PROCEDURE: How to Test Proper Function of an Automatic Nozzle

Aside from routine cleaning, inspection and lubrication that is recommended, agencies often perform annual flow/pressure test on their nozzles. Care, Use and Service Testing of Fire hose including couplings and nozzles is covered in NFPA Standard # 1962. Performing a simple annual flow/pressure test on your nozzles will identify instances of damage that can have an effect on overall performance. And of course also help insure safe fire suppression operations.

NFPA Standard #1962
Section 6.1.2.
All nozzles shall be inspected after each use and at least annually.
Section 6.1.3.
The nozzle inspection shall verify the following:

1. The waterway is clear of obstructions.
2. There is no damage to the tip.
3. All controls and adjustments operate as designed.
4. The shut off valve, if so equipped, operates as designed and closes off the flow completely.
5. There are no missing or broken parts.
6. The thread gasket is in good condition in accordance with Section 6.3.

Section 6.1.4.
If the nozzle fails the inspection for any reason, it shall be removed from service, repaired and service-tested, or replaced.

SERVICE TEST AUTOMATIC HANDHELD NOZZLES:

To properly test an automatic nozzle, you must go to a pre-determined Pump Pressure and then note base nozzle pressure. The set up is simple.

EQUIPMENT REQUIRED:

In-line pressure gage.
150 feet of your departments attack hose. Connect hose directly to side discharge.
Place the pressure gage at the base of the nozzle, this will be used to display base nozzle pressure.

NOTE: Constant pressure spray nozzles shall maintain plus or minus 15 PSI of the rated pressure throughout the rated flow range

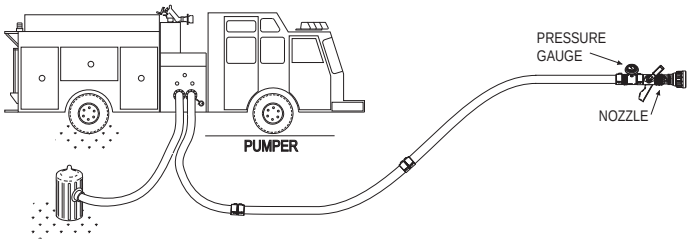
NFPA 1964 Section 4.1.5.

4.1.5 Constant pressure (automatic) spray nozzles shall maintain their rated +/- bar (+/-15 psi) throughout the rated discharge range when tested in accordance with Section 6.1

Note:

1. Average nozzle pressure is 100 PSI.
2. The bail handle must be fully open.

Using the sample charts below, adjust pump discharge pressure and record nozzle pressure.



SAMPLE DATA CHART

PDP = PUMP DISCHARGE PRESSURE

SERIAL#	HIGH FLOW	PDP = 195	MEDIUM FLOW	PDP = 150	LOW FLOW	PDP = 125
	NOZZLE PRESSURE SHOULD BE 100 PSI RECORD ACTUAL NP		NOZZLE PRESSURE SHOULD BE 100 PSI RECORD ACTUAL NP		NOZZLE PRESSURE SHOULD BE 100 PSI RECORD ACTUAL NP	

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