

NEWTRY IPX5/IPX6 Test Nozzle

NEWTRY IPX5/IPX6 Water Jet Test Nozzle Instruction Manual

1. INTRODUCTION AND OVERVIEW

The NEWTRY IPX5/IPX6 Water Jet Test Nozzle is a specialized device designed to evaluate the waterproof performance of appliances and electrical equipment against water jets. This device is essential for ensuring products comply with the International Electrotechnical Commission (IEC) standard IEC60529, specifically for IPX5 and IPX6 ratings.

The test nozzle allows for controlled application of water jets from all practical directions onto a specimen. The system includes a jet handle, a pressure gauge for monitoring, and an easy-to-adjust flow valve.

Interchangeable nozzles, made from stainless steel, are provided for both IPX5 and IPX6 testing requirements.

- **IPX5 Rating:** Specifies a nozzle with a 6.3mm diameter opening and a water flow rate of 12.5 ± 0.625 liters per minute (L/min).
- **IPX6 Rating:** Specifies a nozzle with a 12.5mm diameter opening and a water flow rate of 100 ± 5 L/min.

2. SAFETY INFORMATION

Adherence to safety guidelines is crucial when operating the NEWTRY IPX5/IPX6 Water Jet Test Nozzle to prevent injury and equipment damage.

- Always wear appropriate Personal Protective Equipment (PPE), including eye protection, during operation.
- Ensure the test area has adequate drainage to prevent water accumulation and slip hazards.
- Do not direct water jets at people, animals, or unprotected electrical outlets.
- Verify that the electrical equipment being tested is properly de-energized or protected according to safety standards before applying water.
- Inspect all connections for leaks before starting the test.
- Operate the flow valve slowly to avoid sudden pressure changes.

3. PRODUCT COMPONENTS

The NEWTRY IPX5/IPX6 Water Jet Test Nozzle system includes the following main components:

- **Jet Handle:** The main body of the device, providing a grip and housing for the valve and gauge.
- **Pressure Gauge:** Displays the water pressure during operation, aiding in flow rate adjustment.
- **Adjustable Flow Valve:** Controls the water flow rate from the supply.
- **IPX5 Nozzle:** Interchangeable nozzle with a 6.3mm aperture for IPX5 testing.
- **IPX6 Nozzle:** Interchangeable nozzle with a 12.5mm aperture for IPX6 testing.
- **Hose Connection:** For attaching a standard water supply hose.

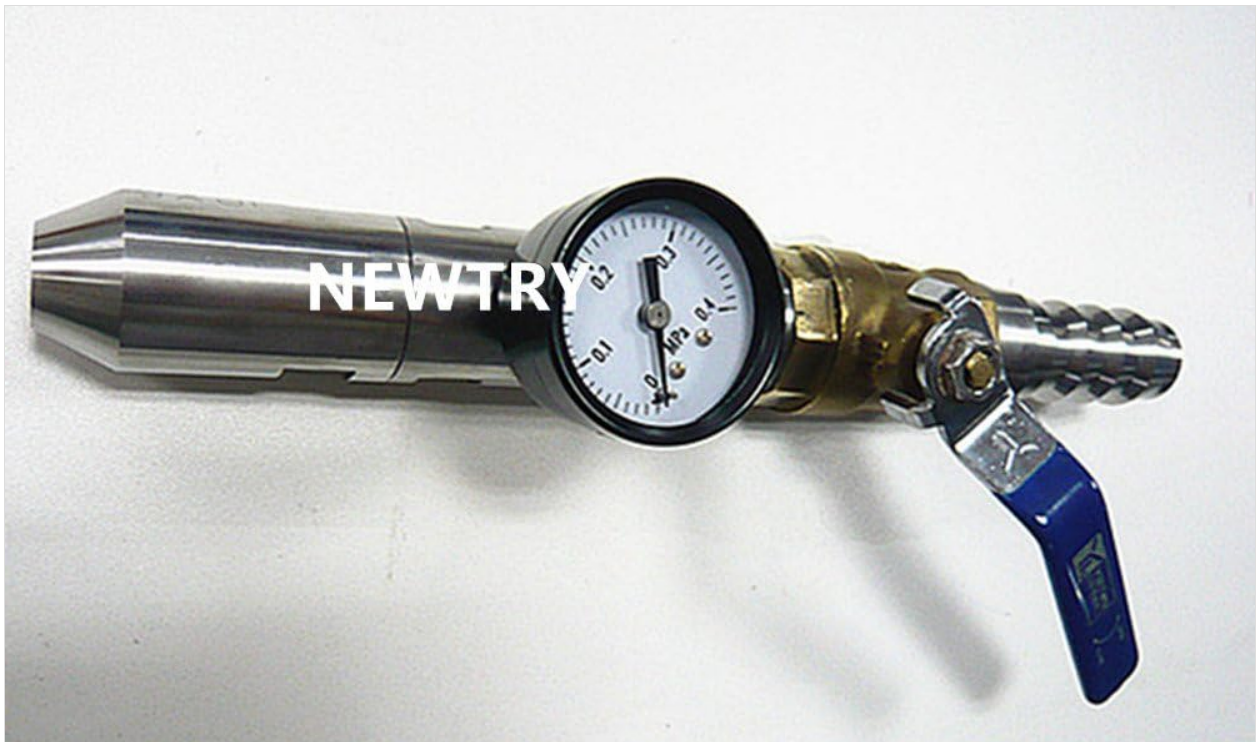


Image 1: The NEWTRY IPX5/IPX6 Water Jet Test Nozzle, showing the main body, pressure gauge, and flow valve. This image illustrates the primary components of the test device.



Image 2: Side view of the NEWTRY IPX5/IPX6 Water Jet Test Nozzle, highlighting the adjustable flow valve and the hose connection point. This view provides a clearer understanding of the water inlet and control mechanism.

4. SETUP INSTRUCTIONS

Follow these steps to properly set up the NEWTRY IPX5/IPX6 Water Jet Test Nozzle for operation:

1. **Select Nozzle:** Choose the appropriate nozzle (IPX5 or IPX6) based on the required test standard.
2. **Attach Nozzle:** Securely screw the selected nozzle onto the front end of the jet handle. Ensure it is hand-tight to prevent leaks.
3. **Connect Water Supply:** Attach a suitable water supply hose to the hose connection barb on the jet handle. Use a hose clamp if necessary to ensure a tight, leak-free connection.
4. **Position Device:** Position the test device at a distance of 2.5 meters to 3 meters from the specimen to be tested, as specified by the IEC standards.
5. **Prepare Test Area:** Ensure the test area is clear of obstructions and has proper drainage.

5. OPERATING INSTRUCTIONS

Once the device is set up, follow these instructions for conducting a water jet test:

1. **Initiate Water Flow:** Slowly open the adjustable flow valve on the jet handle to begin the water flow.
2. **Adjust Flow Rate:** Monitor the pressure gauge and adjust the flow valve until the correct water flow rate is achieved for the chosen IPX rating:
 - For IPX5: 12.5 ± 0.625 L/min
 - For IPX6: 100 ± 5 L/min
3. **Perform Test:** Spray the specimen from all practicable directions, ensuring complete coverage as required by the IEC60529 standard. Maintain the specified test duration for the respective IPX rating.
4. **Conclude Test:** After the test duration is complete, slowly close the flow valve to stop the water flow.
5. **Disconnect:** Disconnect the water supply hose and remove the nozzle.

6. MAINTENANCE

Regular maintenance ensures the longevity and accuracy of your NEWTRY IPX5/IPX6 Water Jet Test Nozzle.

- **Cleaning:** After each use, rinse the nozzles and jet handle with clean water to remove any mineral deposits or debris.
- **Storage:** Store the device in a clean, dry environment away from direct sunlight and extreme temperatures.
- **Inspection:** Periodically inspect all components, especially seals and connections, for signs of wear, cracks, or damage. Replace any worn parts immediately.
- **Calibration:** The pressure gauge should be checked for calibration periodically to ensure accurate readings.

7. TROUBLESHOOTING

Refer to the following table for common issues and their solutions:

Problem	Possible Cause	Solution
Low water flow rate	Insufficient water supply pressure, partially closed valve, clogged nozzle.	Check water supply, ensure valve is fully open, clean nozzle.

Problem	Possible Cause	Solution
Water leaks from connections	Loose connections, damaged seals or O-rings.	Tighten all connections, inspect and replace damaged seals/O-rings.
Inaccurate pressure gauge reading	Gauge malfunction, air in the line, gauge out of calibration.	Bleed air from the system, verify gauge calibration, replace if faulty.

8. SPECIFICATIONS

Detailed technical specifications for the NEWTRY IPX5/IPX6 Water Jet Test Nozzle:

- **Applicable Standards:** IEC60529 (IPX5, IPX6), IEC60598-1, IEC 60335-1, IEC60745-1
- **IPX5 Nozzle Aperture:** 6.3 mm
- **IPX6 Nozzle Aperture:** 12.5 mm
- **IPX5 Water Flow Rate:** 12.5 ± 0.625 L/min
- **IPX6 Water Flow Rate:** 100 ± 5 L/min
- **Recommended Test Distance:** 2.5 m - 3 m from specimen
- **Material:** Metal (Nozzles made from stainless steel)
- **Manufacturer:** NEWTRY

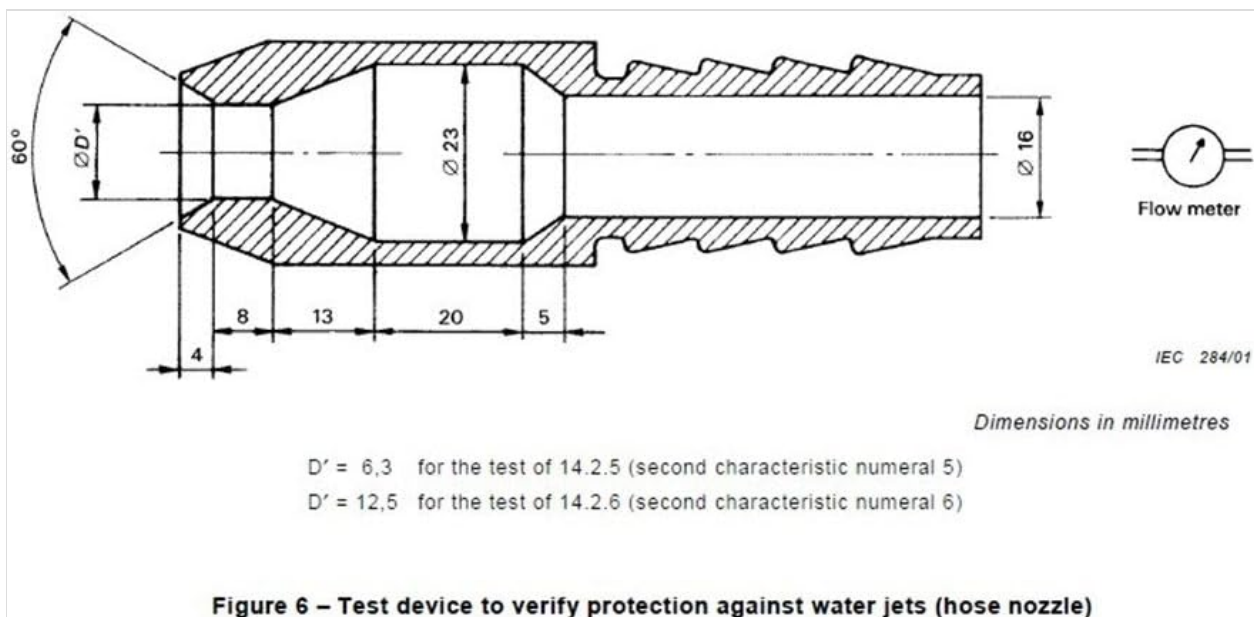


Image 3: Technical drawing illustrating the dimensions of the test device, including the nozzle apertures for both IPX5 (D'=6.3) and IPX6 (D'=12.5) tests, all dimensions are in millimeters.

9. WARRANTY AND SUPPORT

For specific warranty information regarding your NEWTRY IPX5/IPX6 Water Jet Test Nozzle, please refer to the documentation provided at the time of purchase or contact NEWTRY customer service directly. Technical support and assistance with product operation or troubleshooting can also be obtained through NEWTRY's official support channels.

Please retain your proof of purchase for any warranty claims.

