



# TAPPING & SERVICE SADDLES

“The Standard of Excellence in the Industry”



**STYLE CS12**



**STYLE CS22**

**STYLE CSC1**



**STYLE CSC2**



**STYLE CNS1**



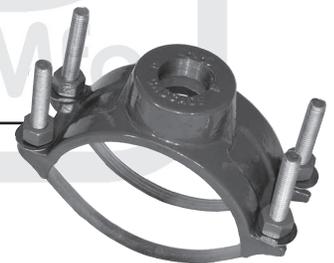
**STYLE CNS2**



**STYLE CDS1**



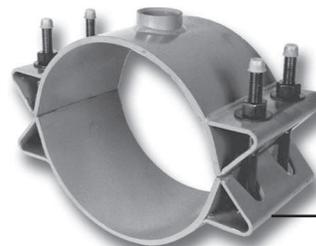
**STYLE CDS2**



**STYLE CFS**



**STYLE CFT-TO**



1213 BADGER STREET • YORKVILLE, ILLINOIS 60560  
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[www.cascademfg.com](http://www.cascademfg.com)

# PIPE OUTSIDE DIAMETER GUIDE

Outside diameter of pipe may change from time to time. The information contained in this chart is the best available from various manufacturers at the time of printing. An O.D. tape should be used to confirm actual diameters prior to ordering fittings.

Nominal Pipe Size (inches)		Nominal Pipe Size (inches)												Nominal Pipe Size (inches)															
CAST IRON PIPE		CAST IRON PIPE												CAST IRON PIPE															
Ductile Iron Pipe		Ductile Iron Pipe												Ductile Iron Pipe															
Class 100-250 AWWA Centrifugal		Class 100-250 AWWA Centrifugal												Class 100-250 AWWA Centrifugal															
Class A AWWA Pit Cast		Class A AWWA Pit Cast												Class A AWWA Pit Cast															
Class B AWWA Pit Cast		Class B AWWA Pit Cast												Class B AWWA Pit Cast															
Class C AWWA Pit Cast		Class C AWWA Pit Cast												Class C AWWA Pit Cast															
Class D AWWA Pit Cast		Class D AWWA Pit Cast												Class D AWWA Pit Cast															
Copper Tubing		Copper Tubing												Copper Tubing															
Steel Pipe - ANSI Schedule 40/80		Steel Pipe - ANSI Schedule 40/80												Steel Pipe - ANSI Schedule 40/80															
Pressure Rated		Pressure Rated												Pressure Rated															
C900 & C905		C900 & C905												C900 & C905															
Schedule 40 / 80		Schedule 40 / 80												Schedule 40 / 80															
Plastic Irrigation Pipe (PIP)		Plastic Irrigation Pipe (PIP)												Plastic Irrigation Pipe (PIP)															
Sewer		Sewer												Sewer															
IPS		IPS												IPS															
DIPS		DIPS												DIPS															
Dual PRINSCO		Dual PRINSCO												Dual PRINSCO															
Wall HANCOR		Wall HANCOR												Wall HANCOR															
(Storm) ADS		(Storm) ADS												(Storm) ADS															
Ultra-Rib		Ultra-Rib												Ultra-Rib															
Nominal Pipe Size (inches)		Nominal Pipe Size (inches)												Nominal Pipe Size (inches)															
ASBESTOS-CEMENT PIPE		ASBESTOS-CEMENT PIPE												ASBESTOS-CEMENT PIPE															
Class 100		Class 100												Class 100															
Class 150		Class 150												Class 150															
Class 200		Class 200												Class 200															
Machined End		Machined End												Machined End															
Fluid-Tite Rough Barrel		Fluid-Tite Rough Barrel												Fluid-Tite Rough Barrel															
Finlrite Rough Barrel		Finlrite Rough Barrel												Finlrite Rough Barrel															
Ring-Tite Rough Barrel		Ring-Tite Rough Barrel												Ring-Tite Rough Barrel															
Permatflex Rough Barrel		Permatflex Rough Barrel												Permatflex Rough Barrel															
Minimum Std. Rough Barrel		Minimum Std. Rough Barrel												Minimum Std. Rough Barrel															
Maximum Std. Rough Barrel		Maximum Std. Rough Barrel												Maximum Std. Rough Barrel															
Machined End		Machined End												Machined End															
Fluid-Tite Rough Barrel		Fluid-Tite Rough Barrel												Fluid-Tite Rough Barrel															
Finlrite Rough Barrel		Finlrite Rough Barrel												Finlrite Rough Barrel															
Ring-Tite Rough Barrel		Ring-Tite Rough Barrel												Ring-Tite Rough Barrel															
Permatflex Rough Barrel		Permatflex Rough Barrel												Permatflex Rough Barrel															
Minimum Std. Rough Barrel		Minimum Std. Rough Barrel												Minimum Std. Rough Barrel															
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Ring-Tite Rough Barrel		Ring-Tite Rough Barrel												Ring-Tite Rough Barrel															
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Minimum Std. Rough Barrel		Minimum Std. Rough Barrel												Minimum Std. Rough Barrel															
Maximum Std. Rough Barrel		Maximum Std. Rough Barrel												Maximum Std. Rough Barrel															
Nominal Pipe Size (inches)		Nominal Pipe Size (inches)												Nominal Pipe Size (inches)															
1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	5	6	8	10	12	14	15	16	18	20	21	24	27	30	36	42	48	54	60	64	66.67
							3.96	4.80	6.90	9.05	11.10	13.20	15.30	17.40	19.50	21.60	25.80	25.80	25.80	25.80	25.80	25.80	32.00	38.30	44.50	50.80	57.56	61.61	65.67
							3.96	4.80	6.90	9.05	11.10	13.20	15.30	17.40	19.50	21.60	25.80	25.80	25.80	25.80	25.80	32.00	38.30	44.50	50.80	57.56	61.61	65.67	
					2.50		3.80	4.80	6.90	9.05	11.10	13.20	15.30	17.40	19.50	21.60	25.80	25.80	25.80	25.80	25.80	32.00	38.30	44.50	50.80	57.56	61.61	65.67	
							3.96	5.00	7.10	9.30	11.40	13.50	15.65	17.80	19.92	22.06	26.32	26.32	26.32	26.32	26.32	32.74	39.16	45.58	51.98	58.38	64.78	71.18	
							3.96	5.00	7.10	9.30	11.40	13.50	15.65	17.80	19.92	22.06	26.32	26.32	26.32	26.32	26.32	32.74	39.16	45.58	51.98	58.38	64.78	71.18	
							3.96	5.00	7.10	9.30	11.40	13.50	15.65	17.80	19.92	22.06	26.32	26.32	26.32	26.32	26.32	32.74	39.16	45.58	51.98	58.38	64.78	71.18	
							3.96	5.00	7.10	9.30	11.40	13.50	15.65	17.80	19.92	22.06	26.32	26.32	26.32	26.32	26.32	32.74	39.16	45.58	51.98	58.38	64.78	71.18	
							3.96	5.00	7.10	9.30	11.40	13.50	15.65	17.80	19.92	22.06	26.32	26.32	26.32	26.32	26.32	32.74	39.16	45.58	51.98	58.38	64.78	71.18	
							3.96	5.00	7.10	9.30	11.40	13.50	15.65	17.80	19.92	22.06	26.32	26.32	26.32	26.32	26.32	32.74	39.16	45.58	51.98	58.38	64.78	71.18	
							3.96	5.00	7.10	9.30	11.40	13.50	15.65	17.80	19.92	22.06	26.32	26.32	26.32	26.32	26.32	32.74	39.16	45.58	51.98	58.38	64.78	71.18	
							3.96	5.00	7.10	9.30	11.40	13.50	15.65	17.80	19.92	22.06	26.32	26.32	26.32	26.32	26.32	32.74	39.16	45.58	51.98	58.38	64.78	71.18	
							3.96	5.00	7.10	9.30	11.40	13.50	15.65	17.80	19.92	22.06	26.32	26.32	26.32	26.32	26.32	32.74	39.16	45.58	51.98	58.38	64.78	71.18	
							3.96	5.00	7.10	9.30	11.40	13.50	15.65	17.80	19.92	22.06	26.32	26.32	26.32	26.32	26.32	32.74	39.16	45.58	51.98	58.38	64.78	71.18	
							3.96	5.00	7.10	9.30	11.40	13.50	15.65	17.80	19.92	22.06	26.32	26.32	26.32	26.32	26.32	32.74	39.16	45.58	51.98	58.38	64.78	71.18	
							3.96	5.00	7.10	9.30	11.40	13.50	15.65	17.80	19.92	22.06	26.32	26.32	26.32	26.32	26.32	32.74	39.16	45.58	51.98	58.38	64.78	71.18	
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							3.96	5.00	7.10	9.30	11.40	13.50	15.65	17.80	19.92	22.06	26.32	26.32	26.32	26.32	26.32	32.74	39.16	45.58	51.98	58.38	64.78	71.18	
							3.96	5.00	7.10	9.30	11.40	13.50	15.65	17.80	19.92	22.06	26.32	26.32	26.32	26.32	26.32	32.74	39.16	45.58	51.98	58.38	64.78	71.18	
							3.96	5.00	7.10	9.30	11.40	13.50	15.65	17.80	19.92	22.06	26.32	26.32	26.32	26.32	26.32	32.74	39.16	45.58	51.98	58.38	64.78	71.18	
							3.96	5.00	7.10	9.30	11.40	13.50	15.65	17.80	19.92	22.06	26.32	26.32	26.32	26.32	26.32	32.74	39.16	45.58	51.98	58.38	64.78	71.18	
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							3.96	5.00	7.10	9.30	11.40	13.50	15.65	17.80	19.92	22.06	26.32	26.32	26.32	26.32	26.32	32.74	39.16	45.58	51.98	58.38	64.78	71.18	
							3.96	5.00	7.10	9.30	11.40	13.50	15.65	17.80	19.92	22.06	26.32	26.32	26.32	26.32	26.32	32.74	39.16	45.58	51.98	58.38	64.78	71.18	
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							3.96	5.00	7.10	9.30	11.40	13.50	15.65	17.80	19.92	22.06	26.32	26.32	26.32	26.32	26.32	32.74	39.16	45.58	51.98	58.38	64.78	71.18	
							3.96	5.00	7.10	9.30	11.40	13.50	15.65	17.80	19.92	22.06	26.32	26.32	26.32	26.32	26.32	32.74	39.16	45.58	51.98	58.38	64.78	71.18	
							3.96	5.00	7.10	9.30	11.40	13.50	15.65	17.80	19.92	22.06	26.32	26.32	26.32	26.32	26.32	32.74	39.16	45.58	51.98	58.38	64.78	71.18	
							3.96	5.00	7.10	9.30	11.40	13.50	15.65	17.80	19.92	22.06	26.32	26.32	26.32	26.32	26.32	32.74	39.16	45.58	51.98	58.38	64.78	71.18	
							3.96	5.00	7.10	9.30	11.40	13.50	15.65	17.80	19.92	22.06	26.32	26.32	26.32	26.32	26.32	32.74	39.16	45.58	51.98	58.38	64.78	71.18	
							3.96	5.00	7.10	9.30	1																		

# FEATURES OF THE CASCADE ALL-STAINLESS STEEL SERVICE SADDLE

**TAPPED OUTLETS**  
T304 SST

**GASKET**  
Virgin SBR,  
Grade 30  
(EDPM available  
Upon request.)

**SHELL**  
T304 SST

**STUD & RECEIVER BARS**  
T304 SST

**STUD**  
5/8 UNC, Rolled Thread;  
T304 SST

**NUTS**  
18-8/T304 SST Heavy Hex  
Fluoropolymer Coated

**WASHERS**  
18-8 SST, Nylon

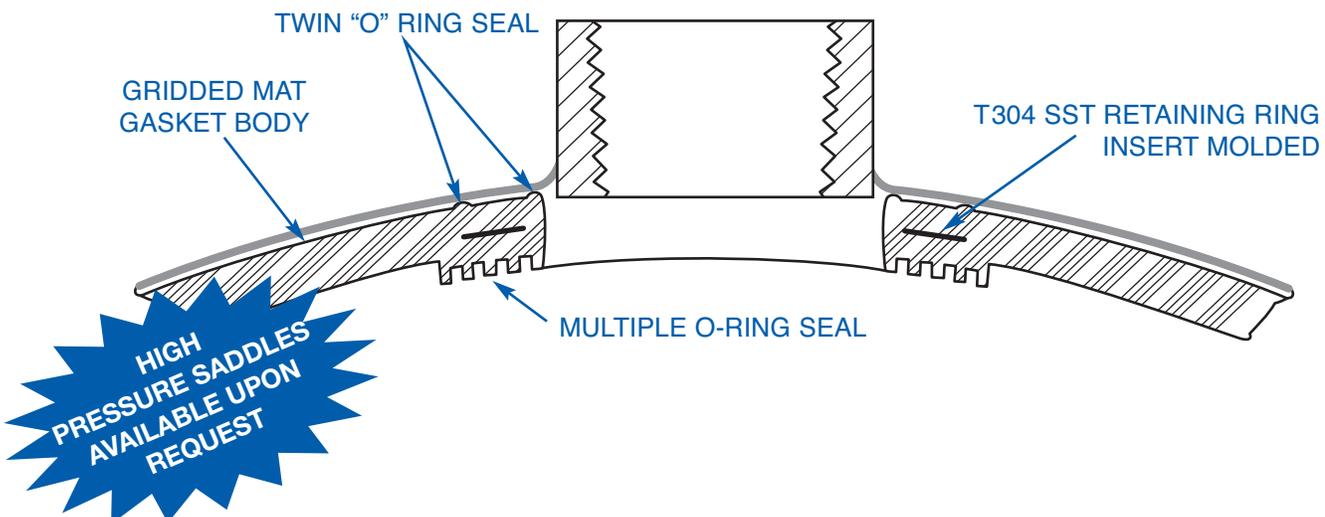
**WASHER PLATE**  
T304 SST

**FINGER LUGS**  
T304 SST

**ALL SURFACES ARE FULLY, CHEMICALLY PASSIVATED - ASTM A380**

## **MULTIPLE O-RING RETAINED MAIN SEAL GASKET** (Patents 6,173,967 B1 & 6,588,767 B2)

**CASCADE EXCLUSIVE** – Used on all CSC and CS Style Saddles. Excellent for HDPE Pipe, see HDPE products brochure.





## FEATURES

- Heavy Gauge Top Section for Strong Bond with Outlet
- Widest Range Saddle Available
- Fits All Standard Diameters for Pipes in Nominal Sizes
- Full Hoop Support - Saddle Body Conforms to Pipe O.D.
- Certified NSF/ANSI 61

One saddle fits all types of pipe (AC, PVC, DI, Steel, CI)

## MATERIAL SPECIFICATIONS

**Body / Outlet:** T304 SST

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

**Lugs / Washers / Washer Plates:** T304 SST

**Studs:** 5/8 UNC, Rolled Thread; T304 SST

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



### STYLE CS12 • 5" WIDE DOUBLE BAND SADDLE

3/4" or 1"; C.C. or I.P.



**SHELL WIDTH 5" MAXI-STRETCH**  
(RANGE - APPROX. 1.30")

Nominal Pipe Size (inches)	O.D. Range (inches)	Catalog Number	Weight Each (lbs.)
4	4.36-5.66	CS12-0566-TAP	5.00
5	5.40-6.70	CS12-0670-TAP	5.25
6	6.43-7.73	CS12-0773-TAP	5.50
8	8.52-9.82	CS12-0982-TAP	6.00
10	10.65-11.95	CS12-1195-TAP	6.25
12	12.70-14.00 13.10-14.40	CS12-1400-TAP CS12-1440-TAP	6.75



### STYLE CS22 • 8" WIDE DOUBLE BAND SADDLE

3/4", 1", 1 1/4", 1 1/2" or 2"; C.C. or I.P.



**SHELL WIDTH 8" MAXI-STRETCH**  
(RANGE - APPROX. 1.30")

Nominal Pipe Size (inches)	O.D. Range (inches)	Catalog Number	Weight Each (lbs.)
4	4.36-5.66	CS22-0566-TAP	9.75
5	5.40-6.70	CS22-0670-TAP	10.25
6	6.43-7.73	CS22-0773-TAP	10.75
8	8.52-9.82	CS22-0982-TAP	11.50
10	10.65-11.95	CS22-1195-TAP	12.00
12	12.70-14.00 13.10-14.40	CS22-1400-TAP CS22-1440-TAP	12.75
14	14.00-15.30 15.40-16.70	CS22-1530-TAP CS22-1670-TAP	13.25
16	16.20-17.50 17.90-19.20	CS22-1750-TAP CS22-1920-TAP	13.75
18	19.20-20.40	CS22-2040-TAP	14.50
20	21.50-22.80	CS22-2280-TAP	15.00
24	25.70-27.00	CS22-2700-TAP	18.50

**TO ORDER:** Select desired catalog number and add tap size.

**EXAMPLE:** An 8" wide double band saddle for 6" pipe with a 2" IP (NPT) tap would be **CS22-0773-2" IP**.

**NOTE:** Other ranges and tap sizes available upon request.



## FEATURES

- One Piece Quick Insulation
- Provides Full Hoop Support
- Eliminates Distortion of Pipe
- Superior Corrosion Resistance
- Certified NSF/ANSI 61

## MATERIAL SPECIFICATIONS

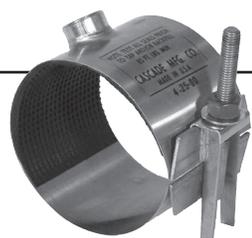
**Body / Outlet:** T304 SST

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

**Lugs / Washers / Washer Plate:** T304 SST

**Studs:** 5/8 UNC, Rolled Thread; T304 SST

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



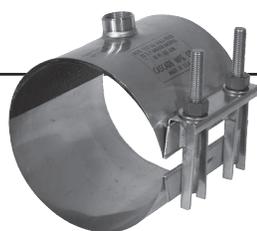
SHELL WIDTH 5"

### STYLE CSC1 • 5" WIDE SINGLE BAND SADDLE

3/4" or 1"; C.C. or I.P.



Nominal Pipe Size (inches)	O.D. Range (inches)	Catalog Number	Weight Each (lbs.)
2	2.30-2.40	CSC1-240-TAP	3.00
2½	2.80-3.00	CSC1-300-TAP	3.00
3	3.35-3.65	CSC1-365-TAP	3.00
	3.70-4.00	CSC1-400-TAP	
4	4.45-4.85	CSC1-485-TAP	3.25
	4.95-5.35	CSC1-535-TAP	
5	5.35-5.80	CSC1-580-TAP	3.25
6	6.54-7.00	CSC1-700-TAP	3.50
	6.99-7.45	CSC1-745-TAP	
8	8.62-9.08	CSC1-908-TAP	4.00



SHELL WIDTH 8"

### STYLE CSC2 • 8" WIDE SINGLE BAND SADDLE

3/4" or 1"; C.C. or I.P.



Nominal Pipe Size (inches)	O.D. Range (inches)	Catalog Number	Weight Each (lbs.)
3	3.35-3.65	CSC2-365-TAP	5.00
	3.70-4.00	CSC2-400-TAP	
4	4.45-4.85	CSC2-485-TAP	5.50
	4.95-5.35	CSC2-535-TAP	
5	5.36-5.80	CSC2-580-TAP	5.50
6	6.54-7.00	CSC2-700-TAP	6.00
	6.99-7.45	CSC2-745-TAP	
8	8.62-9.08	CSC2-908-TAP	6.50
	9.21-9.67	CSC2-967-TAP	
10	10.70-11.16	CSC2-1116-TAP	7.25
	11.75-12.21	CSC2-1221-TAP	
12	12.74-13.21	CSC2-1321-TAP	8.00
	14.00-14.47	CSC2-1447-TAP	

**TO ORDER:** Select desired catalog number and add tap size.

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

**NOTE:** Other ranges and tap sizes available upon request.

## MATERIAL SPECIFICATIONS

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

**Coating:** Fusion Bonded Epoxy  
(NSF/ANSI 61 compliant)

**Strap:** T304 SST

**Studs:** 5/8 UNC, Rolled Thread; 18-8 / T304 SST    **Gasket:** EPDM

**Washers:** T304 SST

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



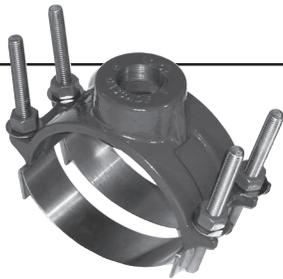
### STYLE CNS1 • SINGLE SST STRAP SERVICE SADDLE

3/4", 1", 1 1/4", 1 1/2 or 2"; C.C. or I.P.



Nominal Pipe Size (inches)*	O.D. Range (inches)			Catalog Number	Weight Each (lbs.)
	A DI/IPS/CI	B CI/AC	C C900		
2 †	2.35-2.56	—	—	CNS1-2A-TAP	3.25
3	3.50 (only)	—	—	CNS1-3A-TAP	3.50
4	4.50-5.15	4.80-5.40	4.80	CNS1-4(Range A,B,orC)-TAP	3.75
6	6.63-7.25	6.90-7.60	6.90	CNS1-6(Range A,B,orC)-TAP	4.00
8	8.63-9.30	9.05-9.65	9.05	CNS1-8(Range A,B,orC)-TAP	4.25
10	10.75-11.40	11.10-12.12	11.10	CNS1-10(Range A,B,orC)-TAP	5.00
12	12.75-13.50	13.20-14.40	13.20	CNS1-12(Range A,B,orC)-TAP	5.75

† - ONLY AVAILABLE WITH 3/4" - 1 1/4" I.P./C.C. or 1 1/2" I.P. TAPS



### STYLE CNS2 • DOUBLE SST STRAP SERVICE SADDLE

3/4", 1", 1 1/4", 1 1/2 or 2"; C.C. or I.P.



Nominal Pipe Size (inches)*	O.D. Range (inches)			Catalog Number	Weight Each (lbs.)
	A DI/IPS/CI	B CI/AC	C C900		
3	3.50 (only)	—	—	CNS2-3A-TAP	8.50
4	4.50-5.15	4.80-5.40	4.80	CNS2-4(Range A,B,orC)-TAP	9.50
6	6.63-7.25	6.90-7.60	6.90	CNS2-6(Range A,B,orC)-TAP	10.25
8	8.63-9.30	9.05-9.65	9.05	CNS2-8(Range A,B,orC)-TAP	11.50
10	10.75-11.40	11.10-12.12	11.10	CNS2-10(Range A,B,orC)-TAP	12.75
12	12.75-13.50	13.20-14.40	13.20	CNS2-12(Range A,B,orC)-TAP	13.25

**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**.

## MATERIAL SPECIFICATIONS

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

**Coating:** Fusion Bonded Epoxy (NSF/ANSI 61 compliant)

**Straps:** T304 SST

**Gasket:** EPDM

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

**Washers:** Flat-T304 SST / Hemispherical-Ductile Iron

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



## STYLE CDS-LD • LARGE O.D. SERVICE SADDLES WITH S.S. STRAP

3/4" or 2"; C.C. or I.P.



Nominal Pipe Size (Inches)	O.D. Range (Inches)	Catalog Number	Weight Each (lbs.)
14	14.70-15.70	CDS-LD-1570	17.0
14 & 16	15.80-17.26	CDS-LD-1726	17.1
16 & 18	17.30-19.00	CDS-LD-1900	17.3
18 & 20	19.05-20.20	CDS-LD-2020	17.5
20	20.25-21.25	CDS-LD-2125	17.7
	21.30-22.30	CDS-LD-2230	17.8
	22.35-23.35	CDS-LD-2335	18.0
	22.90-23.90	CDS-LD-2390	18.1
24	23.75-24.75	CDS-LD-2475	18.2
	24.60-25.60	CDS-LD-2560	18.3
27	25.65-26.50	CDS-LD-2650	18.4
	26.55-27.55	CDS-LD-2755	18.7
30	27.60-28.55	CDS-LD-2855	19.0
	29.60-30.50	CDS-LD-3050	19.3
	31.60-32.50	CDS-LD-32.50	20.0

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

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

## MATERIAL SPECIFICATIONS

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

**Coating:** Fusion Bonded Epoxy (NSF/ANSI 61 compliant)

**U-Bolt:** 5/8 UNC, Rolled Thread; High Strength, Low Alloy Steel (with Corrosion Resistant Plating);

**Gasket:** EPDM

**Washers:** Mild Steel (with Corrosion Resistant Plating)

**Nuts:** 5/8 UNC, Heavy Hex; ASTM A588/A242



Not Recommended for PVC Pipe, see CNS1

### STYLE CDS1 • SINGLE U-BOLT SERVICE SADDLE

3/4", 1", 1 1/4", 1 1/2 or 2"; C.C. or I.P. TAPS



Nominal Pipe Size (inches)	O.D. Range (inches)		Catalog Number	Weight Each (lbs.)
	A DI/IPS/CI	B CI/AC		
2 †	2.35–2.56	—	CDS1–2A–TAP	3.25
3	3.50 (only)	—	CDS1–3A–TAP	3.75
4	4.50–5.15	4.80–5.40	CDS1–4(Range A or B)–TAP	3.75
6	6.63–7.25	6.90–7.60	CDS1–6(Range A or B)–TAP	4.00
8	8.63–9.30	9.05–9.65	CDS1–8(Range A or B)–TAP	4.25
10	10.75–11.40	11.10–12.12	CDS1–10(Range A or B)–TAP	5.00
12	12.75–13.50	13.20–14.40	CDS1–12(Range A or B)–TAP	5.75

† – AVAILABLE WITH 3/4" – 1 1/4" C.C./I.P. or 1 1/2" I.P. TAPS



Not Recommended for PVC Pipe, see CNS2

For larger pipe sizes see style CDS-LD on page 6

### STYLE CDS2 • DOUBLE U-BOLT SERVICE SADDLE

3/4", 1", 1 1/4", 1 1/2 or 2"; C.C. or I.P. TAPS



Nominal Pipe Size (inches)	O.D. Range (inches)		Catalog Number	Weight Each (lbs.)
	A DI/IPS/CI	B CI/AC		
3	3.50 (only)	—	CDS2–3A–TAP	7.00
4	4.50–5.15	4.80–5.40	CDS2–4(Range A or B)–TAP	7.25
6	6.63–7.25	6.90–7.60	CDS2–6(Range A or B)–TAP	8.25
8	8.63–9.30	9.05–9.65	CDS2–8(Range A or B)–TAP	9.75
10	10.75–11.40	11.10–12.12	CDS2–10(Range A or B)–TAP	11.50
12	12.75–13.50	13.20–14.40	CDS2–12(Range A or B)–TAP	13.25

**TO ORDER:** Select desired catalog number and add tap size.

**EXAMPLE:** A double u-bolt ductile iron saddle for 8" D.I.P. with a p" IP tap would be **CDS2-8A-3/4IP**.

**NOTES:** Not recommended for PVC Pipe.

# STYLE CFS

## EPOXY COATED STEEL SERVICE SADDLES WITH STAINLESS STEEL BAND



**Tap Sizes**  
2" through 4" IPS  
Other sizes available upon request.

### MATERIAL SPECIFICATIONS

(8" WIDE)



**Body & Outlet:** Fabricated Steel, ASTM A36

**Finish:** Epoxy (NSF/ANSI 61 compliant)

**Gaskets:** EPDM

**Band:** T304 Stainless Steel

**Studs:** 5/8 UNC, Rolled Thread; 18-8/T304 Stainless Steel

**Nuts:** 5/8 UNC, Heavy Hex; 18-8/T304 SST, Fluoropolymer coated

Nominal Pipe Size (inches)	Actual Pipe O.D.	Catalog Number X-Tap	Weight Each (lbs.)
4	4.50	CFS-450-TAP	15
	4.80	CFS-480-TAP	
6	6.63	CFS-663-TAP	16
	6.90	CFS-690-TAP	
8	8.63	CFS-863-TAP	17
	9.05	CFS-905-TAP	
10	10.75	CFS-1075-TAP	19
	11.10	CFS-1110-TAP	
12	12.00	CFS-1200-TAP	21
	12.75	CFS-1275-TAP	
	13.20	CFS-1320-TAP	
14	14.00	CFS-1400-TAP	22
	15.30	CFS-1530-TAP	

Nominal Pipe Size (inches)	Actual Pipe O.D.	Catalog Number X-Tap	Weight Each (lbs.)
16	16.00	CFS-1600-TAP	24
	17.40	CFS-1740-TAP	
	17.80	CFS-1780-TAP	
18	18.00	CFS-1800-TAP	25
	19.50	CFS-1950-TAP	
20	20.00	CFS-2000-TAP	26
	21.60	CFS-2160-TAP	
24	24.00	CFS-2400-TAP	27
	25.80	CFS-2580-TAP	
30	30.00	CFS-3000-TAP	29
	32.00	CFS-3200-TAP	

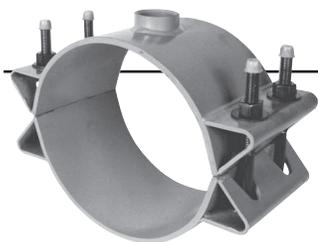
**TO ORDER:** Select Catalog Number using actual O.D. and add Tap to the end of the Catalog Number.

**EXAMPLE:** A fabricated steel saddle for 6" D.I. pipe with a 3" I.P. tap would be **CFS-0690-3IP**.

**NOTE:** Not recommended for use on PVC pipe.

# STYLE CFT-TO

## EPOXY COATED STEEL SERVICE SADDLE WITH THREADED OUTLET



**Tap Sizes**  
2" through 4" IPS  
Other sizes available upon request.

### MATERIAL SPECIFICATIONS

(8" WIDE)



**Body & Outlet:** Fabricated Steel, ASTM A36

**Finish:** Epoxy (NSF/ANSI 61 compliant)

**Gaskets:** EPDM

**Bolts:** 3/4 UNC, Rolled Thread; High Strength, Low Alloy Steel

**Washers:** 3/4 Heavy; Mild Steel with Corrosion Resistant Plating

**Nuts:** 3/4 UNC, Heavy Hex; ASTM A588/A242 (Optional: 18-8/T304 SST, Fluoropolymer coated)

Nominal Pipe Size (inches)	Pipe O.D. (inches)	Catalog Number X-Tap	Weight Each (lbs.)
6	6.63	CFT-TO-663-TAP	24
	6.90	CFT-TO-690-TAP	
8	8.63	CFT-TO-863-TAP	32
	9.05	CFT-TO-905-TAP	
10	10.75	CFT-TO-1075-TAP	40
	11.10	CFT-TO-1110-TAP	
12	12.75	CFT-TO-1275-TAP	50
	13.20	CFT-TO-1320-TAP	
	14.50-15.00	CFT-TO-1500-TAP	
14	15.20-15.80	CFT-TO-1580-TAP	60
	16.30-16.70	CFT-TO-1670-TAP	
	17.30-17.87	CFT-TO-1787-TAP	
16	18.62-19.20	CFT-TO-1920-TAP	68

Nominal Pipe Size (inches)	Pipe O.D. (inches)	Catalog Number X-Tap	Weight Each (lbs.)
18	19.41-20.00	CFT-TO-2000-TAP	78
	20.93-21.57	CFT-TO-2157-TAP	
	21.51-22.15	CFT-TO-2215-TAP	
20	23.46-24.16	CFT-TO-2416-TAP	88
	25.71-26.40	CFT-TO-2640-TAP	
24	28.14-28.84	CFT-TO-2884-TAP	105
	31.60-32.20	CFT-TO-3220-TAP	
30	38.10-38.75	CFT-TO-3875-TAP	140
	42	CFT-TO-4470-TAP	
42	44.10-44.70	CFT-TO-4470-TAP	160
	48	CFT-TO-5100-TAP	
48	50.40-51.00	CFT-TO-5100-TAP	185
	54	CFT-TO-5725-TAP	
54	56.60-57.25	CFT-TO-5725-TAP	210

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

**EXAMPLE:** An epoxy coated, fabricated steel saddle for 8" D.I. pipe with a 2" I.P. tap would be **CFT-TO-0905-2IP**.

**NOTE:** Not recommended for use on PVC pipe.

# SAMPLE SPECIFICATIONS

## **SADDLES (ALL Stainless Steel) - *STYLES – CS12, CS22***

Service saddles shall be made from 18-8, Type 304 stainless steel, per ASTM A240. All saddles shall be of two-piece construction and shall be certified to NSF/ANSI 61.

**Cascade Style CS12** Service Saddles shall be a minimum of 5 inches wide for 4 inch through 12 inch pipe sizes with outlets of 3/4 inch or 1 inch, CC or IP (NPT) thread. The saddles shall have a single stud/receiver assembly per side.

**Cascade Style CS22** Service Saddles shall be 8 inches wide for 4 inch through 24 inch pipe sizes with outlets of 3/4 inch through 2 inch, CC or IP (NPT) thread. These saddles shall have a double stud/receiver assembly per side. Bolts and nuts shall be 5/8 UNC, 18-8 stainless steel. Nuts shall have a fluoropolymer coating to prevent galling. Washers shall be T304 and nylon. Outlets shall be T304 stainless steel, with either CC or IP (NPT) threads. Gaskets shall be virgin SBR - grade 30 (optional virgin EPDM) rubber. Gasket shall be a gridded mat, with tapered ends, with the outlet section having dual O-rings contacting the saddle body and multiple rings contacting the pipe. A stainless steel reinforcing ring shall be insert-molded within the outlet section to prevent gasket expansion under pressure.

**All weldments shall be fully, chemically passivated in accordance with ASTM A380.** Service Saddles shall be Model CS12 or CS22 as manufactured by Cascade Waterworks Mfg. Co. of Yorkville, IL or approved equal.

## **SADDLES (ALL Stainless Steel) - *STYLES – CSC1, CSC2***

Service saddles shall be made from 18-8, Type 304 stainless steel, per ASTM A240. All saddles shall be of one-piece construction and shall be certified to NSF/ANSI 61.

**Cascade Style CSC1** Service Saddles shall be a minimum of 5 inches wide for 2 inch through 8 inch pipe sizes with of 3/4 inch or 1 inch, CC or IP (NPT) thread. The saddles shall have a single stud/receiver assembly.

**Cascade Style CSC2** Service Saddles shall be 8 inches wide for 3 inch through 12 inch pipe sizes with outlets of 3/4 inch through 2 inch, CC or IP (NPT) thread. These saddles shall have a double stud/receiver assembly. Bolts and nuts shall be 5/8 UNC, 18-8 stainless steel. Nuts shall have a fluoropolymer coating to prevent galling. Washers shall be T304 and nylon. Outlets shall be T304 stainless steel, with either CC or IP (NPT) threads. Gaskets shall be virgin SBR - grade 30 (optional virgin EPDM) rubber. Gasket shall be a gridded mat, with tapered ends, with the outlet section having dual O rings contacting the saddle body and multiple rings contacting the pipe. A stainless steel reinforcing ring shall be insert-molded within the outlet section to prevent gasket expansion under pressure.

**All weldments shall be fully, chemically passivated in accordance with ASTM A380.** Service Saddles shall be Model CSC1 or CSC2 as manufactured by Cascade Waterworks Mfg. Co. of Yorkville, IL or approved equal.



## **CASCADE WATERWORKS MANUFACTURING**

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# SAMPLE SPECIFICATIONS

## **SADDLES (Ductile Body with Stainless Steel Straps) - STYLES – CNS1, CNS2**

Service saddles shall be Ductile Iron bodies per ASTM A536 with an NSF/ANSI 61 compliant epoxy coating and straps made from Type 304 stainless steel, per ASTM A240. **Cascade Style CNS1** Service Saddles shall have a single strap, consisting of two, single stud bars and one band. Saddles for 2 inch pipe shall be tapped for an outlet from 3/4 inch through 1 1/4 inch, with CC or IP (NPT) thread, or 1 1/2 inch IP (NPT) thread. Saddles for 3 inch through 12 inch pipe shall be tapped for an outlet from 3/4 inch through 2 inch, with CC or IP (NPT) thread. **Cascade Style CNS2** Service Saddles shall have two straps, each one consisting of two, single stud bars and one band. Saddles for 3 inch through 12 inch pipe shall be tapped for an outlet from 3/4 inch through 2 inch, with CC or IP (NPT) thread. Fastening hardware for saddles for 2 inch pipe shall be 1/2 UNC, while all other sizes shall be 5/8 UNC. Stud bars and washers shall be T304 stainless steel. Nuts shall be heavy-hex type, of 18-8 stainless steel and shall be coated with a fluoropolymer to prevent galling. Gaskets shall be virgin EPDM. The gasket shall contact the saddle body and the pipe. **All weldments (welds and stainless steel surfaces) shall be fully, chemically passivated in accordance with ASTM A380.** Service Saddles shall be Model CNS1 or CNS2 as manufactured by Cascade Waterworks Mfg. Co. of Yorkville, IL.

## **SADDLES (Ductile Body with Stainless Steel Straps) - STYLES – CDS-LD**

Service saddles shall be Ductile Iron bodies per ASTM A536 with an NSF/ANSI 61 certified epoxy coating and straps made from Type 304 stainless steel, per ASTM A240. **Cascade Style CDS-LD** Service Saddles shall have a single, wide strap, consisting of a band and one double stud bar at each end of the strap. Saddles for 14 inch pipe and larger shall be tapped for an outlet from 3/4 inch through 2 inch, with CC or IP (NPT) thread. Stud bars and flat washers and nuts shall be 5/8 UNC. Stud bars and flat washers shall be T304 stainless steel. Nuts shall be heavy-hex type, of 18-8 stainless steel and shall be coated with a fluoropolymer to prevent galling. Hemispherical washers, made of Ductile Iron with an NSF/ANSI 61 certified epoxy coating, shall be used to provide positive engagement of the strap to the saddle. Gaskets shall be virgin EPDM. The gasket shall contact the saddle body and the pipe. **All weldments (welds and stainless steel surfaces) shall be fully, chemically passivated in accordance with ASTM A380.** Service Saddles shall be Model CDS-LD as manufactured by Cascade Waterworks Mfg. Co. of Yorkville, IL.

## **SADDLES (Ductile Body with Steel Bales) - STYLES – CDS1, CDS2**

Service saddles shall be Ductile Iron bodies per ASTM A536 with an NSF/ANSI 61 compliant epoxy coating, and U-bolts made from ASTM A36 steel with corrosion resistant plating. **Cascade Style CDS1** Service Saddles shall have a single U-bolt. Saddles for 2 inch pipe shall be tapped for an outlet from 3/4 inch through 1-1/4 inch, with CC or IP (NPT) thread, or 1-1/2 inch IP (NPT) thread. Saddles for 3 inch through 12 inch pipe shall be tapped for an outlet from 3/4 inch through 2 inch, with CC or IP (NPT) thread. **Cascade Style CDS2** Service Saddles shall have two U-bolts. Saddles for 3 inch through 12 inch pipe shall be tapped for an outlet from 3/4 inch through 2 inch, with CC or IP (NPT) thread. Saddles for 2 inch pipe shall be 1/2 UNC, with all other sizes being 5/8 UNC. U-bolt and washers shall be mild steel with corrosion resistant plating. Nuts shall be heavy-hex type, of ASTM A588/A242 (Corten type) steel. Gaskets shall be virgin EPDM. The gasket shall contact the saddle body and the pipe. Service Saddles shall be Model CDS1 or CDS2 as manufactured by Cascade Waterworks Mfg. Co. of Yorkville, IL.

## **SERVICE SADDLE (Fabricated Steel w/ Stainless Steel Band) - STYLE – CFS**

Service Saddle shall be made from a top shell section and a back shell section. The back shell section shall be T304 stainless steel, with a minimum thickness of 14 gauge with bolt bars TIG welded to the shell. Each bolt bar shall be T304 stainless steel of a minimum thickness 10 gauge. The top shell section (outlet side) shall be ASTM A285 Grade C or ASTM A36 steel, with a minimum thickness of 3/16 inch for pipe diameters between 6.00" thru 12.75", and a minimum thickness of 3/8 inch thick for pipe diameters over 12.75", and have 3/8" thick mounting ears MIG welded to the shell. The outlet shall be ASTM A285 Grade C or ASTM A36 steel and attached to the Top shell with an outside seam MIG weld. The top shell shall have a virgin EPDM, broad throat outlet gasket to assure a positive seal. The Back shell section shall be attached to the Top shell section using a fluoropolymer coated, 18-8, T304 stainless steel heavy hex nuts. The bolt bars and washers shall be T304 stainless steel and shall be 5/8 UNC thread. **All stainless steel weldments shall be fully, chemically passivated in accordance with ASTM A380** and all carbon steel weldments on the saddle body to be finished with NSF/ANSI 61 compliant epoxy coating. The tapping saddle shall be CFS series as manufactured by Cascade Waterworks Mfg. Co. of Yorkville, IL.

## **TAPPING SADDLE w/ THREADED OUTLET (Fabricated Carbon Steel) - STYLE – CFT-TO**

Tapping Saddle shall be made from a top shell section and a back shell section. The back shell section shall be ASTM A285 Grade C or ASTM A36 steel, with a minimum thickness of 3/16 inch for pipe diameters between 4.50" and 9.05", and a minimum thickness of 3/8 inch thick for pipe diameters over 9.05", and shall have lug bars MIG welded to the shell. Each lug bar shall be ASTM A285 Grade C or ASTM A36 steel of a minimum thickness of 1/4 inch, and are MIG welded along the top and bottom edges. The top shell section (outlet side) shall be ASTM A285 Grade C or ASTM A36 steel, with a minimum thickness of 3/16 inch for pipe diameters between 4.50" and 9.05", and a minimum thickness of 3/8 inch thick for pipe diameters over 9.05", and shall have lug bars MIG welded to the shell, similar to the back shell. The outlet shall be ASTM A285 Grade C or ASTM A36 steel and attached to the Top shell with an outside seam MIG weld. The top shell shall have a virgin EPDM, broad throat outlet gasket to assure a positive seal. The Back shell section shall be attached to the Top shell section using heavy hex nuts made of ASTM A588/A242 (Corten type) steel (or optional fluoropolymer coated, 18-8 stainless steel). The washers shall be ASTM A588/A242 (Corten type) steel (or optional T304 stainless steel). The bolts shall be made of low alloy steel meeting ASTM A588/A242 and AWWA C111 ANSI A21.11 (or an optional T304 stainless steel) and shall be 3/4 UNC threaded, oval-neck track bolts. All metal surfaces on the saddle body to be finished with NSF/ANSI 61 compliant epoxy coating. The tapping saddle shall be CFT-TO series as manufactured by Cascade Waterworks Mfg. Co. of Yorkville, IL.



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# WARRANTY

**Cascade Waterworks Mfg. Co.** warrants its product(s) for one year from the date of shipment to be free of defects in material or workmanship. **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.**



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