

## Star S2000

# Star Water Systems Powerflush Optima S2000 Round Toilet Macerator Upflush System

Instruction Manual

## INTRODUCTION

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The Star Water Systems Powerflush Optima S2000 is a macerating upflush toilet system designed to provide a complete bathroom solution in locations where traditional gravity-fed plumbing is not feasible. This system grinds and pumps wastewater vertically and horizontally to connect with existing drain lines. This manual provides essential information for the safe installation, operation, and maintenance of your Powerflush Optima S2000 system.

## SAFETY INFORMATION

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Please read and understand all safety instructions before installing or operating the system. Failure to follow these instructions may result in property damage, injury, or death.

- **Electrical Safety:** Ensure the system is connected to a properly grounded electrical outlet. Disconnect power before performing any maintenance or service. All electrical work must comply with local codes and be performed by a qualified electrician.
- **Plumbing Safety:** All plumbing connections must be watertight to prevent leaks. Use appropriate sealants and fittings. Ensure proper ventilation for the system.
- **Personal Protective Equipment:** Wear appropriate personal protective equipment (PPE) such as gloves and eye protection during installation and maintenance.
- **Intended Use:** This system is designed for macerating and pumping human waste and toilet paper only. Do not flush foreign objects, chemicals, or excessive amounts of paper products, as this can damage the macerator and void the warranty.
- **Children and Pets:** Keep children and pets away from the system during operation and maintenance.

## PACKAGE CONTENTS

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Verify that all components are present before beginning installation:

- Toilet Tank Cover
- Toilet Tank
- Toilet Tank to Toilet Bowl Gasket Bolts
- Rubber Toilet Tank to Toilet Bowl Gasket

- Water Supply Connection
- Water Supply Line Rubber Seal
- Water Supply Line Adapter
- Plastic Flat Washer
- Plastic Nut
- Bolt Cover
- Toilet Bowl
- Macerator Pump Unit (integrated with toilet)

## SETUP AND INSTALLATION

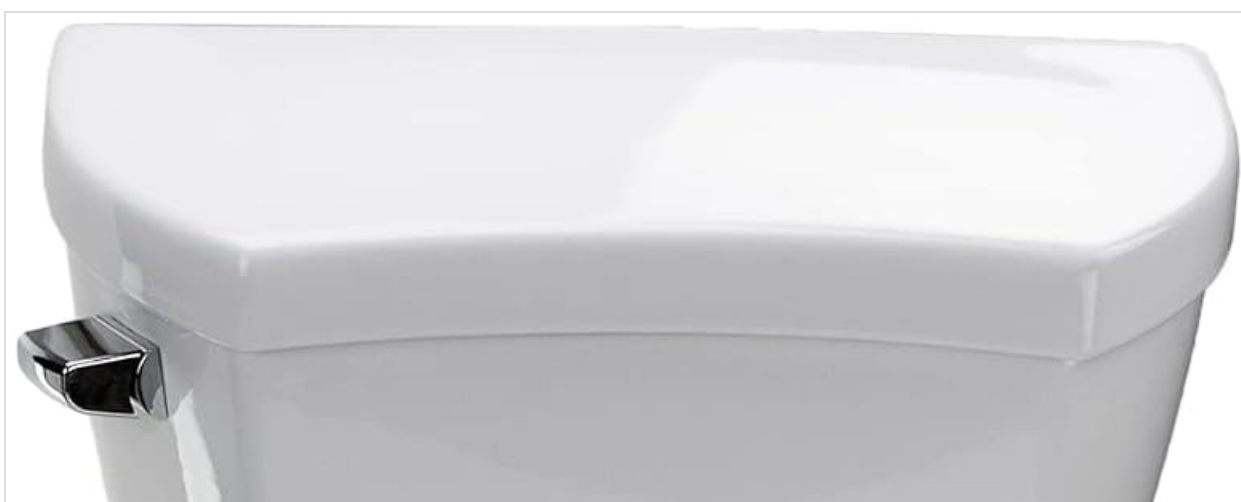
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Proper installation is crucial for the efficient and reliable operation of your Powerflush Optima system. Consult a qualified plumber and electrician if you are unsure about any steps.

### 1. System Overview



*This image displays the complete Star Water Systems Powerflush Optima Round Toilet Macerator Upflush System, showing the toilet bowl, tank, and the integrated macerator unit.*





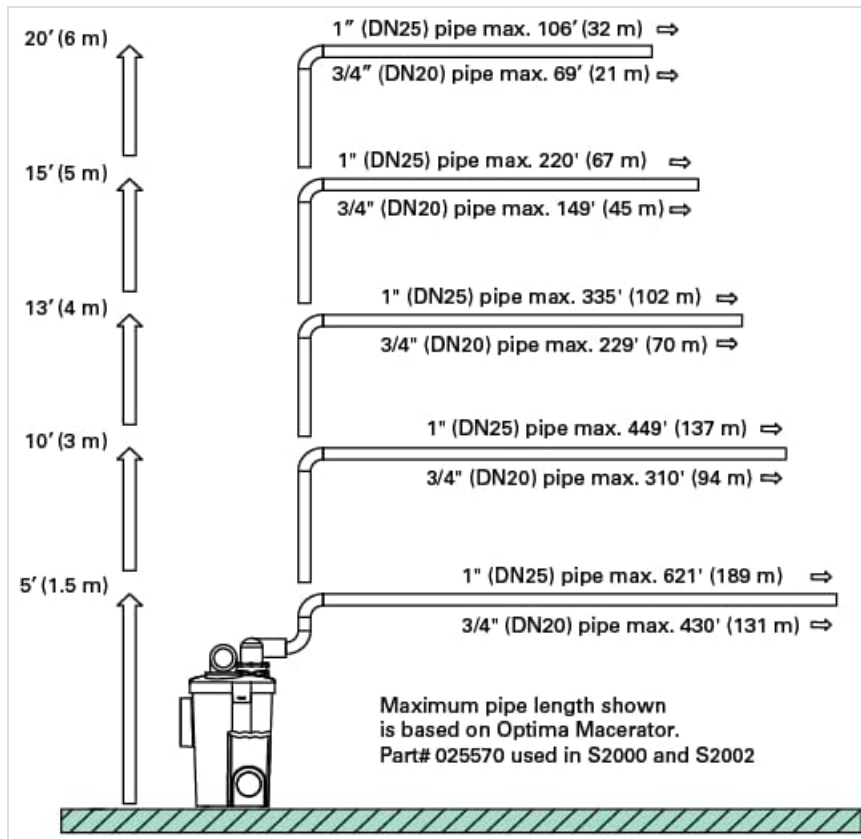
*A front view of the Powerflush Optima toilet system, highlighting the compact design of the macerator unit positioned behind the toilet bowl.*

## **2. Site Preparation**

- Ensure the installation area is level and structurally sound to support the toilet and macerator unit.
- Verify access to a grounded electrical outlet (120V AC, 60Hz) within reach of the unit's power cord.
- Plan the discharge pipe routing to the existing drain line. Consider both vertical lift and horizontal run.

### 3. Plumbing Connections

- Connect the toilet bowl to the macerator unit according to the provided instructions, ensuring a secure and watertight seal.
- Install the discharge pipe from the macerator unit to the main drain line. Use rigid PVC or copper piping. Avoid flexible hoses for the main discharge.
- Ensure the discharge pipe has a continuous downward slope (at least 1/4 inch per foot) for horizontal runs to prevent blockages.
- Refer to the diagram below for maximum pipe lengths based on vertical lift.



This diagram illustrates the maximum horizontal discharge pipe lengths achievable for different vertical wastewater pumping heights (lift), using 1-inch (DN25) and 3/4-inch (DN20) pipes. It indicates that the maximum pipe length shown is based on the Optima Macerator, specifically Part# 025570 used in models S2000 and S2002.

### 4. Water Supply Connection

- Connect the water supply line to the toilet tank using the provided components (water supply connection, rubber seal, adapter, washer, nut).
- Turn on the water supply and check for leaks.

### 5. Electrical Connection

- Plug the macerator unit's power cord into a dedicated, grounded 120V AC, 60Hz electrical outlet.
- Do not use extension cords.

### 6. Optional Appliance Connections

The Powerflush Optima system can accommodate additional wastewater from a sink or shower. Connect these fixtures to the designated inlets on the macerator unit.

Plumb **additional appliances**  
into the Optima's tank unit for  
a full bathroom.

Increase Your  
Property Value  
with Multiple  
Bathrooms



*This image demonstrates the versatility of the Powerflush Optima system, showing how it can accommodate additional bathroom fixtures such as a sink and shower, allowing for a complete bathroom setup.*

## 7. Installation Options

The system can be installed freestanding or hidden behind a wall using an extension kit (sold separately).

Install it freestanding  
or hide it behind a wall  
with an **extension kit**.



Extension Kit Sold Separately

*This image presents two installation options for the Powerflush Optima: freestanding or hidden behind a wall using an extension kit (sold separately), offering flexibility for various bathroom layouts.*

This **upflush toilet system** can vertically transfer wastewater to existing lines up to **20 feet**.

Mounts  
right to the  
floor

*This image illustrates how the upflush toilet system mounts directly to the floor, demonstrating its compact installation footprint.*

## OPERATING INSTRUCTIONS

The Powerflush Optima S2000 operates automatically. When the toilet is flushed, the macerator unit activates to grind and pump the waste.

- **Flushing:** Use the flush handle as you would with a standard toilet. The macerator pump will engage automatically to process the waste.
- **Waste Type:** The macerator is designed to handle human waste and standard toilet paper.
- **Do Not Flush:** Avoid flushing feminine hygiene products, wet wipes (even

### ASK A QUESTION ABOUT THIS MANUAL

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**Question**

Example: How do I reset this device or fix this error?

**Details**

Model number, symptoms, what you tried, or the section of the manual you are using.

**Submit question**