



# ECOPIPE

STRUCTURED WALL HDPE PIPES



## INTRODUCTION

A structured wall HDPE pipe systems are a popular choice for a variety of applications due to their durability, flexibility, and ease of installation. These systems are composed of high-density polyethylene (HDPE) pipes, which are designed with a corrugated exterior and a smooth interior for efficient fluid transfer. Structured wall pipes provide enhanced strength and stiffness, allowing for a reduction in the amount of material needed and lowering overall costs. These pipes are also resistant to corrosion, abrasion, and chemical damage, making them suitable for use in harsh environments. Overall, low-cost structured wall HDPE pipe systems are a reliable and cost-effective solution for a range of piping needs.



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Plastics Corporation

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**MADE IN THE PHILIPPINES**



**FAR EAST**  
ADVANCE PLASTICS CORPORATION

## APPLICATION

- Non-traffic  
Golf courses &  
Landscaping



***Our Ecopipe is engineered to withstand any weather conditions by using our***

***Ecopipe spiral wound extrusion technology.***

## FEATURES

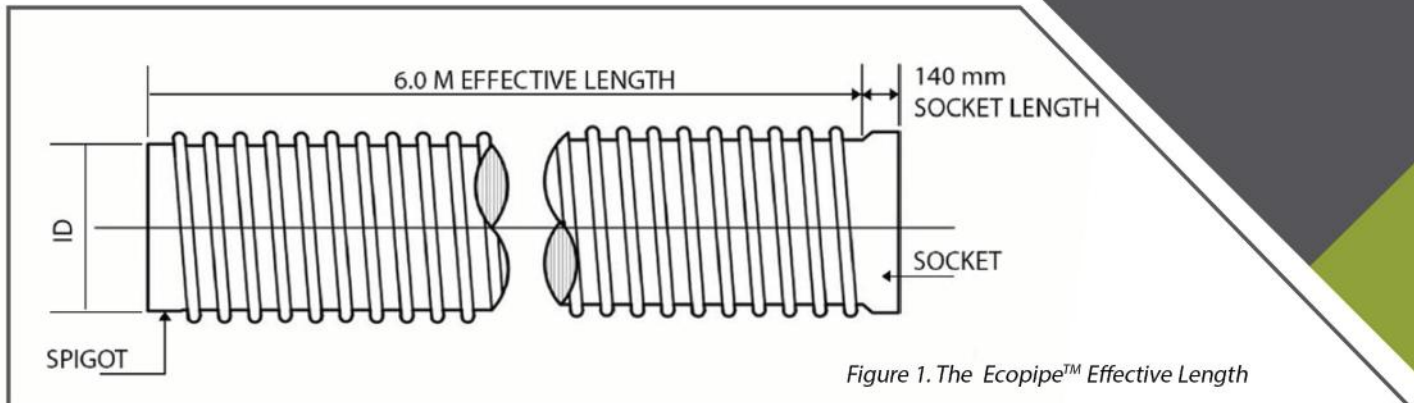
- ▶ Up to 3,500mm in diameter
- ▶ Light and easy to handle – 10 times lighter than concrete
- ▶ Smooth interior with High-Flow Capacity
- ▶ High chemical and abrasion resistance
- ▶ Economical
- ▶ Corrosion Proof
- ▶ Leak Proof Joint
- ▶ We cater for your unique application so you only pay for the pipe strength you need
- ▶ Low asset maintenance
- ▶ Uses recycled plastic (Uses Eco-friendly materials)
- ▶ 100-year life expectancy
- ▶ Quick pipe to pipe jointing
- ▶ Pipes can be manufactured to length to save cost and wastage



## STANDARD LENGTH

The EcoPIPE™ has a standard length of 6 meters making it convenient to store, easy to handle and quick to transport.

The EcoPIPE™ can be delivered pre jointed, saving time in the electrofusion jointing in the site reducing the overall installation time. Pipes up to 12 meters can be pre-jointed consisting of 2 pipe sections.



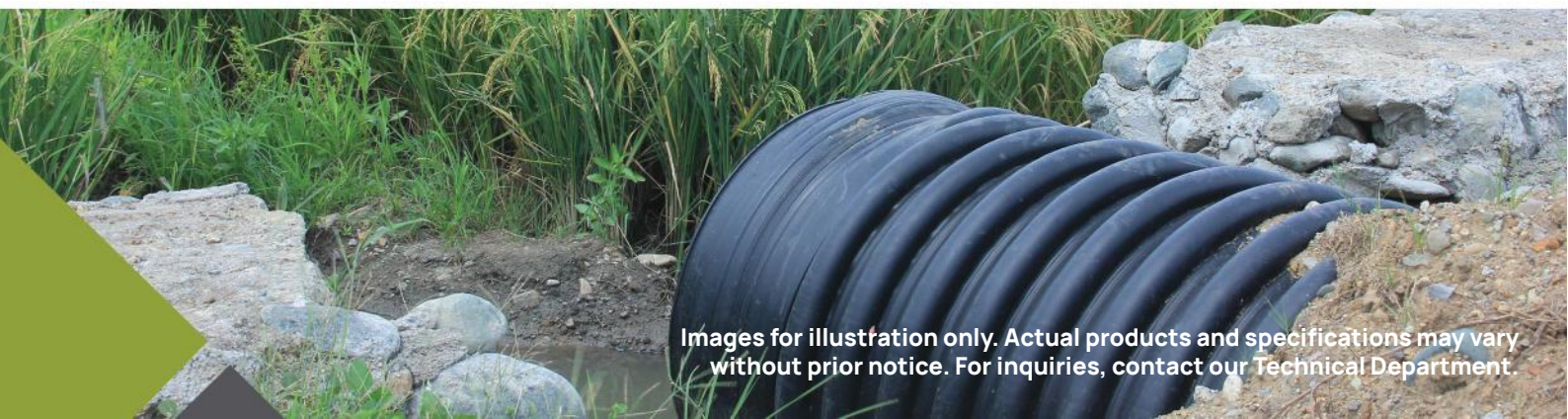
## DIAMETER

The nominal diameters (DN) coincides with the internal diameter (ID) of the pipe, because in case of any change in the design of the pipe, the wall thickness can be increased or reduced while the internal diameter remains the same. This ensures that the designated hydraulic capacity for the installation is maintained.

## PIPE DIAMETER SIZES

### Ecopipe™ Load 1

DN / ID	DN / OD RANGE
600 mm	704 - 812 mm
700 mm	810 - 912 mm
800 mm	934 - 1012 mm
900 mm	1034 - 1112 mm
1000 mm	1134 - 1212 mm
1200 mm	1340 - 1472 mm
1400 mm	1534 - 1692 mm
1500 mm	1662 - 1792 mm
1600 mm	1774 - 1892 mm
1800 mm	2010 - 2088 mm
2000 mm	2198 - 2444 mm
2100 mm	2298 - 2544 mm
2500 mm	2698 - 2979 mm
3000 mm	3198 - 3479 mm
3500 mm	3842 - 4132 mm



Images for illustration only. Actual products and specifications may vary without prior notice. For inquiries, contact our Technical Department.



### Cost-Efficient

Ecopipe offers exceptional cost efficiency with its durable design that reduces maintenance and replacement expenses. Its long service life & reliable performance make it a smart, budget-friendly choice for any project.



### Ease of Installation and Handling

The Ecopipe can be transported easily. When connecting pipes, a screw-type coupling is the quickest and most convenient option.

The Ecopipe uses electrofusion as a jointing method. This is the most preferred joint system, as the end product of the whole pipe system becomes one homogenous unit. A welding wire placed within the pipe's socket is heated by the electrofusion welding equipment through the use of electrical currents flowing within the conductive wiring, wherein the two ends of the pipe (socket and spigot) are joined together. The electro-fusion jointing technique is a superior, simple, and safe method to install pipes even in very narrow trenches in a short time.



### High-Flow Capacity

The Ecopipe's interior surface is smooth to maximize flow, minimize silt accumulation, and reduce the possibility of clogging.



### Modern and Flexible

The Ecopipe is available in standard lengths of 6 meters and is sufficiently flexible to follow ground contours due to its high-grade HDPE construction.



### 100 Year Design Life

Ecopipe is designed to last a hundred years. The pipes are chemically inert so they do not break or react even with exposure to acids and bases, reducing maintenance and replacement costs.



### Economical

In contrast to conventional pipes, which are extremely heavy, the Ecopipe is lightweight and offers significant savings on transportation, installation materials, and equipment damage.



### 100% leak tight connections

The ends of the Ecopipe are connected via electrofusion jointing method. This method enables the welded ends of the pipes to form a monolithic homogenous and air-tight bond thus making the pipeline leak-free and unaffected by neither system infiltration or exfiltration.



### Corrosion Proof

Ecopipe is 100% corrosion-proof, offering long-lasting performance across various applications. Made from high-quality materials, it resists rust, chemical damage & wear, ensuring durability, reduced maintenance, & extend service life. Ideal for plumbing, irrigation, & industrial use, Ecopipe delivers reliable, eco-friendly solutions.



### Tough

The Ecopipe is constructed from superior high-density polyethylene (HDPE) resins and is ideal for all-weather conditions in the area. It can withstand external pressure thanks to its modified rib reinforcements.



### Eco-Friendly

Ecopipe is designed with sustainability in mind, crafted from eco-friendly materials that minimize environmental impact. Its durability reduces waste from frequent replacements while its production supports efficient resource use, making it a smart & sustainable choice for greener projects.



### Micro-organisms, Rodents and Termites Resistance

The round and smooth surface of the plastic pipe does not give the rodent's teeth enough strength to attach to the pipe's surface to cause damage. Also, even in termite-infested countries, there is no record of damage to polyethylene pipes caused by termites. Polyethylene and polypropylene are not nutrient media for bacteria, fungi, and spores, so the material is resistant to all forms of microbial attack. The pipe is also resistant to any chemical like sulfuric acid and sulfates.



## ENGINEERED PRODUCTS

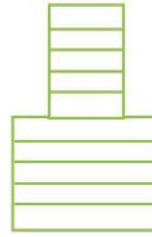
A significant advantage of the EcoPIPE is that it can be easily tailored to the needs of various types of projects. In accordance with the different norms and standards, the pipes must be selected in accordance with their class. With the EcoPIPE, we are able to provide any project with pipes of the precise stiffness that the project demands.

## THE ECOPIPE™ OFFERS A COMPLETE SYSTEM



### Fittings

The EcoPIPE fittings are made out of the pipes. In most cases, the fittings are designed to provide the requisite stiffness while also taking into account welding considerations. Every fitting can have any type of pipe end and can be jointed through electrofusion technique



### Reductions

To meet all of the requirements, reductions can be made both centric and eccentric. The maximum variation in diameter for standard reductions is 200 mm; other diameters are available upon request.



### Branches

Branches can be made and delivered in a variety of shapes and sizes. The angle, as well as the endpoints, and corresponding segment lengths, can be adjusted separately from 15 to 90 degrees. Bends can be made and segmented at various angles, and the radius of the bend in relation to the pipe diameter can be chosen separately.

## WHY CHOOSE ECOPIPE?

ECOPIPE offers more than just environmental benefits; it also provides numerous advantages that save both time and money during installation and throughout its lifespan:

- ✓ Up to 3,500mm in diameter.
- ✓ Minimal maintenance requirements.
- ✓ Exceptional resistance to chemicals and abrasion.
- ✓ Made from eco-friendly material.
- ✓ Expected lifespan of 100 years.



**Light and easy to handle** – A DN1500 ECOPIPE™ pipe weighs less in contrast to a 1500 Class 4 concrete pipe.

**We determine the exact load requirements**, ensuring you only pay for the pipe strength necessary.

**Smooth interior/bore** increases flow rates.

**Socket (female) / Spigot (male) Electrofusion**

**The pipe can be drilled or perforated for drainage** without compromising strength.

**Customizable pipe lengths** help reduce costs and minimize waste.



## INSTALLATION GUIDELINES

Proper installation of ECOPIPE™ is essential for a long-lasting service life and to prevent structural damage.

These pipes are installed with a granular backfill, such as gravel or sand, which should be compacted to 95% maximum dry density (MDD). This provides adequate side support, enabling the pipe to withstand soil and vehicle loads throughout its lifespan as a culvert.

Please contact us ([sales@atlanta.ph](mailto:sales@atlanta.ph)) if you have any questions regarding the installation or supply of HDPE culvert pipes.

*ECOPIPE Rural/Forestry Culvert are designed and manufactured to produce zero toxic leaching.*



*All product is made to order and the other sizes DN700, DN900, DN1100, DN1500 & DN2300 & DN3200 are made to order.*

## RECOMMENDED SOIL COVER, METERS

NOMINAL DIAMETER (mm)	LOAD 1		NOMINAL DIAMETER (mm)	LOAD 1	
	MIN	MAX		MIN	MAX
600	0.4	3.0	1600	0.6	2.0
700	0.4	3.0	1800	0.6	2.0
800	0.4	3.0	2100	0.6	2.0
900	0.6	3.0	2000	0.6	2.0
1000	0.6	2.0	2500	0.6	2.0
1200	0.6	2.0	3000	0.6	2.0
1400	0.6	2.0	3500	0.6	2.0
1500	0.6	2.0			

(a) Soil Cover pertains to backfill from crown of pipe to ground line (bottom of pavement)

(b) Standard Trench Installation Methodology followed

(c) Class I or Class II Soil Type Considered for Backfill

(d) Soil Modulus of Elasticity ( $E'$ ) = 1,000 psi

(e) Native Soil Modulus of Elasticity ( $E_n$ ) = 200 psi

## ECOPIPE IS AN INNOVATIVE, ECO-FRIENDLY HDPE CULVERT PIPE PRODUCED LOCALLY IN PHILIPPINES BY ECOPIPE™.

ECOPIPE is made from eco-friendly materials. We aim to meet our Circular Economy objectives by prolonging the life cycle of HDPE products in Philippines, keeping them out of the waste stream.



## HANDLING, TRANSPORTATION & STORAGE



### HANDLING

This section provides specific guidelines for the proper handling of ECOPIPE pipes and fittings.



### LOADING & UNLOADING

1. All ECOPIPE pipes must be handled carefully to prevent any damage. The loading process should be conducted in a way that:

2. Ensures the stability of the loading equipment, such as forklifts or cranes.

3. Prevents any damage to pipes or fittings.

Pipes should not be dragged or pushed. They should be lifted onto trucks using one of the following methods:

- Insert a carpet pole through the center of the pipe (for EF pipe, ensure lifting does not damage the EF wire).
- Use a forklift or telehandler for side loading.
- Use the lifting lugs that have been welded onto the pipe through extrusion.
- Utilize two strops choked around the pipe, maintaining an optimal lift angle of 60 degrees; the lift angle should never be less than 45 degrees.

It is important to ensure that the socket or spigot ends of the pipe do not support any of the pipe's weight during loading, as this could affect the reliability of the pipe joint.

## TRANSPORTATION

This section outlines the requirements for transporting ECOPIPE pipes and fittings.

All ECOPIPE pipes must be properly supported and secured to avoid excessive deformation of the pipe's cross-section and to reduce the risk of bowing or twisting.

ECOPIPE will provide wooden dunnage for the pipes during transit to minimize the risk of deformation. This dunnage should be removed from the truck and used for storing the pipes on-site.

It is crucial to limit the height of the stack if there is a possibility of damaging or excessively deforming the pipes. Nesting pipes within one another is recommended, as it provides a cost-effective method for transporting ECOPIPE and takes advantage of the lightweight design of the pipe system.



**Ratchet tie-downs with safety latches are the preferred method for securing pipes during transportation.**

All support, restraints, and packing must be transported in a way that prevents point loading, scraping, shock, or any other damage while in transit. For securing ECOPIPE, nylon ratchet tie-downs are ideal, and if chains are used, they must not make direct contact with the pipes and fittings.

## MOVING THE PIPE ONSITE

- If pipes need to be relocated on-site, this should be done following the loading and unloading procedures outlined above.
- When pipe is moved, sufficient dunnage needs to be available so that the pipes can be laid down on suitable dunnage.
- The EF wire must be protected at all times.
- Do not drag or pull the pipe.



## STORAGE

This section specifically outlines the requirements for the storage of ECOPIPE pipes and fittings.

Choose suitable storage locations that provide enough space for any pipes not in use during the installation project. When selecting a storage area, consider the following:

- The site should be level and firm.
- It must be clear of combustible materials to reduce the risk of fire damage.
- If long-term storage (two months or more) is required, the pipes should be covered; when in doubt, it's best to cover them.
- Ensure there are no obstructions to vehicle, pedestrian, or property access.
- All pipes should be stored at least 2 meters away from any trench or excavation.

We will supply flat timber dunnage for the ECOPIPE pipes in transport and this is to be used at the same intervals when storing the pipes onsite.

It is essential to ensure that the pipes are stored correctly. Key aspects to check include:

- The sockets, spigots, or ends of the pipes should be free from any load, and all ends must be free of debris.
- Ensure that the bottom layer of stacked pipes can support the load without deforming over time.
- Support the pipes in a way that minimizes longitudinal deformation.
- Ecopipes should be stored no more than two-pipes high.
- When stacking two-pipes high, use adequate chocks to prevent the stack from collapsing.
- Position fittings so that any flanges or openings are facing upward or outward, not downward.
- Protect the EF wire from damage.
- Rotate pipe or tank sections to maintain their final spring line in a vertical position; this involves rotating them 90 degrees for storage compared to their final installation orientation, which prevents deformation that could affect installation.
- Ensure that rubber rings are not misplaced.
- If you have any questions, please consult the Project Manager assigned by FEAPC.