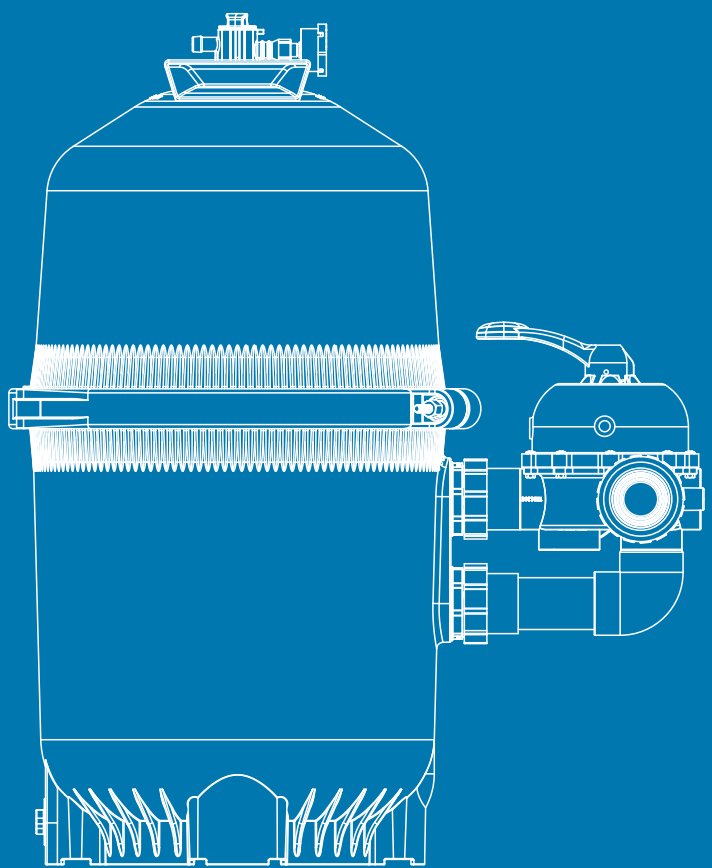
Emaux

GALAXY IDE FILTER

Installation and Operation



USER MANUAL

Models: IDE36 / IDE48 / IDE60 / IDE72

EMFI23120180

GALAXY IDE FILTER

Installation and Operation Manual

TABLE OF CONTENT

IMPORTANT SAFETY INSTRUCTIONS

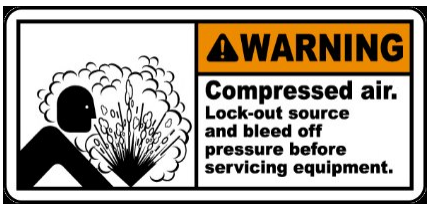
THESE OPERATING INSTRUCTIONS CONTAIN IMPORTANT INFORMATION ON THE SAFE, PROPER, AND ECONOMICAL OPERATION OF THIS SWIMMING POOL APPLIANCE. STRICT OBSERVATION OF THE OPERATING INSTRUCTIONS WILL HELP TO AVOID DANGERS, REDUCE REPAIR COSTS, AND SHUTDOWN TIMES AND INCREASE THE RELIABILITY AND WORKING LIFE OF THE PRODUCT.

Failure to follow the instructions in this manual may result in serious adverse health effects or even serious or fatal injury. Failure to follow the instructions in this manual will in all cases invalidate all guarantees and liability on the part of the manufacturer.

Consumer Information and Safety

These D.E. Filters are designed and manufactured to provide years of safe and reliable operation. Operated and maintained according to the information in this manual and the installation codes referred to in later sections.

THIS FILTER OPERATES UNDER HIGH PRESSURE



When any part of the circulating system, (e.g., closure, pump, filter, valve(s), etc.), is serviced, air can enter the system and become pressurized. Pressurized air can cause the top closure to separate which can result in severe injury, death, or property damage. To avoid this potential hazard, follow these instructions:

1. If you are not familiar with your pool filtering system:
   (1) Do NOT attempt to adjust or service without consulting your dealer, or a qualified pool technician.
   (2) Read the entire Installation & Operation Manual before attempting to use, service, or adjust the pool filtering system.
2. Before repositioning valve(s) and before beginning the assembly, disassembly, or any other service of the circulating system:
   (1) Turn the pump OFF and shut OFF any automatic controls to ensure the system is NOT inadvertently started during the servicing;
   (2) Open the air relief valve;
   (3) Wait until all pressure is relieved.
3. Whenever installing the filter closure follow the filter closure warnings exactly.
4. Once service on the circulating system is complete follow initial start-up instructions exactly.
5. Maintain circulation system properly. Replace worn or damaged parts immediately, (e.g., closure, pressure gauge, valve(s), O-rings, etc.).
6. Be sure that the filter is properly mounted and positioned according to the instructions provided.

WARNING: This filter must be installed by licensed or certified electrician or qualified pool serviceman in accordance with the Local Code and all applicable local codes and ordinances.
Improper installation could result in death or serious injury to pool users, installers, or others and may also cause damage to property.
Always disconnect power to the pool circulating system at the circuit breaker before servicing the filter. Ensure that the disconnected circuit is locked out or properly tagged so that it cannot be switched on while you are working on the filter. Failure to do so could result in serious injury or death to a serviceman, pool user, or others due to electric shock.

WARNING:

READ UNDERSTAND AND FOLLOW ALL SAFETY AND OPERATION:

Do not operate the filter until you have read and understand clearly all the operating instructions and warning messages for all equipment that is a part of the pool circulating system. The following instructions are intended as a guide for initially operating the filter in a general pool installation. Failure to follow all operating instructions and warning messages can result in property damage or severe personal injury or death.

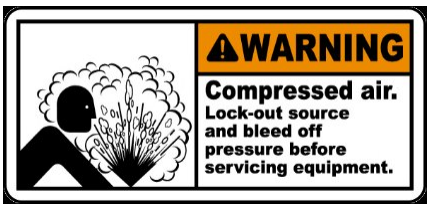
WARNING:

To reduce the risk of injury, do not permit children to use this product.

WARNING:

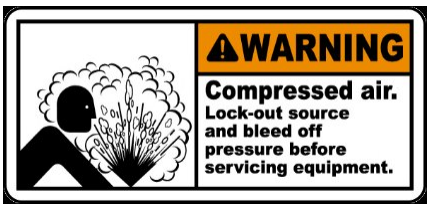
ELECTROCUTION HAZARD

Direct water discharge from air relief valve away from electrical service. Do not locate pump control over near the filter.



Due to the potential risk that can be involved, it is recommended that the pressure test be kept to the minimum time required by the local code. Do not allow people to work around the system when the circulation system is under the pressure test. Post appropriate warning signs and establish a barrier around the pressurized equipment. If the equipment is located in an equipment room, lock the door and post a warning sign.

Never attempt to adjust any closures or lids or attempt to remove or tighten bolts when the system is pressurized. These actions can cause the closure to separate and could cause severe personal injury or death if they were to strike a person.



Never exceed the maximum operating pressure of system components. Exceeding these limits could result in a component failing under pressure. This instantaneous release of energy can cause the closure to separate and could cause severe personal injury or death if they were to strike a person.

HYPERTHERMIA

SPA water temperature excess of 38°C (104°F) may be injurious to health. Measure water temperature before entering SPA to strike a person.

Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 98.6 °F (37 °C). The symptoms of hyperthermia include drowsiness, lethargy, and an increase in the internal temperature of the body.

1. OVERVIEW

DE filters are known for their excellent filtration capabilities. The diatomaceous earth powder coats the filter grids, creating a fine, porous layer that can trap even the smallest particles, including dirt and debris. This results in cleaner and clearer pool water. They are particularly effective at removing microparticles, including fine dust, pollen, oils, and even some pathogens. This can contribute to a healthier and safer swimming environment for you and your family. The lower pressure of operation compared to other filters, DE filters resulting in enginery savings. Emaux offers a variety of DE filter models and sizes to accommodate different pool sizes and filtration needs. This allows you to choose a filter that is specifically suited to your pool requirements.

Emaux IDE is designed to use with perlite powder to replace DE powder. Perlite is a highly effective filter media that can provide superior filtration compared to DE. It has a large surface area and microscopic pores that can capture smaller particles, debris, and impurities, leading to cleaner and clearer pool water. Perlite is a naturally occurring volcanic mineral, making it an environmentally friendly choice for pool filtration. It is a sustainable resource and does not release harmful chemicals or additives into the pool water.

1.1 PRODUCT INFORMATION

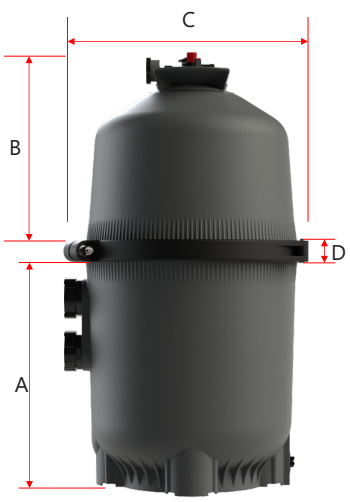
CODE	Model	EFFECTIVE FITRATION AREA		DESIGN FLOW RATE		RECOMMANDED AMOUNT OF D.E.		RECOMMANDED AMOUNT OF PERLITE	
		FT^2	M^2	GPM	LPM	LBS	Kgs	LBS	Kgs
9220001	IDE36	36	3.3	72	269	4.5	2.0	3.4	1.5
9220002	IDE48	48	4.4	96	359	6.0	2.7	4.5	2.0
9220003	IDE60	60	5.5	120	448	7.5	3.4	5.6	2.6
9220004	IDE72	72	6.6	144	538	9.0	4.1	6.8	3.1

[Flow rate is based on 2 GPM per sq. ft. of filter area. Maximum pressure 50 psi (3.45 BAR)]

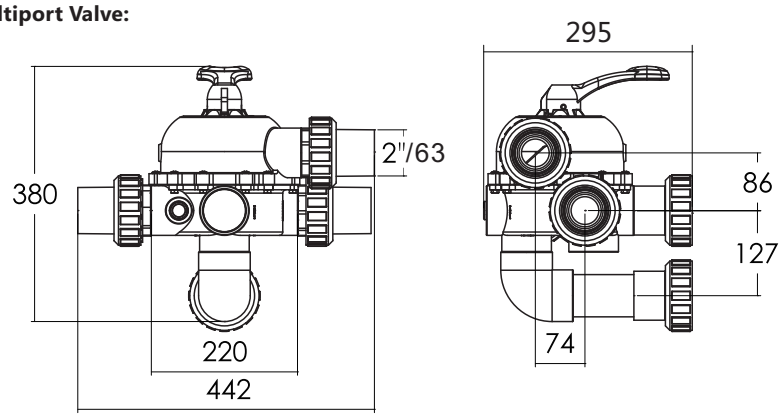
1.2 DIMENSIONS

Filter body:

Model	A		B		C		D	
	IN	CM	IN	CM	IN	CM	IN	CM
IDE36	20.9	53	12.2	30.8	23.7	60.2	1.91	4.85
IDE48	20.9	53	18	45.6	23.7	60.2	1.91	4.85
IDE60	20.9	53	25.4	64.4	23.7	60.2	1.91	4.85
IDE72	20.9	53	31	78.4	23.7	60.2	1.91	4.85



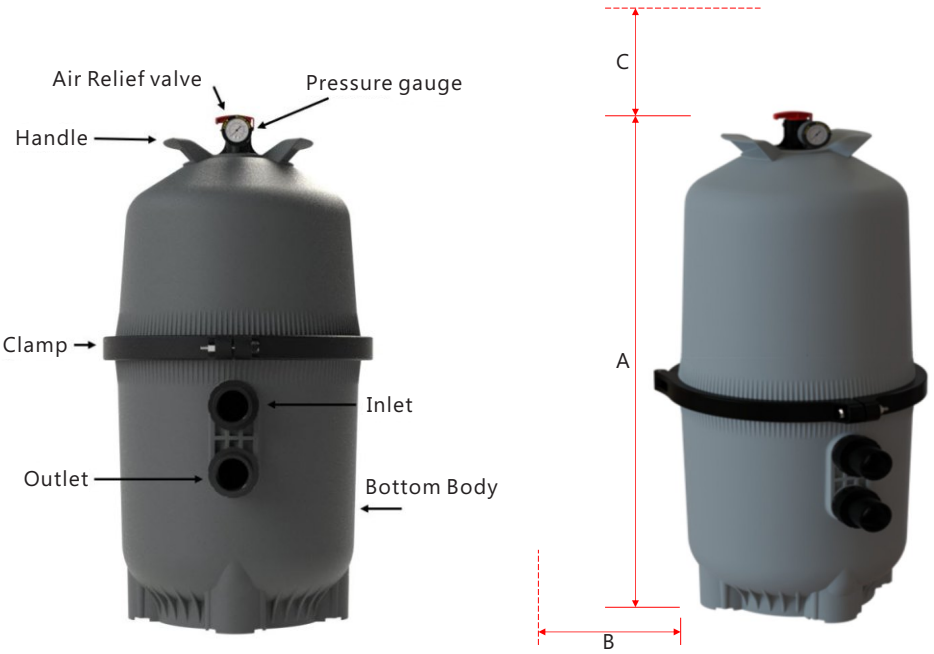
Multiport Valve:



2. INSTALLATION

This product should be installed and serviced only by a qualified pool professional.

1. The filter system should be installed on a level concrete slab or another rigid base. Select a well-drained and vented area, one that does not flood when it rains. Position the filter so that the piping connections and winter drain are convenient and accessible for operation, service, maintenance, and winterizing.
2. Position filter body such that all operation and safety labels are visible.
3. Position filter so the filter will drain by gravity.
4. Prevent placing the pump and filter direct heat from the sun.
5. Connect the pool suction plumbing between the skimmer, pool outlet (from the pool), and the pump.
6. Install the plumbing from the filter to the pool (return to the pool).
7. Do not locate pump controls over or near the filter.
8. Verify water discharge from the air relief valve is directed away from electrical devices.



MODEL	A		REQUIRED CLEARANCE			
			"B" side		"C" above	
	IN	CM	IN	CM	IN	CM
IDE36	34.88	88.6	20	51	18	45
IDE48	40.7	103.5	20	51	19	48
IDE60	48.15	122.3	20	51	24	61
IDE72	53.6	136.2	20	51	31	80

3. STARTING THE PUMP AND FILTER SYSTEM

3.1 BEFORE STARTING THE PUMP

1. Use ONLY ICF system components; Clamp unit doing assembly, metal-reinforced seal. Non-tighten clamp components may fail in use and cause explosive component separation. Verify that upper and lower filter bodies are properly secured with the clamp unit. Make sure tightening enough the filter upper and bottom body with clamp.Verify that the filter Air relief valve is in the LOCK position, and no filter components are missing, damaged, or not genuine ICF filter components.

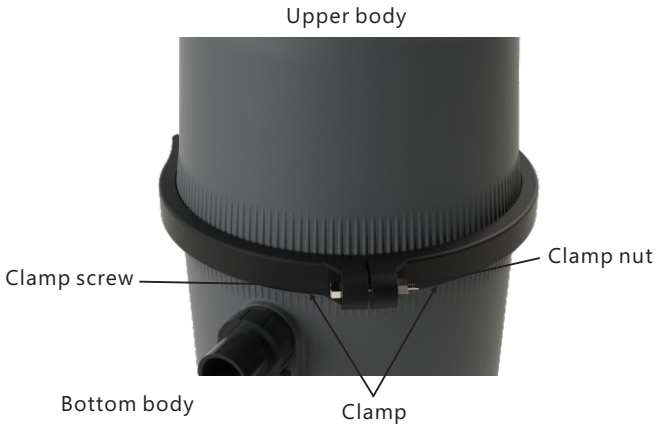


Figure 1

2. Close the filter drain. Note: drain plug requires an O ring seal.

Figure 2

3. Open all system valves to allow water from the pool to the filtration system and from the filter to return to the pool.
4. Place the manual Air relief valve in an OPEN position.

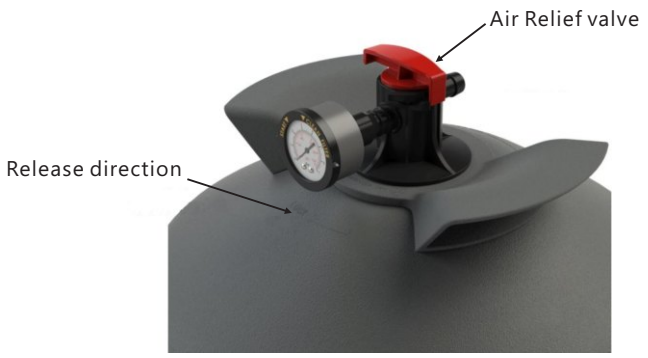


Figure 3

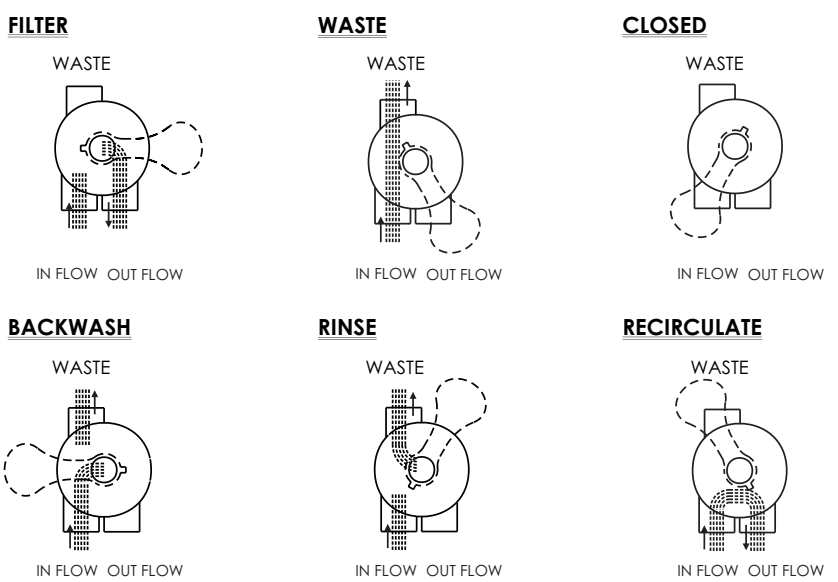
5. Assemble multiport valve.

Multiport valve

WARNING: Always shot off pumps in-system before switch multiport valve position.

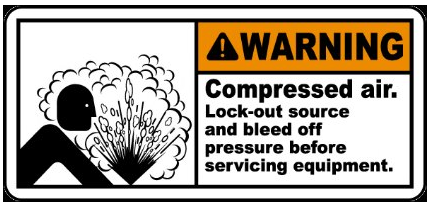
Emaux IDE DE filter pair with 6-Way Multiport Valve for IDE Filter which functions are:

1. Filter: Normal filtration
2. Waste: By-passes filter, used for vacuuming to waste or lowering water level
3. Closed: Shuts off all flow to filter or pool
4. Backwash: Cleaning filter by reversing the flow
5. Recirculate: By-passes filter circulating water to pool
6. Rinse: Used after backwash to flush dirt from valve



3.2 STARTING PUMP

Stand clear of pump during start-up



Pool and spa circulation systems operate under high pressure. When any part of the circulating system (i.e. lock ring, pump, filter, valves, etc.) is serviced, air can enter the system and become pressurized. Filter Lid and pre-filter cover must be properly secured to prevent violent separation. Place pre-filter / filter air relief valve open and wait for all pressure in the system to be relieved before remove the lib to access the basket for cleaning.

1. Turn the multiport valve to "Filter" position.
2. When starting the system pump, do not stand over or near the filter. If water leakage appears at the clamp, Turn off all system circulation pumps and all electrical power. Do not return to the filter until all water leakage has stopped. Reassemble the clamp system per the instructions in this manual.
3. Return to the filter and only CLOSE the manual air relief valve if a steady stream of water escapes from the valve and not air or an air-water mix.
4. Coating filter element (Coating). Refer to filter manual or label, add correct amount of D.E./ Perlite. in the system through the skimmer and let plumbing take D.E./ Perlite as fast as possible. Record the reading (called "Coating" pressure) on pressure gauge when the reading become static after the D.E./ Perlite has been added.
5. Do not operate the filter more than 3 minutes without the D.E./ Perlite pre-coat. Without D.E./ Perlite Coating may damage the grid elements.

3.3 OPERATION

Filtration starts when the flow is steady through the filter. As the filter removes dirt from the pool water, the accumulated dirt causes a resistance to flow. The pressure will rise and the flow will decrease.

Figure 4

1. Record the pre-coat pressure. When pressure increase 0.55 - 0.70 bar (8-10 psi) above pre-coat pressure, it is time to backwash.
2. Emaux pressure gauge provides a gauge cover. During record the pre-coat pressure, turn the START arrow to pre-coat pressure position. Monitor the pressure from time to time, when the pointer close to CLEAN FILTER arrow, it is time to clean your filter (Figure 4).

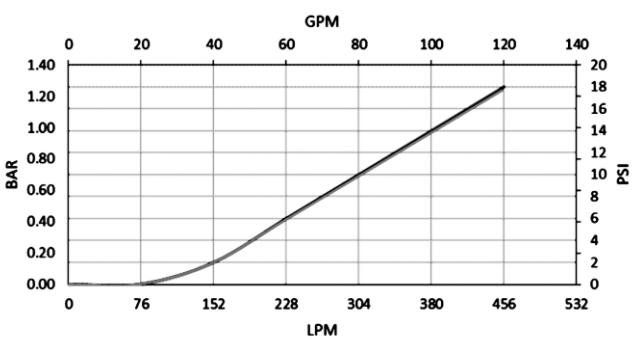
Backwash

During initial clean-up of the pool, particularly with a new pool or a very dirty pool, it may be necessary to backwash more frequently due to the heavy initial dirt load in the water. If pool were new, backwashing will take place 18 hours after installing the filter.

Procedure:

1. Switch off pumps in the system.
2. Set valve to "Backwash" position.
3. Start pump and backwash approximately two minutes or until water clear, then turn off pump.
4. Set valve to "Filter" position
5. Proceed "Coating" which introduce in 3.2

Head Loss with multiport valve



4. MAINTAINING YOUR FILTER

This product should be installed and serviced only by qualified pool professional.

Manual cleaning

WARNING: This product should be installed and serviced only by qualified pool technician.

1. Run backwash before manual cleaning.
2. Turn off all system pumps.
3. Set all system valves to prevent water flow to the filter.
4. Open the filter's drain plug and air Relief valve to drain the filter water completely.
5. Holding both ends of the clamp carefully then spread the clamp ends. The clamp should be removed by lifting over the upper body. Do not drop the clamp unit or strike the clamp unit with metal tools.
6. Hold the handle (do not hold the pressure gauge) to lift off the upper body.
7. Hold the Element upper holder and lift the element assemble straight upward.

Removing and Cleaning Element cluster

Shift the element cluster assembly gently side to side to detach the manifold from the vertical outlet elbow. Lift the element cluster assembly vertically using the lift handles for removal.

Clean the filter element cluster thoroughly by washing it inside and outside with a garden hose. After hosing, delicately brush the surface to eliminate fine particles for optimal results. Avoid using a pressure washer, as it may damage the filter element cluster. There may have some remaining debris that cannot been removed during the hosing process.

Re-installing

1. Place filter element cluster into filter tank.
2. Carefully fitting top collector manifold outlet over outlet elbow o-ring.
3. Place the metal seal on the lower filter body and add lubricant if necessary.
4. Place the topper filter body in position carefully.
5. Replace the filter clamp around the upper and lower filter bodies. Hold the clamp ends in position while reinstalling the bolt and nut.
6. Tighten the nut and bolt with a torque wrench.
   DO NOT HIT OR STRIKE CLAMP WITH HAMMER OR METAL TOOLS.
7. Follow Operation Instructions for "Starting the Pump and Filter System"

Figure 7

4.1 VACUUMING

Vacuuming can be direct performed into the filter. If required, backwash the filter after completing the vacuuming process.

4.2 REMOVING THE AIR RELIEF VALVE

The filter comes with a preinstalled manual air relief valve. Servicing the Air Relief Valve should be carried out by pool professionals only by carefully following the instructions:

1. Turn off all system circulation pumps and all-electric power on the equipment pad.
2. Set all system valves in a position to prevent water from flowing to the filter.
3. The air relief valve must be placed in the OPEN position.
4. Wait until all water leakage has stopped.
5. Grasp the handle at the top of the upper filter body, turn counterclockwise until the Relief valve unit is aligned with the "UNLOCK" position on the upper filter body and make sure the unit is completely loosened and lift out.
6. Pull straight up to remove the relief valve and handle.

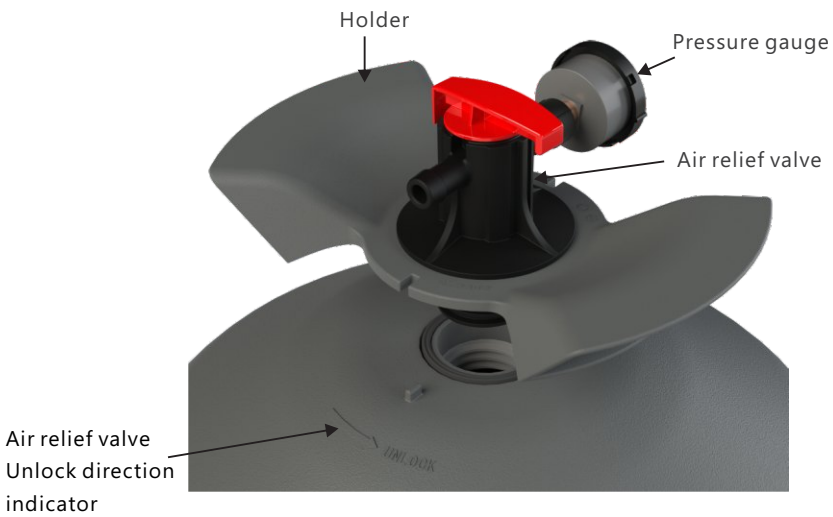


Figure 8

4.3 RE-INSTALLATION OF THE AIR RELIEF VALVE.

1. Check the condition of the O-ring, replace it as necessary
2. With a clean cloth, wipe the upper filter body and O-ring groove. Remove all dirt and debris.
3. Making sure the stopper of the flange is in the open position.
4. Verify the Air relief valve discharge points away from all electrical connections.

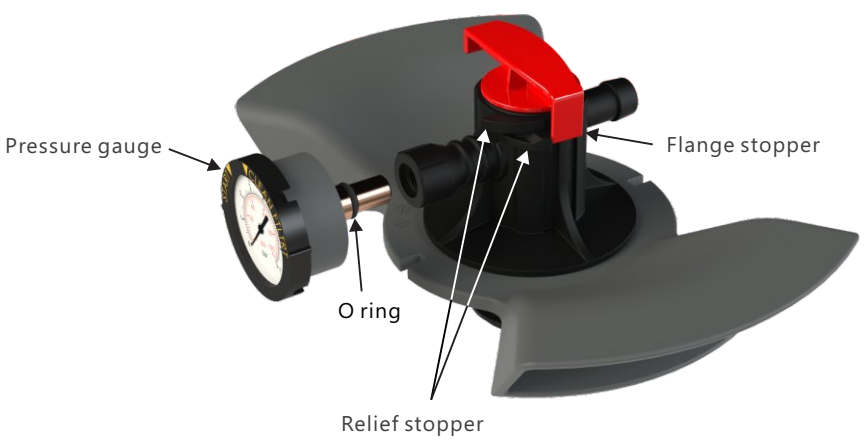


Figure 9

5. WINTERIZING FILTER

In areas where sub-freezing temperatures can be expected, the filter should be drained to protect the filter from damage.

1. Follow the steps in"Filter disassemble instruction" to remove and clean the filter.
2. Follow steps: FILTER REASSEMBLY INSTRUCTIONS, reassemble the filter "without" filter element cluster.
3. Fully tighten the lock ring while storing.
4. During the winter season, ensure the drain plug remains unattached to prevent any potential damage to the filter body.

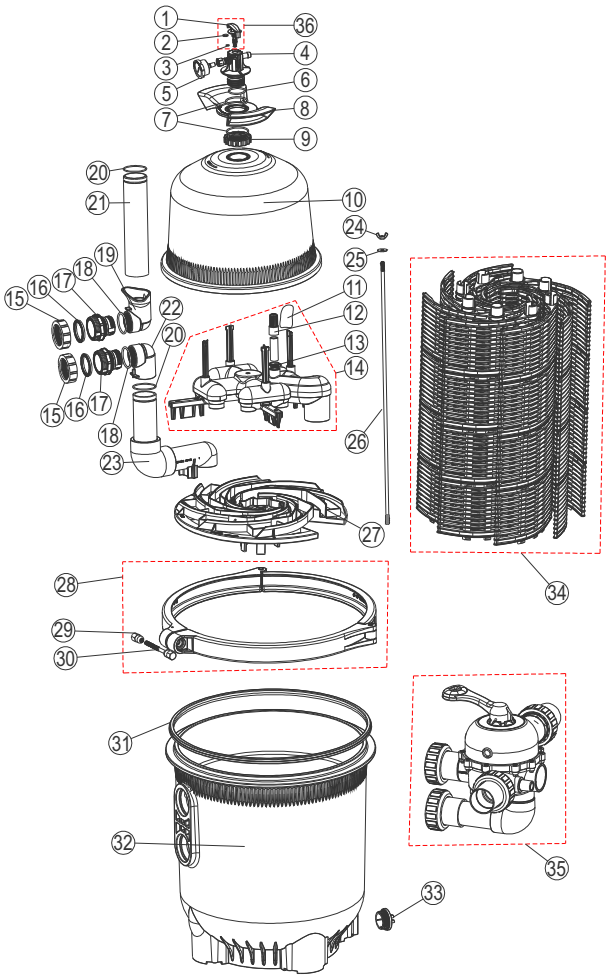
6. TROUBLE SHOOTING

PROBLEM DESCRIPTION	POSSIBLE CAUSES
Low water flow	1. Check the skimmer and pump strainer baskets to ensure they are free from any debris. 2. Check the intake and discharge lines for any potential restrictions. 3. Check any air leak in intake line which bubbles returning to pool. 4. Run backwash or cleaning.
Short Filter cycles	1. Check the pool for any signs of algae and perform a super-chlorination if necessary. 2. Ensure that the chlorine and pH levels fall within the appropriate range and make adjustments as needed.
Pool water remains cloudy	1. When the filter starts, you may notice a momentary "cloud" of dirt, which is a typical of diatomite filters. 2. Monitor and adjust chlorine, pH, and total alkalinity levels as necessary. 3. Verify that the flow rate through the filter meets the required standards. 4. Extend the operating time of the filter for more effective filtration.
Guage pressure reading drop	1. Filter element may be broken. 2. Follow the step: "Removing and Cleaning Element cluster" and check element cluster any damage. Replace the filter element if they are damaged.
Guage pressure remains high after backwash	1. Backwash again and try. 2. Clean or replace the filter element if they are excessively dirty or damaged.

6.1 WATER CHEMISTRY

SUGGESTED POOL CHEMISTRY LEVELS	
pH LEVEL	7.2 to 7.8
TOTAL ALKALINITY	80 to 120 ppm
CALCIUM HARDNESS	200 to 400 ppm
COMBINED CHLORINE	0.2 ppm Maximum
CHLORINE (STABILIZED)	1.0 to 3.0 ppm
CHLORINE STABILIZER (Cyanuric Acid)	60 to 80 ppm

7. SPARE PART LIST



Key No.	Part No.	Description	QTY
1	550178232	Air release valve Handle	1
2	111040077	O-ring d14.3×2.5	1
3	111040078	O-ring d6×3.5	1
4	550178233	Air Release valve	1
5	117038519	Pressure gauge 60psi,plastic casing	1
6	111040079	O-ring d50×5	1
7	111000048	O-ring D76×d65.6x4.8	2
8	430138225	Handle	1
9	550058225	Handle nut	1
10	550188173	IDE36 upper body	1
	550188174	IDE48 upper body	1
	550188175	IDE60 upper body	1
	550188176	IDE72 upper body	1
11	178701	Filter bag	1
12	4109000749	Air release vent	1
13	108081847	Hose Clamp 19-44mm	1
14	E220101	Element upper holder for IDE36	1
	E220102	Element upper holder for IDE48	1
	E220103	Element upper holder for IDE60	1
	E220104	Element upper holder for IDE72	1
15	430178159	Union Nut 2" 90	2
16	111040071	O-ring D77Xd62X8	2
17	430248177	Outer thread connector	2
18	111040081	O-ring d63.5×5.3	2

Key No.	Part No.	Description	QTY
19	550128230	Inlet adaptor	1
20	111040080	O-ring d50.5×2.5	2
21	1070410055	PVC Pipe 2inchx112mm for IDE36	1
	1070410056	PVC Pipe 2inchx264mm for DE48	1
	1070410057	PVC Pipe 2inchx416mm for IDE60	1
	1070410058	PVC Pipe 2inchx568mm for IDE72	1
22	550128231	Outlet adaptor	1
23	E220105	Elbow assemble	1
24	112303591	Wing Nut	1
25	112010174	Washer	1
26	5900510060	Stainless steel screw IDE36	1
	5900510061	Stainless steel screw IDE48	1
	5900510062	Stainless steel screw IDE60	1
	5900510063	Stainless steel screw IDE72	1
27	5500010033	Element holder lower	1
28	E140404	Ring clamp assemble Kit	1
29	112030022	Nut 3/8in	1
30	112000083	Screw 3/8in	1
31	111000043	Rubber washer D526×d502x14	1
32	550228177	Bottom Body	1
33	E160553	Drain plug with O-ring	1
34	92201001	Assembly set of IDE36 Element	1set (7+1)
	92201002	Assembly set of IDE48 Element	1set (7+1)
	92201003	Assembly set of IDE60 Element	1set (7+1)
	92201004	Assembly set of IDE72 Element	1set (7+1)
35	91902540	6-Way Multiport Valve for IDE Filter	1
36	E140406	Handle Air relief valve with O-rings	1

8. TERMS OF THE WARRANTY

As original purchaser of this equipment have purchased from Emaux Water Technology Co Ltd, through Authorized International Distributor or Dealer, warrants its products free from defects in materials and workmanship under normal use during warranty period. The warranty period begins on the day of purchase and extends only to the original purchaser. It is not transferable to anyone who subsequently purchases the product from you. It excludes all expendable parts.
During the warranty period, Emaux authorized reseller will repair or replace defective parts with new parts or, at the option of Emaux, serviceable used parts that are equivalent or superior to new parts in performance.

This Limited Warranty extends only to products purchased from Emaux authorized reseller. Does not extend to any product that has been damaged or rendered defective.
(a) as a result of accident, misuse or abuse;
(b) as a result of natural disaster;
(c) by operation outside the usage parameters stated herein;
(d) by the use of parts not manufactured or sold by Emaux;
(e) by modification of the product;
(f) as a result of war or terrorist attack; or
(g) as a result of service by anyone other than Emaux authorized reseller or authorized agent.

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