



construction managers

general contractors

design builders

SUBMITTAL REVIEW

Date: August 17, 2017

Submittal # 007

PUBLIC SANITARY STRUCTURES
33-3000-01-A

Subcontractor: Kat Excavation
Bart Fisher

Project#: 417 The Residence at Echelon

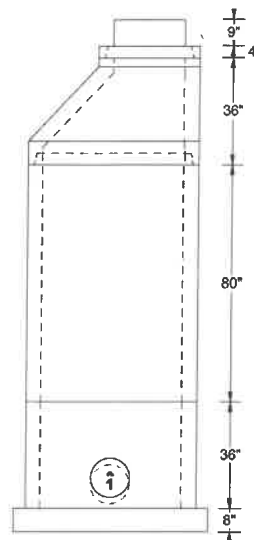
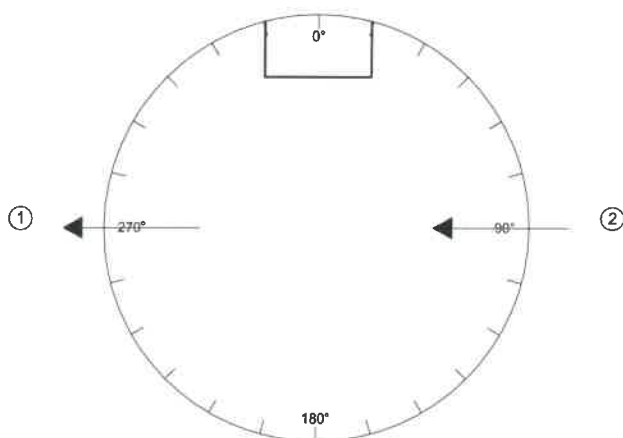
Submit To: NSPJ Architects
Tim Hauschild
Clint Evans

SUBMITTAL FOR APPROVAL	
Job Name/No: <u>417 Residences of Echelon</u>	
<input checked="" type="checkbox"/> REVIEWED	<input type="checkbox"/> REVISE & RESUBMIT
<input type="checkbox"/> REVIEWED & NOTED	<input type="checkbox"/> REJECTED
<small>Submittal received for general compliance with the Contract Documents. Contractor's review does not relieve sub/vendor of responsibility for dimension, quantities, accuracy or completion of submittals or from any responsibilities required by terms and conditions of Subcontract/PO with Luke Draily Construction Co., Inc.. Sub/Vendors shall follow all manufacturer installation instructions. Installing contractor shall be responsible to coordinate with trades for hookup, supports, routing, etc.</small>	
By: <u>J. Wilcox</u>	Date: <u>8-17-17</u>

Engineering Solutions	Shop Drawing Review
Project: <u>SANITARY 2</u>	Date: <u>8/24/17</u>
Submittal #: <u>Echelon</u>	By: <u>MIS</u>
<input checked="" type="checkbox"/> APPROVED	<input type="checkbox"/> REJECTED
<input type="checkbox"/> APPROVED AS NOTED	

Job Name: THE RESIDENCE @ ECHELON PUBLIC SAN
 Job #: 17-2004
 Customer: KAT EXCAVATION INC 1038
 Structure ID: A1
 Type: 4' DIA MANHOLES W/ 8" BASE

Rim: 1013.3'
 Invert: 999.83'
 Rim to Invert: 13.47'
 Precast Height: 13.00'
 Overall Height: 14.47'



33-3000-01-a



Barbour Concrete Company
 816.796.3344

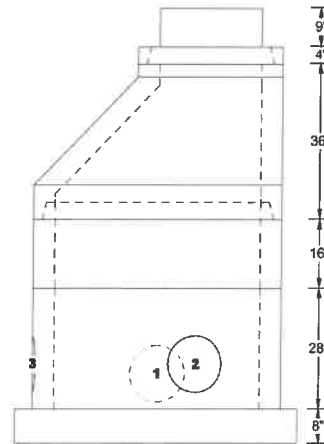
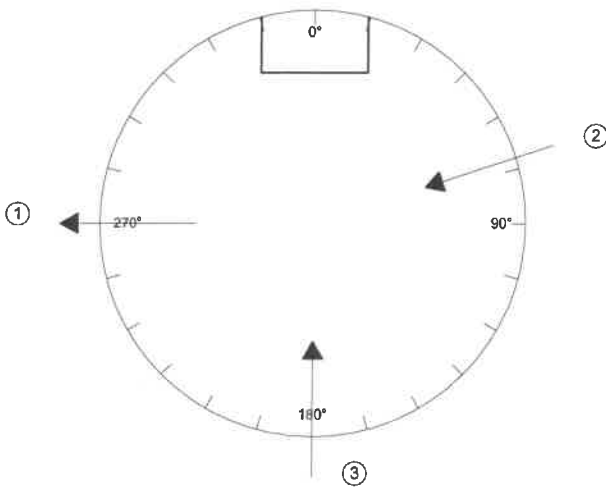
08/10/2017

Pipe#	Elevation	Pipe	Hole Type	UptoCenter	OverInside	Hole_Height	Hole_Width	Description	UOM	Quantity	Weight
(1)	999.83	8 PVC	QLBOOT8	8	113	13	13	1502 MUDRING ONLY 00150215	EA	1	302
(2)	1000.03	8 PVC	QLBOOT8	10.25	37.75	13	13	ADJUSTMENT RING 24" X 4"H WITH TG JOINT	EA	1	140
								MANHOLE CONE ECCENTRIC 4"ID X 36" WITH TG TOP JOINT	EA	1	2,025
								MANHOLE RISER 4"ID X 80"H	EA	1	5,713
								DEV BASE MH 4"DIA X 44"H W/1 STEP AND GASKET CAST IN	EA	1	4,807
								00150245 1502 COVER LEE'S SUMMIT SEWER LS 1038	EA	1	161
								8" BOOT GASKET W/CLAMP - 8 - 9.10"	EA	2	
								DAMPPROOFING - ASPHALT	GAL	0.772	
								JOINT SEALANT 1" SQ X 14.5'	CS	1	48
								JOINT-WRAP 6" X 100' ROLL 2 ROLLS in a BOX	ROL	0.5128	
								Total Structure			13,196

MH REINFORCING IN ACCORDANCE WITH ASTM C-478
 BASE REINFORCING
 4' DIA MH = #4 @ 12" OCEW
 5, 6, 7, 8, AND 10 FT DIA = #5 @ 6 OCEW
 WALL THICKNESS = (ID DIA / 12) + 1
 AIR ENTRAINED CONCRETE = 4000 PSI IN 28 DAYS

Job Name: THE RESIDENCE @ ECHELON PUBLIC SAN
 Job #: 17-2004
 Customer: KAT EXCAVATION INC 1038
 Structure ID: A2
 Type: 4' DIA MANHOLES W/ 8" BASE

Rim: 1008.5'
 Invert: 1000.94'
 Rim to Invert: 7.56'
 Precast Height: 6.99'
 Overall Height: 8.56'



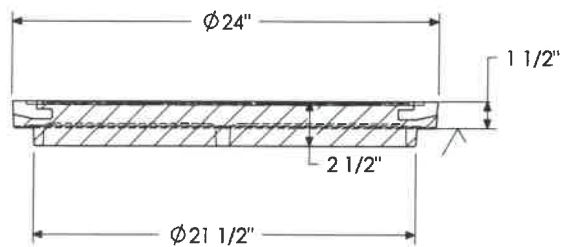
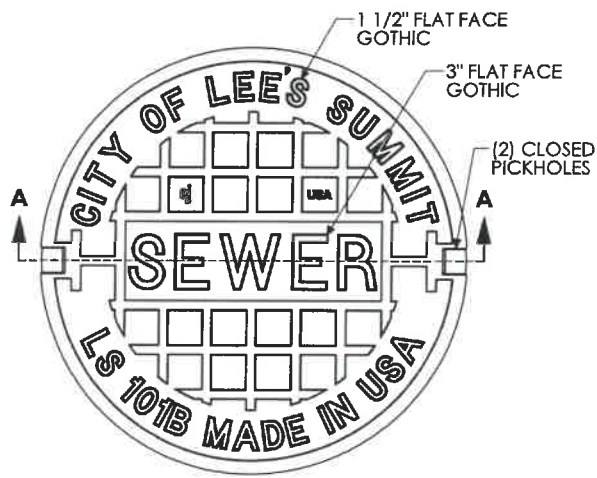
Barbour Concrete Company
 816.796.3344

08/10/2017

Pipe#	Elevation	Pipe	Hole Type	UptoCenter	OverInside	Hole_Height	Hole_Width	Description	UOM	Quantity	Weight
(1)	1000.94	8 PVC	QLBOOT8	8	113	13	13	1502 MUDRING ONLY 00150215	EA	1	302
(2)	1001.14	8 PVC	QLBOOT8	10.25	30.25	13	13	ADJUSTMENT RING 24" X 4"H WITH TG JOINT	EA	1	140
(3)	1001.14	8 PVC	QLBOOT8	10.25	75.5	13	13	MANHOLE CONE ECCENTRIC 4'ID X 36" WITH TG TOP JOINT	EA	1	2,025
								MANHOLE RISER 4'ID X 16"H	EA	1	1,143
								DEV BASE MH 4'DIA X 36"H W/GASKET CAST IN	EA	1	4,179
								00150245 1502 COVER LEE'S SUMMIT SEWER LS 103B	EA	1	161
								8" BOOT GASKET W/CLAMP - 8 - 9.10"	EA	3	
								DAMPPROOFING - ASPHALT	GAL	0.522	
								JOINT SEALANT 1" SQ X 14.5'	CS	1	48
								JOINT-WRAP 6" X 100' ROLL 2 ROLLS in a BOX	ROL	0.5128	
								Total Structure			7,998

MH REINFORCING IN ACCORDANCE WITH ASTM C-478
 BASE REINFORCING
 4' DIA MH = #4 @ 12" OCEW
 5, 6, 7, 8, AND 10 FT DIA = #5 @ 6 OCEW
 WALL THICKNESS = (ID DIA / 12) + 1
 AIR ENTRAINED CONCRETE = 4000 PSI IN 28 DAYS

1502A Cover



SECTION A-A



BOTTOM VIEW

Product Number

00150245

Design Features

- Materials
Gray Iron (CL35B)
- Design Load
Heavy Duty
- Open Area
n/a
- Coating
Undipped
- √ Designates Machined Surface

Certification

- ASTM A48
-
- Country of Origin: USA

Drawing Revision

9/8/2011 Designer: JIJ
7/31/2013 Revised By: DAE

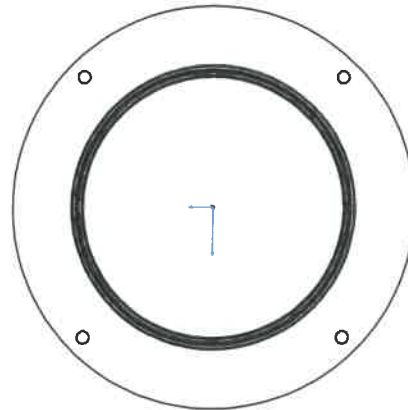
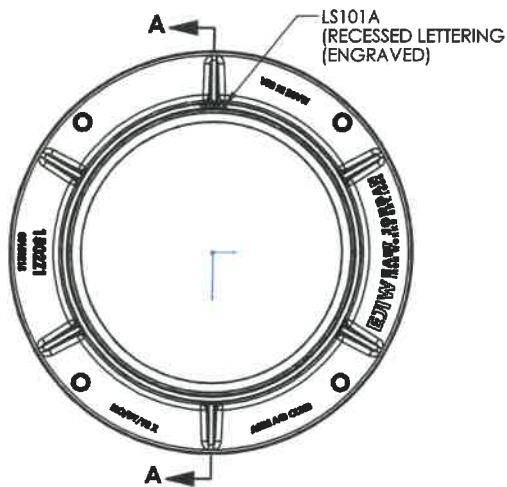
Disclaimer

Weights (lbs/kg), dimensions (inches/mm) and drawings provided for your guidance. We reserve the right to modify specifications without prior notice.

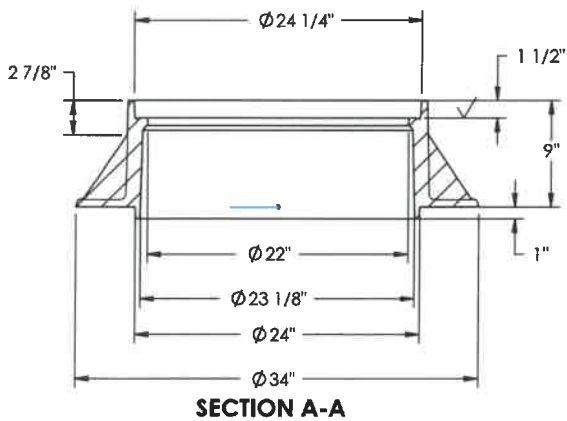
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Contact

800 626 4653
ejco.com



BOTTOM VIEW



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EJIW EAST JORDAN
IRON WORKS EST. 1883

800-626-4653

www.ejiw.com

MADE IN USA

PRODUCT NUMBER

00150215

CATALOG NUMBER

1502Z1

FRAME

LOAD RATING

HEAVY DUTY

COATING

UNDIPPED

SPECIFICATION

**FRAME - GRAY IRON
ASTM A48 CL35B**

302 LBS.

OPEN AREA
N/A

√ DESIGNATES
MACHINED SURFACE

DRAWN

DEW

DATE

10/15/08

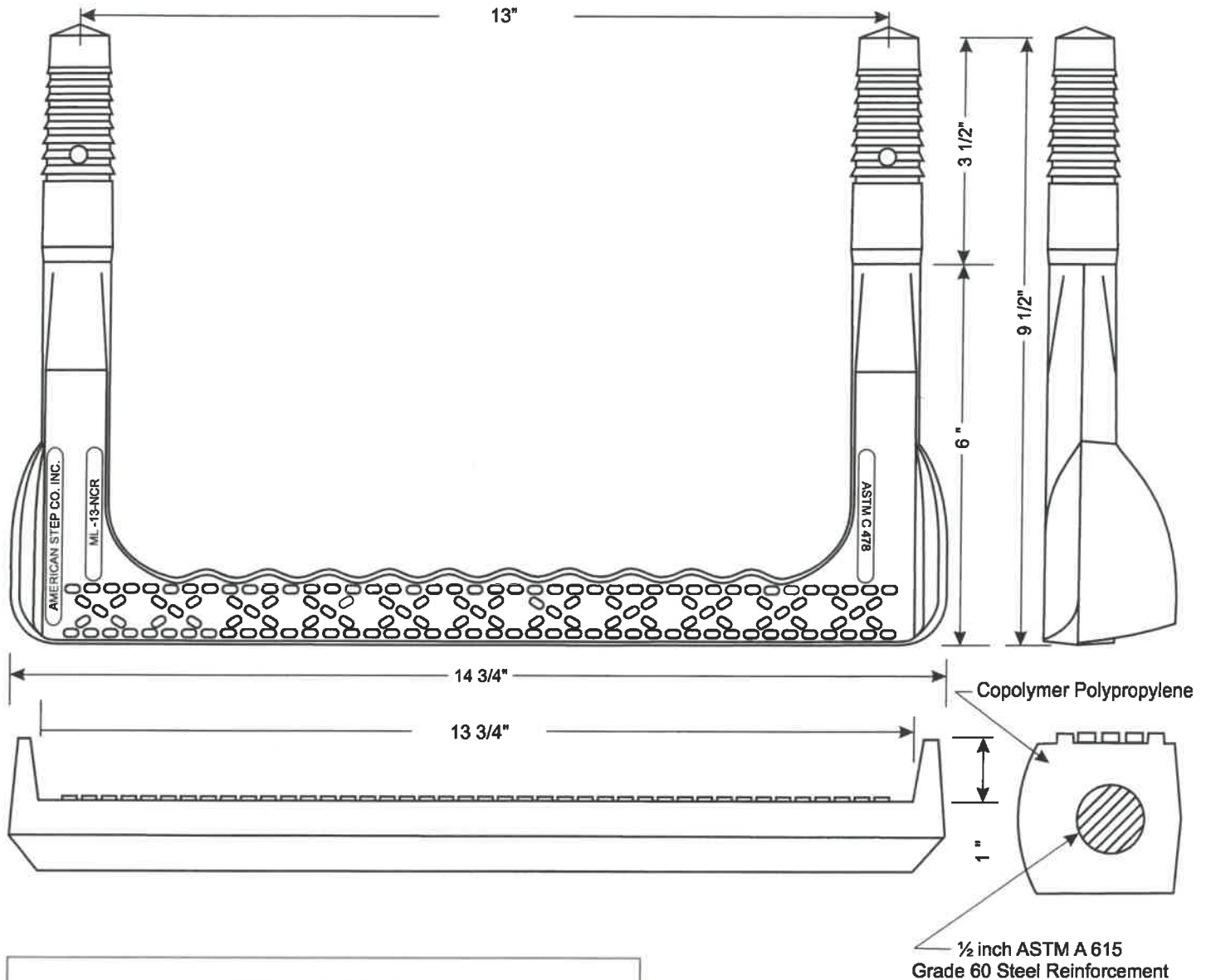
LAST REVISED

DEW

DATE

01/09/09

ML-13-NCR



ML-13-NCR

Mechanical Lock Installation Methods
Minimum Concrete Strength Must Be 3000 psi.

Preformed Holes

Two preformed holes on 13" centers
Holes must be parallel
Diameter of holes are 1.1" tapering to 7/8" in 3 1/2" of depth

Drilled Holes

Drill two 1" holes on 13" centers with a minimum depth of 3 3/4"
Use 1" masonry bit for drilling.
Holes must be parallel.

Drive step with sledge hammer until both legs are completely seated

*This step meets or exceeds ASTM C 478 and OSHA Standards
when properly installed.*



American Step Company, Inc.
P.O. Box 137
830 East Broadway
Griffin, GA 30224-0137

800-988-STEP
770-467-9844 (OFFICE)
770-467-8011 (FAX)



The Company With Connections®



Patent Pending

PIPE TO MANHOLE BOOT CONNECTOR FOR SANITARY SYSTEMS

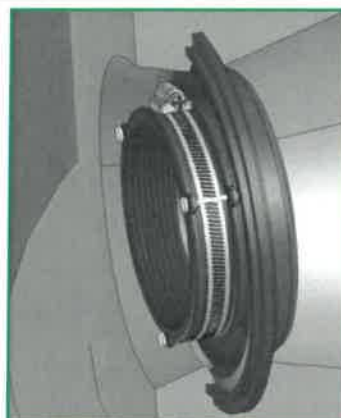
QUIK•LOK "The Boot with the Built-in Clamp"

QUIK•LOK

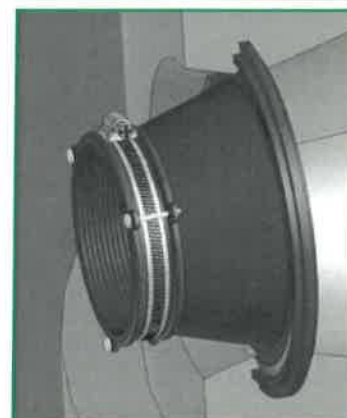
The **QUIK•LOK Pipe to Manhole Boot Connector** is a flexible connector specifically engineered to produce a positive watertight seal for pipes entering precast concrete structures and the structure itself. The **QUIK•LOK CONNECTOR** is manufactured to meet or exceed all material and test requirements set forth in ASTM C-923-00 titled *"Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes, and Laterals"*.



QUIK•LOK boot as it will arrive with clamp attached ready to be placed in a mandrel.



QUIK•LOK boot cast into structure in shipping position.



QUIK•LOK boot extended at job site ready for pipe.

MATERIAL

The **QUIK•LOK Connector** is molded from an EPDM compound engineered to conform with the requirements of section 4.1.1 of ASTM C-923-00. 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-923-00.

KEY ADVANTAGES

The **QUIK•LOK CONNECTOR** assures a positive watertight connection and provides up to 20° degrees omni-directional deflection and 1.00" of vertical or horizontal movement without loss of seal. This deflection permits pipe to structure settling without damage to the pipe or loss of the watertight seal and will also allow for many angles of incoming pipe.

The QUIK•LOK cast in Boot Connector is manufactured with the stainless steel takedown clamp as an integral part of the rubber connector.

The correct takedown clamp travels in the installation position from the time it leaves A-LOK, while it is cast in the structure and until it arrives at the job site. After pulling out the connector it's in position ready to be tightened down around the pipe on the outside of the structure.

Immediate backfilling is then possible, enhancing project safety and overcomes the problems encountered with water, running sand and other unstable trench conditions.

The QUIK•LOK Connector can be installed into concrete structures in the plant or with a field sleeve for cast-in-place, at the job site. Once installed in the concrete structure and ready to ship, the QUIK•LOK Connector travels in the cast in position to prevent damage during shipping and handling.

PERFORMANCE STANDARD

The **QUIK•LOK CONNECTOR** meets or exceeds all material and test requirements of ASTM C-923-00 titled *"Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes, and Laterals"*.

See following chart:

RESILIENT MATERIAL TEST OF ASTM C-923-00

TEST	RESULTS	ASTM METHOD
Chemical resistance 1 N Sulfuric acid 1 N Hydrochloric Acid	no weight loss no weight loss	D 543 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 lbf/in. or 34 kn/m	D 624, Method B

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● PRODUCT REFERENCES

A.) ASTM C-923-00

Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes, and Laterals.

B.) ASTM C-1244

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

C.) ASTM C-478C

Standard Specification for Precast Reinforced Concrete Manhole Sections

● PART 6 • DIMENSIONAL DATA

QUIK•LOK RING NO.	PIPE OD MIN.	PIPE OD MAX.
QL-04	4"	4.75"
QL-06	6"	6.875"
QL-08	8"	9.10"
QL-10	10"	11.25"
QL-12	12"	13.00"

● PRODUCT SPECIFICATIONS

A flexible pipe to manhole connector shall be used whenever a pipe penetrates into a precast concrete manhole or structure.

The connector shall be the **QUIK•LOK CONNECTOR** as manufactured by A•LOK PRODUCTS, INC., Tullytown, PA, or approved equal.

The design of the connector shall provide a flexible, watertight seal between the pipe and concrete structure. The connector shall assure that a seal is made between:

(1) The connector and the structure wall by casting the connector integrally with the structure wall during the manufacturing process in a manner that it will not pull out during pipe coupling.

(2) The seal between the connector and the pipe shall be made by compressing the connector against the outside circumference of the pipe by means of a stainless steel take-down band.

The connector shall be made from materials that conform to the physical and chemical requirements outlined in Section 4, "Materials and Manufacture" of ASTM C-923-00 "Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes, and Laterals," and the overall design will meet or exceed Section 7, "Test Methods and Requirements" of ASTM C-923-00.

The connector shall be sized specifically for the type of pipe being used and shall be installed in accordance with the recommendations of the manufacturer.

● INSTALLATION INSTRUCTIONS

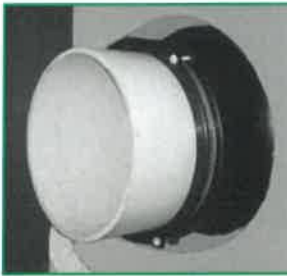
Quik-LOK gaskets will accept a pipe angle of 14.04 degrees or a 25% slope

STEP 1



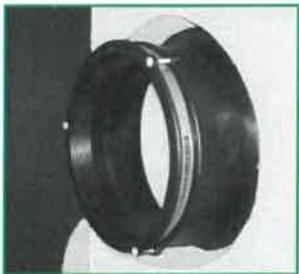
STEP 1: Remove all sharp edges on pipe, bevel edge and clean penetrating pipe section.

STEP 3



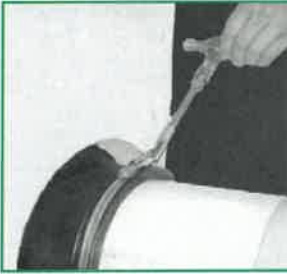
STEP 3: Center pipe and insert.

STEP 2



STEP 2: Pull out connector from cast position and clean off debris (stones, dirt, etc.) that could weaken the sealing area.

STEP 4



STEP 4: After inserting pipe, the stainless steel band should be tightened with the torque wrench to 60 in.-lb., then deflect pipe to flow or angle installation requires.

WARNING: To ensure the **QUIK•LOK Connector** remains a flexible watertight connector, it is A•LOK Products, Inc. strong recommendation that **no mortar** be placed between the pipe and wall of the concrete structure. The use of mortar in this area would decrease the effectiveness of the connector to compensate for shear caused by settlement or ground movement.

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

CAUTION: When installing pipe stubs for future pipeline installation, all stubs must be properly restrained to prevent any movement by means other than the **QUIK•LOK Connector**.

ANY QUESTIONS REGARDING QUIK•LOK CONNECTOR INSTALLATION, PLEASE CALL 1-800-822-2565



EZ-WRAP

EXTERIOR BUTYL RUBBER JOINT WRAP

What It Is

EZ-WRAP is an extruded butyl adhesive tape designed to provide high strength, watertight seals on properly primed concrete surfaces and concrete structure joints of any kind. The butyl compound is soft, tacky and bonded to either a plastic backing or an EPDM rubber backing. Both kinds of tape are wound in rolls on a release liner for easy application.



Why It's Better

- High quality butyl rubber base
- Available with EPDM Rubber or HDPE Plastic backing
- All-weather performance
- Good adhesion to dry concrete, commonly specified concrete coatings, steel, glass, or painted surfaces
- Coated release paper for easy installation
- Long service life
- Primers recommended for use on damp, contaminated, or difficult surfaces

How It Performs

EZ-WRAP BUTYL JOINT WRAP meets or exceeds all requirements of the following Standards, Specifications and/or Test Methods:

ASTM C 877 (Type III) - Standard Specification for External Sealing Bands for Concrete Pipe, Manholes, and Precast Box Sections

Typical Applications

- | | |
|-----------------------------------|-----------------------------------|
| • Sanitary Manhole Joints | • Underground Utility Vaults |
| • Grade Ring Joints | • Stormwater Treatment Structures |
| • Stormwater Manhole Joints | • Stormwater Inlet Structures |
| • Irrigation and Drainage Systems | • On-Site Treatment Tanks |
| • Box Culverts | • Grease Interceptors |
| • Elliptical/Arch Pipe | • Wet Wells |
| • Architectural Foundations | • Concrete Bridge Spans |

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EZ-WRAP

SPECIFICATION and SELECTION GUIDE

BUTYL JOINT WRAP WITH PLASTIC BACKING

The joints and/or joining surfaces of the structures shall be sealed with a butyl-rubber-based tape. The material shall be EZ-WRAP Plastic as supplied by PRESS-SEAL GASKET CORPORATION, Fort Wayne, Indiana, or approved equal. The butyl component of the tape shall consist of 50% (min.) butyl rubber, shall contain 2% or less volatile matter, and shall be .050" thick. The backing component shall be high-density polyethylene film. A release paper may be utilized.

For manholes, the tape width shall be 6" wide. The tape shall be overlapped at least twice its width. The tape shall not be stretched during application. Primer and/or adhesive as recommended by the tape supplier shall be employed for adverse, critical, or other applications.

Testing of joints and compliance with construction requirements shall be conducted in strict conformance with the requirements of the sealant supplier.

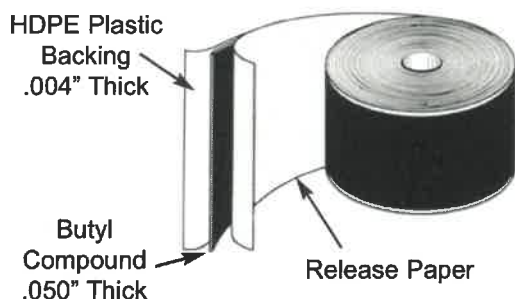
BUTYL JOINT WRAP WITH RUBBER BACKING

The joints and/or joining surfaces of the structures shall be sealed with a butyl-rubber-based tape. The material shall be EZ-WRAP Rubber as supplied by PRESS-SEAL GASKET CORPORATION, Fort Wayne, Indiana, or approved equal. The butyl component of the tape shall consist of 50% (min.) butyl rubber, shall contain 2% or less volatile matter, and shall be .030" thick. The backing component shall be EPDM rubber, and shall be .045" thick. A release paper may be utilized.

For manholes, the tape width shall be 6" wide. The tape shall be overlapped at least twice its width. The tape shall not be stretched during application. Primer and/or adhesive as recommended by the tape supplier shall be employed for adverse, critical, or other applications.

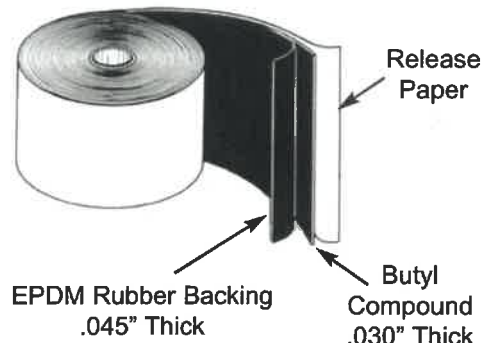
Testing of joints and compliance with construction requirements shall be conducted in strict conformance with the requirements of the sealant supplier.

EZ-WRAP PLASTIC



Width	Length	Backing	Part Number
6"	100'	HDPE	276.773.6
9"	100'	HDPE	276.773.9
12"	50'	HDPE	276.773.12

EZ-WRAP RUBBER



Width	Length	Backing	Part Number
6"	100'	EPDM	276.911.6
9"	100'	EPDM	276.511.9
12"	50'	EPDM	276.911.12

ALSO AVAILABLE: EZ-WRAP PAKS are pre-cut packages of EZ-WRAP designed specifically to seal manhole joints. Each **EZ-WRAP PAK** includes an easy-to-use spray adhesive and pre-cut wraps for standard 48", 60", or 72" manhole joints.

NOTE:

- EZ-WRAP is designed to be used with EZ-STIK No. 4 primer, or our spray adhesive
- EZ-WRAP should not be stretched during installation

If you have any questions, please contact our Customer Service Department or your Press-Seal representative.

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EZ-STIK

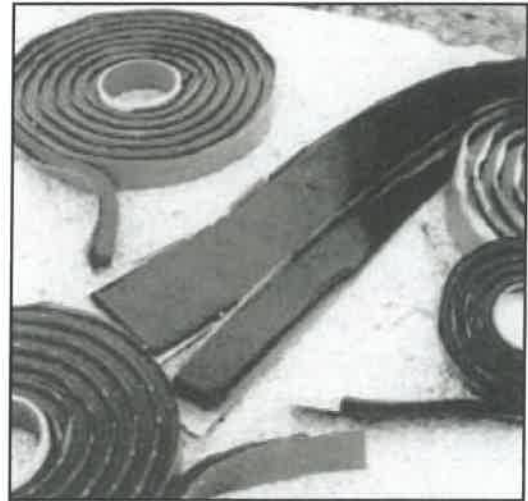
PREMIUM BUTYL JOINT SEALANT

What It Is

EZ-STIK is a premium preformed butyl joint sealant that is supplied in rope form. Containing a higher proportion of butyl rubber, EZ-STIK is carefully blended from uncured butyl rubber and other solids and will not shrink, crack, or dry out. Although clean to handle, it provides excellent adhesion and cohesion to a wide variety of surfaces - concrete, metal, most concrete coatings, glass, wood, and painted surfaces.

Why It's Better

- Increased proportion of butyl rubber content
- Premium packaging
- Wide variety of sizes and styles
- All-weather performance
- Good adhesion to dry concrete, commonly specified concrete coatings, steel, glass, or painted surfaces
- Coated release paper for easy installation
- Long service life
- Cohesive properties allow for joint movement
- Compatible for use with rubber O-Ring designs
- Low moisture vapor transmission rate (MVTR)
- Special primers available for use on damp, contaminated, or difficult surfaces



How It Performs

EZ-STIK BUTYL JOINT SEALANT meets or exceeds all requirements of the following Standards, Specifications and/or Test Methods:

ASTM C 990 - Standard Specification for Joints for Concrete Pipe, Manholes, and Precast Box Sections Using Preformed Flexible Joint Sealants; Section 6.2 Butyl Rubber Sealants

EPA Method 524.2 - Detection Method for Drinking Water Volatile Organic Compounds

AASHTO M 198 - Joints for Circular Concrete Sewer and Culvert Pipe Using Flexible Watertight Gaskets

Typical Applications

- | | |
|-----------------------------------|-----------------------------------|
| • Sanitary Manhole Joints | • Underground Utility Vaults |
| • Stormwater Manhole Joints | • Stormwater Treatment Structures |
| • Irrigation and Drainage Systems | • Stormwater Inlet Structures |
| • Box Culverts | • On-Site Treatment Tanks |
| • Elliptical/Arch Pipe | • Grease Interceptors |
| • Architectural Foundations | • Wet Wells |

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EZ-STIK

SPECIFICATION and SELECTION GUIDE

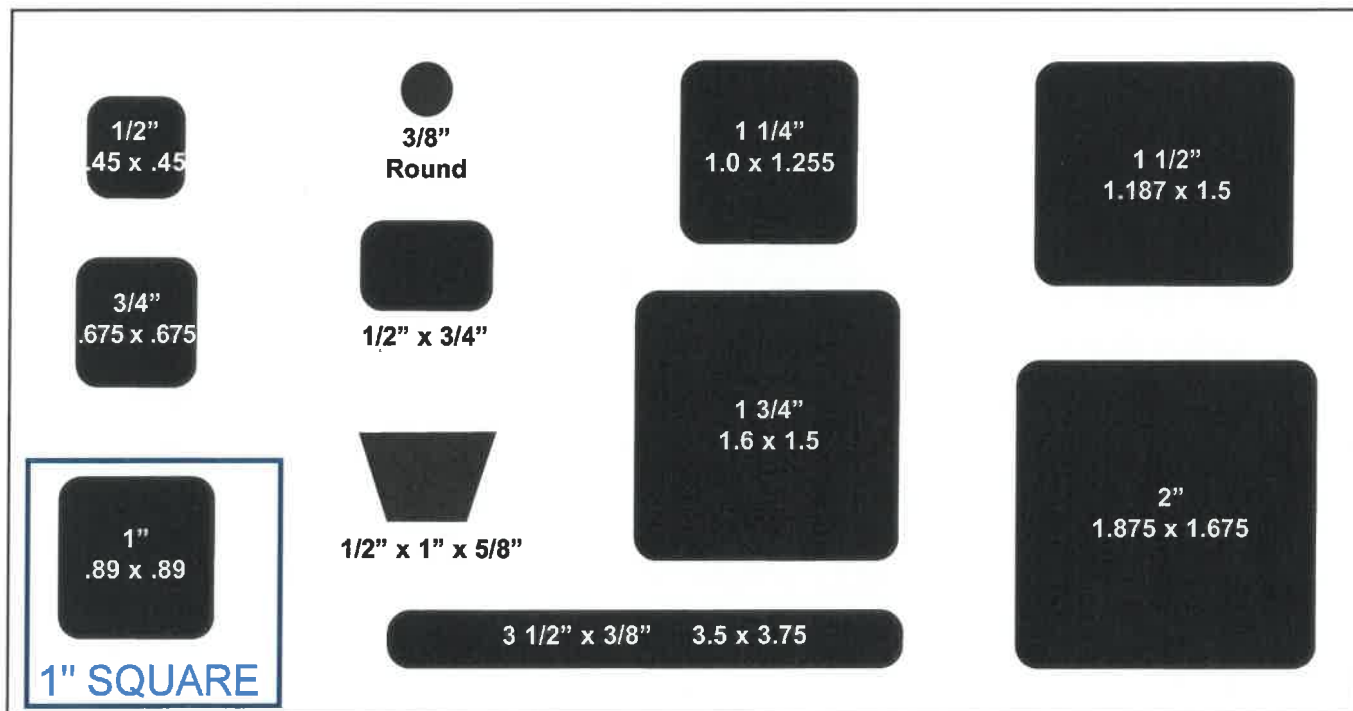
Submittal Specification

The joints and/or joint surfaces of the structures shall be sealed with a butyl-rubber-based preformed flexible sealant conforming to ASTM C-990, paragraph 6.2. The material shall comply with AASHTO M198 for Type B Gaskets, and shall meet the testing requirements of EPA Method 524.2 for Drinking Water Volatile Organic Compounds.

The material shall be EZ-STIK as supplied by PRESS-SEAL GASKET CORPORATION, Fort Wayne, Indiana, or approved equal. The butyl material shall consist of 50% (min.) butyl rubber and shall contain 2% or less volatile matter.

For preformed joint sealants, the sealant shall be sized such that the joint is filled to 50% (min.) of its annular volume when fully assembled, and the sealant shall have the ends kneaded together at the overlap. Primer and/or adhesive as recommended by the sealant supplier shall be employed for adverse, critical, or other applications.

Testing of joints and compliance with construction requirements shall be conducted in strict conformance with the requirements of the sealant supplier.



Custom Sizes Available Upon Request

Also Available in Trowelable Bulk and Easy to Pump Bulk

All sizes sold 40 cartons per pallet. All pallets are shrink wrapped for outside storage.
Quantity discounts available - contact our Customer Service Department.

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PRESS-SEAL GASKET CORPORATION

Providing Products and Services That Protect Our Planet's Clean Water Supply

57

800-348-7325 Fax (260) 436-1908

email: sales@press-seal.com

web: www.press-seal.com

an ISO 9001:2000 Registered Company





Description

EZ-STIK is a butyl-rubber-based sealant designed to be permanently flexible, tacky and resistant to moisture and deterioration by exposure to dilute chemical solutions. EZ-STIK meets ASTM C-990, Section 6.2 requirements for Butyl Rubber Sealant, EPA Method 524.2 for Drinking Water Volatile Organic Compounds and AASHTO M198 for Type B Gaskets.

Typical Properties

The following values represent typical test results and are manufacturing specifications.

	<u>SPEC.</u>	<u>REQUIRED</u>	<u>EZ-STIK</u>
Butyl Rubber (Hydrocarbon Content %)	ASTM D4	50% min.	62%
Ash Inert Mineral Filler %	AASHTO T111	30% min.	45-48%
Volatile Matter (AASHTO T47)	ASTM D6	2% max.	0.5-1.0%
Specific Gravity @ 77°F (AASHTO T229)	ASTM D71	1.15 - 1.50	1.25 - 1.35
Ductility @ 77°F, cm (AASHTO T51)	ASTM D113	5.0 min.	meets requirement
Flash Point C.O.C.	ASTM D92	350° min.	375°F
Fire Point C.O.C.	ASTM D92	375° min.	385°F
Compression Test			
@77°F, lbf/in ³	ASTM C972	100 max.	40 - 55 lb-ft/in ³
@32°F, lbf.in ³		200 max.	130 - 160 lb-ft/in ³
Low Temperature Flexibility			
@-10°F	ASTM C765	180° bend, no cracking, nor loss of adhesion.	Pass - no cracking or adhesion loss.
Elevated Temperature Flexibility			
14 days @ 157°F	ASTM C776	No sag, nor change in extruded shape.	Pass - no sag or shape change.
Adhesion After Impact	ASTM C776-84	No greater loss than 50% of adhesion.	Pass - no loss of adhesion.
Cone Penetration			
@ 77°F, dmm	ASTM D217	50 - 100 dmm	55 - 85 dmm
@ 32°F, dmm		40 min.	45 - 55 dmm
Chemical Resistance		No deterioration, no cracking, no swelling.	Pass - no visible change after 30 days immersion in 5% solutions HCl, H ₂ SO ₄ , NaOH, KOH, H ₂ S

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BH5011 Liquid Asphalt Coating Data Sheet



DESCRIPTION:

Blackhawk Liquid Asphalt Coating is a liquefied asphalt damp proofing compound formulated to be easily applied by roller brush or spray equipment. Blackhawk Liquid Asphalt Coating can be used as a primer on surfaces to receive Blackhawk Pipe Joint Mastic, Hawk-Seal, and Hawk-Wrap, or as a coating. It can be brushed, rolled, or sprayed on surface and dries to a tough, durable, and water-detering layer that maintains excellent performance over a wide range of temperatures and conditions.

USES:

Blackhawk Liquid Asphalt Coating is used to create an impermeable, reinforcing, and water-detering layer. Blackhawk Liquid Asphalt Coating can be used on surfaces below and above grade, interior, and exterior, wall, pipe, and cavity situations.

SURFACE PREPARATION:

Surface must be clean, dry and free from oil, grease, dirt, dust, and all other loose impediments to ensure excellent adhesion.

APPLICATION:

Apply to surface by brush, spray, or roller application. Material is ready to use as supplied. Do not thin with additional solvents.

BRUSH APPLICATION:

Apply with a wide fiber brush in order to create a smooth uniform film.

ROLLER APPLICATION:

Use appropriate roller size to cover the particular surface to be coated. Dip the entire head of roller into coating and allow dripping for a few seconds before use.

SPRAY APPLICATION:

Utilize a standard heavy-duty airless spray pump. Consult spray equipment manufacturers for details regarding pump ratio, spray tip, and hose requirements. Allow film to cure for at least 24 to 48 hours.

COVERAGE RATE:

Recommended coverage rate is 1 gallon per 300 square feet. Application rates will vary depending upon the surface to be covered. (16-24 mils per coat)

PACKAGING:

Available in 5 gallon pails, 55 gallon drums, and 275 gallon plastic totes.

CARE OF TOOLS:

Dried material on equipment and brushes may be cleaned and removed with mineral spirits.

CAUTION:

For industrial use only. Keep out of reach of children. Dispose of empty containers in accordance with all local, state and federal regulations. Read Material Safety Data Sheet (MSDS) before using this product.



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CHEMICAL RESISTANCE:

Acids
Alkaline
Salts

SPECIFICATIONS:

ASTM D41
ASTM D449 Type I

PHYSICAL PROPERTIES

Color	Black
Weight per gallon	7.8 lbs
Cure Time	24 hours and can vary with climatic conditions
Application	Brush/Roll/Spray
Service Temp. Range	20° to 160°F
VOC Content	350 grams/liter

ORDERING INFORMATION

For additional information, prices, or to place an order, please contact your ErgonArmor sales representative. If you do not know the name of your sales representative, call 877-98ARMOR.

Data Sheet Revised July 2009

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