



228 Full Circle® Repair Clamps for Large Diameter Pipe



Material Specifications

Smith-Blair® 228 Multiple Band Full Circle® Repair Clamp provides a fast, economical means of repairing full circumferential breaks, holes, cracks, or other types of damage on cast iron, steel, asbestos cement, copper, aluminum, plastic, fiberglass and other types of pipe.

The clamps have a built-in O.D. range which enables each clamp to fit several pipe outside diameters within its nominal pipe size range.

Full Circle® Repair Clamps feature a lap type gasket with molded tapered ends to provide efficient equalized sealing at the lap joint on any pipe within the clamps' range. The gasket has a finely gridded surface with the resilience to easily conform to irregularities on rough pipe surfaces or in pitted areas, providing an effective seal all around the pipe.

A stainless steel bridge plate spans the opening of the lugs and is bonded flush into the gasket to prevent wrinkling in the lug area, providing even gasket pressure at all points around the full circumference of the pipe.

The band is made of stainless steel, selected to meet the necessary corrosion resistance, flexibility and strength requirements.

Lugs are securely attached to the stainless steel band, and have mutually supporting stabilizing fingers to permit maximum torque of the bolts. The lug design includes a drop-in bolt feature that eliminates loose parts, saves time, and aids installation under adverse conditions.

The bolts and nuts are low alloy steel with rolled threads, double radius heads and a generous shoulder to prevent bolt rotation under maximum torque loading.

Band: Stainless Steel Type 304.
Lugs: Ductile Iron ASTM A536, 65-45-12.
Gasket: Nitrile (Buna N). Compounded to produce superior storage and performance characteristics while resisting water, acids, alkalis, most (aliphatic) hydrocarbon and many other chemicals. Nominal temperature range from -20°F to 180°F. *Consult manufacturer for specific applications or other service temperatures.*
Bridge Plate: Stainless steel recessed flush and bonded into gasket.
Bolts: High strength low-alloy steel with heavy semi-finished hexagon nuts Per ANSI B18.2.2 Optional 304 stainless steel bolts with fluoropolymer coated nuts to prevent galling.
 (Also available in metric sizes)

2 Band Width Inches	Number of Bolts	Bolt Sizes
10	8	Drop-in lug 5/8" x 6"
15	12	
20	16	
30	24	
3 Band Width Inches	Number of Bolts	
10	12	Closed lug 5/8" x 6 7/8"
15	18	
20	24	
30	36	

2 Band Clamps

U. S.					Metric		
O.D. Range Inches	Width Inches	Wt. Each Lbs.	With Low Alloy Bolts & Nuts	With Stainless Steel Bolts & Nuts	O.D. Range MM	Width MM	Wt. Each Kg.
			Catalog Number				
14.38-15.13	10	35.2	228-20143810-000	228-20143810-001	366-384	254	16.2
	15	52.8	228-20143815-000	228-20143815-001		381	24.3
	20	70.4	228-20143820-000	228-20143820-001		508	32.4
	30	105.6	228-20143830-000	228-20143830-001		762	48.6
15.07-15.82	10	38.0	228-20150710-000	228-20150710-001	383-402	254	17.5
	15	55.0	228-20150715-000	228-20150715-001		381	25.3
	20	71.0	228-20150720-000	228-20150720-001		508	32.7
	30	106.5	228-20150730-000	228-20150730-001		762	49.0
15.92-16.67	10	39.0	228-20159210-000	228-20159210-001	409-423	254	17.9
	15	55.5	228-20159215-000	228-20159215-001		381	25.5
	20	74.0	228-20159220-000	228-20159220-001		508	34.0
	30	149.0	228-20159230-000	228-20159230-001		762	51.1
16.56-17.31	10	39.1	228-20165610-000	228-20165610-001	421-440	254	18.0
	15	56.7	228-20165615-000	228-20165615-001		381	26.1
	20	76.2	228-20165620-000	228-20165620-001		508	35.1
	30	117.3	228-20165630-000	228-20165630-001		762	54.0
17.15-17.90	10	39.3	228-20171510-000	228-20171510-001	436-455	254	18.1
	15	57.2	228-20171515-000	228-20171515-001		381	26.3
	20	76.9	228-20171520-000	228-20171520-001		508	35.3
	30	118.4	228-20171530-000	228-20171530-001		762	54.5
17.82-18.57	10	40.0	228-20178210-000	228-20178210-001	453-472	254	18.4
	15	58.0	228-20178215-000	228-20178215-001		381	26.7
	20	77.4	228-20178220-000	228-20178220-001		508	35.6
	30	119.1	228-20178230-000	228-20178230-001		762	54.8

228 Full Circle® Repair Clamps, Large Diameter
2 Band Clamps

U. S.					Metric		
O.D. Range Inches	Width Inches	Wt. Each Lbs.	With Low Alloy Bolts & Nuts	With Stainless Steel Bolts & Nuts	O.D. Range MM	Width MM	Wt. Each Kg.
			Catalog Number				
18.46-19.21	10	41.4	228-20184610-000	228-20184610-001	469-488	254	19.0
	15	58.6	228-20184615-000	228-20184615-001		381	27.0
	20	78.0	228-20184620-000	228-20184620-001		508	25.9
	30	120.0	228-20184630-000	228-20184630-001		762	55.2
19.23-19.98	10	46.8	228-20192310-000	228-20192310-001	488-507	254	21.5
	15	60.0	228-20192315-000	228-20192315-001		381	27.6
	20	80.0	228-20192320-000	228-20192320-001		508	36.8
	30	120.9	228-20192330-000	228-20192330-001		762	55.6
19.90-20.65	10	42.1	228-20199010-000	228-20199010-001	505-525	254	19.4
	15	60.3	228-20199015-000	228-20199015-001		381	27.7
	20	80.5	228-20199020-000	228-20199020-001		508	37.0
	30	121.4	228-20199030-000	228-20199030-001		762	55.8
20.70-21.45	10	43.5	228-20207010-000	228-20207010-001	526-545	254	20.0
	15	62.6	228-20207015-000	228-20207015-001		381	28.8
	20	83.4	228-20207020-000	228-20207020-001		508	38.4
	30	126.1	228-20207030-000	228-20207030-001		762	58.0
21.52-22.27	10	45.2	228-20215210-000	228-20215210-001	547-566	254	20.8
	15	65.0	228-20215215-000	228-20215215-001		381	29.9
	20	86.6	228-20215220-000	228-20215220-001		508	39.8
	30	130.9	228-20215230-000	228-20215230-001		762	60.2
22.12-22.87	10	46.4	228-20221210-000	228-20221210-001	562-580	254	21.3
	15	66.8	228-20221215-000	228-20221215-001		381	30.7
	20	88.9	228-20221220-000	228-20221220-001		508	40.9
	30	134.5	228-20221230-000	228-20221230-001		762	61.9
22.90-23.65	10	48.0	228-20229010-000	228-20229010-001	582-600	254	22.1
	15	69.1	228-20229015-000	228-20229015-001		381	31.8
	20	91.9	228-20229020-000	228-20229020-001		508	42.3
	30	139.0	228-20229030-000	228-20229030-001		762	63.9

3 Band Clamps

U. S.					Metric		
O.D. Range Inches	Width Inches	Wt. Each Lbs.	With Low Alloy Bolts & Nuts	With Stainless Steel Bolts & Nuts	O.D. Range MM	Width MM	Wt. Each Kg.
			Catalog Number				
23.28-24.39	10	73.4	228-30232810-000	228-30232810-001	592-619	254	33.32
	15	105.1	228-30232815-000	228-30232815-001		381	47.72
	20	127.3	228-30232820-000	228-30232820-001		508	57.79
	30	181.0	228-30232830-000	228-30232830-001		762	82.17
24.38-25.48	10	75.4	228-30243810-000	228-30243810-001	620-647	254	34.23
	15	108.2	228-30243815-000	228-30243815-001		381	49.12
	20	130.3	228-30243820-000	228-30243820-001		508	59.16
	30	185.2	228-30243830-000	228-30243830-001		762	84.08
25.70-26.80	10	77.4	228-30257010-000	228-30257010-001	653-680	254	35.14
	15	109.0	228-30257015-000	228-30257015-001		381	49.49
	20	132.3	228-30257020-000	228-30257020-001		508	60.06
	30	188.2	228-30257030-000	228-30257030-001		762	85.44
26.48-27.58	10	78.4	228-30264810-000	228-30264810-001	673-700	254	35.59
	15	112.0	228-30264815-000	228-30264815-001		381	50.85
	20	135.3	228-30264820-000	228-30264820-001		508	61.43
	30	191.2	228-30264830-000	228-30264830-001		762	86.80
27.65-28.75	10	81.4	228-30276510-000	228-30276510-001	703-730	254	36.96
	15	116.0	228-30276515-000	228-30276515-001		381	52.66
	20	140.3	228-30276520-000	228-30276520-001		508	63.70
	30	197.2	228-30276530-000	228-30276530-001		762	89.53
28.73-29.83	10	83.4	228-30287310-000	228-30287310-001	730-757	254	37.86
	15	118.0	228-30287315-000	228-30287315-001		381	53.57
	20	145.3	228-30287320-000	228-30287320-001		508	65.97
	30	201.2	228-30287330-000	228-30287330-001		762	91.34
29.62-30.71	10	85.4	228-30296210-000	228-30296210-001	753-780	254	38.77
	15	121.0	228-30296215-000	228-30296215-001		381	54.93
	20	147.3	228-30296220-000	228-30296220-001		508	66.87
	30	205.2	228-30296230-000	228-30296230-001		762	93.16