



it's this simple: if you want to protect
the investment you've made in your home,
treat your water and yourself to a
Zeta Rod[®] system

Zeta Rod[®] systems work silently, behind the scenes to condition every drop of water in your home, pool and garden; and to protect valuable plumbing, water using appliances, and surfaces from the destructive effects of hard water. Zeta Rod system's green technology is patented electronic deposit control that accomplishes the goal of preventing scale and biofilms from forming by affecting the physical characteristics of water, rather than by altering its chemistry.

Imagine freeing yourself from the expensive and time consuming task of maintaining an obsolete salt-based water softener-- no more bags of salt to lug around, no more equipment to take up precious space, no more guilt about flushing salt residue into the environment. In fact, salt-based water softeners are restricted or banned in many municipalities across North America.

For over a decade, Zeta Rod systems have successfully improved water and energy conservation, optimized performance of industrial fluids, reduced chemical usage and eliminated scale and biological fouling in water systems. Originally developed for process protection in mining, pulp and paper, and beverage bottling, its use was expanded to reduce or eliminate chemical usage in heavy air conditioning and to protect drinking water systems for airports and municipalities. Water conservation and biological control for agriculture and food production allowed us to observe the beneficial effects that water treated with Zeta Rod Z₂O™ has on plants.

Zeta Rod systems for the home are the natural extension of the expertise Zeta Corporation has developed in the industrial and commercial arena. The U.S. and international trademarks, patents, and patents pending that we hold for the Zeta Rod and for certain applications of capacitor-based technology attest to the originality of our research. In other words, we've done our homework.

We invite you to explore this website and to learn more about why protecting your home with a Zeta Rod system is a great choice.



June 25, 2006:
zetarod.com website is launched, designed specifically to showcase Zeta's residential water conditioning systems.

June 15, 2006:
Zurier Company aligned to represent Zeta in California, Northern Nevada & Hawaii

February 8, 2006:
Zeta Corporation earns IAPMO certification for Zeta Rod systems.

“With our responsibility to maintain quality, we must install only high quality products that will perform reliably. We feel that the Zeta Rod system meets this need. In addition, we feel that the support provided by your company meets our high standards.”

Pepsi-Cola Bottling Co. of Tucson



about zeta



M. Michael Pitts, Jr.
President & CEO

Rodrigo F.V. Romo
Vice President, Engineering

Kellen Adams
Operations Manager

Carolyn Pitts
Design

Zeta Corporation, based in Tucson, Arizona USA, designs and manufactures the patented Zeta Rod[®], an electronic capacitor-based system that has been used for over a decade in a wide range of commercial and industrial settings to prevent fouling in water systems. If you drive a car, own a computer, drink bottled water, or read a newspaper, chances are a Zeta Rod was involved in the production of those products or in the management of those facilities.

Originally designed to survive the tough conditions found in copper and gold mining operations, the innovative design, advanced engineering and state-of-the-art materials used to create the Zeta Rod resulted in a system of products that, for the first time, could be scaled to address very large industrial and commercial flows of water.

As the Company grew, our industrial customers would ask us, "When are you going to design a system for the home?" So, we began by outfitting a few of our client's homes with our smallest systems and asked them to keep us informed about their experiences. Then, we set about to engineer a pint-sized product that could deliver big results in an economical package. The result is an easily installed, compact system with no moving parts, that replaces traditional salt-based softeners and can be relied upon to protect valuable plumbing, fixtures and appliances, while delivering benefits that enhance water quality and do no harm to the environment.

Why should you choose Zeta? We decided to offer a Zeta Rod system to the home water conditioning market only after proving ourselves in the toughest industrial environments and only after establishing ourselves as a leader in the field of electronic water treatment technologies. Our products are based upon an in-depth understanding of the physics and electrochemistry of surface charge alteration and are designed to bring this expertise to the homeowner in an economical, maintenance free and chemical free product.

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Z₂O^{US} features & benefits

Point-of-entry patented electronic water conditioning for the entire home, pool and garden is accomplished by installing the Zeta Rod into the main water line as it enters the home.

The Zeta Rod is designed to **fit into standard piping and plumbing layouts**. Unlike traditional salt-based water softeners, the Zeta Rod takes up minimal space. The electronics are designed to be wall mounted and out of the way and there are **no heavy bags of salt or large tanks to take up floor space**.

Because the Zeta Rod functions as a capacitor, power consumption is almost too low to measure. **Cost to operate: about two cents a day.**

The Zeta Rod system is delivered as a kit with all components **pre-assembled for easy installation**.

The system is powered by a **UL listed 12-volt regulated AC/DC converter for safety and long life**.

The Zeta Rod system is **maintenance-free and works continuously 24/7, whether water is running or not**. Once installed, just plug it in. No more lugging bags of salt or flushing filters.

All Zeta Rod systems are **IAPMO certified and listed, meeting Uniform Plumbing Code and ANSI/NSF part 61 standards for Drinking Water Systems - Health Effects**.

Fresher, cleaner tasting water results from elimination of bio-films on pipe and vessel walls. Because there are no added salts or chemicals, **water retains its natural mineral balances**.

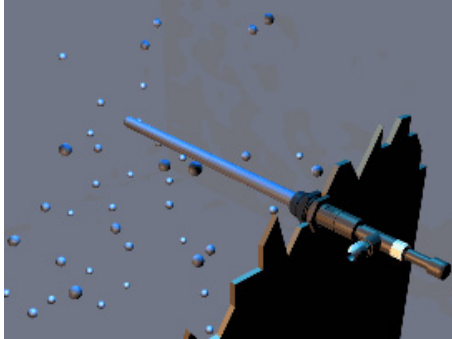
Zeta Rod systems electronically conditioned **water feels naturally refreshing, without the slippery feel of chemically softened water**, making it ideal for bath and shower.

Shower nozzles, pipes and drains remain free of scale build-up. Expensive plumbing fixtures are protected from corrosion and maintain their new appearance and finish.

Laundry comes out cleaner and brighter, with less detergent.

Zeta Rod conditioned water is ideal for house and garden plants. Because water that is conditioned with a Zeta Rod is reduced in surface tension, the water is "wetter" and soaks into the soil more thoroughly, rather than beading on the surface. This allows for greater penetration of water to the root zone, reducing water waste and allowing for better uptake.

zeta technology



zeta potential
(zā'tə pə'ten'shəl) *n.*
The measurement of electrokinetic forces that cause suspended colloidal particles to repel each other as a function of increased surface charge density.

Zeta Rod systems patented capacitor-based technology electronically disperses bacteria and mineral colloids in aqueous systems, eliminating biofouling and scale formation without the use of additive chemicals.

Zeta Rod systems designed specifically for residential applications consist of a ceramic electrode energized by a power supply that converts 12 volts DC to 30,000 volts DC. When the Zeta Rod and chamber are plumbed into the incoming water piping, the rod and grounding surfaces provided by the pipes and chamber form the parameters for the capacitor. A 12 volt power adapter plug converts household AC power to 12 volts DC and plugs into the power supply.

Bacteria and scale forming colloids in the water are included as components of the capacitor and receive a strong boost to their natural surface charge. Having become elevated in charge, the particles repel one another and remain in stable suspension, rather than uniting to form scale or colonizing to form biofilm or other system fouling. Bacteria are unable to attach, absorb nutrition or replicate into colonies. Existing biofilm hydrates excessively, loses bonding strength and disperses. Biofilm, bio-corrosion and scale formation are arrested.

Q A

frequently asked questions about Zeta Rod[®] systems



What is a Zeta Rod[®] System and is it affordable? The **Zeta Rod[®] green technology** offers a highly economical and environmentally sound method of water conditioning that uses the physical and electrochemical effects of electrostatic fields to disperse bacteria and nano-crystals that form biofilm and scale. A Zeta Rod system will normally pay for itself in chemical savings, water conservation and maintenance over a period of months rather than years.

Why the name Zeta? Zeta Corporation borrows its namesake from the term **zeta potential**, which is simply defined as the measurement of electrokinetic forces that cause suspended colloidal particles to repel each other. By increasing the zeta potential of suspended colloidal particles in fluids, they remain in suspension, rather than uniting to form hard scale or biological deposits. Visualize all the suspended particles in your water, each with its own force field. The Zeta Rod strengthens that field, causing particles to repel each other.

How does a Zeta Rod system work? The Zeta Rod forms a **capacitor** involving the sub-colloidal particles within the water, the piping, and the vessel walls. Within this capacitor, tiny particles that would otherwise become part of scale, sludge or bacterial deposits are electronically charged to the same sign. Behaving within the laws of physical chemistry, described as DLVO theory, having been charged to the same sign, they repel each other. Since the colloidal particles can't link together or stick to the vessel walls, they pass through the system without forming harmful deposits.

Are chemicals used? No chemicals, acids or other additives are required for a Zeta Rod system to create this capacitor.

Will the Zeta Rod replace my water softener? Yes, the Zeta Rod is often used as an alternative to water softeners, eliminating the need to store salts and re-generate media. The maintenance and space required by traditional salt-based water softeners is also eliminated. Because the Zeta Rod does not change the chemistry of the water, the water treated can be used for irrigation and drinking. The Zeta Rod is an ideal choice in areas where bans on salt-based softeners are in effect.

Will the Zeta Rod purify my water? No, a Zeta Rod system affects the physical behavior of water without adding anything to the water or removing anything from the water. The system acts as an electronic conditioner that in effect arrests the effects of hard water without the use of salts or other chemicals. It is not a purifier, however, if purified or filtered drinking water is desired, the Zeta Rod system will keep those filters or systems from fouling, thus enhancing their performance.

Does the Zeta Rod cause corrosion? No! In fact, one of the main uses for the Zeta Rod in industrial applications is for corrosion prevention. Because the Zeta Rod is a true capacitor, there is no electrical current flowing across the water. Other methods that pass actual electrical current through the water have the potential to cause corrosion by electrolysis.

Will old deposits of scale and biofilm be removed? The bond between old deposits and the surface will be dissolved, allowing existing deposits to fall away from pipe or vessel wall surfaces. The removal process is normally gentle and occurs over a period of time. If the deposit is sufficiently thick to cause a loss of heat transfer or flow

efficiency it should, if possible, be cleaned before start-up. We recommend starting with a clean system that will be kept clean by the Zeta Rod, but if this is not possible or convenient, there is no harm in installing the system on older piping.

Will the Zeta Rod stop those spots from forming on my shower walls & bathroom fixtures? As water droplets evaporate, they leave their salts behind. This is simply a fact of physics. Because the Zeta Rod does not add or remove anything from the water, spots created by evaporated salts may still form. However, because the Zeta Rod reduces the surface tension of the water, the crystallization behavior of those salts is altered, greatly reducing spotting and allowing them to be easily wiped away, leaving shower walls and bathroom fixtures as shiny as when they were installed. A Zeta Rod system will allow the user to back off significantly on the amount of soap used for laundry, dish washing, etc., while at the same time improving the performance of those appliances.

What will happen if there are existing deposits in my pipes? It is possible that the biofilm "glue" bonding old scale deposits to piping and tanks may lose its bonding, allowing old scale to be dislodged, rather than to dissolve slowly over time. It is also possible that some dislodged old scale deposits may become entrapped in shower heads or aerator screens in sink faucets. Simply open those screens and flush with water. Of course, new scale and biofilms are prevented from forming.

Will the Zeta Rod keep my evaporative (swamp) cooler clean? Yes, the Zeta Rod has been used for many years to keep industrial and commercial evaporative cooling equipment free of scale and biofouling without the use of any chemicals. Given the low volume of water in a swamp cooler, the constant make up with fresh treated water ensures that the cooling pads remain clean, distribution tubing and nozzles won't plug; and fan belts, motors and recirculation pumps last longer since there is no scale accumulation. Evaporated salts on the outsides of pads are easily rinsed off and in many cases allow for their use over many seasons without having to be replaced. The best part is that the swampy odors inside the home are eliminated because there is no bio-fouling of the water.

Will the Zeta Rod protect my water heater? Yes, if the Zeta Rod is installed upstream from the water heater, then the water going into the heater will be preconditioned and the heater will be protected against scale deposits.

I have a reverse osmosis (RO) unit under my sink, will the Zeta Rod affect its performance? The Zeta Rod will actually help your RO system perform better. Many industrial and municipal RO systems are being treated with the Zeta Rod to help reduce membrane fouling, increase membrane life span and improve the flux of the system (that is the amount of water produced at its normal operating pressure).

The water where I live is very hard, will the Zeta Rod be able to protect my plumbing and fixtures? Yes, the Zeta Rod has been used for many years protecting industrial evaporative cooling systems operating at with very high levels of hardness, it has also been used for many years in protecting heating and cooling equipment in sea water applications. One major international airport in Texas treats all of their domestic hot and cold water with the Zeta Rod. The result has been a dramatic decrease in maintenance costs to replace flush valves, seals and faucets in restrooms, as well as reduced effort required to keep these areas clean.

How much electricity does the Zeta Rod® System use? Because there is no continuous electrical current flow within a capacitive system, power use is almost too low to measure. A Zeta Rod® System costs about two cents a day to operate.

Is there any maintenance required? No, since there are no moving parts, or wear components, your Zeta Rod system should require no maintenance other than to check the status of the green Neon indicator lamp periodically.

Is there any danger in being around the Zeta Rod system? There is no danger of being around a properly installed Zeta Rod system. The system is completely insulated and unless the protective conduit, insulation or grounding wires have been damaged, there is no possibility of shock. While the voltage used to create the electrostatic field is very high, the available current is very low. The internal controls built into the power supply will instantly reduce the current output to near zero if the system ever shorts to ground. All Zeta Rod systems are IAPMO certified, assuring conformance to appropriate UL standards as well as to the Uniform Plumbing Code and

NSF/ANSI standard 61 for Drinking Water Systems Components - Health Effects. Because the Zeta Rod affects the way water behaves rather than adding or removing anything from it, assuming that the water is safe to drink to begin with, your water will remain safe to drink once treated.

When should the Zeta Rod System be turned on? Once properly installed and grounded, the Zeta Rod system may be turned on and should then **remain on at all times** in order to properly protect plumbing from deposits, scale, and biofilm. Other devices that attempt to cause scale to precipitate out of water, are flow dependant and will only operate when the water is flowing across them. The Zeta Rod's electrostatic field treats the water and protects the piping at all times, even when there is no water flowing. Because the field generated by the Zeta Rod extends both upstream and downstream from its point of installation, the plumbing system will be protected even during long periods of minimal water flow, such as during an extended absence from the home. This makes the Zeta Rod system an ideal choice for people who own homes that are lived in for only part of the year.

How will I know if the Zeta Rod system is operating correctly? The green neon lamp on the Zeta Rod power supply enclosure is not simply an on/off indicator, it is connected to the high voltage output of the system. As long as the green light is illuminated, the power supply is supplying its nominal voltage output and the integrity of the system is ensured.

Are there any components that will have to be replaced as part of routine maintenance? No, a Zeta Rod system is designed for a maintenance-free, long life. There are no filters or media to replace. Zeta Rod systems carry a three year limited warranty for parts and workmanship and most systems would be easily repaired for a nominal fee after the three year warranty period has expired. Zeta Corporation uses advanced materials and electronics in all of its products, with the expectation that they will last for many years of service. Since the electrode is not a sacrificial anode or cathode, there is no wear to the electrode; and since there is no measurable current being drawn from the power supply, the electronic components are rarely put through stresses that would cause failure.

Is a Zeta Rod system easy to install? The Zeta Rod is installed in the main water line coming into your home or building. While the installation of the system is relatively simple and straight forward, Zeta Corporation recommends that a licensed plumbing contractor perform the installation and if necessary, a licensed electrician provide an AC power source near the installation site.

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choose the perfect sized Zeta Rod[®] system to condition every drop of water in your home, pool & garden

Zeta Rod[®] systems for residential applications are designed to be installed on the main water line at any convenient location after the piping has entered the home.

Two model sizes shown here will accommodate most residential applications. The appropriate system will be determined by your incoming pipe size.

A type 304 passivated stainless steel chamber is designed to be plumbed directly into a section of the piping, where it will provide the insertion point for the Zeta Rod.

The Zeta Rod and power supply are pre-wired and sealed for safety and ease of installation. Simply fit the Zeta Rod into the chamber and mount the power supply nearby. The NEMA 4X enclosure and heavy duty three prong power cord are suitable for indoor or outdoor use.



ZRS R20:

Designed for piping up to 1 inch in diameter,

Chamber:
10" L X 4" Diameter
304 Stainless Steel
1" female NPT inlet/outlet

Zeta Rod:
8" X 3/4" o.d. vitrified ceramic
1" male NPT PVC fitting

Power Supply:
Input voltage: 120-240 VAC
Input Amperage: .3 AMPS
Output voltage: 30k VDC
Warranty:
3 year limited Warranty

[CLICK HERE for Data Sheet](#)



ZRS R30:

Designed for piping up to 1.5 inches in diameter

Chamber:
18" L X 4" diameter
304 Stainless Steel
1.5" female NPT inlet/outlet

Zeta Rod:
14" X 3/4" o.d. vitrified ceramic
1" male NPT PVC fitting

Power Supply:
Input voltage: 120-240 VAC
Input Amperage: .3 AMPS
Output voltage: 30k VDC
Warranty:
3 Year Limited Warranty

[CLICK HERE for Data Sheet](#)



Zeta Rod® Systems Receive IAPMO Certification



February 8, 2006

Tucson, Arizona -- Zeta Corporation is pleased to announce that its patented Zeta Rod® Systems have received IAPMO Research & Testing certification and will now bear the UPC™ NSF/ ANSI 61 stamp, indicating that they conform to the standards for Drinking Water Systems Components – Health Effects, as well as to the plumbing and electrical requirements set forth in the Uniform Plumbing Code™ Interim Guide Criteria 91-2005a. Although the products had previously been ETL listed to NSF-61, the association with IAPMO broadens the scope of the certification to include additional plumbing and electrical safety standards developed specifically for the patented Zeta technology.

IAPMO, the International Association of Plumbing and Mechanical Officials, promotes safe and efficient plumbing and mechanical practices and is the organization that develops and maintains the Uniform Plumbing Code. NSF, the National Sanitation Foundation, and ANSI, the American National Standards Institute, develop the standards for drinking water system additives and components. NSF/ANSI Standard 61 is the American National Standard that ensures pipes, tubes, storage tanks and other products that come in contact with drinking water do not contribute levels of contaminants that could cause serious health problems. Forty-five U.S. states and two Canadian provinces require drinking water system components to comply with NSF/ANSI Standard 61 requirements.

The IAPMO certification is concurrent with the company's launch of two new Zeta Rod systems designed specifically for residential and other small applications. The consumer systems are smaller in scale, yet operate on the same principals as the custom engineered industrial water treatment systems for which Zeta is well known.

For residential water treatment applications, the Zeta Rod offers a point-of-entry electronic deposit and corrosion control system that replaces the traditional salt-based water softener and delivers the added benefits of water and energy conservation in a compact, maintenance-free design. Water conditioned with a Zeta Rod system has no additives to adversely affect drinking water quality and has been shown to enhance plant health and growth.

Zeta Rod systems work by creating a capacitor within the piping that prevents deposition of hard water and mineral scale. Additionally, the system performs to eliminate bacteria-harboring bio-films that adhere to pipe and vessel walls, thereby improving water taste, reducing piping and fixture corrosion, and enhancing overall water quality satisfaction.

Contact:
Zeta Corporation
M. Michael Pitts, Jr., President
mmpitts@zetacorp.com

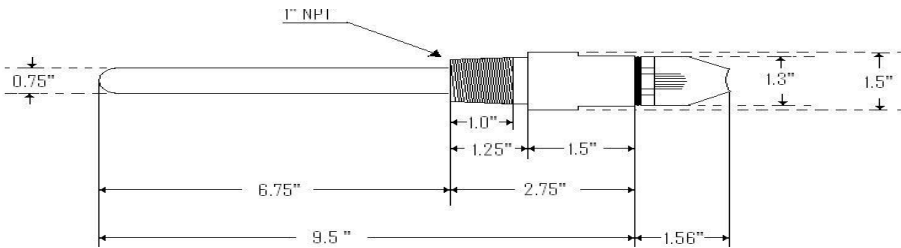
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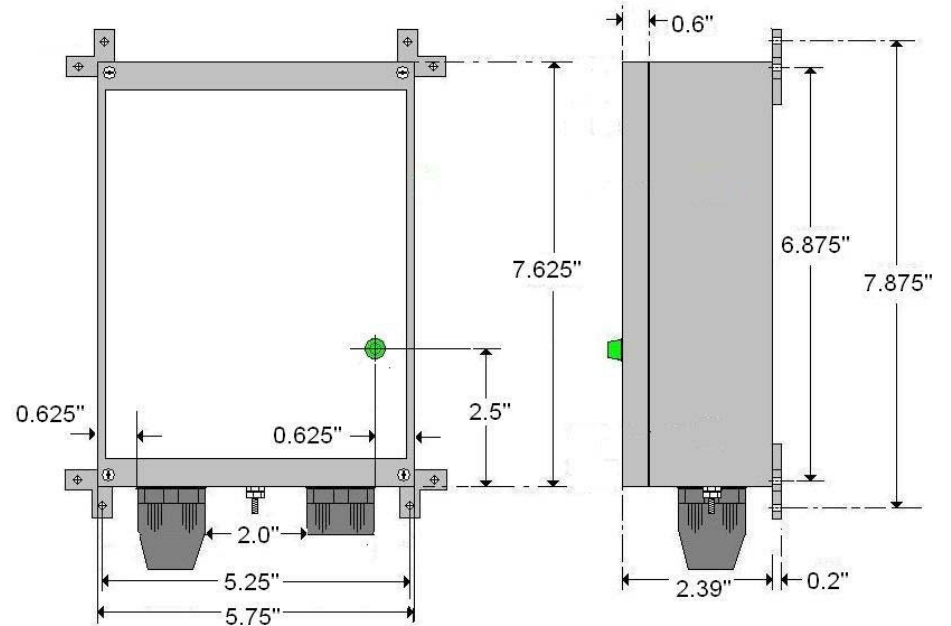
MODEL ZRS R20



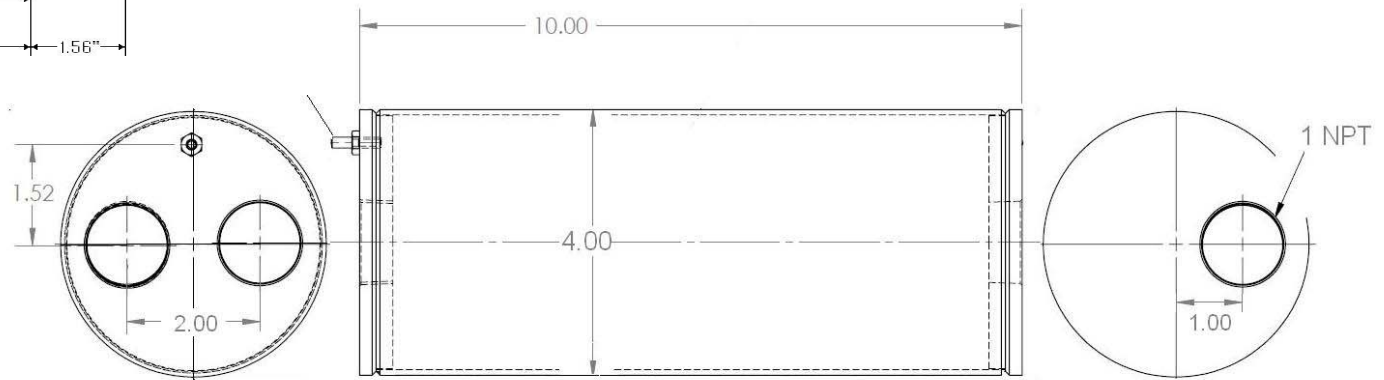
ZR8P Zeta Rod



DIMENSIONAL DRAWINGS ZRPJR Power Supply



ZR100S Reaction Chamber

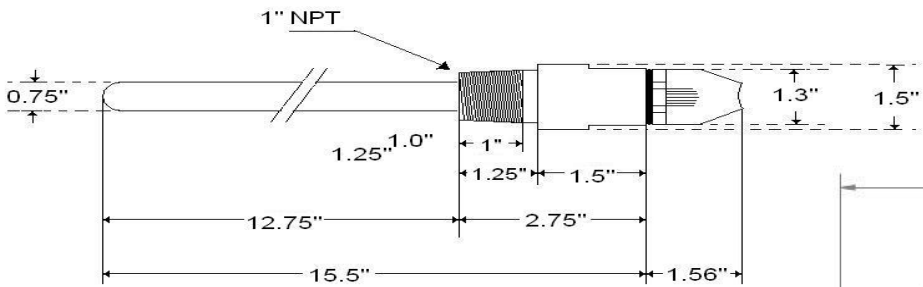
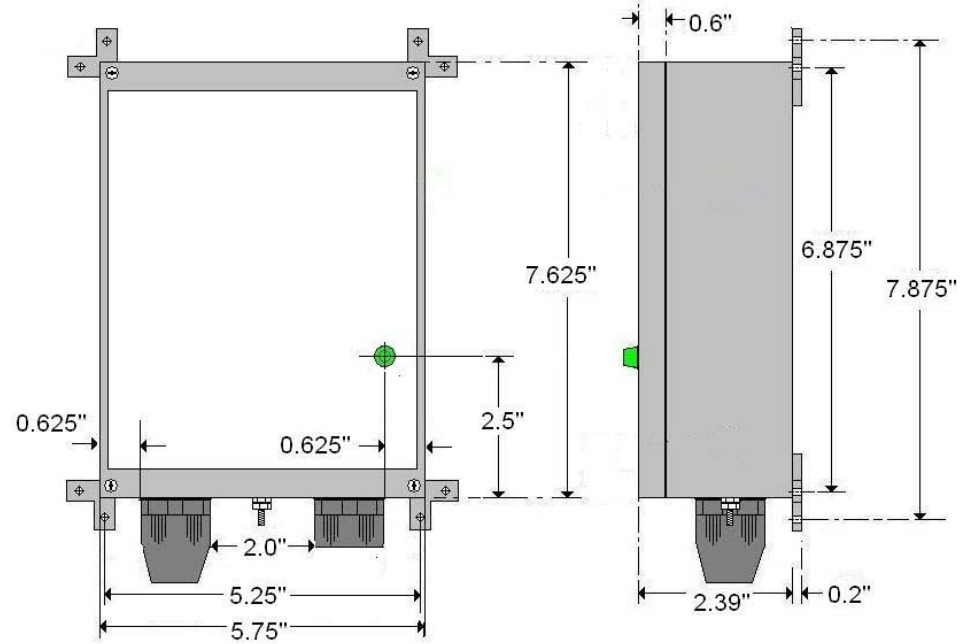


MODEL ZRS R30

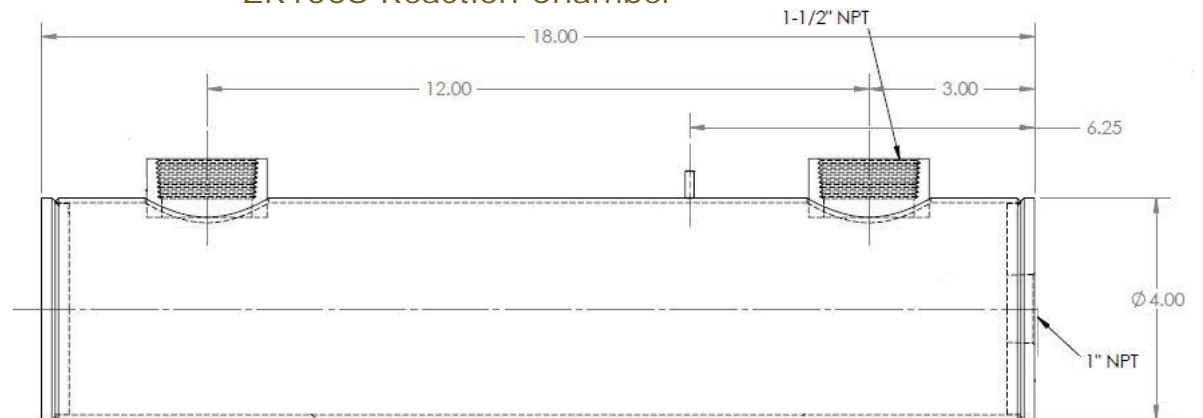


ZR14P Zeta Rod

DIMENSIONAL DRAWINGS ZRPJR Power Supply



ZR150S Reaction Chamber



warranty

ZETA ROD SYSTEMS ZRS R SERIES and ZRS C SERIES LIMITED WARRANTY:

Commencing on the date of purchase by the original End-User from a duly authorized OEM, Distributor, Dealer, Plumber or Sales Representative, Zeta Corporation (hereinafter referred to as Zeta) shall warrant the Zeta Rod system for defects in materials or workmanship for a period of three (3) years (or without evidence of warranty registration, for three years after the date of manufacture) as long as the system remains in its original installation location.

**Register Product
Online & Activate
Warranty**

**Request RMA
Authorization &
Instructions**

**Contact Zeta
888.785.9660
info@zetacorp.com**

Zeta will, at its sole discretion, replace or repair a system purchased that, in Zeta's judgment, has a defect in material or workmanship, provided the product is returned to Zeta with Zeta's prior permission, return authorization number and according to written return instructions; and provided further that the Product has not been misused, improperly installed, improperly operated or subject to unauthorized repairs or modifications.

This warranty does NOT provide coverage for incidental property damage, loss of use, inconvenience or other incidental or consequential costs, nor does it cover any reimbursement for inspection, removal, installation or re-installation costs (including any material, and/or permits required) that may be incurred by the end user or installer.

Any attempt toward field service or opening of the power supply enclosure or any water damage to the power supply shall void this warranty.

This warranty is in lieu of all other warranties, expressed, implied or statutory, including the warranty of merchantability and the warranty of fitness or of suitability for a particular purpose and of all other obligations or liabilities on the part of Zeta. Zeta neither assumes nor authorizes any other person to assume for Zeta any other liabilities in connection with the sale or installation of this product.

If Zeta's examination does not disclose a defect in materials or workmanship on the system claimed to be defective, the End-User agrees to pay Zeta's established charges for unpacking, testing and repackaging the system and re-shipment to the End-User. This provision states the End-User's exclusive and sole remedy under this warranty. The provision does not extend the original warranty period of the system that has been repaired or replaced by Zeta.

This Warranty is the only warranty made by Zeta with respect to the goods purchased by the End-User.

**REGISTRATION IS REQUIRED TO VALIDATE THIS
WARRANTY. THE REGISTRATION CARD MUST BE COMPLETED
AND RETURNED TO ZETA CORPORATION WITHIN THIRTY
(30) DAYS AFTER PURCHASE BY THE END-USER IN ORDER TO
ACTIVATE WARRANTY COVERAGE.**