

ADS SPECIFICATIONS

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ADS N-12[®] ST IB PIPE SPECIFICATION

Scope

This specification describes 4- through 60-inch (100 to 1500 mm) ADS N-12 ST IB pipe for use in gravity-flow drainage applications.

Pipe Requirements

ADS N-12 ST IB pipe shall have a smooth interior and annular exterior corrugations.

- 4- through 10-inch (100 to 250mm) shall meet AASHTO M252, Type S.
- 12- through 60-inch (300 to 1500 mm) shall meet AASHTO M294, Type S or ASTM F2306.
- Manning's "n" value for use in design shall be 0.012.

Joint Performance

Pipe shall be joined with the ADS N-12 ST IB (bell-and-spigot) joint meeting AASHTO M252, AASHTO M294, or ASTM F2306. The joint shall be soil-tight and gaskets shall meet the requirements of ASTM F477.

Gaskets shall be installed by the pipe manufacturer and covered with a removable wrap to ensure the gasket is free from debris. A joint lubricant available from the manufacturer shall be used on the gasket and bell during assembly.

Fittings

Fittings shall conform to AASHTO M294 or ASTM F2306. Fabricated fittings shall be welded at all accessible interior and exterior junctions.

Material Properties

Pipe and fittings shall be made of virgin polyethylene compounds that comply with the cell classification 424420C for 4- through 10-inch (100 to 250mm) diameters, or 435400C for 12- through 60-inch (300 to 1500mm) diameters, as defined and described in ASTM D3350, except that carbon black content should not exceed 4%. The 12- through 60-inch (300 to 1500mm) virgin pipe material shall comply with the notched constant ligament-stress (NCLS) test as specified in Section 6.1.1 and 5.1 of AASHTO M294 and ASTM F2306 respectfully.

Installation

Installation shall be in accordance with ASTM D2321 and ADS installation guidelines, with the exception that minimum cover in trafficked areas for 12- through 48-inch (300 to 1200 mm) diameters shall be one foot. (0.3 m) and for 60-inch (1500 mm) diameters, the minimum cover shall be 2 foot (0.6 m). Contact your local ADS representative or visit our website at www.ads-pipe.com for a copy of the installation guidelines.

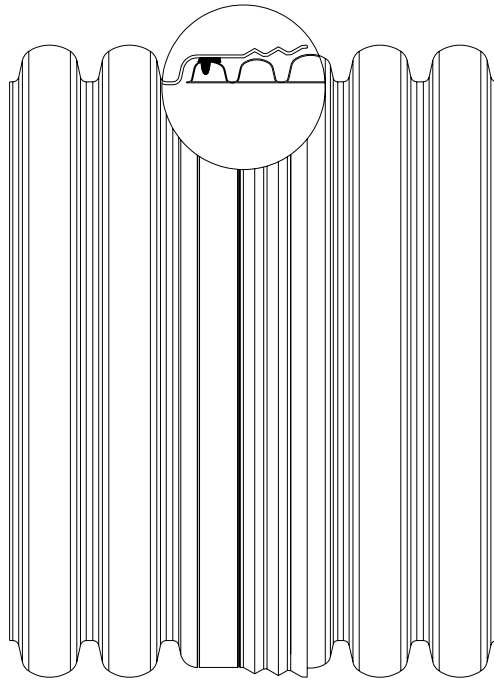
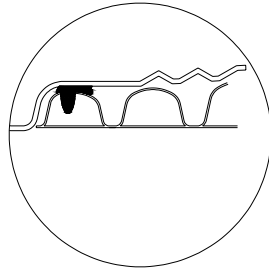
Pipe Dimensions

Nominal Diameter, in (mm)													
Pipe I.D. in (mm)	4 (100)	6 (150)	8 (200)	10 (250)	12 (300)	15 (375)	18 (450)	24 (600)	30 (750)	36 (900)	42 (1050)	48 (1200)	60 (1500)
Pipe O.D.* in (mm)	4.8 (122)	6.9 (175)	9.1 (231)	11.4 (290)	14.5 (368)	18 (457)	21 (559)	28 (711)	36 (914)	42 (1067)	48 (1219)	54 (1372)	67 (1702)
Perforations	All diameters available with or without perforations.												

*Pipe O.D. values are provided for reference purposes only, values stated for 12- through 60-inch are ± 1 inch. Contact Applications Engineering for exact values.

N-12[®] ST IB JOINT SYSTEM

(Joint configuration & availability subject to change without notice.)



12"-60" (300-1500mm)

ADS N-12[®] WT IB PIPE SPECIFICATION

Scope

This specification describes 4- through 60-inch (100 to 1500 mm) ADS N-12 WT IB pipe for use in gravity flow applications.

Pipe Requirements

N-12 WT IB pipe shall have a smooth interior and annular exterior corrugations.

- 12- through 60-inch (300 to 1500 mm) shall meet AASHTO M294, Type S or ASTM F2306.
- Manning's "n" value for use in design shall be 0.012.

Joint Performance

Pipe shall be joined with the N-12 WT IB joint meeting the requirements of AASHTO M294 or ASTM F2306.

The 4- through 60-inch (100 to 1500 mm) pipe shall be watertight according to the requirements of ASTM D3212. Gaskets shall meet the requirements of ASTM F477. Gaskets shall be installed by the pipe manufacturer and covered with a removable wrap to ensure the gasket is free from debris. A joint lubricant available from the manufacturer shall be used on the gasket and bell during assembly.

Fittings

Fittings shall conform to AASHTO M294 or ASTM F2306. Fabricated fittings shall be welded at all accessible interior and exterior junctions.

Material Properties

Pipe and fittings shall be made of virgin polyethylene compounds that comply with the cell classification 424420C for 4- through 10-inch (100 to 250mm) diameters, or 435400C for 12- through 60-inch (300 to 1500mm) diameters, as defined and described in ASTM D3350, except that carbon black content should not exceed 4%. The 12- through 60-inch (300 to 1500mm) virgin pipe material shall comply with the notched constant ligament-stress (NCLS) test as specified in Section 6.1.1 and 5.1 of AASHTO M294 and ASTM F2306 respectfully.

Installation

Installation shall be in accordance with ASTM D2321 and ADS installation guidelines, with the exception that minimum cover in traffic areas for 12- through 48-inch (300 to 1200 mm) diameters shall be one foot. (0.3 m) and for 60-inch (1500 mm) diameters, the minimum cover shall be 2 foot (0.6 m). Contact your local ADS representative or visit our website at www.ads-pipe.com for a copy of the installation guidelines.

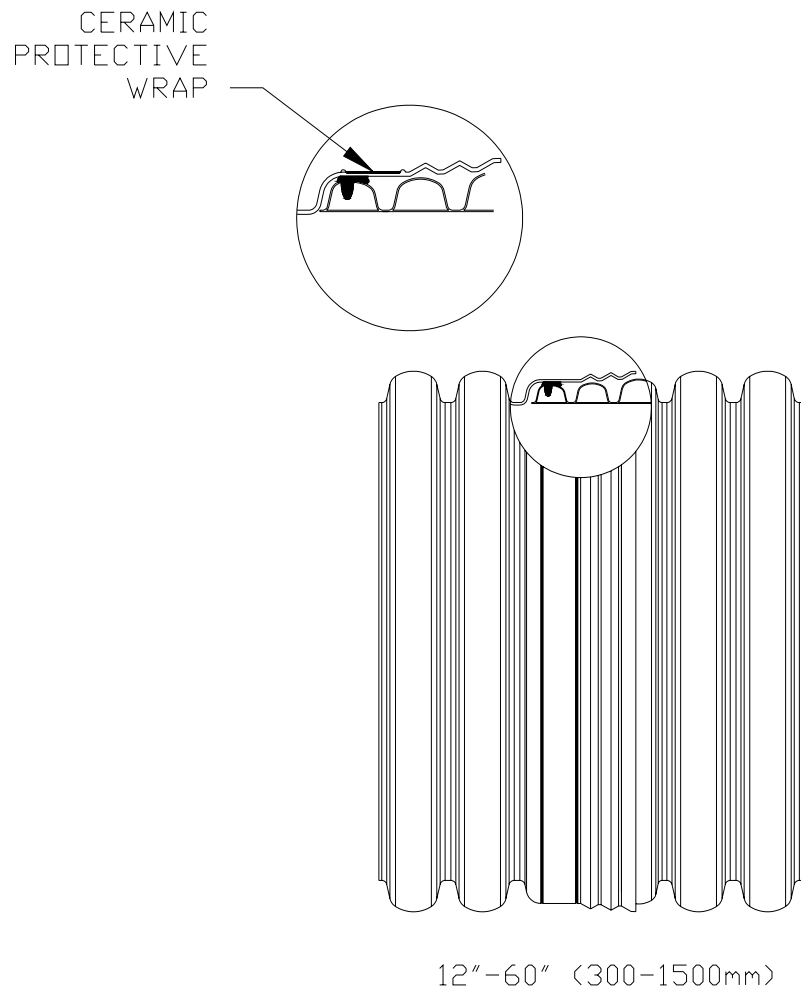
Pipe Dimensions

	Nominal Diameter, in (mm)												
Pipe I.D. in (mm)	4 (100)	6 (150)	8 (200)	10 (250)	12 (300)	15 (375)	18 (450)	24 (600)	30 (750)	36 (900)	42 (1050)	48 (1200)	60 (1500)
Pipe O.D.* in (mm)	4.8 (122)	6.9 (175)	9.1 (231)	11.4 (290)	14.5 (368)	18 (457)	21 (559)	28 (711)	36 (914)	42 (1067)	48 (1219)	54 (1372)	67 (1702)

*Pipe O.D. values are provided for reference purposes only, values stated for 12- through 60-inch are ± 1 inch. Contact Applications Engineering for exact values.

N-12[®] WT IB JOINT SYSTEM

(Joint configuration & availability subject to change without notice.)



ADS N-12[®] PLAIN END PIPE SPECIFICATION

Scope

This specification describes 4- through 60-inch (100 to 1500 mm) ADS N-12 plain end pipe for use in gravity-flow drainage applications.

Pipe Requirements

ADS N-12 plain end pipe shall have a smooth interior and annular exterior corrugations.

- 4- through 10-inch (100 to 250mm) shall meet AASHTO M252, Type S.
- 12- through 60-inch (300 to 1500 mm) shall meet AASHTO M294, Type S or ASTM F2306.
- Manning's "n" value for use in design shall be 0.012.

Joint Performance

Pipe shall be joined with coupling bands covering at least two full corrugations on each end of the pipe or bell-bell couplers. Standard connections shall meet or exceed the soil-tight requirements of AASHTO M252, AASHTO M294, or ASTM F2306. Gasketed connections shall incorporate a closed-cell synthetic expanded rubber gasket.

Fittings

Fittings shall conform to AASHTO M294 or ASTM F2306. Fabricated fittings shall be welded at all accessible interior and exterior junctions.

Material Properties

Pipe and fittings shall be made of virgin polyethylene compounds that comply with the cell classification 424420C for 4- through 10-inch (100 to 250mm) diameters, or 435400C for 12- through 60-inch (300 to 1500mm) diameters, as defined and described in ASTM D3350, except that carbon black content should not exceed 4%. The 12- through 60-inch (300 to 1500mm) virgin pipe material shall comply with the notched constant ligament-stress (NCLS) test as specified in Section 6.1.1 and 5.1 of AASHTO M294 and ASTM F2306 respectfully.

Installation

Installation shall be in accordance with ASTM D2321 and ADS installation guidelines, with the exception that minimum cover in trafficked areas for 12- through 48-inch (300 to 1200 mm) diameters shall be one foot (0.3 m) and for 60-inch (1500 mm) diameters, the minimum cover shall be 2 foot (0.6 m). Contact your local ADS representative or visit our website at www.ads-pipe.com for a copy of the installation guidelines.

Pipe Dimensions

Nominal Diameter, in (mm)													
Pipe I.D. in (mm)	4 (100)	6 (150)	8 (200)	10 (250)	12 (300)	15 (375)	18 (450)	24 (600)	30 (750)	36 (900)	42 (1050)	48 (1200)	60 (1500)
Pipe O.D.* in (mm)	4.8 (122)	6.9 (175)	9.1 (231)	11.4 (290)	14.5 (368)	18 (457)	21 (559)	28 (711)	36 (914)	42 (1067)	48 (1219)	54 (1372)	67 (1702)
Perforations	All diameters available with or without perforations.												

*Pipe O.D. values are provided for reference purposes only, values stated for 12- through 60-inch are ± 1 inch. Contact Applications Engineering for exact values.

ADS N-12® LOW HEAD PIPE SPECIFICATION

Scope

This specification describes 30- through 60-inch (750 to 1500 mm) ADS N-12 low head pipe for use in low head / low pressure applications.

Pipe Requirements

N-12 Low Head pipe shall have a smooth interior and annular exterior corrugations.

- 30- through 60-inch (750 to 1500 mm) shall meet AASHTO M294, Type S or ASTM F2306 with the modifications listed.
- Manning's "n" value for use in design shall be 0.012.
- Where low head applications sustain continuous pressure, the sustained pressure shall not exceed 5psi and the peak pressure shall not exceed 10 psi.

Joint Performance

Pipe shall be joined with the ADS N-12 Low Head IB joint meeting the requirements of AASHTO M294 or ASTM F2306.

The 30- through 60-inch (750 to 1500 mm) pipe shall be watertight according to the requirements of ASTM D3212. Gaskets shall be made of elastomeric compound meeting the requirements of ASTM F477. Gaskets shall be installed by the pipe manufacturer and covered with a removable wrap to ensure the gasket is free from debris. Spigot shall have two gaskets which can be fully inserted into the bell.

Fittings

Fittings shall conform to AASHTO M294 or ASTM F2306. Fittings shall be fabricated from the same materials as the pipe. Fabricated fittings shall be welded at all accessible interior and exterior junctions.

Material Properties

Virgin material for pipe and fitting production shall be high-density polyethylene conforming with the minimum requirements of cell classification 435400C for the corrugated exterior profile, and 445464A, for the interior liner as defined and described in the latest version of ASTM D3350. The virgin pipe material used for the corrugated exterior profile shall be a slow crack resistant material that complies with the notched constant ligament-stress (NCLS) test specified in AASHTO M294, Section 6.1.1. The interior liner resin shall have a material designation code of PE3408 by the plastic pipe institute and a Hydrostatic Design Basis of 1600 psi.

Installation

Installation shall be in accordance with ASTM D2321 and ADS installation guidelines for low head irrigation pipe except that only class 1 and 2 backfill materials shall be acceptable. Contact your local ADS representative or visit our website at www.ads-pipe.com for a copy of the installation guidelines.

Pipe Dimensions*

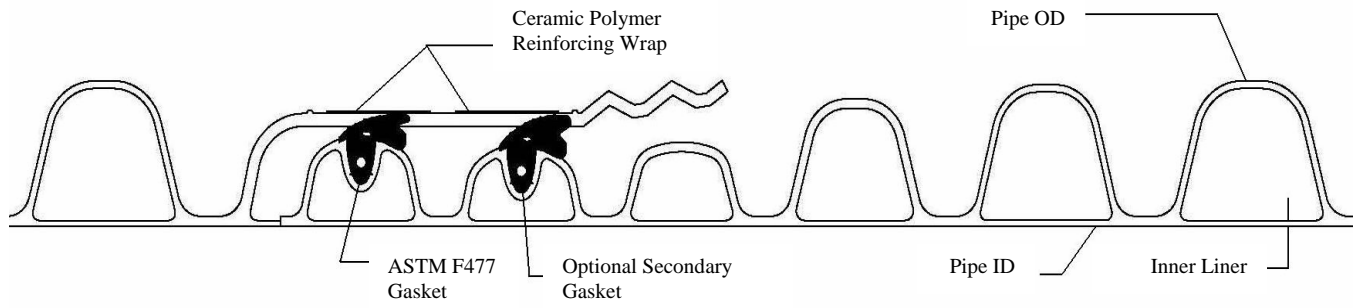
Pipe I.D. in. (mm)	30 (750)	36 (900)	48 (1200)	60 (1500)
Pipe O.D. in. (mm)	35.1 (762)	41.7 (1059)	53.6 (1361)	66.3 (1684)
Inner Liner Thickness Minimum in. (mm)	0.07 (18)	0.095 (24)	0.105 (27)	0.105 (27)
Min. Pipe Stiffness @5% Deflection #/in./in. (kN/m ²)	28 (195)	22 (150)	18 (125)	14 (95)

*Values provided are for reference purposes only.

*Check with sales representative for availability by region.

N-12[®] LOW HEAD JOINT SYSTEM

(Joint configuration & availability subject to change without notice.)



30" – 60" (750mm – 1500mm)

ADS SaniTite® PIPE SPECIFICATION

Scope

This specification describes 30- through 60-inch (750 to 1500 mm) ADS SaniTite pipe for use in gravity-flow applications such as industrial wastewater and municipal sanitary sewer.

Pipe Requirements

SaniTite pipe shall have a smooth interior and annular exterior corrugations.

- 30- through 60-inch (750 to 1500 mm) shall meet ASTM F2306 and AASHTO M294 Type S.

Joint Performance

Pipe shall be joined with the ADS SaniTite joint meeting the requirements of AASHTO M294 or ASTM F2306.

The 30- through 60-inch (750 to 1500 mm) pipe shall be watertight according to the requirements of ASTM D3212. Gaskets shall be made of elastomeric compound meeting the requirements of ASTM F477. Gaskets shall be installed by the pipe manufacturer and covered with a removable wrap to ensure the gasket is free from debris. Spigot shall have two gaskets which can be fully inserted into the bell.

Fittings

Fittings shall conform to AASHTO M294 or ASTM F2306. Fittings shall be fabricated from the same materials as the pipe. Fabricated fittings shall be welded at all accessible interior and exterior junctions.

Material Properties

Virgin material for pipe and fitting production shall be high-density polyethylene conforming with the minimum requirements of cell classification 435400C as defined and described in ASTM D3350. The virgin pipe material used for the pipe shall be a slow crack resistant material that complies with the notched constant ligament-stress (NCLS) test specified in AASHTO M294, Section 6.1.1.

Installation

Installation shall be in accordance with ASTM D2321 and ADS installation guidelines except that only class 1 and 2 backfill materials shall be acceptable. Contact your local ADS representative or visit our website at www.ads-pipe.com for a copy of the installation guidelines.

Pipe Dimensions*

Pipe I.D. in. (mm)	30 (750)	36 (900)	48 (1200)	60 (1500)
Pipe O.D. in. (mm)	35.1 (762)	41.7 (1059)	53.6 (1361)	66.3 (1684)
Inner Liner Thickness Minimum in. (mm)	0.07 (18)	0.095 (24)	0.105 (27)	0.105 (27)
Min. Pipe Stiffness @5% Deflection #/in./in. (kN/m ²)	28 (195)	22 (150)	18 (125)	14 (95)

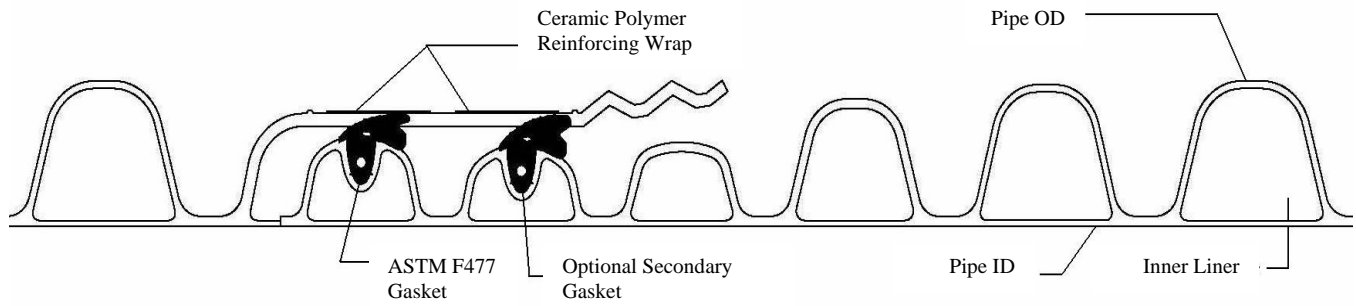
*Values provided are for reference purposes only.

*Check with sales representative for availability by region.

ADS SaniTite® Joint System

(Joint configuration & availability subject to change without notice.)

*Check with sales representative for availability by region.



30" – 60" (750mm – 1500mm)

ADS SINGLE WALL HIGHWAY PIPE SPECIFICATION

Scope

This specification describes 3- through 24-inch (75 to 600 mm) single wall high density corrugated polyethylene highway pipe, for drainage applications.

Pipe Requirements

ADS single wall corrugated highway pipe shall have annular interior and exterior corrugations.

- 3- through 10-inch (75 to 250 mm) pipe shall meet AASHTO M252, Type C.
- 12- through 24-inch (300 to 600 mm) pipe shall meet AASHTO M294, Type C.

Joint Performance

Joints for 3- to 24- inch (75 – 600 mm) shall be made with split or snap couplings. Standard connection shall meet the soil-tightness requirements of AASHTO M252 or M294. Gasketed connections shall incorporate a closed-cell synthetic expanded rubber gasket meeting the requirements of ASTM D1056 Grade 2A2. Gaskets shall be installed by the pipe manufacturer.

Fittings

Fittings shall conform to AASHTO M252 or AASHTO M294.

Material Properties

Pipe and fittings shall be made of virgin polyethylene compounds that comply with the cell classification 424420C for 4- through 10-inch (100 to 250mm) diameters, or 435400C for 12- through 60-inch (300 to 1500mm) diameters, as defined and described in ASTM D3350, except that carbon black content should not exceed 5%. The 12- through 60-inch (300 to 1500mm) virgin pipe material shall comply with the notched constant ligament-stress (NCLS) test as specified in Section 6.1.1 and 5.1 of AASHTO M294 and ASTM F2306 respectfully.

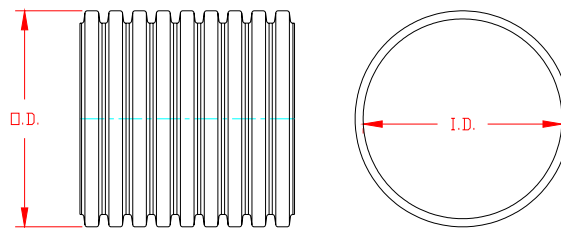
Installation

Installation shall be in accordance with ASTM D2321 or as specified by the Project Engineer or local approval agency. Contact your local ADS representative or visit our website at www.ads-pipe.com for a copy of the latest installation guidelines.

Pipe Dimensions

		Nominal Diameter, in (mm)									
Pipe I.D. in (mm)		3 (75)	4 (100)	5 (125)	6 (150)	8 (200)	10 (250)	12 (300)	15 (375)	18 (450)	24 (600)
Pipe O.D.* in (mm)		3.6 (91)	4.6 (117)	5.8 (147)	7 (178)	9.5 (241)	12 (305)	14.5 (368)	18 (457)	21 (533)	28 (711)
Perforations	All diameters available with or without perforations.										

*Pipe O.D. values are provided for reference purposes only, values stated for 12- through 24-inch are ± 0.5 inch. Contact Applications Engineering for exact values.



ADS SINGLE WALL HEAVY DUTY PIPE SPECIFICATION

Scope

This specification describes 3- through 24-inch (75 to 600 mm) ADS single wall corrugated heavy duty polyethylene pipe, for use in subsurface drainage applications.

Pipe Requirements

ADS single wall corrugated heavy duty pipe shall have annular interior and exterior corrugations.

- 3- through 6-inch (75 to 150 mm) shall meet ASTM F405
- 8- through 24-inch (200 to 600 mm) shall meet ASTM F667.

Joint Performance

Joints for 3- to 24- inch (75 – 600 mm) shall be made with split or snap couplings. Standard connection shall meet the soil-tightness requirements of AASHTO M252 or M294. Gasketed connections shall incorporate a closed-cell synthetic expanded rubber gasket meeting the requirements of ASTM D1056 Grade 2A2. Gaskets shall be installed by the pipe manufacturer.

Fittings

Fittings shall conform to ASTM F405 or ASTM F667.

Material Properties

Pipe and fittings shall be high density polyethylene conforming with the minimum requirements of cell classification 424400C as defined and described ASTM D3350; or ASTM D1248 Type III, Class C, Category 4, Grade P33.

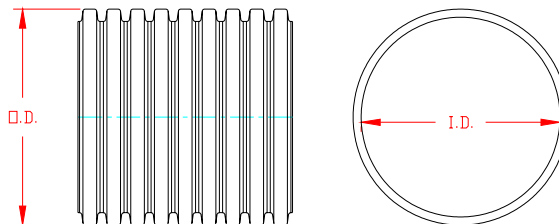
Installation

Installation shall be in accordance with ASTM D2321 or as specified by the Project Engineer or local approval agency. Contact your local ADS representative or visit our website at www.ads-pipe.com for a copy of the installation guidelines.

Pipe Dimensions

	Nominal Diameter, in (mm)				
Pipe I.D. in (mm)	3 (75)	4 (100)	5 (125)	6 (150)	8 (200)
Pipe O.D.* in (mm)	3.6 (91)	4.6 (117)	5.8 (147)	7 (178)	9.5 (241)
Perforations	All diameters available with or without perforations.				

*Pipe O.D. values are provided for reference purposes only, values stated for 12- through 24-inch are ± 0.5 inch. Contact Applications Engineering for exact values.



ADS Grain-Aire® PIPE SPECIFICATION

Scope

This specification describes 12- through 36-inch (300 to 900 mm) ADS Grain-Aire pipe for use in metering air and providing uniform flow air in flat storage structures.

Pipe Requirements

ADS Grain-Aire pipe shall have annular exterior corrugations covered with a polypropylene protective screen to provide unrestricted air flow.

Joint Performance

Pipe shall be joined with split or snap couplers covering at least two full corrugations on each end of the pipe.

Material Properties

Pipe and fittings shall be high density polyethylene conforming with the minimum requirements of cell classification 424400C as defined and described ASTM D3350; or ASTM D1248 Type III, Class C, Category 4, Grade P33.

Perforations:

Nominal Diameter	Corrugations Per Foot	Number of Holes Per Foot	Min. Hole Diameter	Open Area Per Foot
12"	6.3	36	7/16"	5.4
15"	4.7	24	5/8"	7.36
18"	4.7	24	5/8"	7.36
24"	4.7	24	5/8"	7.36
30"	2.9	32	1/2"	6.28
36"	2.4	32	1/2"	6.28

**Values provided are for reference purposes only.*

Protective Screen:

Material	Polypropylene	
Bursting Strength (lbs/in ²)	484	ASTM D3786
Weight (oz/yd ²)	5.3	ASTM D3776
% Open Area	25	ASTM D475
Tensile Strength (lbs) (Grab Test)	425 (Wrap)	ASTM D5034
	273 (Fill)	

ADS AdvanEDGE® PIPE SPECIFICATION

Scope

This specification describes 12- and 18-inch (300 and 450 mm) ADS AdvanEDGE oblong corrugated pipe for use in subsurface drainage applications.

Product Requirements

ADS AdvanEDGE outside dimensions shall be 1.5" wide x 13" tall or 1.5" wide x 18" tall. AdvanEDGE shall have internal bracing adjoining each long wall to prevent crushing under typical loading. AdvanEDGE shall be made available with or without an external geotextile wrap.

Material Properties

All pipe and fittings shall be made of polyethylene with a minimum cell classification of 424420C as defined and described in ASTM D3350.

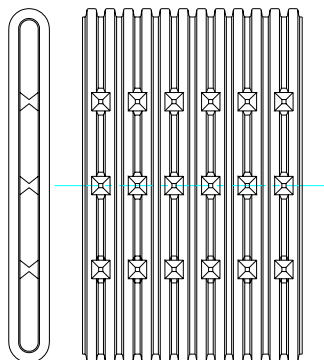
Perforations

Slot Length (Max), in. (mm)	1.125 (29)
Slot Width (Max), in. (mm)	0.15 (4)
Water Inlet Area (Min), in ² /ft	15

**Values provided are for reference purposes only.*

Filter Fabric

Fabric Properties	Test Method	Minimum Average Roll Values
Grab Tensile Strength (lbs.) (weakest principle direction)	ASTM D4632	120
Grab Elongation (%) (weakest principle direction)	ASTM D4633	60
Trapezoidal Tear (lbs.) (weakest principle direction)	ASTM D4533	40
Puncture (lbs.)	ASTM D3786	30
Permittivity (sec ⁻¹)	ASTM D4491	0.7
AOS (U.S. Sieve Size)	ASTM D4751	60
U.V. Resistance	ASTM D4355	70



ADS SB2® PIPE SPECIFICATION

Scope

This specification describes ADS SB2 (8- and 10-inch (200 and 250 mm)) pipe for use in on-site waste disposal applications.

Pipe Requirements

ADS SB2 pipe shall meet the requirements of ASTM F667. It shall have a corrugated interior and corrugated exterior. There shall be 3/8 inch (9.5 mm) to 1/2 inch (12.7 mm) holes 120 degrees apart staggered one hole per corrugation on the length of the pipe. The 8-inch (200 mm) pipe shall have 2.65 square inches per foot of open area while the 10-inch (250 mm) pipe shall have 2.95 square inches of open area per foot. The pipe shall be supplied with a pre-installed septic fabric.

Diameter, in.	Hole Diameter, in.	Min. Open Area, in ² /ft
8	0.375	1
10	0.5	1

**Values provided are for reference purposes only.*

Joint Performance

Pipe shall be joined with internal or external snap couplers covering at least two (2) full corrugations on each end of the pipe.

Fittings

Fittings shall conform to ASTM F667.

Material Properties

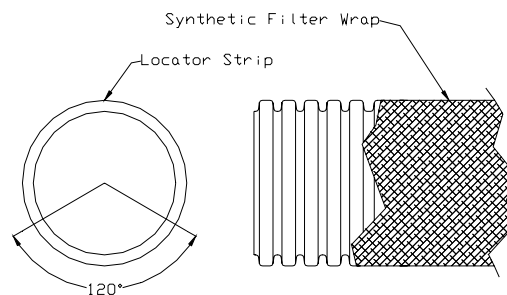
Pipe material shall be high density polyethylene conforming with the minimum requirements of cell classification 424410C as defined and described in ASTM D3350.

Septic Fabric Properties

Material	Nylon (100%)
Fabric	Spun Bond
Fiber Size (denier per filament)	5
Weight (ounces per yd ² , ASTM D3776)	0.85
Burst Strength (pounds per in ² , ASTM D3786)	28
Air Permeability (CFM per ft ² , ASTM D737)	650
Equivalent Opening Size (Army Corps of Engineers, W 02215)	50
Water Flow Rate (gal/min/ft ² , ASTM D4491)	163
Melt Temperature (ASTM D3786)	218° C (425° F)

Installation

Installation shall be in accordance with ADS installation instructions (ADS Product Note 3.111) and those issued by a local health department. For leachfield applications, installation shall be in accordance with ASTM F481 and as regulated by regional, state, and local agencies. Proper authorization for specific applications and designs should be obtained prior to installation to ensure suitability in certain locales. Contact your local ADS representative or visit our website at www.ads-pipe.com for a copy of the installation guidelines.



ADS GEO-flow™ PIPE SPECIFICATION

Scope

This specification describes ADS GEO-flow (10-inch (250 mm)) pipe for use in on-site waste disposal applications.

Pipe Requirements

ADS GEO-flow pipe shall meet the requirements of ASTM F667. It shall have a corrugated interior and exterior. There shall be eight 7/16 inch (9.5 mm) holes evenly spaced 45 degrees apart per corrugation continuing the full length of the pipe. The pipe shall be shipped with a pre-installed reinforcing geo-grid fabric and 4 ounce geotextile fabric.

Joint Performance

Pipe shall be joined with internal or external couplers covering at least two full corrugations on each end of the pipe.

Material Properties

Pipe material shall be high density polyethylene conforming to the minimum requirements of cell classification 424410C as defined and described in ASTM D3350.

Geo-Grid Fabric

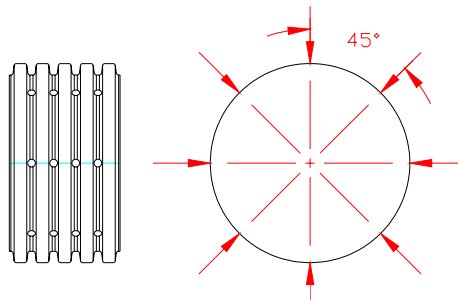
Technical Characteristic	Test Method	Value	Unit
Min. Tensile Strength	ASTM D4595	400	lb/ft.
Min. Transmissivity @ 1 and vertical load	ASTM D4716	1 x 10 ⁻³ 10,000	m ² /sec psf
Min. Density	ASTM D1505	0.940	g/cm ³
Typical Melt Flow Index	ASTM D1238	1.0	g/10 min.
Min. Carbon Black Content	ASTM D4218	2	%
Min. Thickness	ASTM D5199	5.0 (200)	mm (mil)
Min. Unit Weight	ASTM D3776	20	oz/sy

4 Oz. Geotextile

Property	Specification	Test Method
Fiber	Polyester	--
Substrate	None	--
Weight	4.0 oz/yd ² +/- 0.04 oz/yd ²	FTM NW503
Thickness	0.065 inch +/- 0.010 inch	FTM NW504
Tensile	Warp: 52 lb min. Fill: 68 lb min.	FTM NW505

Installation

Installation shall be in accordance with ADS installation instructions (ADS Product Note 3.150) and those issued by a local health department. For leachfield applications, installation shall be in accordance with ASTM F481 and as regulated by regional, state, and local agencies. Proper authorization for specific applications and designs should be obtained prior to installation to ensure suitability in certain locales. Contact your local ADS representative or visit our website at www.ads-pipe.com for a copy of the installation guidelines.



ADS 3000 TRIPLEWALL® PIPE SPECIFICATION

Scope

This specification describes 3- and 4-inch (75 and 100 mm) ADS 3000 TripleWall pipe for use in gravity-flow drainage and leachfield applications.

Pipe Requirements

ADS 3000 TripleWall pipe shall meet the requirements of ASTM F810. It shall have a smooth interior and exterior.

Joint Performance

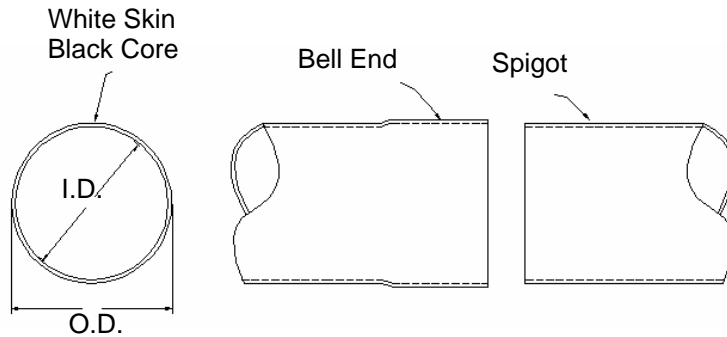
Pipe joints shall be integrally formed bell and spigot to provide a soil-tight connection.

Material Properties

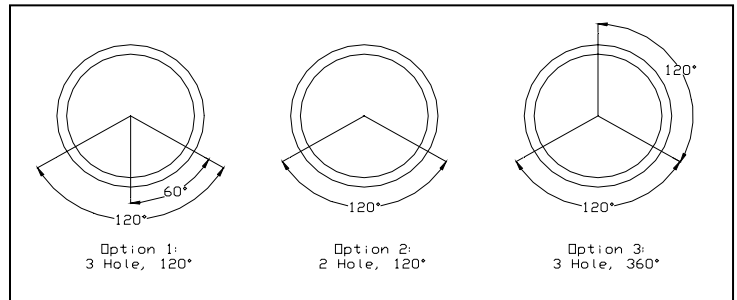
Pipe material shall be high-density polyethylene conforming with the minimum requirements of cell classifications 424410C or E as defined and described in ASTM D3350. The material formulation shall include recycled polyethylene.

Installation

For gravity-flow drainage applications, installation shall be in accordance with ASTM D2321 and ADS installation guidelines with the exception that minimum cover in traffic areas shall be one foot (0.3 m). For leachfield applications, installation shall be in accordance with ASTM F481 and as regulated by regional, state, and local agencies. Proper authorization for specific applications and designs should be obtained prior to installation to ensure suitability in certain locales. Contact your local ADS representative or visit our website at www.ads-pipe.com for a copy of the installation guidelines.



Nominal Pipe Size, in (mm)	3" (75)	4" (100)
Average Outside Diameter, in. (mm)	3.250 ± 0.008 (82.55 ± 0.15)	4.215 ± 0.009 (107.06 ± 0.22)
Average Inside Diameter, in. (mm)	2.875 (73.02)	3.875 (98.42)



ADS DURASLOT® PIPE SPECIFICATION

Scope

This specification describes 4- to 42-inch (100 to 1050 mm) ADS DURASLOT pipe for use in surface drain applications.

Pipe Requirements

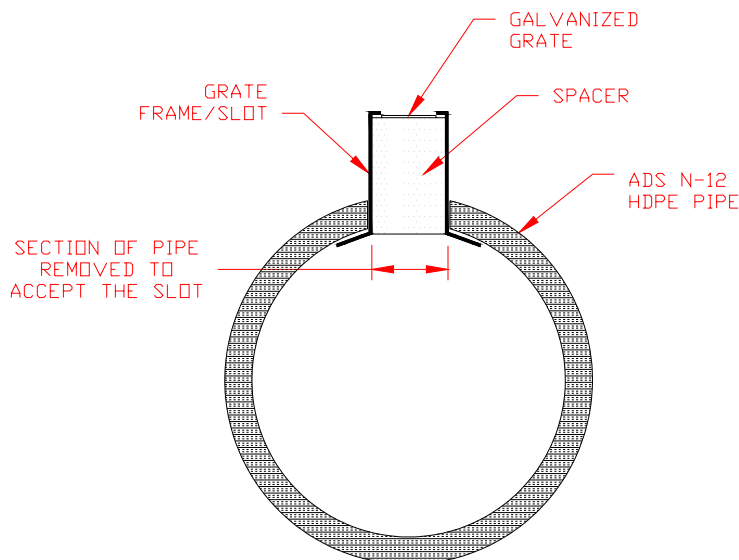
ADS DURASLOT pipe shall have a smooth interior and annular exterior corrugations with an aluminum slot mounted longitudinally along the length of the pipe. The grate placed in the aluminum grate frame shall be ½ - #13 galvanized steel.

- 4- through 10-inch (100 to 250mm) pipe shall meet AASHTO M252, Type S.
- 12- through 42-inch (300 to 1500 mm) pipe shall meet AASHTO M294, Type S or ASTM F2306.
- Manning's "n" value for use in design shall be 0.012.

Installation

Contact your local ADS representative for a copy of the installation guidelines from DURASLOT.

Slot Height	2.5" (Residential and Pedestrian Applications)
	6" (H-20 Loading)
Slot Opening	1.25" (4")
	1.75" (6" - 42")



MAR MAC® Polyseal REPAIR COUPLER SPECIFICATION

Scope

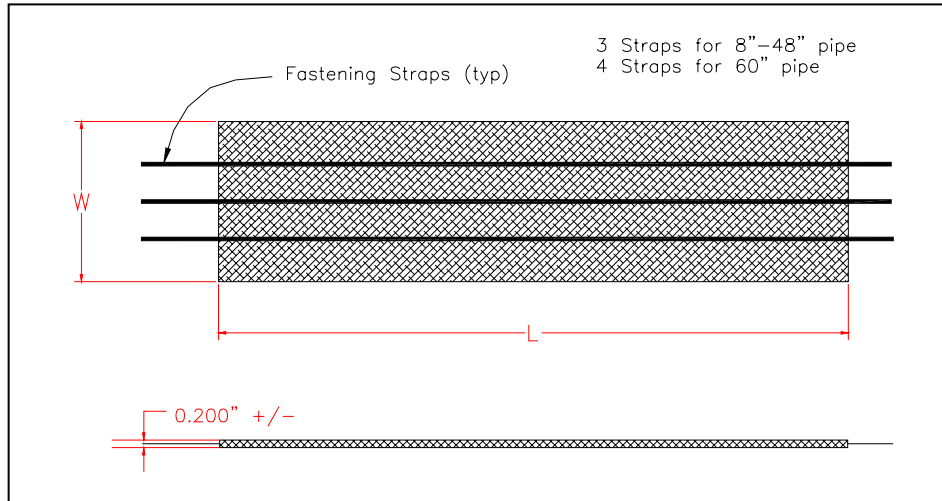
The Mar Mac Polyseal Repair Coupler is a connection for 8- to 60-inch (200 to 1500 mm) ADS N-12 pipe.

Material Properties

The Mar Mac Coupler consists of a woven polypropylene reinforcing with rubberized mastic sealer on either side of the reinforcement and a heavy cross-laminated polyethylene backing.

Installation

Contact your local ADS representative for latest installation instructions.



Nominal Diameter, in.	Length (L), in.	Width (W), in.
8	33	4
10	40	5
12	50	7
15	62	10
18	73	10
24	94	12
30	119	15
36	139	18
42	155	18
48	174	18
60	226	24

ADS WaterStop™ GASKET SPECIFICATION

Scope

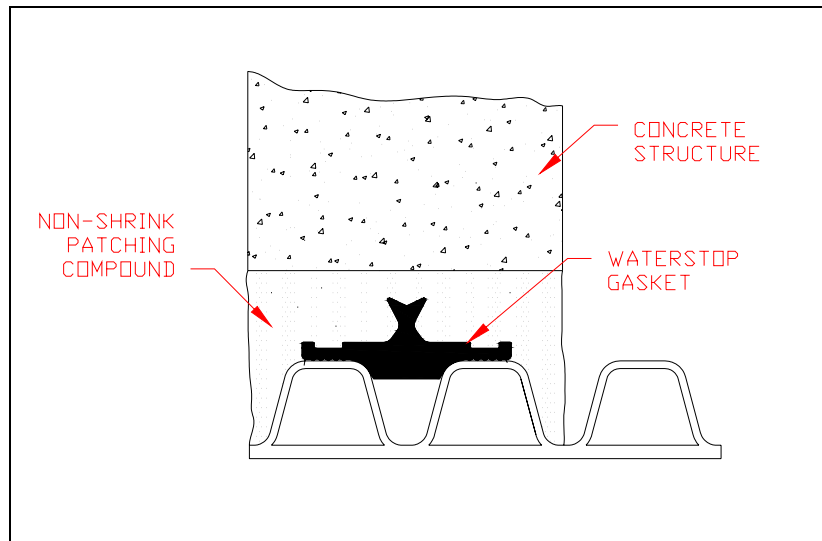
This specification describes the ADS WaterStop™ Gasket available in 12- to 60- inch (300 to 1500 mm) diameters and used for a field installed seal that prevents water infiltration or exfiltration at manhole connections.

Material Properties

The ADS WaterStop™ Gasket is made of a polyisoprene compound which meets the physical property requirements of ASTM C923.

Installation

Contact your local ADS representative or visit our website at www.ads-pipe.com for a copy of the installation guidelines (Standard Detail, STD-204).



Pipe Size	Recommended Min. Hole, in.	Min. Distance Pipe Invert to Structure Invert, in
12	19.5	3.7
15	23	4
18	26.5	4.2
24	33.3	4.5
30	40.5	5.2
36	47	5.5
42	53	5.7
48	59	5.7
60	72	6.4

ADS FLARED END SECTION SPECIFICATION

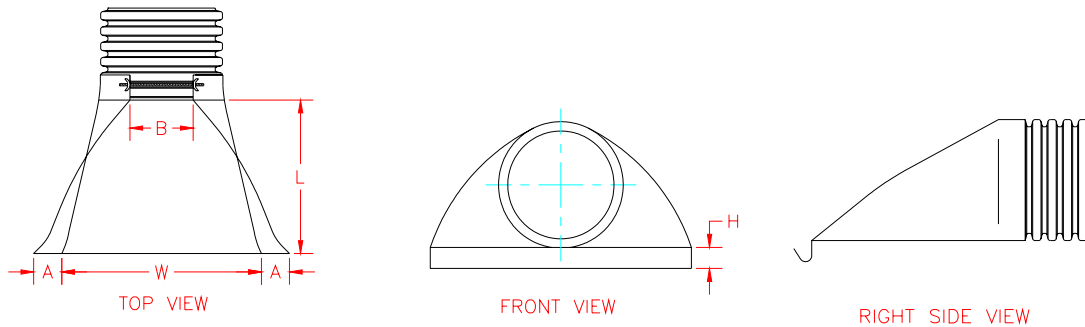
Scope

This specification describes 12- through 36-inch (300 to 900mm) ADS Flared End Sections for use in culvert and drainage outlet applications.

Requirements

The invert of the pipe and the end section shall be at the same elevation. The ADS Flared End Section shall be manufactured with polyethylene resins as described and defined in ASTM D3350.

Part Number	Pipe Diameter	A	B (max)	H	L	W
1210NP	12 in (300 mm)	6.50 in (165 mm)	10.00 in (254 mm)	6.50 in (165 mm)	25.00 in (635 mm)	29.00 in (737 mm)
1510NP	15 in (375 mm)	6.50 in (165 mm)	10.00 in (254 mm)	6.50 in (165 mm)	25.00 in (635 mm)	29.00 in (737 mm)
1810NP	18 in (450 mm)	7.50 in (191 mm)	15.00 in (381 mm)	6.50 in (165 mm)	32.00 in (813 mm)	35.00 in (889 mm)
2410NP	24 in (600 mm)	7.50 in (191 mm)	18.00 in (457 mm)	6.50 in (165 mm)	36.00 in (914 mm)	45.00 in (1143 mm)
3015NP	30 in (750 mm)	7.50 in (191 mm)	12.00 in (305 mm)	8.60 in (218 mm)	58.00 in (1473 mm)	63.00 in (1600 mm)
3615NP	36 in (900 mm)	7.50 in (191 mm)	25.00 in (635 mm)	8.60 in (218 mm)	58.00 in (1473 mm)	63.00 in (1600 mm)



ADS BioDiffuser ARC 36™ SEPTIC LEACHING CHAMBER SPECIFICATIONS

Scope

This specification describes the BioDiffuser ARC 36 chamber unit for use in onsite wastewater disposal applications.

Chamber Requirements

BioDiffuser ARC 36 chambers are manufactured from high-density polyethylene with an open bottom, solid top and louvered sidewalls. Sidewall louvers shall be designed to minimize soil intrusion.

Chamber shall meet the load rating of H-10 (16,000 lb per axle) with a minimum of 12 inches of cover when tested in accordance with IAPMO PS 63 and installed in accordance with ADS installation procedures.

Chamber Connection

Each chamber shall interlock with an integral articulating joint. Articulating joints shall have a free range of horizontal rotation of 20 degrees, with a maximum of 10 degrees in either direction. Articulating joint shall be constructed by placing the dome engagement hole of the incoming chamber over the bullet post of the previously-installed chamber, with final engagement occurring when the lower base flanges of the incoming chamber under-lap the raised base flanges of the previously-installed chamber.

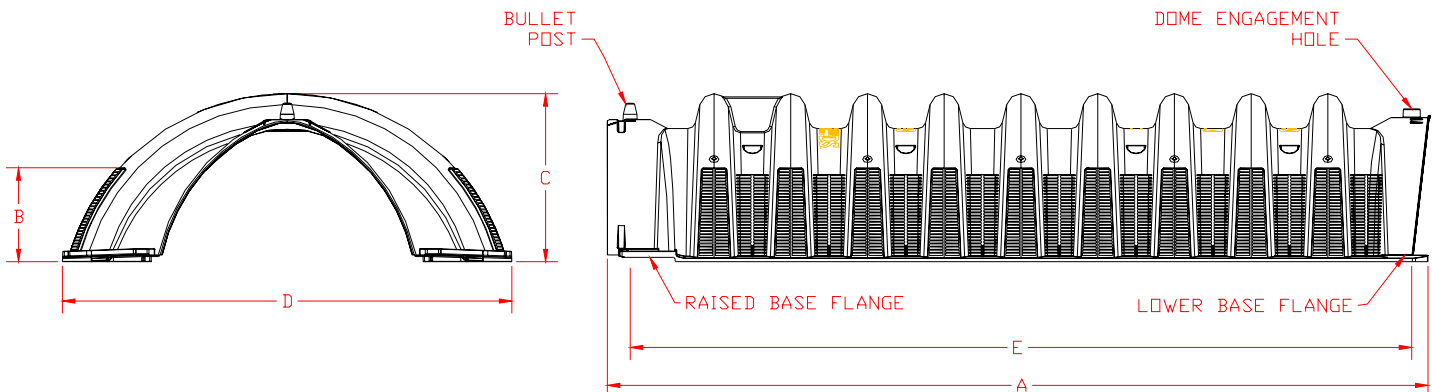
Material Properties

Each chamber shall be manufactured from high density polyethylene resin as defined and described in IAPMO PS 63.

Installation

Installation shall be in accordance with ADS installation procedures and those issued by the local health department regulations.

BioDiffuser ARC 36 Model No. 3613BD	
Length (A)	63 in
Repeat Length (E)	60 in
Side Wall Height (B)	7.13 in
Overall Height (C)	13 in
Overall Width (D)	34.5 in
Capacity	8.04 cu ft (60.14 gal)
Weight	16 lbs
Pallet Quantity	60 chambers
Van (Box Trailer) Quantity	25 Pallets
Flatbed Quantity	22 Pallets



ADS BioDiffuser™ SPECIFICATION

Scope

This specification describes the Standard, High-Capacity, Bio 2, and Bio 3 BioDiffuser units for use in onsite wastewater disposal applications.

Chamber Requirements

BioDiffuser chambers are manufactured from high-density polyethylene with an open bottom, solid top and louvered sidewalls. Sidewall louvers shall be designed to minimize soil intrusion.

Chamber shall meet the load rating of H-10 (16,000 lb per axle) with a minimum of 12 inches of cover when tested in accordance with IAPMO PS 63 and installed in accordance with ADS installation procedures.

Chamber Connection

Each chamber shall interlock with the beginning of the next chamber by overlapping post and dome while engaging overlapping flanges.

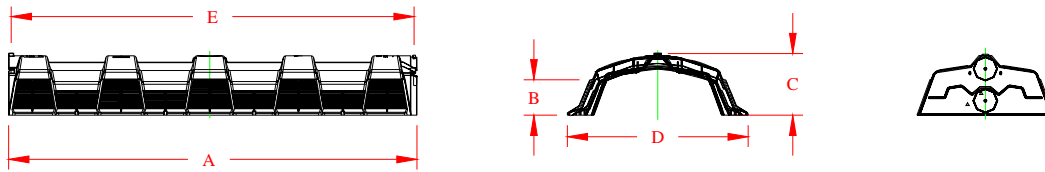
Material Properties

Each chamber shall be manufactured from high density polyethylene resin as defined and described in IAPMO PS 63.

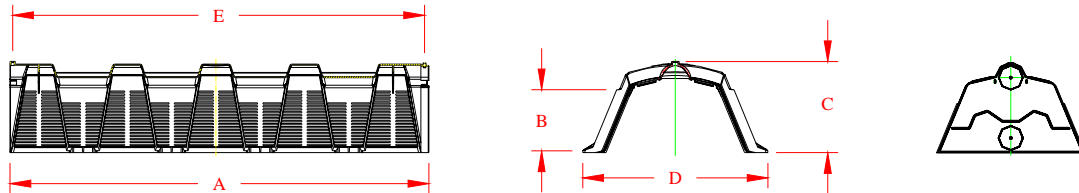
Installation

Installation shall be in accordance with ADS installation procedures and those issued by the local health department regulations.

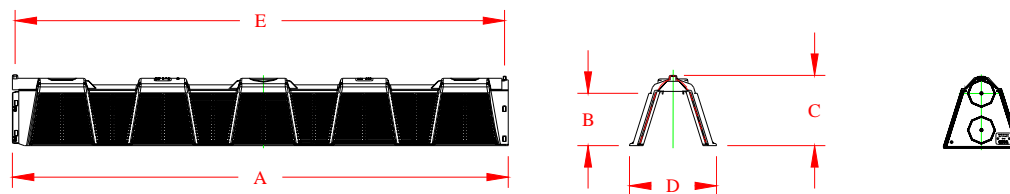
Standard Chamber



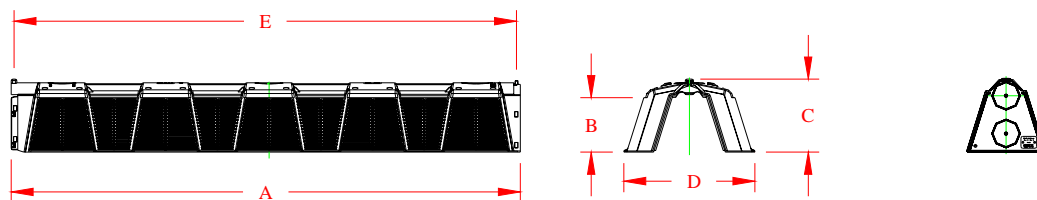
High Capacity Chamber



Bio 2 Chamber



Bio 3 Chamber



Chambers	11" Standard	14" High Capacity	16" High Capacity	Bio 2	Bio 3
ADS Product #	1100BD	1400BD	1600BD	1500BD	2200BD
Length (A)	76"	76"	76"	87"	87"
Repeat Length (E)	75"	75"	75"	86"	86"
Side Wall Height (B)	6.35"	9.68"	11.17"	9.03"	9.03"
Overall Height (C)	11"	14"	16"	12"	12"
Overall Width (D)	34"	34"	34"	15"	22"
Units/Pallet	27	38	45	90	70
Truck Load Quantity*	39 pallets	21 pallets	21 pallets	14 pallets	14 pallets

*End Caps may reduce flatbed pallet quantity.