

4-1/2" AMERICAN-DARLING® MARK 73-5 INSTALLATION



This instruction is issued as a recommendation to the customer for the proper use of the AMERICAN Flow Control manufactured fire hydrants. AMERICAN recommends you follow the general Inspection and Installation guidelines outlined in AWWA Manual *M17 for Installation, Field Testing, and Maintenance of Fire Hydrants* and/or as recommended below. **WARNING: Special care should be taken in the installation, inspection and repair of pressure containing devices such as valves and hydrants. FAILURE TO FOLLOW PROPER PRACTICE AND GUIDELINES CAN RESULT IN SERIOUS INJURY OR DEATH.** High pressure and water hammer, due to rapid opening or closing of a hydrant or valve, can also cause major damage to the hydrant, valve, water main, fire hose, or other attached equipment.

Receiving Inspection

On receipt, inspect for direction of opening, correct nozzle threads and operating nuts and shipping damage.

Report any problems to carrier, note on bill of lading and have the driver sign your copy.

Installation

1. When hydrants are received, they should be handled carefully to avoid breakage and damage to flanges. Keep hydrants closed until they are installed. Protect stored hydrants from the elements.
2. **Before installation of hydrant, clean piping, base and drain ring of hydrant of any rocks, sand and/or foreign material. Check for loose bolts at base, ground line and cover. Tighten if necessary.**
3. Hydrants shall be located as shown or as directed and in a manner to provide complete accessibility, and also in such a manner that the possibility of damage from vehicles or injury to pedestrians will be minimized. Locate hydrants as detailed in AWWA M17 and/or in accordance with applicable fire codes, the requirements of local fire authority, or the applicable municipal design standard.
4. All hydrants shall stand plumb and shall have their nozzles parallel with or at right angles to the curb, with the pumper nozzle facing the curb, except that hydrants having two hose nozzles 90° apart shall be set with each nozzle facing the curb at the angle of 45°. Hydrants shall be set to the established grade, with nozzles at least 18 inches above the ground, as shown or as directed by the engineer.
5. It is recommended practice to install an auxiliary or secondary gate valve in the lateral between the hydrant and the main to permit inspection and repair of the hydrant without shutting down mains. The use of AMERICAN Flow Control Series 2500 Resilient Wedge Gate Valves are recommended.
6. On traffic hydrants, surrounding soil must be adequately compacted around the barrel to support the lower barrel against transferring the force of a vehicular impact to the base. If the soil is too sandy and will not support the loads, pour a concrete pad around the barrel at or near the ground line at least 6 inches thick and 36 inches in diameter for barrel support.
7. Whenever a hydrant is set in soil that is pervious, drainage shall be provided at the base of the hydrant by placing coarse gravel or crushed stone mixed with coarse sand, from the bottom of the trench to at least 6 inches above the drain opening in the hydrant and to a distance of 1 foot around the elbow.
8. Whenever a hydrant is set in clay or other impervious soil, a drainage pit 2 feet in diameter and 3 feet deep shall be excavated below each hydrant and compactly filled with coarse gravel or crushed stone mixed with coarse sand under and around the elbow of the hydrant and to a level of 6 inches above the drain opening.
9. Where there is a high ground water level or other conditions which prevent the use of hydrants with drains, "non-draining" hydrants should be used. Hydrants of this type are provided with either a solid seat and/or plugged drains and are marked to pump after use. This is especially important to avoid damage to the hydrant in areas where freezing temperatures are likely. Non-draining hydrants should be checked upon installation and during semi-annual inspections to make sure the hydrant stays dry inside the lower and upper barrel.
10. Restrain hydrant movement with appropriate thrust blocking or restrained joint to prevent pipe and/or joint separation. If a concrete thrust block is installed, care should be taken to prevent blocking the hydrant drains if they are to remain operable.
11. When first installed, the hydrant should be operated from full closed to full open position and back to make sure no obstructions are present.
12. After the line, as well as the hydrant, have been hydrostatically tested, the hydrant should be flushed and checked for proper drainage, if applicable.