NON-FREEZE WALL HYDRANT

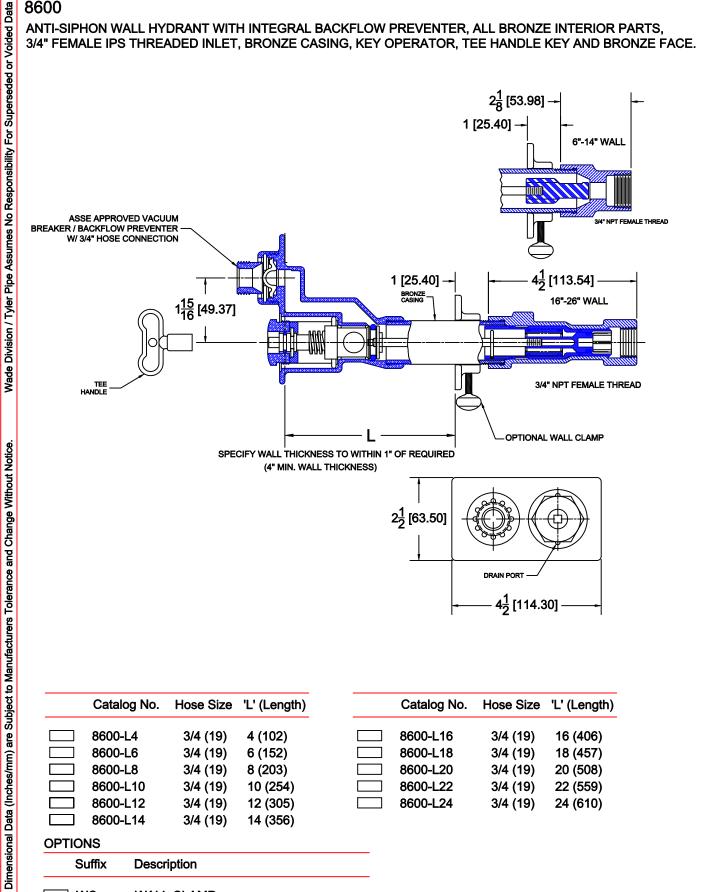


8600

Approval Date

Customer Approval

ANTI-SIPHON WALL HYDRANT WITH INTEGRAL BACKFLOW PREVENTER, ALL BRONZE INTERIOR PARTS, 3/4" FEMALE IPS THREADED INLET, BRONZE CASING, KEY OPERATOR, TEE HANDLE KEY AND BRONZE FACE.



| | | | 'L' (Length) | Catalog No. | 1 1036 0126 | 'L' (Length) |
|------------|-----------|----------|--------------|-----------------|-------------|--------------|
| <u> </u> | 8600-L4 | 3/4 (19) | 4 (102) | 8600-L16 | 3/4 (19) | 16 (406) |
| <u> </u> | 8600-L6 | 3/4 (19) | 6 (152) | 8600-L18 | 3/4 (19) | 18 (457) |
| <u> </u> | 8600-L8 | 3/4 (19) | 8 (203) | 8600-L20 | 3/4 (19) | 20 (508) |
| <u> </u> | 8600-L10 | 3/4 (19) | 10 (254) | 8600-L22 | 3/4 (19) | 22 (559) |
| <u> </u> | 8600-L12 | 3/4 (19) | 12 (305) | 8600-L24 | 3/4 (19) | 24 (610) |
| □ 8 | 8600-L14 | 3/4 (19) | 14 (356) | | | |
| OPTIONS | s | | | | | |
| Suff | fix Descr | iption | | | | |

Job Location

NON-FREEZE WALL HYDRANT

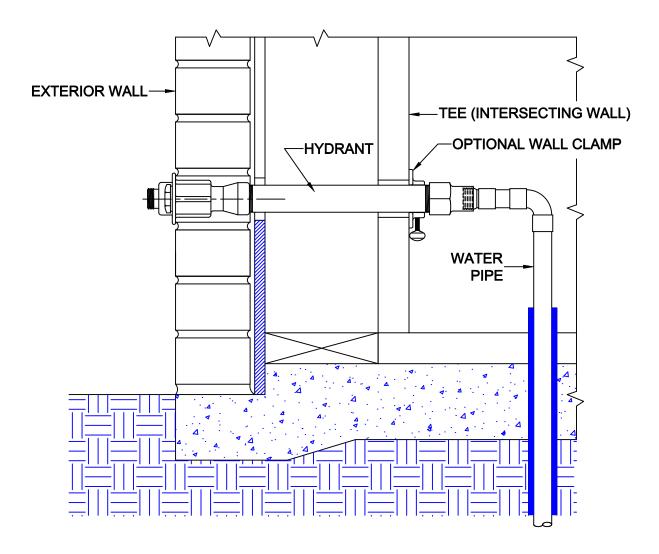


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Wade Division / Tyler Pipe Assumes No Responsibility For Superseded or Voided Data

Dimensional Data (Inches/mm) are Subject to Manufacturers Tolerance and Change Without Notice.

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The Wade 8600 wall hydrant provides a non-freeze installation in any type of wall construction. The water supply piping is first run to an elevation above the finished floor level at the anticipated hydrant location. The piping should be insulated for protection against aggressive soils and concrete. The type of piping and connections are irrelavent - a standard 3/4" male NPT threaded adapter is all that is required. The piping should be accessable for connection after the concrete is poured. A common method is to place the hydrant at an interior wall junction to allow a maximum length for freeze protection.

After the concrete is poured and wall framing is complete, mount the hydrant through the exterior sheeting and into the interior wall. Before connection to the water supply, flush the supply piping to insure no debris exist which could damage or clog the hydrant. The hydrant should extend out to the anticipated finish wall thickness. Use a high quality thread sealant and screw the adapter into the threaded hydrant tailpiece.

Care must be taken to protect the hydrant during installation. Use either cardboard, tape or other materials to protect the top during construction. After the finish wall is complete, open the box cover with the provided key and turn the hydrant on to insure the unit operates properly.

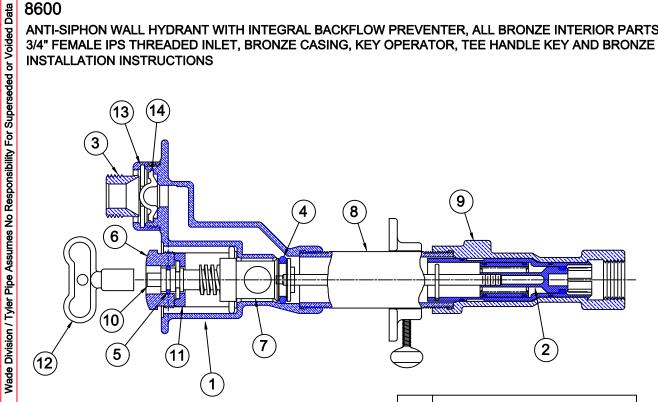
NON-FREEZE WALL HYDRANT



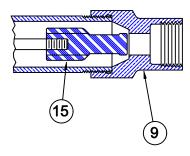
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4"-12" WALL



| NO. | DESCRIPTION | UPC 670610 |
|-----------|------------------|------------|
| 2,4,5 | MINOR REPAIR KIT | 232766 |
| 10,11,12 | WK03 (16-26") | |
| | | |
| 4,5,10 | MINOR REPAIR KIT | 357629 |
| 11,12,15 | WK01 (6-14") | |
| | | |
| 2,3,4,5,6 | MAJOR REPAIR KIT | 232773 |
| 7,10-12 | WK04 (16-26") | |
| 13,14 | | |
| 3,4,5,6 | MAJOR REPAIR KIT | 357636 |
| 7,10-12 | WK02 (6-14") | |
| 13,14,15 | | |

| NO. | DESCRIPTION |
|-----|-----------------------------|
| 1 | HYDRANT HEAD |
| 2 | CARTRIDGE ASSEMBLY |
| 3 | VACUUM BREAKER NOZZLE |
| 4 | O-RING (DRAIN OPENING) |
| 5 | O-RING (OPERATING COUPLING) |
| 6 | STEM BUSHING NUT |
| 7 | DRIVE SLEEVE |
| 8 | CASING |
| 9 | VALVE BODY (14-24" WALL) |
| 9 | VALVE BODY (6-14" WALL) |
| 10 | DRIVE SCREW |
| 11 | THRUST WASHER / SEAL |
| 12 | OPERATING KEY |
| 13 | DIVERTER DIAPHRAM |
| 14 | DIVERTER CHECK SPIDER |
| 15 | PLUNGER |
| 16 | CONTROL ROD (L6) |
| | CONTROL ROD (L8) |
| | CONTROL ROD (L10) |
| | CONTROL ROD (L12) |
| | CONTROL ROD (L14) |
| | CONTROL ROD (L16) |
| | CONTROL ROD (L18) |
| | CONTROL ROD (L20) |
| | CONTROL ROD (L22) |
| | CONTROL ROD (L24) |
| | CONTROL ROD (L26) |
| | |

Job Name

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Job Location

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Troubleshooting Guide

| PROBLEM | CAUSE | SOLUTION |
|---|--|--|
| Hydrant will not operate when turned on | Water supply is off | Turn water supply on |
| Cannot turn the hydrant on with the key | Hydrant has not been operated for a log period - O-ring has adhered to stem and head | See service guide steps 1-2, 4-5 and 8-10 |
| | Ceramic disc inside cartridge assembly is broken | See service guide steps 1-4. |
| Water sprays from holes around vacuum breaker nozzle when hydrant is on | Balance seal is damaged | See service guide steps 1-3 and 8-10 |
| Water sprays from around the key operator when the hydrant is on | Operating coupling o-ring or the air relief orifice o-ring is damaged | See service guide steps 1-4 |
| Hydrant weeps around the operating key area | This is normal (hydrant will self drain for a short period after it is off) | Take no action |
| Hydrant will not weep (self drain) afer it is shut off and a hose is attached | The air relief orfice is blocked | Use a paper clip to evacuate debris from the orifice |
| Hydrant will not shut off completely | Cartridge assembly is loose or damaged | See service guide steps 1-4 (Verify that cartridge assembly is tight/seated) |
| | Debris in the ceramic disc or disc is damaged | See service guide steps 1-2, 4 and 6-10 |
| Hydrant has low flow | Water supply to the hydrant is restricted | Check water supply to ensure that all upstream valves are fully open |

Service Guide

Step 1: Shut Off Water Supply to Hydrant.

Locate the supply shut-off valve and actuate until water supply is off.

Step 2: Removing Internal Components

Use a wrench of appropriate size to remove the stem bushing nut by turning counterclockwise.

With a key operator, turn the drive screw 3 to 4 turns clockwise to let the drive screw assembly protrude slightly from the hydrant face. Using (2) screwdrivers or visegrip pliers, pull to release the internal operating assembly.

Step 3: Replacing Operating Stem and Internal Seals

Unscrew the plunger/cartridge assembly from the operating rod. Screw a new plunger or cartridge assembly onto the rod.

Remove the o-ring seal from the on the drive sleeve and replace with the new o-ring in the kit.

Reassemble the drive screw, drive sleeve, operating rod, cartridge assembly / plunger.

Insert assembly into the hydrant with the square drive sleeve aligned with its square bore. Grasp the head of the drive screw with pliers and gently push and pull the assembly to insure the cartridge assembly is properly engaged. For hydrants with a neoprene plunger, this step is not required.

Unscrew the drive screw from the sleeve and install the nylon thrust washer / seal and stem bushing nut.

Operate the hydrant fully open and closed to check for normal operation.

Step 4: Turn On the Water Supply

Locate the water supply valve and actuate open. Open and close the hydrant to ensure it works correctly.

HYDRANT PERFORMANCE

| Static Pressure (PSI) | Running inlet Pressure (PSI) | Running Outlet Pressure (PSI) | Flow Rate (GPM) |
|-----------------------|------------------------------|-------------------------------|-----------------|
| 10 | 6.1 | 0.0 | 2.6 |
| 20 | 14.8 | 0.0 | 4.3 |
| 30 | 24.3 | 0.5 | 5.6 |
| 40 | 33.1 | 0.9 | 6.5 |
| 50 | 42.3 | 1.4 | 7.3 |
| 60 | 49.7 | 1.7 | 7.9 |
| 70 | 62.1 | 2.2 | 8.8 |
| 80 | 70.6 | 2.7 | 9.3 |
| 90 | 78.7 | 3.1 | 9.8 |

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Job Location