

VFe Manual

VaporFlame

Designed & Built



Need Help?





VFE User Manual

VaporFlame® Effect Utility Engine

1. Getting Started

What's Included

- 1 × VFE VaporFlame Engine
- Integrated power cord
- Integrated air/water output hose
- VaporFlame bleeder hose
- VaporFlame blow-off valve
- VFE User Manual

Product Overview

The **VFE (VaporFlame Engine)** is a portable air and water supply system designed to power VaporFlame effect units.

The VFE serves as the **utility engine** for the VaporFlame system, supplying air and water to VaporFlame effect heads including the VF6 and VF8 series.

The system integrates an **air compressor, water pump, and water reservoir** inside a durable rolling road case. This allows the entire support system required for VaporFlame effects to be transported, shipped, and deployed quickly in production environments.

The VFE provides sufficient air and water capacity to support multiple VaporFlame effect heads from a single portable unit.

Typical capacity:

- **Up to 4 × VF6c or VF6s units**
- **Up to 2 × VF8c units**



Unpacking and Inspection

Carefully inspect the unit upon receipt.

Although the VFE is designed for touring and production environments, damage may occur during shipping. Verify that the case and internal components show no visible signs of damage.

Retain the original packing materials. If the unit must be returned for service, it should be shipped using the original packaging.

Power Requirements

The VFE must be connected **directly to a power circuit** and must not be operated on a dimmer or rheostat-controlled circuit.

Power requirements:

- **110 VAC / 60 Hz**
- **16 amps**

Ensure the supplied voltage matches these specifications. Supplying incorrect voltage may result in permanent damage to the unit.

Support

For technical support, service inquiries, or updated documentation, visit:

www.vaporflame.net

Disclaimer

Specifications and information contained in this manual are subject to change without notice. VaporFlame Inc. assumes no responsibility for errors or omissions in this document. The latest version of this manual can be downloaded from www.vaporflame.net.



2. Safety Instructions

Retain this manual for future reference. If transferring ownership of the unit, include this manual with the product.

Electrical Safety

- Verify the input voltage matches the unit specifications.
- Never connect the VFE to a dimmer or rheostat-controlled circuit.
- Do not operate the unit with damaged power cables.
- Do not expose electrical components to water.

Water System Safety

- Use **clean potable water only**.
- Do not introduce chemicals or additives other than recommended cleaning solutions.
- Prevent water from entering the air line.

Storage and Sanitation

Water left inside the system for extended periods may develop odor or bacterial growth.

Recommended maintenance:

- Drain the water tank before storage.
- Add **1–2 oz of white vinegar per tank** to help maintain clean internal water lines.

Ventilation

The VFE must be installed in a location with adequate airflow.

- Do not block external ventilation fans.
- Do not obstruct the cable pass-through door during operation.
- Do not operate the system with additional padding or coverings.



Operating Orientation

The VFE must be operated in a **lid-up orientation**.

Temperature Limits

- Minimum operating temperature: **20°F (-6°C)**
- Maximum operating temperature: **104°F (40°C)**

Do not allow water to remain inside the system if temperatures may drop below **40°F (4°C)**.

Service

There are **no user-serviceable internal components**. Do not open internal housings or attempt repairs.

If service is required, contact VaporFlame technical support.

3. Meet the VFE

Main Features

- Integrated **2 HP air compressor**
- **10-gallon air tank**
- **5.3 CFM @ 90 PSI**
- Sound-dampened compressor enclosure
- **58 dB operating noise**
- Integrated **5 gallon water tank**
- **5.5 GPM water pump**
- Touring-grade rolling road case
- Integrated air and water output connectors



System Description

The VFE serves as the **central utility engine** for VaporFlame effects.

The system combines an air compressor and water pump in a single portable unit, allowing VaporFlame effects to be deployed without requiring separate air or water infrastructure.

All components are mounted inside a durable road case designed for:

- Truck transport
- Touring productions
- Event installations
- Rapid load-in and load-out

The air compressor is housed inside a **sound-dampening cabinet** that reduces operational noise while maintaining airflow for cooling.

Case Design

The road case features:

- Tilt-and-roll transport handle
- Top lid for accessing the water tank and air system
- Cable pass-through door for air, water, and power connections

The case may be operated with the lid closed to reduce operational noise.

The water tank must be **empty during transport or long-term storage**.

4. Setup

Positioning the VFE

Place the VFE on a **level surface**.

The unit must operate in a **lid-up orientation**.



Ensure adequate airflow around the case and keep ventilation openings clear.

Filling the Water Tank

1. Disconnect the quick-release connector from the water tank.
2. Remove the tank from the road case.
3. Inspect the tank to ensure it is free of debris.
4. Fill the tank with **clean potable water**.
5. Add **1–2 oz of white vinegar** if desired for sanitation.
6. Replace the tank and reconnect the quick-release connector.

Tank capacity: **5 gallons**

Powering the Engine

Connect the integrated power cord to an appropriate electrical circuit.

Power requirements:

- **110 VAC**
- **60 Hz**
- **16 amps**

This single power connection supplies the compressor and pump systems.

Air Compressor Operation

Turn the compressor power switch from **OFF** to **AUTO**.

Allow the compressor tank to reach operating pressure before activating VaporFlame effect units.

Use the pressure regulator to set the appropriate air pressure for the connected VaporFlame fixtures.



Refer to the **fixture manual** for correct pressure settings.

Connecting VaporFlame Units

Connect VaporFlame air/water hoses between the VFE and the effect heads.

The VFE uses **paired valved connectors** to supply air and water simultaneously.

These connectors help prevent leaks when disconnected.

Priming the Water System

Before operating the system:

1. Connect the **VaporFlame Bleeder Valve** to the water line.
2. Run the pump to remove air from the water system.
3. Allow water to flow until a **steady stream without air pockets** is observed.
4. Disconnect the bleeder valve.

The system is now primed and ready for use.

5. Shutdown and Storage

Before storing the system:

1. Disconnect VaporFlame effect units.
2. Install the **VaporFlame Blow-Off Valve** between the engine and the hoses.
3. Use compressed air to clear water from the hoses.
4. Attach the bleeder valve at the end of the hose to allow water to exit.
5. Drain the water tank.

Residual air pressure may be released by briefly depressing the hose connectors.

6. Maintenance

Compressor Drain

The air compressor may accumulate moisture in the air tank.

The VFE includes an **automatic drain system** that releases accumulated moisture through a discharge tube.

Ensure the drain tube exits the case through the cable pass-through door so moisture does not accumulate inside the road case.

Water Filter

The VFE includes a debris filter in the water supply line.

Periodically inspect this filter for debris.

The clear filter housing can be removed to clean the filter if needed.

Cleaning the Water System

If the system develops odor or contamination:

1. Mix **2 oz white vinegar with 5 gallons of water**
2. Run the solution through the system for **10–20 minutes**
3. Drain and refill with clean water

7. Warranty

VaporFlame provides a **limited two-year warranty** covering parts and labor for the VFE system when operated under normal conditions.

Warranty service requires the unit to be shipped to VaporFlame for evaluation.

- Shipping to VaporFlame is the responsibility of the owner.



- If the issue is determined to be covered under warranty, repairs will be performed and the unit returned at VaporFlame's expense.
- Non-warranty repairs may be performed for time and materials with customer approval.

Third-party components such as compressors and pumps may carry separate manufacturer warranties.