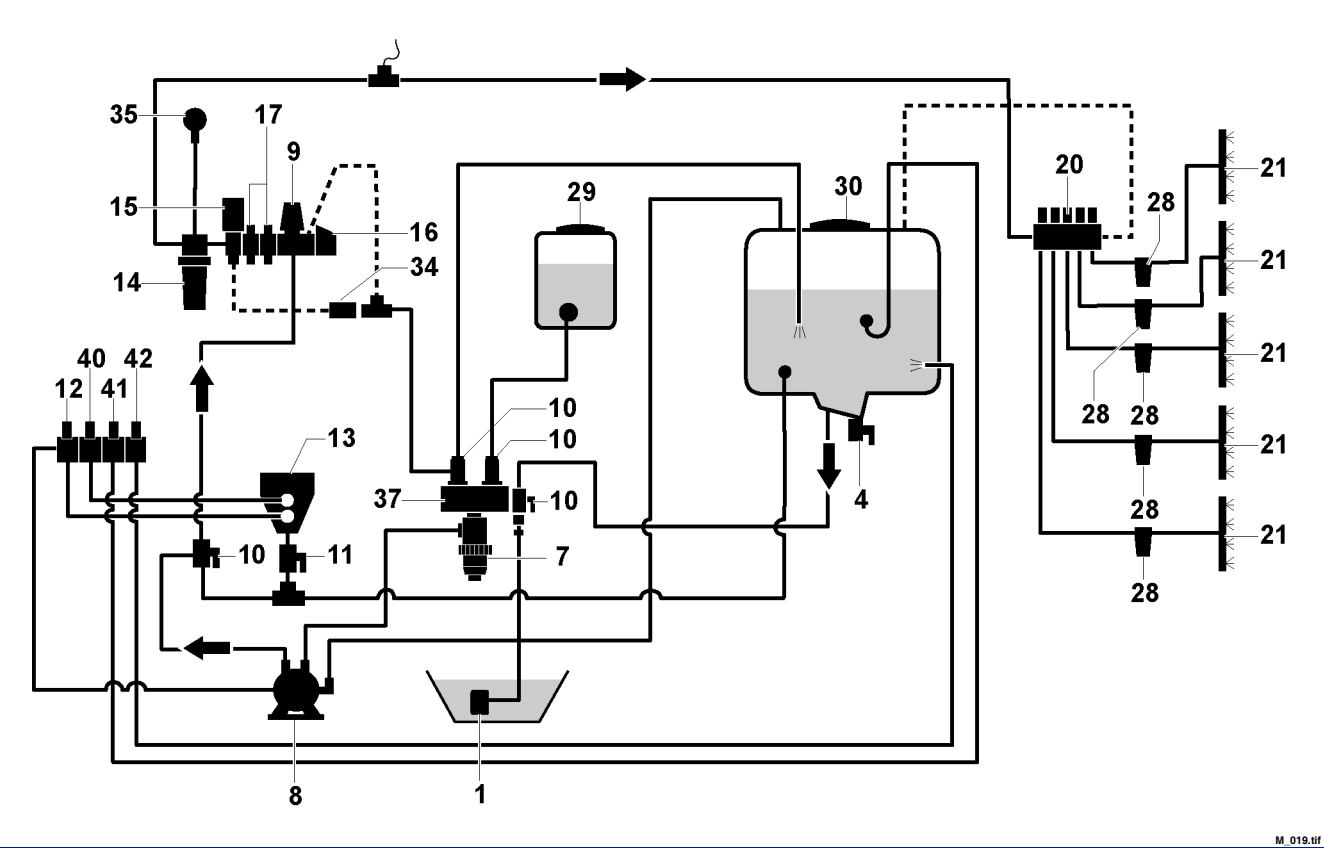
Water system plan with electric control unit, Mixer, and system washing unit with non-return valve (900-1100-1300 Lt)



Legend

1 - Suction filter (filling)
4 - Tank emptying valve
7 - Suction filter
8 - Diaphragm pump
9 - Maximum pressure control valve
10 - 3-way ball valve
11 - Product transfer valve
12 - Container washing lever-operated control valve
13 - Mixer
14 - Control unit line filter
15 - Pressure control engine
16 - Main engine
17 - Tank inside washing valve
20 - Solenoid valve assembly
21 - Stainless steel pipes
28 - Distribution line filters
29 - Clear water tank
30 - Product tank
34 - Non-return valve
35 - Pressure gauge
37 - Manifold
40 - Mixer filling lever valve
41 - Tank inside washing lever valve
42 - Agitator lever valve in tank

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TANK FILLING

The tank can be filled in two different ways:

- Water filling from the upper holes (page 9);
- Water feeding with tank filling hose from suction filter (page 10);
- Water filling through tank filling hose (page 11);

Important

When filling the tank, ensure that hand-washing tank (B) has been filled with clean water and filled it up, if necessary.

WATER FILLING FROM THE UPPER HOLES

Use an external water source or a tank that is located on a level higher than filling hole **(A** and **C)**.

Fill tank **(B)** with hand-washing water

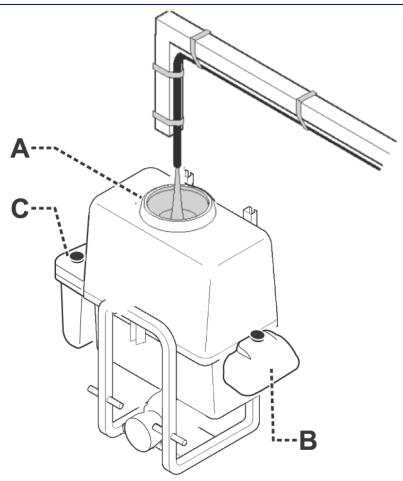
Important

Tank filling opening (A) must be equipped with the basket filter (mesh size 1 mm).

Important

The tank (B) must be filled with clean water.

200 - 300 - 400 Lt



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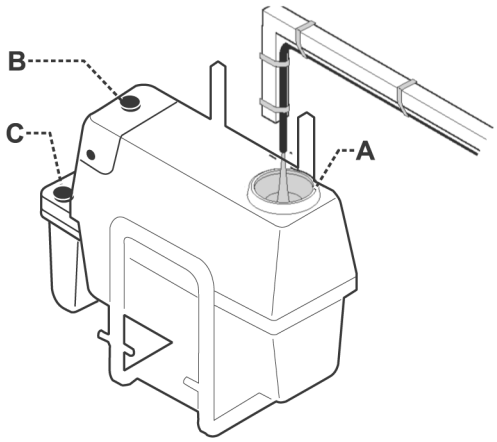
600 Lt



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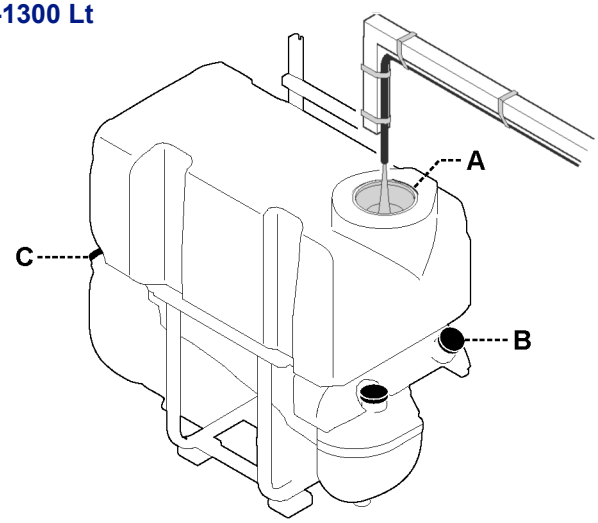
900-1100-1300 Lt



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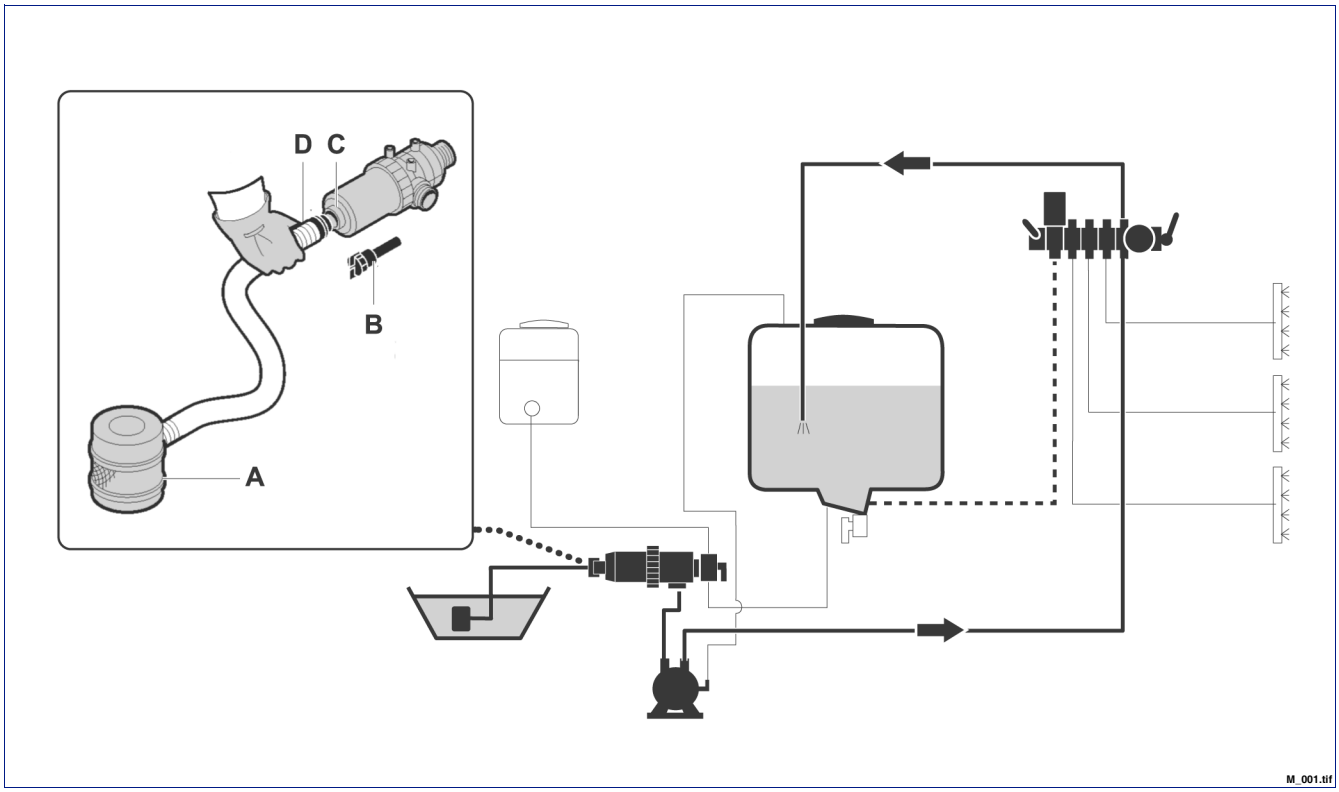
WATER FEEDING WITH TANK FILLING HOSE FROM SUCTION FILTER



Caution - Warning

Make sure that no part of the tank-filling hose comes into contact with the chemical spray products, so that the water source does not become polluted.

Proceed as follows:

1 - Switch off the motor, activate the parking brake and leave the tractor; remove and keep the ignition key.

2 - Plunge floating filter **(A)** into the water source (reservoir, external tank, ditch, etc).

3 - Remove the cap **(B)** from the coupling **(C)**.

Important

Remove the cap by pressing and rotating counter-clockwise.

4 - Connect the tank-filling hose **(D)** to the coupling **(C)**.
Start the tractor and engage the PTO to fill the tank until the required quantity of water is reached.

5 - Disengage the PTO, stop the engine and remove the ignition key.

6 - When the operation is over, disconnect the hose **(D)** and replace the cap **(B)**. The machine is ready to start spraying.

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WATER FILLING THROUGH TANK FILLING HOSE

Caution - Warning

Make sure that no part of the tank-filling hose comes into contact with the chemical spray products, so that the water source does not become polluted.

1 - Plunge floating filter **(D)** into the water source (reservoir, external tank, ditch, etc).

2 - Remove the cap **(A)** from the coupling **(C)**.

3 - Connect the tank-filling hose **(B)** to the coupling **(C)**.

4 - Place the valve levers **(E-F-G)** in the position shown.

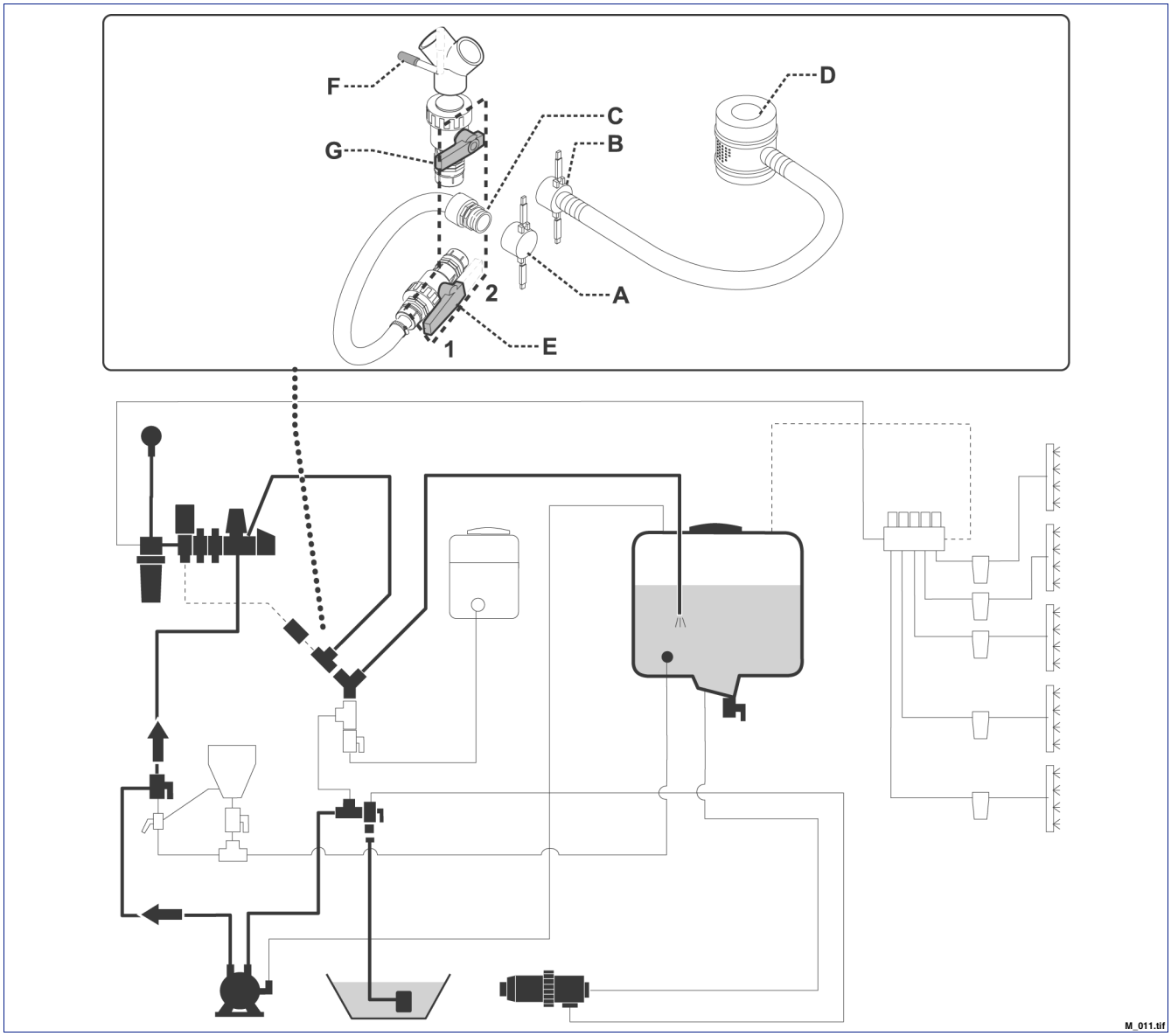
5 - Connect the PTO.

6 - When filling is over, return lever **(E)** to position **2**.

7 - Reduce the power take-off rpm.

8 - When the operation is over, disconnect the hose **(B)** and replace the cap **(A)**. The machine is ready to start spraying.

System (600 Lt)



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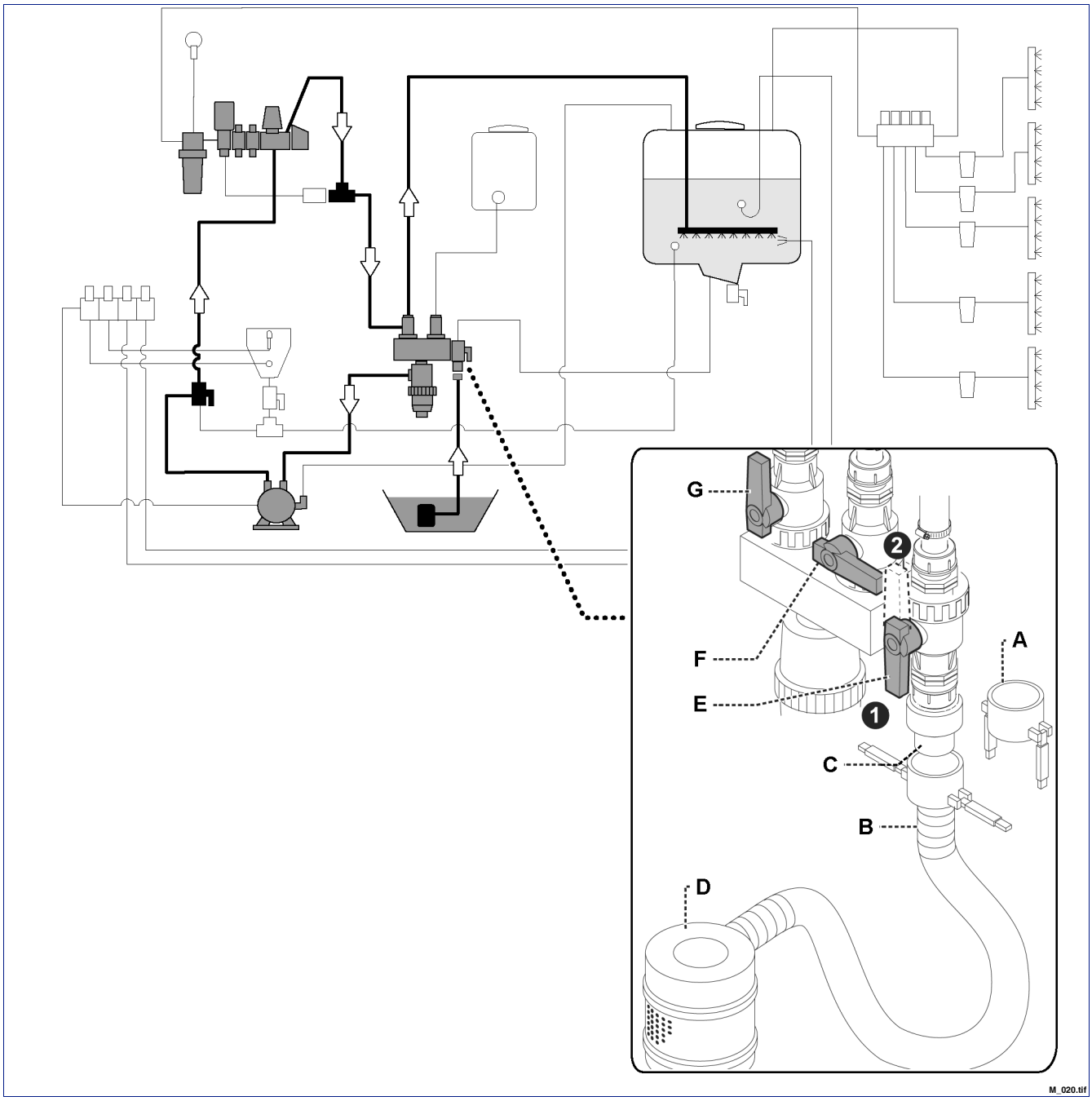
System (900-1100-1300 Lt)



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PRODUCT MIXING

Preparation of chemical product

Important

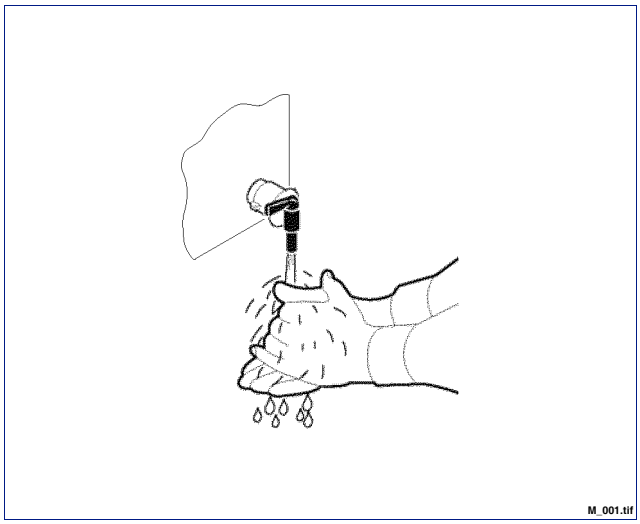
Before starting the preparation of the chemical product, adopt all measures that are necessary to avoid contamination danger and risks for men, animals and environment.

In particular:

- Wear protection clothing to avoid the direct contact with parts of the body, especially in the presence of wounds.
- Wear personal protective equipment to protect your face, head and hands, use rubber gloves, dust masks, safety glasses and helmet.
- Do not use protection devices that are not in perfect operating conditions, in particular check the state of the gas mask and cab filters.
- Keep the chemical products out of the reach of unauthorised persons (especially children and disabled).
- Arrange all the equipment that is necessary to handle the chemical product and the mix during the preparation, filling, draining and cleaning of the tank, as well as during the product distribution, adjustment, replacement or add of plant protection products and maintenance operations.
- Calculate the exact quantity of product to be mixed according to the surface to be treated and comply with the instructions supplied by the plant protection product manufacturer. Do not mix different products.
- In case of accidental contact of the product or mix with the skin, wash immediately with clean water. In case of illness refer to medical assistance, showing the product label.

Caution - Warning

Do not dispose of the product, the mix or other polluting material in the environment. Disposal must be performed in accordance with the current regulations on waste.



Mixing without mixer

1 - Insert water into the tank until 1/2 ÷ 2/3 of the maximum level is reached (see “Tank filling”).

2 - Add the antifoaming additive (if required).

3 - Enable the control unit (see booklet 6) and close all boom sections to stir the water inside the tank.

4 - Insert the chemical into the tank according to the instructions.

5 - Insert water into the tank until the maximum level is reached (see “Tank filling”).

6 - Once the operation is completed disengage the control unit.

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Mixing with pump and mixer in the cover

1 - Insert water into the tank until 1/2 ÷ 2/3 of the maximum level is reached (see “Tank filling”).

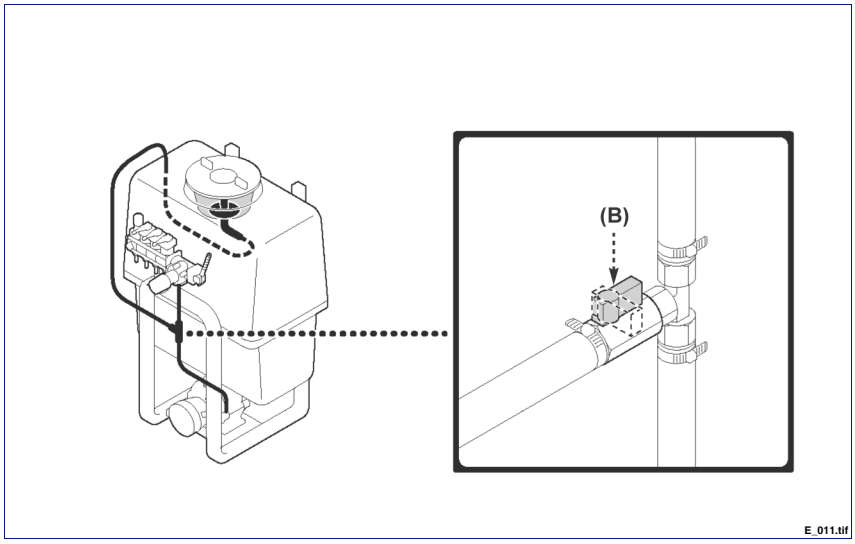
2 - Add the antifoaming additive (if required).

3 - Enable the pump and turn valve **(B)** to activate the mixer in the cover (see figure).

4 - Insert the chemical into the tank according to the instructions.

5 - Insert water into the tank until the maximum level is reached (see “Tank filling”).

6 - Once the operation is completed close valve **(B)**.



Mixing with control unit and mixer in the cover

1 - Insert water into the tank until 1/2 ÷ 2/3 of the maximum level is reached (see “Tank filling”).

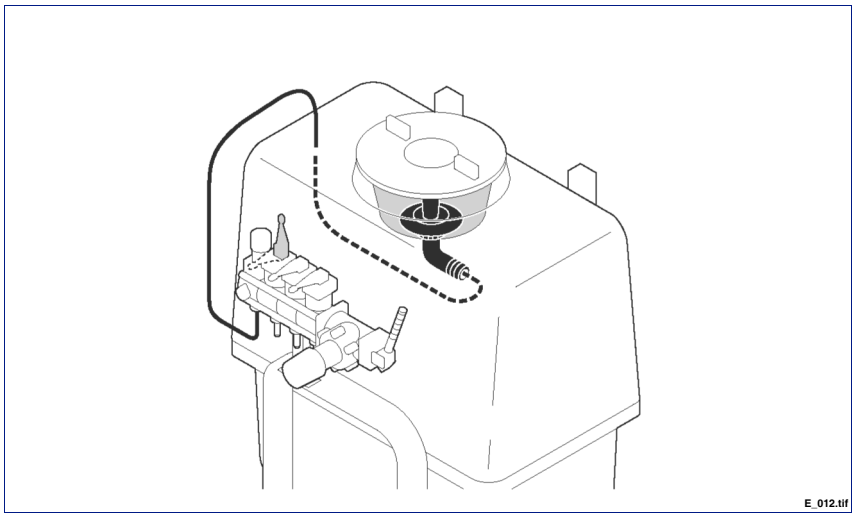
2 - Add the antifoaming additive (if required).

3 - Enable the control unit (see booklet 6) and close all boom sections to activate the mixer in the cover (see figure).

4 - Insert the chemical into the tank according to the instructions.

5 - Insert water into the tank until the maximum level is reached (see “Tank filling”).

6 - Once the operation is completed disengage the mixer.



Mixing with Mixer (600 Lt)

To mix the product, follow the procedure below:

1 - Make sure that the system is clean and pour the necessary water for the treatment into the main tank (see page 11 "Water filling through tank filling hose").
If a sufficient water quantity is present in the main tank, pass to the next phases.

2 - Turn the levers of cocks **(D)** and **(E - F - G)** as shown in the picture.

3 - Activate the pump.

4 - Carry out the operations for the preparation and mixing of the chemical (see leaflet 5).

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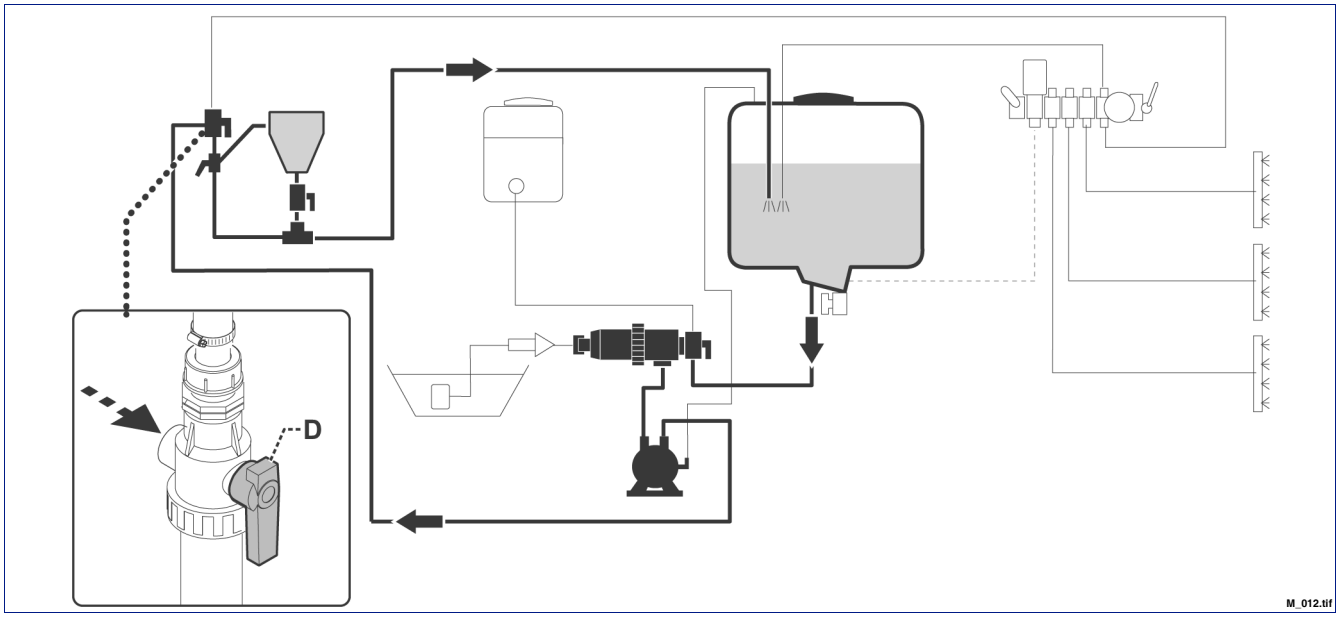
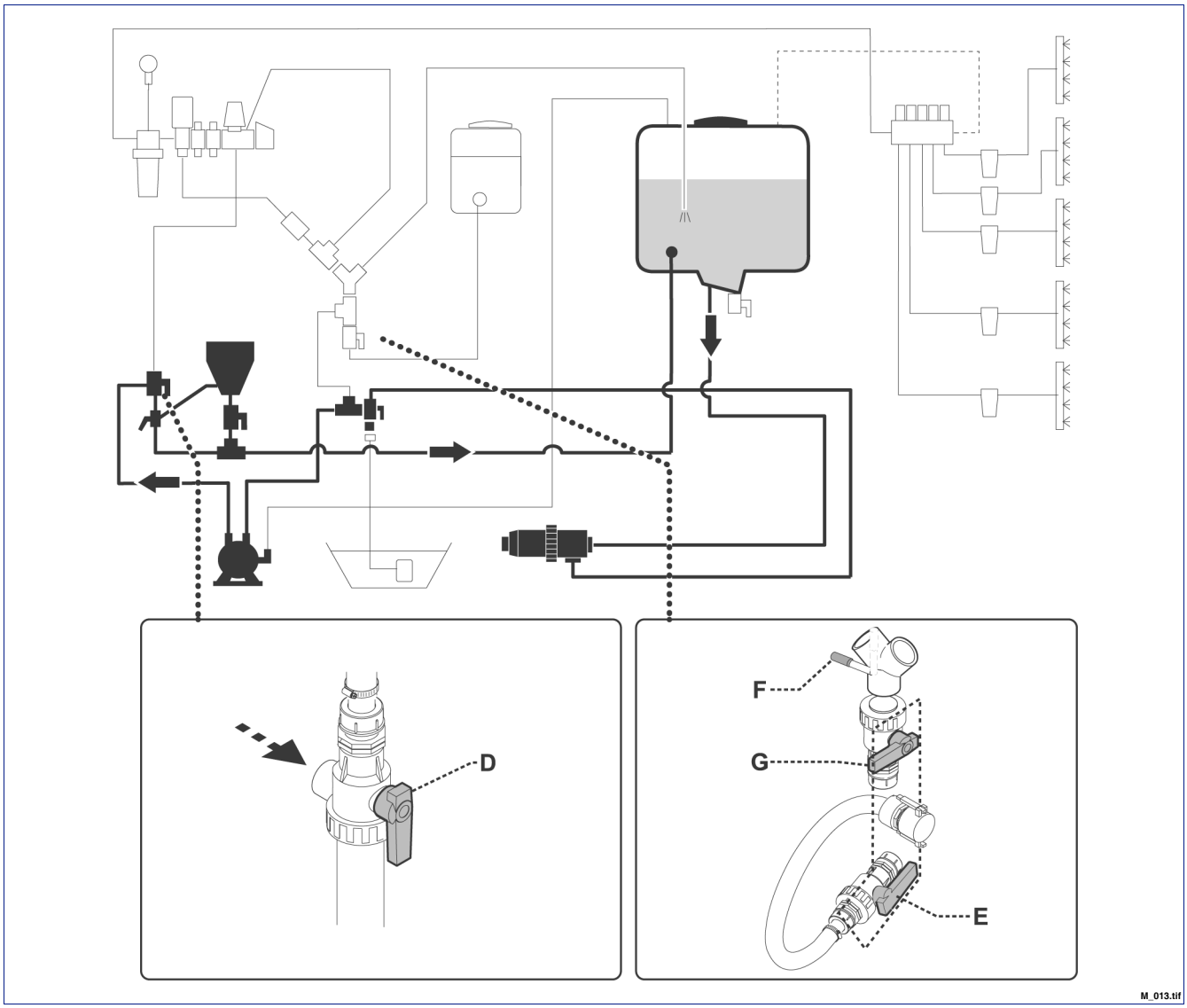
Standard water system plan with manual control unit and Mixer (600 Lt)



Water system plan with electric control unit, Mixer, and system washing unit with non-return valve (600 Lt)



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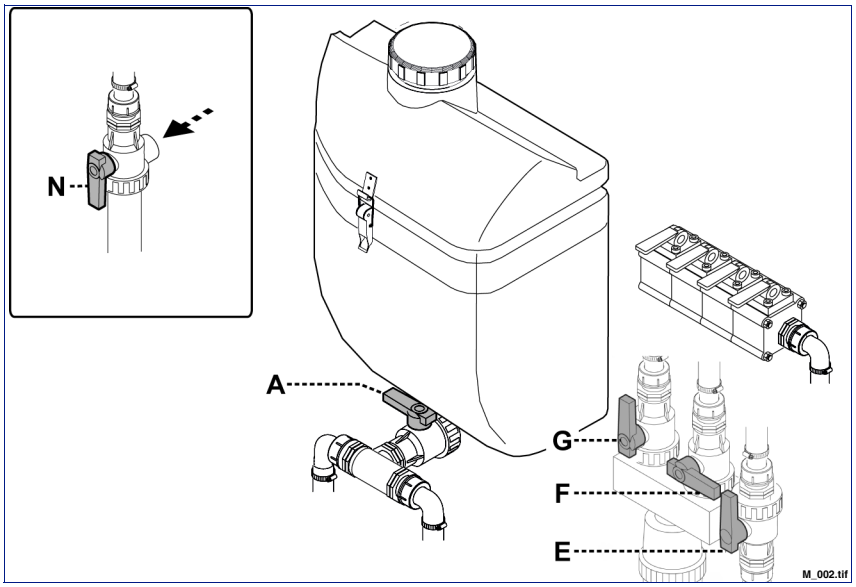
Mixing with Mixer (900-1100-1300 Lt)

To mix the product, follow the procedure below:

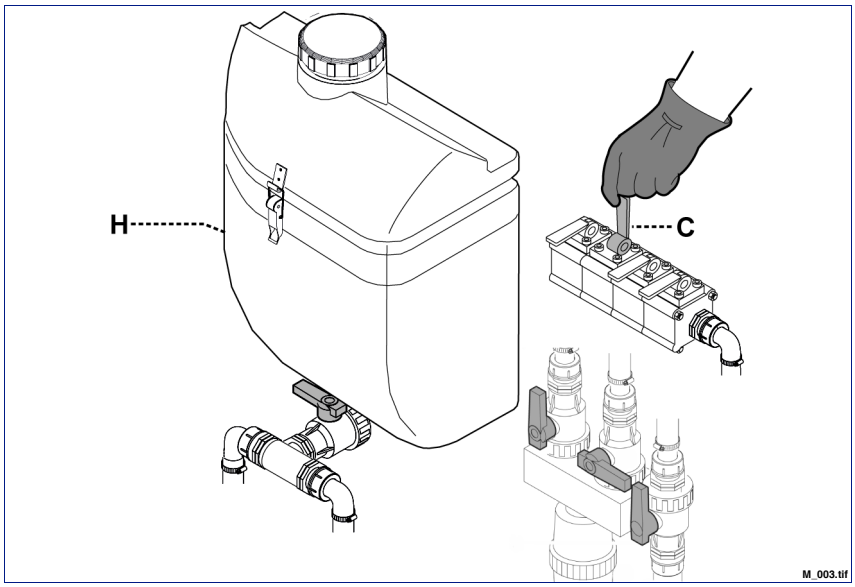
1 - Make sure that the system is clean and pour the necessary water for the treatment into the main tank (see page 9, 11).
If a sufficient water quantity is present in the main tank, pass to the next phases.

2 - Position the valve levers **(A - G- F- E - N)** as shown in the picture.

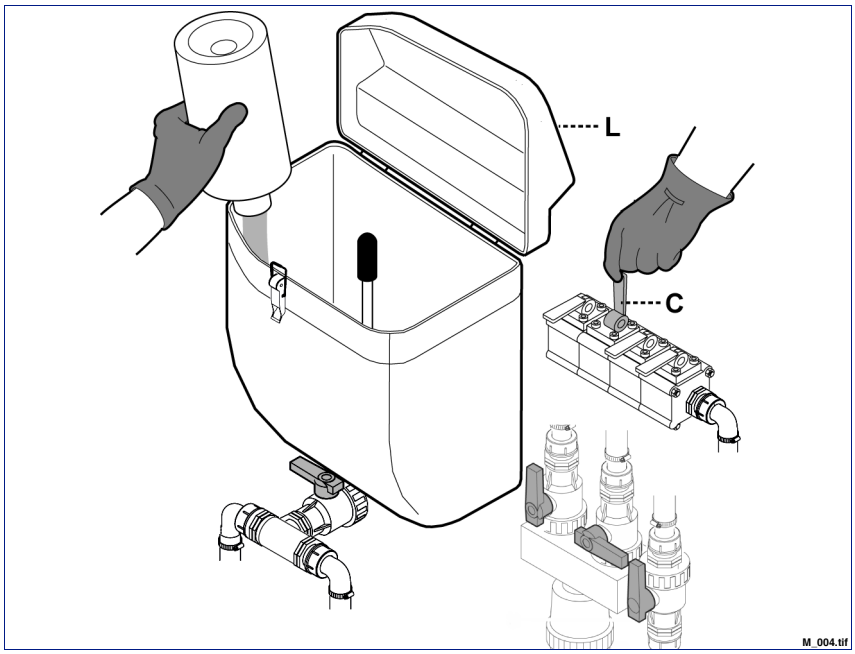
3 - Activate the pump.



4 - Open the valve **(C)** and insert about 15 cm into the tank **(H)**.



5 - Open the cover **(L)**, with the valve **(C)** open and load the chemical product to be mixed.



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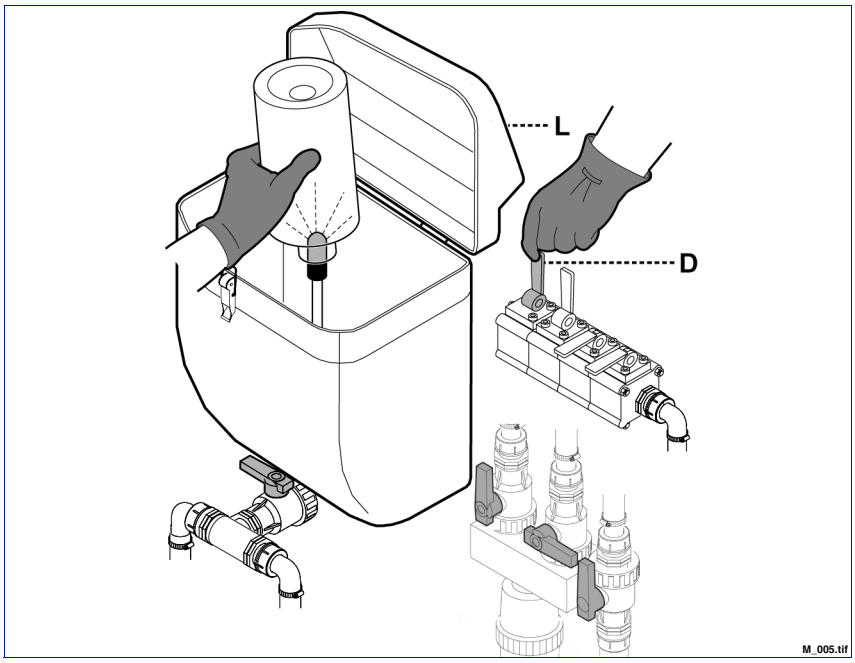
6 - Open the valve **(D)** to rinse the chemical product container.



Danger - Warning

Do not operate the valve (D) until the container is placed on the nozzle, so as to avoid water spills that might hurt the operator.

Danger - Warning

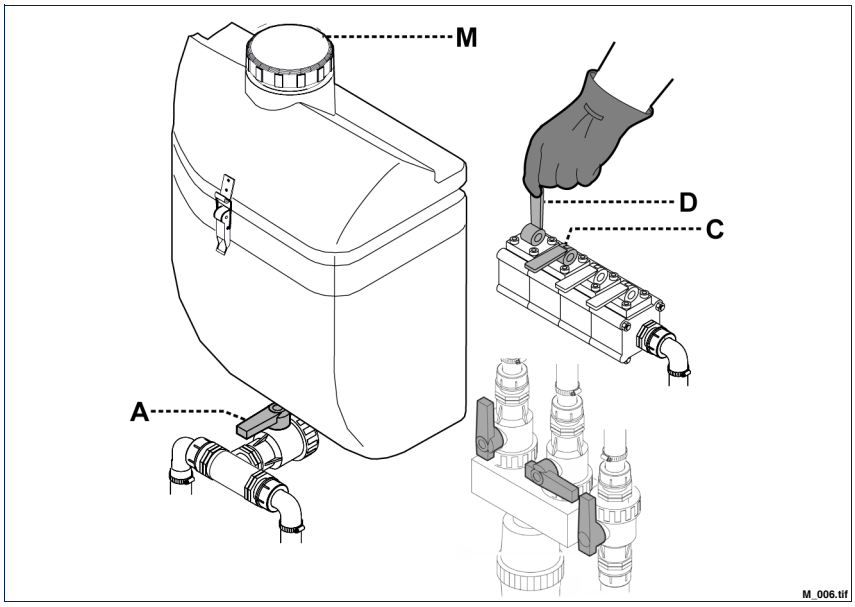
Do not pollute the environment with empty containers. Dispose of empty containers in accordance with the waste disposal regulations in force in the country of use.

7 - Close the cover back and wait until the liquid level rises to approximately mid-tank.

8 - Open the valve **(A)** to empty the tank.

9 - Shut off the valve **(C)**.

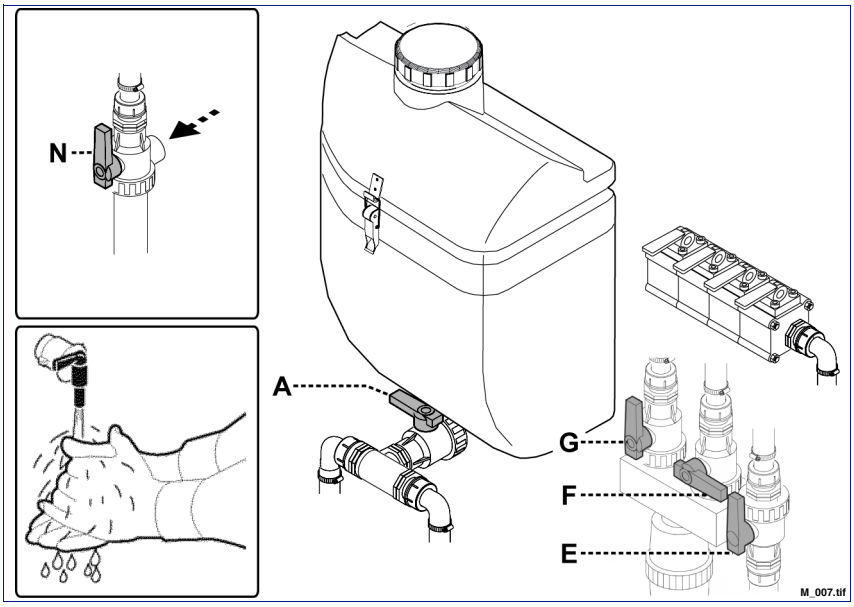
10- Operate the valve lever **(D)** to rinse the equipment.



Danger - Warning

Keep the cover closed when you perform this operation, so as to avoid water spills that might hurt the operator. Control through the inspection hole (M).

11- Close valve **(A)**, turn lever **(N)** as shown and turn the levers of valves **(G - F - E)** to work position.



Important

In case of accidental contact of the product or the mixture with skin, flush immediately with the fresh water contained in the hand-washing tank.

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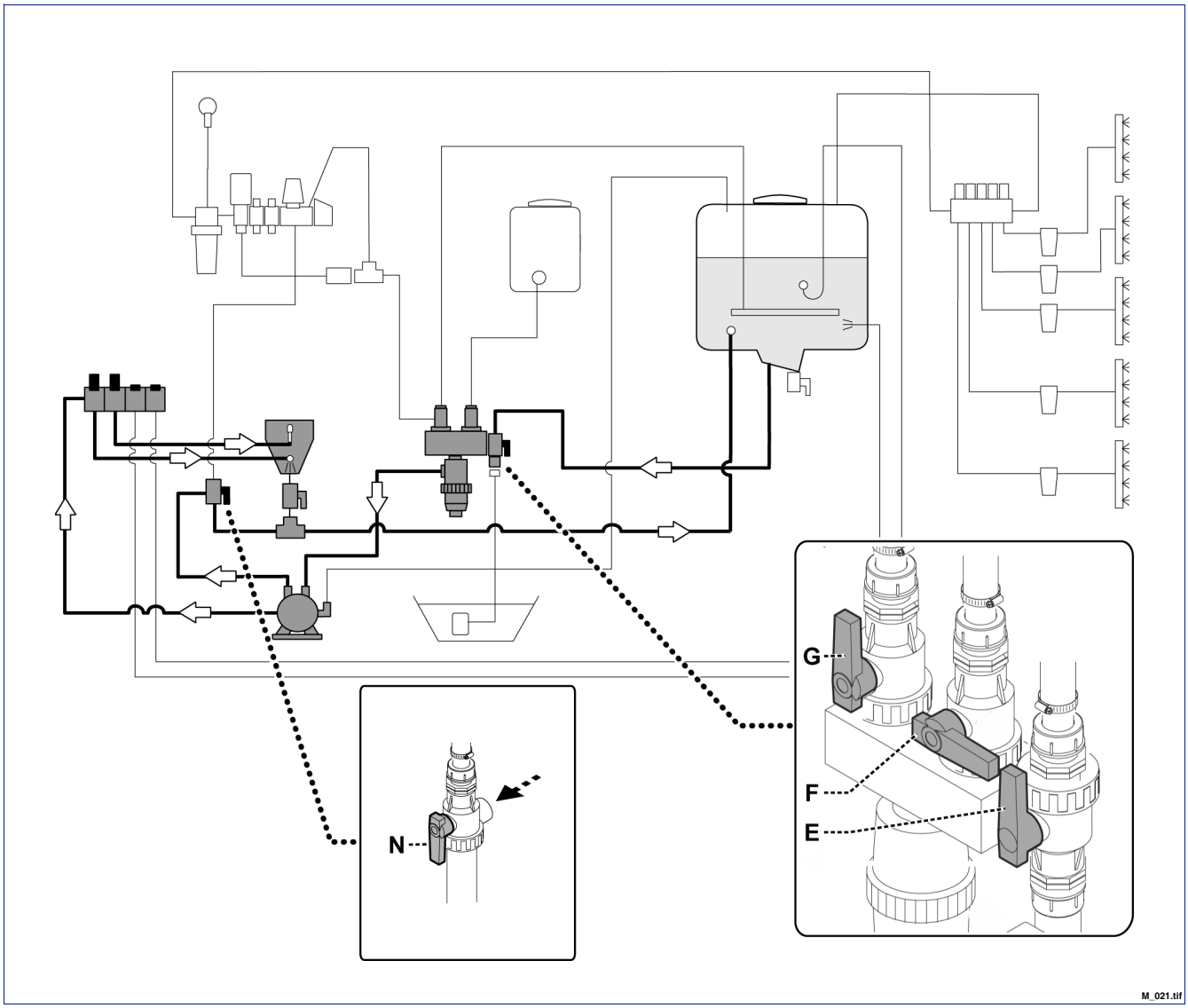
Water system plan with electric control unit, Mixer, and system washing unit with non-return valve



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SPRAYING

Important

The environment and field conditions of the area where you plan to operate have to be checked every time the equipment is set up for spraying.

Evaluate the following requirements.

- Check whether or not there are electric lines and assess the risks of contact with the spraying booms.
- Check the gradient of the land so as to evaluate the most suitable conditions for operating in safety. Always bear in mind the maximum gradients allowed.
- In the event of spraying while moving crosswise to the slope, follow the instructions extremely carefully:

Boom unfolding stage: always unfold the uphill boom first, and then the downhill boom.

Boom folding stage: always fold the downhill boom first, and then the uphill boom.

- Never leave the downhill boom alone unfolded.
- Keep the forward speed moderate (max. 8-10 km/h) to prevent the booms from swinging and to keep spraying even.
- Before you start spraying an area, make sure there is enough product in the tank.
- It is important to be up to date with the weather conditions while spraying. Wind speed should not exceed 5m/sec.

Proceed as follows for spraying:

1 - Position the levers of valves **(A)** or **(F - G - E)** as shown in the figure.

2 - Connect the tractor PTO (max. 540rpm).

3 - Unfold the spraying boom.

4 - Select the sections of the boom that correspond to the area to be sprayed.

5 - Operate the levers of the water control unit in order to feed the boom and to start the tractor.

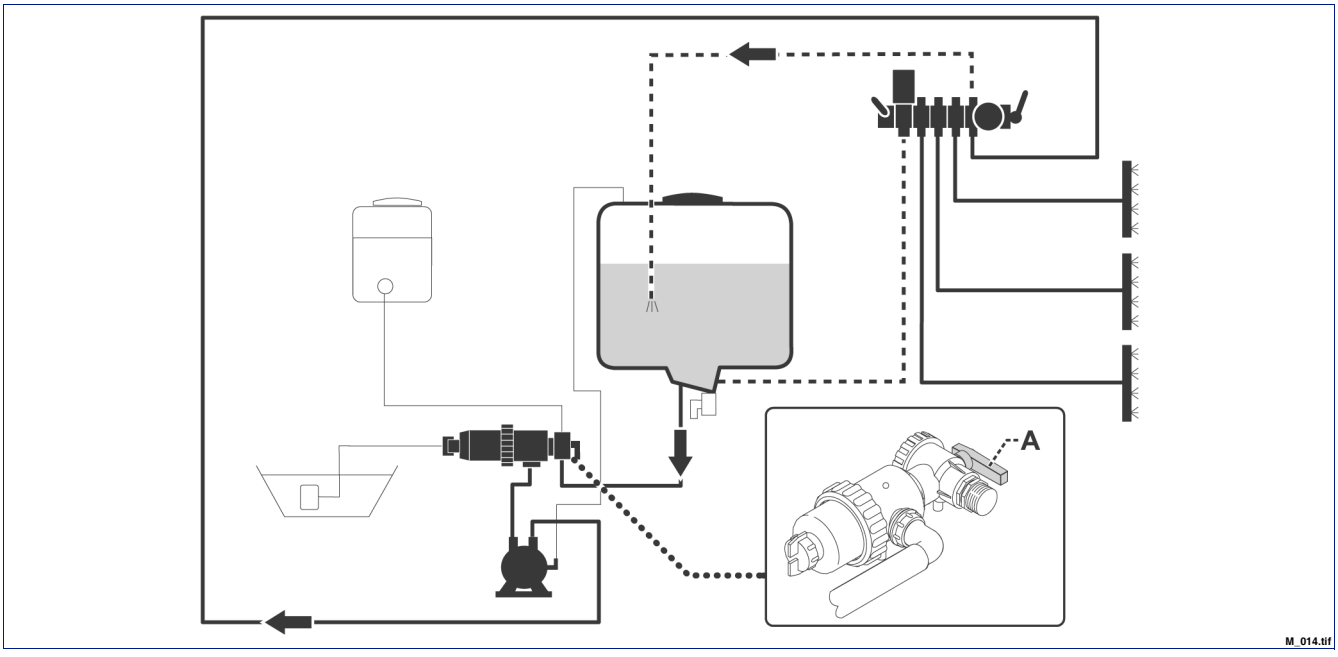
Important

If it is windy, (even below the maximum limit of 5 m/sec) to prevent the product from drifting, keep the boom low and increase the size of the droplets.

Danger - Warning

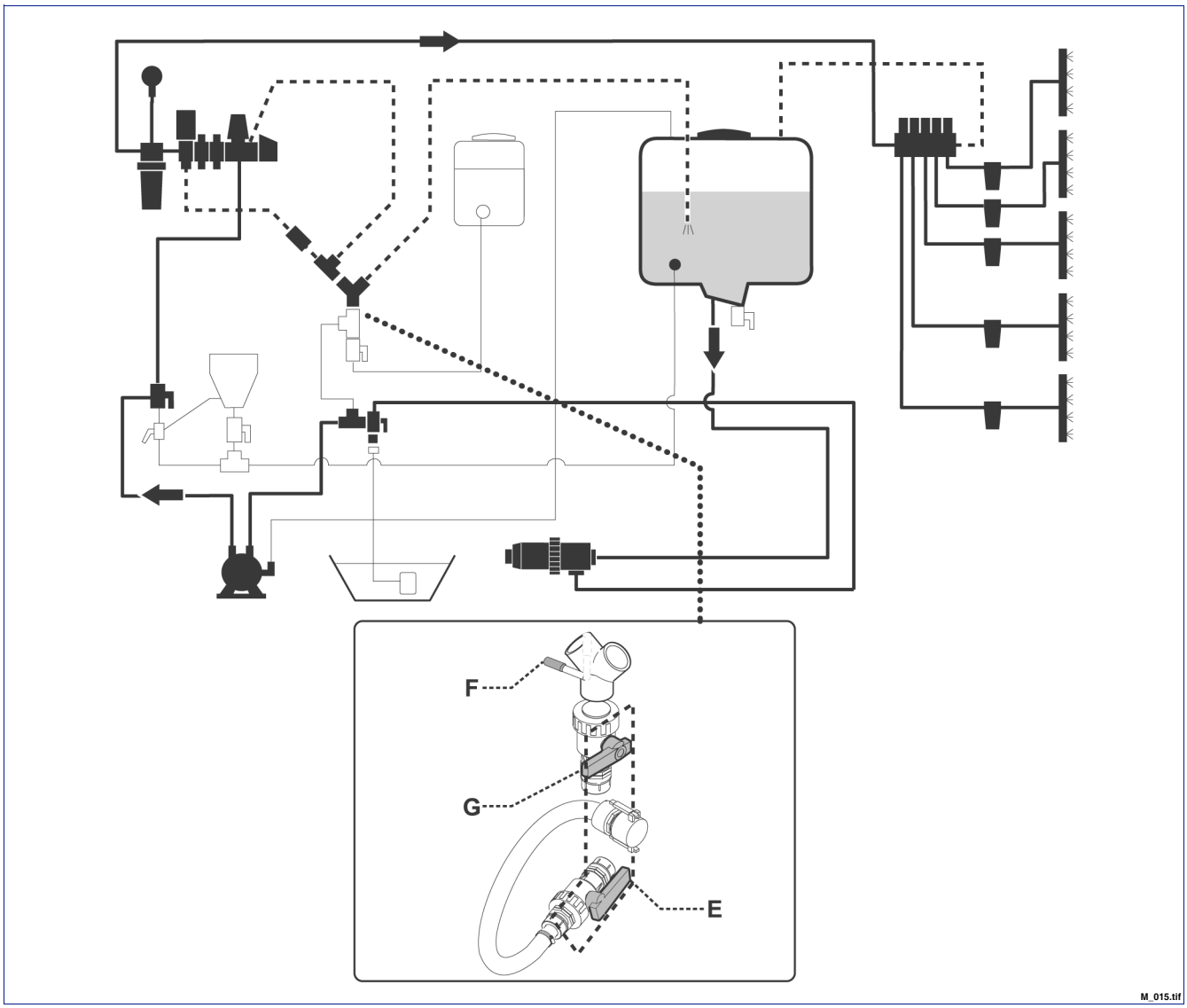
Prevent outsiders from approaching the working area when the equipment is in use. If necessary, stop spraying immediately and get the people in the risk area to move away.

Standard water system plan with manual control unit



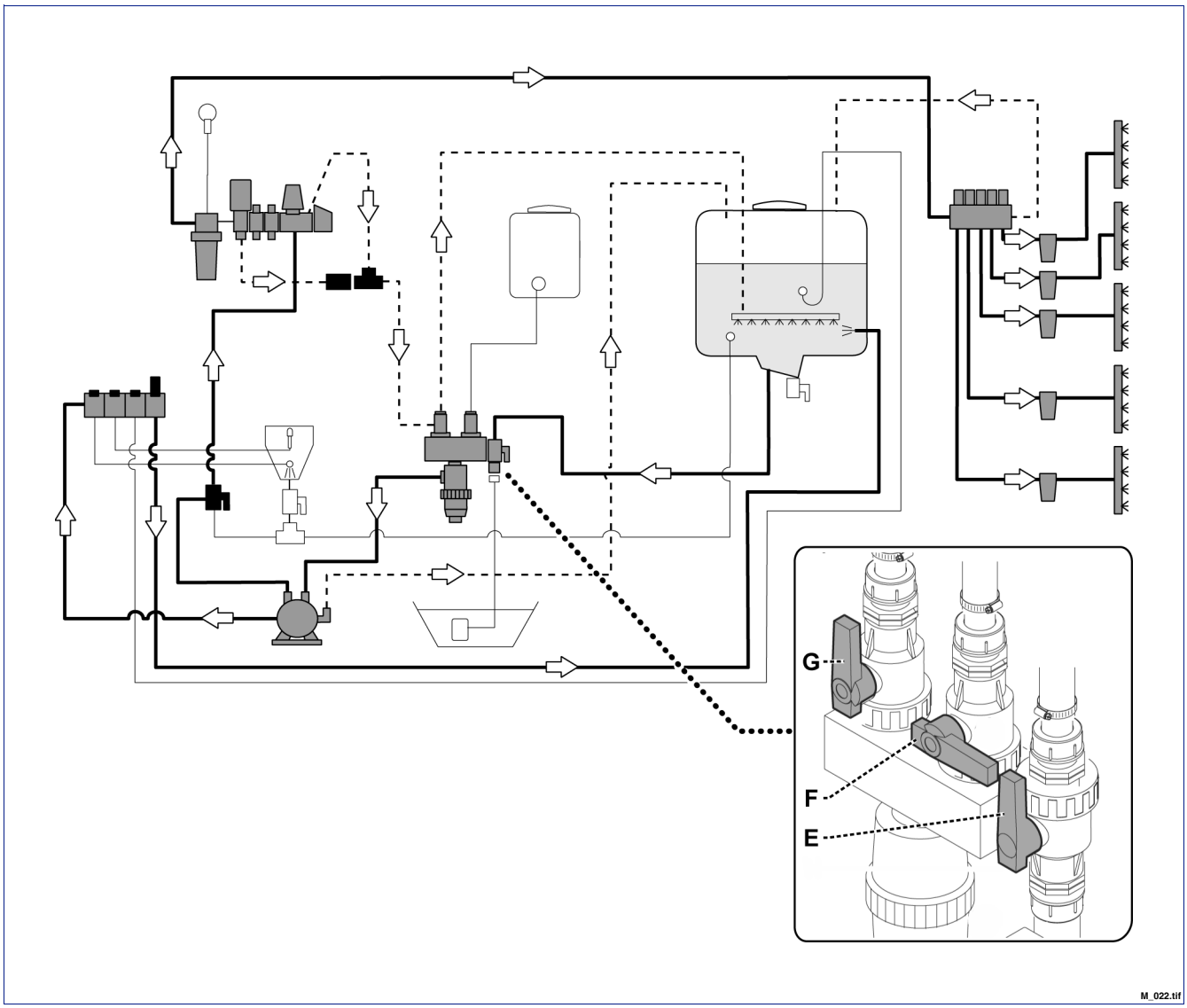
233.011

Water system plan with electric control unit, Mixer, and system washing unit with non-return valve (600 Lt)



233.011

Water system plan with electric control unit, Mixer, and system washing unit with non-return valve (900-1100-1300 Lt)



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SYSTEM WASHING AND EMPTYNG OF RESIDUAL VOLUME

Caution - Warning

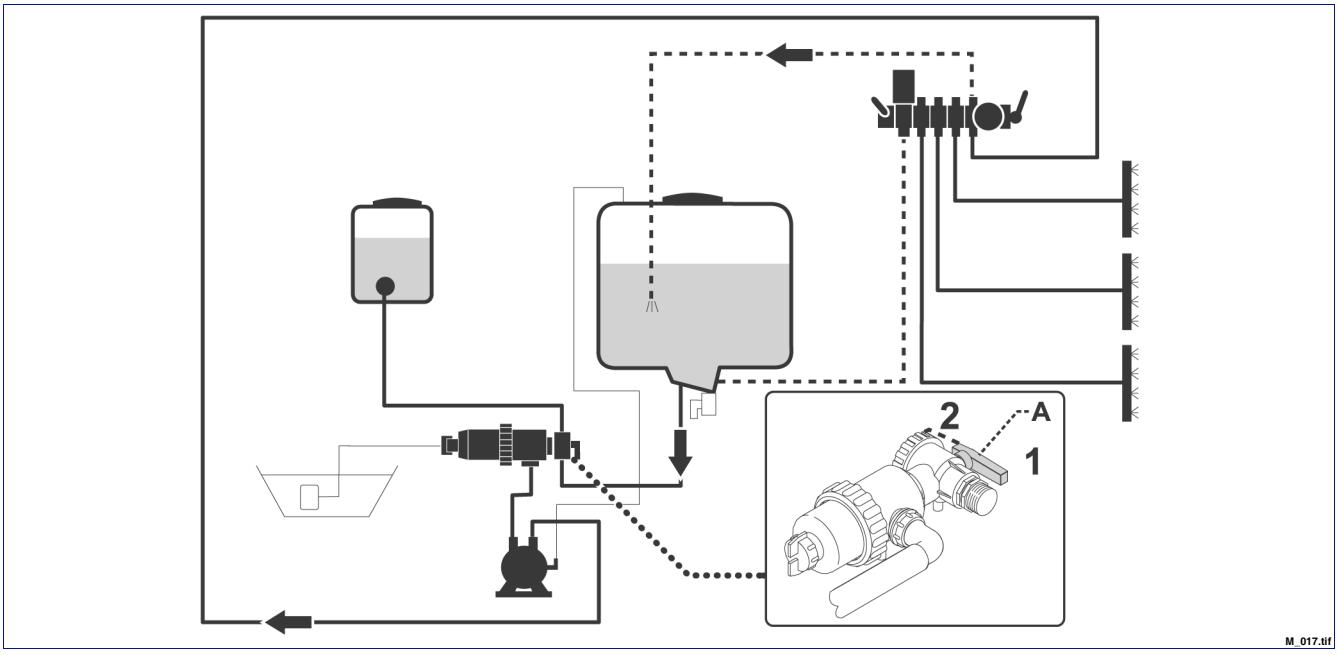
Pollutant substances must be properly disposed of in compliance with current legislation. Special care should be taken to avoid polluting waterways and groundwater with spraying chemicals. Keep product out of reach of children.

Important

Residual volume is the leftover liquid that cannot be suctioned up and remains on the bottom of the tank.

With standard system

- Place valve lever **(A)** in the position **2**.
- Activate the power take-off and spray all the liquid that can be sucked on the surface to be treated.
- Remove the main lid of the tank and clean the walls with a jet of water.
- Place valve lever **(A)** in the position **1**.
- Activate the power take-off and spray all the liquid that can be sucked on the surface to be treated.



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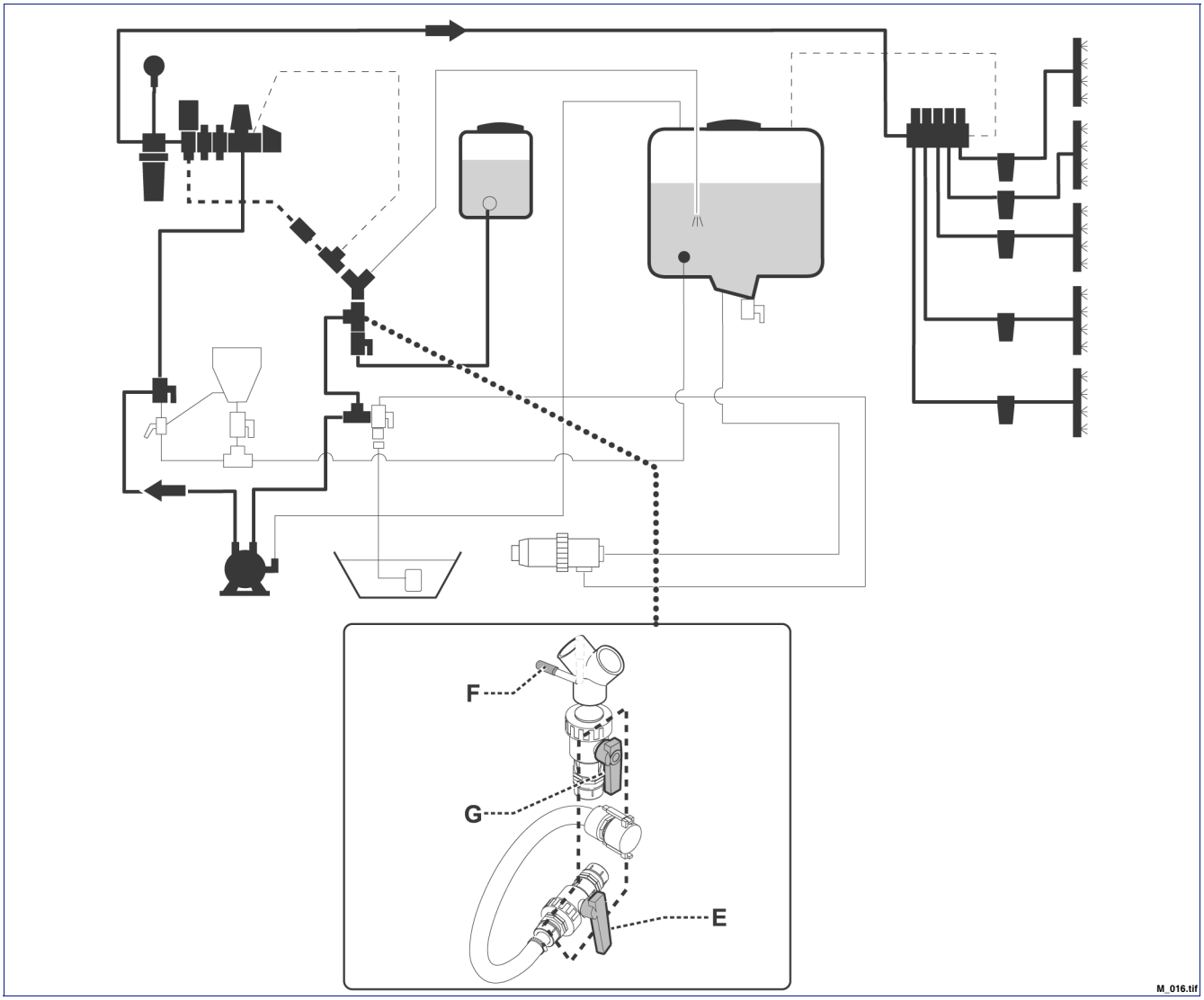
With system washing and non-return valve

- Place valve levers **(F - G - E)** in the position shown.
- Activate the power take-off and spray all the liquid that can be sucked on the surface to be treated.
- Activate the tank washing system (if present).
- If the tank washing system is not present:
- Activate the power take-off and spray all the liquid that can be sucked on the surface to be treated.
- Remove the main lid of the tank and clean the walls with a jet of water.

System (600 Lt)



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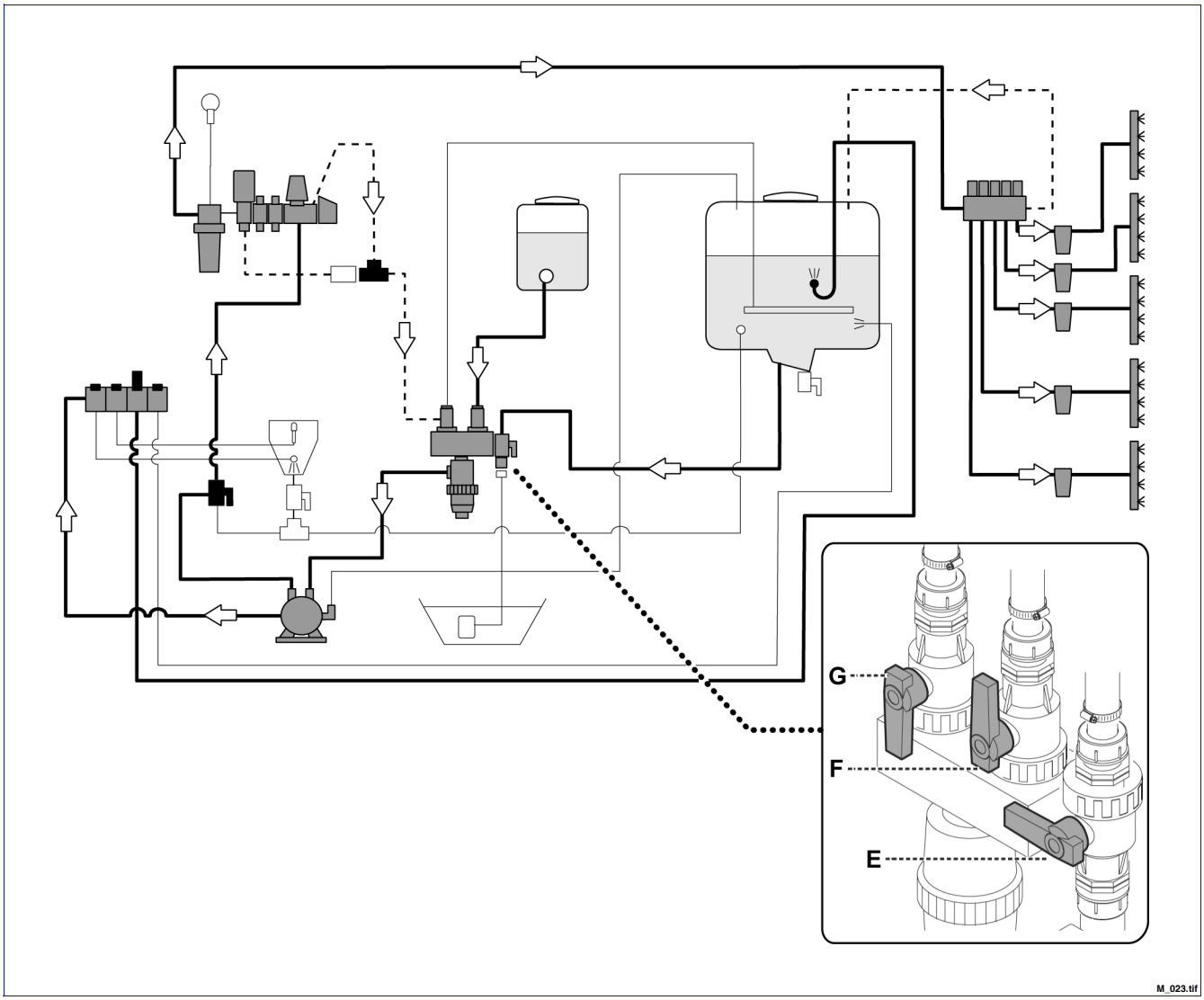
System (900-1100-1300 Lt)



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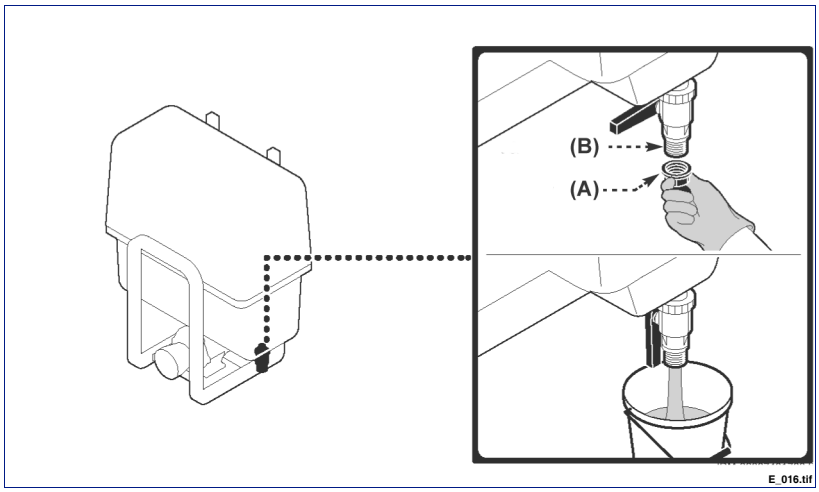
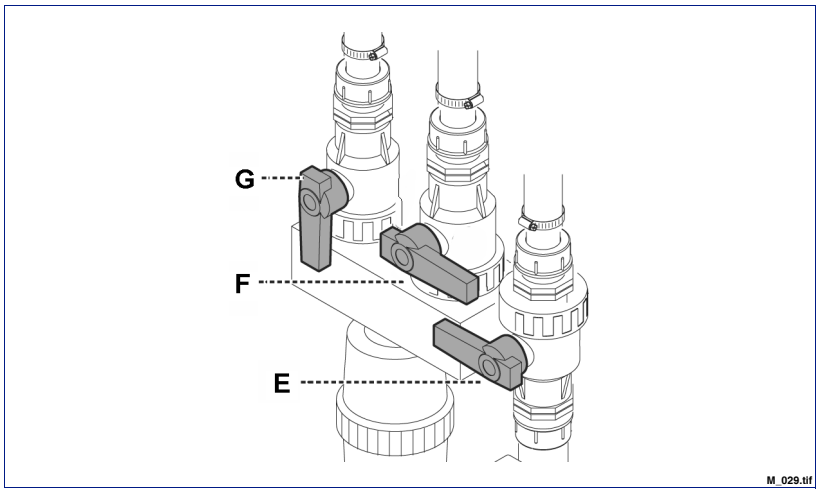
- Place a receptacle beneath valve **(B)**, remove cap **(A)** and open the lever to drain off the residual liquid.
- Close the lever again **(B)** and replace the cap **(A)**.



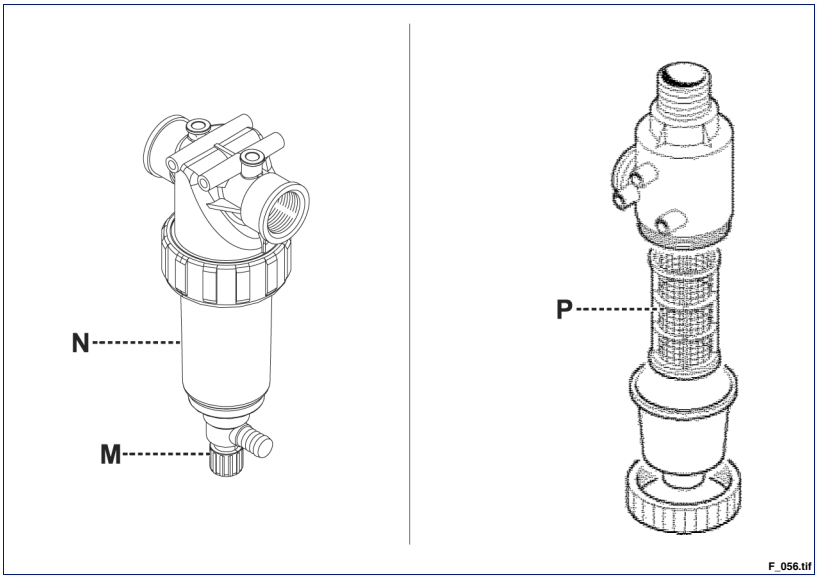
INFORMATION ABOUT REPLACEMENTS

FILTER CLEANING

- Turn the levers **(E - F - G)** as shown in the picture (only for 900-1100-1300Lt).



- Open valve **(M)** to clean filter **(N)**.
- Remove the intake filter **(P)**, mesh size 0.25 mm, and wash it with a water jet.
- Remove the in-line bar filters (see leaflet 9) and wash them with a water jet.
- Wash the outside of the tanks and the areas in contact with the product with a water jet.



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