

## K-Rain 6403

# K-Rain 6000 Series Indexing Valve

Model 6403: 4-Outlet, 3-Zone Irrigation Valve Instruction Manual

## 1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your K-Rain 6000 Series Indexing Valve, Model 6403. This valve is designed for efficient and reliable control of irrigation systems, managing water flow to up to three distinct zones sequentially.

The K-Rain 6000 Series Indexing Valve features a durable metal die-cast body, ensuring longevity and performance in high-pressure applications. Its design prioritizes ease of maintenance and serviceability.

## 2. PRODUCT FEATURES

The K-Rain 6000 Series Indexing Valve incorporates several key features for optimal irrigation management:

- **Metal Die-Cast Body:** Constructed for durability, long product life, and capability in high-pressure environments.
- **Simplicity of Design:** Engineered for easy maintenance and servicing, contributing to extended product lifespan.
- **Minimum Flow Requirement:** Operates efficiently at a minimum flow rate of 15 GPM (Gallons Per Minute).
- **Versatile Application:** Ideal for use with pump-fed systems or high-flow city water systems.
- **Built-in Atmospheric Vacuum Breaker:** Automatically releases any vacuum that may form between the pump and the valve during system shutdown, preventing back-siphonage.



Figure 2.1: K-Rain 6000 Series Indexing Valve, Model 6403. This image shows the robust metal construction of the valve.

### 3. SETUP AND INSTALLATION

Proper installation is crucial for the efficient operation of your indexing valve. It is recommended that installation be performed by a qualified professional.

#### 3.1 Pre-Installation Checks

- Ensure your water supply system can provide a minimum of 15 GPM for optimal valve performance.
- Verify that the installation site allows for proper drainage and access for future maintenance.
- Confirm that all necessary plumbing fittings (1-inch inlet/outlet) are available.

#### 3.2 Installation Steps (General)

1. **Mounting:** Securely mount the valve in an upright position, ensuring it is level.
2. **Inlet Connection:** Connect the main water supply line to the 1-inch threaded inlet. Ensure a watertight seal using appropriate sealant.

3. **Outlet Connections:** Connect the irrigation zone lines to the NPT outlet ports. The valve will cycle through these ports sequentially.
4. **Vacuum Breaker:** The built-in atmospheric vacuum breaker requires no additional setup but must remain unobstructed.
5. **System Flush:** Before connecting to sprinklers, flush the lines to remove any debris that could interfere with valve operation.

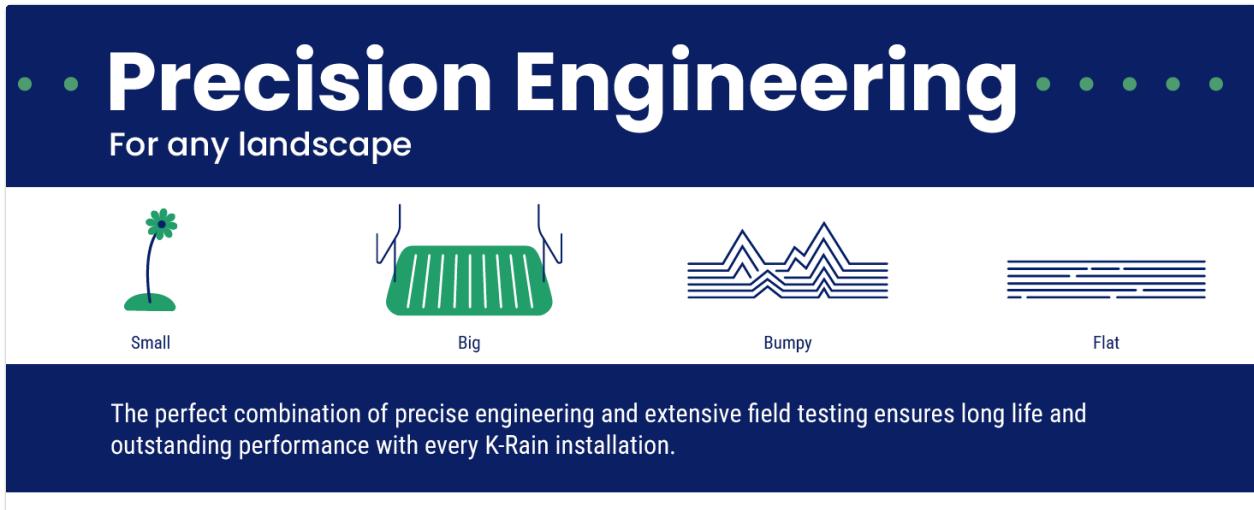


Figure 3.1: The K-Rain 6000 Series Indexing Valve is designed for versatile application across various landscape types, including small, large, uneven, and flat terrains.

## 4. OPERATING INSTRUCTIONS

The K-Rain 6000 Series Indexing Valve operates automatically, cycling through its zones based on water pressure changes. It is designed to manage up to three zones sequentially.

### 4.1 Basic Operation

1. **Initiating Flow:** When water pressure is applied to the valve (e.g., by turning on a pump or main water supply), the valve will open to the first zone.
2. **Zone Cycling:** To advance to the next zone, the water supply to the valve must be temporarily interrupted (e.g., by turning off the pump or closing a master valve) and then restored. Each interruption and restoration of flow will cause the valve to index to the next available zone.
3. **Zone Completion:** After cycling through all active zones, the valve will return to the first zone or a closed position, depending on the system configuration.

### 4.2 Zone Management

This 4-outlet valve is configured for 3-zone operation. Ensure your irrigation system is designed to utilize these three zones effectively. The valve will automatically manage the distribution of water to each zone in sequence.

# Smart Choice

## For Water Conservation and Savings



Methodically water each zone of your lawn

Ensures comprehensive coverage and maximizes water efficiency

### Why it's unique

Water conservation  
Minimize water runoff and evaporation  
Efficient Coverage  
Uniform water distribution  
High Quality  
Built to last

Figure 4.1: The indexing valve enables methodical watering of each designated zone within your lawn or landscape, ensuring comprehensive coverage.

## 5. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your K-Rain 6000 Series Indexing Valve.

### 5.1 Routine Checks

- Visual Inspection:** Periodically inspect the valve for any signs of leaks, cracks, or physical damage.
- Debris Removal:** Ensure the area around the valve is clear of debris that could obstruct its operation or the atmospheric vacuum breaker.
- Flow Rate:** Monitor your system's flow rate to ensure it meets the minimum 15 GPM requirement for efficient valve indexing.

### 5.2 Servicing

The valve's design allows for easy servicing. If internal components require attention, consult a qualified irrigation technician or refer to K-Rain's official service guides for detailed instructions. Always shut off the main water supply before attempting any service.

## 6. TROUBLESHOOTING

This section provides guidance for common issues you might encounter with your K-Rain 6000 Series Indexing Valve.

### 6.1 Common Issues and Solutions

- Valve Not Indexing:**
  - Ensure the water supply is being completely interrupted and restored between cycles.
  - Check for sufficient water pressure and flow (minimum 15 GPM). Low flow can prevent proper indexing.
  - Inspect for internal debris that might be obstructing the indexing mechanism.
- Constant Water Flow to One Zone:**

- This often indicates an issue with the indexing mechanism or internal seals. Professional servicing may be required.

- **Leaks from Valve Body:**

- Check all threaded connections for proper sealing.
- If the leak is from the valve body itself, inspect for cracks or damage. Replacement may be necessary.

- **Reduced Water Pressure in Zones:**

- Verify the main water supply pressure.
- Check for blockages in the supply line or within the valve.

For issues not covered here, or if troubleshooting steps do not resolve the problem, contact K-Rain customer support or a certified irrigation professional.

## 7. SPECIFICATIONS

Specification	Detail
Brand	K-Rain
Model Number	6403
Material	Metal (Die-Cast)
Product Dimensions (L x W x H)	5.75 x 5.75 x 5.75 inches
Item Weight	2 pounds
Inlet Connection Size	1 Inch
Inlet Connection Type	Threaded
Outlet Connection Size	1 Inch
Outlet Connection Type	NPT
Number of Ports	1 (for sequential indexing to 3 zones)
Maximum Operating Pressure	290 Bars
Minimum Operating Flow	15 GPM
UPC	671923102296

## 8. WARRANTY AND SUPPORT

For information regarding product warranty, technical support, or to purchase replacement parts, please contact K-Rain directly through their official website or customer service channels. Keep your purchase receipt and model number (6403) readily available when contacting support.

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