

# SHOWER VACUUM BREAKER

**DRAINS IN 4 SECONDS AFTER SHUT-OFF**

**VISIBLE DRAINAGE EFFECT.  
INVISIBLE HYGIENE PROTECTION.**

**SHOWER HYGIENE  
UPGRADE  
STARTS AT  
THE SOURCE**

**HIDDEN HYGIENE HERO IN EVERYDAY SHOWERS**



### **AUTOMATIC DRAINAGE**

Quickly drains residual water from the hose after shut-off.



### **REDUCES WATER BUILDUP**

Helps reduce water retention, minimize moisture, and improve hygiene.



**REDUCES  
RESIDUAL WATER  
BUILDUP  
IMPROVES  
HYGIENE QUALITY**

**EXTENDS EQUIPMENT LIFE**



### **FAST DRAINAGE**

Automatically drains residual water from the hose.



### **VACUUM BREAK**

Air enters to break the vacuum inside the hose.



### **REDUCES BUILDUP**

Helps reduce water retention and keep pipes dry.



### **IMPROVES HYGIENE**

Minimizes moisture environment and reduces odor.



### **EXTENDS LIFESPAN**

Reduces soft pressure loss and extends equipment life.

# AFTER YOU TURN OFF THE WATER, THE PROBLEM JUST BEGINS

After every shower, residual water may remain trapped inside the hose for days, creating a **moist environment** and **limescale buildup**, increasing the risk of **bacteria** and **biofilm** formation.



## RESIDUAL WATER REMAINS

Water can remain trapped inside the hose after the water is turned off.



## MOIST ENVIRONMENT

Standing water creates a damp environment where bacteria can easily grow.



## LIMESCALE & DEBRIS BUILDUP

Minerals and impurities accumulate over time, forming limescale and grime.



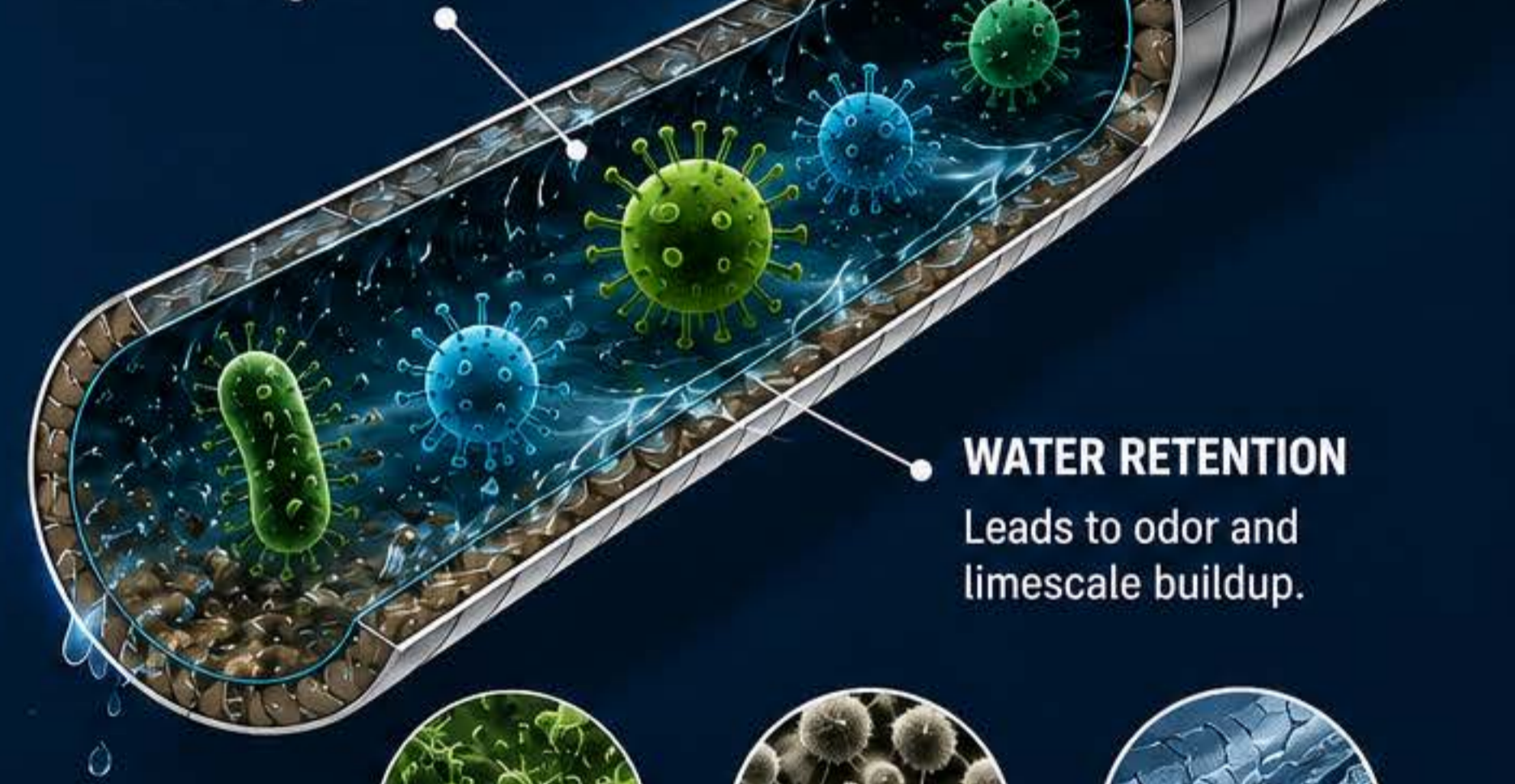
## INCREASED RISK OF BACTERIA & BIOFILM FORMATION

Bacteria multiply and form biofilm, leading to unpleasant odors and hygiene issues.

# WHAT YOU CAN'T SEE CAN AFFECT YOUR HEALTH

## MOISTURE + RESIDUAL WATER

Ideal environment for bacteria and mold to grow.



## WATER RETENTION

Leads to odor and limescale buildup.



BACTERIA GROWTH



BIOFILM FORMATION



LIMESCALE BUILDUP



## THE HIDDEN MOISTURE PROBLEM

Affects your shower quality and health.



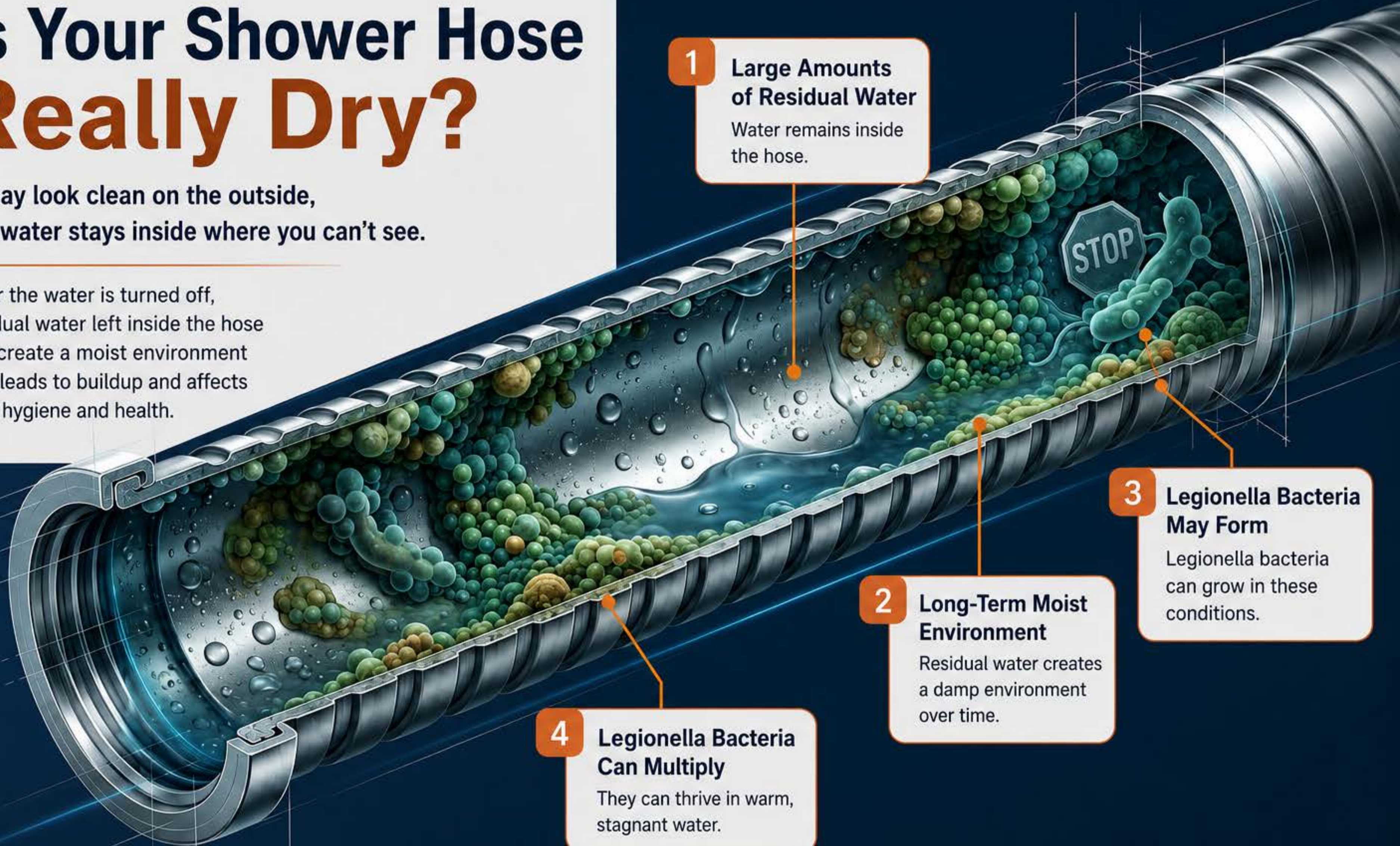
## THE SOLUTION: VACUUM BREAKER DRAINAGE DESIGN

Automatically drains residual water every time you turn off the water, keeping the hose dry and hygienic!

# Is Your Shower Hose Really Dry?

It may look clean on the outside, but water stays inside where you can't see.

After the water is turned off, residual water left inside the hose can create a moist environment that leads to buildup and affects your hygiene and health.



**1 Large Amounts of Residual Water**  
Water remains inside the hose.

**2 Long-Term Moist Environment**  
Residual water creates a damp environment over time.

**3 Legionella Bacteria May Form**  
Legionella bacteria can grow in these conditions.

**4 Legionella Bacteria Can Multiply**  
They can thrive in warm, stagnant water.

# The Chain Risks Caused by Residual Water Retention



## BACTERIA THRIVE IN WARM, STAGNANT WATER

Warm, stagnant water inside the hose creates an ideal environment for Legionella bacteria and other harmful microorganisms to thrive.



## BIOFILM BUILDUP

Long-term moisture encourages biofilm to form on the inner wall of the hose, which can trap dirt and contaminants and lead to secondary pollution.



## ACCELERATED AGING OF EQUIPMENT

Continuous moisture and scale buildup inside the hose accelerate aging and corrosion, increasing the risk of hardening and even cracking or rupture.

# SEE THE DIFFERENCE, SEE WHAT YOU CAN'T.

STANDARD HOSE **VS** ERDEN VACUUM BREAKER DESIGN

## STANDARD SHOWER HOSE



### WATER REMAINS INSIDE

Large amounts of residual water stay in the hose after shut-off.



### WATER DOESN'T DRAIN

Gravity alone cannot remove water completely.



### LONG-TERM MOISTURE

Moist environment fosters bacteria growth and causes odor and hygiene issues.



### WATER REMAINS INSIDE

Water stagnates, difficult to drain and leads to moisture buildup.

# VS

# ERDEN

## VACUUM BREAKER DRAIN VALVE SYSTEM



### AIR AUTOMATICALLY ENTERS

When the water is turned off, air enters through the vacuum breaker into the hose.



### VACUUM QUICKLY FORMS

Relieves internal pressure and restores pipe balance.



### RESIDUAL WATER DRAINS OUT

The vacuum effect pushes residual water out quickly.



### DRY HOSE, BETTER HYGIENE

Keeps the hose dry for a cleaner, safer, and more hygienic shower experience.



### HOSE DRIES FROM WITHIN

Drains fast and keeps the hose dry and hygienic.

# REAL DRAINAGE RESULTS

## WATER SHUTS OFF AT THE SAME TIME

WATER SUPPLY SHUT OFF

### STANDARD SHOWER HOSE

✗ WATER STILL REMAINS INSIDE

💧 WATER DOESN'T DRAIN NATURALLY

🌊 LONG-TERM MOISTURE

🦠 SCALE, DIRT AND BIOFILM BUILDUP

🦠 INCREASES ODOR AND HYGIENE ISSUES



### ERDEN VACUUM BREAKER DRAIN VALVE SYSTEM

✓ DRAINS FAST IN 4 SECONDS

🌬️ AIR AUTOMATICALLY ENTERS  
Air enters from the side, automatically into the hose.

📉 VACUUM QUICKLY RELIEVES  
Relieves internal pressure and restores balance.

💧 WATER DRAINS NATURALLY  
Residual water is expelled by gravity.

🌟 HOSE STAYS DRY  
Keeps the hose dry for better hygiene.



Vs



**DRAINS FAST IN 4 SECONDS!**  
KEEPS THE HOSE DRY AND HYGIENIC!



# HOW IT WORKS (1)

## MODE A NORMAL WATER SUPPLY MODE

When the shower is turned on:



### WATER FLOWS NORMALLY

Water flows continuously to the hand shower.



### STABLE WATER FLOW

Does not affect the original water flow performance.



### NO IMPACT ON USER EXPERIENCE

Does not affect:

- ✓ Water pressure
- ✓ Water output
- ✓ Shower comfort



### NORMAL WATER SUPPLY

During water supply, water flows steadily through the vacuum breaker and is delivered normally to the hand shower.

### WATER FLOW DIAGRAM



Water Supply



Vacuum Breaker



Hand Shower

# HOW IT WORKS (2)

## MODE B

### INSTANT AUTO DRAINING WHEN WATER SHUTS OFF

AFTER THE WATER SUPPLY IS SHUT OFF:

- **PRESSURE RELEASE**  
The pressure inside the pipe drops rapidly.
- **VACUUM BREAK**  
Air automatically enters the hose to break the vacuum.
- **GRAVITY DRAINAGE**  
Residual water is drained out quickly by gravity.
- **HOSE STAYS DRY**  
Helps reduce moisture and inhibits bacterial growth.



# WHAT HAPPENS IN 4 SECONDS

AFTER YOU TURN OFF THE WATER

**1** WATER SUPPLY STOPS



00:00

When you turn off the water, residual water remains inside the hose.

**2** AIR ENTERS



00:01

Air enters the vacuum breaker, breaking the negative pressure and starting to lower the water level.

**3** WATER LEVEL DROPS



00:02

The accumulated water is rapidly discharged, and the water level continues to drop.

**4** FAST DRAINING COMPLETE



00:04

Drained completely in 4 seconds, keeping the hose dry and hygienic!



**4-SECOND FAST DRAINING** | Effectively reduces residual water retention, keeps the hose dry, and protects your family's water hygiene!

# INSTALLATION GUIDE

Simple 4 Steps, Easy Protection for Your Whole Family's Water Hygiene

## 1 FAUCET

After turning off the water, water flows out from the faucet outlet.



## 2 VACUUM BREAKER

Installed between the faucet and the hose, it automatically removes residual water and negative pressure.



## 3 SHOWER HOSE

Connect the vacuum breaker and the shower hose to keep the pipe dry and hygienic.



## 4 HAND SHOWER

Clean water flows out, giving you a safe and comfortable shower experience.



## INSTALLATION ADVANTAGES



### DOES NOT AFFECT WATER PRESSURE

Precision structure design ensures smooth water flow without affecting the original water pressure.



### DOES NOT AFFECT WATER FLOW

Large flow design ensures stable water output and a comfortable shower experience.



### NO POWER REQUIRED

Purely mechanical operation, no electricity needed, safe and reliable.



### DIY FRIENDLY

Easy installation, no professional tools required, anyone can install it with ease.



### TIP

Please turn off the water supply before installation and confirm that the faucet type is compatible.



### RECOMMENDED INSTALLATION POSITION:

Between the faucet and the shower hose.  
Suitable for most standard shower faucet and hose combinations.

# FIVE CORE ADVANTAGES

## ERDEN VACUUM BREAKER DRAIN VALVE SYSTEM



### ADVANCED VACUUM TECHNOLOGY

Solving drainage problems at the source, protecting your home water system!



### KEEP DRY & CLEAN

Reduces residual water retention and keeps pipes dry and clean.



### PROTECT EQUIPMENT

Reduces negative pressure risk and protects plumbing instruments and appliances.



### HEALTH & SAFETY

Reduces bacterial growth and protects the health of your family.

1

### RAPID DRAINING

Quickly drains water from the hose in 4 seconds



Drains residual water in the hose within 4 seconds, reducing water retention and keeping it dry.

2

### VACUUM BREAKER

Automatically relieves negative pressure



Air automatically enters to break the vacuum and relieve negative pressure, accelerating drainage.

3

### PREVENTS WATER ACCUMULATION

Reduces moisture retention time



Relieves internal pressure, drains residual water quickly, and keeps the pipe system dry and clean.

4

### EXTENDS EQUIPMENT LIFESPAN

Reduces water hammer and pressure impact



Relieves internal pressure, reduces water hammer and impact on pipes and equipment, extending service life.

5














### EASY TO INSTALL

Compact design, no impact on existing equipment



Compact and well-designed, does not affect existing equipment and is easy to install and upgrade.

# System Upgrade Comparison: Traditional Devices vs. ERDEN Vacuum Breaker Module

EVALUATION CRITERIA	TRADITIONAL BATHROOM EQUIPMENT	ERDEN VACUUM BREAKER MODULE
 <p><b>AFTER SHUT-OFF STATE</b></p>	 <p>Residual water remains in the pipe for a long time</p>	 <p>Automatically drains within 4 seconds, keeping the pipe dry and clean</p> 
 <p><b>BACTERIAL CONTAMINATION RISK</b></p>	 <p>Prone to bacterial growth and biofilm forming, causing odor and hygiene issues</p>	 <p>Blocks water backflow from the source, effectively eliminates bacterial temperatures and ensures cleaner water</p>
 <p><b>EQUIPMENT LIFESPAN</b></p>	 <p>Soft pipes are prone to aging, water pressure impact and cracking, shortening lifespan</p>	 <p>Releases internal pressure, reduces water hammer, and significantly extends the lifespan of pipes and faucets</p>
 <p><b>MAINTENANCE &amp; HYGIENE</b></p>	 <p>Requires regular manual disassembly and cleaning for disinfection</p>	 <p>Automatically activates after each use to keep the system protected</p>

# SYSTEM UPGRADE COMPARISON | WHY UPGRADE?

## TRADITIONAL SHOWER HOSE PIPE

# VS

## ERDEN VACUUM BREAKER MODULE

  
**AFTER SHUT-OFF**

**✗**  
**Water Remains in Pipe**  
Can stay for several days



Water retention · Bacterial growth

**✓**  
**Drains Automatically in 4 Seconds**  
Keeps pipe dry and clean



4-second fast drainage · Keeps dry

  
**HYGIENE PROTECTION**

**✗**  
**Requires Periodic Disassembly & Cleaning**  
Harbors dirt and limescale, causes odor



Dirt accumulation · Odor

**✓**  
**Automatically Drains After Every Use**  
Keeps pipe clean and hygienic



Auto-clean · Hygienic & Safe

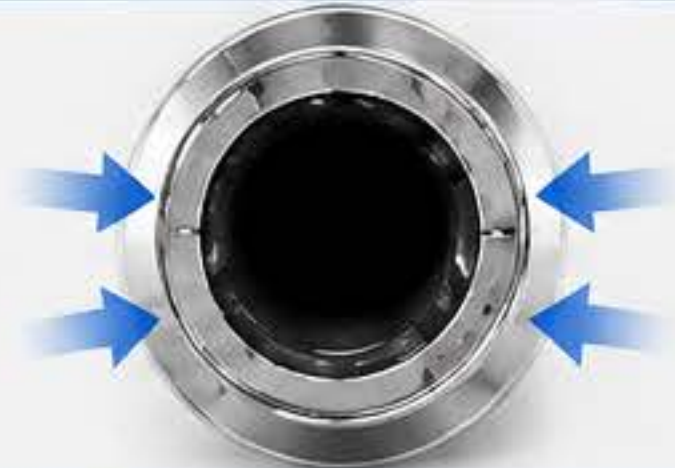
  
**EQUIPMENT LIFESPAN**

**✗**  
**Long-term Water Exposure**  
Causes corrosion and pressure damage



Corrosion · Damage · Shorter life

**✓**  
**Reduces Residual Water & Pressure**  
Protects pipes and fittings, extends lifespan



Less residue · Less pressure · Longer life

# THE IDEAL COMBINATION FOR OZONE SYSTEMS

## Passive Drainage + Active Sanitization

Effective hygiene management is not just about sanitization.  
*It's also about preventing water from remaining in the hose.*

### ERDEN Shower Vacuum Breaker



- ✓ **Automatic Residual Water Drainage**  
Drains residual water from the shower hose within approximately 4 seconds after shut-off, helping keep the hose dry.
- ✓ **Prevents Backflow**  
Helps isolate residual moisture and supports safer operation of the ozone system.
- ✓ **Protects Ozone Equipment**  
Reduces moisture accumulation and helps extend system service life.



### Ozone Sanitizing System



- ✓ **Active Sanitization**  
Ozonated water helps reduce bacteria and odor-causing contaminants.
- ✓ **Long-Lasting Cleanliness**  
Supports a cleaner water pathway and shower environment.
- ✓ **Improved Water Quality Experience**  
Provides a fresher and more hygienic shower experience.

### Passive Drainage

Residual water is automatically discharged after shut-off.

Helps minimize water retention and moisture buildup inside the hose.



### Dual Protection System

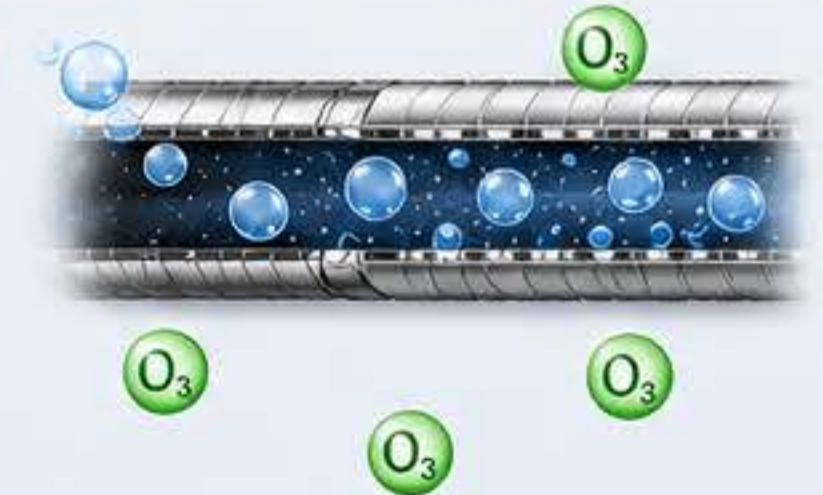
#### Passive Drainage + Active Sanitization

Comprehensive Shower Hygiene Protection

### Active Sanitization

Ozonated water continuously supports hygiene management.

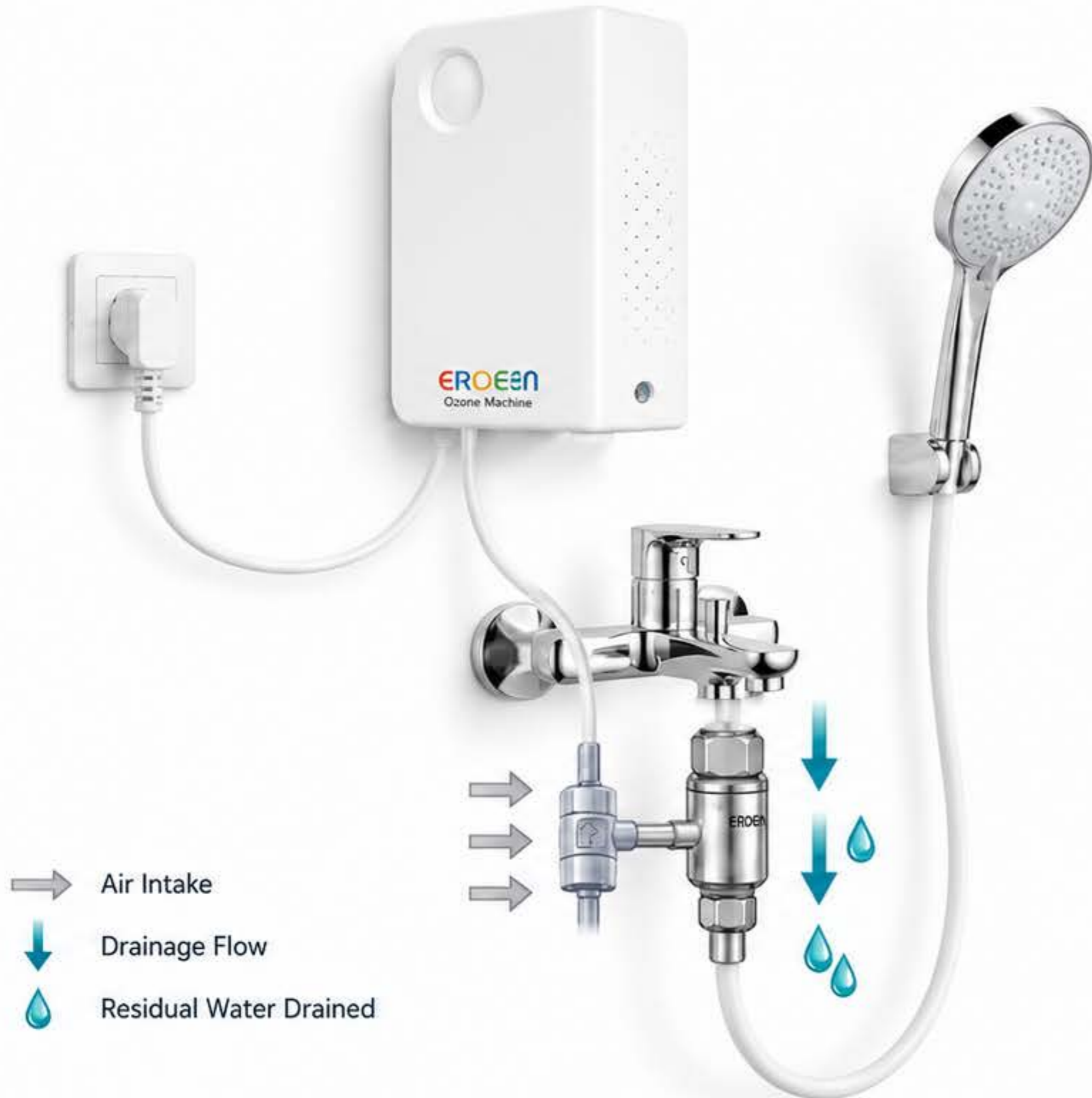
Helps maintain a cleaner water pathway and shower environment.



ERDEN Shower Vacuum Breaker + Ozone Sanitizing System

The Complete Solution for a **Cleaner**, **Drier**, and More **Hygienic** Shower Environment.

# DUAL PROTECTION: THE PERFECT SYNERGY WITH OZONE SYSTEM



## ACTIVE DRAINAGE + OZONE STERILIZATION

True hygiene requires two essential steps: automatic water drainage and powerful ozone sterilization.



## ANTI-REVERSE FLOW PROTECTION

When an ozone machine is installed in a traditional plumbing system, water may flow back and damage the main unit. The ERDEN Vacuum Breaker automatically drains residual water from the hose and showerhead, effectively blocking reverse flow and ensuring the ozone machine remains safe and ready for operation.

# SHOWER VACUUM BREAKER

Drains in **4** Seconds After Water Shut-Off



ERDEN ENTERPRISE CO., LTD.



WELCOME COOPERATION / INQUIRIES



LINE : @tfu4534l



## FAST DRAINAGE

Automatically drains residual water from the hose.



## VACUUM BREAK

Air enters to break the vacuum inside the hose.



## PREVENTS WATER RETENTION

Helps reduce moisture and water buildup.



## EXTENDS LIFESPAN

Reduces soft pressure loss and extends equipment life.

