TEST K

HYDROSTATIC STRENGTH TEST DATA SHEET (SECTION 3-1)

SECTION NO.	TESTING DESCRIPTION	WHO	DATE	RESULTS	SIGN OFF
3-1	Hydrostatic Strength				
	Nozzles shall be designed to withstand a hydrostatic pressure of 900 psi (6205 kPa) or three times the maximum rated pressure, whichever is higher. The hydrostatic strength shall be confirmed by testing in accordance with Section 4-4.	TIM	12/9/99	Confirmed. Pass.	TIM
4.4	Hydrostatic Test. The nozzle shall be mounted in a closed position on a device capable of exerting a hydrostatic pressure of 900 psi (6205 kPa) or three times the maximum rated pressure, whichever is higher. All air shall be bled out of the system. The pressure shall be increased by 50-psi (345kPa) increments and held for 30 seconds at each pressure up to the maximum pressure for which the nozzle is being tested. This maximum pressure shall be held for 1 minute without rupture of the nozzle. There shall be no leakage through any part of the nozzle other than the discharge orifice. Increase in leakage through the nozzle orifice shall be permitted beyond that allowed in Section 2-6.	TIM	8/10/99	Pressurized to 1000 psi. No leakage. Complete.	TIM
2-6	Leakage	I	1 1		I
2-6.1	Nozzles equipped with a shutoff shall be pressurized to 800 psi (5516 kPa) or 1.5 times the rated pressure, whichever is higher, and the shutoff shall be fully opened and closed. After the shutoff has been closed, the leakage, if any, shall be measured. The maximum leakage allowed through the discharge orifice is 12 drops/min (1/2 ml/min). There shall be no leakage through any part of the nozzle other than the discharge orifice.	TIM	8/10/99	Pressurized to 1000 psi. No leakage. Complete.	TIM
2-6.2	A nozzle with a twist shutoff shall be operated in accordance with 4-3.4. When it is returned to the fully closed position, the leakage shall not exceed that allowed in 2-6.1.	TIM	8/10/99	N/A Lever Shutoff.	TIM
	NO. 3-1 4.4 2-6 2-6.1	NO. 3-1 Hydrostatic Strength Nozzles shall be designed to withstand a hydrostatic pressure of 900 psi (6205 kPa) or three times the maximum rated pressure, whichever is higher. The hydrostatic strength shall be confirmed by testing in accordance with Section 4-4. 4.4 Hydrostatic Test. The nozzle shall be mounted in a closed position on a device capable of exerting a hydrostatic pressure of 900 psi (6205 kPa) or three times the maximum rated pressure, whichever is higher. All air shall be bled out of the system. The pressure shall be increased by 50-psi (345kPa) increments and held for 30 seconds at each pressure up to the maximum pressure for which the nozzle is being tested. This maximum pressure shall be no leakage through any part of the nozzle orifice shall be permitted beyond that allowed in Section 2-6. 2-6 Leakage 2-6.1 Nozzles equipped with a shutoff shall be pressurized to 800 psi (5516 kPa) or 1.5 times the rated pressure, whichever is higher, and the shutoff shall be fully opened and closed. After the shutoff has been closed, the leakage, if any, shall be measured. The maximum leakage allowed through the discharge orifice is 12 drops/min (1/2 ml/min). There shall be no leakage through any part of the nozzle orifice. 2-6.1 A nozzle with a twist shutoff shall be operated in accordance with 4-3.4. When it is returned to the fully closed position, the	NO. Hydrostatic Strength 3-1 Hydrostatic Strength Nozzles shall be designed to withstand a hydrostatic pressure of 900 psi (6205 kPa) or three times the maximum rated pressure, whichever is higher. The hydrostatic strength shall be confirmed by testing in accordance with Section 4-4. TIM 4.4 Hydrostatic Test. The nozzle shall be mounted in a closed position on a device capable of exerting a hydrostatic pressure of 900 psi (6205 kPa) or three times the maximum rated pressure, whichever is higher. All air shall be bled out of the system. The pressure shall be increased by 50-psi (345kPa) increments and held for 30 seconds at each pressure up to the maximum pressure for which the nozzle is being tested. This maximum pressure shall be no leakage through any part of the nozzle. There shall be no leakage through any part of the nozzle ther than the discharge orifice. Increase in leakage through the nozzle orifice shall be pressurized to 800 psi (5516 kPa) or 1.5 times the rated pressure, whichever is higher, and the shutoff shall be pressurized to 800 psi (5516 kPa) or 1.5 times the rated pressure whichever is higher, and the shutoff shall be fully opened and closed. After the shutoff has been closed, the leakage, if any, shall be measured. The maximum leakage allowed through the discharge orifice is 12 drops/min (1/2 ml/min). There shall be no leakage through the nozzle orifice. 2-6.2 A nozzle with a twist shutoff shall be operated in accordance with 4.3.4. When it is returned to the fully closed position, the TIM	NO. Image: No. Image: No. 3-1 Hydrostatic Strength and the strength Nozzles shall be designed to withstand a hydrostatic pressure of 900 psi (6205 kPa) or three times the maximum rated pressure, whichever is higher. The hydrostatic strength shall be confirmed by testing in accordance with Section 4-4. TIM 12/9/99 4.4 Hydrostatic Test. The nozzle shall be mounted in a closed position on a device capable of exerting a hydrostatic pressure of 900 psi (6205 kPa) or three times the maximum rated pressure, whichever is higher. All air shall be bled out of the system. The pressure shall be increased by 50-psi (345kPa) increments and held for 30 seconds at each pressure up to the maximum pressure shall be held for 1 minute without rupture of the nozzle orfice shall be no leakage through any part of the nozzle orfice shall be permitted beyond that allowed in Section 2-6. TIM 8/10/99 2-6.1 Nozzles equipped with a shutoff shall be pressurized to 800 psi (5516 kPa) or 1.5 times the rated pressure, whichever is higher, and the shutoff shall be pressurized to 800 psi (5516 kPa) or 1.5 times the rated pressure, whichever is higher, and the shutoff shall be truly opened and closed. After the shutoff has been closed, the leakage, if any, shall be measured. The maximum leakage allowed through the discharge orfice. TIM 8/10/99 2-6.1 A nozzles with a twist shutoff shall be operated in accordance with 4-3.4. When it is returned to the fully closed position, the TIM 8/10/99	NO. Image: No. Image: No. 3-1 Hydrostatic Strength

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HYDROSTATIC STRENGTH TEST DATA SHEET (SECTION 3-1)

TEST ORDER	SECTION NO.	TESTING DESCRIPTION	WHO	DATE	RESULTS	SIGN OFF
	4-3.4	Twist Shutoff. A nozzle with a twist shutoff shall be mounted on a device equipped with a relief valve, or other means, to maintain 100 psi (690 kPa) in both the closed position and the fully open position while flowing the rated discharge. The test shall start with the nozzle in the closed position. The force gauge shall be used to twist the shutoff to the fully open position, following the method outlined in 4-3.2.2. The windings on the pattern sleeve shall be reversed and the force gauge used in the same manner as above to rotate the shutoff from the fully open to the fully closed position. In the fully closed position, any leakage shall be measured.	TIM	8/10/99	N/A	TIM
	4-3.2.2	A length of twine or string, not to exceed 3/32 in. (2.9 mm) in diameter, shall be wrapped around the nozzle at the point where the nozzle normally would be held while rotating the pattern sleeve. The string shall be of sufficient length to wrap around the nozzle at least six times. The first two turns shall overlap the starting end of the string, and the balance of the turns shall not overlap any other turn. A force gauge, which records the maximum force reading, shall be attached to a loop in the free end of the string. The pattern sleeve shall be rotated by pulling the force gauge perpendicular to the center axis of the nozzle. As the pattern sleeve rotates, the string will unwind so that the force always remains tangential to the pattern sleeve. The pattern sleeve shall be rotated from the straight stream position to the wide spray position or vice versa. If the nozzle is equipped with detents for the pattern settings, this test shall commence with the pattern sleeve in the straight stream or wide spray detent.	TIM	8/10/99	N/A	TIM