

## Rainbow Dream PA13100

# Rainbow Dream 1-Inch PVC Male Adapter Pipe Fitting Instruction Manual

Model: PA13100

## 1. INTRODUCTION

This manual provides essential information for the proper installation, use, and maintenance of the Rainbow Dream 1-Inch PVC Male Adapter Pipe Fitting. Please read these instructions thoroughly before beginning any installation to ensure safe and effective operation.

## 2. PRODUCT OVERVIEW

The Rainbow Dream 1-Inch PVC Male Adapter is designed to connect two sections of PVC piping or other fittings with differing end types. It features a 1-inch slip-fit connection on one side and a 1-inch male National Pipe Taper (NPT) threaded connection on the other. This fitting is constructed from durable PVC, offering excellent resistance to corrosion and scaling, high-tensile strength, and high-impact resistance. It is suitable for cold-water pressure distribution systems. Key features include:

- Designed for pressure applications up to 140°F.
- White PVC material, non-toxic, lightweight, and easy to install.
- High resilience and sound-deadening qualities.
- Excellent resistance to corrosion and scaling.
- Suitable for irrigation, pool and spa, potable water, and underground sprinkler systems.
- Meets ASTM D2466 and D1784 standards, and NSF requirements.



Image 1: Front view of the Rainbow Dream 1-Inch PVC Male Adapter Pipe Fitting, showing the threaded and slip ends.

### 3. SAFETY INFORMATION

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Always prioritize safety during installation and use. Adhere to the following guidelines:

- Wear appropriate personal protective equipment (PPE), including safety glasses and gloves, when handling PVC primer and solvent cement.
- Ensure adequate ventilation when working with PVC primer and solvent cement, as fumes can be strong.
- Keep primer and cement away from open flames or ignition sources.
- Do not use this fitting for gas or compressed air applications.
- Ensure the system pressure and temperature do not exceed the fitting's rated limits (up to 140°F).
- Keep out of reach of children.

### 4. INSTALLATION AND SETUP

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Proper installation is crucial for a leak-free and durable connection. Follow these steps:

#### 1. Preparation:

- Ensure all pipe ends are cut square and deburred.
- Clean the pipe and fitting surfaces thoroughly to remove dirt, grease, or moisture.
- Dry fit the pipe into the slip end of the adapter to ensure a proper fit. The pipe should enter the fitting easily about one-third to two-thirds of the way into the socket.

#### 2. Applying Primer:

- Apply a liberal coat of PVC primer to the outside of the pipe end and the inside of the fitting's slip socket. The primer softens the PVC surface, preparing it for solvent cement.
- Work quickly, as primer dries fast.

#### 3. Applying Solvent Cement:

- Immediately after priming, apply an even, generous coat of PVC solvent cement to the primed pipe end and a thinner coat to the inside of the fitting's slip socket.

#### 4. Joining the Pipe and Fitting:

- While the cement is still wet, quickly insert the pipe into the fitting's slip socket, rotating the pipe a quarter turn to distribute the cement evenly.
- Hold the joint firmly for at least 30 seconds to prevent the pipe from pushing out of the fitting.
- Wipe off any excess cement from the joint.

#### 5. Curing Time:

- Allow the joint to cure according to the cement manufacturer's recommendations before pressurizing the system. This typically ranges from 30 minutes to several hours, depending on temperature and humidity.

#### 6. Threaded Connection:

- For the male NPT threaded end, apply appropriate thread sealant (e.g., PTFE tape or pipe dope) to the threads before connecting to a female threaded pipe or fitting.
- Tighten the threaded connection hand-tight, then use a wrench for an additional one to two turns. Do not overtighten, as this can crack the PVC.



Image 2: Angled view of the PVC Male Adapter, highlighting both the slip and threaded ends for connection.

## 5. OPERATING GUIDELINES

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Once installed, the PVC male adapter operates as a static component within your plumbing system. Adhere to the following guidelines for optimal performance:

- **Pressure Limits:** Ensure the system pressure does not exceed the design limits for Schedule 40 PVC fittings.
- **Temperature Limits:** The fitting is rated for cold-water applications and should not exceed 140°F (60°C). Exposure to higher temperatures can compromise the material's integrity.
- **Chemical Compatibility:** While PVC is resistant to many chemicals, verify compatibility with any specific fluids or chemicals that will pass through the system.

## 6. MAINTENANCE

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PVC fittings generally require minimal maintenance. Regular inspection can help identify potential issues early:

- **Visual Inspection:** Periodically inspect all joints for any signs of leaks, cracks, or damage.
- **Cleaning:** If necessary, clean the exterior of the fitting with a mild soap and water solution. Avoid harsh abrasive cleaners or solvents that could damage the PVC.
- **Environmental Protection:** Protect exposed PVC piping and fittings from prolonged direct sunlight if possible, as UV radiation can degrade PVC over time. Painting or shielding can help.

## 7. TROUBLESHOOTING

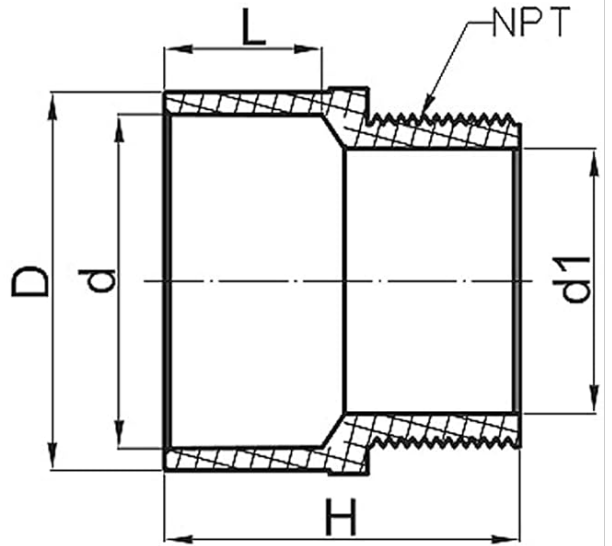
Most issues with PVC fittings relate to improper installation. Here are common problems and solutions:

Problem	Possible Cause	Solution
<b>Leak at Slip Joint</b>	Insufficient primer/cement, improper curing, pipe not fully inserted, or pipe/fitting not clean.	Cut out the leaking section and re-install the fitting following all installation steps carefully. Ensure proper curing time.
<b>Leak at Threaded Joint</b>	Insufficient thread sealant, overtightening, or cross-threading.	Disassemble the threaded joint, clean threads, reapply thread sealant (PTFE tape or pipe dope), and re-tighten carefully. Do not overtighten.
<b>Cracked Fitting</b>	Overtightening threaded connections, external impact, or exposure to incompatible chemicals/temperatures.	Replace the cracked fitting. Ensure proper tightening procedures and protect from physical damage or extreme conditions.

## 8. SPECIFICATIONS

Detailed specifications for the Rainbow Dream 1-Inch PVC Male Adapter (Model PA13100):

Attribute	Detail
<b>Model Number</b>	PA13100
<b>Size</b>	1 Inch
<b>Material</b>	Polyvinyl Chloride (PVC)
<b>Color</b>	White
<b>Connector Type</b>	Adapter (Socket x Male Pipe Thread)
<b>Thread Type</b>	NPT (National Pipe Taper)
<b>Thread Size</b>	1 inch
<b>Item Dimensions (L x W x H)</b>	1.25 x 1.25 x 1.9 inches
<b>Item Weight</b>	Approximately 16 ounces (1 pound)
<b>Number of Pieces</b>	10 (per pack)
<b>Certifications</b>	ASTM D2466, ASTM D1784, NSF Compliant
<b>Maximum Operating Temperature</b>	140°F (60°C)



## Male Adaptor

Nom Size	D	d	d1	L	H	NPT	Part Number
1/2"	27.5	21.5	11.2	18.3	44.4	14.0	PA13050
3/4"	32.8	26.8	14.4	19.2	49.6	14.0	PA13075
1"	40.8	33.6	20.2	23.3	56.5	11.5	PA13100

Image 3: Dimensional drawing and size chart for various PVC Male Adaptors, including the 1-inch model (PA13100).

## 9. WARRANTY AND SUPPORT

For specific warranty information or technical support regarding your Rainbow Dream PVC Male Adaptor, please refer to the product packaging or contact Rainbow Dream customer service directly. Contact details can typically be found on the manufacturer's website or through your point of purchase.

