



Syren

Self-Priming Centrifugal Pumps for Swimming Pools (2.0–4.0 HP,
Three-Phase)

Installation, Operation & Maintenance Manual

Oxygen codes: 102.01.136 / 102.01.137 / 102.01.138 / 102.01.138S | Three-phase 400V (2.0 /
3.0 / 4.0 / 4.0 HP S)



Scan for the product page

www.oxygen.gr

Contents

1.	Safety Warnings	3
2.	Package Contents	4
3.	Product Description	4
4.	Technical Specifications	5
5.	Installation	8
6.	Electrical Connection	9
7.	Pump Priming	10
8.	Operation	10
9.	Maintenance	11
10.	Troubleshooting	12
11.	Spare Parts & Accessories	12
12.	Warranty & Contact	13

1. Safety Warnings

CAUTION — BEFORE INSTALLATION

Read this entire manual carefully before installing or commissioning the pump. Failure to follow the safety instructions can lead to serious injury, property damage or death. Keep this manual in a safe place for future reference.

ELECTRICAL HAZARD

Before any installation or maintenance work, disconnect the power supply. Electrical connection must be carried out only by a qualified electrician in accordance with the national wiring rules. The pump must be protected by a residual-current device (RCD/GFCI) with a rated leakage current ≤ 30 mA. Check the correct earthing before start-up.

OPERATION WITH WATER

The pump is intended exclusively for clean pool water, with a maximum temperature of 50°C. Do NOT run the pump without water (dry running) — this will irreparably destroy the mechanical seal. Always make sure the pre-filter is filled with water before start-up.

MOVING PARTS

Before opening the pre-filter lid or working on the pump, stop the motor completely, disconnect the supply and close the suction and discharge valves. Allow the water to cool if the pump was recently running. Never insert your hands or objects into the impeller area.

EARTHING — MANDATORY

The pump must be correctly earthed via the supply socket or directly to an earth terminal. Check the earthing continuity with a calibrated instrument before the first start-up. Improper earthing can cause fatal electric shock.

The product complies with EN 60335-2-41 (Household and similar electrical appliances — Particular requirements for pumps). For warranty terms, see Section 12 — Warranty & Contact.

Authorised Users

This appliance may be used by children aged at least 8 years and by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, provided they are supervised or have been instructed on the safe use of the appliance and understand the associated hazards. Children must not play with the appliance. Cleaning and user maintenance must not be carried out by children without supervision.

2. Package Contents

On delivery, check that all components are present and free of visible damage. Otherwise, contact your Oxygen distributor immediately.

- 1× Syren pump with integrated pre-filter
- 2× Threaded suction/discharge unions (2.5" or 4.5" depending on the model)
- 2× O-ring seals
- 1× Key for the pre-filter lid
- 1× User manual (this document)
- 1× Oxygen warranty certificate

3. Product Description

The Syren series is Oxygen's range of self-priming centrifugal pumps for professional and residential pool applications. Built with a housing of high-strength thermoplastic materials and equipped with a transparent high-capacity pre-filter, the Syren pumps offer reliability, high hydraulic performance and a long service life.

Key Features

- Self-priming up to a 2.5-metre suction lift
- Transparent high-capacity pre-filter — direct visual inspection of the basket
- Three-phase 400V/50Hz motor with Class-F insulation and IP55 protection
- Hand-tightened pre-filter lid — no tools required
- Full-drain function for easy winter protection
- Corrosion-resistant construction — suitable for chlorinated water
- 2.5" FBT or 4.5" BUTT connections for installation flexibility

4. Technical Specifications

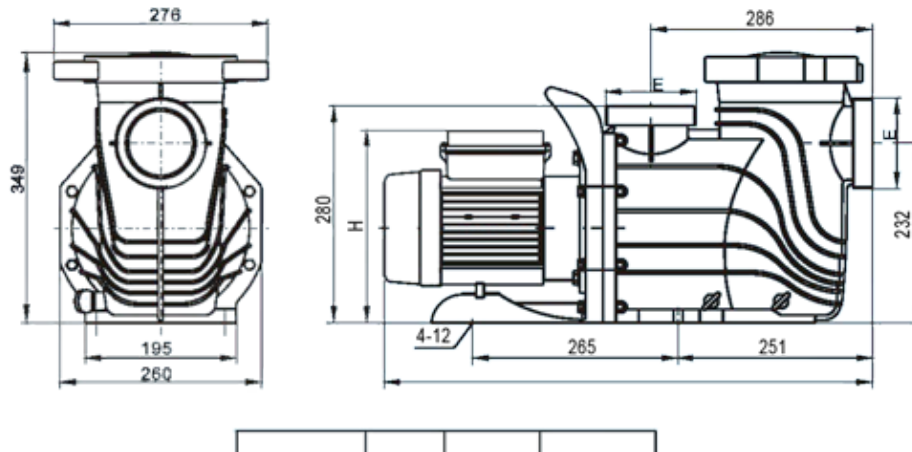
Comparison Table — Available Variants

Oxygen code	Power (HP)	Power (kW)	Q max (m³/h)	H max (m)
102.01.136	2.0	1.5	33.6	20
102.01.137	3.0	2.2	42.9	22
102.01.138	4.0	3.0	48.0	23
102.01.138S	4.0	3.0	58.8	19

Common Characteristics

Pump type	Self-priming centrifugal with pre-filter
Supply voltage	400V / Three-phase / 50Hz
Insulation class	F
IP protection	IP55
Water temperature	4°C – 50°C
Ambient temperature	-10°C – +50°C
Maximum humidity	95% RH
Max. suction lift	2.5 m
Housing material	Glass-fibre reinforced thermoplastic
Impeller material	Durable techno-polymer
Shaft sealing	Mechanical seal, ceramic/graphite
Connections	2.5" FBT or 4.5" BUTT
Net weight	≈ 18-22 kg (per variant)

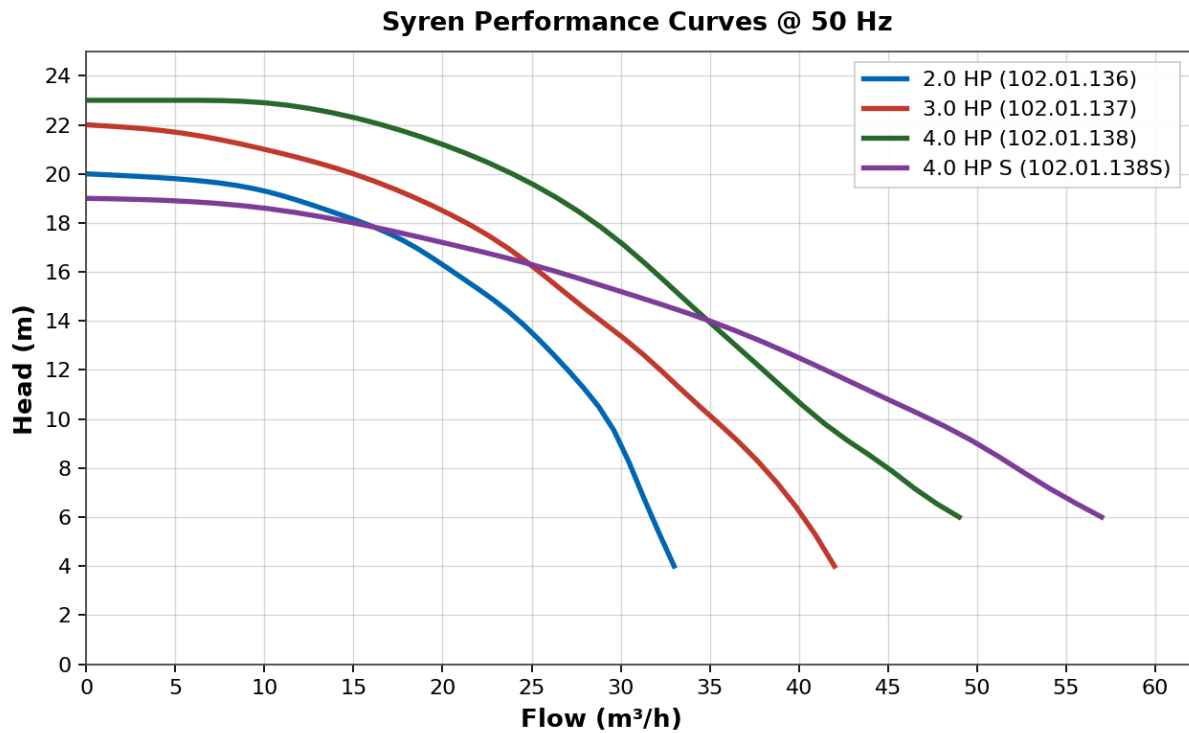
Dimensions



Model	L (mm)	H (mm)	E
2.0 HP	625	236.5	2.5"FBT
3.0 HP	642	254	or
4.0 HP	656	257	4.5"BUTT
4.0 HP S	656	257	

Syren external dimensions (mm) — front view, side view and outlets

Performance Curves



Q-H curves for the four Syren variants at 50Hz

Select the Syren variant according to the pool volume and the hydraulic losses of the installation. For typical filtration, a full turnover of the water every 4-6 hours is recommended.

5. Installation

5.1 Location

Install the pump on a flat, horizontal surface able to support the weight of the pump plus the water in the pre-filter

Ensure adequate ventilation — a minimum clear distance of 30 cm around the motor

The pump must be installed in a dry area, protected from flooding and direct splashing

The vertical distance between the pump and the water surface must be ≤ 2.5 m

Recommended horizontal distance from the pool: ≤ 10 m

5.2 Mounting

Fix the pump to the base using 4 M8 screws (Ø10 mm) through the holes provided in the pump base. Tighten evenly to avoid stressing the housing. Use rubber pads between the base and the support to reduce vibration and noise.

5.3 Hydraulic Pipework

Minimum recommended diameter: equal to or greater than the diameter of the pump connections

Avoid sharp 90° bends — use 2× 45° elbows to reduce losses

The suction pipe must have a continuous upward slope towards the pump (no low points)

Use PTFE (Teflon) tape on all threaded connections — do not over-tighten

Fit isolation valves on the suction and discharge for easy maintenance

Check the tightness of all connections before the first start-up

AVOID MECHANICAL STRESS

The pipework must not transfer any mechanical stress to the pump connections. Support the weight of the pipework with independent supports or clamps. Excessive stress can crack the pump housing and void the warranty.

6. Electrical Connection

MANDATORY — QUALIFIED ELECTRICIAN

The electrical connection must be carried out only by a qualified electrician, in accordance with national and local regulations. Check the compatibility of the mains voltage with the motor nameplate before connection.

6.1 Supply Requirements

Voltage	400V three-phase $\pm 5\%$
Frequency	50 Hz
Permitted voltage variation	$\pm 10\%$
Recommended protection	Magneto-thermal breaker per the table
Residual-current protection	RCD ≤ 30 mA
Cable type	H07RN-F (or equivalent), 4×1.5 mm ² minimum
Maximum cable length	30 m without voltage drop

6.2 Connection Diagram

Fully disconnect the supply before any intervention

Open the motor terminal box with a Phillips screwdriver

Connect the 3 phases (L1/U, L2/V, L3/W) to the motor terminals

Connect the protective conductor (PE) to the green-yellow terminal with the earth symbol

Check the rotation direction after the first start — the arrow on the motor shows the correct direction

If the rotation is reversed, swap 2 phases (e.g. L1 with L2) in the terminal box

CHECK THE ROTATION DIRECTION

Operating with the wrong rotation direction causes a loss of priming, reduced flow and motor overheating. The check must be done within the first 5 seconds of operation — stop immediately if you observe reverse rotation.

7. Pump Priming

Correct priming of the pump is essential for smooth operation. The Syren pumps are self-priming, but require an initial fill with water to create the necessary vacuum.

Priming Procedure

- Make sure the pump is switched off and electrically disconnected
- Open the discharge isolation valve
- Unscrew the transparent pre-filter lid by hand
- Fill the pre-filter with clean water until the level reaches the base of the suction union
- Check the lid O-ring — it must be clean, intact and lightly greased with silicone petroleum jelly
- Refit the lid and tighten it by hand to the stop (no tools)
- Open the suction isolation valve
- Reconnect the supply and start the pump
- The pump will prime within 1-3 minutes — check for a steady flow at the discharge
- If the pump does not prime within 5 minutes, stop and repeat the procedure

PROHIBITED — DRY RUNNING

Never run the pump without water in the pre-filter. Dry running destroys the mechanical seal in under 60 seconds and voids the warranty. If the pump loses its prime, stop immediately and check the tightness of the suction.

8. Operation

8.1 Daily Start-Up

- Check the water level in the pool — it must be above the suction inlet
- Visually check the pre-filter — the basket must not be clogged with leaves or debris
- Open the suction and discharge isolation valves
- Start the pump from the main switch
- Observe the pressure gauge (if fitted) — normal pressure: 0.6-1.2 bar

8.2 Operating Recommendations

- Recommended continuous operation: 6-12 hours/day during the summer period
- In winter: 2-4 hours/day to maintain water quality
- Avoid repeated starts/stops — a minimum of 10 minutes between cycles
- For pools with a heating system, synchronise operation with the heat pump
- Check the pre-filter basket weekly and clean it when required

To reduce consumption, schedule the pump operation with a timer/automation during off-peak tariff hours. Nevertheless, ensure at least 1 full filtration cycle per day (pool volume ÷ Q max).

9. Maintenance

9.1 Weekly Maintenance

- Check the pre-filter basket — remove accumulated leaves and debris
- Clean the basket with clean water and a soft brush
- Check the lid O-ring — lubricate with silicone petroleum jelly if needed
- Visually check the tightness of the connections and the absence of leaks

9.2 Monthly Maintenance

- Check the operating pressure — it must not increase relative to the initial value
- Inspect the mechanical seal for signs of wear (noise, vibration)
- Check the tightness of the electrical connections (with the pump switched off and disconnected)
- Clean the motor ventilation openings of dust and dirt

9.3 Seasonal Maintenance (Winter Protection)

- In areas with frost, fully drain the pump before the cold period
- Unscrew the drain plugs from the pump base and the pre-filter
- Let the water drain completely — a minimum of 30 minutes
- Cover the pump with a waterproof cover for protection
- When restarting in spring, follow the priming procedure in Section 7

FROST HAZARD

Water remaining in the pump in frost conditions will crack the housing and void the warranty. Full draining before winter is mandatory in all areas with temperatures below 0°C.

10. Troubleshooting

Symptom	Possible cause	Solution
The pump does not start	No voltage	Check the switch and the fuses
The pump does not start	Damaged cable	Replace the power cable
The pump does not start	Thermal relay tripped	Wait for it to cool, reset the relay
The pump does not prime	Pre-filter without water	Repeat the priming procedure
The pump does not prime	Loss of suction tightness	Check the seals and unions
The pump does not prime	Suction lift too high (>2.5m)	Reduce the vertical distance
Low flow	Clogged pre-filter basket	Clean the basket of dirt
Low flow	Wrong rotation direction (three-phase)	Swap 2 phases in the terminal box
Low flow	Saturated sand filter	Perform a backwash
Low flow	Air in the system	Bleed the installation, check the tightness
Unusual noise	Cavitation (air suction)	Check the water level and the tightness
Unusual noise	Worn motor bearings	Replace the bearings (authorised service)
Unusual noise	Foreign object in the impeller	Stop, open and clean the impeller
Excessive vibration	Incorrect fixing to the base	Tighten the screws, add pads
Water leak	Worn mechanical seal	Replace the seal (authorised service)
Water leak	Worn lid O-ring	Replace the O-ring
Motor overheating	Voltage below 360V	Check the supply with a multimeter
Motor overheating	Blocked ventilation openings	Clean the motor ventilation openings

11. Spare Parts & Accessories

Use only genuine Oxygen spare parts to maintain the warranty and the performance of the pump. For orders, contact the Oxygen service department, quoting your product code.

Commonly Requested Spare Parts

- Pre-filter basket (replace every 2-3 years or on visible wear)
- Pre-filter lid O-ring (annual replacement recommended)
- Mechanical seal (replace every 3-5 years or when leaks appear)
- Transparent pre-filter lid
- Threaded unions 2.5" FBT and 4.5" BUTT
- Silicone petroleum jelly for lubricating the seals

When ordering spare parts, always quote your pump's Oxygen code (e.g. 102.01.137) and the description of the spare part. The service team will send you the correct spare part for the exact model.

12. Warranty & Contact

Warranty Terms

Oxygen provides a 24-month warranty for the Syren pumps, starting from the date of purchase from an authorised distributor. The warranty covers manufacturing defects of the housing, the motor and the electrical components, under conditions of normal use in accordance with this manual.

Exclusions

- Damage from incorrect installation or failure to follow the manual
- Dry running or operation with unsuitable water (incompatible chemicals)
- Damage from frost or operating conditions outside specifications
- Unauthorised interventions or use of non-genuine spare parts
- Normal wear of the mechanical seal and the pre-filter basket
- Damage from external events (lightning, flood, vandalism)

Warranty Claim Procedure

- Contact the Oxygen distributor from whom you purchased the product
- Provide the proof of purchase (invoice) and the product code
- Describe the symptoms and the conditions of use
- The Oxygen service department will respond within 48 working hours

The product complies with Directive 2012/19/EU on waste electrical and electronic equipment (WEEE). Do not dispose of the product with household waste — hand it in at an authorised collection point at the end of its useful life.

Contact Information

Company	OXYGON — Karavasilis Stergios & Sia EE
Headquarters	Karamaouna St., N. Rysio, 57001, Thessaloniki, Greece
Phone	+30 2312 208 240
Mobile	+30 6945 157 589
Email	info@oxygen.gr
Website	www.oxygen.gr
Romania subsidiary	OXYGON SRL — Str. Constelatiei 1 Bis, Voluntari, 077191, Bucharest
Romania Phone	+40 753 380 848
Romania Email	info@oxygen.ro

ISO Certifications

ISO 9001:2015 Quality Management <i>EUROCERT</i>	ISO 14001:2015 Environmental Management <i>BQV</i>	ISO 45001:2018 Health & Safety <i>BQV</i>
ISO 22301:2019 Business Continuity <i>EUROCERT</i>	ISO 46001:2019 Water Efficiency <i>BQV</i>	

Recycling of materials must be carried out in accordance with applicable regulations.