

# TRANS-21™

## C900 14"-60" SPECIFICATION DATA

### AWWA C900 SPECIFICATION DATA

Diamond Trans-21 C900 14"-60" PVC Pipe is made of PVC compound with a cell classification 12454 as defined in ASTM D1784 and is suitable for potable water transmission. Diamond C900 meets the requirements of American Water Works Association (AWWA) Product Standard C900.

Diamond Trans-21 C900 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 C900 PVC Pipe around the steel reinforced elastomeric seal meeting the requirements of ASTM F477.

Diamond Trans-21 C900 is tested in accordance with the physical, dimensional and performance requirements of AWWA C900, and is listed by Underwriters Laboratories. Each piece is hydrostatically proof tested before being shipped.

### TRANS-21™

#### 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 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 and 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.

### TRANS-21™

AWWA C900 SPECIFICATION DATA. DIAMOND C900 IS SUPPLIED IN 20 AND 22 FOOT LAYING LENGTHS.

Nominal Pipe Size in. (mm)	A Outside Diameter Inches	B Bell Diameter Inches	C Approximate Bell Depth Inches	D Assembly Mark 1 Inches *	E Assembly Mark 2 Inches *	t Minimum Wall Thickness Inches
DR-81 PRESSURE CLASS 50 PSI						
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

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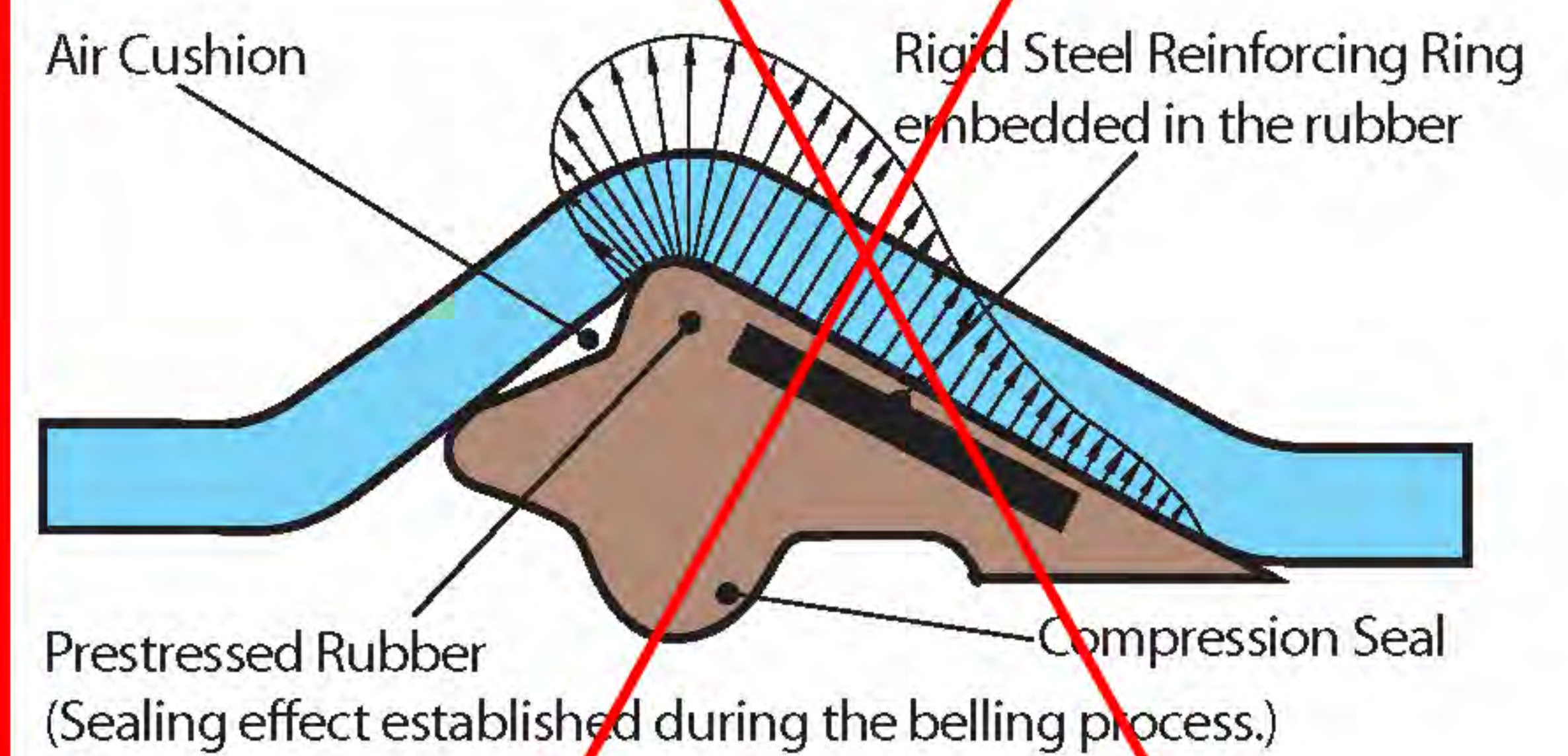
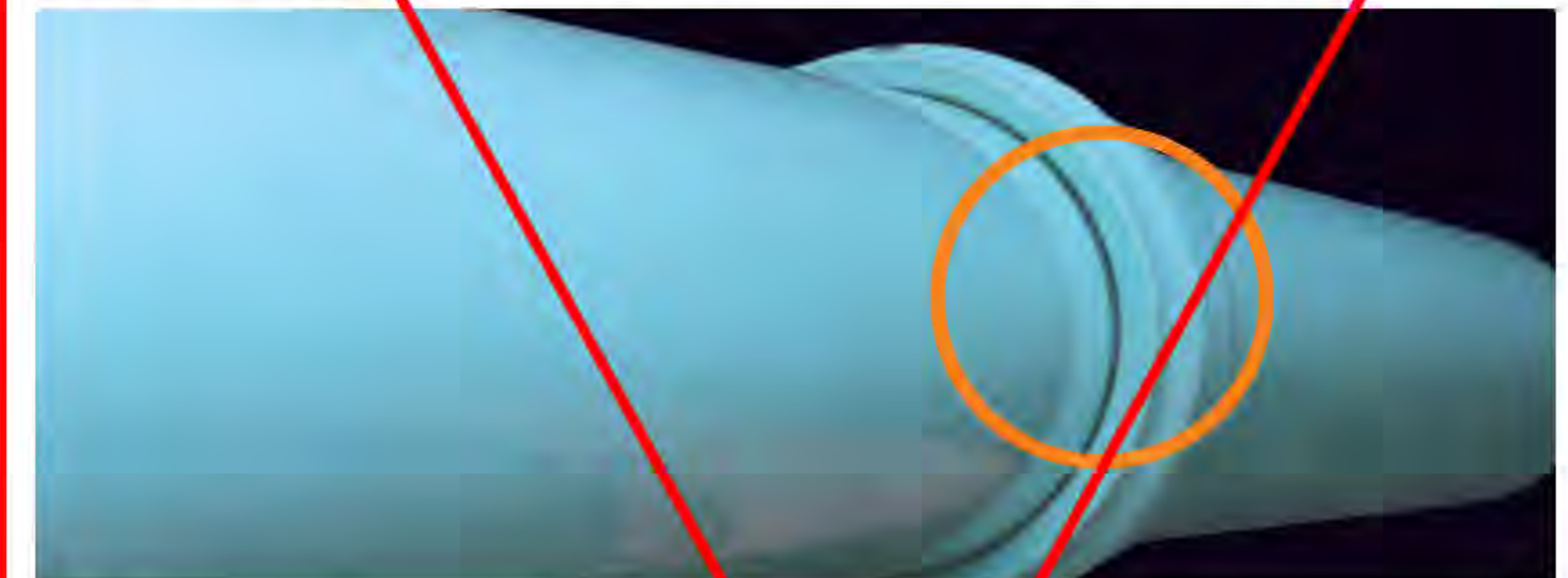
\*Tolerance of +/- 1/4" allowed

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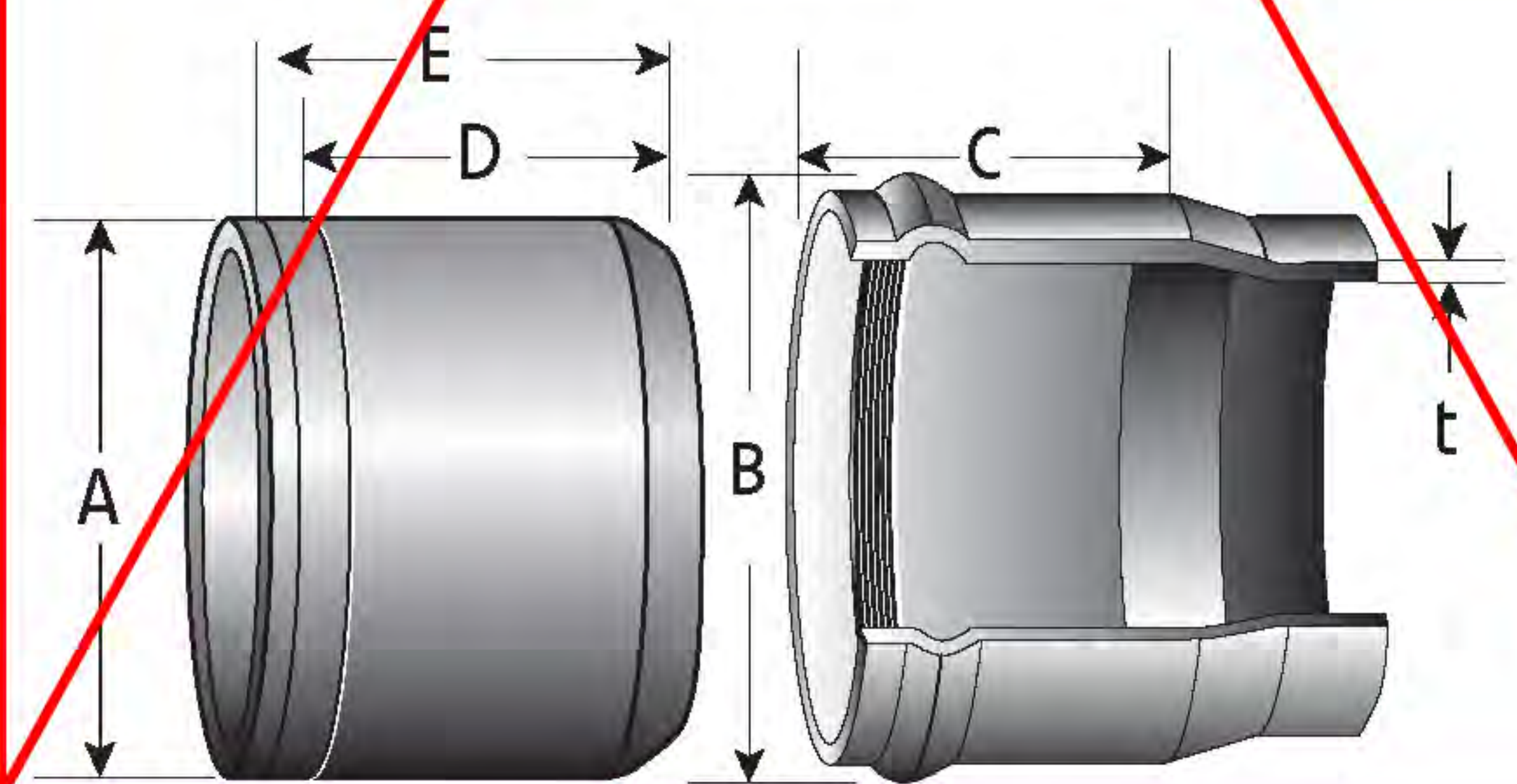
### GASKET DIAGRAM

#### HOW IT WORKS?

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.



### RIEBER JOINT ILLUSTRATION





Nominal Pipe Size in. (mm)	A Outside Diameter Inches	B Bell Diameter Inches	C Approximate Bell Depth: Inches	D Assembly Mark 1: Inches *	E Assembly Mark 2: Inches *	t Minimum Wall Thickness: Inches
<b>DR-51 PRESSURE CLASS 80 PSI</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 100 PSI</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 125 PSI</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
<b>DR-25 PRESSURE CLASS 165 PSI</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 200 PSI</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

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## C900 14"-60" SPECIFICATION & LOADING DATA

### TRANS-21™ AWWA C900 SPECIFICATION DATA)

Nominal Pipe Size in. (mm)	A Outside Diameter Inches	B Bell Diameter Inches	C Approximate Bell Depth: Inches	D Assembly Mark 1 Inches *	E Assembly Mark 2 Inches *	t Minimum Wall Thickness Inches
DR-18 PRESSURE CLASS 235 PSI						
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
42" (1050)	44.500	53-3/4"	20"	15-3/4"	16-3/4"	2.472
DR-14 PRESSURE CLASS 305 PSI						
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
30" (750)	32.000	40"	17"	12-5/8"	13-5/8"	2.286

### TRANS-21™ AWWA C900 LOADING CHART

Nominal Pipe Size in. (mm)	Outside Diameter	Minimum Wall Thickness	Joints Per Bundle	Feet Per Bundle	*Feet Per Truckload
DR-81 PRESSURE CLASS 50 PSI					
36" (900)	38.300	0.473	2	40/44	160/176
42" (1050)	44.500	0.550	2	40/44	160/176
48" (1200)	50.800	0.628	1	20/22	80/88
54" (1350)	57.560	0.711	1	22	44
60" (1500)	61.610	0.760	1	22	44
DR-51 PRESSURE CLASS 80 PSI					
24" (600)	25.800	0.506	3	60	360
30" (750)	32.000	0.627	3	60/66	360/396W/264E
36" (900)	38.300	0.751	2	40/44	160/176
42" (1050)	44.500	0.872	2	40/22	160/176
48" (1200)	50.800	0.996	1	20/22	80/88
54" (1350)	57.560	1.129	1	22	44
60" (1500)	61.610	1.208	1	22	44
DR-41 PRESSURE CLASS 100 PSI					
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	60/66	360/396W/264E
36" (900)	38.300	0.934	2	40/44	160/176
42" (1050)	44.500	1.085	2	40/44	160/176
48" (1200)	50.800	1.239	1	20/22	80/88
54" (1350)	57.560	1.404	1	22	44
60" (1500)	61.610	1.503	1	22	44

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