



**NewAge Casting**

[www.NewAgeCasting.com](http://www.NewAgeCasting.com)

**Extend the life of the building.**

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## **NewAge Epoxy**

### **Waste System Installation & Design Recommendations**





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**1. Objectives**

- To offer the most economical, easy to install and complete excessive corrosive waste system.
- To provide building owners with a cost effective and lasting solution.
- For NewAge epoxy waste system to last beyond the life of the building.

**2. Approach**

Utilizing our core product, NewAge Epoxy Waste System, with our enhanced coating to resist the corrosive environments that flow through today’s waste systems. NewAge epoxy waste system conforms to ASTM A888, ASTM A74 and CISPI 301 standards for hub & hubless cast iron soil pipe and fittings and utilizes the EN877 standard for coating and testing.

**3. Coating Process**

The coating process begins with the boring of the interior surface of the pipe to achieve better flow characteristics by reducing the friction loss throughout the system. Following boring, each length of pipe is hydrostatically pressure tested at 5psi to verify the integrity of the pipe.

The pipe interior coating process utilizes a two-component epoxy system that is applied to a minimum 5 mil. thickness. Both interior and exterior coatings demonstrate superior pipe adhesion. The fittings are powder coated on the interior and exterior to a minimum 5 mil. thickness utilizing a fusion bonding epoxy process.

**4. Excessive Corrosive Environments**

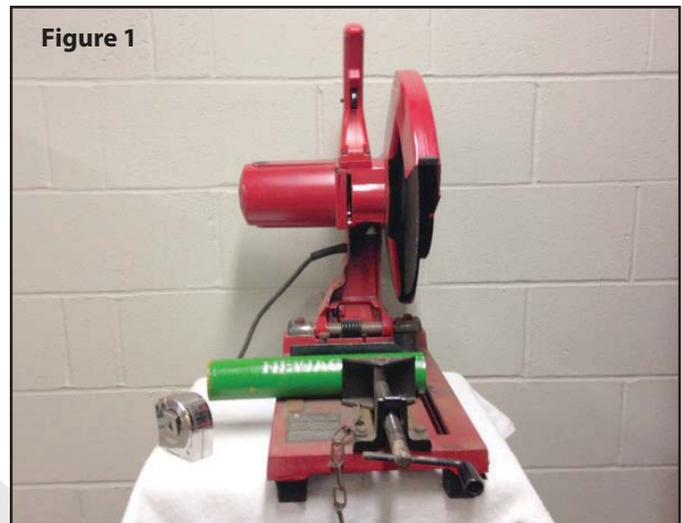
Where an excessive corrosive environment is encountered, measured as an acidity level less than or equal to 4.4 pH or an alkali level greater than or equal to 7.1 pH, NewAge epoxy waste system is recommended for installation with the touch-up protection.

Additional care in the cutting, end protecting and installation will provide a long lasting system.

**5. Pipe Cutting**

**Note:** NewAge epoxy waste system is available in standard 10 ft. lengths. These can be cut to length by a licensed plumbing contractor.

- 5.1. For a clean, square cut, a cut-off saw is the recommended cutting method. (See Figure 1)



- 5.2. For a fast cuts performed in the field, a snap-cutter is acceptable. (See Figure 2)



**6. Protect the Cut Pipe End**

- 6.1. Inspect and confirm the newly cut pipe is square and free from cracks or defects. (See Figure 3)



- 6.2. Using a isopropyl alcohol or approved solvent and clean cloth, remove all grease, oil, and foreign debris from the interior and exterior pipe surface to be coated must be clean.

**Optional Pipe End Protection**

*In standard DWV systems, end protection is not a requirement in the installation procedures.*

**Required Pipe End Protection**

*In all excessive corrosive waste system environments, the pipe ends must be protected. Protect the cut pipe end exposed iron using the NewAge epoxy tape.*

**Application:**

*Cut edge protection for NewAge epoxy coated cast iron soil pipe systems*

**Materials:**

*Butyl rubber with polypropylene fleece*

**Temperatures:**

*Storage: 41 °F— 77 °F*  
*In use temperature range: -22 °F— 212 °F*

**7. Installation:**

- 7.1 After cutting the pipe, clean the surfaces with a cloth and alcohol so they are dry and free of dust and grease. (See Figure 4).



- 7.2 Cut epoxy tape to the length corresponding to the chart below (Chart 1 and Figure 5).



**Chart 1**

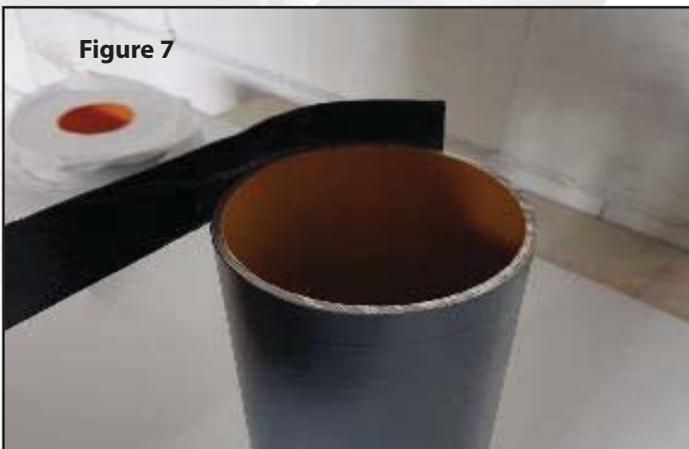
Pipe Size	1 1/2"	2"	3"	4"	5"	6"	8"	10"	12"	15"
Tape Length	5 1/4"	6 7/8"	10 3/8"	13 5/8"	16 1/2"	19 3/4"	25 7/8"	33 1/2"	41 1/8"	51 1/2"

7.3 Warm the tape slightly, e.g. on a radiator or an alternative heat source. Lift off the separating foil (See Figure 6).



**Figure 6**

7.4 Lay the sticky side of the epoxy tape onto the outside of the cut pipe, approx. 3/4" from the edge (See Figure 7).



**Figure 7**

7.5 Draw the epoxy tape around the pipe with slight and uniform tension, to a slight overlapping. If there is a gap, loosen both sides separately and draw the tape with higher tension until it overlaps (See Figure 8).



**Figure 8**

7.6 Fold the tape from the outside to the inside and press it tightly to the inside surface. The inside of the tape must fit without tension (See Figures 9 & 10).



**Figure 9**



**Figure 10**



Figure 11



Figure 12



Figure 13



Figure 14

## 8. Heavy Duty & Extra Heavy Duty Shielded Coupling Installation

**Important:** NewAge Casting strongly recommends that its cast iron pipe and fittings only be joined with shielded Heavy duty couplings that are manufactured in accordance with ASTM C1540. Gaskets are made from 100% EPDM rubber when installed in an excessively corrosive environment.

8.1. Follow these guidelines for joining NewAge heavy duty and extra heavy duty couplings to no-hub pipe and fittings in accordance with standard industry practice.

**Note:** Each city, state or region may have governing codes, engineering requirements, and local practices of the plumbing trade that must be followed.

8.2. A correctly calibrated torque wrench or power tool set at 80 inch-lb should always be used.

8.3. Use of unapproved tool voids warranty. If power tools are used, they must be calibrated to 80 inch-lb.

8.4. Inspect cut pipe for squareness and defects. Remove foreign debris from pipe interior and exterior.

8.5. Loosen the shielded coupling screws and separate from the rubber gasket (See Figure 11).

8.6. Place rubber gasket onto the end of one piece of pipe/fitting until the internal molded shoulder sits firmly against the end of the pipe (See Figure 12).

8.7. Insert the second piece of pipe/fitting into gasket, firmly placing both ends against the centerstop of the gasket (See Figure 13).

8.8. Ensure that the pipe/fittings to be joined are aligned. Slide and center loose coupling over the gasket so that the gasket is completely covered.

8.9. Tighten the shield using the appropriate torque sequence (as defined below) to 80 inch-lb. (See Figure 14).

8.9.1. For sizes 1-1/2" to 4", tighten inner clamp 2 and 3 alternately in 20 inch-lb increments until the recommended 80 inch-lb is reached. Then tighten outside clamp 1 and 4 alternately in 20 inch-lb increments until the recommended 80 inch-lb is reached (See Figure 15).

8.9.2. For sizes 5", 6", 8", 10", 12" and 15" tighten the inner clamps 3 and 4 alternately in 20 inch-lb increments until the recommended 80 inch-lb is reached. Then tighten middle clamp 2 and 5 alternately in 20 inch-lb increments until the recommended 80 inch-lb is reached. Then tighten outside clamps 1 and 6 alternately in 20 inch-lb increments until the recommended 80 inch-lb is reached (See Figure 16).

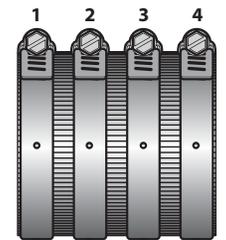


Figure 15

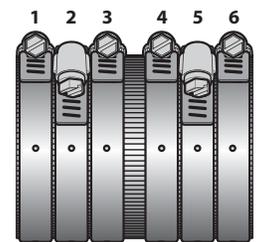


Figure 16

## 9. Hub and Spigot Installation

**Note:** Gasket and lead/oakum joints are both acceptable.

9.1. Complete all steps in Section 6 and make the joint connection per industry standard.

# NewAge Epoxy

## Cast Iron Soil Pipe Built for the Future



NewAge Casting

Welcome to the New Age.

Certified by



### NEWAGE EPOXY COATED PIPE



**Newage Epoxy**  
is the Upgrade for  
**Standard Drain Waste  
and Vent Applications**

- Hospital / Medical / Dialysis
- Grease Waste / Soda Syrup
- Salt Air Environments
- Hot Water Over 250°F
- Harsh Cleaning Chemicals
- Low Flow / High Efficiency Fixtures

**CORROSION  
RESISTANT**

### TRADITIONAL CAST IRON PIPE



**YOU DECIDE**

#### EPOXY COATING TESTING

Chemical resistance from 2 - 12pH for at least 30 days at 74°F  
Hot water resistance over 250°F for 24 hours  
Coating shall not become sticky when subjected to 250°F  
Temperature resistance from 50 - 250°F  
Salt spray resistance for at least 350 hours

#### PRODUCTS

No-hub and service weight from 1 1/2" - 15", couplings & gaskets

#### SPECIFICATION & STANDARDS

ASTM A888, ASTM A74 and CISPI 301  
ASTM 1277, 1540 & C564  
Neoprene and EPDM couplings and gaskets  
Standard installation practices

**Pushing the Bar of Quality!**

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