

TerraBrute® CR

Engineered for Horizontal Directional Drilling (HDD) and other trenchless applications, TerraBrute® CR is a 100% non-metallic, CSA B137.3 / AWWA C900 PVC pressure pipe system. Non-corroding and installation friendly, TerraBrute CR allows you to standardize on PVC throughout your potable water and sewer infrastructure. Whether you're using open-cut or trenchless methods, there are no more problems matching materials and couplings. No more surprises.

TerraBrute CR's patented non-metallic "ring-and-pin" gasketed joint design outperforms all other restrained PVC pipe joints on the market, providing more than twice the pull strength of other HDD systems – up to 120,000 lbs. for 300mm / 12" pipe. Unlike competing square-shoulder designs, TerraBrute CR's rounded bell shoulders slide by roots, rocks and other debris that can protrude into the borehole. And unlike HDPE, TerraBrute CR requires no relaxation time before installation of fittings or services.

APPLICATIONS

- Municipal Water Systems
- Fire Lines
- Industrial Lines
- Forcemains

STANDARDS



ADVANTAGES

- 1 Corrosion Resistant**
The new, non-metallic, "ring-and-pin" configuration of TerraBrute CR PVC pressure pipe offers complete corrosion resistance. The external "ring" is designed as two half rings for ease of installation and comes complete with the "pins" ready for insertion, creating a strong, locking joint.
- 2 Proven Performance**
With a 235 psi pressure class, TerraBrute CR delivers the superior strength and corrosion resistance you've come to expect from our Blue Brute pressure pipe, along with the ability to absorb the underground shear and flexural stresses that occur in buried applications.
- 3 Proven Compatibility**
TerraBrute CR trenchless PVC pipe is designed for total compatibility with your municipal system. Connections can be made with standard PVC CIOD fittings, direct tapped couplings or standard service saddles. Repair and handling techniques are the same as for any AWWA PVC pressure pipe.
- 4 Proven Joining System**
Based on our gasketed bell and spigot design, proven through years of service in the field, the TerraBrute CR joint is rated higher than the pressure rating of the pipe. And unlike competing coupling joints, the TerraBrute CR joint has been specially engineered to deliver the highest pull strength safety factors in the industry for HDD applications.
- 5 Fast and Easy Joint Assembly**
Because pipe segments can be assembled during pullback operations, pipe stringing can be eliminated. Assembly time for a 300mm / 12" TerraBrute CR joint is typically less than five minutes.



Standards

CSA B137.3

AWWA C900

TerraBrute is made from stock conforming to AWWA C900.

NQ 3624-250

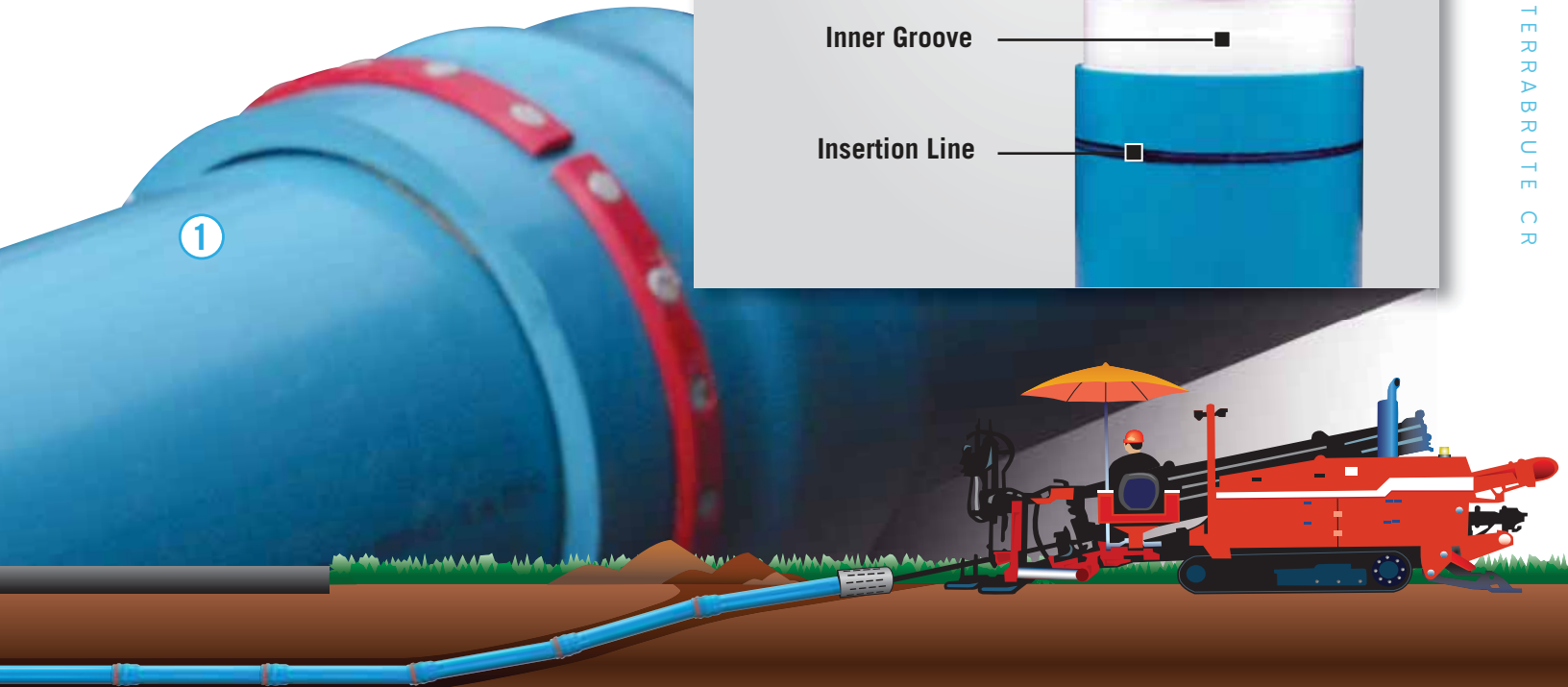
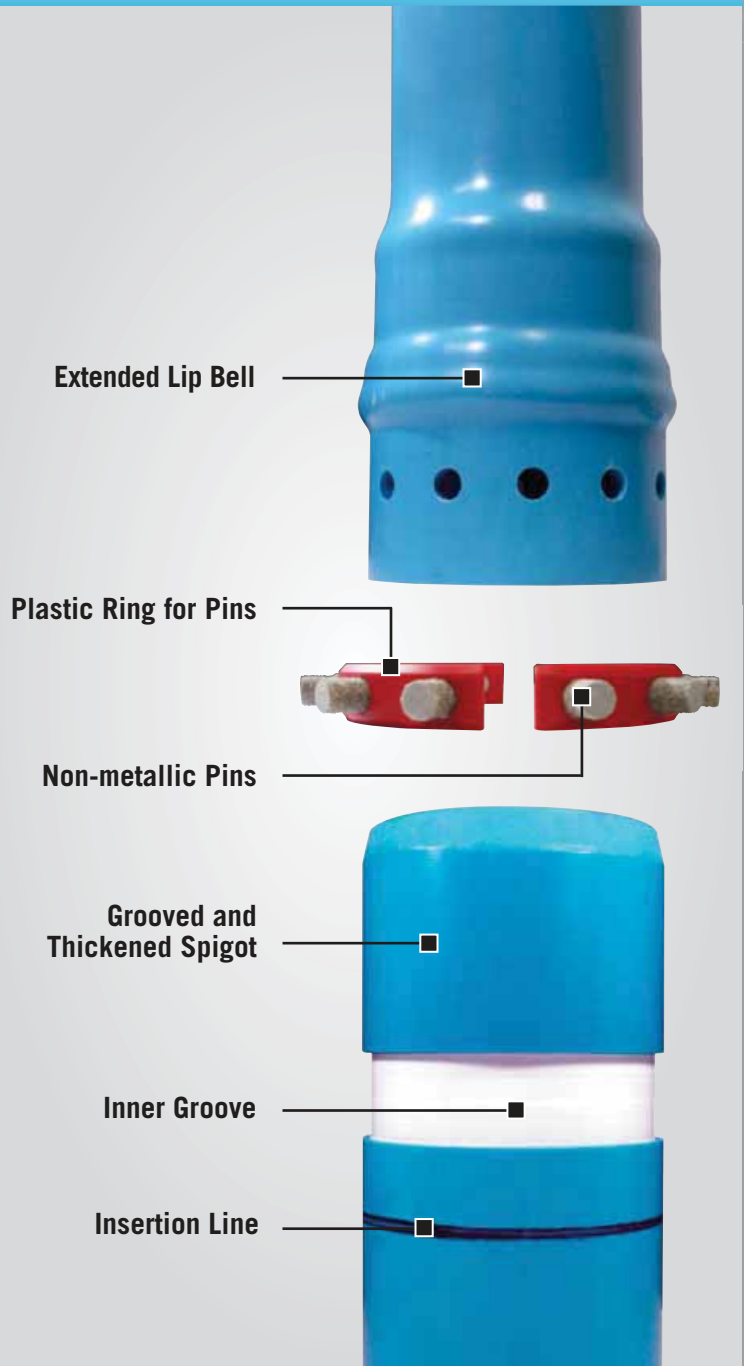
Factory Mutual and Underwriter's Laboratories

TerraBrute is made from starting stock that is **Factory Mutual** approved and **ULC/ULI** Listed.

“TerraBrute CR is the result of many years of research into the use of PVC pipes in HDD applications. The new non-corroding, locking joint design enables TerraBrute CR to enter new applications while maintaining the high tensile strength and bending radius of the original TerraBrute.”

*Dr. Erez Allouche,
Louisiana Tech University*

NEW NON-METALLIC GASKETED JOINT DESIGN





APPLICATIONS

SHORT FORM SPECIFICATIONS

GENERAL

PVC pipe used for horizontal directional drilling (HDD) or other trenchless installation methods shall be manufactured with a cast iron outside diameter (CIOD) and shall be made with starting stock certified to CSA B137.3 for 100mm - 300mm (4" - 12") diameters. Pipe will meet the requirements of AWWA C900, must be Factory Mutual approved, and listed by ULC and ULL.

MAXIMUM ALLOWABLE PULLING FORCE

The maximum allowable pulling force shall be the ultimate tensile capacity of the piping system divided by a safety factor of 2, as shown in the table below.

Nominal Size		Maximum Allowable Pulling Force	
mm	Inches	kN	Lbs.
100	4	50	11200
150	6	110	24700
200	8	115	25800
250	10	187	42100
300	12	275	61800

JOINT DESIGN

PVC pipe must be manufactured with an integral bell, and must have removable gaskets to allow the use of oil-resistant (nitrile) gaskets in contaminated soils.



BRIDGE CROSSINGS

TerraBrute CR's unique "new non-metallic ring-and-pin" joint design provides for easy installation in non-HDD applications where traditional butt fusion techniques would be difficult – such as this span of suspended pressure pipe installed beneath a busy roadway bridge.



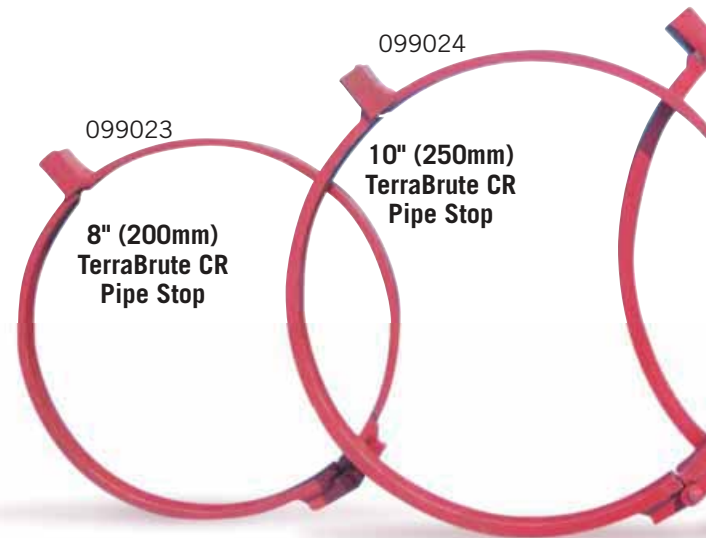
ROAD CROSSINGS

TerraBrute CR is ideally suited for short drilling projects where existing structures cannot be disturbed – such as under busy highways, roads and intersections where you connect to PVC pipes.



URBAN CENTERS

Because TerraBrute CR can be assembled segmentally just before entering the borehole, projects take up less space in restricted urban areas, compared to the long strings of pipe typical with HDPE installations.



099023

**8" (200mm)
TerraBrute CR
Pipe Stop**

099024

**10" (250mm)
TerraBrute CR
Pipe Stop**

PRODUCT SELECTION CHART

TerraBrute CR Pipe & Dimensions

Nominal Diameter		Product Code	Pressure Class/Rating (2:1 safety factor) psi	Max Outside Diameter (Bell OD)		Avg Internal Diameter	
in	mm			in	mm	in	mm
4	100	070258	305	6.49	165	4.09	104
6	150	070259	305	9.06	230	5.87	149
8	200	070260	235	11.33	288	8.03	204
10	250	070261	235	14.00	355	9.84	250
12	300	070262	235	16.36	416	11.69	297

TerraBrute CR's larger internal diameters, compared to HDPE pipe, provide the same hydraulic performance usually with one size smaller pipe, saving on material costs.

Lay Lengths

Nominal Size		Laying Lengths	
Inches	mm	Feet/Inches	m
4	100	19' 10"	6.04
6	150	19' 9"	6.03
8	200	19' 9"	6.01
10	250	19' 9"	6.01
12	300	19' 9"	6.01

Due to the extended bell configuration, TerraBrute has slightly shorter laying length than standard Blue Brute pipe.

TerraBrute® CR PIPE STOPS

IPEX TerraBrute CR Pipe Stops have been specifically designed to simplify the installation of **8"**, **10"**, and **12"** (**200mm**, **250mm**, and **300mm**) TerraBrute CR. Due to fairly large insertion forces, it can often be difficult to align the internal groove with the pin holes on the larger diameter TerraBrute CR; the new TerraBrute CR Pipe Stops will virtually eliminate this problem of over-homing the pipe. TerraBrute CR Pipe Stops will reduce stoppages in the installation process to pull back and reposition the pipe.

IPEX TerraBrute CR Pipe Stops can be placed on the pipe quickly and easily; a pair of vice-grips is all that is needed to secure the Pipe Stop in place. Made from high-strength steel, TerraBrute CR Pipe Stops are designed to withstand repeated use for all of your installations.

APPLICATIONS

- Municipal Water Systems
- Fire Lines
- Force mains
- Industrial Lines

099025

**12" (300mm)
TerraBrute CR
Pipe Stop**

FEATURES & BENEFITS

- 1 Easy to Use**
 TerraBrute CR Pipe Stops are simple and easy to use, offering quick assembly and disassembly to help prevent installation delays. A pair of vice-grips is all that is needed to secure the Pipe Stop in place.
- 2 Strong & Tough**
 Made from steel, TerraBrute CR Pipe Stops are built strong, tough and are durable enough to withstand repeated use on every job.
- 3 Prevents Over-Homing**
 TerraBrute CR Pipe Stops virtually eliminate the risk of over-homing the pipe. There is no need to pull back and reposition the pipe as the groove will always end up properly aligned with the pin holes.