



# Watertight solutions that last

The best Sealing Solutions for Concrete Pipeline Systems

# Introducing Trelleborg Seals & Profiles

**We are part of the Trelleborg Group and benefit from over 100 years of experience.**

**Trelleborg is a world leader in engineered polymer solutions that seal, damp and protect critical applications in demanding environments. Its innovative solutions accelerate performance for customers in a sustainable way.**

With our global reach, we deliver continuous innovation, logistics and a sales network spanning over 50 countries in Europe, the Middle East, Africa, North and South America, and Asia Pacific.

We will support you from the beginning of your project right to the very end with the most advanced polymer technology and engineering expertise.

The high performance of our seals ensure the highest reliability standards. Whether you need an entirely new system or improvements to your existing one, you can choose from a range of market-leading seals and pipe repair solutions that offer:

- **High quality**
- **Quick and easy installation**
- **Watertight solutions that last**

# Watertight Sealing Solutions

## SEALS FOR CONCRETE MANHOLES

Trelleborg 118

Trelleborg 171



## SEALS FOR CONCRETE PIPES

Trelleborg 146

Trelleborg 165



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### EXPERTLY DESIGNED SOLUTIONS FOR CONCRETE MANHOLES AND PIPES

Concrete pipe and manhole manufacturers benefit from a range of bespoke sealing systems, depending on their specification. Whether you want to have your seals fitted to your pipes during the manufacturing process or fitted during installation, there is a range of options available to you.

## PIPE-TO-MANHOLE CONNECTORS

Trelleborg 910

Kor-N-Seal® I 106-406 Series

Kor-N-Seal® II 206 Series

Kor-N-Seal® II 306 Series



# Advantages of our materials

## EPDM

Over the years, performance demands for pipe seals have been increasing steadily. Trelleborg has developed a specially formulated EPDM (Ethylene Propylene Diene Monomer) compound that has proven to be the ideal material. EPDM offers increased reliability and it exceeds the requirements of all current industry standards.

The chemical composition of our EPDM provides exceptionally high resistance to the effects of UV light, weathering, oxidization and ozone. EPDM is also resistant to attack from a large number of acidic and alkaline solutions, including hypochlorite. This makes it the perfect solution for pipes transporting treated potable water. Plus, the material's excellent restoring force characteristics mean that it can be expected to offer superb performance for over 120 years.



# Tested and approved

## STRESS RELAXATION – EXTERNAL TESTS BY ELASTOCON

When an elastomer seal is first installed in a pipe joint, a state of physical relaxation occurs for around 30 minutes, before the sealing force becomes stable. This sealing force value is then used to estimate the effective lifetime of the seal.

Using ASTM and ISO methodology, Elastocon AB set up a testing program involving a selection of seven sealing systems currently on the market. These included Trelleborg's compounds used for the Trelleborg 103 and 165 concrete pipe and manhole sealing systems. Elastocon exposed the elastomer in the seals to a series of elevated temperatures, which enabled them to deduce the effects of temperature on the stress relaxation rate of the seals.

As per the ISO guidelines, a maximum relaxation level of 50% was set and Elastocon estimated the number of years the elastomeric material in the seal will take to reach the threshold. This test has proven that Trelleborg compounds potentially have a much greater service life than the competitor materials tested.



## TEST RESULTS BY ELASTOCON

Type of seal tested	Material		Manufacturing Process	After 7 days at 23 °C		After 100 days at 23 °C		Est. time until 50% reduction Years
				EN681 norm	Actual %	EN681 norm	Actual %	
	1)			EN681 norm	Actual %	EN681 norm	Actual %	Years
<b>Trelleborg 601 Power-Lock™</b>	773	EPDM50	moulding	< 14	14	< 20	19	789
<b>Trelleborg 103 &amp; 102.5</b>	796	EPDM40	extrusion	< 13	11	< 19	16	824
<b>Trelleborg 165</b>	797	EPDM50	extrusion	< 14	12	< 20	17	928
<b>Corrugated Plastic (German)</b>		EPDM50	moulding	< 14	11	< 20	16	139
<b>Integrated Concrete (German)</b>		EPDM55	extrusion	< 14	10	< 20	19	87
<b>Corrugated Plastic (Polish)</b>		SBR60	extrusion	< 15	18	< 22	30	26
<b>Manhole Concrete (German)</b>		SBR40	extrusion	< 13	6	< 19	10	136

1) Short compound reference

A photograph of a construction site. In the foreground, a worker in a blue shirt, orange safety vest, and orange hard hat is walking away from the camera down a deep, narrow trench. Another worker in a yellow safety vest and white hard hat is visible further down the trench. A yellow excavator is positioned at the top of the trench. The background shows a blue sky with scattered white clouds.

# Seals for concrete manholes

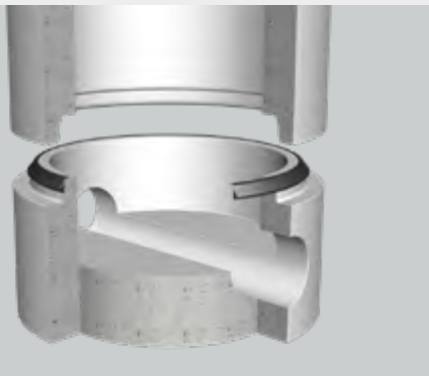
**Trelleborg 118**

**Trelleborg 171**

# Trelleborg 118 Pre-Lube Manhole Seal

## Pre-lubricated seal for concrete manholes

Trelleborg 118 is a pre-lubricated sliding seal that is stretched onto the spigot of the manhole. Additional lubricant is not required for joint assembly.



### SEAL DESIGN & FUNCTION

The seal is designed with a sliding mantle which is internally lubricated. The mantle is fully closed to ensure the lubricant stays in place.

During installation the thin mantle slides over the body of the seal. This design permits installation with low force, as there is no friction between rubber and concrete.

The special design of the joint and seal make the system easy to center during jointing.

### SIZE CHART

A (mm)	B (mm)	JOINT GAP
18.0	25.0	10.4±1.4
20.0	26.5	11.5±1.5
21.5	30.0	12.5±1.6
22.0	30.0	12.7±1.7
24.0	33.0	13.5±2.0
28.0	38.0	16.0±2.5

### APPROVALS

- CE-marking
- BSI "Kitemark"

### STANDARDS

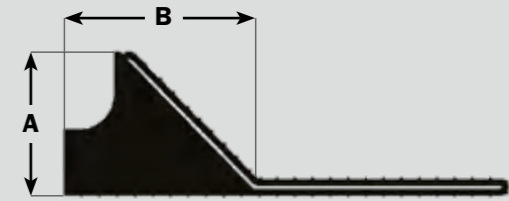
- EN 681-1 WC
- EN 681-1 WG
- ISO 9001

### MATERIAL

- Synthetic SBR or EPDM rubber
- Hardness 40±5 IRHD
- Oil resistant grades are available on request

### KEY FEATURES AND BENEFITS

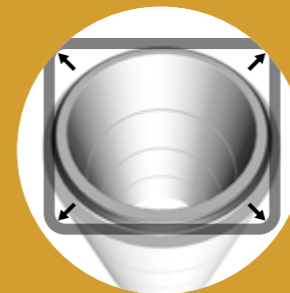
- Easy to center during jointing
- Easy installation, no friction between rubber & concrete
- Enables safe working environments



## Joint Assembly



Stretch the seal onto the spigot and position against the shoulder.



Equalize the stress in the seal by lifting and releasing at a few points. The seal must sit evenly against the spigot shoulder all around the manhole.



Lubrication of the socket or spigot is not required. Centre the joint and assemble. The position of the seal in the final manhole joint is shown.

If re-joining is required ensure the sliding skin is drawn back to position as shown in the first picture.

# Trelleborg 171 Pre-Lube Load Distributor Seal

## Pre-lubricated seal with load distribution for concrete manholes

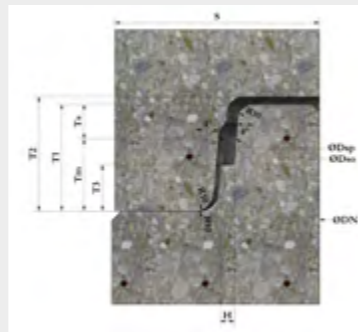
The Trelleborg 171 has been designed to provide optimized contact and sealing pressure. This ensures superb joint security.



### SEAL DESIGN & FUNCTION

The pre-lubricated seal ensures jointing force is minimized at all combinations of joint tolerance.

Pre-lubrication also eliminates the dangerous practice of applying lubricant to the socket of suspended manhole units. This enables a safe working environment.



### DIMENSIONS TABLE

DN	DSP	DSO	T1	T2	TM	TS	S	H
800	890±2	913±1	65	70	39	26	120	8
1000	1090±2	1113±1	65	70	39	26	120	8
1200	1300±3	1327±1	75	80	43	32	135	9
1500	1620±3.5	1652±1.5	85	90	49	36	150	11

### SIZE CHART

A (mm)	B (mm)	Joint gap (mm)
21.0	72.7	11.5±1.5
24.4	78.0	13.5±2.0
29.1	87.6	16±2.5

### MATERIAL

- Synthetic rubber (EPDM)
- Hardness 40±5 IRHD
- Protected against ozone

### APPROVALS

- CE-marking
- BSI "Kitemark"
- Benor

### STANDARDS

- EN 681-1 WC
- QR 4060
- FBS-QR
- ISO 9001

### KEY FEATURES AND BENEFITS

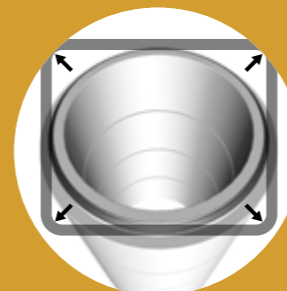
- Easy to center during jointing
- Load distribution element prevents concrete to concrete contact
- Facilitates minimal jointing force



## Joint Assembly



Stretch the seal onto the spigot and position against the shoulder.

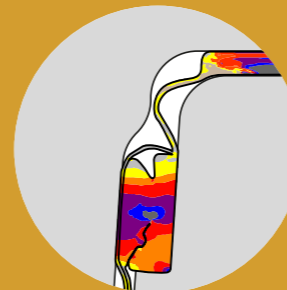


Equalize the stress in the seal by lifting and releasing at a few points.

The seal must sit evenly against the spigot shoulder all around the manhole. Lubrication of the socket or spigot is not required.



Centre the joint and assemble. The final position of the seal in the manhole joint is shown. If re-joining is required, ensure the sliding skin is drawn back to the position as shown in the first picture.



When the manhole sections are assembled, the rubber sealing element is designed to deform. This creates pressure on both spigot and socket, ensuring a watertight seal.



# Seals for concrete pipes

**Trelleborg 146**

**Trelleborg 165**



# Trelleborg 146 Pre-Lube Seal

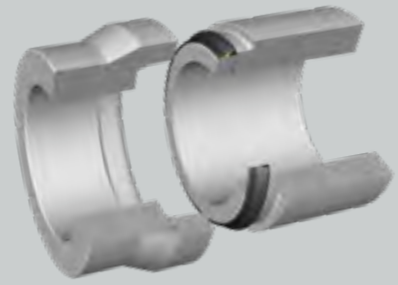
## Pre-lubricated seal for concrete pipes and manholes

Trelleborg 146 is a pre-lubricated sliding seal that is stretched onto the spigot of the pipe or manhole. Additional lubricant is not required for joint assembly.

### SEAL DESIGN & FUNCTION

The joint is designed so that the pre-lubricated mantle rolls onto the top of the spigot shoulder and into the small gap between spigot and socket during installation. This prevents concrete to concrete contact and gives efficient distribution of transverse shear loads across the joint. The design optimizes joint performance and provides an exceptionally high level of operational reliability.

The seal is easy and clean to handle as the lubricant is enclosed in the sliding mantle. This allows installation with very little force as there is no friction between the rubber and concrete. Joint performance is dependent on dimensional accuracy and surface finish of socket and spigot.



### SIZE CHART

A (mm)	B (mm)	C (mm)	D (mm)	Joint gap (mm)
13.5	17.0	25.0	2.5	8.4±1.3
16.5	21.5	30.0	2.5	10.3±1.6
18.5	23.0	33.0	3.3	11.4±1.8
20.0	26.5	36.0	3.2	12.3±2.0
22.5	29.5	69.0	3.2	13.6±2.2
24.5	32.5	40.0	3.5	14.9±2.3
28.0	37.0	65.0	4.6	17.1±2.6
30.0	39.0	67.5	5.0	18.2±2.9
32.0	42.3	60.0	5.2	19.3±3.0
34.0	44.9	63.7	5.4	20.5±3.2
36.0	47.6	67.5	5.8	21.5±3.5

### APPROVALS

- CE-marking
- BSI "Kitemark"

### STANDARDS

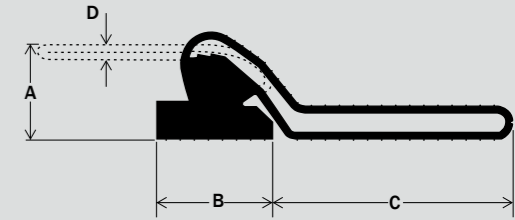
- EN 681-1
- ISO 9001

### MATERIAL

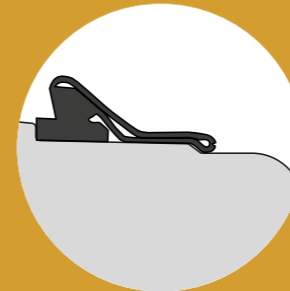
- Synthetic SBR or EPDM rubber
- Hardness 40±5 IRHD
- Protected against ozone

### KEY FEATURES AND BENEFITS

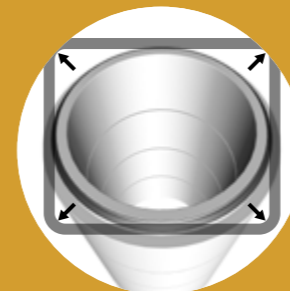
- Large contact width bridges minor surface imperfections
- High level of operational reliability
- Excellent performance for jacking pipe applications



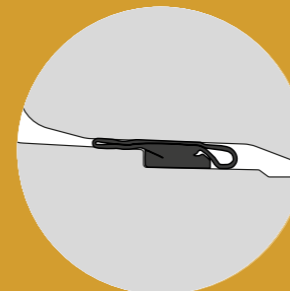
## Joint Assembly



Stretch the seal onto the spigot and position against the shoulder.



Equalize the stress in the seal by lifting and releasing at a few points. The seal must sit evenly against the spigot shoulder all around the manhole. Lubrication of the socket or spigot is not required.

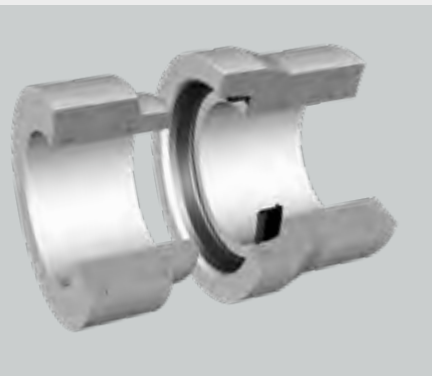


Center the joint and assemble. The position of the seal in the final joint is shown. If re-jointing is required ensure the sliding skin is drawn back to the original position.

# Trelleborg 165 Integrated Pipe and Manhole Seal

Integrated seal for concrete storm and waste water systems

Trelleborg 165 is a one-piece integrated seal for concrete pipe systems. It ensures a watertight seal between pipes, manhole sections and pipe connections to manholes.



## SEAL DESIGN & FUNCTION

The seal is cast into the socket during pipe manufacture. This secures the seal in the correct position, minimizing the risk of seal displacement.

Trelleborg 165 is co-extruded, using specially formulated EPDM rubber compounds of two hardnesses to form the perfect seal:

1. The forming part, made of hard rubber (70 IRHD), ensures a secure and accurate joint profile during casting.
2. The sealing part, made of soft rubber (50 IRHD), is a combined lip and compression seal.
3. Holding sections are cast into the concrete during pipe manufacture, securing the seal in the correct position.
4. Slurry lips against the pallet prevent ingress during concrete compaction.

## SIZE CHART

PIPE DN (mm)	PROFILE	A (mm)	B (mm)
250 - 300	12	12.4	64.5
300 - 600	14	14.7	72.4
300 - 600	14T	14.6	86.5
675 - 1200	18	18.4	89.2
675 - 1200	18N	18.4	98.3
675 - 1200	18T	18.4	109.2
1200 - 1600	22	22.6	107.1
1200 - 1600	22T	22.9	120.8
1600 - 2500	26	26.5	128.2

## APPROVALS

- CE-marking
- BSI "Kitemark"
- Swedcert
- Benor

## STANDARDS

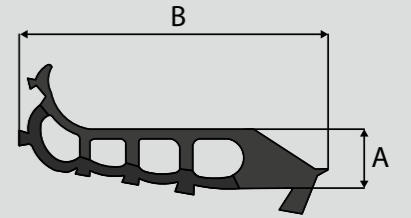
- EN 681-1 WC
- FBS-QR
- ISO 9001

## MATERIAL

- Synthetic rubber (EPDM)
- Hardness 50±5 IRHD (Sealing part)
- Hardness 70±5 IRHD (Forming part)

## KEY FEATURES AND BENEFITS

- Cast into pipe or manhole during manufacture
- Cannot be displaced during stocking or transportation
- Saves time during installation

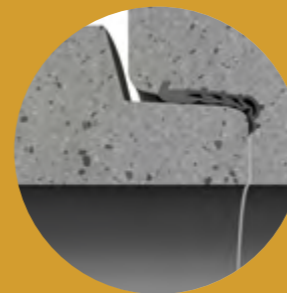


## Joint Assembly

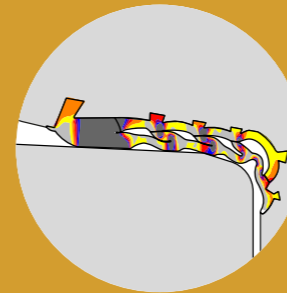


Check that the socket and spigot are in good condition and free from mud and gravel. Do not use damaged pipes or manhole sections.

Apply lubricant to the spigot. Spread evenly over the entire surface, paying special attention to the front radius of the spigot. Additional lubricant applied to the seal may further reduce the jointing force.



Center the spigot into the socket and push the pipe or manhole sections together. The seal design prevents concrete to concrete contact.



When the pipes or manhole sections are assembled, the rubber sealing element is designed to deform. This creates pressure on both spigot and socket, ensuring a watertight seal.



# Pipe-to-manhole connectors

**Trelleborg 910**

**Kor-N-Seal® I 106-406 Series**

**Kor-N-Seal® II 206 Series**

**Kor-N-Seal® II 306 Series**

# Trelleborg 910 Triple Lip Connector

Flexible connector for pipes to manholes and laterals to pipelines

Trelleborg 910 is a rubber seal for flexible connection of pipes to manholes and laterals to pipelines. It can be used with both prefabricated and core drilled holes.

## DESIGN & FUNCTION

The triple lip design allows ease of jointing and provides excellent resistance to transverse shear load, whilst allowing a high level of angular deflection in the joint.

The wide range of sizes available ensure the watertight connection of almost any pipe diameter and material. Trelleborg 910 can also be used to connect PVC pipes to corrugated pipes or manholes.



## SIZE CHART

A (mm)	B (mm)	Joint gap
16.0	38.0	10.5±1.3
20.0*	50.0	13.0±1.8
23.0	51.0	15.0±1.9
26.6	49.2	17.3±2.0
32.0	49.4	20.8±2.4

\* For EN 1401 PVC Pipe DN 110 mm the profile thickness is 21.5 mm and the joint gap is 14.0±1.8 mm.

## MATERIAL

- Synthetic rubber EPDM or NBR
- Hardness 40±5 IRHD or 55±5 IRHD

## APPROVALS

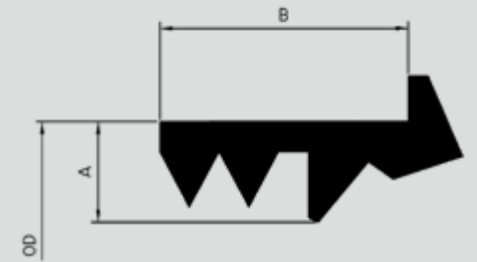
- CE-marking
- BSI "Kitemark"
- Komo
- ISO 9001
- EN 681-1 WC
- EN 682 GB

## STANDARDS

- Benor
- Swedcert
- Ü
- EN 681-1 WG
- FBS-QR

## KEY FEATURES AND BENEFITS

- Suitable for use with prefabricated and core drilled holes
- The triple lip design allows ease of jointing
- Provides excellent resistance to transverse shear load



## Joint Assembly



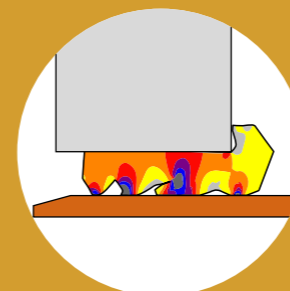
Press the seal into the hole. Do not use lubricant.



Chamfer the edge of the connecting pipe and lubricate it with Trelleborg 992 Pipe & Manhole Lube.



Center the end of the pipe and push it into the seal, the pipe end is flush with the inner wall.



When the pipe is pushed into the manhole the rubber sealing element is designed to deform. This creates pressure on both spigot and socket, ensuring a water-tight seal.

# Kor-N-Seal® I

## 106/406 Series Pipe-to-Manhole Connector

The most widely used flexible connector in sanitary sewer applications throughout the world.

### DESIGN & FUNCTION

Patented Waveband technology creates a more effective seal by concentrating the compressive force of the expansion band. The rubber is “captured” between the band and concrete.

### RECOMMENDED TORQUE VALUES

Connectors with 8" hole size and smaller:

Steel Wedge - 1/2" Socket Wrench - 8 ft. lbs.

Connectors with 10-20" hole sizes:

Ex Series - 1/2" Socket Wrench - 12 ft. lbs.

Steel Wedge - 1/2" Socket Wrench - 12 ft. lbs.

Preset torque limiters are available.

### USING CORRUGATED PIPE

Adapters are required when using Corrugated Pipe. Refer to the Corrugated Pipe Adapter Data Sheet for details.

### PATENT

Patented Waveband technology creates a more effective seal by concentrating the compressive force of the expansion band. The rubber is “captured” between the band and the concrete.

**Covered under U.S. Patent No. 5,738,359**



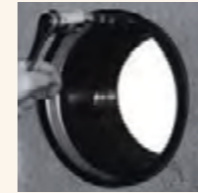
### KEY FEATURES AND BENEFITS

- Most widely used flexible connector in sanitary sewer applications throughout the world
- Easy-to-Install
- Meets the specifications of ASTM C923

## ORDERING INFORMATION

The 106 Series connector is 8 inches long, the 406 Series connector is 6 inches long. The number following the hyphen in our model numbers is the required hole size.

## SIZE CHARTS



### WEDGE STYLE CONNECTORS EX SERIES PLASTIC OR STAINLESS STEEL

Installation requires a 1/2" socket wrench & preset torque limiter.

PIPE O.D. RANGE (inches)	MODEL NUMBER	NOMINAL HOLE SIZE (inches)
1.50-4.80	S106-7MWS	7"
3.50-4.50	S106-7WS	7"
4.20-6.40	S106-8SRWS	8"
1.50-4.80	S106-8MWS	8"
5.10-5.90	S106-8WS	8"
*6.00-6.75	S406-10AW	10"
*7.50-8.20	S406-10W	10"
*6.00-6.75	S406-10.5AW	10 <sup>1/2</sup> "
*7.50-8.70	S406-10.5W	10 <sup>1/2</sup> "
*6.00-7.00	S406-11BW	11"
*7.50-9.00	S406-11AW	11"
*3.50-6.90	S106-12M	12"
*6.00-7.00	S406-12CW	12"
*6.25-7.50	S406-12BW	12"
*7.50-9.00	S406-12AW	12"
*9.00-10.20	S406-12W	12"
*5.75-7.00	S106-12BW	12"
*7.00-8.50	S106-12AW	12"
*8.25-9.75	S106-12W	12"
*9.50-11.25	S106-14AW	14"
*9.50-11.25	S106-16BW	16"
*11.25-13.00	S106-16AW	16"
*13.00-14.20	S106-16W	16"
*14.00-15.50	S106-20BW	20"
*15.50-17.00	S106-20AW	20"
*17.00-18.15	S106-20W	20"

Refer to Recommended Installation Instructions.

\*These sizes available in Plastic “EX” Wedge or Steel Wedge.

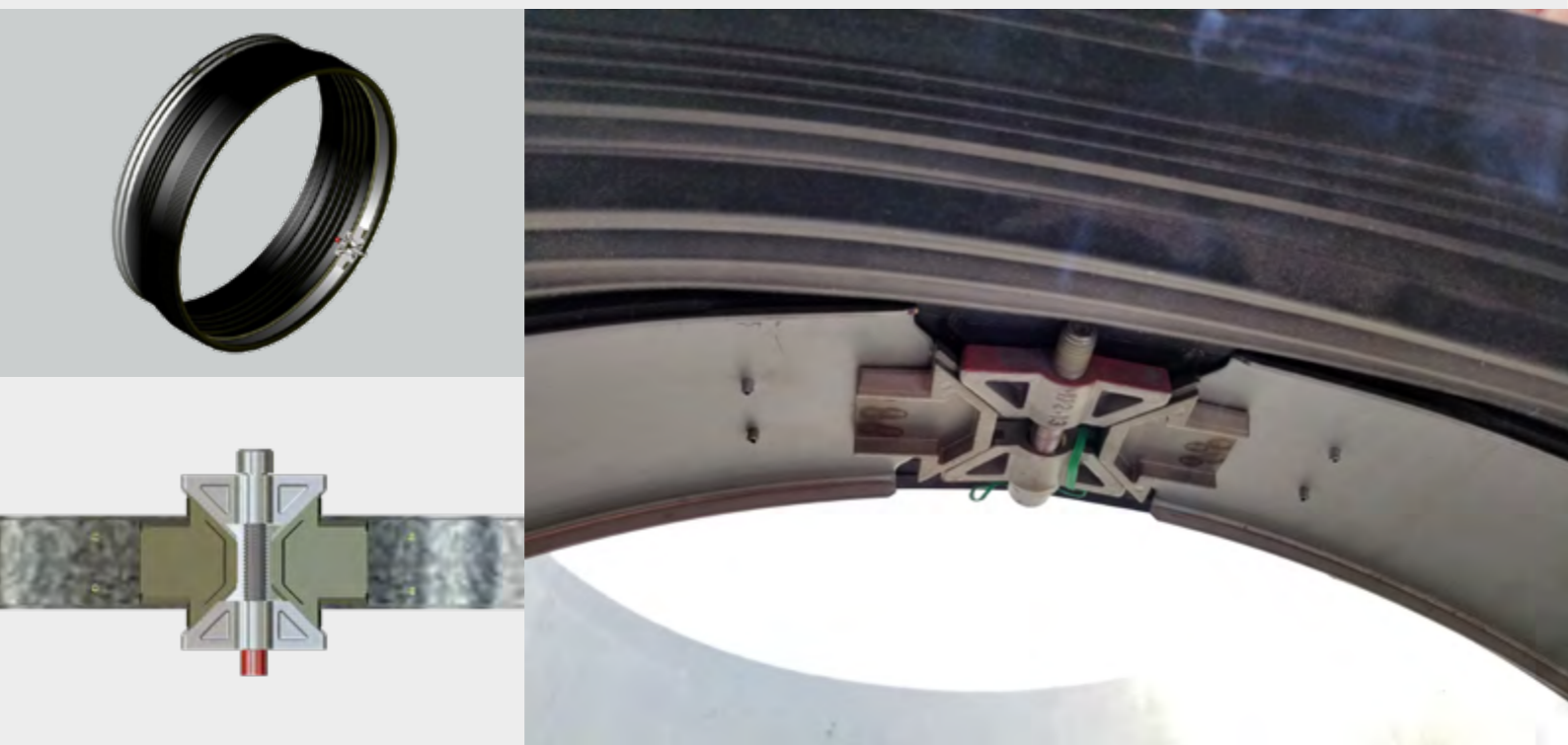
# Kor-N-Seal® II

## 206 Series Pipe-to-Manhole Connector

The 206 Series Connector is designed with an Allen Head Wedge Bolt for easier installation of the connector into the manhole.

### DESIGN & FUNCTION

Designed for pipe sizes 18" and larger.



### KEY FEATURES AND BENEFITS

- Corrugated profile for easier installation and positioning of the pipe in trench
- Designed for larger pipe sizes 18"- 51"
- Larger sizes available
- Meets the specifications of ASTM C923

### SIZE CHART

NOMINAL HOLE SIZE (inches)	MODEL NUMBER	PIPE O.D. RANGE (inches)	MINIMUM MANHOLE SIZE REQUIRED (inches)
18"	S206-18L	15.000-15.625	48/5
20"	S206-20 S206-20L	15.625-17.000 17.000-17.625	48/5 48/5
22"	S206-22 S206-22L	17.625-19.000 19.000-19.625	48/5 48/5
24"	S206-24A S206-24 S206-24L	18.000-19.500 19.625-21.000 21.000-21.625	48/5 48/5 48/5
26"	S206-26 S206-26L	21.625-23.000 23.000-23.625	48/5 48/5
28"	S206-28 S206-28L	23.625-25.000 25.000-25.625	48/5 48/5
30"	S206-30 S206-30L	25.625-27.000 27.000-27.625	60/6 60/6
32"	S206-32 S206-32L	27.625-29.000 29.000-29.625	60/6 60/6
34"	S206-34 S206-34L	29.625-31.000 31.000-31.625	60/6 60/6
36"	S206-36 S206-36L	31.625-33.000 33.000-33.625	72/7 72/7
38"	S206-38 S206-38L	33.625-35.000 35.000-35.625	72/7 72/7
40"	S206-40 S206-40L	35.625-37.000 37.000-37.625	72/7 72/7
42"	S206-42 S206-42L	37.625-39.000 39.000-39.625	72/7 72/7
44"	S206-44 S206-44L	39.625-41.000 41.000-41.625	84/8 84/8
46"	S206-46 S206-46L	41.625-43.000 43.000-43.625	84/8 84/8
48"	S206-48 S206-48L	43.625-45.000 45.000-45.625	84/8 84/8
50"	S206-50 S206-50L	45.000-45.625 45.625-47.000	96/9 96/9
52"	S206-52 S206-52L	47.000-47.625 47.625-49.000	96/9 96/9
54"	S206-54 S206-54L	49.000-49.625 49.625-51.000	96/9 96/9

Larger sizes quoted upon request.

# Kor-N-Seal® II

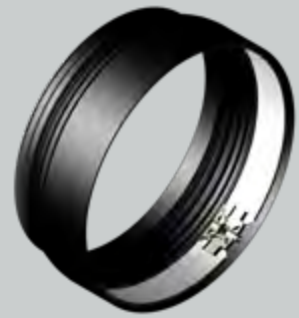
## 306 Series Pipe-to-Manhole Connector

Ideal for both sanitary and stormwater.

### DESIGN & FUNCTION

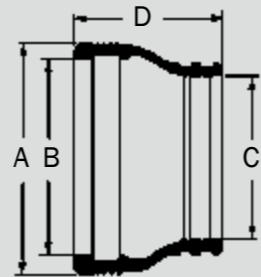
Allows you to fit large diameter pipe into the smallest possible manhole structures.

The Patented 4" wide Stainless Steel Korband is able to overcome the curvature of smaller sized manholes and provide a watertight seal.



### KEY FEATURES AND BENEFITS

- Can be used in cored or formed holes
- Meets the specifications of ASTM C923
- Easy-to-install
- Covered under U.S. Patent No. 6,641,176



## SIZE CHARTS

P/N	Suggested Pipe O.D Range (inches)	Hole Size Range (inches)	Connector Dimensions (inches)				Minimum Manhole Size
			A	B	C	D	
S306-22 S306-22L	17.625-18.500	21.98-22.13	19.875	19	10.5	36/4	
	18.500-19.625			20			
S306-24 S306-24L	19.625-20.500	23.98-24.13	21.875	21	10.5	36/4	
	20.500-21.625			22			
S306-26 S306-26L	21.625-22.500	26.00-26.20	23.875	23	10.5	36/4	
	22.500-23.625			24			
S306-28 S306-28L	23.625-24.500	28.00-28.20	25.875	25	10.5	48/5	
	24.500-25.625			26			
S306-30 S306-30L	25.625-26.500	30.00-30.20	27.875	27	10.5	48/5	
	26.500-27.625			28			
S306-30L-32	26.500-27.625	32.00-32.20	29.875	28	10.5	48/5	
S306-32 S306-32L	27.625-28.500	32.00-32.20	29.875	29	10.5	48/5	
	28.500-29.625			30			
S306-34 S306-34L	29.625-30.500	34.00-34.20	31.875	31	10.5	48/5	
	30.500-31.625			32			
S306-36 S306-36L	31.625-32.500	36.00-36.20	33.250	33	10.5	60/6	
	32.500-33.000			34			
S306-36-STORM S306-36L-STORM	31.625-32.500	36.00-36.20	33.875	33	10.5	60/6	
	32.500-33.625			34			
S306-38 S306-38L	33.625-34.500	38.00-38.20	35.250	35	10.5	60/6	
	34.500-35.000			36			
S306-38LS-PG	34.500-35.625	38.00-38.20	35.875	36	10.5	60/6	
S306-38-STORM S306-38L-STORM	33.625-34.500	38.00-38.20	35.875	35	10.5	60/6	
	34.500-35.625			36			

P/N	Suggested Pipe O.D Range (inches)	Hole Size Range (inches)	Connector Dimensions (inches)				Minimum Manhole Size
			A	B	C	D	
S306-40 S306-40L	35.625-36.500	40.00-40.20	37.250	37	10.5	60/6	
	36.500-37.000			38			
S306-40-STORM S306-40L-STORM	35.625-36.500	40.00-40.20	37.875	37	10.5	60/6	
	36.500-37.625			38			
S306-42 S306-42L	37.625-38.500	42.00-42.20	39.250	39	10.5	72/7	
	38.500-39.000			40			
S306-42-STORM S306-42L-STORM	37.625-38.500	42.00-42.20	39.875	39	10.5	72/7	
	38.500-39.625			40			
S306-44 S306-44L	39.625-40.500	44.00-44.20	41.250	41	10.5	72/7	
	40.500-41.000			42			
S306-44LS-PG	40.500-41.625	44.00-44.20	41.875	42	10.5	72/7	
S306-44-STORM S306-44L-STORM	39.625-40.500	44.00-44.20	41.875	41	10.5	72/7	
	40.500-41.625			42			
S306-44L-46 S306-44L-46-STORM	40.500-41.000	46.00-46.20	41.875	41	10.5	72/7	
	40.500-41.625			42			
S306-46 S306-46L	41.625-42.500	46.00-46.20	43.250	43	10.5	72/7	
	42.500-43.000			44			
S306-46-STORM S306-46L-STORM	41.625-42.500	46.00-46.20	43.875	43	10.5	72/7	
	42.500-43.625			43			
S306-48 S306-48L	43.625-44.500	48.00-48.20	45.250	45	10.5	72/7	
	44.500-45.000			46			
S306-48-STORM S306-48L-STORM	43.625-44.500	48.00-48.20	45.875	45	10.5	72/7	
	44.500-45.625			46			

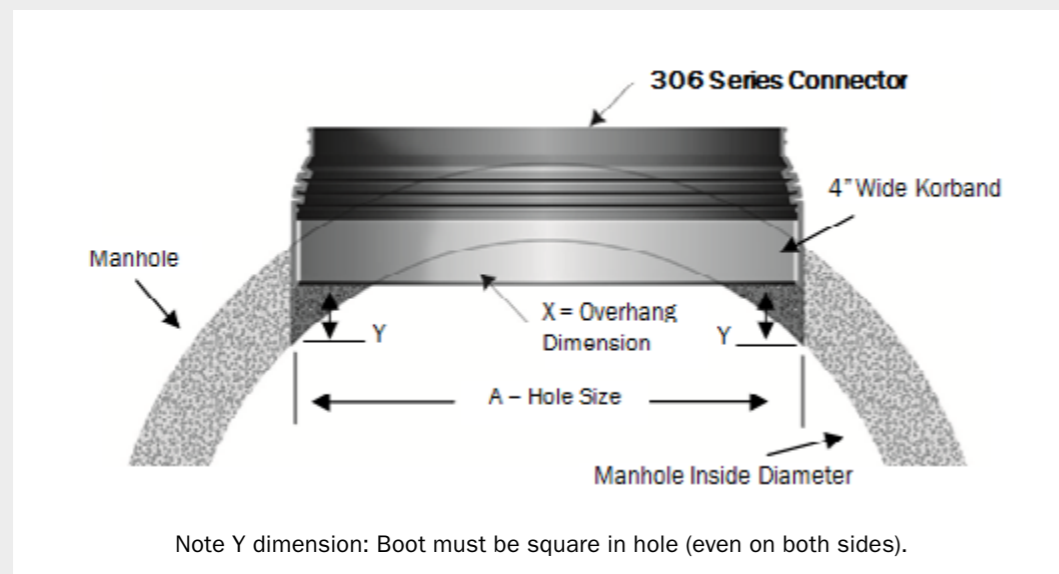
Adapters are required when using corrugated pipe.

# Kor-N-Seal® II

## 306 Series Pipe-to-Manhole Connector

### SIZE CHART

HOLE SIZE (Inches)	Manhole I.D. (Inches)					
	48/4.75"	48/5"	60/5"	60/6"	72/6"	72/7"
"A"	X	X	X	X	X	X
28	1 1/2					
30	1 7/8	2				
32	2 1/4	2 1/4	1			
34	-	2 5/8	1 1/4			
36	-	-	1 1/2	1 3/4		
38	-	-	1 7/8	2 1/8		
40	-	-	2 1/8	2 3/8	1 1/2	
42	-	-	2 1/2	-----	2	
44	-	-	-----	-----	2 1/4	1 7/8
46	-	-	-----	-----	2 1/2	2 1/4
48	-	-	-----	-----	-----	2 1/2





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