

RUBBER GASKETS & SEALS

PRODUCT INFORMATION SHEET

FEATURES

DURA-SEAL™ III

PIPE-TO-MANHOLE GASKET

- Multi-finned flexible gasket
- Custom-sized to ensure true fit
- For pipe sizes up to 24" I.D.
- Casts directly into wall of structure
- Will not slip, twist, or dislodge
- Installs easily; no special tools are required
- *Injection Sealant System* ensures seal on rough or out-of-round pipe, from inside of structure
- Individually inspected prior to shipping

SEPTI-SEAL®

COMPRESSION SEAL: SEPTIC SYSTEMS

STORM STRUCTURES

GREASE TRAPS

- Finned flexible gasket ensures watertight seal in septic tanks
- Custom-sized to ensure true fit
- Stock sizes for 4" and 6" pipe (other sizes available)
- Casts directly into wall of structure
- Will not slip, twist, or dislodge
- Can be used on various types of pipe
- Individually inspected prior to shipping

SPECIFICATIONS

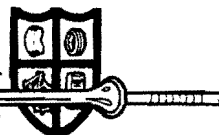
- Constructed of black Tylox rubber
- Works on pure compression principle
- Dovetails anchor gasket/seal securely
- Will pass vacuum test
- Meets all ASTM C-443 and C-923 requirements.

For Additional Information, Call:

1 (800) 836-6113

BLACKTHORN INC.

PRODUCTS FOR THE CONSTRUCTION INDUSTRY



Put A Water-Tight Seal On Your Sanitary Sewer Systems

with our unique **DURA-SEAL™ III**

PIPE-TO-MANHOLE FLEXIBLE GASKET



Mandrel/Gasket Assembly ready to hang on form. Easily assembled by 1 man without special tools



Complete Mandrel Assembly lowered to outside manhole mold



Base Assembly with Dura-Seal in place ready for pouring

The **DURA-SEAL™ III** is a patented multi-finned flexible gasket which produces a positive water-tight fit wherever a pipe makes contact with a manhole base. It becomes an integral part of the pipe and cannot slip, twist or dislodge. If a flat spot or an out-of-round pipe does permit any leakage, **DURA-SEAL™ III**'s simple four-step injection sealant system allows quick and easy repair, on-site. One man inside the manhole can complete the job without disrupting other workers or outside activities.

The **DURA-SEAL™ III** works on pure compression, thus eliminating the need for installation kits, take-up clamps or additional tools. This makes installation in the field possible in either wet or dry conditions. The contractor simply lubricates the pipe and inserts it into place. This time-saving product provides you with top-quality, increased efficiency and improved cost-effectiveness, all in one package.

DURA-SEAL™ III can accommodate any size (up to 24" I.D.) pipe and any material, including asbestos cement, vitrified clay, concrete, cast iron and PVC. It is ideal for manholes, wet wells, valve pits and septic tanks. **DURA-SEAL™ III** meets or exceeds all material and performance requirements of **ASTM C443** and **C923**. It is covered under one or more of the following patents: Number 3,787,061; Number 3,759,285; and Canadian Patent Numbers 949,094 and 1,018,331. Recent tests certify that **DURA-SEAL™ III** can withstand 3760 force lbs. (1880 lbs. each end) with zero leakage. For complete test results, ask our representative for Bulletin No. 747448-A.

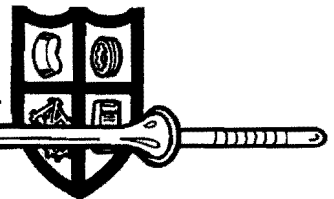
Let us show you how **DURA-SEAL™ III** can increase job quality, reduce down-time and enhance your productivity. We even offer a guarantee that is water-tight! **Call today to place your order or to receive additional information.**

CALL US
TOLL-FREE

1 (800) 836-6113

Or FAX your specs to
(937) 836-9395 for a quote

BLACKTHORN INC.



PRODUCTS FOR THE CONSTRUCTION INDUSTRY



Pouring base



Placing Flowline Tubes



Secondary pour of sand and cement mix to form inverts

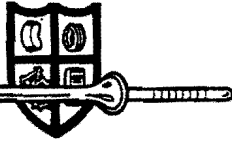


Flowline Tubes removed—Inserts hand finished



Finished Manhole Base complete with Dura-Seal Gaskets

BLACKTHORN INC.



PRODUCTS FOR THE CONSTRUCTION INDUSTRY

DURA-SEAL™ III GASKET

The *DURA-SEAL™ III* is a patented, multi-finned flexible gasket constructed of black tylox rubber. *DURA-SEAL™ III* works on pure compression, thus eliminating the need for installation kits, take-up clamps, or additional tools. *DURA-SEAL™ III* meets or exceeds all material and performance requirements of ASTM C443 and C923. This flexible pipe-to-manhole gasket has been used successfully for more than thirty (30) years.

ADVANTAGES OF *DURA-SEAL™ III*:

- *DURA-SEAL™ III* has three (3) dovetails which anchor securely into the concrete.
 - *DURA-SEAL™ III* has been engineered to exactly fit the specified pipe.
 - *DURA-SEAL™ III* has four (4) flexible fins which compress tightly around the pipe.
- These gasket characteristics ensure a solid, waterproof base.
- *DURA-SEAL™ III* provides a cushioning effect to the pipe.
- This cushioning should eliminate the problem of differential settlement, which is commonly associated with pipe that is grouted into a manhole.
- *DURA-SEAL™ III* has a four-step injection system
- This injection system is used if a flat spot or an out-of-round pipe does permit leakage. The system allows for a quick, easy, time-saving repair. One man inside the manhole can complete the repair.

DURA-SEAL™ III is cut and vulcanized to the proper size to fit a specified pipe. *DURA-SEAL™ III* is fitted onto a cast aluminum mandrel or onto a fiberglass mandrel. (Mandrels are also available from **BLACKTHORN, Inc.**) The mandrel is coated with a light coat of wax-based lubricant (O-ring lubricant). A closed cellular neoprene rubber sponge retaining ring [1" x 2 3/8"] is needed. First, soak the retaining ring in form oil to prevent adherence to the concrete. Then, fit the ring onto the mandrel beside *DURA-SEAL™ III*. The mandrel is bolted to the outside jacket of the manhole base form. A rubber or styrofoam "plug" that has been cut to fit is then inserted into the mandrel. This plug will prevent concrete from entering the mandrel when the manhole is poured. The outside jacket, complete with mounted mandrels, gaskets, retaining rings, and plugs, is now placed over the inside core with standard reinforcement wire in place.

After pouring the manhole and allowing for curing, the inside core is removed. The outside jacket and finished manhole are turned over and set upright. The retaining ring is removed from the inside. The plug is removed. The bolt holding the mandrel is removed. The outside jacket is removed from the finished product. The mandrel is lightly tapped out of the manhole using a short piece of 2x4 and a 2lb. hammer. *DURA-SEAL™ III* is now encapsulated in the wall of the monolithic base.

The flowline tubes are inserted through the *DURA-SEAL™ III* gaskets and into the manhole. A measurement must be taken at the wall of the outlet to the top of the flowline tube using a level or a straight-edge. This will be the lowest point of the flowline, according to the elevation change in the manhole. A wooden wedge is driven into the void above the flowline tube created by the hub of the mandrel. When the desired elevation is attained, two more wedges are driven, from the inside, into the same void at roughly the ten o'clock and the two o'clock positions. This will hold the proper elevation of the flowline tubes.

After all flowlines are anchored, a mortar mix is poured into the base to the height of the spring line or to the U-channel depth. The benches are then formed. After setting, but when the mortar mix is still pliable, the flowline tubes are removed. The portion between the flowline tubes is then hand-trowled and finished. The concrete adjacent to the *DURA-SEAL™ III* is removed. This will provide space for the incoming pipe to flex 12 degrees omni-directional within the two cavities formed by the hub of the mandrel on the outside and the retaining ring on the inside.