

Water • Sewer • Irrigation

DIAMOND  PLASTICS®  
CORPORATION



PVC PIPE FOR THE 21st CENTURY

# Quality Products, People & Locations



**D**iamond Plastics Corporation is one of today's leading PVC pipe producers in North America and one of the largest producers in the world. The Corporation was established in 1982 as a small agricultural irrigation specialist with facilities in Texas and Nebraska. Diamond Plastics has grown to include a nationwide network of professional manufacturing facilities providing pipe solutions for water, sewer and irrigation applications.

We offer the industry's broadest range of PVC pipe sizes, with diameters from 2 inches to 60 inches. No other company makes a higher quality, longer lasting PVC pipe than Diamond Plastics. Our PVC pipe offers an unparalleled combination of toughness, resiliency, corrosion resistance, joint integrity, versatility and ease of handling & installation. It's ideal for the vast majority of underground water and sewer applications.



## Why do business with Diamond Plastics Corporation, (DPC)?

There are many reasons, ranging from the flexibility and durability of our PVC pipe to the skill and dedication of the people who make it. Our business philosophy is to produce products of the highest quality and value for the customer, using the latest technology and procedures to maximize efficiency. You can count on Diamond Plastics for long lasting pipe solutions. Our PVC pipe offers an unparalleled combination of toughness, resiliency, corrosion resistance, versatility and ease of handling. And it is available in sizes and wall thicknesses designed for your application.

## EXCEPTIONAL SERVICE

The entire Diamond Plastics team is committed to providing exceptional customer service today, tomorrow and well into the future. We combine our professional sales representative force in agricultural products with a nationwide network of professional manufacturers representatives serving the municipal, engineering and distribution industry. Working together, we deliver the industry's highest level of job site and customer inventory service.

We welcome you to our website, [www.dpcpipe.com](http://www.dpcpipe.com), and invite you to contact your local Diamond Plastics sales representative to see our quality difference for yourself. Any access to information contained in this Brochure is deemed to be an acknowledgement, and shall constitute an agreement by the User to be bound by each of the terms and conditions set forth in the Legal Notice and Disclaimer. Please be certain to review each of those terms and conditions.

[www.dpcpipe.com](http://www.dpcpipe.com)

**PVC PIPE FOR THE 21<sup>st</sup> CENTURY**



**AWWA C905 SPECIFICATION DATA**

Diamond C905 PVC Pipe is made of PVC compound with a cell classification 12454 as defined in ASTM D1784 and is suitable for water transmission. Diamond C905 meets the requirements of American Water Works Association (AWWA) Product Standard C905.

Diamond C905 is manufactured in 14", 16", 18", 20", 24", 30", 36", 42", 48", 54" and 60" sizes with an integral gasket bell and spigot "push-on" joint conforming to the requirements of ASTM D3139. "Rieber Sealing System Technology" is utilized in forming the gasket bell sockets of Diamond C905 PVC Pipe around the steel reinforced elastomeric seal meeting the requirements of ASTM F477.



Diamond C905 is tested in accordance with the physical, dimensional, and performance requirements of AWWA C905, and is listed by Underwriters Laboratories. Each piece is hydrostatically proof tested before being shipped.

**Diamond C905 is supplied in 20 foot laying lengths.**

**Physical Properties of PVC 12454:**

Property	ASTM Test	Minimum
Specific Gravity	D792	1.40
Tensile Strength, psi	D638	7,000
Tensile Modulus, psi	D638	400,000
IZOD Impact Strength,	D256	.65ft., lb./in.



**Underwriters Laboratories Inc.®**

**SHORT FORM Specification for Diamond C905 PVC Water Pipe**

Diamond C905 PVC Water Pipe shall be made of compounds conforming to ASTM D1784 with a cell classification of 12454. Diamond C905 shall meet all the dimensional, chemical, and physical requirements as outlined in AWWA C905 and will be supplied in 20 or 22 foot laying lengths. Joints shall meet the requirements of ASTM D3139 and shall be formed using Rieber Technology. Gaskets shall meet the requirements of ASTM F477. Potable water pipe shall be manufactured from National Sanitation Foundation (NSF) approved compounds.

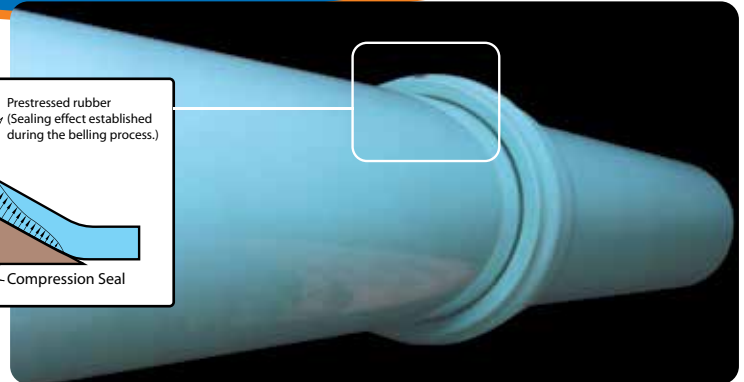
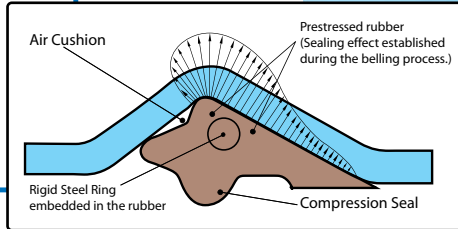


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**Gasket Diagram** How it works?

“Rieber Sealing System Technology” is utilized in forming the gasket bell sockets of Diamond C905 PVC Pipe around the steel reinforced elastomeric seal meeting the requirements of ASTM F477.



**Product Description:**

**TRANS-21™**

AWWA C905 SPECIFICATION DATA

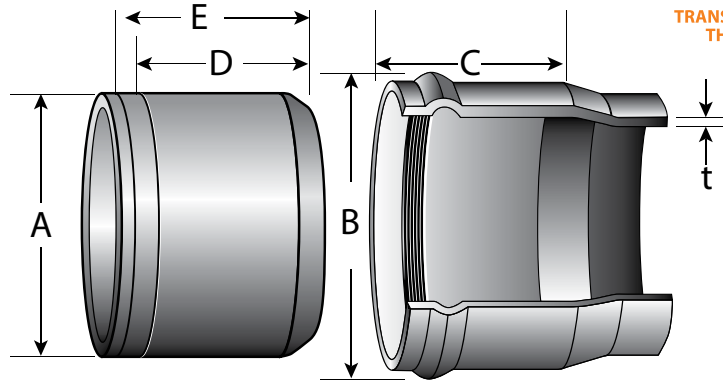
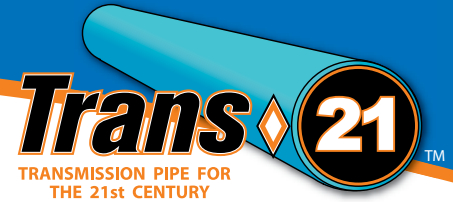
Nominal Pipe Size in. (mm)	Outside Diameter A Inches	Bell Diameter B Inches	Approximate Bell Depth C Inches	Assembly Mark 1 (D) Inches #	Assembly Mark 2 (E) Inches #	Minimum Wall Thickness (t) Inches
<b>DR-81 Pressure Class 50psi</b>						
36" (900)	38.300	42-3/4"	17"	12-7/8"	13-7/8"	0.473
42" (1050)	44.500	50-1/4"	20"	15-3/4"	16-3/4"	0.550
48" (1200)	50.800	56-3/4"	20"	15-7/8"	16-7/8"	0.628
54" (1350)	57.560	64-1/4"	22"	16"	17"	0.711
60" (1500)	61.610	68-1/2"	23"	17-1/2"	18-1/2"	0.761
<b>DR-51 Pressure Class 80psi</b>						
24" (600)	25.800	30"	15"	9-3/4"	10-3/4"	0.506
30" (750)	32.000	37"	17"	12-5/8"	13-5/8"	0.627
36" (900)	38.300	43-1/2"	17"	12-7/8"	13-7/8"	0.751
42" (1050)	44.500	51"	20"	15-3/4"	16-3/4"	0.872
48" (1200)	50.800	57-1/2"	20"	15-7/8"	16-7/8"	0.996
54" (1350)	57.560	65"	22"	16"	17"	1.129
60" (1500)	61.610	69-1/4"	23"	17-1/2"	18-1/2"	1.208
<b>DR-41 Pressure Class 100psi</b>						
20" (500)	21.600	25-3/4"	13"	9"	10"	0.527
24" (600)	25.800	30-1/2"	15"	9-3/4"	10-3/4"	0.629
30" (750)	32.000	37-1/4"	17"	12-5/8"	13-5/8"	0.780
36" (900)	38.300	44"	17"	12-7/8"	13-7/8"	0.934
42" (1050)	44.500	51-1/2"	20"	15-3/4"	16-3/4"	1.085
48" (1200)	50.800	58"	20"	15-7/8"	16-7/8"	1.239
54" (1350)	57.560	65-3/4"	22"	16"	17"	1.404
60" (1500)	61.610	70"	23"	17-1/2"	18-1/2"	1.503
<b>DR-32.5 Pressure Class 125psi</b>						
16" (400)	17.400	21"	11"	7-3/4"	8-3/4"	0.535
18" (450)	19.500	23-1/2"	12"	8-1/4"	9-1/4"	0.600
20" (500)	21.600	26"	13"	9"	10"	0.665
24" (600)	25.800	30-3/4"	15"	9-3/4"	10-3/4"	0.794
30" (750)	32.000	37-3/4"	17"	12-5/8"	13-5/8"	0.985
36" (900)	38.300	44-3/4"	17"	12-7/8"	13-7/8"	1.178
42" (1050)	44.500	52"	20"	15-3/4"	16-3/4"	1.369
48" (1200)	50.800	58-1/2"	20"	15-7/8"	16-7/8"	1.563
54" (1350)	57.560	66-1/2"	22"	16"	17"	1.771
60" (1500)	61.610	70-3/4"	23"	17-1/2"	18-1/2"	1.896

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## Rieber Joint Illustration



Large Diameter Dimensions 20 foot Laying Length

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AWWA C905 SPECIFICATION DATA

Nominal Pipe Size in. (mm)	Outside Diameter A Inches	Bell Diameter B Inches	Approximate Bell Depth C Inches	Assembly Mark 1 (D) Inches #	Assembly Mark 2 (E) Inches #	Minimum Wall Thickness (t) Inches
<b>DR-25 Pressure Class 165psi</b>						
14" (350)	15.300	18-3/4"	11"	6-7/8"	7-7/8"	0.612
16" (400)	17.400	21-1/4"	11"	7-3/4"	8-3/4"	0.696
18" (450)	19.500	23-1/4"	12"	8-1/4"	9-1/4"	0.780
20" (500)	21.600	26-1/4"	13"	9"	10"	0.864
24" (600)	25.800	31-1/4"	15"	9-3/4"	10-3/4"	1.032
30" (750)	32.000	38-1/4"	17"	12-5/8"	13-5/8"	1.280
36" (900)	38.300	45"	17"	12-7/8"	13-7/8"	1.532
42" (1050)	44.500	52-1/4"	20"	15-3/4"	16-3/4"	1.780
48" (1200)	50.800	59-1/2"	20"	15-7/8"	16-7/8"	2.032
54" (1350)	57.560	66-3/4"	22"	16"	17"	2.303
60" (1500)	61.610	72"	23"	17-1/2"	18-1/2"	2.465
<b>DR-21 Pressure Class 200psi</b>						
14" (350)	15.300	19"	11"	6-7/8"	7-7/8"	0.729
16" (400)	17.400	21-1/2"	11"	7-3/4"	8-3/4"	0.829
18" (450)	19.500	24"	12"	8-1/4"	9-1/4"	0.929
20" (500)	21.600	26-1/2"	13"	9"	10"	1.029
24" (600)	25.800	31-1/2"	15"	9-3/4"	10-3/4"	1.229
30" (750)	32.000	38-1/2"	17"	12-5/8"	13-5/8"	1.524
36" (900)	38.300	46-1/2"	17"	12-7/8"	13-7/8"	1.823
42" (1050)	44.500	53"	20"	15-3/4"	16-3/4"	2.119
<b>DR-18 Pressure Class 235psi</b>						
14" (350)	15.300	19-1/4"	11"	6-7/8"	7-7/8"	0.850
16" (400)	17.400	21-3/4"	11"	7-3/4"	8-3/4"	0.967
18" (450)	19.500	24-1/4"	12"	8-1/4"	9-1/4"	1.083
20" (500)	21.600	26-3/4"	13"	9"	10"	1.200
24" (600)	25.800	31-3/4"	15"	9-3/4"	10-3/4"	1.433
30" (750)	32.000	39"	17"	12-5/8"	13-5/8"	1.778
36" (900)	38.300	46-1/2"	17"	12-7/8"	13-7/8"	2.128
<b>DR-14 Pressure Class 305psi</b>						
14" (350)	15.300	19-1/2"	11"	6-7/8"	7-7/8"	1.0929
16" (400)	17.400	22"	11"	7-3/4"	8-3/4"	1.243
18" (450)	19.500	24-1/2"	12"	8-1/4"	9-1/4"	1.393
20" (500)	21.600	27"	13"	9"	10"	1.543
24" (600)	25.800	32"	15"	9-3/4"	10-3/4"	1.843

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**Loading Data / NOTE:**



\* Transportation regulations and the equipment utilized may increase or reduce the maximum footage per truckload.



**LOADING DATA, AWWA C905**

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AWWA C905 LOADING CHART

Nominal Pipe Size in. (mm)	Outside Diameter	Minimum Wall Thickness	Joints Per Bundle	Feet Per Bundle	*Feet Per Truckload
<b>DR-81 Pressure Class 50psi</b>					
36" (900)	38.300	0.473	2	40	160
42" (1050)	44.500	0.550	2	40	160
48" (1200)	50.800	0.628	1	20	80
54" (1350)	57.560	0.711	1	20/22	40/44
60" (1500)	61.610	0.760	1	20/22	40/44
<b>DR-51 Pressure Class 80psi</b>					
24" (600)	25.800	0.506	3	60	360
30" (750)	32.000	0.627	3	60	360
36" (900)	38.300	0.751	2	40	160
42" (1050)	44.500	0.872	2	40	160
48" (1200)	50.800	0.996	1	20	80
54" (1350)	57.560	1.129	1	20/22	40/44
60" (1500)	61.610	1.208	1	20/22	40/44
<b>DR-41 Pressure Class 100psi</b>					
20" (500)	21.600	0.527	4	80	640
24" (600)	25.800	0.629	3	60	360
30" (750)	32.000	0.78	3	60	360
36" (900)	38.300	0.934	2	40	160
42" (1050)	44.500	1.085	2	40	160
48" (1200)	50.800	1.239	1	20	80
54" (1350)	57.560	1.404	1	20/22	40/44
60" (1500)	61.610	1.503	1	20/22	40/44
<b>DR-32.5 Pressure Class 125psi</b>					
16" (400)	17.400	0.535	2\3\4\6	40\120	1,000
20" (500)	21.600	0.665	4	80	640
24" (600)	25.800	0.794	3	60	360
30" (750)	32.000	0.985	3	60	360
36" (900)	38.300	1.178	2	40	160
42" (1050)	44.500	1.369	2	40	160
48" (1200)	50.800	1.563	1	20	80
54" (1350)	57.560	1.771	1	20/22	40/44
60" (1500)	61.610	1.896	1	20/22	40/44

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## TRANS-21™

### AWWA C905 LOADING CHART

Nominal Pipe Size in. (mm)	Outside Diameter	Minimum Wall Thickness	Joints Per Bundle	Feet Per Bundle	*Feet Per Truckload
<b>DR-25 Pressure Class 165psi</b>					
14" (350)	15.300	0.612	6	120	1,440
16" (400)	17.400	0.696	2\3\4\6	40\\120	1,000
18" (450)	19.500	0.78	4\6	80\120	800
20" (500)	21.600	0.864	4	80	640
24" (600)	25.800	1.032	3	60	360
30" (750)	32.000	1.28	3	60	360
36" (900)	38.300	1.523	2	40	160
42" (1050)	44.500	1.780	2	40	160
48" (1200)	50.800	2.032	1	20	80
54" (1350)	57.560	2.303	1	20/22	40/44
60" (1500)	61.610	2.465	1	20/22	40/44
<b>DR-21 Pressure Class 200psi</b>					
14" (350)	15.300	0.729	6	120	1,440
16" (400)	17.400	0.829	2\3\4\6	40\\120	1,000
18" (450)	19.500	0.929	4\6	80\120	800
20" (500)	21.600	1.029	4	80	640
24" (600)	25.800	1.229	3	60	360
30" (750)	32.000	1.524	3	60	360
36" (900)	38.300	1.824	2	40	160
42" (1050)	44.500	2.119	2	40	160
<b>DR-18 Pressure Class 235psi</b>					
14" (350)	15.300	0.85	6	120	1,440
16" (400)	17.400	0.967	2\3\4\6	40\\120	1,000
18" (450)	19.500	1.083	4\6	80\120	800
20" (500)	21.600	1.2	4	80	640
24" (600)	25.800	1.433	3	60	360
30" (750)	32.000	1.778	3	60	360
36" (900)	38.300	2.128	2	40	160
<b>DR-14 Pressure Class 305psi</b>					
14" (350)	15.300	1.0929	6	120	1,440
16" (400)	17.400	1.243	2\3\4\6	40\\120	1,000
18" (450)	19.500	1.393	4\6	80\120	800
20" (500)	21.600	1.543	4	80	640
24" (600)	25.800	1.843	3	60	360

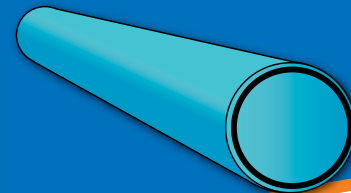
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# C900 : PVC Pressure Pipe

SPECIFICATION DATA



Diamond (C900) PVC Pipe (4" through 12") is made of 12454 compound per ASTM D1784, in accordance with the dimensional, chemical, and physical requirements of AWWA C900.

Diamond (C900) PVC Pipe bears the mark of NSF, International (NSF), the listing of Underwriters Laboratory, Inc. (UL), and (DR14 & DR18) bears the listing of Factory Mutual(FM). Some factory locations produce C900 bearing the mark of the Canadian Standards Association (CSA).

Diamond (C900) PVC Pipe utilizes a gasket, per ASTM F477, to seal the integral bell socket to the spigot of the next joint (which conforms to the requirements of ASTM D3139.) Each male end is beveled to facilitate joint assembly, and the spigot is referenced marked to ensure proper insertion depth. Diamond furnished lubricant is to be used in the joining process. Specialty gaskets may be available upon request.



Diamond furnished lubricant is to be used in the joining process. Specialty gaskets may be available upon request.

**Diamond C900 is supplied in 20 foot laying lengths.**

## Physical Properties of PVC 12454:

Property	ASTM Test	Minimum
Specific Gravity	D792	1.40
Tensile Strength, psi	D638	7,000
Tensile Modulus, psi	D638	400,000
IZOD Impact Strength	D256	.65ft., lb./in.



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### SHORT FORM Specification for Diamond C900 PVC Water Pipe

Diamond C900 PVC Water Pipe shall be made of compounds conforming to ASTM D1784 with a cell classification of 12454. Diamond C900 shall meet all the dimensional, chemical, and physical requirements as outlined in AWWA C900 and will be supplied in 20 foot laying lengths. Joints shall meet the requirements of ASTM D3139 and shall be formed using Rieber Technology. Gaskets shall meet the requirements of ASTM F477.

Potable water pipe shall be manufactured from National Sanitation Foundation (NSF) approved compounds.

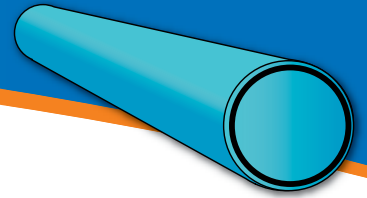


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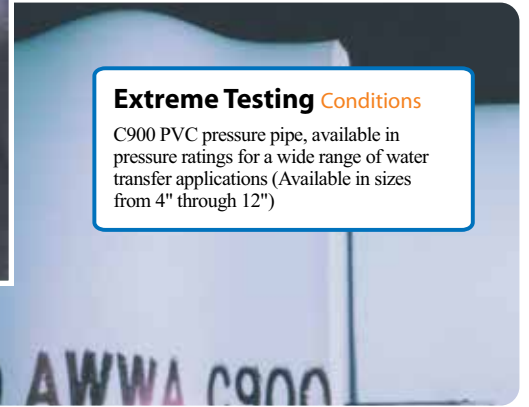
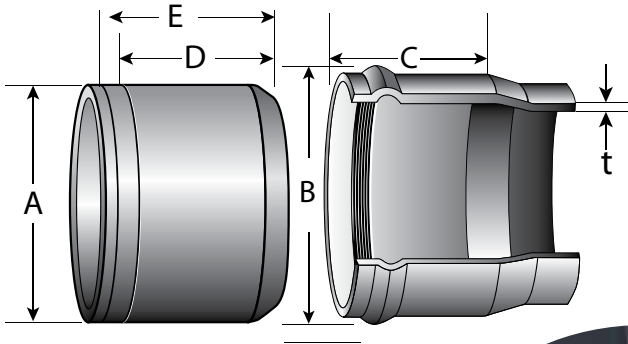


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### Rieber Joint Illustration



#### Extreme Testing Conditions

C900 PVC pressure pipe, available in pressure ratings for a wide range of water transfer applications (Available in sizes from 4" through 12")



### C900™

#### AWWA C900 SPECIFICATION DATA

Nominal Pipe Size in. (mm)	Outside Dia. A Inches	Bell Dia. B Inches	Approximate Bell Depth C Inches	Assembly Mark 1 (D) Inches #	Assembly Mark 2 (E) Inches #	C900 DR-14 305 psi Min Wall (t) Inches	C900 DR-18 235 psi Min Wall (t) Inches	C900 DR-25 165 psi Min Wall (t) Inches
4" (100)	4.800	6-1/2"	6	4-1/4"	5-1/4"	0.343	0.267	0.192
6" (150)	6.900	9-1/4"	6.5	4-5/8"	5-5/8"	0.493	0.383	0.276
8" (200)	9.050	11-3/4"	7	5-1/8"	6-1/8"	0.646	0.503	0.362
10" (250)	11.100	14-1/4"	7.5	5-3/4"	6-3/4"	0.793	0.617	0.444
12" (300)	13.200	16-3/4"	8	6-1/8"	7-1/8"	0.943	0.733	0.528

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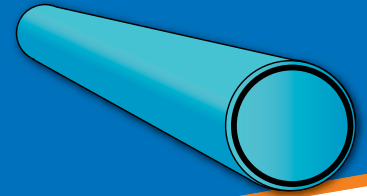
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DISTRIBUTION PIPE FOR THE 21st CENTURY



# C900 : PVC Pressure Pipe

LOADING CHART DATA



## Loading Data / NOTE:



\* Transportation regulations and the equipment utilized may increase or reduce the maximum footage per truckload.

### C900™

### AWWA C900 LOADING CHART

Nominal Pipe Size in. (mm)	Outside Diameter	Joints Per Bundle	Feet Per Bundle	*Feet Per Truckload
<b>DR-25 Pressure Rating 165</b>				
4" (100)	4.800	50	1,000	14,000
6" (150)	6.900	28	560	7,280
8" (200)	9.050	15\18\20\24	300-480	4,400
10" (250)	11.100	8\12	160\240	2,560
12" (300)	13.200	6\8	120\160	1,960
<b>DR-18 Pressure Rating 235</b>				
4" (100)	4.800	50	1,000	14,000
6" (150)	6.900	28	560	7,280
8" (200)	9.050	15\18\20\24	300-480	4,400
10" (250)	11.100	8\12	160\240	2,560
12" (300)	13.200	6\8	120\160	1,960
<b>DR-14 Pressure Rating 305</b>				
4" (100)	4.800	50	1,000	14,000
6" (150)	6.900	28	560	7,280
8" (200)	9.050	10\15	200\300	3,800
10" (250)	11.100	8\12	160\240	2,560
12" (300)	13.200	6\8\9\12	120\160\180\240	1,820

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DISTRIBUTION PIPE FOR THE 21st CENTURY



## Push Together Restraint

Diamond Lok-21® pushes together like standard gasketed PVC pipe. The restraint mechanism is located in the bell. It **does not require** couplings or splines; nuts, bolts and torque wrenches; butt fusion equipment; concrete thrust blocking or solvent cement.

## Fast, Simple and Reliable

Installation costs are dramatically reduced with Diamond Lok-21®. It is as fast as standard PVC pipe installation. It is as simple as clean, lubricate, align and insert and as reliable as PVC pipe. No special tools, no special machines, no special parts.

## PVC

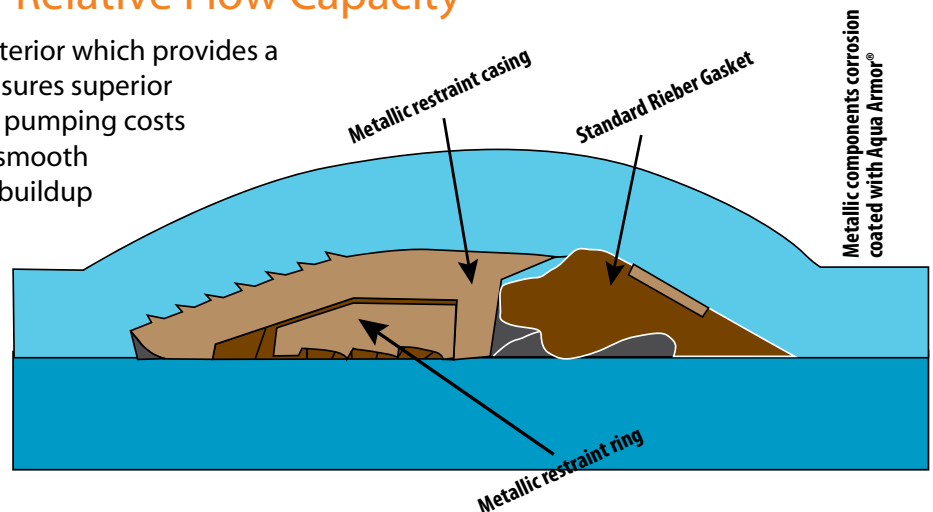
Diamond Lok-21® is made of PVC, a non-conductor of electricity, therefore immune to electrochemical reactions which cause corrosion. PVC is resistant to a wide range of chemicals which cause corrosion in non-PVC products. The restraint casing and lock ring are coated to resist corrosion and located on the non flow side of the gasket. No nuts and bolts to worry about. Because PVC does not corrode "Red Water" is not possible in a Diamond Lok-21® system.

## Rieber Gasketed Sealing System

Diamond Lok-21® has deep insertion push together gasketed joints utilizing Rieber sealing system technology. This has virtually eliminated the leaks from rolled or fish-mouthed gaskets.

## Smooth Interior/Greater Relative Flow Capacity

Diamond Lok-21® has a very smooth interior which provides a Hazen-Williams C Factor of 150. This ensures superior hydraulics over the long term reducing pumping costs and requiring much less cleaning. The smooth interior reduces unwanted by-product buildup and therefore does a much better job of maintaining initial water quality. Because PVC has much higher tensile HDB strength than HDPE, it has a larger I.D. for similarly pressure rated products and hence greater flow capacity.





Diamond Lok-21<sup>®</sup> restrained joint PVC pressure pipe is manufactured in accordance with AWWA C900 in sizes from 4" through 12" to a DR18 with a pressure rating of 235 psi (1620 kpa) and to a DR14 with a pressure rating of 305 psi (2160 kpa) as well as 16" and 24" in accordance with AWWA C905 to a DR25 with a pressure rating of 165 psi and DR18 with a pressure rating of 235 psi. It is manufactured to a cast iron outside diameter (CIOD). Therefore fittings, valves and other appurtenances are readily available.

It is manufactured from NSF Standard 61 authorized materials meeting a 12454 cell classification with a hydrostatic design basis (HDB) of 4000 psi.

Diamond Lok-21<sup>®</sup> is manufactured to meet or exceed the requirements of the following:

- AWWA C900 and AWWA C905 Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 4 inch through 12 inch as well as 16 inch and 24 inch (100 mm through 300 mm as well as 400mm and 600mm), for Water Distribution.

Diamond Lok-21<sup>®</sup>'s restraint system provides uniform circumferential contact thereby eliminating any concerns over point loading. Because it is a simple push together system, it dramatically reduces installation time while reducing complexity which exists for fused or bolted systems.

Diamond Lok-21<sup>®</sup> restrained joint PVC pipe is well suited for directional drilling operations, for installation through bore casings and most applications which require joint restraint. Because it is PVC, you know you are getting superior long-term performance.

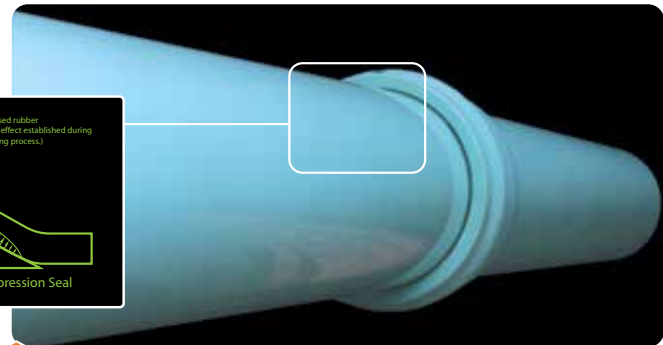
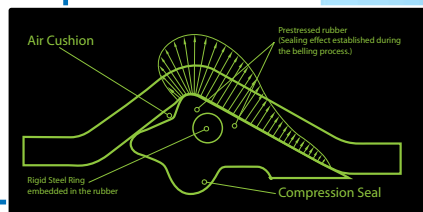


## Pipe Integrity

Diamond Lok-21<sup>®</sup> is each piece proof tested to twice its pressure rating. It has a short term safety factor greater than 3 against burst pressure and a long term safety factory of 2 on its pressure rating. All Diamond Lok-21<sup>®</sup> products utilize the Rieber sealing system technology which provides tremendous joint integrity under severe construction conditions.

### Gasket Diagram How it works?

"Rieber Sealing System Technology" is utilized in forming the gasket bell sockets of Diamond C900 PVC Pipe around the steel reinforced elastomeric seal meeting the requirements of ASTM F477.





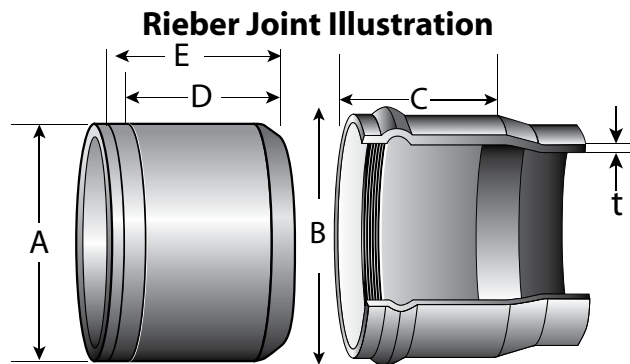
## Specification Data

Diamond Lok-21<sup>®</sup> restraint joint C900 DR18 and DR14 PVC pipe (4" through 12") as well as 16" and 24" C905 DR25 and DR18 is made of 12454 compound per ASTM D1784, in accordance with the dimensional, chemical, and physical requirements of AWWA C900 and C905.

Diamond Lok-21<sup>®</sup> restraint joint C900/C905 products bear the mark of NSF, International.

Diamond Lok-21<sup>®</sup> restraint joint C900/C905 products utilize the Bulldog Restraint System<sup>®</sup> with a Rieber gasket per ASTM F477 to seal the integral bell socket to the spigot of the next joint (which conforms to the requirements of ASTM D3139). Each male end is beveled to facilitate joint assembly, and the spigot is reference marked to ensure proper insertion depth.

Diamond furnished lubricant is to be used in the joining process.



### Diamond Lok-21<sup>®</sup> AWWA SPECIFICATION DATA

Nominal Pipe Size Inches(mm)	Outside Dia. A Inches	Bell Dia. B Inches	Approximate Bell Depth C Inches	Assembly Mark 1 (D) Inches #	Assembly Mark 2 (E) Inches #	DR-14 Min. Wall (t) Inches	DR-18 Min. Wall (t) Inches	DR-25 Min. Wall (t) Inches	Max. Pull-In Force, Straight Pull (No Bending) lbs.
<b>DR-14 Pressure Class 305 psi, DR-18 Pressure Class 235 psi or DR-25 Pressure Class 165psi</b>									
4" (100)	4.800	6-1/2"	8"	5-3/4"	6-3/4"	0.343	0.267		15,000
6" (150)	6.900	9-1/4"	8-1/2"	6-1/4"	7-1/4"	0.493	0.383		20,000
8" (200)	9.050	11-3/4"	9"	7-1/8"	8-1/8"	0.646	0.503		30,000
10" (250)	11.100	14-1/4"	9-1/2"	8"	9"	0.793	0.617		40,000
12" (300)	13.200	16-3/4"	10"	8-5/8"	9-5/8"	0.943	0.733		45,000
16" (400)	17.400	21-3/4"	13"	10-3/4"	11-3/4"	0.967	0.967	0.696	60,000
24" (600)	25.800	31-3/4"	17"	13-3/4"	14-3/4"	1.433	1.433	1.032	100,000

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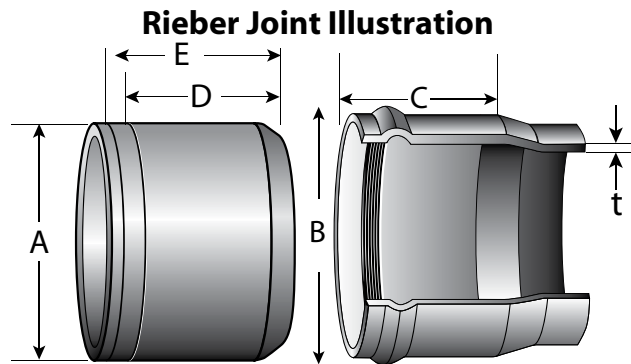
## Specification Data

Diamond LOK-21<sup>®</sup> restraint joint IPS (ASTM D2241) SDR 21 and 26, PVC pipe (3", 4", 6" and 8") is made of 12454 compound per ASTM D1784, in accordance with the dimensional, chemical, and physical requirements of ASTM D2241 for IPS sizes.

Diamond LOK-21<sup>®</sup> restraint joint IPS pipe bears the mark of NSF-61.

Diamond LOK-21<sup>®</sup> restraint joint IPS utilizes the Bulldog Restraint System with a Rieber gasket per ASTM F477 to seal the integral bell socket to the spigot of the next joint (which conforms to the requirements of ASTM D3139). Each male end is beveled to facilitate joint assembly, and the spigot is reference marked to ensure proper insertion depth.

Diamond furnished lubricant is to be used in the joining process.



### Diamond Lok-21<sup>®</sup>

Nominal Pipe Size Inches(mm)	Outside Diameter A Inches	Bell Diameter B Inches	Approximate Bell Depth C Inches	Assembly Mark 1 (D) Inches #	Assembly Mark 2 (E) Inches #	Minimum Wall (t) Inches
<b>SDR-21 Pressure Rated 200 psi</b>						
3" (.75)	3.500	4-7/16"	6-1/8"	5"	6"	0.167
4" (100)	4.500	5-1/2"	7"	5-5/8"	6-5/8"	0.214
6" (150)	6.625	8-1/4"	8"	6-3/4"	7-3/4"	0.316
8" (200)	8.625	10-1/4"	8"	6-7/8"	7-7/8"	0.410
<b>SDR26 Pressure Rated 160 psi</b>						
6" (150)	6.625	8-1/4"	8"	6-3/4"	7-3/4"	0.255
8" (200)	8.625	10-1/4"	8"	6-7/8"	7-7/8"	0.332

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## Short Form Specification for Water Transmission & Sewer Force Main Pipe

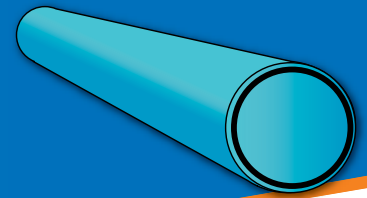
All restrained water transmission and sewer force main pipe shall be Diamond Lok-21<sup>®</sup> PVC pipe. It shall be made of compounds conforming to ASTM D1784 with a cell classification of 12454. It shall be manufactured in accordance with all requirements of AWWA C900 and supplied in 20 foot lengths. Gasketed joints shall meet the full dimensional requirements of ASTM D3139 and be formed using Rieber sealing system technology. The gaskets shall meet the requirements of ASTM F477. Pipe for potable water applications shall be manufactured from materials and ingredients authorized by National Sanitation Foundation (NSF).





# D2241: IPS PVC Pressure Pipe

SPECIFICATION DATA



## ASTM D2241 IPS SPECIFICATION DATA

Diamond IPS pressure-rated PVC pipe is made of compounds conforming to material requirements of ASTM D2241 in accordance with ASTM D1784. Pipe sizes (1 1/2" through 12") are made with an integral bell to utilize the Rieber gasket system for sealing, and meeting specifications defined in ASTM F477.

Diamond IPS pressure-rated PVC pipe meets all the dimensional, chemical, and physical requirements as outlined in ASTM D2241. Potable water pipe carries the mark of NSF, International in accordance with Standard 61.

Each male end shall be beveled to facilitate joining and reference marked to insure proper insertion depth. Diamond furnished lubricant is to be used in the joining process.



**Diamond IPS pressure-rated pipe is supplied in 22 foot laying lengths.**

## Physical Properties of PVC 12454:

Property	ASTM Test	Minimum
Specific Gravity	D792	1.40
Tensile Strength, psi	D638	7,000
Tensile Modulus, psi	D638	400,000
IZOD Impact Strength,	D256	.65ft., lb./in.



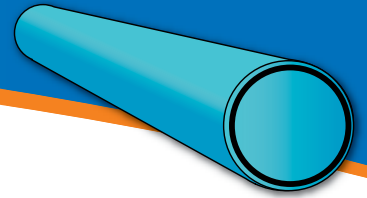
### SHORT FORM Specification for Diamond PVC Water Pipe

Diamond PVC Water Pipe shall be made of compounds conforming to ASTM D1784 with a cell classification of 12454. Diamond PVC Water Pipe must meet all the dimensional, chemical, and physical requirements as outlined in ASTM D2241 and will be supplied in 22 foot laying lengths. Joints shall be formed using Rieber Technology. Potable water pipe shall be manufactured from NSF listed ingredients.



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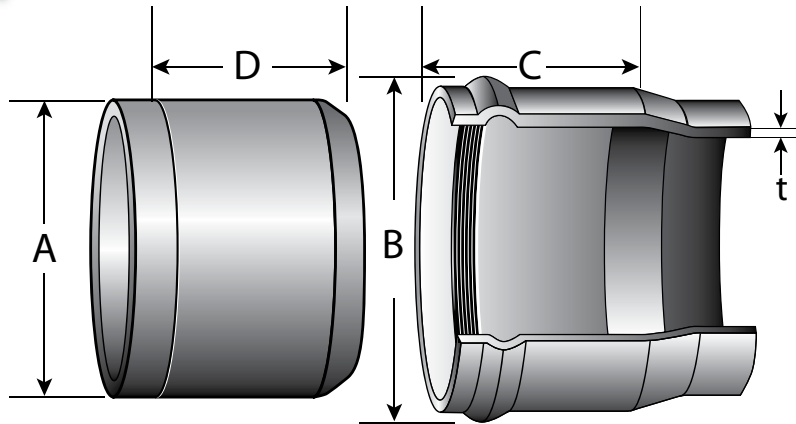




# D2241: IPS PVC Pressure Pipe

## SPECIFICATION DATA

**Rieber  
Joint  
Illustration**



ASTM D2241		SPECIFICATION DATA					
Nominal Pipe Size in. (mm)	Insert Mark D Inches #	Approximate Bell Depth C Inches	Bell Socket Diameter B Inches				
2" (50)	3-3/4"	4"	3-1/8"	Minimum Wall Thickness = (t)			
2.5" (62.5)	3"	5"	4-3/8"				
3" (75)	4-5/8"	4-1/2"	4-7/16"				
4" (100)	5-1/4"	4-3/4"	5-1/2"				
6" (150)	5-3/4"	5-1/2"	8-1/4"				
8" (200)	5-7/8"	6"	10-1/4"				
10" (250)	6-1/2"	6-1/2"	12-7/8"				
12" (300)	6-7/8"	7"	15-1/8"				
Nominal Pipe Size Inches	Outside Diameter A Inches	SDR 13.5 315 psi (t) Inches	SDR 17 250 psi (t) Inches	SDR 21 200 psi (t) Inches	SDR 26 160 psi (t) Inches	SDR 32.5 125 psi (t) Inches	SDR 41 100 psi (t) Inches
1.5" (37.5)	1.900	0.141	0.112	0.090			
2" (50)	2.375	0.176	0.140	0.113	0.091		
2.5" (62.5)	2.875	0.213	0.169	0.137	0.110		
3" (75)	3.500	0.259	0.206	0.167	0.135		
4" (100)	4.500	0.333	0.265	0.214	0.173	0.138	0.110
6" (150)	6.625	0.491	0.390	0.316	0.255	0.204	0.162
8" (200)	8.625		0.508	0.410	0.332	0.265	0.210
10" (250)	10.750		0.632	0.511	0.413	0.331	0.262
12" (300)	12.750		0.750	0.606	0.490	0.392	0.311

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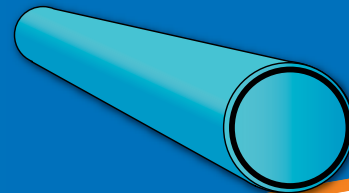


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# D2241: IPS PVC Pressure Pipe

## LOADING CHART



### Loading Data / NOTE:


\* Transportation regulations and the equipment utilized may increase or reduce the maximum footage per truckload.



IPS PVC pressure pipe is supplied in 20 and 22 foot laying lengths.

### ASTM D2241

### ASTM D2241 LOADING CHART

Nominal Pipe Size in. (mm)	Outside Diameter	Joints Per Bundle	Feet Per Bundle 20' laying lengths	*Feet Per Truckload 20' laying lengths	Feet Per Bundle 22' laying lengths	*Feet Per Truckload 22' laying lengths 
<b>SDR-41 Pressure Class 100psi</b>						
4" (100)	4.500	63	1,260	20,160	1,386	22,176
6" (150)	6.625	35\40	560/640/700/800	8,400	770\880	9,240
8" (200)	8.625	20\24	300/360/400/480	4,840	440\528	5,324
10" (250)	10.750	12\15	240/300	3,240	264\330	3,564
12" (300)	12.750	9\12	120/160/180/240	1,960	198\264	2,156
<b>SDR-32.5 Pressure Class 125psi</b>						
4" (100)	4.500	63	1,260	20,160	1,386	22,176
6" (150)	6.625	35\40	560/640/700/800	8,400	770\880	9,240
8" (200)	8.625	20\24	300/360/400/480	4,840	440\528	5,324
10" (250)	10.750	12\15	240/300	3,240	264\330	3,564
12" (300)	12.750	9\12	120/160/180/240	1,960	198\264	2,156
<b>SDR-26 Pressure Class 160psi</b>						
2" (50)	2.375	215			4,730	75,680
2.5" (62.5)	2.875	131			2,882	46,112
3" (75)	3.500	88\95			1,936\2,090	32,208
4" (100)	4.500	63	1,260	20,160	1,386	22,176
6" (150)	6.625	35\40	560/640/700/800	8,400	770\880	9,240
8" (200)	8.625	20\24	300/360/400/480	4,840	440\528	5,324
10" (250)	10.750	12\15	240/300	3,240	264\330	3,564
12" (300)	12.750	9\12	120/160/180/240	1,960	198\264	2,156

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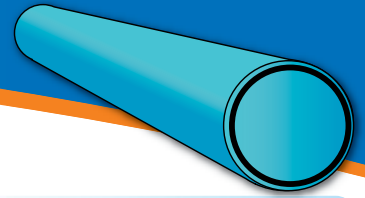


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# D2241: IPS PVC Pressure Pipe

## LOADING CHART



### Loading Data / NOTE:



\* Transportation regulations and the equipment utilized may increase or reduce the maximum footage per truckload.



IPS PVC pressure pipe is supplied in 20 and 22 foot laying lengths.

### ASTM D2241

### ASTM D2241 LOADING CHART

Nominal Pipe Size in. (mm)	Outside Diameter Inches	Joints Per Bundle	Feet Per Bundle 20' laying lengths	*Feet Per Truckload 20' laying lengths	Feet Per Bundle 22' laying lengths	*Feet Per Truckload 22' laying lengths
<b>SDR-21 Pressure Class 200psi</b>						
1-1/2" (37.5)	1.900	215			4,730	75,680
2" (50)	2.375	215			4,730	75,680
2-1/2" (62.5)	2.875	131			2,882	46,112
3" (75)	3.500	88\95			1,936\2,090	32,208
4" (100)	4.500	63	1,260	20,160	1,386	22,176
6" (150)	6.625	35\40	560\640\700\800	8,400	770\880	9,240
8" (200)	8.625	20\24	300\360\400\480	4,840	440\528	5,324
10" (250)	10.750	12\15	240\300	3,240	264\330	3,564
12" (300)	12.750	9\12	120\160\180\240	1,960	198\264	2,156
<b>SDR-17 Pressure Class 250psi</b>						
2" (50)	2.375	215			4,730	75,680
2-1/2" (62.5)	2.875	131			2,882	46,112
3" (75)	3.500	88\95			1,936\2,090	32,208
4" (100)	4.500	63	1,260	20,160	1,386	22,176
6" (150)	6.625	35\40	560\640\700\800	8,400	770\880	9,240
8" (200)	8.625	20\24	300\360\400\480	4,840	440\528	5,324
10" (250)	10.750	12\15	240\300	3,240	264\330	3,564
12" (300)	12.750	9\12	120\160\180\240	1,960	198\264	2,156
<b>SDR-13.5 Pressure Class 315psi</b>						
2" (50)	2.375	215			4,730	75,680
2-1/2" (62.5)	2.875	131			2,882	46,112
3" (75)	3.500	88\95			1,936\2,090	32,208
4" (100)	4.500	63	1,260	20,160	1,386	22,176
6" (150)	6.625	35\40	560\640\700\800	8,400	770\880	9,240

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# Sani-21™: PVC Sewer Pipe

SPECIFICATION DATA



## D3034 & F679 SEWER SPECIFICATION DATA

Diamond gravity sewer pipe 4 inches through 60 inches shall be made of compounds conforming to material requirements of ASTM D3034 and ASTM F679 in accordance with ASTM D1784. Diamond PVC Sewer Pipe meets all the dimensional, chemical, and physical requirements as outlined in ASTM D3034 and ASTM F679. A listing to CSA B182.2 is available for most of these sizes. A complete listing by manufacturing plant is available upon request.

The pipe sizes 4 inches through 60 inches are made with an integral bell "water-tight" joint that meets the requirements of ASTM D3212 and that utilizes a Rieber gasket system for sealing that meets the requirements of ASTM F477.



Each male end shall be beveled to facilitate joining and referencing marked for proper insertion depth. Diamond furnished lubricant is to be used in the joining process.

### Physical Properties of ASTM D3034 & F679

#### Pipe Materials:

Pipe shall be made of PVC plastic having a minimum cell classification of 12454 or 12364 as defined in Specification D1784.

Property	ASTM Test	Minimum
Specific Gravity	D792	1.40/1.40
Tensile Strength, psi	D638	7,000/6,000
Tensile Modulus, psi	D638	400,000/500,000
IZOD Impact Strength,	D256	.65ft., lb./in.



#### SHORT FORM Specification for Diamond PVC Solid-Wall Sewer Pipe SDR 26 or SDR 35 or PS 46 or PS 115

All PVC Solid-Wall Sewer Pipe shall be made of compounds conforming to ASTM D1784 manufactured in accordance with the material requirements of ASTM D3034 or ASTM F679. All PVC Sewer Pipe must meet dimensional, chemical, and physical requirements as outlined in ASTM D3034 or ASTM F679. Joints shall meet the requirements of ASTM D3212 and shall be formed using Rieber Technology.

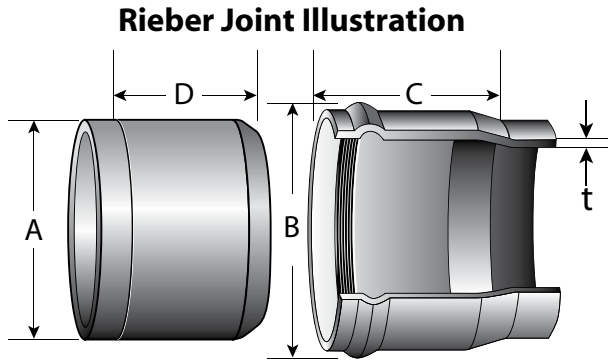
PVC Sewer Pipe shall be installed according to the requirements of ASTM D2321, Uni-Bell's Uni-Pub 6 and the manufacturer's recommendations.



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# Sani-21™: PVC Sewer Pipe

SPECIFICATION DATA



Sani-21 is supplied in 14 foot and 22 foot laying lengths.

Nominal Pipe Size in. (mm)		Outside Diameter A Inches	Bell Socket Diameter B Inches	Socket Depth C Inches	Insert Mark D Inches #	Wall Thickness SDR26/PS115 (t) Inches	Wall Thickness SDR35/PS46 (t) Inches	
<b>Sani-21™ D3034 &amp; F679 SEWER SPECIFICATION DATA</b>								
<b>D-3034 Pipe Dimensions</b>								
4"	(100)	4.215	5-1/4	4-5/8"	4"	0.162	0.120	
6"	(150)	6.275	7-1/2	4-3/4"	4-1/8"	0.241	0.180	
8"	(200)	8.400	9-7/8	6-1/8"	4-7/8"	0.323	0.240	
10"	(250)	10.500	12-3/8	6-3/4"	5-1/4"	0.404	0.300	
12"	(300)	12.500	14-5/8	7-1/4"	5-1/2"	0.481	0.360	
15"	(375)	15.300	18	7-1/4"	4-5/8"	0.588	0.437	
<b>F-679 Pipe Dimensions</b>								
18"	(450)	18.701	21-3/4"	9-1/2"	7-3/4"	0.671	0.499	
21"	(525)	22.047	25-1/2"	10"	8-1/2"	0.791	0.588	
24"	(600)	24.803	28-3/4"	11"	10"	0.889	0.661	
27"	(675)	27.953	32-1/2"	13-1/4"	11-1/8"	1.002	0.745	
30"	ciod (750)	32.000	37-1/4"	14"	13-5/8"	1.148	0.853	
36"	ciod (900)	38.300	43-1/4"	15"	13-7/8"	1.373	1.021	
42"	ciod (1050)	44.500	53"	18"	16-3/4"	1.596	1.187	
48"	ciod (1200)	50.800	60"	18"	16-7/8"		1.355	
54"	ciod (1350)	57.560	67"	*	*	2.227	1.641	
60"	ciod (1500)	61.610	72"	*	*	2.384	1.756	
*Contact manufacturer for specific information.								
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# Sani-21™: PVC Sewer Pipe

LOADING DATA

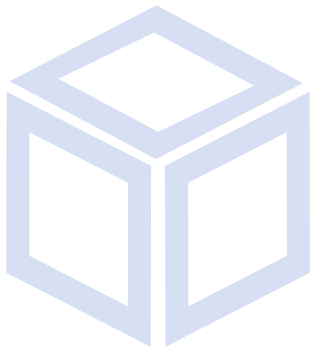


## LOADING D3034 & F679 SANI-21 PVC SEWER PIPE

Sani-21™

ASTM D3034 & F679 Loading Chart (SDR35 / PS46)

Nominal Pipe Size in. (mm)	O.D. Inches	Bundle Quantity	*Feet Per Truckload	
			14'	20'
<b>SDR35/PS46</b>				
4" (100)	4.215	69	23,184	24,288
6" (150)	6.275	24/32	10,080	11,264
8" (200)	8.400	18/24	5544/6048	5808/6336
10" (250)	10.500	12/15	3402	3564
12" (300)	12.500	16	2688	2816
15" (375)	15.300	6	1512	1584
18" (450)	18.701	2/3/4/6	1050	1100
21" (525)	22.047	4	672	704
24" (600)	24.803	4	504/672	704
27" (675)	27.953	3	378	
30" (750)	32.000	3	378/252	
36" (900)	38.300	2	168	
42" (1050)	44.500	2	168	
48" (1200)	50.800	1	84	
54" (1350)	57.560	1	42	
60" (1500)	61.610	1	42	



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### Loading Data / NOTE:

\* Transportation regulations and the equipment utilized may increase or reduce the maximum footage per truckload.



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SANITARY SEWER PIPE FOR THE 21st CENTURY

# Sani-21™: PVC Sewer Pipe

SPECIFICATION DATA



LOADING D3034 & F679 SANI-21 PVC SEWER PIPE

Sani-21™

ASTM D3034 & F679 Loading Chart (SDR26 / PS115)

Nominal Pipe Size in. (mm)	O.D. Inches	Min. Wall (t) Inches	Bundle Quantity	*Feet Per Truckload	
				14'	22'
SDR26/PS115					
4" (100)	4.215	.162	69	23,184	24,288
6" (150)	6.275	.241	24/32	10,080	11,264
8" (200)	8.400	.323	18/24	5544/6048	5808/6336
10" (250)	10.500	.404	12/15	3402	3564
12" (300)	12.500	.481	16	2688	2816
15" (375)	15.300	.588	6	1512	1584
18" (450)	18.701	.671	2/3/4/6	1050	
21" (525)	22.047	.791	4	672	
24" (600)	24.803	.889	4	672	
27" (675)	27.953	1.002	3	378	
30" (750)	32.000	1.148	3	378/252	
36" (900)	38.300	1.373	2	168	
42" (1050)	44.500	1.596	2	168	
48" (1200)	50.800	1.954	1	84	
54" (1350)	57.560	2.227	1	42	
60" (1500)	61.610	2.384	1	42	



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**Loading Data / NOTE:**

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**CORR-21 PVC pipe,**  
**Corrugated low pressure irrigation,**  
**storm water and sanitary sewer applications**  
(Available in sizes from 12" through 48")

Diamond gravity sewer pipe 12 inches through 48 inches shall be made of compounds conforming to material requirements of ASTM F949 and ASTM F794 in accordance with ASTM D1784. Diamond PVC Corrugated Sewer Pipe has a minimum pipe stiffness of 50 psi and meets all the dimensional, chemical, and physical requirements as outlined in ASTM F949 and ASTM F794 and AASHTO M304.

The pipe sizes 12 inches through 42 inches w/46 inches are made with an integral bell "water-tight" joint that meets the requirements of ASTM D3212 and that utilizes an elastomeric seal that meets the requirements of ASTM F477.

Each male end shall be formed to facilitate joining and shall be reference marked for proper insertion depth. Diamond furnished lubricant is to be used in the joining process.



**Physical Properties of ASTM F949 ASTM F794  
AASHTO M304-03:**

Property	ASTM	Minimum Test
Specific Gravity	D792	1.42
Tensile Strength, psi	D638	7,000
IZOD Impact Strength	D256	.65ft., lb./in of notch

**Pipe Materials:** Pipe shall be made of compounds to the material requirements of ASTM F949 and ASTM F794 in accordance with Specification D1784.

**SHORT FORM Specification for PVC Sewer Pipe**

Corr-21 PVC Gravity Sewer and Drain Pipe Sizes 12" - 48"

All sewer pipe shall be Diamond Corr-21 PVC corrugated sewer pipe with a seamless profile wall made of compounds classified as 12364 or 12454 as defined in ASTM D1784 and manufactured in accordance with ASTM F949 and ASTM F794. It shall have a minimum pipe stiffness of 50 psi. Pipe shall have a smooth interior with a corrugated cross-sectional rib exterior. Exterior corrugations shall be perpendicular to the axis of the pipe to allow placement of the sealing gasket without additional cutting or machining. It shall have a symmetrical dual three point gasketed joint sealing system with an allowable infiltration of 25 gallons per inch of internal diameter per mile per day or less, and meet the requirements of ASTM D3212. All sewer pipe shall be installed in accordance with ASTM D2321 and the manufacturer's recommendations.



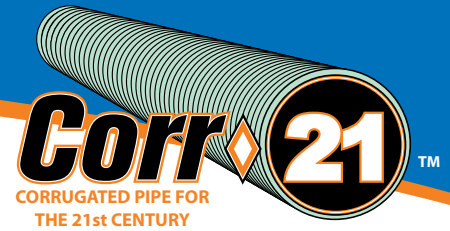
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# Corr-21™

SPECIFICATION DATA



Corr-21 is supplied in 14 foot laying lengths.



CORR-21™ ASTM F794 & F949 SPECIFICATION DATA						Strength
Nominal Pipe Size in. (mm)	Average Outside Diameter	Approximate Bell Socket Diameter	Socket Depth	Insert Reference Mark	Minimum Pipe Stiffness	
<b>CORR-21™ Pipe Dimensions</b>						
12" (300)	12.795	16-1/2"	7-1/2"	6"	50	
15" (375)	15.658	18-1/2"	8"	7-1/2"	50	
18" (450)	19.152	22-1/2"	8-1/2"	7"	50	
21" (525)	22.630	26-1/2"	10-1/2"	9"	50	
24" (600)	25.580	29-1/2"	11-1/2"	10"	50	
27" (675)	28.860	33-1/2"	11-1/2"	9"	50	
30" (750)	32.150	37"	11-1/2"	9"	50	
36" (900)	38.740	44-1/2"	11-1/2"	11"	50	
42" (1050)	45.800	52-1/2"	10-1/2"	10"	50	
48" (1200)	52.800	60-1/2"	14"	13"	50	

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**SHORT FORM Specification for PVC Sewer Pipe**

Corr-21 PVC Gravity Sewer and Drain Pipe Sizes 12" - 48"

All sewer pipe shall be Diamond Corr-21 PVC corrugated sewer pipe with a seamless profile wall made of compounds classified as 12364 or 12454 as defined in ASTM D1784 and manufactured in accordance with ASTM F949 and ASTM F794. It shall have a minimum pipe stiffness of 50 psi. Pipe shall have a smooth interior with a corrugated cross-sectional rib exterior. Exterior corrugations shall be perpendicular to the axis of the pipe to allow placement of the sealing gasket without additional cutting or machining. It shall have a symmetrical dual three point gasketed joint sealing system with an allowable infiltration of 25 gallons per inch of internal diameter per mile per day or less, and meet the requirements of ASTM D3212. All sewer pipe shall be installed in accordance with ASTM D2321 and the manufacturer's recommendations.



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**Loading Data / NOTE:**



\* Transportation regulations and the equipment utilized may increase or reduce the maximum footage per truckload.



Corr-21 is supplied in 14 foot laying lengths.

**CORR-21™**

ASTM F794 & F949 LOADING DATA

Nominal Pipe Size in. (mm)	Average Outside Diameter Inches	Pieces Per Bundle	Pieces Per Truckload 14'jts.	*Feet Per Truckload 14'jts.		
<b>Pipe Dimensions</b>						
12" (300)	12.795	9, 12, 16	147	2,058		
15" (375)	15.658	9	108	1,512		
18" (450)	19.152	4, 6	60	840		
21" (525)	22.630	4	48	672		
24" (600)	25.580	3	27	378		
27" (675)	28.860	3	27	378		
30" (750)	32.150	3	27	378		
36" (900)	38.740	2	12	168		
42" (1050)	45.800	2	12	168		
48" (1200)	52.800	1	6	84		

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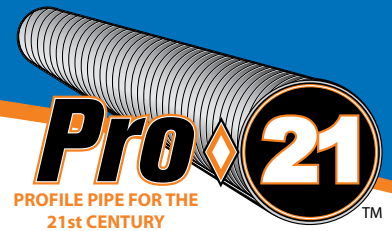


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# Pro-21™

SPECIFICATION DATA



## PRO-21™ SPECIFICATION DATA

Diamond "PRO-21" closed profile pipe is produced by extruding an "I-beam" type profile that is in turn wrapped onto a circular mandrel providing a continuous tube with a helical heat welded seam. The result is a pipe of solid wall appearance from the inside and outside which has the structural advantages of the "honeycomb or I-beam" construction internal to the pipe wall itself. This results in a product which meets the performance requirements of a solid wall while providing the advantage of lighter weight. Diamond "PRO-21" meets all requirements of ASTM F1803.

Diamond's Closed Profile Pipe is made with PVC compounds that meet the requirements for cell class 12364 as described in ASTM D1784. Integral bell sockets meet the requirements of ASTM D3212. Pipe gaskets meet the requirements of ASTM F477.



### SHORT FORM Specification for PVC Sewer Pipe

Pro-21 PVC Gravity Sewer and Drain Pipe Sizes 30" - 60"

All sanitary sewer and storm drain pipe shall be Diamond Plastics Pro-21 PVC profile wall sewer pipe made of compounds meeting the minimum cell classification of 12364 as defined in ASTM D1784 and manufactured in accordance with ASTM F 1803. It shall have a smooth interior and exterior. It shall have a gasket with four sealing fins and a resilient wedge bevel. The joint shall meet all the requirements of ASTM D3212. The joint shall meet an allowable infiltration of 25 gallons per inch of internal diameter per mile per day or less. All PVC sewer pipe shall be installed in accordance with ASTM D2321, Uni-Bell's Uni-Pub 6 and the manufacturer's recommendations.

**PRO-21 is supplied in 14 foot laying lengths.**

PRO-21™		SPECIFICATION DATA		
Nominal Pipe Size in. (mm)	Average Outside Diameter Inches	Bell Outside Diameter Inches	Minimum Inside Diameter Inches	
<b>Pipe Dimensions</b>				
30" (750)	31.606	35"	29.410	
33" (825)	35.036	38-1/2"	32.405	
36" (900)	38.036	41-3/4"	35.395	
42" (1050)	44.200	48-1/2"	41.375	
48" (1200)	50.570	55"	47.360	
54" (1350)	57.100	61-1/2"	53.350	
60" (1500)	63.932	69-1/2"	59.340	

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# Pro-21™

LOADING CHART





### Loading Data / NOTE:



\* Transportation regulations and the equipment utilized may increase or reduce the maximum footage per truckload.

**PRO-21 is supplied in 14 foot laying lengths.**

PRO-21™		F1803 LOADING CHART			
Nominal Pipe Size in. (mm)	Average Outside Diameter	Pieces Per Bundle	14' Length Pieces Per Truckload	*Feet Per Truckload	
<b>Pipe Dimesions</b>					
30" (750)	31.606	3	27	378	
33" (825)	35.036	2	12	168	
36" (900)	38.036	2	12	168	
42" (1050)	44.200	2	12	168	
48" (1200)	50.570	1	12	168	
54" (1350)	57.100	1	6	84	
60" (1500)	63.932	1	3	42	

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Diamond's "Closed Profile" PVC pipe meets the requirements of ASTM F1803.

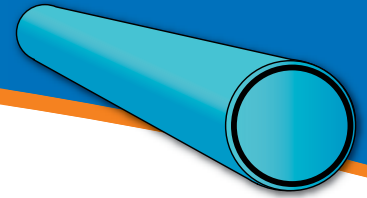


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# PIPTM Low Head

SPECIFICATION DATA



## PIP SPECIFICATION DATA

Diamond Low-Head PIP is made of compounds conforming to material requirements of ANSI/ASAE S3761.1 and SCS 430. The Pipe sizes (6" through 15") 50 psi are made with an integral bell to utilize a gasket for sealing, meeting requirements as defined in ASTM F477. 100 ft. head is made with an integral bell for solvent cement joint assembly.

Diamond Low-Head PIP PVC pipe meets all the requirements as outlined in ANSI/ASAE S376.1 and SCS 430.

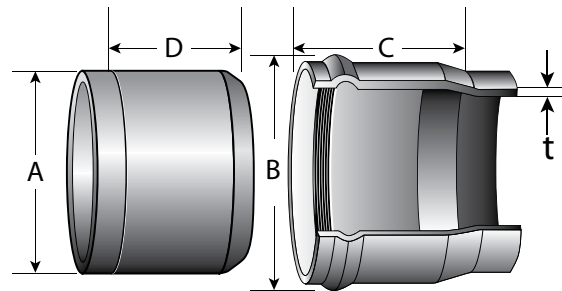
Each male end shall be beveled, swagged or deburred to facilitate joining and gasketed joints shall be marked to reference proper insertion depth. Only Diamond furnished lubricant is to be used in the joining process.

It is recommended that Low-Head PIP PVC piping systems be designed and installed in accordance with SCS 430.

**Standard length is either 44 foot or 22 foot, depending upon diameter.**



### Rieber Joint Illustration



**Pipe Dimensions:** minimum wall thickness = (t)

## PIP

ASTM D2241 ANNEX SPECIFICATION DATA

Nominal Pipe Size in. (mm)	Outside Diameter A Inches	Bell Socket Diameter B Inches	Bell Depth C Inches	Insert Mark D Inches	SDR 81 50 PSI (t) Inches
6" x 44' (150)	6.140	7-1/2"	5-1/2"	4-1/2"	0.076
8" x 44' (200)	8.160	10"	5-1/2"	4-1/2"	0.101
10" x 44' (250)	10.200	12"	6-1/2"	5-1/2"	0.126
12" x 44' (300)	12.240	14"	6-1/2"	5-1/2"	0.151
15" x 22' (375)	15.300	17-1/2"	7"	6"	0.212

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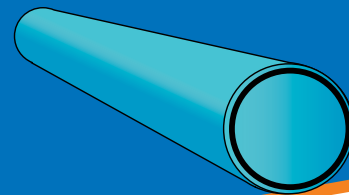


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# PIP Low Head

LOADING CHART





## PIP

LOW HEAD IRRIGATION PIPE - LOADING CHART

This product is manufactured in Lubbock, TX. Shipping distance may impact availability.

### PIP

ASTM D2241 ANNEX LOW HEAD 50 PSI CHART

Nominal Pipe Size in. (mm)	Average Outside Diameter	Approx. Inside Diameter	Minimum Wall Thickness	Pieces Per Bundle	Feet Per Bundle	*Feet Per Truckload	
<b>SDR-81 50 PSI</b>							
6" (150)	6.140	5.988	.076	28/32	1,232/1,408	10,560	
8" (200)	8.160	7.958	.101	18	792	6,336	
10" (250)	10.200	9.948	.126	8/10	352/440	3,960	
12" (300)	12.240	11.938	.151	8	352	2,465	
15" (375)	15.300	14.922	.189	6	132	1,584	

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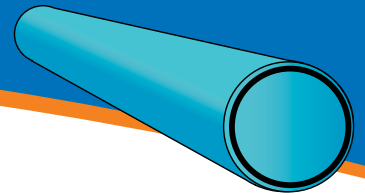


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# Pressure Rated PIP

SPECIFICATION DATA



## PIP SPECIFICATION DATA

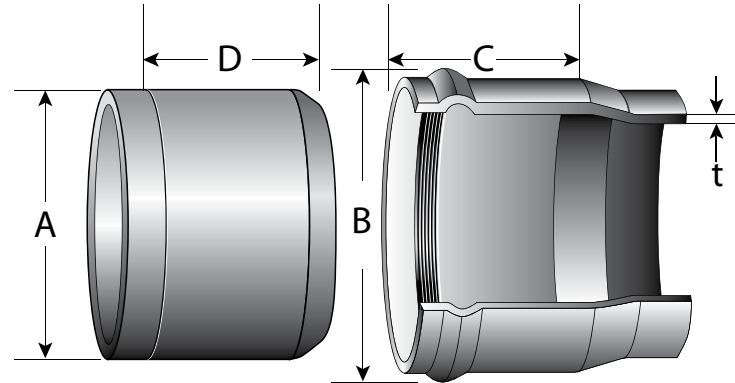
Diamond PIP pressure-rated pipe (4" through 27") is made of compounds conforming to material requirements of ANSI/ASAE S376.1 and SCS 430. The pipe sizes (6" through 27") are made with an integral bell to utilize a gasket for sealing, meeting requirements as defined in ASTM F477.

Diamond PIP pressure-rated PVC pipe meets all the dimensional, chemical and physical requirements as outlined in ANSI/ASAE S376.1 and SCS 430. Diamond PIP pressure-rated pipe (15" through 27") meets all the dimensional, chemical and physical requirements as defined in ASTM DD2241 ANNEX.

Each male end shall be beveled, swagged or deburred to facilitate joining and shall be marked to reference proper insertion depth. Only Diamond furnished lubricant is to be used in the joining process.

It is recommended that PIP Pressure-Rated PVC Piping systems be designed and installed in accordance with SCS 430.


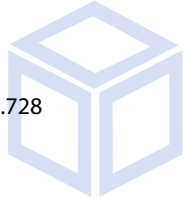
## Rieber Joint Illustration



Diamond PIP Pressure-Rated PVC pipe is supplied in 22-foot laying lengths.

Minimum Wall Thickness = (t)

### Pressure Rated PIP ASTM D2241 ANNEX SPECIFICATION DATA

Nominal Pipe Size in. (mm)	Outside Diameter A Inches	Bell Socket Diameter B Inches	Bell Depth C Inches	Insert Mark D Inches	SDR-51	SDR-41	SDR-32.5	SDR-26	SDR-21	
					80 PSI	100 PSI	125 PSI	160 PSI	200 PSI	
6" (150)	6.140	7-1/2"	5-1/2"	4-1/2"	0.120	0.150	0.189			
8" (200)	8.160	10"	5-1/2"	4-1/2"	0.160	0.199	0.251			
10" (250)	10.200	12"	6-1/2"	5-1/2"	0.200	0.249	0.314			
12" (300)	12.240	14"	6-1/2"	5-1/2"	0.240	0.299	0.377			
15" (375)	15.300	17-1/2"	7"	6"	0.300	0.373	0.471	0.588	0.728	
18" (450)	18.701	21-1/2"	8"	7"	0.367	0.456	0.575	0.719		
21" (525)	22.047	25-1/4"	8"	7"	0.432	0.538	0.678			
24" (600)	24.803	28"	9"	8"	0.486	0.605	0.763			
27" (675)	27.953	32-1/2"	12"	9-1/2"	0.548	0.682	0.860			

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Socket & Minimum Wall Dimensions, all dimensions are in inches

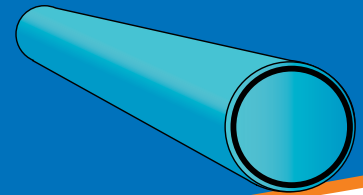


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# PVC Pressure Pipe

## LOADING CHART



### Loading Data / NOTE:

\* Transportation regulations and the equipment utilized may increase or reduce the maximum footage per truckload.



### Pressure Rated PIP

ASTM D2241 ANNEX SPECIFICATIONS

Nominal Pipe Size in. (mm)	Outside Diameter A Inches	Pieces Per Bundle	Feet Per Bundle	*Feet Per Truckload
<b>SDR-51, 80 PSI</b>				
6" (150)	6.140	28/32	616/704	11,264
8" (200)	8.160	15/18	330/396	6,336
10" (250)	10.200	8/10	176/220	3,960
12" (300)	12.240	6/8	132/176	2,816
15" (375)	15.300	6	132	1,584
18" (450)	18.701	2/3/4/6	44///132	1,100
21" (525)	22.047	4	88	704
24" (600)	24.803	4	88	704
27" (675)	27.953	3	66	396
<b>SDR-41, 100 PSI</b>				
6" (150)	6.140	28/32	616/704	11,264
8" (200)	8.160	15/18	330/396	6,336
10" (250)	10.200	8/10	176/220	3,960
12" (300)	12.240	6/8	132/176	2,816
15" (375)	15.300	6	132	1,584
18" (450)	18.701	2/3/4/6	44///132	1,100
21" (525)	22.047	4	88	704
24" (600)	24.803	4	88	704
27" (675)	27.953	3	66	396
<b>SDR-32.5, 125 PSI</b>				
6" (150)	6.140	28/32	616/704	11,264
8" (200)	8.160	15/18	330/396	6,336
10" (250)	10.200	8/10	176/220	3,960
12" (300)	12.240	6/8	132/176	2,816
15" (375)	15.300	6	132	1,584
18" (450)	18.701	2/3/4/6	44///132	1,100
21" (525)	22.047	4	88	704
24" (600)	24.803	4	88	704
27" (675)	27.953	3	66	396
<b>SDR-26, 160 PSI</b>				
15" (375)	15.300	6	132	1,584
18" (450)	18.701	2/3/4/6	44///132	1,100
21" (525)	22.047	4	88	704

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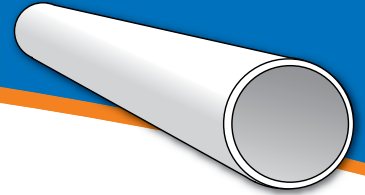
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# PVC-gated™ SURFACE

SPECIFICATION DATA



## PVC-gated™ SPECIFICATION DATA

PVC Pipe for the 21st Century™

### Operating Pressure:

Diamond gated pipe (with gates installed) is pressure-rated at 22 psi.

### Gate Hole Size:

Standard rectangle 1.25 x 2.625  
Large "Hi-capacity" 1.25 x 3.325

### Benefits of Diamond Plastic's PVC pipe include:

- Pipes won't rust or corrode
- Less friction loss
- Resiliency and dent resistance
- Non-conductor (no electrolysis)
- Built with a Sunlight (UV) resistant compounding

WaterGate™ meets or exceeds SCS 430HH

PVC-gated™ is supplied in 30 foot laying lengths.



## Area of Gate Opening

SPECIFICATION DATA

Setting	Standard	Large "High Capacity"
1/4	0.57 Sq. In.	0.85 Sq. In.
1/2	1.25 Sq. In.	1.57 Sq. In.
3/4	1.90 Sq. In.	2.38 Sq. In.
Full Open	2.39 Sq. In.	3.21 Sq. In.
Hole w/o Gate	3.28 Sq. In.	4.15 Sq. In.
Hole Size	1.25 x 2.625	1.25 x 3.325



## Standard Hole & Large (High Capacity) Hole (gallons per minute)

Head Pressure Inches water	FULL OPEN		3/4 OPEN		1/2 OPEN		1/4 OPEN		All Data In Gallons Per Minute
	Standard	Large	Standard	Large	Standard	Large	Standard	Large	
3"	38.4	48.0	28.6	34.3	19.0	22.8	8.6	11.3	
6"	45.1	56.6	33.0	39.6	21.7	26.0	9.7	12.8	
9"	50.3	62.8	37.0	44.4	24.7	29.6	11.0	14.5	
12"	55.8	69.7	43.3	51.9	26.9	32.2	12.2	16.1	
18"	64.6	80.7	48.2	57.8	31.7	38.0	14.0	18.4	
24"	73.0	91.2	53.6	64.3	35.6	42.7	15.8	20.8	
30"	76.4	95.5	57.6	69.0	38.3	45.9	17.2	22.7	
36"	82.6	103.2	62.5	75.0	41.4	49.6	18.6	24.5	
48"	95.0	118.7	75.6	90.7	47.4	56.8	21.0	27.7	
60"	101.9	127.3	82.2	96.6	50.0	60.0	23.4	30.8	

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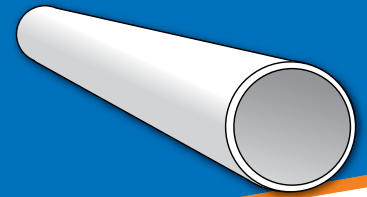


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# PVC-gated™ SURFACE

## LOADING CHART



### Loading Data / NOTE:



\* Transportation regulations and the equipment utilized may increase or reduce the maximum footage per truckload.

WaterGate Pipe Meets or Exceeds SCS Practice 430HH.

WaterGate™ LOADING CHART							
Outside Diameter in. (mm)	Joint Laying Length	Minimum Wall Thickness	Pieces Per Bundle	Feet Per Bundle	Bundles Per Load	Pieces Per Load	*Feet Per Truckload
<b>WATERGATE</b> Plain Pipe = Flow Line							
6" (150)	30'	.120	32	960	8	256	7,680
8" (200)	30'	.120	18	540	8	144	4,320
10" (250)	30'	.120	8/10	240/300	10	90	2,700
12" (300)	30'	.120	8	240	8	64	1,920

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Diamond-Lite™ GATED LOADING CHART							
Outside Diameter in. (mm)	Joint Laying Length	Minimum Wall Thickness	Pieces Per Bundle	Feet Per Bundle	Bundles Per Load	Pieces Per Load	*Feet Per Truckload
<b>DIAMOND-LITE</b> Plain Pipe = Flow Line							
6" (150)	20'	.090	32	640	16	512	10,240
6" (150)	30'	.090	32	960	8	256	7,680
8" (200)	20'	.100	18	360	16	288	8,640
8" (200)	30'	.100	18	540	8	144	4,320
10" (250)	30'	.110	10	300	10	100	3,000

"Possession of this page does not constitute an offer of sale"

Prices are subject to a firm policy of "Price in effect at time of shipment on regular purchases"



Corporate Headquarters • 1212 Johnstown Road • P.O. Box 1608 • Grand Island, NE 68802-1608

PVC PIPE FOR THE 21st CENTURY



# Limited Warranty & Liability

PVC PIPE FOR THE 21st CENTURY

## LIMITED WARRANTY AND LIABILITY

Diamond Plastics Corporation, 1212 Johnstown Road, P.O. Box 1608, Grand Island, NE 68802, does hereby warrant, subject to the limitations hereinafter stated, its PVC Pipe to be free from defects in material and workmanship under normal use and service for a period of twelve (12) months from the date of invoice. This limited warranty extends only to the original purchaser for use, and will be void if the product is used under conditions other than those for which it was designed or if it is not used in compliance with all instructions contained in any operating manual or specification sheets provided for such product.

**The sole obligation of Diamond Plastics Corporation, under this limited warranty, and the exclusive remedy of the purchaser under this limited warranty is the repair or replacement, without charge, F.O.B. shipping point, of such products or parts of products only, specifically excluding any labor or installation thereof, which Diamond Plastics Corporation, after inspection, determines to be defective.** Purchaser must notify Diamond Plastics Corporation, in writing at its address shown above within ten (10) days from the date of discovery of any claimed defect specifically stating the details of such defect, and, if requested by Diamond Plastics Corporation, return the defective product, freight prepaid, to Diamond Plastics Corporation, F.O.B. shipping point as shown on Diamond Plastics Corporation's order acknowledgement.

Diamond Plastics Corporation shall not be liable for any other damages, whether direct or consequential. Specifically, but without limitation, Diamond Plastics Corporation shall not be liable for any crop damage or any other incidental or consequential damages resulting from any breach of warranty, express or implied, or from any defects in its products.

No statement, remark, agreement, representation, promise or understanding, oral or written, made by Diamond Plastics Corporation, or any agent, representative or employee thereof, which is not contained herein, will be recognized by, or be enforceable or binding upon Diamond Plastics Corporation.

There are no understandings or undertakings of any kind with respect to the products or any part thereof which are not expressly set forth and contained herein, and all sales are made without any representation or warranty by Diamond Plastics Corporation that the goods are suitable for any particular purpose. In the event any provision of this LIMITED WARRANTY AND LIMITATION OF LIABILITY is held to be illegal or unenforceable by any court of competent jurisdiction, the remaining provisions shall remain in full force and effect.

STATUTE OF LIMITATION: Any action for breach of this LIMITED WARRANTY AND LIMITATION OF LIABILITY must be commenced within one (1) year after the cause of action has accrued.

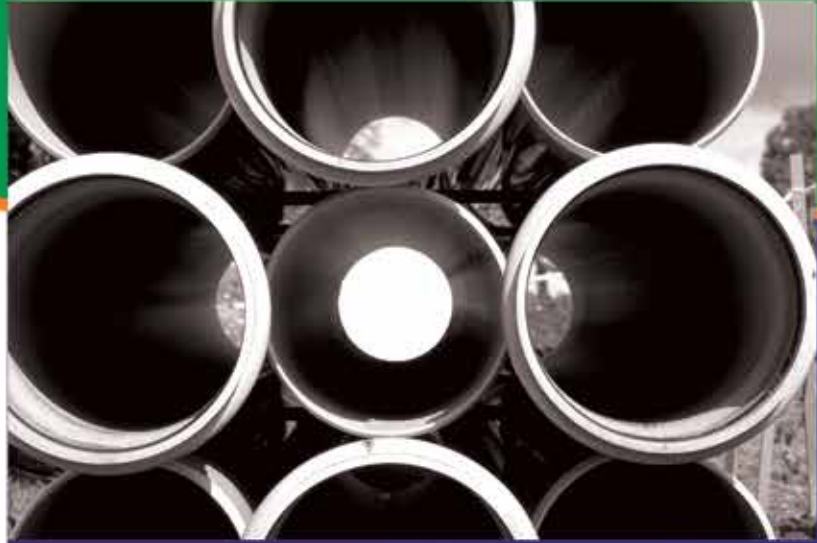
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PVC PIPE FOR THE 21st CENTURY



# Quality

You can  
depend on...

Diamond Plastics Corporation manufactures PVC pipe products for portable water distribution systems, for wastewater collection systems, and for irrigation and agricultural applications.

Our staff of sales and service personnel are ready to assist you in product selection and to answer your questions of delivery or order status.



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1212 Johnstown Road  
P.O. Box 1608  
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[www.dpcpipe.com](http://www.dpcpipe.com)

Please contact Diamond Plastics by locating your local Sales Representative on our webpage under "Resources, Find a Sales Rep"