

# Manufacturing Responsibly at Dura-Line

Each of our precious resources are finite. We aren't perfect, but every day we try to get better, more efficient, and to be part of a company that is best for the world. Working in an environmentally-friendly and ecologically-responsible manner, which helps protect the environment and sustain it for current and future generations, is intrinsic in our culture and a message we gladly share with the rest of the world. All of our efforts together are making a difference.

**Here are a few of the ways we practice environmental sustainability at Dura-Line:**

## **Dura-Line's Closed Loop Water System**

- Without the Closed Loop Water System, Dura-Line would require 15.8 million gallons of water per month
- Conservatively, our manufacturing equipment processes 360 gallons of water per minute in our manufacturing equipment, continuously reusing water over and over again as part of our Closed Loop Water System
- The same water is recirculated in our Closed Loop Water System so that it doesn't become waste water

## **Dura-Line's Manufacturing Energy Efficiency**

- Machines are kept in efficient working order by the maintenance teams

- Each year, all plants are evaluated and upgraded to more energy efficient machinery
- Where possible, plants have partnered with local power companies on programs to be more energy efficient, which helps reduce the need to build more transmission lines
- Several Dura-Line plants have already converted to LED lighting configurations

## **Dura-Line's Reel Return Program**

- In 2018, Dura-Line collected 85,000 metal reels to be repurposed or recycled
- 19.7 million lbs. of metal reels were repurposed
- 2.4 million lbs. of metal reels were recycled

## **Dura-Line's Regrind Program**

- The Regrind Program saves resources that otherwise would have been considered waste for the landfill (post-industrial and post-consumer waste recycling)

## **Dura-Line's Goal of Zero-Waste-To-Landfill**

- All plants are working toward a zero-waste-to-landfill goal
- In 2018, our Utah manufacturing plant, whose program has been in place for 4 years, was able to divert 73 percent of waste that otherwise would have gone to the landfill

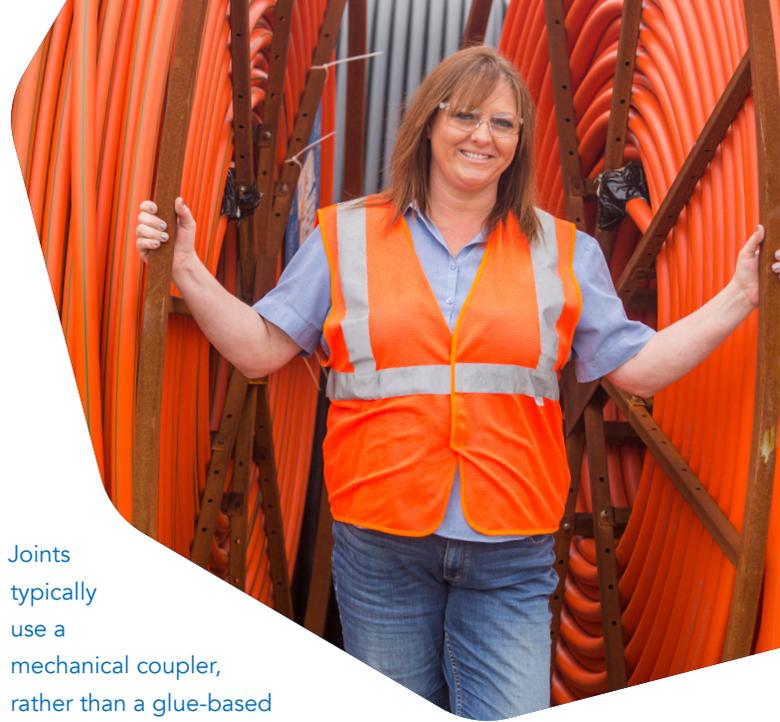
### Dura-Line's FuturePath Product Line

- Supports Dig Once initiatives
- Saves space in overcrowded right-of-ways
- Requires fewer and smaller handholes
- Reduces manpower and machine power for installation
- Reduces fuel consumption, gas emissions, and lower material handling requirements
- Lessens soil displacement

### Environmental Benefits of HDPE

- Non-leaching
- Flexible, non-rusting materials minimizes leaks common in corroded steel pathways
- Resin and pipe have a superior resistance to failure, corrosion, tuberculation, deposits, and rapid crack propagation (RCP)
- Modern manufacturing methods allow for hundreds, or even thousands, of feet of continuous extrusion, which results in fewer joints
- High performance in extreme temperatures, which greatly reduces compromised pathways Reduced transportation, handling, and installation due to quick installation with less heavy machinery which reduces fuel and labor usage as well as ground disturbance when compared with installation of steel counterparts

- Joints typically use a mechanical coupler, rather than a glue-based solvent which gives off noxious fumes
- Fewer and smaller handholes required
- Low lifecycle costs
- Useful life of HDPE is estimated at 50+ years
- Studies have shown that HDPE can withstand scratching and gouging up to 10-20 percent with no detrimental effects to the long-term performance of the pipe
- Versatility of design allows for multiple applications in several industries



### Don't Just Take Our Word For It: Industry Experts

"HDPE pipe, in our opinion, is the best product for developing a truly sustainable infrastructure. From its low energy cost to produce, ship and install, to its superior joint performance in all applications, to its resistance to rust and abrasion and finally its short- and long-term economic advantages, we believe there is no other material that approaches the performance and versatility of HDPE pipe."

~ Trenchless Technology, February 2009, Stating their Case: PVC vs. HDPE

"Like many other plastics, HDPE often replaces heavier materials, in part because our society and many companies are pursuing sustainability goals, such as reducing the amount of material used in packaging and products. "Lightweight and strong" can translate into "less impact on the environment." For example, a recent study of six types of packaging found that plastics can deliver more food with significantly less waste, energy use, and global warming potential than alternatives."

~ American Chemistry Council, Inc., October 2018, High Density Polyethylene (HDPE): So Popular