



City of Rockwall

### BACKFLOW PREVENTION ASSEMBLY TEST REPORT

Return Forms to: **New Device | Building Inspection Department (972-771-7709)**  
**Annual Reports | Public Works Department (972-771-7730)**  
**City of Rockwall | 1600 Airport Rd | Rockwall, TX 75087**

**\*\*\*NEW INFORMATION\*\*\*** It is mandatory that each report be filled out **completely and legibly** for each assembly tested or the report may **not** be accepted. A signed and dated **original** must be submitted to the public water supplier for record keeping purposes. (State Law requires submittal of report within 10 days of testing):

Name of Business: \_\_\_\_\_

Address of Business: \_\_\_\_\_

Address of Assembly: \_\_\_\_\_

Property contact information: Name \_\_\_\_\_ Addr: \_\_\_\_\_ Phone: \_\_\_\_\_

#### INSPECTION INFORMATION

Annual Test  Replacement Test  Old Serial No. \_\_\_\_\_ New Device Test

#### TYPE OF ASSEMBLY

- Reduced Pressure Principle     Reduced Pressure Principle-Detector     Double Check Valve
- Double Check-Detector     Pressure Vacuum Breaker     Spill Resistant Pressure Vacuum Breaker

Manufacturer: \_\_\_\_\_ Model Number: \_\_\_\_\_ Size: \_\_\_\_\_ Serial No.: \_\_\_\_\_

Located At: \_\_\_\_\_

What does this device serve?  Domestic     Carbonator     Irrigation     Fireline (Attach page 2)     Boiler

Other: \_\_\_\_\_

**Is the assembly installed in accordance with manufacturer recommendations and/or local codes? YES or NO**

	Reduced Pressure Principle Assembly			Pressure Vacuum Breaker	
	Double Check Valve Assembly		Relief Valve	Air Inlet	Check Valve
	1 <sup>st</sup> check	2 <sup>nd</sup> check		Opened at ____ psid	Held at ____ psid
Initial Test Pass <input type="checkbox"/> Fail <input type="checkbox"/>	Held at ____ psid Closed Tight <input type="checkbox"/> Leaked <input type="checkbox"/>	Held at ____ psid Closed Tight <input type="checkbox"/> Leaked <input type="checkbox"/>	Opened at ____ psid Did not open <input type="checkbox"/>	Did not open <input type="checkbox"/>	Leaked <input type="checkbox"/>
Repairs and Materials Used					
Test after Repair Pass <input type="checkbox"/> Fail <input type="checkbox"/>	Held at ____ psid	Held at ____ psid Closed Tight <input type="checkbox"/>	Opened at ____ psid	Opened at ____ psid	Held at ____ psid

The backflow prevention assembly detailed above has been tested as required by TCEQ regulations and is certified to be operating within acceptable parameters.

Remarks: \_\_\_\_\_

The above is certified to be true at the time of testing. Tester signature: \_\_\_\_\_

Firm Name: \_\_\_\_\_ Certified Tester (print): \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code \_\_\_\_\_ Cert. Tester No. \_\_\_\_\_ Exp. Date: \_\_\_\_\_

Firm Phone No: \_\_\_\_\_ Test Date: \_\_\_\_\_

Test gauge used: Make/Model \_\_\_\_\_ SN: \_\_\_\_\_ Calibration Date: \_\_\_\_\_

\*TEST RECORDS MUST BE KEPT FOR AT LEAST THREE YEARS \*\*USE ONLY MANUFACTURER'S REPLACEMENT PARTS\*

**FIRE SPRINKLER BACKFLOW  
FORWARD FLOW TEST  
NFPA 13-8.16.4.6.1**

Forward Flow Test Performed:	Pass <input type="checkbox"/>	Fail <input type="checkbox"/>	Date:
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System Demand (GPM): \_\_\_\_\_ Actual Flowed (GPM): \_\_\_\_\_

**BACKFLOW PREVENTER FORWARD FLOW TEST PROCEDURES**

The backflow preventer forward flow test is required for new installations per NFPA 13 and at least annually thereafter per NFPA 25. This is one method for a typical Light Hazard or Ordinary Group I or II demand; there are other approved methods for conducting the test. This example is very similar to a Main Drain Test, only that flow rates must be calculated. For larger demand systems, other approved method shall be used.

**Test Procedure:**

1. The automatic fire sprinkler contractor must provide a test outlet in the system downstream of the backflow preventer. The test outlet provided must be large enough to flow a volume of water at least equal to the hydraulically calculated system demand, including inside hose stream demand where applicable. The test outlet from which you will be flowing should be located as close to the backflow preventer as possible to minimize pressure loss due to friction. There are many options available for providing a test outlet. Some examples are: using a bypass around the check valve in the fire department connection, providing a tee in the riser, or an adequately sized main drain. A 2 1/2" Standpipe hose connection or a fire pump test header may also be used to conduct the forward flow test.
2. Locate the pressure gauge on the supply side of the sprinkler riser, and record the static pressure.
3. Open the main drain valve slowly, and allow it to run until the water is clear. This may take several minutes.
4. Observe the supply side pressure gauge, and record the pressure displayed once the needle stabilizes. This number is your residual pressure.
5. Record the number of outlets flowed, the outlet size and the pitot pressure read from each outlet or hose stream.
6. Convert the pitot tube readings to gallons per minute (GPM).
7. Compare performance test results to the hydraulic calculations. This comparison will verify that the water supply is adequate for proper system operation. Verify the actual flow rate meets or exceeds the designed flow rate.
8. If the actual flow rate is less than the designed flow rate then extra steps are needed. You must hydraulically calculate the friction loss from the test outlet being flowed (Point A) to the riser (Point B).

At the completion of the forward flow performance test, conduct the backflow performance test. When both performance tests have been completed and the test results indicate the backflow preventer has passed all test requirements, the system is ready to be placed into service.

Fill out City of Rockwall Backflow Prevention assembly Test Report. Record the Designed flow rate (GPM) and the Actual flow rate (GPM) obtained. Submit copy of form to Rockwall Fire Department in addition to the required City Department. Or, you may submit the forward flow test results on company letterhead directly to the fire department.

