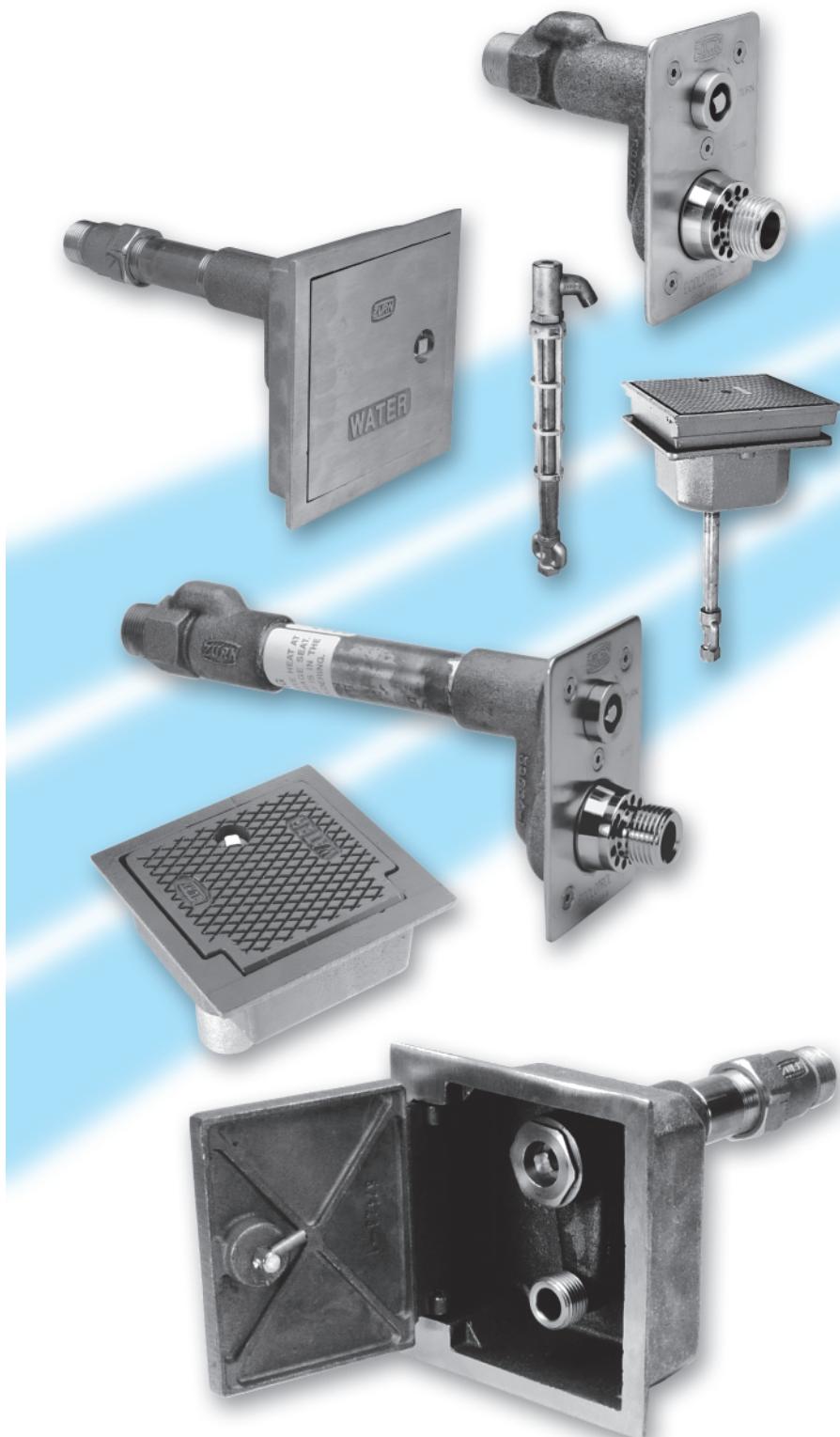




Specification Drainage Engineering Guide

Hydrants



APPLICATION INDEX

| WALL HYDRANTS | NON-FREEZE/SELF-DRAINING | MODERATE CLIMATE |
|---|---------------------------------|-------------------------|
| Retail Outlets | Z1300, Z1305, Z1310, Z1320 | Z1330, Z1335 |
| Office Buildings | Z1300, Z1305, Z1320 | Z1330, Z1335 |
| Institutions, Hospitals, Schools | Z1300, Z1305, Z1320 | Z1330, Z1335 |
| Apartments | Z1315, Z1321 | Z1333, Z1350 |
| Cored Wall Construction | Z1322 | Z1332 |
| Cleaning Areas, Slop Sink, Garbage Can Wash | Z1325 | |
| Commercial/Multi-Family, Thin Wall Construction | | Z1350 |

GROUND HYDRANTS

| | | |
|---------------------------|-----------------------------------|----------|
| Parks, Recreational Areas | Z1360, Z1365, Z1370, Z1390, Z1395 | |
| Garden Areas | Z1360, Z1370, Z1385, Z1395 | Z1375 |
| Industrial | Z1365, Z1370, Z1390 | |
| Supermarkets, Malls | Z1360-HD | Z1375-HD |
| Farms, Agricultural | Z1385, Z1390, Z1395 | |
| Stables | Z1385, Z1390, Z1395 | |

Note: Any of the non-freeze/self-draining hydrants may be used in moderate climates.

OPTIONS and VARIATIONS

All Zurn hydrant options are specified as a suffix letter or number added to the series designation. Below are the available suffixes. For a pictorial view of some of the suffixes refer to the installation data in this section.

| | | | |
|--------------|--|---------------|---|
| -AC | Aluminum Casing Guard | -RK | Hydrant Parts Repair Kit Only |
| -CI | D.C.C.I. Box and Cover | -RT12 | Ceramic Cartridge Removal Tool (Up to 12" Wall) |
| -CL | Cylinder Lock | -RT24 | Ceramic Cartridge Removal Tool (Up to 24" Wall) |
| -DP12 | 1/2" IP Drain Port in Box | -RT36 | Ceramic Cartridge Removal Tool (Up to 36" Wall) |
| -DP14 | 1/4" IP Drain Port in Box | -SB | Statuary Bronze Face (Specify light, medium, or dark finish.) |
| -DP38 | 3/8" IP Drain Port in Box | -SS | Stainless Steel Box and Cover |
| -HD | Heavy-Duty Cover | -VB | 3/4" Adapter Vacuum Breaker |
| -K | Flashing Flange Only | -WC | Wall Clamp |
| -KC | Flashing Flange with Clamp Collar | -WH | Wheel Handle |
| -NB | Polished Nickel Bronze Face | -WR | "Water" Cast on Cover |
| -NW | Narrow Wall | -34EL | 3/4" 90° Solder Inlet Elbow |
| -PB | Polished Bronze Face | -34FIP | 3/4" IP Straight Female Inlet Adapter |
| -RA2 | 12" Replacement Rod Assembly with Repair Kit (-RK) | -34FS | 3/4" Solder Female Inlet Adapter |
| -RA4 | 24" Replacement Rod Assembly with Repair Kit (-RK) | -34UN | 3/4" IP 90° Inlet Elbow with Union Nut |
| -RB | Plain Bronze Face | | |

DEFINITIONS OF COMMON TERMS

ANTI-SIPHON

Feature in Ecolotrol hydrants that protects against back siphonage. It is recommended that hose be disconnected from hydrant after use.

BACKFLOW

All Ecolotrol hydrants are equipped with a backflow preventer. This device is designed to prevent the flow of water, or other liquids, into the potable water supply from any source other than those intended.

BACK SIPHONAGE

A type of backflow caused by negative pressure in potable water supply piping. Both optional screw-on backflow preventers (vacuum breakers) and integral Ecolotrol hydrant vacuum breakers protect against back siphonage.

MODERATE CLIMATE HYDRANTS

Hydrant that is not self-draining, nor does it have a remote shut-off, which is typically located in a wall or underground. These hydrants should only be used in areas where there is no danger of freezing.

NON-FREEZE (FROST PROOF), AUTOMATIC DRAINING HYDRANTS

Hydrants for the purpose of supplying potable water to a hose connection without danger of freezing. Hydrant allows water remaining in exposed area to drain, thus reducing the possibility of freezing and damage to the hydrant.

VACUUM BREAKER

Type of backflow preventer used in hydrants to prevent contamination of potable water supply through back pressure or back siphonage.

VARI-TEMP

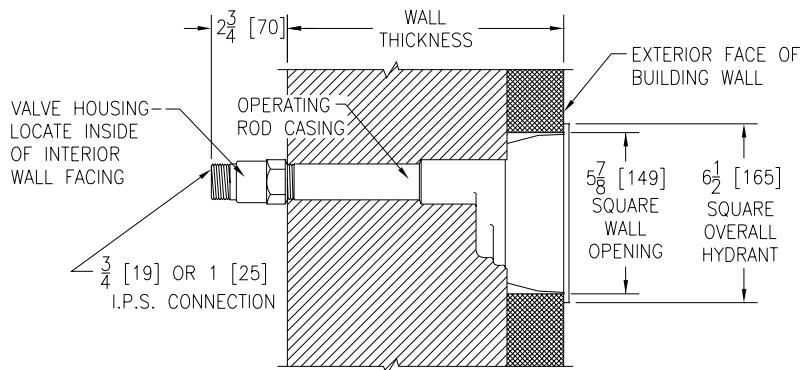
Mixing hydrant that allows connection to both hot and cold supplies; thus it is used to supply tempered water.

PRODUCT COMPLIANCE

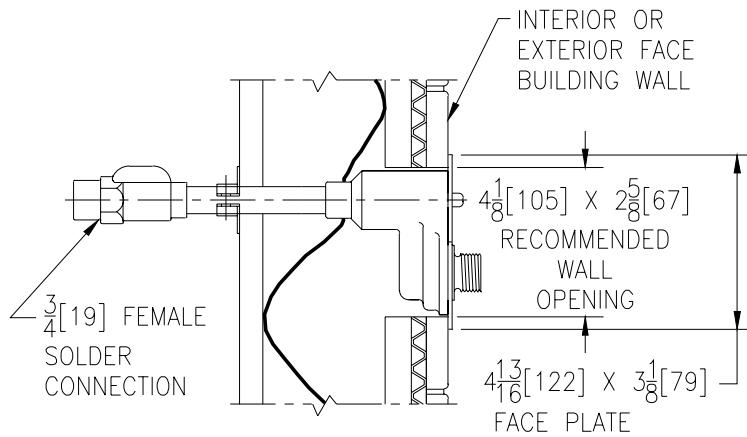
In general, Zurn hydrants are designed to comply with ANSI A112.21.3M. Zurn Ecolotrol hydrants are designed to comply with ANSI/ASSE Standards.

TYPICAL INSTALLATIONS**ECOLOTROL WALL HYDRANT****Encased, Non-Freeze****Z1300**

Zurn Z1300 Ecolotrol wall hydrants provide a flush, fully enclosed, fully protected installation in any type wall construction. Hinged box cover can be locked to prevent vandalism. The same key that unlocks cover operates hydrant. Amply wide flange of box extends over wall opening and provides neat, flush installation for modern building facades.

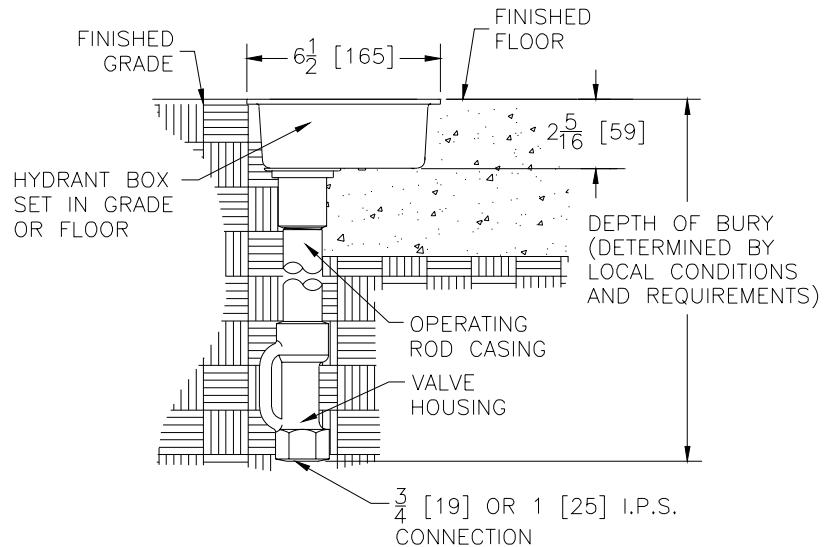
**ECOLOTROL WALL HYDRANT WITH CERAMIC DISC****Exposed, Non-Freeze, Automatic Draining, Anti-Siphon****Z1321**

Use Z1321 hydrant where the added security of a box hydrant is not required. Optional wall clamp shown to anchor hydrant in wall. Stainless steel face provides for flush installation and years of non-corroded appearance.

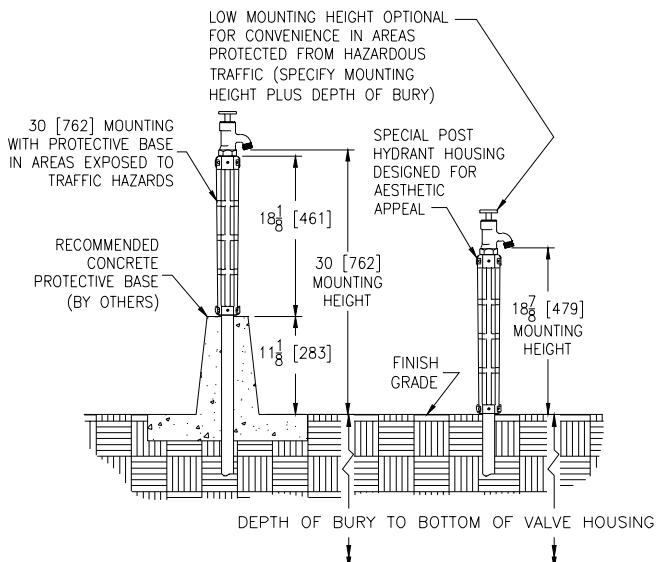


TYPICAL INSTALLATIONS**ENCASED GROUND HYDRANT****Non-Freeze, Flush with Surface****Z1360**

Zurn Z1360 box hydrants provide free flowing water supply at any temperature in any type of commercial, recreational, industrial, or residential installation. Removable key opens surface level cover and also operates hydrant. Non-freezing, vandal-proof design assures year-round convenience. Also designed with siphon-resistant drain port that is tapped 1/4" IP for drain piping connection by others.

**POST HYDRANT****Non-Freeze, Exposed****Z1385**

Zurn Z1385 post hydrants feature a unique housing designed for aesthetic appeal. Siphon resistant drain port prevents sub-surface water contamination from entering hydrant. Upward movement of the washer guide when the hydrant is turned on, positions O-rings to seal off drain port. When hydrant is turned off, the washer guide moves down, clearing drain port to permit complete drainage of water from the hydrant. Drain port is tapped 1/4" IP for drain piping connection by others.



NOTE: For ground, post, and yard hydrant installations that involve the use of a drain port, it is recommended that gravel be placed around the drain port to allow a flow path for the drained water to evacuate.

CERAMIC DISC CARTRIDGE FEATURES

- Low noise level.
- All brass casing for durability.
- One-half turn operation.
- Capable of withstanding pressures of up to 130 psi.
- Easily Replaceable if repair is necessary.

Zurn Ceramic Disk technology is available in the Z1320, Z1321, Z1322, Z1330, Z1332, and Z1333 Ecolotrol wall hydrants. These hydrant models utilize a one-piece, modular cartridge designed for years of maintenance-free use and serviceability.

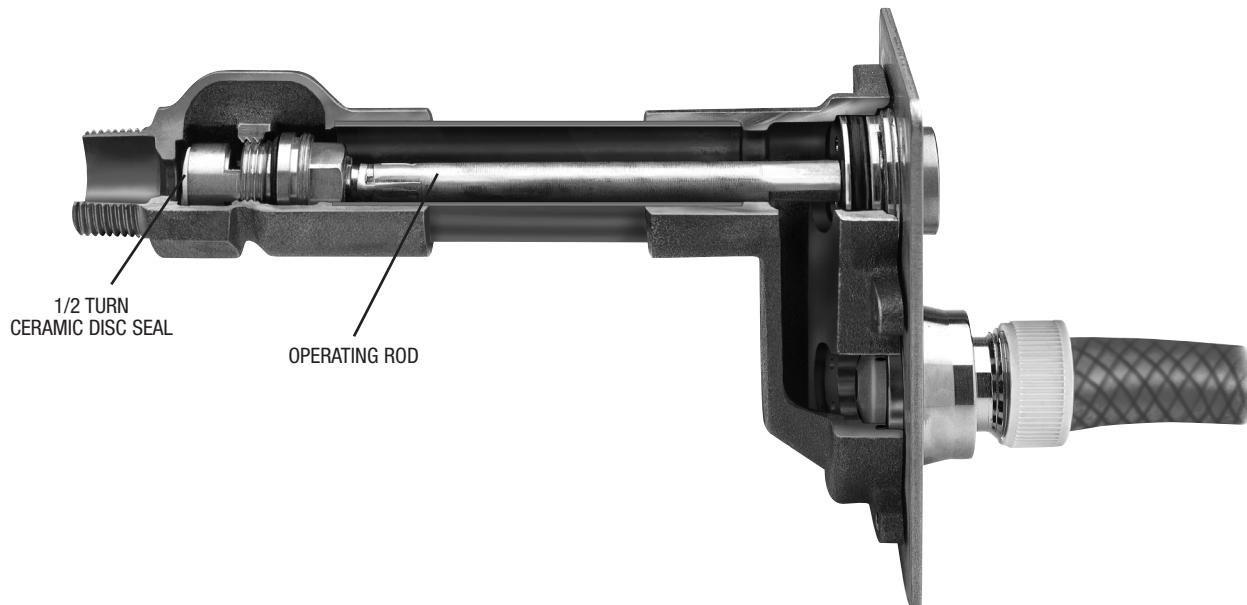
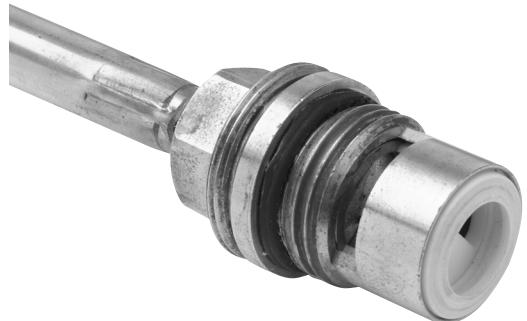
Note: Each ceramic disk cartridge utilizes a one-half turn operation. This is signified by a double-arrow symbol on the front of the hydrant faceplate displaying the words "1/2 Turn." The operating coupling should operate with very little resistance and should not be subjected to extreme torques when opening and closing the hydrant. Over-tightening the operating coupling does not affect the shut-off of the hydrant and may result in damage of the operating rod or the ceramic cartridge assembly.

Should there ever be a need to replace the ceramic cartridge assembly, a removal tool can be provided to assist in any necessary repairs. The removal tool is available in three different lengths to accommodate various wall thicknesses. It can be operated using a 3/8" drive ratchet.

Up to 12" wall thickness – order Part Number 62078-001-4

12" to 24" wall thickness – order Part Number 62078-002-4

24" to 36" wall thickness – order Part Number 62078-003-4



MATERIALS and FINISHES

Zurn Cast Iron conforms to ASTM Specification for Gray Iron Castings A 48-83, Class 25. It is produced utilizing the latest equipment and newest developed foundry techniques. Zurn cast iron castings are characterized by a high degree of strength, corrosion-resistance, workmanship, and finish.

"**Zurn Dura Coat**" is a specially formulated paint designed to resist cracking and chipping. Dura Coat is a latex based coating developed to be used with cast iron substrate.

Zurn Galvanized Cast Iron is a process of applying heavy zinc coating to a thoroughly cleaned iron casting. This coating contains 95% zinc. Zurn galvanizing can be supplied on all cast iron parts. It increases longevity and is recommended wherever the discoloration caused by oxidation of cast iron is objectionable. Galvanize should be used in coastal and industrial areas where corrosive atmosphere may be encountered. Zurn galvanizing meets and exceeds Federal Specification MIL-P-21035, MIL-P-26915A, MIL-P-26433, and MIL-C-10578 (Type II). It also meets ASTM A239-89 and is listed by Underwriters Laboratories, Inc. (U.L.)

Zurn Bronze is a semi-red brass conforming to ASTM Specification for Copper Alloy Sand Casting B 584-90, Copper Alloy No. 844. The exposed surface is normally supplied possessing a satin sheen texture which allows it to blend unobtrusively with surrounding finishes. When the application requires, Zurn Bronze can be polished to a high gloss.

Zurn Nickel Bronze is a unique material that is ideally suited to traffic-bearing grates and strainers in finished floor areas. It affords the combined advantage of greater strength, better appearance, and longer service life at the same price as chrome plated brass. Superior ductility and shock resistance are the result of a copper nickel alloy (Copper Alloy 997) having a wearing surface similar in appearance to satin chrome plate; however, because it does not have a plated surface it cannot chip, peel, crack, or wear off. It is highly resistant to corrosion; however, the process of oxidation will naturally occur over time with most metals. Methods have been developed to prevent, preserve, and restore metals affected by oxidation.

Aluminum supplied is casting grade 319. This is an alloy containing both silicon and copper. It is a solid cast metal in a pleasing light gray color. The light weight, coupled with its exceptional strength and corrosion resistance, makes it ideal for drain components such as sediment buckets and strainers. When used with acid-resistant porcelain enamel coated drains, the possibility of chipping is minimized.

Zurn Stainless Steel castings are normally produced in Type CF8 (304) which is an 18-8 Austenitic Stainless possessing excellent corrosion resistant qualities. For some applications where conditions demand, Type CF8M (316) stainless steel can be supplied. Items formed from stainless steel sheet and other stainless steel products are regularly furnished in Type 304 with 316 as an optional material.