



Viron

High-Flow Pool Pump Series (4-25 HP, Three-Phase) Installation, Operation & Maintenance Manual

Oxygen codes: 102.01.124 / 125 / 126 / 127 / 139 / 128 / 129 / 130 | (4.0 / 5.0 / 7.5 / 10 / 12.5 / 15 / 20 / 25 HP)



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1. Safety Warnings

CAUTION — BEFORE INSTALLATION

Read this entire manual carefully before installing or operating the pump. Failure to follow the safety instructions can cause 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. The electrical connection of the three-phase pumps must be carried out only by a qualified electrician in accordance with the national wiring rules. The circuit must be protected by a residual-current device (RCD) with a rated leakage current ≤ 30 mA and by a thermal-magnetic motor-protection breaker set to 1.5-2 times the rated current.

EARTHING REQUIRED

The pump must be connected to a reliably earthed power supply. Wiring must not be laid underground without suitable protection. If the power cord is damaged, it must be replaced immediately by a qualified technician (type-Y attachment) to avoid a hazard. Extension leads are not permitted on the power supply cable.

WATER SAFETY & DRY RUNNING

Never run the pump without water. Dry running destroys the mechanical seal and the impeller and voids the warranty. Make sure the pump body and the pre-filter basket are completely filled with water before start-up. Do not load the pump with flammable or explosive liquids.

INTENDED USE

The Viron series is intended for the circulation and filtration of water in large pools, water parks, aquariums and aquaculture installations. Use with chemicals, hydrocarbons, sludge, solvents, flammable liquids or with water above 50°C is prohibited. Do not touch moving parts during operation. The appliance may be used by children aged ≥ 8 and persons with reduced abilities only under supervision and appropriate instruction.

The product complies with EN 60335-2-41 and with the European Directives 2014/35/EU (Low Voltage) and 2014/30/EU (Electromagnetic Compatibility). For warranty terms, see Section 12 — Warranty & Contact.

2. Package Contents

On delivery, carefully check that the package includes all of the following. In case of missing items or transport damage, contact the Oxygen Service Department within 30 days.

- Viron pool pump with integrated pre-filter and support base
- Pre-filter lid with sealing gasket
- Pre-filter basket (large-particle strainer)
- DN150 (6") connection flanges for inlet/outlet, with gaskets and bolts
- Installation and operation manual (this document)
- Oxygen warranty certificate

3. General Product Description

The Viron series consists of high-flow centrifugal pumps designed for water circulation and filtration systems in large pools, water parks, large aquariums and aquaculture installations. All hydraulic parts of the body are made of high-strength thermoplastic with strong corrosion resistance. The design, which separates the motor shaft from the water, ensures safe and reliable operation.

Key Features

- Integrated high-capacity pre-filter with debris-collection basket
- High-strength thermoplastic body, corrosion-resistant
- Motor shaft separated from the water, for safety and reliability
- Mechanical seal graphite / silicon carbide / Viton / SUS316, durable and antiseptic
- Large DN150 (6") flanged connections for very high flow rates
- Three-phase 400V motor, power range 4-25 HP
- Plastic support base as standard (cast-aluminium base also available)
- Operation with water up to 50°C

4. Technical Specifications

The following values apply to operation at 50 Hz and are taken from the series' factory data. The maximum flow (Qmax) is measured at zero head and the maximum head (Hmax) at zero flow. 60 Hz versions are available on request, with different performance.

Viron Series Variants (50 Hz, Three-Phase 400V)

Oxygen code	Power (HP)	Power (kW)	Qmax (m ³ /h)	Hmax (m)
102.01.124	4.0	3.0	89	16
102.01.125	5.0	4.0	101	17
102.01.126	7.5	5.5	110	22
102.01.127	10	7.5	154	22
102.01.139	12.5	9.2	175	23
102.01.128	15	11	180	26
102.01.129	20	15	186	29
102.01.130	25	18.5	198	31

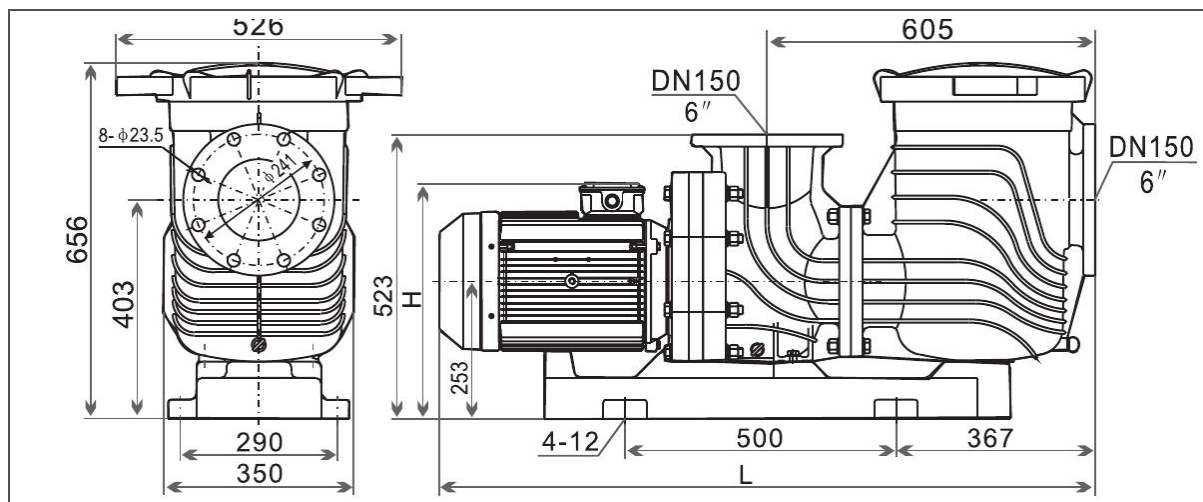
Common Characteristics

Pump type	High-flow centrifugal with integrated pre-filter
Power supply	400V (3~) / 50 Hz (three-phase) — tolerance ±10%
Frequency	50 Hz (60 Hz version available on request)
Inlet/outlet connections	DN150 (6") flanges
Body material	High-strength thermoplastic, corrosion-resistant
Mechanical seal	Graphite / Silicon Carbide / Viton / SUS316
Support base	Plastic (standard) — cast-aluminium base also available
Maximum water temperature	50°C (range 4°C - 50°C)
Storage temperature	-10°C to +50°C
Ambient relative humidity	≤ 95%
Compliance standard	EN 60335-2-41

All Viron series models (4–25 HP) are available exclusively in a three-phase 400V version. The Qmax values are derived from the factory performance table (converted from L/min to m³/h).

5. Dimensions

Dimensions of the Viron series in millimetres (mm) — plastic-base version. The overall length (L) and height (H) vary per power variant. A cast-aluminium-base version is also available with corresponding dimensions.



Viron pump dimensions — front and side view (plastic base). Connections DN150 (6").

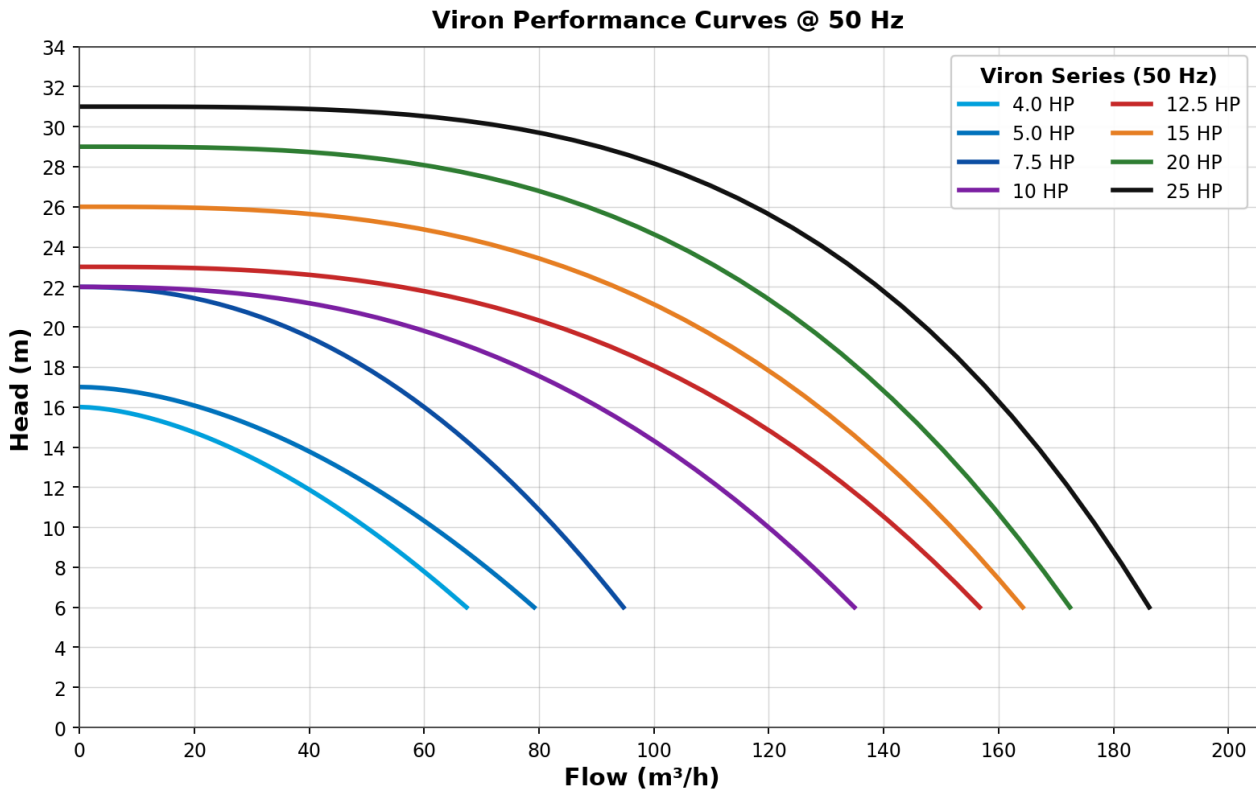
Overall Length (L) & Height (H) per Variant

Power (HP)	L — Length (mm)	H (mm)
4.0 / 5.0 / 7.5 / 10	1155	414
12.5	1193	414
15	1210	433
20 / 25	1251	433

Fixed dimensions (all variants): flange width 526 mm, base 350×290 mm, overall height 656 mm, motor shaft at a height of 253 mm. Suction & discharge connections DN150 (6").

6. Performance Curves

The curves below show the relationship between head (H) and flow (Q) for each variant of the Viron series at 50 Hz. The curves are derived from the factory performance table/chart and are indicative — actual performance depends on the installation (pipe length and diameter, bends, valves, filter cleanliness). The useful operating range is shown down to a head of 6 m.



Q-H curves of the Viron series at 50 Hz (8 variants, 4-25 HP).

7. Installation

Mounting Location

The pump is installed horizontally, as close as possible to and below the pool water level.
The installation area must be well ventilated, dry and protected from sun and rain.
Fix the pump with bolts through the base holes to avoid noise and vibration.
The mounting base must be flat, stable and able to support the weight of the pump.

Hydraulic Connection

Fit anti-vibration couplings (flexible connectors) on the suction and discharge to reduce vibration and noise.

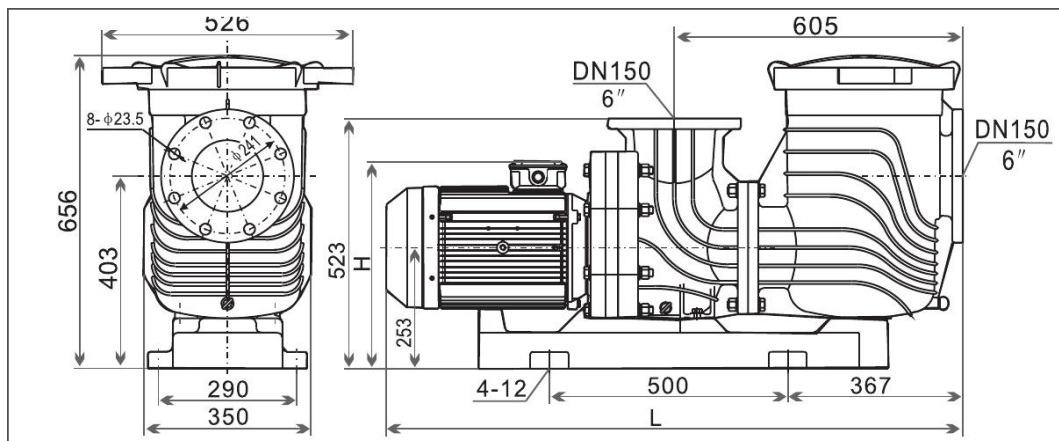
The suction pipework should be as short as possible (a section shorter than 3 m) and fitted with a thermoplastic foot valve.

Pipes and fittings must be supported independently — never on the pump body.

Use a suitable sealant for PVC pipes; do not let sealant enter the inside of the pump.

Tighten the inlet/outlet flange bolts with moderate force (just enough to prevent dripping).

Over-tightening causes damage.



Position of the DN150 (6") suction and discharge flanges.

8. Electrical Connection

QUALIFIED ELECTRICIAN ONLY

The electrical installation must have an all-pole disconnection device (contact opening ≥ 3 mm) and must comply with national regulations. Make sure the mains voltage and frequency match the motor nameplate (400V / 50 Hz, three-phase).

Connection Requirements

Supply through a residual-current device (RCD) with a rated leakage current ≤ 30 mA.

Thermal-magnetic motor protection set to 1.5–2 times the rated current (as on the nameplate).

Correct connection of the earth conductor — mandatory; equipotential bonding of pool/pump with a 2.5–6 mm² conductor.

The power cable must be type H07RN-F (flexible, oil/weather-resistant). The cross-section is determined by the qualified electrician according to the motor rated current, the line length and the national regulations.

Check the motor rotation direction according to the mark on the fan cover (brief start test). If the direction is wrong, swap two phases.

Do not use an extension lead to power the pump.

9. Pre-Start Checks & Priming

Pre-Start Checks

Make sure the pump shaft rotates freely.

Check that the mains voltage and frequency match the nameplate (400V / 50 Hz).

Check the correct motor rotation direction with a brief start.

Make sure all hydraulic connections (DN150 flanges) are watertight.

Make sure the pump will not run dry.

Priming Procedure

Remove the pre-filter lid.

Fill the body and pre-filter with water up to the port level.

Refit the basket and the lid, with the gasket correctly seated.

Start the pump; it will deliver within a few minutes. If there is no flow, stop immediately and find the cause.

Ensure the circuit is bled of air on the first start.

10. Maintenance

DISCONNECT BEFORE MAINTENANCE

Before any maintenance or cleaning work, disconnect the pump from the power supply and release the circuit pressure. Mark the panel with the notice "Under maintenance — do not switch on".

Routine Maintenance

Clean the pre-filter basket regularly of leaves and particles.

Check the lid gasket and lubricate it with silicone when needed.

Periodically check the system for leaks at the flanges and connections.

Under normal use the pump requires no special maintenance; during prolonged inactivity disassemble, clean and store it in a dry, ventilated place.

Winterization

In cold periods, fully drain the water from the pump body to avoid frost damage.

Clean and store in a dry, well-ventilated place; do not cover the motor with plastic or impermeable materials.

Work on the wiring is carried out only by a qualified electrician with the power disconnected.

11. Troubleshooting

The table below summarises the most common problems and checks. If the problem persists, contact a qualified technician or the Oxygen Service Department.

Problem	Possible Cause	Check / Solution
The pump does not start	No power supply	Check the fuse/breaker, the residual-current device (RCD) and the power connection.
The pump does not start	Motor protection tripped	Let the motor cool down; check for overload or a blocked shaft.
The pump does not start	Blocked shaft	Disconnect the power and check whether the shaft rotates freely.
The motor hums but does not turn	Phase loss or wrong voltage	Check the voltage and all three phases at the panel.
The pump does not draw	Priming not performed	Fill the pre-filter with water and repeat the priming procedure.
The pump does not draw	Air entering the suction	Check the tightness of the flanges, pre-filter lid and suction pipe; bleed the air.
Low flow	Clogged basket or filter	Clean the pre-filter basket and check the sand filter.
Low flow	Partly closed valve or restriction	Fully open the valves and check for restrictions/bends in the pipes.
Low flow	Small or blocked suction inlet	Check the cross-section and cleanliness of the suction pipe.
Low flow / pressure	Low supply voltage	Check the mains voltage; avoid cable extensions.
Abnormal noise / vibration	Cavitation or loose mounting	Ensure adequate suction and bleeding; tighten the base and anti-vibration couplings.
Abnormal noise	Incorrect installation / blocked inlet	Check the suction pipework and bleed the circuit.
Water leak	Worn O-ring or mechanical seal	Replace the gasket; for the mechanical seal, contact a technician.
The pump stops periodically	Overheating / protection tripping	Improve room ventilation and check for overload or phase loss.

12. Warranty & Contact

Oxygen provides a two (2) year warranty from the date of purchase for all manufacturing components of the Viron series, provided that installation is carried out correctly in accordance with this manual and with the company's warranty terms. Any defects must be reported within 30 days of their discovery.

Excluded from the warranty

- Wear from dry running.
- Damage from exceeding the maximum water temperature (>50°C).
- Damage from incorrect installation or electrical connection outside specifications.
- Damage from chemical attack (e.g. over-chlorination, non-approved chemicals).
- Frost damage (incorrect winterization).
- Normal wear of consumables (mechanical seal, bearings, O-rings, pre-filter basket).

Contact Information

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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.