

# PIPE REPAIR SHORTCUTS TO AVOID

Doug Riseden | Technical Support Manager, Krausz USA, the creators of HYMAX

I remember as a kid taking shortcuts, cutting through wherever, just to save a few minutes on my walk home from school, or certainly while doing homework. Some of us learn from experience that shortcuts cost us in the long run. Others, however, continue taking them, thinking or trying to justify they will help.

This mentality is common in the area of pipe repairs as municipalities try to maintain their water infrastructure with increasingly tight budgets, and repair crews want to complete projects as quickly as possible. While there is great temptation to take shortcuts, these so called “savings” cost time, money and worker safety.

Pipe repair shortcuts never last, tremendously boosting costs. When repairs have to be redone, communities are left to deal with additional repair costs, water-off time, and restricted traffic due to road closures and detours. Not only that, when a crew enters a repair site a second time, the ground is less stable which can increase the chances of the ditch caving in. Add it all up, and shortcuts are a bad idea.

Let’s look at my candidates for pipe repair shortcuts to avoid and see if we can come up with a better way to do things. These are in no particular order as all of them should be avoided.

## 1. NOT MEASURING THE OUTSIDE DIAMETER OF THE PIPE TO BE REPAIRED

This is a pretty big shortcut and yet I see this all the time. Different folks do all kinds of different things to determine pipe OD without first measuring the pipe with an OD tape. For whatever reason, folks often insist they know the OD of pipes in their system and even feel challenged when asked if they have checked.

I hear time and time again “the clamp won’t stop leaking.” My response is to ask if they checked the OD of the pipe they are trying to repair. When the answer is no and they get around to measuring it, many times the OD is different than previously thought. No wonder the clamp won’t stop leaking. Choosing the right sized repair product is important to making good repairs, and you can only know for sure the size of the pipe with an OD tape.

The costs of guessing ODs are wasted time in installing clamps or couplings, water-off time to say nothing about employees being frustrated with the process. Krausz products all have wide OD ranges meaning that the products will work on a wider variety of

ODs, saving on cost and time.

## 2. USING A CLAMP TO JOIN PIPE INSTEAD OF A COUPLING

There are some folks who will use products just to get the repair completed but perhaps not making the best repair. Making the best repair should be the goal of every crew member and that always involves using the right product. For this shortcut, I’m referring to using a repair clamp, usually with a waffle-style gasket, to join or couple pipe. These products are designed to repair holes or ring breaks. They are not designed to couple pipe since they offer no deflection capacity, which will always result in a break due to ground movement. If you are connecting pipe, use a coupling, not a clamp.

Failure to use the correct product results in wasted time, money and increased water off-time. Choose wisely!

## 3. RESTRAINING PIPE USING A BAG OF SAKRETE, 4X4 POSTS, OLD MOTOR GRADER BLADE OR U-CHANNEL POSTS

Thrust blocks are probably the most common way to restrain pipe. They are not simply blocks of cement or bags of sakrete. Engineers go to great lengths to design the right thrust block based upon the needs of the project. Bags of sakrete with holes punched in them and a bucket of water poured on top is **not** a thrust block, neither is a 4x4 post, old motor grader blade or a piece of u-channel post. Restraint couplings, such as the HYMAX GRIP, are a way to restrain pipe and avoid using thrust blocks altogether. This gives repair crews a quick and safe way to restrain pipe without the time required to make thrust blocks.

## 4. USING BACKHOE LIGHTS TO LIGHT A WORK AREA

Repair crews for whatever reason choose not to bring extra equipment to a repair site, even extra lighting. Crews will rely on the backhoe or excavator lights to illuminate a repair site. These lights will not supply enough illumination for the work site and compromise safety. With a little more effort, extra lighting can become part of the project and create a much safer operation for all crew members. Don’t forget lighting for your flaggers. They are the ones who control the safety of your work zone! If drivers >>>

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can't see the flagger, his or her ability to slow down, divert or stop traffic is hindered.

## 5. USING CHEAP PARTS

As the old sayings go, "You get what you pay for" and "You buy junk, you get junk" (I like that one). As a former public workers director, I believe you have two responsibilities when it comes to purchasing repair products.

The first is to your system. That involves purchasing and using quality products that will serve the infrastructure and your community for years to come. You cannot afford to purchase products that will fail early, requiring another repair. No utility can afford the cost of making a second repair at the same location. Additionally, returning to the same dig site erodes confidence in your crews and you!

The second responsibility is to buy repair products that your crew likes to use. This is where a supervisor's or director's knowledge comes into play. A leader needs to supply great, quality products that offer ease of use and reliability. Getting educated on products is fundamental to ensuring you get the best products. Many pipe repair product manufacturers, including Krausz USA, can deliver "lunch and learns" at your location. These will give you and your crews the opportunity to review products to assess their quality and ease of use.

## 6. ACCEPTING THE LOWEST REPAIR BIDS

When considering bids for new infrastructure projects, avoid the lowest bid and look for instead the lowest *responsible* bid.

You always need to do your homework with bids submitted for projects. Question the firm with the lowest bid, and don't be afraid to ask others who have used this firm some tough questions.

- Has this bidder been involved in this type of project before?
- Has the bidder been involved in a project of this size?
- Did the firm use quality products or the cheapest available products?
- What were the results of previous projects?
- Did they come in on-time, on-budget?
- How many change orders were there?

Unfortunately, there are firms that will put forward low bids to get the contract and then use change orders to complete the project. These can dramatically increase the price to the point where the contractor would not have received the bid in the first place. Once you get started, it's hard and expensive to change contractors so be sure to do your homework in advance. When plans are presented for review prior to the project, include other employees. They can offer a fresh set of eyes and may come up with details that you may have missed.

While all of these shortcuts attempt to save time, money or both, they are simply not worth it. Shortcuts ultimately waste time and money while compromising worker safety. Shortcuts might have been great for getting home quickly as a kid but when it comes to pipe repair, they are a bad idea. At the end of the day, you get what you pay for.

*Doug Riseden is the Technical Support Manager for Krausz USA, the creators of HYMAX. 💧💧*