

the answer is clear.®

ZERODAY®

Providing Solutions for Water
& Wastewater Treatment

ZERODAY Progress

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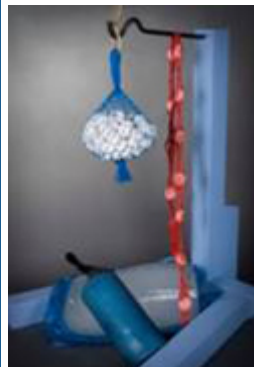
Welcome to our inaugural issue of Zeroday Progress, where we will be providing important water and wastewater treatment technical information, as well as the latest developments and information related to Zeroday's innovative products and services. Please forward this to your colleagues and associates: [Forwarding Form](#). We appreciate your work and hope to improve your process and capture your opportunities. Thank you.



Stop Wasting \$ on Emulsion Polymers, Use Z ChemGear™ Dry Polymer Mixers

Dry polymers are much less costly to use compared to emulsion polymers. Impeding use of dry polymers, particularly for lower volume applications, has been high dry polymer mix system costs and systems that were not automatic ... until now. Z ChemGear™ polymer mix-feed systems provides excellent economics in switching to dry flocculants from as low as 20 lb/day emulsion

polymer use rates. To assess whether switching to dry flocculants make sense for you, use our [Financial Calculator](#) to assess the opportunity. >> [Read More](#)



Effective Passive Treatment with Z Flocc™ Logs and Tabs Flocculants

Many water and wastewater treatment applications pose difficult operating management situations and/or are located away from utilities. To meet these challenges, Zeroday has developed a comprehensive product line of flocculant logs (gel logs) and tablets ("flocc hockey pucks") that offer particularly effective options for treating those difficult applications. Placing a Z Flocc Log or Tab in the water flow allows slow dissolution of polymer that flocculates the solids, allowing settling in a basin or in a treatment process as provided in our eFlyer [Z Flocc Log/Tab](#). >> [Read More](#)



Masterflex Peristaltic Pumps for Effective Liquid, Slurry and Paste Pumping

Zeroday is particularly pleased to offer the market's leading ThermoFisher's Masterflex® and Ponndorf® peristaltic (tube) pump lines. Peristaltic pumps provide precise and reliable pumping of essentially any and all fluids including demanding corrosive, viscous, gaseous and abrasive liquids, slurries and extremely high viscosity pastes from <1 ml/min to 140 gallon/minute. To investigate the possibilities, fill out our [Masterflex Pump Quote Form](#) to receive peristaltic pump specification and quotation for your consideration. >> [Read More](#)

About Zeroday Enterprises, LLC

Zeroday focused on supply of high value, economic and comprehensive water and wastewater treatment chemicals and equipment to < 750,000 GPD applications. We separate ourselves and rise above our regional competitors by providing outstanding support and service and by developing and supplying innovative high quality, effective products and integrated product package solutions.

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To assess whether switching to dry flocculants make sense for you, use our anonymous [Financial Calculator](#) to assess the opportunity.

This [Financial Calculator](#) will provide you estimated expected financial returns based on your emulsion use rate and costs. After selecting the Z ChemGear D Series unit options you desire, the calculator will provide you annualized cost savings, payback period and discounted rate of return analyses as well as the model required for your application. This web page based calculator is completely anonymous and shows your results immediately.

Dry flocculants are distinctly economically advantageous because dry dosages are generally 35% of emulsion's. So even though dry flocculant prices are higher than emulsion polymers, dry flocculant products typically provide a 40-50% net potential cost savings.

Until now, dry flocculant makedown systems were too expensive for small to medium sized applications to capture the much better dry flocculant use economics. No longer does the barrier of high dry flocculant mix-feed system costs nor the inconvenience of installing a highly manual dry flocculant mixing process stand in the way from using dry flocculants. Zeroday's fully automated, skid mounted, and economic Z ChemGear™ D Series dry flocculant mix/feed systems allow you to capture these savings that will save you money.

Z ChemGear D Series units offer very convenient and easy "plug and play" setup. These are complete skid mounted mixing/polymer solution feed systems from flocculant hopper to a progressive cavity (Moyno) progressive cavity polymer solution pump. Installation simply involves sliding the skid mounted unit in place, connecting the water source, plugging in power and running a polymer solution feed line to your process application point ... you are up and running, making excellent flocculant solutions and saving money. Regardless whether you are replacing or upgrading your existing dry polymer mix system or are switching to dry flocculants,

The Z ChemGear D Series systems are fully automatic and highly reliable systems that provide trouble free operation requiring minimal operator attention. Z ChemGear dry flocculant systems are offered in 3 different sizes ranging from **5 to 1200 lb/day dry polymer use rates**. An electronic flyer provides more details: [Z ChemGear D Series](#).

For more information or to discuss your application requirements, please contact Zeroday at 1-877-582-9067 (503-582-9067) or by email Support@ZerodayLLC.com.

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Effective Passive Treatment with Z Flocc™ Logs and Tabs



Many water and wastewater treatment applications pose difficult operating management situations and/or are located away from utilities. To meet these challenges, Zeroday has developed a comprehensive product line of flocculant logs (gel logs) and tablets ("flocc hockey pucks") that offer particularly effective options for treating those difficult applications. Placing a Z Flocc Log or Tab in the water flow allows slow dissolution of polymer that flocculates the solids, allowing settling in a basin or in a treatment process as provided in our eFlyer [Z Flocc Log/Tab](#).

Treating a slurry, water or wastewater stream is accomplished simply by suspending or placing the Z Flocc™ Logs and Tabs in baskets or bins directly in the water flow.

As the flocculant slowly dissolves, solids flocculation occurs with the solids settling out in a downstream pond or liquid-solids separation process. Dosage control is simply a matter of adding more Logs/Tabs in the stream or adding more addition points. When the polymer is nearly depleted, just add another log(s) or tablets to maintain the level of treatment required.

In order to meet a wide variety of passive treatment application requirements, Zeroday offers Z Flocc Logs and Tabs in a broad range of cationic, nonionic and anionic chemistries. Also developed are ultra high molecular weight flocculant Logs that dissolve much slower but often provide performance benefits and regular flocculant type gel logs that give a higher dose to meet certain application requirements.

Similarly, in order to meet various treatment need possibilities, particularly for smaller applications, Tabs are supplied in two sizes (1 and 2 inches diameter) and also are provided in a complete range of chemistries. Of particular note, Zeroday has developed the Tab String application technology to treat water and wastewater flows "in the pipe" which is a highly effective means for ensuring effective passive treatment within pipe flows.



Depending on the application and polymer chemistry, a Log or Tab basket lasts from 1+ days to several weeks. To maintain treatment dosages, just add another Log or more Tabs as these are consumed. If an application requires more than one type of flocculant chemistry, this is easily accommodated by either adding the different Log or Tab chemistries in the ratio desired at the same point (if the chemistries are compatible) or at two successive different points. There is considerable treatment flexibility.

Zeroday will provide recommendations for an appropriate flocculant passive treatment system based on your application layout and treatment requirements. After application assessment, a passive flocculant product form, chemistry and treatment scheme recommendation will be developed for your application. Please contact Zeroday: [503-582-9067](tel:503-582-9067) ([877-582-9067](tel:877-582-9067)) or email: Support@ZerodayLLC.com.



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Peristaltic Pumps for Effective Metering and Pumping

Zeroday is particularly pleased to offer the market's leading ThermoFisher's Masterflex® and Ponndorf® peristaltic (tube) pump lines. Peristaltic pumps provide precise and reliable pumping of essentially any and all fluids including demanding corrosive, viscous, gaseous and abrasive liquids, slurries and extremely high viscosity pastes from <1 ml/min to 140 gallon/minute. To investigate the possibilities, fill out our [Masterflex Pump Quote Form](#) to receive peristaltic pump specification and quotation for your consideration.

Peristaltic pumps are designed to be safe, accurate and reliable over a pumping range from < 0.1 cc/min. to 140 gal./min and are very well suited for dosing even the most aggressive chemicals, incredibly high viscosity food ingredients and for effectively pumping slurries. Masterflex pumps in particular effectively dose and deliver a wide range of nonhazardous and nonhazardous fluids:

- ⇒ Hypochlorite and all gaseous liquids.
- ⇒ Polymers and flocculants.
- ⇒ Coagulants, organic and inorganic.
- ⇒ Acids, caustic and bases.
- ⇒ Lime slurries.
- ⇒ Very high viscosity food ingredients.
- ⇒ Oxidizers.
- ⇒ Ferric chloride.
- ⇒ Cyanide solutions.
- ⇒ Mineral slurries.

... actually, any fluid.

Masterflex pumps are an ideal and safe means for pumping gaseous liquids such as hypochlorite which often causes vapor locking in other pumps. Even if gases evolve in line, peristaltic pumps continue pumping, moving the gases with the fluids to the process addition point.

Peristaltic pumps absolutely minimize personal contact and maximize hygiene because the fluids only contact the inside of the tube, which provides the highest levels of safety. Further, contamination to the liquids and pastes being pumped is avoided because the fluids stay in the tube at all times. Pumped fluids never touch the pump, only the tubing, which also means the pump mechanically lasts a long time.

Slurries such as lime, wastes of different types and minerals do not pose pumping problems and generally peristaltic pumps are is the most effective, controllable pumping option for these types of applications.

Masterflex and Ponndorf pumps are capable of 26 feet (water) inlet suction which means these pumps are self priming. Additionally, since these pumps are reversible, any obstruction that might form in the tube and process feed lines can be easily cleared without taking the pump apart. These pumps are capable of high discharge pressures to meter fluids a long distance or into higher pressure process lines. And the pumps can be run dry without any pump damage.

Masterflex and Ponndorf peristaltic pump's operating principal is explained on our webpage: [Peristaltic Pumps](#) or go directly to our eFlyer [Peristaltic Flyer](#).

For more information or to discuss your application requirements, please contact Zeroday at 1-877-582-9067 (503-582-9067) or by email Support@ZerodayLLC.com. Alternatively, to obtain a pump model design and quotation, fill out our [Masterflex Pump Quote Form](#) on our website.