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CASCADE WATERWORKS MANUFACTURING COMPANY

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WATER QUALITY
ANSI/NSF 61 23°C
DRINKING WATER
SYSTEM COMPONENTS
73KM

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MATERIAL SPECIFICATIONS

Spacer Shells / Risers: T304 Stainless Steel

Runners: UHMW

Fasteners: 18-8/T304 SST

Liner: PVC



Casing Spacer - STYLE CCS

“Centered and Restrained” – The most common Casing Spacer type. Carrier pipe is positioned at the center of the casing pipe. Upper Risers/Runners are slightly shorter to allow for proper clearance during the push. This configuration “restrains” the carrier pipe from excessive flotation due to infiltration of ground water into the casing pipe during service life.

“Bottom (or Top) Restrained” – Used to place the carrier pipe lower (or higher) than center of the casing pipe. This is usually done when the casing pipe has been placed higher (or lower) than the optimum position and adjustment of the carrier Invert is needed. The top Risers/Runners are also adjusted in order to provide restraint against excessive flotation due to infiltration of ground water.

“Clear Bell” – These have Risers/Runners which are long enough to lift the Carrier Bell sufficiently off the bottom of the casing, but do not provide restraint against flotation. Please check with the specifying engineer prior to use, as most will require the common, Centered positioning.

“Multi-Carrier” – Multiple carrier pipes are positioned to fit through the same Casing Pipe. This type is utilized as a means of cost reduction and efficient project management.

“Graded” – Used to correct issues where the Casing Pipe does not meet the required slope.

“Joint Restraint” – Used to restrain joints against axial withdrawal in gravity sewer applications and some small potable water applications. For pressurized systems, please contact factory for further information and recommendations.

NOTES: As Casing Spacers are configured per the actual application specifics, [please contact office for pricing](#). If not otherwise requested, Casing Spacers will be quoted and fabricated as “Centered” position (CTD) (most commonly specified type).

Please have the following information ready for accurate pricing and fabrication:

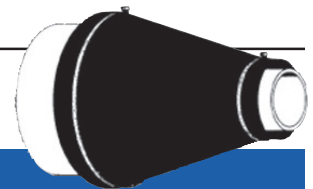
- * Carrier Pipe OD and Pipe Type
- * Carrier Pipe BELL OD (if applicable)
- * Any external restraining device dimensions
- * Casing Pipe ID (or Wall Thickness with OD)
- * Any other pertinent and/or unusual information

Failure to provide the above listed details or any other pertinent information may result in improper fit, function, or compliance and is the responsibility of the purchasing party.

MATERIAL SPECIFICATIONS

Seal: Neoprene

Band Clamp / Fasteners: 18-8 / T304 SST



Casing End Seal - STYLE CCES

End Seals – Flexible rubber barrier for the ends of a Casing Pipe. These are conical shaped Neoprene Rubber (Other material types available) debris barriers used to slip over the carrier and casing to aid in the prevention of backfill infiltration. Proper backfill techniques are still needed to ensure a successful finish to any pipe encasement project.

STYLE CST-EX

STAINLESS STEEL TAPPING SLEEVE
w/ STAINLESS STEEL, LOW ALLOY FLANGE or MJ CONNECTION

MATERIAL SPECIFICATIONS NSF/ANSI 61 & AWWA C223 Compliant

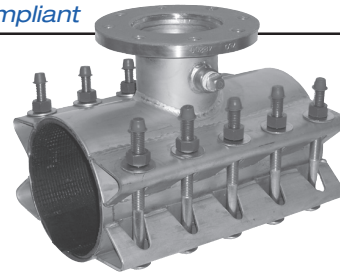
Flange: T304 SST or Low Alloy;
complies with AWWA C228 (SST) /
AWWA C207 (LA)

Gaskets: Virgin SBR (other materials
available upon request)
Branch Gasket Patent 6,173,967B1

Shell/Lugs: T304 SST

Fasteners: T304 SST 5/8
UNC, Rolled Thread;
Fluoropolymer Coated
Heavy Hex Nut

Washers/Washer Plate:
T304 SST



See **STYLE PECST-SL** for HDPE pipe applications

Nominal Pipe Size (inches)	O.D. Range (inches)	Catalog Number		List Price	
		Sleeve	Flange Size	S.S. Flange	L.A. Flange
4	4.40 - 4.60	CST-EX-0460	4	1,532.00	1,237.00
	4.70 - 4.90	CST-EX-0490			
	4.80 - 5.00	CST-EX-0500			
	5.10 - 5.30	CST-EX-0530			
	5.20 - 5.40	CST-EX-0540			
6	6.60 - 7.00	CST-EX-0700	4 6	1,537.00 1,630.00	1,305.00 1,404.00
	6.90 - 7.30	CST-EX-0730			
	7.10 - 7.50	CST-EX-0750			
	7.50 - 7.90	CST-EX-0790			
	7.90 - 8.30	CST-EX-0830			
8	8.35 - 8.75	CST-EX-0875	4 6 8	1,618.00 1,747.00 2,184.00	1,430.00 1,515.00 1,843.00
	8.63 - 9.05	CST-EX-0905			
	8.95 - 9.35	CST-EX-0935			
	9.20 - 9.60	CST-EX-0960			
	10.50 - 10.90	CST-EX-1090			
10	10.75 - 11.10	CST-EX-1110	4 6 8 10	1,950.00 2,008.00 2,448.00 3,874.00	1,752.00 1,770.00 2,082.00 3,223.00
	11.00 - 11.40	CST-EX-1140			
	11.40 - 11.80	CST-EX-1180			
	11.80 - 12.20	CST-EX-1220			
	12.50 - 12.90	CST-EX-1290			
12	13.00 - 13.40	CST-EX-1340	4 6 8 10 12	2,203.00 2,408.00 2,869.00 4,026.00 4,591.00	1,887.00 1,974.00 2,320.00 3,471.00 3,925.00
	13.20 - 13.60	CST-EX-1360			
	13.40 - 13.80	CST-EX-1380			
	14.00 - 14.40	CST-EX-1440			
	15.10 - 15.50	CST-EX-1550			
14	15.40 - 15.80	CST-EX-1580	4 6 8 10 12	2,372.00 2,841.00 3,274.00 4,322.00 4,792.00	2,295.00 2,463.00 2,751.00 3,701.00 4,344.00
	15.80 - 16.20	CST-EX-1620			
	16.38 - 16.78	CST-EX-1678			
	17.20 - 17.60	CST-EX-1760			
	17.40 - 17.80	CST-EX-1780			
16	17.76 - 18.16	CST-EX-1816	4 6 8 10 12	2,898.00 3,246.00 3,465.00 4,752.00 5,376.00	2,468.00 2,737.00 3,082.00 3,994.00 4,669.00
	18.40 - 18.80	CST-EX-1880			
	18.60 - 19.00	CST-EX-1900			
	18.80 - 19.20	CST-EX-1920			
	19.30 - 19.70	CST-EX-1970			
18	19.80 - 20.20	CST-EX-2020	4 6 8 10 12	4,089.00 5,404.00 5,999.00 6,094.00 6,450.00	3,220.00 3,942.00 4,802.00 5,327.00 5,507.00
	21.00 - 21.40	CST-EX-2140			
	21.40 - 21.80	CST-EX-2180			
	21.90 - 22.30	CST-EX-2230			
	22.10 - 22.50	CST-EX-2250			
20	23.20 - 23.60	CST-EX-2360	4 6 8 10 12	3,208.00 3,661.00 4,193.00 5,544.00 6,094.00	2,716.00 2,920.00 3,529.00 4,204.00 5,327.00
	25.60 - 26.00	CST-EX-2600			
	26.10 - 26.50	CST-EX-2650			
	27.90 - 28.30	CST-EX-2830			

*All "size-on-size" sleeves require a 1/2" undersized cutter.

All Sleeves hydrostatically tested to at least 1.5 times the Rated Working Pressure. Branch sizes 4" - 8": 225 PSI Min Field Test Pressure; branch sizes 10" - 12": 150 PSI Min Field Test Pressure. Pressure rating may be application specific. Consult factory with questions. Larger Sizes, Special Ranges, and 3" Flange Outlets Available. **Not for HDPE applications; see PECSTSL or consult factory.**

TO ORDER: Choose Style of Sleeve, OD Range, Flange Size, and Flange Type.

EXAMPLE: An extra heavy-duty sleeve for 12" D.I.P. (O.D. 13.20") with a 6" Stainless Steel flange would be a **CST-EX-1340-6-SS**. Same sleeve with an 8" Low Alloy flange would be **CST-EX-1340-8-LA**.

STYLE CST-SL

STAINLESS STEEL TAPPING SLEEVE
w/ STAINLESS STEEL, LOW ALLOY FLANGE or MJ CONNECTION

MATERIAL SPECIFICATIONS NSF/ANSI 61 & AWWA C223 Compliant

Flange: T304 SST or Low Alloy;
complies with AWWA C228 (SST) /
AWWA C207 (LA)

Gaskets: Virgin SBR (other materials
available upon request)
Branch Gasket Patent 6,173,967B1

Shell/Lugs: T304 SST

Fasteners: T304 SST, 5/8 UNC,
Rolled Thread; Fluoropolymer
Coated Heavy Hex Nut

Washers/Washer Plate:
T304 SST

Lubricating Washers: Nylon

See **STYLE PECST-SL** for HDPE pipe applications



Nominal Pipe Size (inches)	O.D. Range (inches)	Catalog Number		List Price	
		Sleeve	Flange Size	S.S. Flange	L.A. Flange
4	4.40 - 4.60	CST-SL-0460	4	1,371.00	1,021.00
	4.70 - 4.90	CST-SL-0490			
	4.80 - 5.00	CST-SL-0500			
	5.10 - 5.30	CST-SL-0530			
	5.20 - 5.40	CST-SL-0540			
6	6.60 - 7.00	CST-SL-0700	4 6	1,454.00 1,544.00	1,083.00 1,219.00
	6.90 - 7.30	CST-SL-0730			
	7.10 - 7.50	CST-SL-0750			
	7.50 - 7.90	CST-SL-0790			
	7.90 - 8.30	CST-SL-0830			
8	8.35 - 8.75	CST-SL-0875	4 6 8	1,566.00 1,649.00 2,020.00	1,187.00 1,271.00 1,541.00
	8.63 - 9.05	CST-SL-0905			
	8.95 - 9.35	CST-SL-0935			
	9.20 - 9.60	CST-SL-0960			
	10.50 - 10.90	CST-SL-1090			
10	10.75 - 11.10	CST-SL-1110	4 6 8 10	1,609.00 1,757.00 2,224.00 3,407.00	1,349.00 1,364.00 1,730.00 2,719.00
	11.00 - 11.40	CST-SL-1140			
	11.40 - 11.80	CST-SL-1180			
	11.80 - 12.20	CST-SL-1220			
	12.50 - 12.90	CST-SL-1290			
12	13.00 - 13.40	CST-SL-1340	4 6 8 10 12	1,933.00 2,122.00 2,578.00 3,622.00 4,016.00	1,427.00 1,444.00 2,042.00 2,843.00 2,967.00
	13.20 - 13.60	CST-SL-1360			
	13.40 - 13.80	CST-SL-1380			
	14.00 - 14.40	CST-SL-1440			
	15.10 - 15.50	CST-SL-1550			
14	15.40 - 15.80	CST-SL-1580	4 6 8 10 12	2,185.00 2,606.00 3,205.00 4,108.00 4,547.00	2,036.00 2,129.00 2,636.00 3,531.00 4,179.00
	15.80 - 16.20	CST-SL-1620			
	16.38 - 16.78	CST-SL-1678			
	17.20 - 17.60	CST-SL-1760			
	17.40 - 17.80	CST-SL-1780			
16	17.76 - 18.16	CST-SL-1816	4 6 8 10 12	2,954.00 3,307.00 4,347.00 5,262.00 2,834.00	2,429.00 2,868.00 3,651.00 4,554.00 2,482.00
	18.40 - 18.80	CST-SL-1880			
	18.60 - 19.00	CST-SL-1900			
	18.80 - 19.20	CST-SL-1920			
	19.30 - 19.70	CST-SL-1970			
18	19.80 - 20.20	CST-SL-2020	4 6 8 10 12	3,787.00 4,640.00 5,668.00 3,124.00 3,489.00	2,949.00 3,812.00 4,940.00 2,615.00 2,716.00
	21.00 - 21.40	CST-SL-2140			
	21.40 - 21.80	CST-SL-2180			
	21.90 - 22.30	CST-SL-2230			
	22.10 - 22.50	CST-SL-2250			
20	23.20 - 23.60	CST-SL-2360	4 6 8 10 12	3,823.00 4,146.00 5,016.00 6,243.00 3,301.00	2,980.00 3,477.00 4,282.00 5,349.00 2,878.00
	25.60 - 26.00	CST-SL-2600			
	26.10 - 26.50	CST-SL-2650			
	27.90 - 28.30	CST-SL-2830			

*All "size-on-size" sleeves require a 1/2" undersized cutter.

All Sleeves hydrostatically tested to at least 1.5 times the Rated Working Pressure. Branch sizes 4" - 8": 175 PSI Min Field Test Pressure; branch sizes 10" - 12": 125 PSI Min Field Test Pressure. Pressure rating may be application specific. Consult factory with questions. Larger Sizes, Special Ranges, and 3" Flange Outlets Available. **Not for HDPE applications; see PECSTSL or consult factory.**

TO ORDER: Choose Style of Sleeve, OD Range, Flange Size, and Flange Type.

EXAMPLE: An super light-weld sleeve for 12" C900 (O.D. 13.20") with a 6" Stainless Steel flange would be a **CST-SL-1340-6-SS**. Same sleeve with an 8" Low Alloy flange would be **CST-SL-1340-8-LA**.

STYLE CFT

FABRICATED STEEL TAPPING SLEEVE WITH NSF COMPLIANT EPOXY COAT

MATERIAL SPECIFICATIONS

AWWA C223 Compliant

Body/Outlet Nozzle: Steel ASTM A36 (A285 Grade C)

Branch Gasket: EPDM

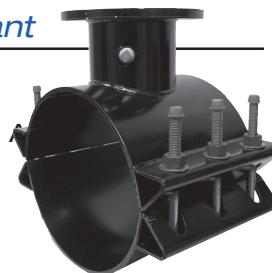
Flange: Low Alloy; AWWA C207; Class D, ANSI 150# drilling pattern; MSS-SP 60

Fasteners: High Strength, Low Alloy steel, A242 (18-8 / T304 Stainless Steel optional)

Finish: Epoxy certified NSF/ANSI 61

Flange Gasket: SBR

See *Style PECSTSL* for HDPE pipe applications



Nominal Pipe Size (inches)	Sleeve O.D. Range (inches)	Catalog Number	Flange Size	List Price	
				Low Alloy Bolts (CFT)	S.S. Bolts (CFT-ESS)
4	4.50	CFT-0450	4	1,159.00	1,415.00
	4.80	CFT-0480			
6	6.57 - 6.73	CFT-0673	4	1,186.00	1,478.00
	6.83 - 7.16	CFT-0716			
	7.20 - 7.60	CFT-0760	6	1,330.00	1,604.00
	7.40 - 7.73	CFT-0773			
8	7.95 - 8.05	CFT-0805	4	1,209.00	1,519.00
	8.36 - 8.75	CFT-0875			
	8.73 - 9.12	CFT-0912	6	1,353.00	1,645.00
	8.89 - 9.37	CFT-0937			
	9.27 - 9.69	CFT-0969	8	1,737.00	2,122.00
10	9.95 - 10.10	CFT-1010	4	1,369.00	1,714.00
	10.45 - 10.88	CFT-1088			
	11.03 - 11.47	CFT-1147	6	1,461.00	1,787.00
	11.36 - 11.80	CFT-1180			
	11.76 - 12.20	CFT-1220	8	1,842.00	2,219.00
12	12.42 - 12.88	CFT-1288	4	1,516.00	1,809.00
	13.14 - 13.60	CFT-1360			
	13.60 - 14.09	CFT-1409	6	1,593.00	1,926.00
	14.10 - 14.58	CFT-1458			
			8	1,917.00	2,374.00
14-16	14.59 - 15.08	CFT-1508	4	1,625.00	1,890.00
	15.23 - 15.72	CFT-1572			
	15.73 - 16.22	CFT-1622	6	1,712.00	2,008.00
	16.30 - 16.73	CFT-1673			
	16.74 - 17.26	CFT-1726	8	1,997.00	2,536.00
16-18			10	2,476.00	3,228.00
			12	2,973.00	3,711.00
			4	1,761.00	2,006.00
18-20	17.33 - 17.87	CFT-1787	6	1,851.00	2,098.00
	17.88 - 18.43	CFT-1843			
	18.46 - 19.03	CFT-1903	8	2,137.00	2,578.00
	18.87 - 19.45	CFT-1945			
	19.41 - 20.01	CFT-2001	10	2,676.00	3,552.00
20-24	20.29 - 20.92	CFT-2048	12	3,147.00	3,964.00
	20.93 - 21.57	CFT-2092			
	21.40 - 22.13	CFT-2157	4	2,018.00	2,263.00
	22.16 - 22.81	CFT-2281			
			6	2,121.00	2,368.00
24	22.78 - 23.45	CFT-2345	8	2,476.00	2,774.00
	23.46 - 24.16	CFT-2416			
	24.15 - 24.85	CFT-2485	10	2,750.00	3,623.00
	24.82 - 25.52	CFT-2552			
			12	3,546.00	4,482.00
30	25.71 - 26.41	CFT-2641	4	2,145.00	2,392.00
	26.55 - 27.25	CFT-2725			
	27.26 - 27.96	CFT-2796	6	2,248.00	2,534.00
	28.14 - 28.84	CFT-2884			
			8	2,584.00	3,083.00
			10	2,962.00	3,790.00
			12	3,751.00	4,631.00
			4	2,340.00	2,621.00
			6	2,429.00	2,795.00
			8	2,792.00	3,215.00
			10	3,102.00	4,201.00
			12	3,896.00	4,668.00
			4	2,641.00	2,784.00
			6	2,728.00	3,026.00
			8	3,089.00	3,399.00
			10	3,496.00	4,595.00
			12	4,568.00	4,815.00

*All "size-on-size" sleeves require a 1/2" undersized cutter.

NOTE: Other sizes and ranges available upon request. All Sleeves hydrostatically tested to 1.5 times the rated working pressure. **(Not recommended for PVC pipe. See CFT-LP.)**

Not for HDPE applications; see PECSTSL or consult factory.

TO ORDER: Choose Style of Sleeve, O.D. Range, Flange Size and Bolt Style.

EXAMPLE: A fabricated steel tapping sleeve for 12" D.I.P. (O.D. ø13.20") with a 6" flange would be a **CFT-1360-06**. Same sleeve with SS Bolts would be **CFT-ESS-1360-06**.

STYLE CFT-LP

FABRICATED STEEL TAPPING SLEEVE WITH
NSF EPOXY COAT FOR PVC & STEEL PIPE

MATERIAL SPECIFICATIONS

AWWA C223 Compliant

Body/Outlet Nozzle: Steel ASTM A36
(A285 Grade C)

Fasteners: High Strength, Low
Alloy steel, ASTM A242
(18-8 / T304 Stainless
Steel optional)

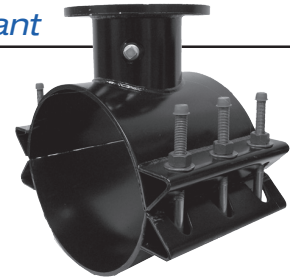
Flange: Low Alloy; AWWA C207; Class D,
ANSI 150# drilling pattern; MSS-SP 60

Finish: Epoxy certified
NSF/ANSI 61

Flange Gasket: SBR

Branch Gasket: EPDM

See **Style PECSTSL** for HDPE pipe applications



Nominal Pipe Size (inches)	Sleeve O.D. Range (inches)	Catalog Number	Flange Size	List Price	
				Low Alloy Bolts (CFT-LP)	S.S. Bolts (CFT-LP-ESS)
PVC - IPS SIZED PIPE					
4	4.50	CFT-LP-0450-04	4	1,064.00	1,435.00
5	5.56	CFT-LP-0556-04	4	1,138.00	1,472.00
6	6.63	CFT-LP-0663-04	4	1,157.00	1,501.00
		CFT-LP-0663-06	6	1,272.00	1,559.00
8	8.63	CFT-LP-0863-04	4	1,231.00	1,606.00
		CFT-LP-0863-06	6	1,302.00	1,630.00
		CFT-LP-0863-08	8	1,633.00	2,100.00
10	10.75	CFT-LP-1075-04	4	1,398.00	1,825.00
		CFT-LP-1075-06	6	1,461.00	1,845.00
		CFT-LP-1075-08	8	1,700.00	2,214.00
		CFT-LP-1075-10	10	2,080.00	2,749.00
12	12.75	CFT-LP-1275-04	4	1,501.00	1,940.00
		CFT-LP-1275-06	6	1,687.00	1,997.00
		CFT-LP-1275-08	8	1,898.00	2,382.00
		CFT-LP-1275-10	10	2,142.00	2,828.00
		CFT-LP-1275-12	12	2,705.00	3,418.00

PVC - DIPS SIZED PIPE					
4	4.80	CFT-LP-0480-04	4	1,072.00	1,467.00
6	6.90	CFT-LP-0690-04	4	1,162.00	1,527.00
		CFT-LP-0690-06	6	1,293.00	1,569.00
8	9.05	CFT-LP-0905-04	4	1,254.00	1,637.00
		CFT-LP-0905-06	6	1,327.00	1,737.00
		CFT-LP-0905-08	8	1,650.00	2,114.00
10	11.10	CFT-LP-1110-04	4	1,420.00	1,898.00
		CFT-LP-1110-06	6	1,475.00	1,995.00
		CFT-LP-1110-08	8	1,743.00	2,279.00
		CFT-LP-1110-10	10	2,248.00	2,858.00
12	13.20	CFT-LP-1320-04	4	1,532.00	2,027.00
		CFT-LP-1320-06	6	1,792.00	2,229.00
		CFT-LP-1320-08	8	2,055.00	2,550.00
		CFT-LP-1320-10	10	2,421.00	2,899.00
		CFT-LP-1320-12	12	2,773.00	3,515.00

*All "size-on-size" sleeves require a 1/2" undersize cutter.

NOTE: Other sizes and ranges available upon request. All Sleeves hydrostatically tested to 1.5 times the rated working pressure. For Steel, CI and DI pipe, use **CFT**. **Not for HDPE applications; see PECSTSL or consult factory.**

TO ORDER: Choose Style of Sleeve, O.D. Range, Flange Size and Bolt Style.

EXAPMLE: A fabricated steel tapping sleeve for 12" SDR 21 PVC pipe (O.D. ø12.75") with a 6" flange would be a **CFT-LP-1275-06**. Same sleeve with SS Bolts would be **CFT-LP-ESS-1275-06**.

STYLE CR1

STAINLESS STEEL REPAIR CLAMP SINGLE SECTION, NORMAL RANGE

MATERIAL SPECIFICATIONS

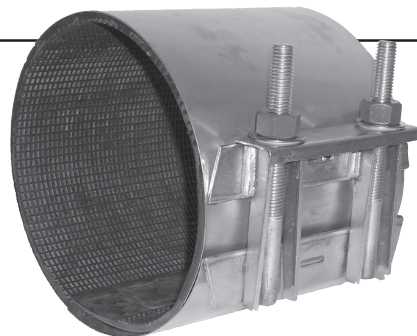
Shell/Lugs/Bars: T304 SST

Gaskets: SBR (other materials available upon request)

Fasteners: T304 SST, 5/8 UNC, Rolled Thread;
Fluoropolymer Coated, Heavy Hex Nut

Washer Plate: T304 SST

Lubricating Washers: Nylon



See **Style PECR1** for HDPE pipe applications

Nominal Pipe Size (inches)	Clamp O.D. Range (inches)	Catalog Number	List Price							
			Clamp Length							
			6 "	8 "	10 "	12 "	16 "	20 "	24 "	30 "
2	2.32 - 2.63	CR1-0263-Length	146.00	160.00	201.00	230.00	291.00	—	—	—
2 1/4	2.57 - 2.87	CR1-0287-Length	149.00	161.00	207.00	236.00	294.00	—	—	—
2-1/4 – 2-1/2	2.70 - 3.00	CR1-0300-Length	152.00	167.00	211.00	241.00	309.00	—	—	—
3	2.95 - 3.25 3.40 - 3.70	CR1-0325-Length CR1-0370-Length	185.00	191.00	253.00	282.00	350.00	—	—	—
3 & 4	3.71 - 4.00	CR1-0400-Length	189.00	199.00	258.00	288.00	360.00	—	—	—
4	4.45 - 4.75 4.75 - 5.15	CR1-0475-Length CR1-0515-Length	192.00	204.00	269.00	310.00	388.00	536.00	641.00	820.00
4 & 5	4.95 - 5.35 5.20 - 5.60	CR1-0535-Length CR1-0560-Length	199.00	213.00	284.00	321.00	394.00	554.00	700.00	1,029.00
6	5.95 - 6.35 6.55 - 6.95 6.84 - 7.24 7.05 - 7.45 7.45 - 7.85	CR1-0635-Length CR1-0695-Length CR1-0724-Length CR1-0745-Length CR1-0785-Length	—	242.00	318.00	371.00	479.00	634.00	798.00	1,074.00
8	7.95 - 8.35 8.59 - 8.99 9.00 - 9.40 9.30 - 9.70	CR1-0835-Length CR1-0899-Length CR1-0940-Length CR1-0970-Length	—	275.00	360.00	436.00	546.00	722.00	901.00	1,146.00
8 & 10	9.75 - 10.15	CR1-1015-Length	—	354.00	465.00	515.00	650.00	854.00	1,046.00	1,362.00
10	10.65 - 11.05 11.04 - 11.44 11.35 - 11.75 11.75 - 12.15 11.95 - 12.35	CR1-1105-Length CR1-1144-Length CR1-1175-Length CR1-1215-Length CR1-1235-Length	—	363.00	499.00	598.00	750.00	929.00	1,102.00	1,495.00
12	12.65 - 13.05 13.10 - 13.50 13.40 - 13.80	CR1-1305-Length CR1-1350-Length CR1-1380-Length	—	411.00	545.00	656.00	846.00	1,040.00	1,244.00	1,678.00
12 & 14	13.70 - 14.10 14.00 - 14.40	CR1-1410-Length CR1-1440-Length	—	443.00	573.00	700.00	913.00	1,103.00	1,349.00	1,815.00

Conductivity Strips available for \$20.00 per unit, add on to NET price.

NOTE: Other ranges and lengths not listed are available upon request. For higher pressures, clamp length should be equal to or longer than the O.D. of the pipe. **NOT for use on HDPE applications; see PECR1 or consult factory.**

TO ORDER: Determine desired range and length, then select corresponding Catalog Number. **EXAMPLE:** A single section stainless steel clamp, 12" in length for 8" C-900 PVC would be **CR1-0940-12**.

STYLE CR2

STAINLESS STEEL REPAIR CLAMP TWO SECTION, DOUBLE RANGE

MATERIAL SPECIFICATIONS

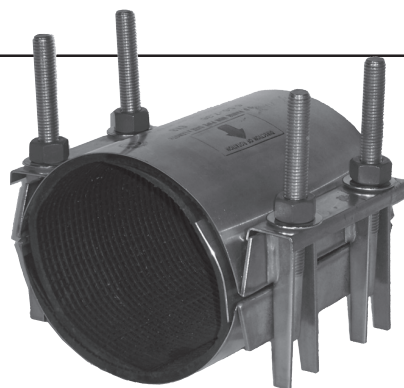
Shell/Lugs/Bars: T304 SST

Gaskets: SBR (other materials available upon request)

Fasteners: T304 SST, 5/8 UNC, Rolled Thread;
Fluoropolymer Coated, Heavy Hex Nut

Washer Plates: T304 SST

Lubricating Washers: Nylon



See **Style PECR2** for HDPE pipe applications

Nominal Pipe Size (inches)	Clamp O.D. Range (inches)	Catalog Number	List Price						
			Clamp Length						
			8 "	10 "	12 "	16 "	20 "	24 "	30 "
4	4.44 - 5.26	CR2-0526-Length	315.00	406.00	471.00	595.00	764.00	994.00	—
	4.75 - 5.57	CR2-0557-Length							
6	6.56 - 7.36	CR2-0736-Length	384.00	480.00	551.00	727.00	905.00	1,210.00	1,413.00
	6.84 - 7.64	CR2-0764-Length							
8	8.60 - 9.40	CR2-0940-Length	400.00	492.00	588.00	750.00	1,035.00	1,391.00	1,600.00
	8.99 - 9.79	CR2-0979-Length							
10	10.70 - 11.50	CR2-1150-Length	—	620.00	849.00	931.00	1,269.00	1,583.00	1,978.00
	11.05 - 11.85	CR2-1185-Length							
	11.40 - 12.20	CR2-1220-Length							
12	12.70 - 13.50	CR2-1350-Length	—						
	13.15 - 13.95	CR2-1395-Length		764.00	1,049.00	1,099.00	1,471.00	1,910.00	2,249.00
	13.60 - 14.40	CR2-1440-Length							
14	13.85 - 14.65	CR2-1465-Length							
	14.38 - 15.18	CR2-1518-Length	—	820.00	1,176.00	1,285.00	1,651.00	2,145.00	2,521.00
16	15.07 - 15.87	CR2-1587-Length							
	15.92 - 16.67	CR2-1667-Length							
	16.56 - 17.31	CR2-1731-Length	—	936.00	1,233.00	1,393.00	1,818.00	2,371.00	2,995.00
18	17.15 - 17.90	CR2-1790-Length							
	17.82 - 18.57	CR2-1857-Length	—	987.00	1,294.00	1,439.00	1,880.00	2,437.00	3,142.00
	18.46 - 19.21	CR2-1921-Length							
20	19.23 - 19.98	CR2-1998-Length							
	19.90 - 20.65	CR2-2065-Length							
	20.70 - 21.45	CR2-2145-Length	—	1,066.00	1,431.00	1,521.00	1,969.00	2,552.00	3,233.00
	21.52 - 22.27	CR2-2227-Length							
	22.12 - 22.87	CR2-2287-Length							
	22.90 - 23.65	CR2-2365-Length							

Conductivity Strips available for \$20.00 per unit, add on to NET price.

NOTE: Other pipe O.D. ranges and lengths not listed are available upon request. For higher pressures, clamp length should be equal to or longer than the O.D. of the pipe. **NOT for use on HDPE applications; see PECR2 or consult factory.**

TO ORDER: Determine desired range and length, then select corresponding Catalog Number.

EXAMPLE: A two section stainless steel clamp, 12" in length for 8" DI Pipe would be **CR2-0940-12**.

STYLE CR2-SR

STAINLESS STEEL REPAIR CLAMP TWO SECTION, SUPER RANGE

MATERIAL SPECIFICATIONS

Shell/Lugs/Bars: T304 SST

Washer Plates: T304 SST

Gaskets: SBR (other materials available upon request)

Lubricating Washers:
Nylon

Fasteners: T304 SST, 5/8 UNC, Rolled Thread;
Fluoropolymer Coated, Heavy Hex Nut



See **Style PECR2** for HDPE pipe applications

Nominal Pipe Size (inches)	Clamp O.D. Range (inches)	Catalog Number	List Price						
			Clamp Length						
			8 "	10 "	12 "	16 "	20 "	24 "	30 "
8	8.60-9.80	CR2-SR-0980-Length	439.00	549.00	656.00	982.00	1,159.00	1,672.00	2,046.00
10	10.70-11.90	CR2-SR-1190-Length	—	744.00	892.00	1,028.00	1,427.00	1,833.00	2,223.00
	11.05-12.25	CR2-SR-1225-Length							
12 – 14	12.70-13.90	CR2-SR-1390-Length	—	835.00	1,034.00	1,210.00	1,666.00	2,366.00	2,483.00
	13.15-14.35	CR2-SR-1435-Length							
	13.65-14.85	CR2-SR-1485-Length							
14 – 16	14.45-15.65	CR2-SR-1565-Length	—	957.00	1,220.00	1,371.00	1,821.00	2,874.00	3,412.00
	14.85-16.05	CR2-SR-1605-Length							
	15.92-17.12	CR2-SR-1712-Length							
16 – 18	17.15-18.35	CR2-SR-1835-Length	—	1,050.00	1,394.00	1,577.00	1,957.00	2,948.00	3,558.00
	18.46-19.66	CR2-SR-1966-Length							
18 – 20	19.45-20.65	CR2-SR-2065-Length	—	1,173.00	1,676.00	1,768.00	2,298.00	3,155.00	3,970.00
	21.50-22.70	CR2-SR-2270-Length							

Conductivity Strips available for \$20.00 per unit, add on to NET price.

NOTE: Other pipe O.D. ranges and lengths not listed are available upon request. For higher pressures, clamp length should be equal to or longer than the O.D. of the pipe. **NOT for use on HDPE applications; see PECR2 or consult factory.**

TO ORDER: Determine desired range and length, then select corresponding Catalog Number. **EXAMPLE:** A two section stainless steel clamp, 12" in length for 8" DI Pipe would be **CR2-SR-0980-12**.

STYLE CR3

STAINLESS STEEL REPAIR CLAMP THREE SECTION, EXTENDED RANGE

MATERIAL SPECIFICATIONS

Shell/Lugs/Bars: T304 SST

Gaskets: SBR (other materials available upon request)

Fasteners: T304 SST, 5/8-11 UNC, Rolled Thread; Fluoropolymer Coated, Heavy Hex Nut

Washer Plates:

T304 SST

Lubricating Washers:
Nylon



Consult factory for PECR3 for HDPE pipe applications

Nominal Pipe Size	Clamp O.D. Range (inches)	Catalog Number	List Price				
			Clamp Length				
			12 "	16 "	20 "	24 "	30 "
10	11.04-12.24	CR3-1224-Length	1,433.00	1,972.00	2,334.00	2,837.00	4,113.00
12 - 14	13.14-14.34	CR3-1434-Length	1,495.00	2,066.00	2,385.00	3,043.00	4,412.00
	13.65-14.85	CR3-1485-Length	1,536.00	2,139.00	2,422.00	3,128.00	4,533.00
14 - 16	14.85-16.05	CR3-1605-Length	1,594.00	2,198.00	2,644.00	3,229.00	4,692.00
	15.92-17.12	CR3-1712-Length	1,644.00	2,248.00	2,855.00	3,335.00	4,845.00
16 - 18	17.15-18.35	CR3-1835-Length	1,690.00	2,294.00	2,898.00	3,805.00	5,518.00
	18.46-19.66	CR3-1966-Length	1,823.00	2,475.00	3,164.00	3,966.00	5,746.00
18 - 20	19.45-20.65	CR3-2065-Length	1,904.00	2,564.00	3,252.00	4,155.00	6,025.00
	21.52-22.72	CR3-2272-Length	2,111.00	2,913.00	3,570.00	4,663.00	6,765.00
20 - 24	23.28-24.48	CR3-2448-Length	2,314.00	3,794.00	4,304.00	5,366.00	7,782.00
	24.38-25.58	CR3-2558-Length	2,477.00	4,131.00	4,877.00	6,106.00	8,855.00
24	25.70-26.90	CR3-2690-Length	3,009.00	4,223.00	5,224.00	6,836.00	9,891.00
24 - 27	26.48-27.68	CR3-2768-Length	3,168.00	4,369.00	5,487.00	7,186.00	10,428.00
	27.65-28.85	CR3-2885-Length	3,316.00	4,589.00	5,750.00	7,537.00	10,922.00
	28.73-29.93	CR3-2993-Length	3,492.00	4,809.00	6,045.00	7,861.00	11,394.00
24 - 30	29.62-30.82	CR3-3082-Length	3,667.00	5,042.00	6,351.00	8,445.00	12,238.00
30	31.22-32.42	CR3-3242-Length	3,843.00	5,322.00	6,675.00	9,030.00	13,074.00

Conductivity Strips available for \$20.00 per unit, add on to NET price. ***CR3 NOT for HDPE applications.**

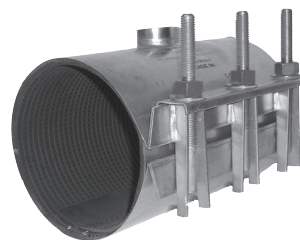
NOTE: Other pipe O.D. ranges and lengths not listed are available upon request. For higher pressures, clamp length should be equal to or longer than the O.D. of the pipe.

TO ORDER: Determine desired range and length, then select corresponding Catalog Number. **EXAMPLE:** A two section stainless steel clamp, 12" in length for 12" DI Pipe would be **CR3-1434-12**.

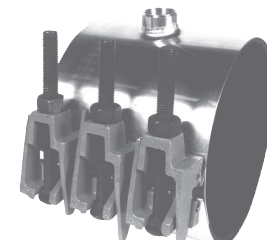
STYLES CRT & CDRT TAPPED REPAIR CLAMPS OPTIONS

All CR1, CR2, CR2-SR, CR3 and CDR1, CDR2, DR3 repair clamps are available with tapped outlets. Outlets are T-304 stainless steel, are welded to the clamp, and are fully, **chemically passivated** in compliance with **ASTM A380**.

Tap Size	Type of Threads	List Price
3/4"	IP or CC	92.00
1"	IP or CC	92.00
1-1/4"	IP or CC	126.00
1-1/2"	IP or CC	126.00
2"	IP	131.00
2"	CC	148.00
3"	IP	440.00
4"	IP	440.00



Style CRT



Style CDRT

For HDPE applications, consult factory

TO ORDER: Select size, length, and style of clamp. Select type and size of thread for outlet. Add list price for outlet to list price for clamp. Insert the letter "T" into the Catalog Number and add Tap Size to the end of the Catalog Number. Consult catalog or factory for specifications or application information. **EXAMPLE:** A single section, stainless steel clamp for 6" D.I. Pipe, 12" in length with 3/4 I.P. Outlet would be **CRT1-0724-12-3/4IP**

List Price = \$ 371.00 + \$ 92.00 = \$ 463.00 (List price for CRT1-0724-12-3/4IP)

STYLE CDR1

STAINLESS STEEL REPAIR CLAMP w/ DUCTILE IRON LUGS
SINGLE SECTION, NORMAL RANGE

MATERIAL SPECIFICATIONS

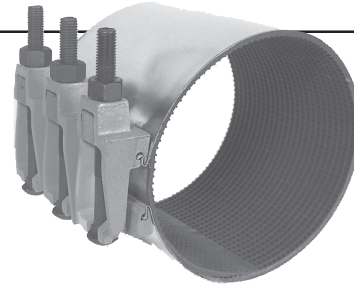
Shell: T304 SST

Gasket: SBR (other materials available upon request)

Fasteners: Corrosion Resistant, High Strength, Low Alloy Steel; 5/8 UNC, Rolled Thread, Track Head Bolts; Heavy Hex Nuts (Stainless steel available upon request, see price adders below.)

Lugs: Ductile Iron

CDR's NOT for use on HDPE applications. See PECR1 for HDPE pipe applications.



Nominal Pipe Size (inches)	Clamp O.D. Range (inches)	Catalog Number	List Price							
			Clamp Length							
			5.0 "	7.5 "	10.0 "	12.5 "	15.0 "	20.0 "	25.0 "	30.0 "
2	2.32-2.63	CDR1-0263-Length	133.00	162.00	204.00	251.00	298.00	—	—	—
2 1/4	2.57-2.87	CDR1-0287-Length	134.00	165.00	208.00	254.00	306.00	—	—	—
2 1/4-2 1/2	2.70-3.00	CDR1-0300-Length	136.00	167.00	211.00	258.00	312.00	—	—	—
3	2.95-3.25	CDR1-0325-Length	168.00	196.00	260.00	312.00	365.00	—	—	—
	3.40-3.70	CDR1-0370-Length								
3 & 4	3.70-4.00	CDR1-0400-Length	171.00	199.00	267.00	315.00	366.00	—	—	—
4	4.45-4.75	CDR1-0475-Length	174.00	201.00	272.00	319.00	372.00	507.00	733.00	817.00
	4.75-5.15	CDR1-0515-Length								
4 & 5	4.95-5.35	CDR1-0535-Length	183.00	210.00	275.00	356.00	384.00	517.00	761.00	871.00
	5.20-5.60	CDR1-0560-Length								
6	5.95-6.35	CDR1-0635-Length	213.00	258.00	338.00	409.00	492.00	617.00	777.00	889.00
	6.55-6.95	CDR1-0695-Length								
	6.84-7.24	CDR1-0724-Length								
	7.05-7.45	CDR1-0745-Length								
	7.45-7.85	CDR1-0785-Length								
8	7.95-8.35	CDR1-0835-Length	250.00	288.00	350.00	437.00	514.00	674.00	855.00	1,027.00
	8.59-8.99	CDR1-0899-Length								
	9.00-9.40	CDR1-0940-Length								
	9.30-9.70	CDR1-0970-Length								
8 & 10	9.75-10.15	CDR1-1015-Length	266.00	307.00	377.00	470.00	549.00	715.00	948.00	1,232.00
10	10.65-11.05	CDR1-1105-Length	—	363.00	464.00	570.00	675.00	885.00	1,148.00	1,418.00
	11.04-11.44	CDR1-1144-Length								
	11.35-11.75	CDR1-1175-Length								
	11.75-12.15	CDR1-1215-Length								
12	11.95-12.35	CDR1-1235-Length	—	400.00	510.00	656.00	752.00	1,015.00	1,353.00	1,644.00
	12.65-13.05	CDR1-1305-Length								
	13.10-13.50	CDR1-1350-Length								
	13.40-13.80	CDR1-1380-Length								
12 & 14	13.70-14.10	CDR1-1410-Length	—	418.00	523.00	669.00	771.00	1,046.00	1,411.00	1,703.00
	14.00-14.40	CDR1-1440-Length								
Number of Bolts			2	3	4	5	6	8	10	12
ADD TO LIST PRICE OF EACH CLAMP FOR STAINLESS STEEL NUTS & BOLTS			33.00	50.00	66.00	83.00	99.00	132.00	165.00	198.00

Conductivity Strips available for \$20.00 per unit, add on to NET price.

NOTE: Other pipe O.D. ranges and lengths not listed are available upon request. For higher pressures, clamp length should be equal to or longer than the O.D. of the pipe.

TO ORDER: Determine desired range and length, then select corresponding Catalog Number.

EXAMPLE: A single section stainless steel clamp, 15" in length for 10" D.I. Pipe would be **CDR1-1144-15**.

MATERIAL SPECIFICATIONS

Shell: T304 SST

Gasket: SBR (other materials available upon request)

Fasteners: Corrosion Resistant, High Strength, Low Alloy Steel; 5/8 UNC, Rolled Thread, Track Head Bolts; Heavy Hex Nuts (Stainless steel available upon request, see price adders below.)

Lugs: Ductile Iron

CDR's NOT for use on HDPE applications. See PECR2 for HDPE pipe applications.



Nominal Pipe Size (inches)	Clamp O.D. Range (inches)	Catalog Number	List Price					
			Clamp Length					
			7.5 "	10.0 "	12.5 "	15.0 "	20.0 "	30.0 "
4	4.44-5.26	CDR2-0526-Length	285.00	343.00	428.00	495.00	722.00	1,084.00
	4.75-5.57	CDR2-0557-Length						
6	6.58-7.36	CDR2-0736-Length	309.00	381.00	476.00	570.00	795.00	1,260.00
	6.84-7.64	CDR2-0764-Length						
8	7.60-8.40	CDR2-0840-Length	343.00	422.00	533.00	644.00	886.00	1,436.00
	8.99-9.79	CDR2-0979-Length						
10	10.70-11.50	CDR2-1150-Length	422.00	518.00	656.00	777.00	1,115.00	1,728.00
	11.06-11.65	CDR2-1165-Length						
	11.40-12.20	CDR2-1220-Length						
12	12.70-13.50	CDR2-1350-Length	511.00	616.00	808.00	1,040.00	1,250.00	2,136.00
	13.15-13.95	CDR2-1395-Length						
	13.60-14.40	CDR2-1440-Length						
	13.85-14.65	CDR2-1465-Length						
14	14.38-15.18	CDR2-1518-Length	—	901.00	1,102.00	1,301.00	1,654.00	2,667.00
	15.07-15.87	CDR2-1587-Length						
16	15.92-16.67	CDR2-1667-Length	—	941.00	1,170.00	1,399.00	1,885.00	2,874.00
	16.56-17.31	CDR2-1731-Length						
	17.15-17.90	CDR2-1790-Length						
18	17.82-18.57	CDR2-1857-Length	—	995.00	1,236.00	1,476.00	1,985.00	3,026.00
	18.41-19.21	CDR2-1921-Length						
	19.23-19.98	CDR2-1998-Length						
20	19.90-20.86	CDR2-2086-Length	—	1,171.00	1,442.00	1,710.00	2,161.00	3,291.00
	20.70-21.45	CDR2-2145-Length						
	21.52-22.27	CDR2-2227-Length						
	22.12-22.87	CDR2-2287-Length						
	22.90-23.65	CDR2-2365-Length						
Number of Bolts			6	8	10	12	16	24
ADD TO LIST PRICE OF EACH CLAMP FOR STAINLESS STEEL NUTS & BOLTS			99.00	132.00	165.00	198.00	264.00	396.00

Conductivity Strips available for \$20.00 per unit, add on to NET price.

NOTE: Other pipe O.D. ranges and lengths not listed are available upon request. For higher pressures, clamp length should be equal to or longer than the O.D. of the pipe.

TO ORDER: Determine desired range and length, then select corresponding Catalog Number.

EXAMPLE: A double section stainless steel clamp, 15" in length for 8" D.I. Pipe would be **CDR2-0979-15**.

MATERIAL SPECIFICATIONS

Shell: T304 SST

Gasket: SBR (other materials available upon request)

Fasteners: Corrosion Resistant, High Strength, Low Alloy Steel; 5/8 UNC, Rolled Thread, Track Head Bolts; Heavy Hex Nuts (Stainless steel available upon request, see price adders below.)

Lugs: Ductile Iron



CDR's NOT for use on HDPE applications. Consult with Factory for PECR3

Nominal Pipe Size (inches)	Clamp O.D. Range (inches)	Catalog Number	List Price					
			Clamp Length					
			10.0 "	12.5 "	15.0 "	20.0 "	25.0 "	30.0 "
10	11.04-12.24	CDR3-1224-Length	774.00	966.00	1,418.00	—	—	—
12 - 14	13.14-14.34	CDR3-1434-Length	784.00	970.00	1,495.00	—	—	—
	13.65-14.85	CDR3-1485-Length	1,007.00	1,251.00	1,744.00	—	—	—
14 - 16	14.85-16.05	CDR3-1605-Length	1,013.00	1,269.00	1,755.00	—	—	—
	15.92-17.12	CDR3-1712-Length	1,125.00	1,380.00	1,766.00	—	—	—
16 - 18	17.15-18.35	CDR3-1835-Length	1,131.00	1,433.00	1,775.00	—	—	—
	18.46-19.66	CDR3-1966-Length	1,236.00	1,514.00	1,840.00	—	—	—
18 - 20	19.45-20.85	CDR3-2085-Length	1,446.00	1,521.00	1,848.00	2,502.00	3,165.00	4,221.00
	21.52-22.72	CDR3-2272-Length	1,465.00	1,668.00	1,907.00	2,583.00	3,515.00	4,348.00
20 - 24	23.28-24.48	CDR3-2448-Length	1,583.00	1,935.00	2,137.00	2,868.00	3,546.00	4,388.00
	24.38-25.58	CDR3-2558-Length	—	1,982.00	2,301.00	2,991.00	3,820.00	4,576.00
24	25.70-26.90	CDR3-2690-Length	—	2,009.00	2,403.00	3,128.00	4,062.00	4,784.00
24 - 27	26.48-27.68	CDR3-2768-Length	—	2,068.00	2,605.00	3,266.00	4,282.00	4,995.00
	27.65-28.85	CDR3-2885-Length	—	2,216.00	2,729.00	3,422.00	4,506.00	5,234.00
	28.73-29.93	CDR3-2993-Length	—	2,291.00	3,054.00	3,592.00	4,656.00	5,491.00
27 - 30	29.62-30.82	CDR3-3082-Length	—	2,540.00	3,074.00	3,772.00	5,195.00	5,768.00
30	31.22-32.42	CDR3-3242-Length	—	2,898.00	3,260.00	3,983.00	5,853.00	6,090.00
Number of Bolts			12	15	18	24	30	36
ADD TO LIST PRICE OF EACH CLAMP FOR STAINLESS STEEL NUTS & BOLTS			198.00	248.00	297.00	396.00	496.00	594.00

Conductivity Strips available for \$20.00 per unit, add on to NET price.

NOTE: Other pipe O.D. ranges and lengths not listed are available upon request. For higher pressures, clamp length should be equal to or longer than the O.D. of the pipe.

TO ORDER: Determine desired range and length, then select corresponding Catalog Number.

EXAMPLE: A triple section stainless steel clamp, 15" in length for 10" D.I. Pipe would be **CDR3-1224-15**.

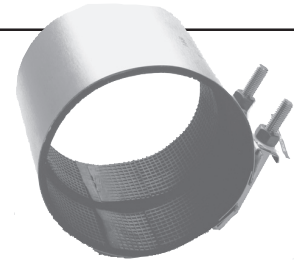
MATERIAL SPECIFICATIONS

Shell/Lugs: T304 SST

Gasket: SBR

Fasteners: T304 SST, 5/8 UNC, Rolled Thread;
Fluoropolymer Coated, Heavy Hex Nut

Washers/Washer Plates: T304 SST



NOT for use on HDPE applications.

Nominal Pipe Size (inches)	Clamp O.D. Range (inches)	Catalog Number	List Price			
			6	8	12	16
2	2.38	CCLC-0238-Length	291.00	306.00	383.00	449.00
2-1/2	2.88	CCLC-0288-Length	306.00	316.00	408.00	473.00
3	3.50	CCLC-0350-Length	316.00	338.00	409.00	477.00
4	4.50	CCLC-0450-Length	350.00	357.00	425.00	493.00
6	6.63	CCLC-0663-Length	354.00	371.00	470.00	546.00
8	8.63	CCLC-0863-Length	387.00	462.00	524.00	610.00

NOTES: Standard CCLC designed for Class 160 and SDR 26 PVC pipe. Gasket step is limited to one (1) extra layer, which is 0.25" in height (which accommodates a collar up to 0.50" larger than the barrel O.D.). Any size requested that is not on the chart above is **not recommended** and **non-returnable**.

TO ORDER: Determine desired range and length, then select corresponding Catalog Number. Consult catalog or factory for specification or application information.

EXAMPLE: A collar leak clamp, 8" in length for 8" IPS pipe would be **CCLC-0863-08**.

MATERIAL SPECIFICATIONS

NSF/ANSI 61 Compliant

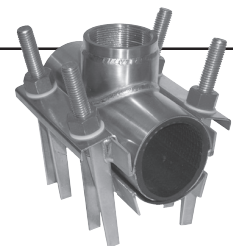
Shell/Lugs: T304 SST

Fasteners: T304 SST, 5/8 UNC, Rolled Thread; Fluoropolymer Coated, Heavy Hex Nut

Outlet: T304 SST

Gaskets: Virgin SBR (other materials available upon request)

Washers/Washer Plate: T304 SST



Not for use on HDPE pipe. Consult with factory for **PECTT** for HDPE pipe applications.

Nominal Pipe Size (inches)	O.D. Range (inches)	Catalog Number	Tap Size IP or CC thread	List Price
2	2.13	CTT-0213-Tap	1-1/2" - 2" I.P.; 1-1/2" C.C.	951.00
	2.38	CTT-0238-Tap	1-1/2" - 2" I.P.; 1-1/2" - 2" C.C.	
2-1/2	2.63	CTT-0263-Tap	2" - 2-1/2" I.P.; 1-1/2" - 2" C.C.	967.00
	2.88	CTT-0288-Tap		
3	3.13	CTT-0313-Tap	2" - 2-1/2" I.P.; 1-1/2" - 2" C.C.	994.00
	3.50	CTT-0350-Tap		
4	4.13	CTT-0413-Tap	2-1/2" I.P.; 2" C.C.	1,029.00
	4.50	CTT-0450-Tap		
	4.80	CTT-0480-Tap	3" - 4" I.P.	1,143.00

NOTE: Overall Length - 8". 250 psi Rated Working Pressure (RWP). Pressure rating may be application specific. Consult factory for specific applications.

Application: All stainless steel tapping sleeve for force mains. A tapping sleeve built for strength and long life, for new and existing pressure systems. A tee developed to handle smaller O.D. mains with wide range of tap options, all while withstanding the rigors of a pressure tap. (Tap sizes up to 2" C.C., 2-1/2" I.P., or 4" I.P. depending on Mains size.)

TO ORDER: Determine the desired O.D. of pipe for the Tiger Tee to fit on and choose appropriate Tap Code.

EXAMPLE: A Tiger Tee for 3" IPS pipe with a 2" IP tap would be: **CTT-0350-2IP**.

NOT for use on HDPE applications; contact factory for PECTT.

MATERIAL SPECIFICATIONS

NSF/ANSI 61 Compliant

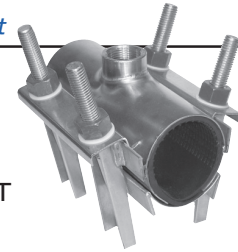
Shell/Lugs: T304 SST

Fasteners: T304 SST, 5/8 UNC,
Rolled Thread; Fluoropolymer
Coated, Heavy Hex Nut

Outlet: T304 SST

Gaskets: Virgin SBR (other
materials available upon request)

Washers/Washer Plate: T304 SST



Not for use on HDPE pipe. Consult with factory for **PECTT** for HDPE pipe applications.

Nominal Pipe Size (inches)	O.D. Range (inches)	Catalog Number	Tap Size IP or CC thread	List Price
2	2.13	CTTL-0213-Tap	3/4" - 1-1/2" IP;	385.00
	2.38	CTTL-0238-Tap	3/4" - 1-1/4" C.C.	
2-1/2	2.63	CTTL-0263-Tap	3/4" - 1-1/2" IP;	415.00
	2.88	CTTL-0288-Tap	3/4" - 1-1/4" C.C.	
3	3.13	CTTL-0313-Tap	3/4" - 1-1/2" IP;	489.00
	3.50	CTTL-0350-Tap	3/4" - 1-1/4" C.C.	
4	4.13	CTTL-0413-Tap	3/4" - 2" IP; 3/4" - 1-1/2" C.C.	722.00
	4.50	CTTL-0450-Tap		
	4.80	CTTL-0480-Tap		

NOTE: Overall Length - 8". 150 psi Rated Working Pressure (RWP). Pressure rating may be application specific. Consult factory for specific applications.

Application: All stainless steel tapping sleeve for force mains. A tapping sleeve built for strength and long life, for new and existing pressure systems. A tee developed to handle smaller O.D. mains with a range of tap options, all while withstanding the rigors of a pressure tap. (Tap sizes up to 1-1/2" I.P.).

TO ORDER: Determine the desired O.D. of pipe for the Tigger Tee to fit on and choose appropriate Tap.

EXAMPLE: A Tigger Tee for 2" copper tubing with a 1" IP tap would be: **CTTL-0213-1IP**.

NOT for use on HDPE applications; contact factory for PECTTL.

STYLE CS12

ALL STAINLESS STEEL SERVICE SADDLE
DOUBLE BAND - 5" WIDE

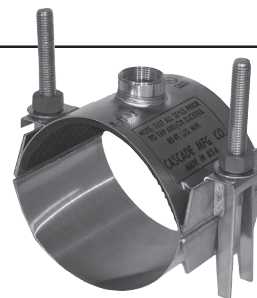
MATERIAL SPECIFICATIONS

Body / Outlet: T304 SST

Gasket: SBR (EPDM available) - Triple O-ring surrounded by full grid matt. Patents 6,173,967B1 & 6,588,767B2

Lugs / Washers / Washer Plates: T304 SST

Fasteners: T304 SST, 5/8 UNC, Rolled Thread;
Fluoropolymer Coated, Heavy Hex Nut



One Saddle fits all types of pipe (AC, PVC, Steel, DI, and others)

NOT for HDPE: [See Style PECS12 & PECS22 for HDPE applications](#)

Nominal Pipe Size (inches)	Saddle O.D. Range (inches)	Catalog Number	List Price	
			3/4" or 1", I.P. or C.C.	
4	4.36 - 5.66	CS12-0566-Tap	202.00	For Larger Tap Options, see CS22's
5	5.40 - 6.70	CS12-0670-Tap	203.00	
6	6.43 - 7.73	CS12-0773-Tap	205.00	
8	8.52 - 9.82	CS12-0982-Tap	209.00	
10	10.65 - 11.95	CS12-1195-Tap	214.00	
12	12.70 - 14.00	CS12-1400-Tap	220.00	
	13.10 - 14.40	CS12-1440-Tap		

Range: 1.30"

TO ORDER: Select Catalog Number and add Tap to the end of the Part Number.

EXAMPLE: A 5" wide, double band stainless steel saddle clamp for 6" PVC with a 3/4" I.P. tap would be **CS12-0773-3/4IP**.

STYLE CS22

ALL STAINLESS STEEL SERVICE SADDLE
DOUBLE BAND - 8" WIDE

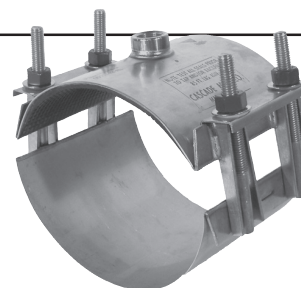
MATERIAL SPECIFICATIONS

Body / Outlet: T304 SST

Gasket: SBR (EPDM available) - Triple O-ring surrounded by full grid matt Patents 6,173,967B1 & 6,588,767B2

Lugs / Washers / Washer Plates: T304 SST

Fasteners: T304 SST, 5/8 UNC, Rolled Thread;
Fluoropolymer Coated, Heavy Hex Nut



One Saddle fits all types of pipe (AC, PVC, Steel, DI, and others)

NOT for HDPE; [See Style PECS22 for HDPE applications](#)

Nominal Pipe Size (inches)	Saddle O.D. Range (inches)	Catalog Number	List Price	
			3/4" or 1", I.P. or C.C.	1-1/4", 1-1/2", or 2", I.P. or C.C.
4	4.36 - 5.66	CS22-0566-Tap	246.00	287.00
5	5.40 - 6.70	CS22-0670-Tap	250.00	298.00
6	6.43 - 7.73	CS22-0773-Tap	257.00	302.00
8	8.52 - 9.82	CS22-0982-Tap	266.00	316.00
10	10.65 - 11.95	CS22-1195-Tap	275.00	328.00
12	12.70 - 14.00	CS22-1400-Tap	290.00	342.00
	13.10 - 14.40	CS22-1440-Tap		
14	14.50 - 15.70	CS22-1570-Tap	352.00	408.00
	15.40 - 16.70	CS22-1670-Tap		
16	16.20 - 17.50	CS22-1750-Tap	380.00	433.00
	17.90 - 19.20	CS22-1920-Tap		
18	19.20 - 20.40	CS22-2040-Tap	393.00	457.00
20	21.50 - 22.80	CS22-2280-Tap	417.00	472.00
24	25.70 - 27.00	CS22-2700-Tap	463.00	521.00

Range: 1.30"

NOTE: Other ranges, tap sizes and band widths available upon request.

TO ORDER: Select Catalog Number and add Tap to the end of the Part Number.

EXAMPLE: An 8" wide, double band stainless steel saddle clamp for 6" PVC with a 3/4" I.P. tap would be **CS22-0773-3/4IP**.

STYLE CSC1

ALL STAINLESS STEEL SERVICE SADDLE
SINGLE BAND - 5" WIDE

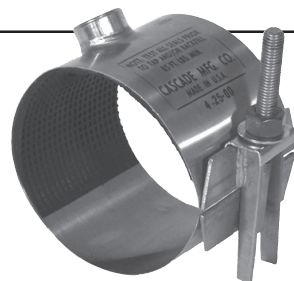
MATERIAL SPECIFICATIONS

Body / Outlet: T304 SST

Gasket: SBR (EPDM available) - Triple O-ring surrounded by full grid matt. Patents 6,173,967B1 & 6,588,767B2

Lugs / Washers / Washer Plate: T304 SST

Fasteners: T304 SST, 5/8 UNC, Rolled Thread; Fluoropolymer Coated, Heavy Hex Nut. One Saddle fits most types of pipe (AC, PVC, Steel, DI)



NOT for HDPE: See Style PECSC1 for HDPE applications

Nominal Pipe Size (inches)	Saddle O.D. Range (inches)	Catalog Number	List Price	
			3/4" I.P.	1" C.C.
2	2.30 - 2.40	CSC1-0240-Tap	164.00	
2-1/2	2.80 - 3.00	CSC1-0300-Tap	168.00	
3	3.35 - 3.65	CSC1-0365-Tap	173.00	
4	3.70 - 4.00	CSC1-0400-Tap	176.00	
	4.45 - 4.85	CSC1-0485-Tap		
5	4.95 - 5.35	CSC1-0535-Tap	176.00	
	5.36 - 5.80	CSC1-0580-Tap		
6	6.54 - 7.00	CSC1-0700-Tap	182.00	
	6.99 - 7.45	CSC1-0745-Tap		
8	8.62 - 9.08	CSC1-0908-Tap	190.00	

For Larger Tap Options, see CS22's

TO ORDER: Select Catalog Number and add Tap to the end of the Part Number.

EXAMPLE: A 5" wide, single band stainless steel saddle clamp for 6" CL200 PVC with a 1" C.C. tap would be **CSC1-0700-1CC**.

STYLE CSC2

ALL STAINLESS STEEL SERVICE SADDLE
SINGLE BAND - 8" WIDE

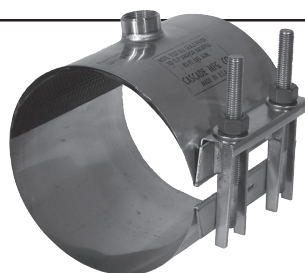
MATERIAL SPECIFICATIONS

Body / Outlet: T304 SST

Gasket: SBR (EPDM available) - Triple O-ring surrounded by full grid matt. Patents 6,173,967B1 & 6,588,767B2

Lugs / Washers / Washer Plate: T304 SST

Fasteners: T304 SST, 5/8 UNC, Rolled Thread; Fluoropolymer Coated, Heavy Hex Nut. One Saddle fits most types of pipe (AC, PVC, Steel, DI)



NOT for HDPE: See Style PECSC2 for HDPE applications

Nominal Pipe Size (inches)	Saddle O.D. Range (inches)	Catalog Number	List Price	
			3/4" I.P.	1" C.C.
3	3.35 - 3.65	CSC2-0365-Tap	190.00	
	3.70 - 4.00	CSC2-0400-Tap		
4	4.45 - 4.85	CSC2-0485-Tap	191.00	
	4.95 - 5.35	CSC2-0535-Tap		
5	5.36 - 5.80	CSC2-0580-Tap	194.00	
6	6.54 - 7.00	CSC2-0700-Tap	213.00	
	6.99 - 7.45	CSC2-0745-Tap		
8	8.62 - 9.08	CSC2-0908-Tap	214.00	
	9.21 - 9.67	CSC2-0967-Tap		
10	10.70 - 11.16	CSC2-1116-Tap	225.00	
	11.75 - 12.21	CSC2-1221-Tap		
12	12.74 - 13.21	CSC2-1321-Tap	232.00	
	14.00 - 14.47	CSC2-1447-Tap		

For Larger Tap Options, see CS22's

TO ORDER: Select Catalog Number and add Tap to the end of the Part Number.

EXAMPLE: An 8" wide, single band stainless steel saddle clamp for 6" CL200 PVC with a 1" C.C. tap would be **CSC2-0700-1CC**.

MATERIAL SPECIFICATIONS

Body / Outlet: T304 SST

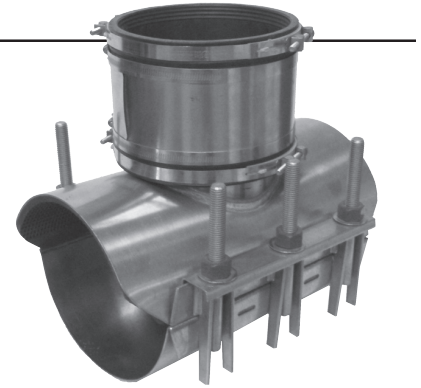
Gasket: SBR (EPDM available) - Grid matt

Lugs / Washers / Washer Plates: T304 SST

Fasteners: T304 SST, 5/8 UNC, Rolled Thread;
Fluoropolymer Coated, Heavy Hex Nut

Sewer Tee to be used with non-shear rubber coupling (not included)

NOT for use on HDPE: Consult Factory for PECSWRT.



Nominal Pipe Size (inches)	Inlet Size	Catalog Number	List Price
6	4	CSWRT-(Pipe OD)-04-RC	357.00
8	4	CSWRT-(Pipe OD)-04-RC	377.00
	6	CSWRT-(Pipe OD)-06-RC	510.00
10	4	CSWRT-(Pipe OD)-04-RC	391.00
	6	CSWRT-(Pipe OD)-06-RC	527.00
	8	CSWRT-(Pipe OD)-08-RC	696.00
12	4	CSWRT-(Pipe OD)-04-RC	400.00
	6	CSWRT-(Pipe OD)-06-RC	541.00
	8	CSWRT-(Pipe OD)-08-RC	712.00
	10	CSWRT-(Pipe OD)-10-RC	736.00
14	4	CSWRT-(Pipe OD)-04-RC	427.00
	6	CSWRT-(Pipe OD)-06-RC	576.00
	8	CSWRT-(Pipe OD)-08-RC	749.00
	10	CSWRT-(Pipe OD)-10-RC	772.00
	12	CSWRT-(Pipe OD)-12-RC	959.00
16	4	CSWRT-(Pipe OD)-04-RC	448.00
	6	CSWRT-(Pipe OD)-06-RC	606.00
	8	CSWRT-(Pipe OD)-08-RC	796.00
	10	CSWRT-(Pipe OD)-10-RC	821.00
	12	CSWRT-(Pipe OD)-12-RC	1,004.00

NOTE: No Rubber Coupling is supplied. Inlet O.D. will be sewer O.D.

TO ORDER: Select Catalog Number and specify the **exact Pipe O.D.** it is going on and the Inlet Size desired.

EXAMPLE: A stainless steel sewer Tee for 6" sewer pipe (O.D. = ø6.28") with a 4" inlet would be **CSWRT-0628-04-RC**.

MATERIAL SPECIFICATIONS

Body / Outlet: T304 SST

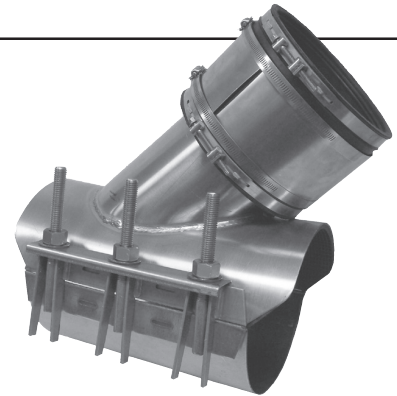
Gasket: SBR (EPDM available) - Grid matt

Lugs / Washers / Washer Plates: T304 SST

Fasteners: T304 SST, 5/8 UNC, Rolled Thread;
Fluoropolymer Coated, Heavy Hex Nut

Sewer Wye to be used with non-shear rubber coupling (not included)

NOT for use on HDPE: Consult Factory for PECSWRY.



Nominal Pipe Size (inches)	Inlet Size	Catalog Number	List Price
6	4	CSWRY-(Pipe OD)-04-RC	498.00
8	4	CSWRY-(Pipe OD)-04-RC	520.00
	6	CSWRY-(Pipe OD)-06-RC	678.00
10	4	CSWRY-(Pipe OD)-04-RC	533.00
	6	CSWRY-(Pipe OD)-06-RC	705.00
	8	CSWRY-(Pipe OD)-08-RC	883.00
12	4	CSWRY-(Pipe OD)-04-RC	552.00
	6	CSWRY-(Pipe OD)-06-RC	721.00
	8	CSWRY-(Pipe OD)-08-RC	901.00
	10	CSWRY-(Pipe OD)-10-RC	1,046.00
14	4	CSWRY-(Pipe OD)-04-RC	579.00
	6	CSWRY-(Pipe OD)-06-RC	749.00
	8	CSWRY-(Pipe OD)-08-RC	951.00
	10	CSWRY-(Pipe OD)-10-RC	1,114.00
	12	CSWRY-(Pipe OD)-12-RC	1,322.00
16	4	CSWRY-(Pipe OD)-04-RC	617.00
	6	CSWRY-(Pipe OD)-06-RC	803.00
	8	CSWRY-(Pipe OD)-08-RC	1,004.00
	10	CSWRY-(Pipe OD)-10-RC	1,176.00
	12	CSWRY-(Pipe OD)-12-RC	1,394.00

NOTE: No Rubber Coupling is supplied. Inlet O.D. will be sewer O.D.

TO ORDER: Select Catalog Number and specify the **exact Pipe O.D.** it is going on and the Inlet Size desired.

EXAMPLE: A stainless steel sewer Wye for 6" sewer pipe (O.D. = ø6.28") with a 4" inlet would be **CSWRY-0628-04-RC**.

MATERIAL SPECIFICATIONS

Outlet: T304 SST

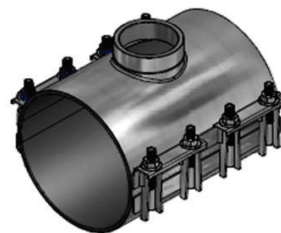
Gaskets: Virgin SBR (EPDM ailable upon request)
Branch Gasket Patent 6,173,967B1

Shell/Lugs: T304 SS

Fasteners: T304 SS, 5/8 UNC, Rolled Thread Studs;
T304 SS, Fluoropolymer Coated Heavy Hex Nut

**Contact the factory for options on HDPE pipe.*

NSF/ANSI 61 Compliant



NOT for use on HDPE: Consult Factory for PECSS-SL.

Nominal Pipe Size (inches)	O.D. Range (inches)	Catalog Number	List Price	
		Sleeve	3" IPS OUTLET (12 Inches Wide)	4" IPS OUTLET (15 Inches Wide)
6	6.60 - 7.00	CSS-SL-0700	895.00	1,024.00
	6.90 - 7.30	CSS-SL-0730		
	7.10 - 7.50	CSS-SL-0750		
	7.50 - 7.90	CSS-SL-0790		
8	7.90 - 8.30	CSS-SL-0830	982.00	1,115.00
	8.35 - 8.75	CSS-SL-0875		
	8.63 - 9.05	CSS-SL-0905		
	8.95 - 9.35	CSS-SL-0935		
	9.20 - 9.60	CSS-SL-0960		
10	10.50 - 10.90	CSS-SL-1090	1,102.00	1,257.00
	10.75 - 11.10	CSS-SL-1110		
	11.00 - 11.40	CSS-SL-1140		
	11.40 - 11.80	CSS-SL-1180		
	11.80 - 12.20	CSS-SL-1220		
12	12.50 - 12.90	CSS-SL-1290	1,247.00	1,422.00
	13.00 - 13.40	CSS-SL-1340		
	13.20 - 13.60	CSS-SL-1360		
	13.40 - 13.80	CSS-SL-1380		
	14.00 - 14.40	CSS-SL-1440		
14	15.10 - 15.50	CSS-SL-1550	1,419.00	1,617.00
	15.40 - 15.80	CSS-SL-1580		
	15.80 - 16.20	CSS-SL-1620		
	16.38 - 16.78	CSS-SL-1678		
16	17.20 - 17.60	CSS-SL-1760	1,610.00	1,835.00
	17.40 - 17.80	CSS-SL-1780		
	17.76 - 18.16	CSS-SL-1816		
	18.40 - 18.80	CSS-SL-1880		
	18.60 - 19.00	CSS-SL-1900		
18	18.80 - 19.20	CSS-SL-1920	1,818.00	2,072.00
	19.30 - 19.70	CSS-SL-1970		
	19.80 - 20.20	CSS-SL-2020		
	21.00 - 21.40	CSS-SL-2140		
20	21.40 - 21.80	CSS-SL-2180	2,067.00	2,356.00
	21.90 - 22.30	CSS-SL-2230		
	22.10 - 22.50	CSS-SL-2250		
24	23.20 - 23.60	CSS-SL-2360	2,343.00	2,684.00
	25.60 - 26.00	CSS-SL-2600		
	26.10 - 26.50	CSS-SL-2650		
	27.90 - 28.30	CSS-SL-2830		

Consult factory for specific applications. **Larger Sizes, Special Ranges are Available.**

TO ORDER: Choose O.D. Range, and Outlet Size.

Examples: A saddle for 12" D.I.P. (O.D. ϕ 13.20") with a 3" Outlet would be a **CSS-SL-1340-03**. The same 12" saddle with a 4" Outlet would be **CSS-SL-1340-04**.

STYLE CCAP

MATERIAL SPECIFICATIONS

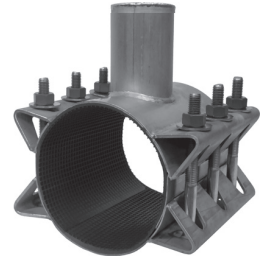
Shell/Lugs: T304 SST

Washers/Washer Plate:
T304 SST

Cap: T304 SST

Gaskets: Virgin SBR (other materials available upon request) *Branch Gasket Patent 6,173,967B1*

Fasteners: T304 SST, 5/8 UNC, Rolled Thread;
Fluoropolymer Coated Heavy Hex Nut



Nominal Pipe Size (inches)	O.D. Range (inches)	Catalog Number	Cap Size	
			03EX	05EX
4	4.40 - 4.60	CCAP2-0460	1,377.00	-
	4.70 - 4.90	CCAP2-0490		
	4.80 - 5.00	CCAP2-0500		
	5.10 - 5.30	CCAP2-0530		
	5.20 - 5.40	CCAP2-0540		
6	6.60 - 7.00	CCAP2-0700	1,392.00	1,535.00
	6.90 - 7.30	CCAP2-0730		
	7.10 - 7.50	CCAP2-0750		
	7.50 - 7.90	CCAP2-0790		
8	7.90 - 8.30	CCAP2-0830	1,565.00	1,706.00
	8.35 - 8.75	CCAP2-0875		
	8.63 - 9.05	CCAP2-0905		
	8.95 - 9.35	CCAP2-0935		
	9.20 - 9.60	CCAP2-0960		
10	10.50 - 10.90	CCAP2-1090	1,722.00	1,862.00
	10.75 - 11.10	CCAP2-1110		
	11.00 - 11.40	CCAP2-1140		
	11.40 - 11.80	CCAP2-1180		
12	11.80 - 12.20	CCAP2-1220	1,737.00	1,878.00
	12.50 - 12.90	CCAP2-1290		
	13.00 - 13.40	CCAP2-1340		
	13.20 - 13.60	CCAP2-1360		
	13.40 - 13.80	CCAP2-1380		
14	14.00 - 14.40	CCAP2-1440	1,856.00	2,001.00
	15.10 - 15.50	CCAP2-1550		
	15.40 - 15.80	CCAP2-1580		
	15.80 - 16.20	CCAP2-1620		
16	16.38 - 16.78	CCAP2-1678	1,960.00	2,111.00
	17.20 - 17.60	CCAP2-1760		
	17.40 - 17.80	CCAP2-1780		
	17.76 - 18.16	CCAP2-1816		
	18.40 - 18.80	CCAP2-1880		
18	18.60 - 19.00	CCAP2-1900	2,129.00	2,270.00
	18.80 - 19.20	CCAP2-1920		
	19.30 - 19.70	CCAP2-1970		
	19.80 - 20.20	CCAP2-2020		
20	21.00 - 21.40	CCAP2-2140	2,396.00	2,535.00
	21.40 - 21.80	CCAP2-2180		
	21.90 - 22.30	CCAP2-2230		
	22.10 - 22.50	CCAP2-2250		
24	23.20 - 23.60	CCAP2-2360	2,473.00	2,614.00
	25.60 - 26.00	CCAP2-2600		
	26.10 - 26.50	CCAP2-2650		
	27.90 - 28.30	CCAP2-2830		

-03EX covers Corporation Stop sizes 1/2" through 1"
-05EX covers Corporation Stop sizes 1-1/4" through 2"

NOT for use on HDPE: Consult Factory

TO ORDER: Select Catalog Number using O.D. range and add Tap Code to the end of the Catalog Number.

EXAMPLE: A corp cap saddle for 6" D.I. pipe with a 1" I.P. corp. tap would be **CCAP2-0700-03EX**.

MATERIAL SPECIFICATIONS

Body: Ductile Iron - ASTM A536 (65-45-12)

Straps: T304 SST

Studs: 18-8 / T304 SST, 5/8 UNC, Rolled Thread

Washers: T304 SST

Nuts: 18-8 / T304 SST, 5/8 UNC,
Fluoropolymer Coated, Heavy Hex

Coating: Fusion Bonded
Epoxy, NSF 61 Compliant

Gasket: EPDM



See **Style PECS22** for HDPE pipe applications

Nominal Pipe Size (inches)	Actual Pipe O.D. Range (inches)			Catalog Number	List Price	
	A IPS/CI	B CI/AC	C C900		3/4" or 1" I.P. or C.C.	1-1/4" thru 2" I.P. or C.C.
3	3.50 only			CNS2-3A-Tap	190.00	201.00
4	4.50 - 5.15	4.80 - 5.40	4.80	CNS2-4 (Range A, B or C)-Tap	206.00	213.00
6	6.63 - 7.25	6.90 - 7.60	6.90	CNS2-6 (Range A, B or C)-Tap	228.00	239.00
8	8.63 - 9.30	9.05 - 9.65	9.05	CNS2-8 (Range A, B or C)-Tap	254.00	263.00
10	10.75 - 11.40	11.10 - 12.12	11.10	CNS2-10 (Range A, B or C)-Tap	313.00	318.00
12	12.75 - 13.50	13.20 - 14.40	13.20	CNS2-12 (Range A, B or C)-Tap	361.00	375.00

TO ORDER: Select Catalog Number using A, B, or C range and add Tap the end of the Catalog Number.

EXAMPLE: An epoxy coated, double strap, ductile iron saddle for 6" D.I. pipe with a 1-1/2" C.C. tap would be **CNS2-6A-1.50CC**. *(NOT for use on HDPE Pipe)

MATERIAL SPECIFICATIONS

Body: Ductile Iron - ASTM A536 (65-45-12)

Coating: Fusion Bonded Epoxy, NSF 61 Compliant

Straps: T304 SST

Gasket: EPDM

Studs: 18-8 / T304 SST, 5/8 UNC, Rolled Thread

Washers: T304 SST / Ductile Iron

Nuts: 18-8 / T304 SST 5/8 UNC, Fluoropolymer Coated, Heavy Hex



See **Style PECS22** for HDPE pipe applications

Nominal Pipe Size (inches)	O.D. Range (inches)	Catalog Number	List Price	
			3/4" or 1" IP or CC Taps	1-1/4" thru 2" IP or CC Taps
14	14.70 - 15.70	CDS-LD-1570-Tap Code	473.00	484.00
14 & 16	15.80 - 17.26	CDS-LD-1726-Tap Code	477.00	488.00
16 & 18	17.30 - 19.00	CDS-LD-1900-Tap Code	519.00	537.00
18 & 20	19.05 - 20.20	CDS-LD-2020-Tap Code	521.00	539.00
20	20.25 - 21.25	CDS-LD-2125-Tap Code	640.00	659.00
	21.30 - 22.30	CDS-LD-2230-Tap Code		
	22.35 - 23.35	CDS-LD-2335-Tap Code		
	22.90 - 23.90	CDS-LD-2390-Tap Code		
24	23.75 - 24.75	CDS-LD-2475-Tap Code	773.00	788.00
	24.60 - 25.60	CDS-LD-2560-Tap Code		
	25.65 - 26.50	CDS-LD-2650-Tap Code		
27	26.55 - 27.55	CDS-LD-2755-Tap Code	813.00	821.00
	27.60 - 28.55	CDS-LD-2855-Tap Code		
30	29.60 - 30.50	CDS-LD-3050-Tap Code	852.00	868.00

TO ORDER: Select Catalog Number using O.D. range and add Tap Code to the end of the Catalog Number.

EXAMPLE: An epoxy coated, double strap, large O.D. ductile iron saddle for 16" D.I. pipe with a 2" C.C. tap would be **CDS-LD-1900-200C**.

NOT for use on HDPE: Consult Factory.

STYLE CPS-IPS

HDPE PIPE STIFFENING INSERTS IPS SIZED PIPE

MATERIAL SPECIFICATIONS

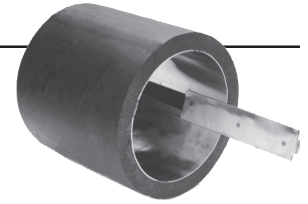
Shell: T304 Stainless Steel

Wedge (when applicable):

T304 Stainless Steel

U.S. Patent 6,095,197

Stiffeners smaller than 4" are 6" long, per Cascade's standard. Stiffeners 4" or larger are 8" long. Larger sizes available upon request.



Nominal Pipe Size (inches)	IPS Ave. Inside Dia. (inches)	Catalog Number	SDR #	List Price	Nominal Pipe Size (inches)	IPS Ave. Inside Dia. (inches)	Catalog Number	SDR #	List Price			
† 2	1.686	CPS-2IPS	7.3	71.00	12	9.046	CPS-12IPS	7.3	251.00			
	1.815		9			9.746		9				
	1.917		11			10.293		11				
	2.002		13.5			10.749		13.5				
	2.051		15.5			11.005		15.5				
	2.078		17			11.160		17				
3	2.485	CPS-3IPS	7.3	105.00	14	11.463	CPS-14IPS	21	391.00			
	2.675		9			11.711		26				
	2.826		11			11.919		32.5				
	2.950		13.5			9.934		7.3				
	3.021		15.5			10.701		9				
3.063	17	11.301	11									
4	3.194	CPS-4IPS	7.3	123.00		14		11.802		CPS-14IPS	13.5	391.00
	3.440		9					12.086			15.5	
	3.633		11					12.253			17	
	3.794		13.5					12.586			21	
	3.885		15.5					12.859			26	
	3.938		17					13.086			32.5	
6	4.046	CPS-6IPS	21	133.00	16	11.353	CPS-16IPS	7.3	476.00			
	4.700		7.3			12.231		9				
	5.065		9			12.915		11				
	5.349		11			13.488		13.5				
	5.584		13.5			13.812		15.5				
	5.720		15.5			14.005		17				
	5.798		17			14.385		21				
	5.957		21			14.696		26				
	6.084		26			14.957		32.5				
6.193	32.5	12.772	7.3	18	13.760	CPS-18IPS	9	523.00				
8	6.119	7.3	14.532		11							
	6.594	9	15.174		13.5							
	6.963	11	15.539		15.5							
	7.270	13.5	15.755		17							
	7.446	15.5	16.183		21							
	7.550	17	16.533		26							
	7.754	21	16.826		32.5							
	7.921	26	14.191		7.3		20		15.289	CPS-20IPS	9	598.00
8.063	32.5	16.146	11									
7.627	7.3	16.860	13.5									
8.219	9	17.265	15.5									
8.679	11	17.507	17									
9.062	13.5	17.982	21									
9.279	15.5	18.370	26									
9.410	17	18.696	32.5									
9.665	21											
9.874	26											
10.048	32.5											

† - One Piece Stiffener

Products for HDPE pipe are designed for underground applications only and only on pipe with a wall thickness of SDR 26 or thicker.

TO ORDER: Select Catalog Number using nominal pipe size.

EXAMPLE: A stiffening insert for 8" I.P.S. - SDR11 pipe would be **CPS-8IPS-11**.

STYLE CPS-DIPS

HDPE PIPE STIFFENING INSERTS DIPS SIZED PIPE

MATERIAL SPECIFICATIONS

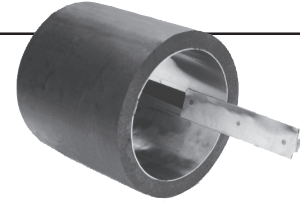
Shell: T304 Stainless Steel

Wedge (when applicable):

T304 Stainless Steel

U.S. Patent 6,095,197

Stiffeners smaller than 4" are 6" long, per Cascade's standard. Stiffeners 4" or larger are 8" long. Larger sizes available upon request.



Nominal Pipe Size	DIPS Ave. Inside Dia. (inches)	Catalog Number	SDR #	List Price	Nominal Pipe Size	DIPS Ave. Inside Dia. (inches)	Catalog Number	SDR #	List Price
3	3.670	CPS-3DIPS	9	106.00	14	11.696	CPS-14DIPS	9	397.00
	3.876		11			12.351		11	
	4.045		13.5			12.898		13.5	
	4.201		17			13.392		17	
4	3.670	CPS-4DIPS	9	126.00		13.755		21	
	3.876		11			14.053		26	
	4.045		13.5		13.301	9			
	4.201		17		14.047	11			
6	4.315	CPS-6DIPS	21	140.00	14.668	CPS-16DIPS	13.5	514.00	
	5.275		9		15.230		17		
	5.570		11		15.643		21		
	5.816		13.5		15.982		26		
8	6.040	CPS-8DIPS	17	177.00	14.907	CPS-18DIPS	9	533.00	
	6.203		21		15.742		11		
	6.918		9		16.438		13.5		
	7.306		11		17.068		17		
10	7.629	CPS-10DIPS	13.5	214.00	17.531	CPS-20DIPS	21	625.00	
	7.921		17		17.910		26		
	8.136		21		16.512		9		
	8.485		9		17.437		11		
12	8.961	CPS-12DIPS	11	256.00	18.208	CPS-12DIPS	13.5		
	9.357		13.5		18.906		17		
	9.716		17		19.419		21		
	9.979		21		19.838		26		
12	10.091	CPS-12DIPS	9	256.00					
	10.656		11						
	11.127		13.5						
	11.554		17						
	11.867		21						

TO ORDER: Select Catalog Number using nominal pipe size.

EXAMPLE: A stiffening insert for 8" D.I.P.S. - SDR11 pipe would be **CPS-8DIPS-11**.

Products for HDPE pipe are designed for underground applications only and only on pipe with a wall thickness of SDR 26 or thicker.

STYLE PECST-SL

STAINLESS STEEL TAPPING SLEEVE FOR HDPE
w/ STAINLESS STEEL or LOW ALLOY FLANGE or MJ CONNECTION

MATERIAL SPECIFICATIONS *AWWA C223 Compliant*

Flange: T304 SST or Low Alloy; complies with AWWA C228 / C207

Gaskets: Virgin SBR (other materials available upon request)
Branch Gasket Patent 6,173,967B1

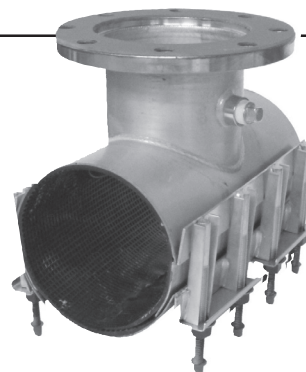
Belleville Washers: 17-7 SST

Shell/Lugs: T304 SST

Fasteners: T304 SST, 5/8 UNC, Rolled Thread;
Fluoropolymer Coated, Heavy Hex Nut

Washers/Washer Plates: T304 SST

Lubricating Washers: Nylon



Nominal Pipe Size (inches)	O.D. (inches)	Catalog Number		List Price	
		Sleeve	Outlet	S.S. Flange or MJ connection	L.A. Flange
4	4.50	PECST-SL-0450	4	1,515.00	1,165.00
	4.80	PECST-SL-0480			
6	6.63	PECST-SL-0663	4	1,598.00	1,227.00
	6.90	PECST-SL-0690	6	1,688.00	1,363.00
8	8.63	PECST-SL-0863	4	1,710.00	1,331.00
	9.05	PECST-SL-0905	6	1,793.00	1,415.00
			8	2,200.00	1,721.00
10	10.75 11.10	PECST-SL-1075 PECST-SL-1110	4	1,753.00	1,493.00
			6	1,901.00	1,508.00
			8	2,404.00	1,910.00
			10	3,623.00	2,935.00
12	12.75 13.20	PECST-SL-1275 PECST-SL-1320	4	2,077.00	1,571.00
			6	2,266.00	1,588.00
			8	2,758.00	2,222.00
			10	3,838.00	3,059.00
			12	4,232.00	3,183.00

* - Indicates size on size sleeves within this range require a 1/2" undersize cutter.

NOTES: All Sleeves hydrostatically tested to at least 1.5 times the rated working pressure. Pressure rating may be application specific. Consult factory for specific applications. **Larger Sizes and 3" Flange Outlets Available.**

Products for HDPE pipe are designed for underground applications only and only on pipe with a wall thickness of SDR 26 or thicker.

TO ORDER: Choose Style of Sleeve, O.D. Range, Flange Size and Flange Type.

EXAMPLE: A super light-weight stainless steel tapping sleeve for 12" DIPS sized HDPE (O.D. ø13.20") with 6" Stainless Steel flange would be a **PECST-SL-1320-06-SS**. Same sleeve with an 8" Low Alloy flange would be **PECST-SL-1320-08-LA**.

STYLE PECR1, PECR2

STAINLESS STEEL REPAIR CLAMP FOR HDPE
SINGLE SECT., NORMAL RANGE & DOUBLE SECT., WIDE RANGE

MATERIAL SPECIFICATIONS

Shells / Lugs / Bars / Washer Plates: T304 SST

Gaskets: SBR (other materials available upon request)

Fasteners: T304 SST, 5/8 UNC, Rolled Thread; Fluoropolymer Coated, Heavy Hex Nut

Belleville Washer: 17-7 SST

Lubricating Washers: Nylon



Nominal Pipe Size (inches)	O.D. (inches)	Catalog Number	List Price				
			6 "	8 "	12 "	16 "	20 "
PECR1							
3	3.50	PECR1-0350-Length	221.00	227.00	336.00	422.00	—
	3.96	PECR1-0396-Length					
4	4.50	PECR1-0450-Length	228.00	240.00	364.00	460.00	—
	4.80	PECR1-0480-Length					
6	6.63	PECR1-0663-Length	—	278.00	425.00	551.00	—
	6.90	PECR1-0690-Length					
8	8.63	PECR1-0863-Length	—	311.00	490.00	618.00	—
	9.05	PECR1-0905-Length					
10	10.75	PECR1-1075-Length	—	399.00	652.00	822.00	1,019.00
	11.10	PECR1-1110-Length					
12	12.75	PECR1-1275-Length	—	447.00	710.00	918.00	1,130.00
	13.20	PECR1-1320-Length					
Nominal Pipe Size (inches)	O.D. (inches)	Catalog Number	List Price				
			12"	16"	20"	24"	30"
PECR2							
12	12.75	PECR2-1275-Length	1,157.00	1,243.00	1,651.00	—	—
	13.20	PECR2-1320-Length					
14	14.00	PECR2-1400-Length	—	1,429.00	1,831.00	2,361.00	—
	15.30	PECR2-1530-Length					
16	16.00	PECR2-1600-Length	—	1,537.00	1,998.00	2,587.00	—
	17.40	PECR2-1740-Length					
18	18.00	PECR2-1800-Length	—	—	2,060.00	2,653.00	3,430.00
	19.50	PECR2-1950-Length					
20	20.00	PECR2-2000-Length	—	—	2,149.00	2,768.00	3,521.00
	21.60	PECR2-2160-Length					

NOTE: Other O.D. ranges and lengths are available upon request. For higher working pressures, clamp length should be equal to or longer than the O.D. of the pipe.

Products for HDPE pipe are designed for underground applications only and only on pipe with a wall thickness of SDR 26 or thicker.

TO ORDER: Determine desired range and length, then select corresponding Catalog Number.

EXAMPLE: A single section stainless steel repair clamp, 12" in length for 8" IPS sized HDPE Pipe would be **PECR1-0863-12**.

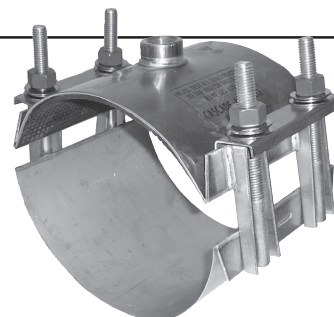
MATERIAL SPECIFICATIONS

Body / Outlet / Lugs / Washers / Washer Plates: T304 SST

Gasket: SBR (EPDM available) - Triple O-ring surrounded by full grid matt
Patents 6,173,967B1 & 6,588,767B2

Fasteners: T304 SST 5/8 UNC, Rolled Thread; Fluoropolymer Coated, Heavy Hex Nut

Belleville Washers: 17-7 SST



Nominal Pipe Size (inches)	O.D. (inches)	Catalog Number	List Price	
			3/4" - 1" I.P. or C.C.	1 1/4" - 2" I.P. or C.C.
4	4.50	PECS22-0450-Tap	318.00	359.00
	4.80	PECS22-0480-Tap		
6	6.63	PECS22-0663-Tap	329.00	374.00
	6.90	PECS22-0690-Tap		
8	8.63	PECS22-0863-Tap	338.00	388.00
	9.05	PECS22-0905-Tap		
10	10.75	PECS22-1075-Tap	347.00	400.00
	11.10	PECS22-1110-Tap		
12	12.75	PECS22-1275-Tap	362.00	414.00
	13.20	PECS22-1320-Tap		
14	14.00	PECS22-1400-Tap	424.00	480.00
	15.30	PECS22-1530-Tap		
16	16.00	PECS22-1600-Tap	452.00	505.00
	17.40	PECS22-1740-Tap		
18	18.00	PECS22-1800-Tap	465.00	529.00
	19.50	PECS22-1950-Tap		
20	20.00	PECS22-2000-Tap	489.00	544.00
	21.60	PECS22-2160-Tap		
24	24.00	PECS22-2400-Tap	535.00	593.00
	25.80	PECS22-2580-Tap		

Products for HDPE pipe are designed for underground applications only and only on pipe with a wall thickness of SDR 26 or thicker.

TO ORDER: Select Catalog Number and add Tap Size to the end of the Catalog Number.

EXAMPLE: An 8" wide, double band stainless steel saddle for 10" IPS sized HDPE, with a 2" C.C. tap would be **PECS22-1110-200C**.

STYLE PECSC1, PECS12

ALL STAINLESS STEEL SERVICE SADDLE FOR HDPE
SINGLE BAND & DOUBLE BAND (5" WIDE)

MATERIAL SPECIFICATIONS

Body/Outlet/Lugs/Washers/Washer Plates: T304 SST

Gasket: SBR (EPDM available) - Triple O-ring surrounded by full grid matt
Patents 6,173,967B1 & 6,588,767B2

Fasteners: T304 SST, 5/8 UNC, Rolled Thread; Fluoropolymer Coated, Heavy Hex Nut

Belleville Washer: 17-7 SST



PECSC1

PECS12



Nominal Pipe Size (inches)	O.D. (inches)	Catalog Number	List Price	
			3/4" or 1" I.P. or C.C.	
PECSC1 - 5" Wide, Single Band				
2	2.38	PECSC1-0238-Tap	182.00	For Larger Pipe Sizes & Tap Options, see PECS22's
2-1/2	2.88	PECSC1-0288-Tap	186.00	
3	3.50	PECSC1-0350-Tap	191.00	
	3.96	PECSC1-0396-Tap		
PECS12 - 5" Wide, Double Band				
4	4.50	PECS12-0450-Tap	238.00	For Larger Pipe Sizes & Tap Options, see PECS22's
	4.80	PECS12-0480-Tap		
5	5.56	PECS12-0556-Tap	239.00	
6	6.63	PECS12-0663-Tap	241.00	
	6.90	PECS12-0690-Tap		
8	8.63	PECS12-0863-Tap	245.00	
	9.05	PECS12-0905-Tap		
10	10.75	PECS12-1075-Tap	250.00	
	11.10	PECS12-1110-Tap		
12	12.75	PECS12-1275-Tap	256.00	
	13.20	PECS12-1320-Tap		

Products for HDPE pipe are designed for underground applications only and only on pipe with a wall thickness of SDR 26 or thicker.

TO ORDER: Select Catalog Number and add Tap Code to the end of the Catalog Number.

EXAMPLE: A 5" wide, double band stainless steel saddle clamp for 6" DIPS sized HDPE with a 2" C.C. tap would be **PECS12-0690-200C**.

MATERIAL SPECIFICATIONS

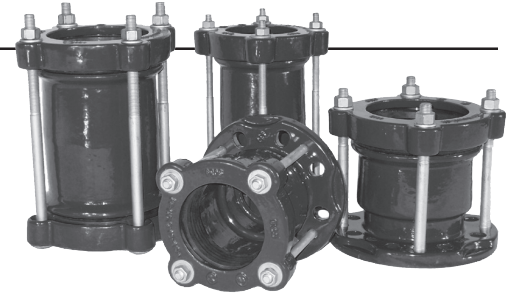
Barrel & End Rings: Ductile Iron

Style CRCER

Finish: Epoxy (NSF/ANSI 61 compliant)

Gaskets: EPDM (No cutting required)

Fasteners: Mild Steel, Corrosion Resistant Plating;
(Stainless Steel available)



Style CRFAER

Nominal Pipe Size (inches)	Pipe OD Ranges		Catalog Number	Pipe Types	Weight (lbs.)	List Price	
	(inches)	(mm)				Low Alloy Bolts (CRCER)	S.S. Bolts (CRCER-SS)
2	1.69 - 2.52	43 - 65	CRCER-0200	PVC, DI, AC, CI Steel	14	256.00	608.00
2-1/2	2.48 - 3.31	63 - 85	CRCER-0250	PVC, CI, IPS Steel	17	343.00	694.00
3	3.46 - 4.33	88 - 110	CRCER-0300	PVC, DI, AC, CI Steel	22	367.00	718.00
4	4.49 - 5.59	115 - 142	CRCER-0400	PVC, DI, AC, CI Steel	29	532.00	883.00
6	6.22 - 7.56	158 - 193	CRCER-0600	PVC, DI, AC, CI Steel	46	861.00	1,213.00
8	8.58 - 9.92	218 - 252	CRCER-0800	PVC, DI, AC, CI Steel	54	1,081.00	1,432.00
10	10.71 - 12.17	273 - 310	CRCER-1000	PVC, DI, AC, CI Steel	71	1,628.00	2,155.00
12	12.72 - 14.41	324 - 367	CRCER-1200	PVC, DI, AC, CI Steel	82	1,864.00	2,391.00

NOTE: To use stainless steel hardware, use the CRCER-SS pricing.

TO ORDER: Select Catalog Number using nominal pipe size.

EXAMPLE: A ductile iron coupling for 8" D.I. pipe would be **CRCER-0800**.

Use on HDPE pipe requires Pipe Stiffeners.

MATERIAL SPECIFICATIONS

Barrel & End Ring: Ductile Iron

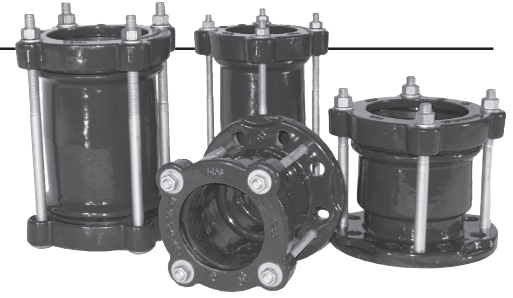
Style CR CER

Flange: Ductile Iron (ANSI, BS, & DIN all in one flange design)

Finish: Epoxy (NSF/ANSI 61 compliant)

Gaskets: EPDM (No cutting required)

Fasteners: Mild Steel, Corrosion Resistant Plating;(Stainless Steel available)



Style CRFAER

Nominal Pipe Size (inches)	Pipe OD Ranges		Catalog Number	Pipe Types	Weight (lbs.)	List Price	
	(inches)	(mm)				Low Alloy Bolts (CRFAER)	S.S. Bolts (CRFAER-SS)
2	1.69 - 2.52	43 - 65	CRFAER-0200	PVC, DI, AC, CI Steel	9	217.00	569.00
2-1/2	2.48 - 3.31	63 - 85	CRFAER-0250	PVC, CI, IPS Steel	12	258.00	610.00
3	3.46 - 4.33	88 - 110	CRFAER-0300	PVC, DI, AC, CI Steel	17	343.00	694.00
4	4.49 - 5.59	115 - 142	CRFAER-0400	PVC, DI, AC, CI Steel	25	495.00	846.00
6	6.22 - 7.56	158 - 193	CRFAER-0600	PVC, DI, AC, CI Steel	39	835.00	1,187.00
8	8.58 - 9.92	218 - 252	CRFAER-0800	PVC, DI, AC, CI Steel	58	1,089.00	1,441.00
10	10.71 - 12.17	273 - 310	CRFAER-1000	PVC, DI, AC, CI Steel	71	1,688.00	2,216.00
12	12.72 - 14.41	324 - 367	CRFAER-1200	PVC, DI, AC, CI Steel	86	1,888.00	2,415.00

NOTE: To use stainless steel hardware, use the CRFAER-SS pricing.

TO ORDER: Select Catalog Number using nominal pipe size.

EXAMPLE: A ductile iron flange adapter for 2" steel pipe would be **CRFAER-0200**.

Use on HDPE pipe requires Pipe Stiffeners.



TERMS & CONDITIONS OF SALE

1. **ALL ORDERS** are subject to Cascade's approval, acceptance, and terms. All orders are non-returnable and non-cancelable without Cascade's prior consent. Authorized returns and cancellations are subject to charges.
2. **ALL PRICES**, specifications and terms are subject to change without notice.
3. **ALL SALES AND DELIVERIES** are subject to shortage of facilities, materials or labor, strikes, fire, explosions, legal restrictions, acts of government, acts of God, force majeure, or any cause beyond Cascade's control.
4. **ALL SHIPMENTS** are F.O.B. shipping point. Title and risk of loss or damage passes to the buyer upon delivery to the carrier regardless of who pays the freight cost. In the event of shortage or damage, notation must be made on the carrier's receipt. Claims for shortage or damage must be made within seven (7) days of receipt of goods.
5. **FREIGHT CHARGES** are prepaid and added to all orders not qualifying for full freight allowance, and are subject to a minimum handling charge of 25%. Only orders of a minimum \$4000.00 net amount qualify for freight allowance (in the contiguous United States).
6. **JOB SITE DELIVERIES** are NOT allowed unless ordered **FREIGHT COLLECT**. A Job Site is any address that is not occupied during normal business hours by employees who are available, able, and equipped to unload the shipment immediately and without appointment. Job Site definition is subject to freight companies determination.
7. **NO RETURNED GOODS** will be accepted without prior written authorization from CASCADE. All authorized returns must be marked with CASCADE'S Return Goods Authorization (RGA) numbers. Appropriate documents detailing the reason for the return and including either CASCADE'S invoice number or the buyer's order number should be included with the packing list. NO FREIGHT COLLECT RETURNS WILL BE ACCEPTED.
8. **CUSTOM FABRICATED** items may not be returned under any conditions. Any item not in the price list is a custom fabrication.
9. **AUTHORIZED RETURNS** accepted for credit must be in completely resalable condition and will be subject to a minimum 25% restocking charge. If re-work is required to return goods to stock, additional charges will be assessed.
10. **PAYMENT TERMS** are net 30 days from date of invoice for accounts in good standing. Past due accounts will be subject to a service charge of 1-1/2% per month. Buyer agrees to pay all costs of collection including, but not limited to, attorneys' fees and court costs, should the indebtedness have to be collected by outside sources.
11. **MINIMUM BILLING** \$50.00

WARRANTY



Cascade Waterworks Mfg. Co. warrants its product(s) to be free of defects in material or workmanship. (Limits apply - please see specific product brochure.) Cascade will repair or replace this product if found to be defective within the warranty period, provided that the buyer submits his claim in writing and delivers the original claimed defective product in its entirety, freight prepaid to Cascade Waterworks Mfg. Co., 1213 Badger Street, Yorkville, IL, 60560 for inspection within 30 days. Any written notice and/or product shall be sent directly

to Cascade unless otherwise instructed. Sending these to a manufacturer's representative or any other agent prior to Cascade's review will void all warranties. Cascade will not be liable nor responsible for any loss, damage, or injury to any persons or property directly or indirectly arising from the use or inability to use this product. The user shall determine the suitability of the product for its intended use prior to any application and said user assumes all risks in connection with the use of this product. No claims for labor or damage will be allowed. The foregoing warranties and remedies are exclusive and in lieu of all others, whether written, oral, or implied. Buyer must advise Cascade within 30 days of discovery of the alleged defect or the claim will be barred. Upon the products' purchase from Cascade Waterworks Mfg. Co., or any of its Agents, the purchaser agrees to all of the above terms of warranty.

