



The Company With Connections®



PIPE TO CONCRETE STRUCTURE COLD JOINT CONNECTOR

WATER-STOP For all Corrugated or Smooth Wall Pipes

WATER-STOP CONNECTORS

WATER-STOP Connectors easily install to the outside diameter of corrugated or smooth wall pipe. Designed for use with new or existing round or flat wall structures to seal cold joint pipe penetrations.



(Fig. 1) Tightening down one piece spliced WATER-STOP with torque wrench prior to grouting.

MATERIAL

WATER-STOP is extruded from an Polyisoprene/SBR blend compound engineered to conform with the requirements of Section 4.1.1 of ASTM C-923. Alternative compounds are available for unusual applications upon special order.

All stainless steel hardware is in compliance with Section 4.2, "Mechanical Devices" of ASTM C-923.

KEY ADVANTAGES

The **WATER-STOP** profile provides a better surface than PVC or corrugated HDPE for grout to adhere as well as a watertight connection between the connector and pipe. The "Special T" profile also helps prevent water and soil infiltration for all types of pipe. This connector is made from a Polyisoprene SBR blend. The WATER-STOP Wedge Kit (see Fig. 2) can easily be installed around existing pipes during the rehabilitation process.

The one piece spliced WATER-STOP (see Fig. 1) is normally installed over the end of new pipe installations such as field poured structures, mortared connections to precast structures, casting pipe hubs into concrete structures and doghouse field poured collars.

PRODUCT REFERENCES

A.) ASTM C-923

Resilient Connector Between Reinforced Concrete Manholes Structures, Pipe and Laterals.

B.) ASTM C-1244

Standard Test Method For Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test

C.) ASTM 1478

Resilient Connectors Between Reinforced Concrete Storm Sewer Structures, Pipes and Laterals.

PERFORMANCE STANDARD

WATER-STOP passes ASTM C-1244 Vacuum Test and meets and exceeds all material and test requirements of ASTM 1478 and ASTM C-923 Resilient Materials Test, Section 4: "Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes and Laterals".

See following chart:

RESILIENT TEST REQUIREMENTS OF A.S.T.M. C-923

TEST	RESULTS	ASTM METHOD
Chemical resistance 1 N Sulfuric acid 1 N Hydrochloric Acid	no weight loss no weight loss	at 22°C for 48h
Tensile strength	1200 psi or 8.5 MPa, min	D 412
Elongation at break	350% min.	
Hardness	±5 from mfg's. specified hardness	D 2240 (Shore A durometer)
Accelerated oven-aging	decr. of 15%, max. of original tensile strength, decr. of 20% max. of elongation	D 573, 70±1°C for 7 days
Compression set	decr. of 25%, max. of original deflection	D 395, Method B, at 70°C for 22h
Water absorption	increase of 10%, max. of original by weight	D 471, immerse 0.75 by 2-in. or 19 by 25-mm Specimen in distilled water at 70°C for 48h
Ozone resistance	rating 0	D 1171
Low-temp brittle point	no fracture at -40°C	D 746
Tear resistance	200 lb/in. or 34 kN/m	D 624, Method B

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DIMENSIONAL DATA

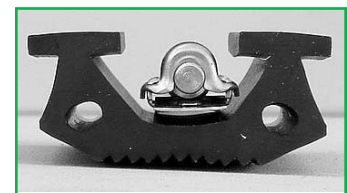
Plus or minus 1" of the nominal pipe O.D. When ordering for corrugated pipe, it is important to specify the pipe manufacturer and the O.D. of the crest of the corrugation, if possible, for proper fit.

Up to 18" corrugated uses single clamp as does all sizes of smooth wall pipe.

24" corrugated pipe and above uses double clamp connector design.



Double clamp WATER-STOP profile for corrugated over 18" diameter.



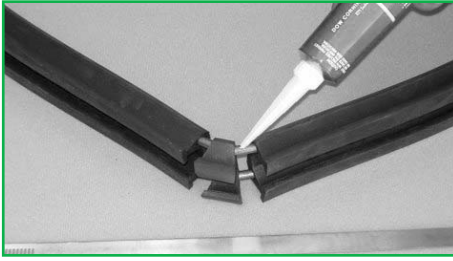
Single clamp WATER-STOP profile for all smooth wall and less than 18" diameter corrugated pipe.

WEDGE STYLE WATER-STOP KIT (Fig. 2)

INSTALLATION INSTRUCTIONS (Existing Pipe)

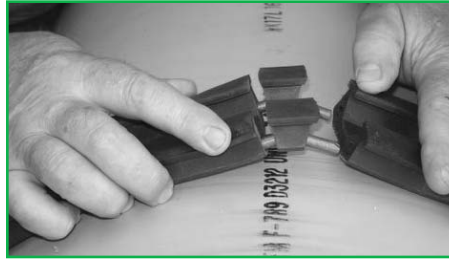
COMPONENTS: Connector to fit Pipe O.D.
Tube of Glue
1 Rubber Wedge
2 Steel Alignment Pins

STEP 1



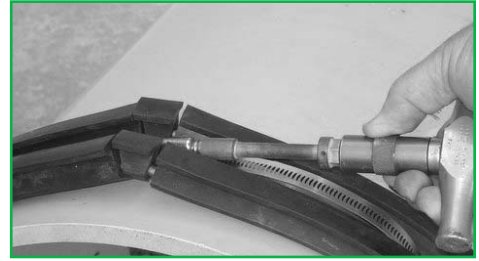
Insert pins in wedge and apply glue to both sides of wedge.

STEP 2



Wrap WATER-STOP around pipe. Install pins and wedge to WATER-STOP.

STEP 3

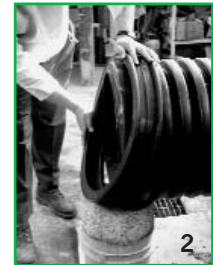


Torque down take down clamp to 60" pounds to squeeze wedge with glue together. Once glue is set grouting can begin.

ONE PIECE SPLICED STYLE WATER-STOP

INSTALLATION INSTRUCTIONS (New Pipe) CORRUGATED PIPE FOR SIZES 18" AND ABOVE

1. Cast or core an opening in the structure 5" larger than the O.D. of the pipe.
2. Center one piece Water-Stop CPP over the crest of pipe corrugation.
3. Position the take down clamp(s) in grooves of Water-Stop CPP. Then torque clamp(s) to 60 in.- lbs. with Torque wrench.
4. Align pipe and connector in center of structure opening and mortar completely around annular space with non-shrink grout.
5. If pouring in place, vibrate properly to insure complete compaction around seal.

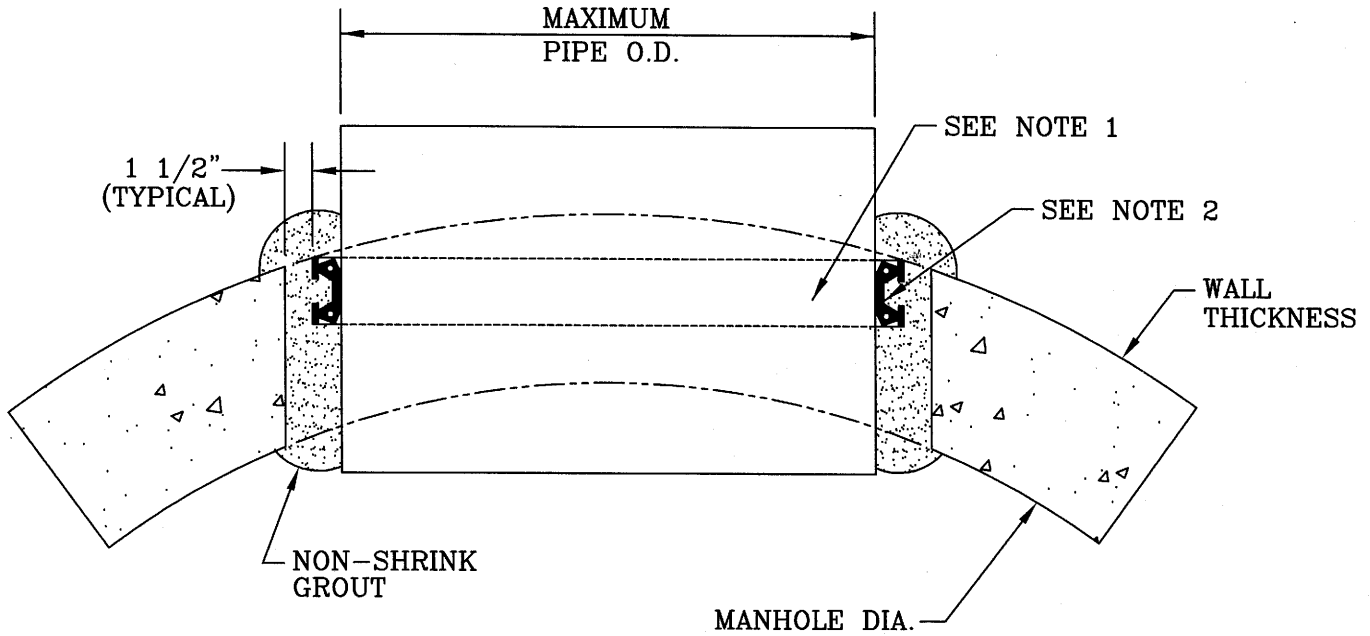


NOTE: Up to 15" use a single clamp connector design and 18" and above use double clamp connector design.

NOTE: The 60 in.-lb. Torque Wrench is available through A•LOK Products, Inc.

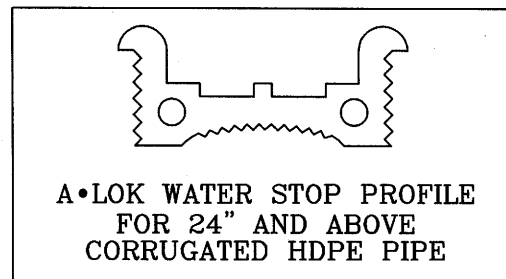
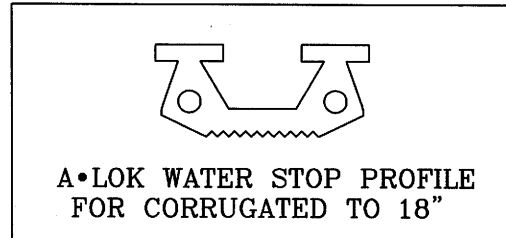
ANY QUESTIONS REGARDING WATER-STOP CONNECTOR, PLEASE CALL 1-800-822-2565

A•LOK WATER STOP GASKET INSTALLATION GUIDE FOR CORRUGATED PIPE FOR ROUNDWALL STRUCTURES



MAXIMUM PIPE ALLOWANCE

MANHOLE DIA. & WALL THK.	PIPE SIZE	MAX. PIPE O.D.
36 x 4.0	4	5.50
36 x 4.0	6	7.00
36 x 4.0	8	9.50
36 x 4.0	10	12.00
36 x 4.0	12	14.00
42 x 4.5	15	18.00
48 x 5.0	18	22.00
60 x 6.0	24	28.50
72 x 7.0	30	36.00
84 x 8.0	36	41.50
96 x 9.0	42	48.00
108 x 9.0	48	55.00
144 x 12	60	67.50



IN FLAT WALL STRUCTURES
PIPE O.D. IS UNLIMITED

A•LOK PRODUCTS INC. *The Company with Connections*

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NOTE:

1. GASKET AND CLAMP HAS TO BE STRAIGHT AND PERPENDICULAR TO PIPE.
2. ONE OR TWO STAINLESS STEEL TAKE DOWN CLAMPS REQUIRED AND TIGHTENED TO 60 IN. LBS.

LITERATURE VIEWS TRULY UNLIMITED AND SMALL CORRUGATED COMBINED