ETNA®

Water Booster Sets
Assembly, Operation, Service, Maintenance Manual

Dear Customer,

Thanks for selecting our product. To use this booster correctly, make sure that you read this manual thoroughly before the first operation; and keep the user manual safe together with the warranty certificate.

Contents

1. Maintenance, Repair and Operation Rules

1. Please do not run the product before reading this user manual. The failures that may arise from the use of the product against the conditions defined in this manual are not covered with the warranty.
2. The initial operation of the product will be executed by the retailer authorized service providers. The products that are commissioned without notifying the authorized service are not covered by the warranty. Thus, refer to the closest authorized service for initial operation after ensuring that the connection and assembly of your product are in line with the rules defined in the user manual.
3. The failures that may arise from any maintenance, repair or modification performed by a party other than our authorized service providers, or from any tempering or recalibration attempt besides the maintenance, repair, cleaning defined in Article 7 are not covered by the warranty.
4. Failures arising from not doing the periodic maintenance on time are not covered by the warranty.
5. Since the membrane inside the expansion tank is a consumable material, the lifetime may vary depending on the foreign substances inside the mains water and tank water. Thus, the expansion tank is not covered by the warranty.
6. This product should be placed indoors in a way that it is not exposed to external factors such as rain and frost.
7. The failures that may arise from the voltage values in the respective power grid of the product, if affected from a voltage drop, a voltage rise or a sudden voltage change indicated in this manual, are not covered by the warranty.

2. Handling and Transportation

While the product is being transported, the positioning indicated on the box should be followed (ensuring that the arrows look up), and it should not be released hard. The signs on the box should be followed. (Like protection from rain and impact)

3. Human and Environment Health

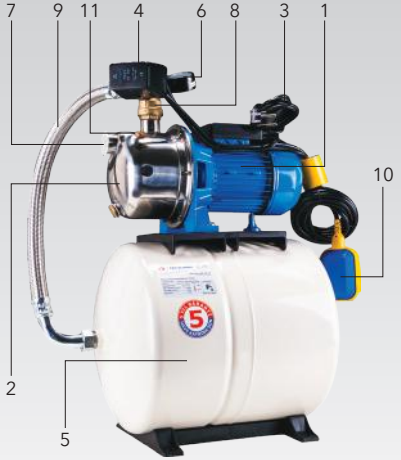
- It does not contain any substance that may negatively affect human health including the expansion tank membrane.
- During maintenance, repair and cleaning of the product, the power connections should always be cut off.
- Remember to connect the product to the ground.

4. Usage Errors

Please read and follow this manual carefully to avoid usage errors. Any action against the instructions of this manual will be named as an usage error, and will not be covered by the warranty.

5. Product Specifications

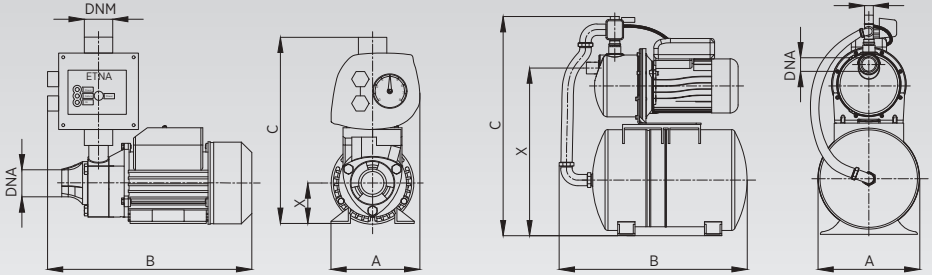
ETNA booster sets are silent and high-efficiency boosters capable of supplying water to 1-60 flats from floor 1 to 13. Pumps are single or multiple stage centrifugal pumps. The pumps that have cast iron and stainless steel housings have single and three phase models for electrical connection.



5.1 Booster Parts

1. Electrical Motor
2. Pump
3. Power Cable
4. Pressure Switch
5. Expansion Tank
6. Manometer
7. Pump Suction Port
8. Pump Discharge Port
9. Hose is protected by Stainless Wire Mesh
10. 5m Cable Float Switch (Prevent Dry Running)

5.2 Technical Specifications and Outside Dimensions



MODEL	Voltage V	Power Hp	Connection		Operation Range		Floor	Apart-ment	Tank L	A	B	C	X	kg
			Inlet	Outlet	Q (m³/h)	H (mSS)								
ETNA MİNİ-HİDRO-1	220 V	0,5	1"	1"	1,2	21	3	3		190	270	290	220	7
ETNA MİNİ-HİDRO-2	220 V	1	1"	1"	2,3	40	6	8		200	300	300	240	11
ETNA JET 100-24	220 V	1	1"	1"	2,1-0,6	32-44	6	8	24 lt	300	470	615	480	22
ETNA JET 100-50	220 V	1	1"	1"	2,1-0,6	32-44	6	8	50 lt	350	500	670	535	27
ETNA JET 150-50	220 V	1,5	1"	1"	3,6-1,2	35-46	6	12	50 lt	350	500	715	590	45
ETNA JET 200-50	220 V	2	1"	1"	4,8-1,8	40-55	7	21	50 lt	350	500	715	590	45
ETNA JET INOX 100-24	220 V	1	1"	1"	1,8-0,6	30-43	5	6	24 lt	300	470	630	490	20
ETNA JET INOX 100-50	220 V	1	1"	1"	1,8-0,6	30-43	5	6	50 lt	350	500	685	545	25
ETNA YPH 60-50	220 V	1,5	1 1/4"	1"	3,6	47	10	15	50 lt	350	500	675	545	33
ETNA YPH 90-50	220 V	2,25	1 1/4"	1"	4,8	51	11	21	50 lt	350	500	675	545	40
ETNA 1 SCT 100-50	220 V	1	1"	1"	3,6	26	3	9	50 lt	300	500	710	480	24
ETNA 1 SCT 200-50	220 V	2	1 1/2"	1 1/4"	4,8	30	5	15	50 lt	350	500	750	585	45
ETNA 1 SCT 310-80	380 V	3	1 1/4"	1"	8	43	8	36	80 lt	390	700	820	530	42
ETNA 1 SCT 400-80	380 V	4	1 1/2"	1 1/4"	10	50	10	50	80 lt	390	700	850	570	58
ETNA 1 SCT 600-100	380 V	5,5	1 1/2"	1 1/4"	11	60	13	60	100 lt	750	750	950	670	68

6. User-Performed Maintenance and Repair

FAILURE	FAILURE CAUSE and RESOLUTION
Booster is not working	Check the electricity supply.
	Ensure the fuses are good.
	There may be no water in the reserve tank.
	The thermal switch of the electrical panel is tripped (Press the Reset button).
	The electric motor has burned out.
	The municipal water is delivered at a sufficient pressure.
The pressure drops suddenly and the pump activates frequently	Close the booster outlet valve. If the pressure is still dropping, it means the non-return valve is not working. Replace it.
	The air in the expansion tank is discharged. Call the service.
No water is being pumped even though the booster is working, and the motor is getting hot	There may be air inside the pump. Press the off switch, open the air discharge plug on the pump, fill it with water and discharge the air. Then close the plug, and turn on the booster.
	There may be no water in the reserve tank. Do not run the booster before the tank is full.
	There is an air leak in the suction line of the booster. Check.
After automatically stopping, the booster is not restarting even after the pressure drops	The pressure switch is not working. Replace it.

- If the booster doesn't work even after checking the points above, contact an authorized technical service.

7. Periodic Maintenance

The booster should go through maintenance at least once (1) a year by an authorized technical service so that it can serve you longer without any problems.

Besides this regular maintenance, clean the dust accumulated on the electrical motor using a soft brush regularly. The dust accumulated on the motor may cause the motor to overheat and burn out.

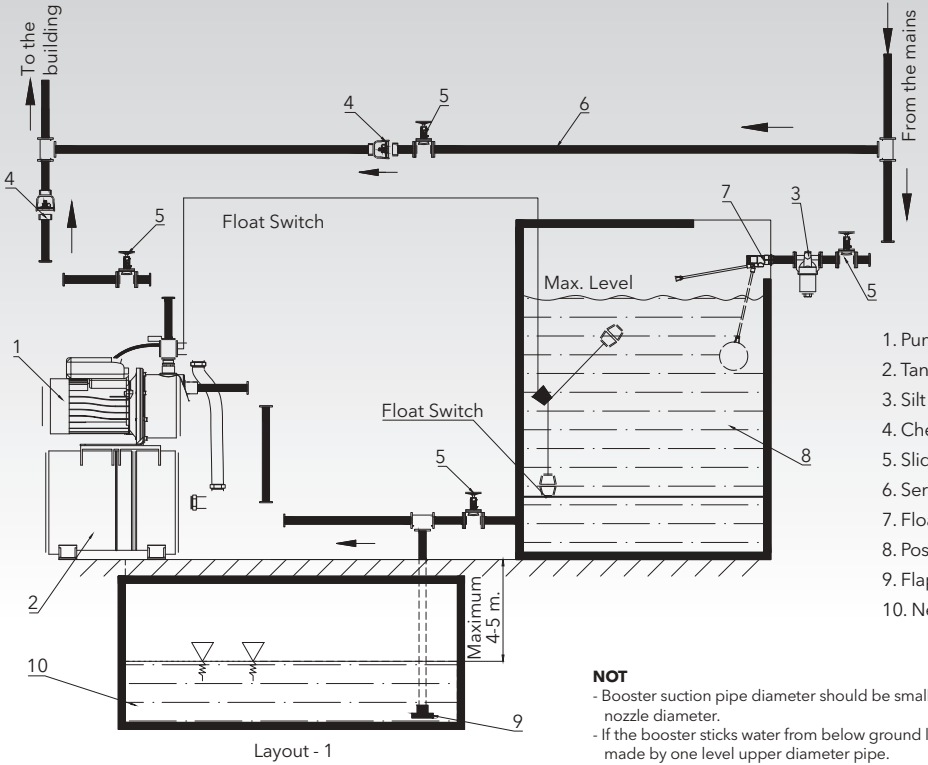
8. Connection and Assembly

Ensure that your product is mounted by authorized technicians in line with the installation layout given on the user manual. Call a technical service for starting-up the product.

8.1. Location Selection

- The product should be placed indoors in a way that it is not exposed to external factors such as rain and frost.
- Leave at least 80cm empty space all around the product.
- Ensure that the distance to the tank that the product will prime water from is maximum 10m.
- Mount the product firmly on a strong and flat concrete surface using anchor bolts.
- Place the electrical motor to a height that enables protection from flood.

9. Booster Installation Layout

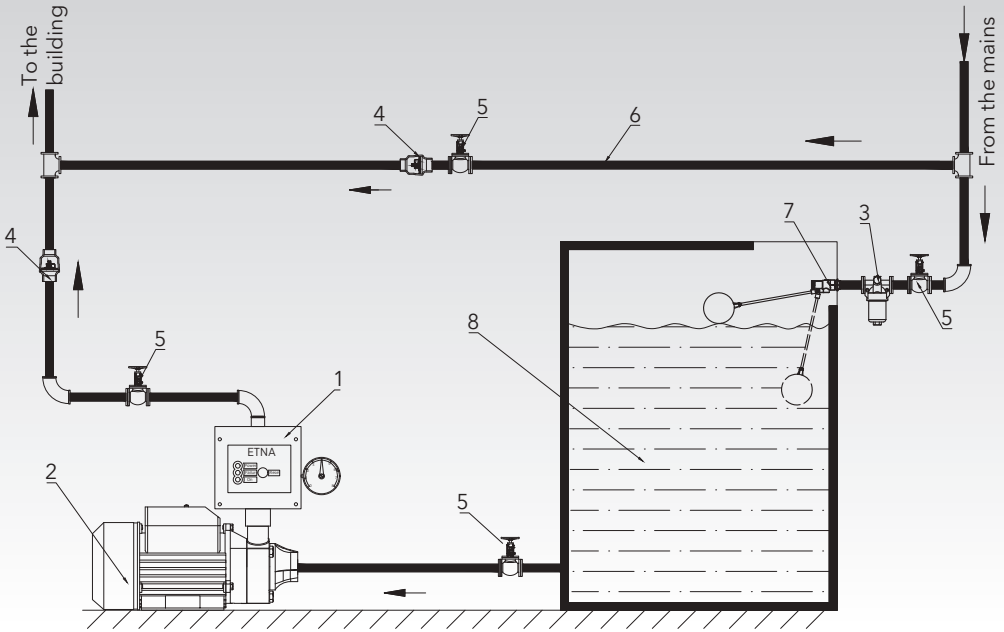


Layout - 1

1. Pump
2. Tank
3. Silt Trap
4. Check Valve
5. Slide Valve
6. Service Pipe
7. Float Valve
8. Positive Water Reserve
9. Flap Filter
10. Negative Water Reserve

NOT

- Booster suction pipe diameter should be smaller than the pump suction nozzle diameter.
- If the booster sticks water from below ground level, suction should be made by one level upper diameter pipe.
- Moreover, it is recommended to connect couplings to the suction and pressure lines of the booster.



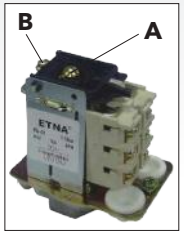
1. Hydromat (automatic)
2. Pump
3. Silt Trap
4. Check Valve
5. Slide Valve
6. Service Pipe
7. Float Valve
8. Water Reserve

Layout - 2

10. Points to Consider

- The booster should always prime water from a water tank or a well and it should not be directly connected to the municipal water system (In case the municipal supply is guaranteed).
- The booster installation should be in line with the Layout 1 and Layout 2.
- The non-return valve should be placed before the pump.
- If the booster is performing deep well suction (maximum 4m), foot valve with filter should be used at the end of suction pipe. Foot valve with filter should be minimum 60cm above the bottom of the well.
- The filters filling with dirt and blocking the pump's suction damages the pumps when they are not cleaned; therefore, using of a filter at the suction line is not recommended. Instead put the filter on the pipe that the water is coming from municipal supply.
- All the connections in the suction line should be tightly sealed. Otherwise, air will leak into the suction pipe causing the suction to fail or to be below the capacity.
- If possible, the suction pipe should be tested with pressurized water.
- The pipe of the suction line should be as smooth and as short as possible, and use of excessive joints should be avoided.
- A valve should be placed to the inlet and outlet of the booster. These are required to cut off the connection of the water with the booster in case of failure.

11. Pressure Switch Calibration



- Do not change the pressure switch that is arranged at the factory. Adjust the starting and stopping pressures of the pressure switch that is de-calibrated due to a problem, following the instructions on the table in Section 5.2.
- Pressure switch calibration is made according to the value measured on the manometer under pressure.
- Starting pressure (pressure difference) is set using the Screw B on the switch (see the picture). The starting pressure is dropped by rotating the screw clockwise and is increased by rotating it counterclockwise.
- Stopping pressure is set using the Screw A on the switch. The stopping pressure is increased by rotating the screw clockwise and is decreased by rotating it counterclockwise.

12. Electrical Installation

The electrical connections of the booster should be made by an authorized electrician. Supply line should be ensured to be sufficient, checking the voltage and amperage values (see table in section 5.2).

- The electrical motor of the booster should be protected using a thermal overload switch. Similarly, the supply line fuses should be compatible with the motor power. Otherwise, the motor may burn out.
- Check the ground connection of the product. This is a life-critical issue.

13. Initial Operation

- Check water supply installation and electricity connections. Check the fuses.
- If the booster is priming water from a water tank, open the suction line valves and release the air by the air discharge plug. Wait until the water reaches the pump. Close the air discharge plug when water reaches to the pump.
- If the booster is sucking water from a well, open the air discharge plug to fill the suction line with water and then close the plug.
- Press the switch to start-up the motor.
- Wait until the pump supplies water to the booster tank and to the mains. The booster will stop automatically when it reaches the pressure indicated on the label.
- Open a tab and wait for the pressure to drop on the manometer. The booster automatically starts up in the lower operation pressure.
- Recalibrate the pressure settings if the booster is working outside the pressure range specified on the label. You may need to do this few times before the booster starts working right.

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