R. L. O.

PLAINTIFF'S EXHIBIT

CRA-62

CRANE

NET PRICE SCHEDULE WF1
JANUARY 2, 1958

STEEL BUTT-WELDING FITTINGS

CATALOG NUMBER 53

This Net Price Schedule cancels:

Net Prices on Steel Butt-Welding Fittings in Net Price Schedule dated August 5, 1957

List prices on Butt-Welding Fittings, Pages 281, 283, 284 and 285, Catalog No. 53.

CRANE CO.

836 S. Michigan Avenue Chicago 5, Illinois

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

Printed in U.S.A.

Materials

Butt-Welding Fittings

Butt-Welding Fittings as regularly manufactured are Carbon Steel, Grade A variety, conforming to ASTM specification A-234.

Fittings made of Grade B Carbon Steel are furnished at the same price as Grade A.

Fittings made of genuine wrought iron, stainless steels, or other materials can be furnished; prices on application.

Extra Charges For Special Features

Butt-Welding Fittings

Galvanizing: An extra charge of 33⅓% is made for galvanizing.

Special Bevels or Square Ends: When fittings are required with other than standard bevels, or with square ends, an extra charge of 10% is added to the price of the regular fitting. Standard bevel is 37½° for thickness of ¾-inch or less. "U" bevel is standard for thicknesses greater than ¾-inch.

Ends Taper Bored: When fittings for use with standard or extra strong pipe are wanted taper bored at the ends to match pipe of some other thickness, an extra charge of 10% is added to the price of regular fittings.

Odd Angle Fittings: The following price schedule applies:

Elbows less than 45°..... 45° price plus 10%
Elbows less than 90°..... 90° price plus 10%
Return Bends less than 180°.....180° price plus 10%

Steel Butt-Welding Fittings

For Use With Standard Pipe

Size of Pipe	Nominal Wall Thickness	90° Elbows				45° Elbows	Tees		Crosses		Caps
		No. 352E Long Radius		No. 331E Short Radius	No. 335E With Long Tangent One End	No. 354E Long Radius	No. 353E		No. 336E		No. 357E
Inches	Inches	Straight	Reducing*				Straight	Reducing*	Straight	Reducing*	
¾	.113	$ .71				$ .53	$ 2.43				$ 1.23
1	.133	.84		$ 1.18		.65	2.43	$ 3.06			1.23
1¼	.140	.99		1.37		.76	3.28	4.08			1.23
1½	.145	1.20		1.67	$ 2.57	.93	4.13	5.16			1.23
2	.154	1.49	$ 4.00	2.07	3.16	1.16	5.68	7.11	$ 13.47	$ 16.90	1.33
2½	.203	2.42	6.45	3.36	5.11	1.87	8.30	10.34	19.68	24.54	1.44
3	.216	3.50	9.30	4.86	7.39	2.72	10.80	13.47	25.62	32.01	1.73
3½	.226	5.46	14.48	7.61	11.52	4.25	14.79	18.49	35.06	43.88	2.69
4	.237	5.46	14.48	7.61	11.52	4.25	14.79	18.49	35.06	43.88	2.69
5	.258	11.30	28.20	15.72	23.79	8.81	31.86	39.84	75.53	94.41	4.33
6	.280	11.30	28.20	15.72	23.79	8.81	31.86	39.84	75.53	94.41	4.33
8	.322	21.47	53.53	29.88	45.19	16.72	51.22	64.03	121.40	151.80	7.36
10	.365	47.86	100.07	61.76	99.45	35.85	90.84	113.55	215.30	269.11	11.17
12	.375	72.33	151.19	93.34	150.34	54.34	131.49	164.35	311.61	389.52	15.97
14	.375	107.11		118.80	Prices above do not include Flange.	81.56	234.18	234.18			23.06
16	.375	156.23		173.25		119.34	283.86	283.86			26.91
18	.375	209.79		232.65		160.14	347.72	347.72			30.75
20	.375	267.31		267.31		197.69	418.70	418.70			34.12
24	.375	336.62		336.62		254.16	539.35	539.35			40.13

*The price of Reducing 90° Elbows, Tees, and Crosses shown above apply only to the list of sizes in the table on page 280, Catalog No. 53, and is determined by the size of the largest opening.

For Use With Standard Pipe

Size of Pipe	Nominal Wall Thickness	Return Bends				Cranelap Stub Ends	Shaped Nipples			Backing Rings	
		No. 372E Short Radius		No. 373E Long Radius		No. 574	Shaped to Fit Headers (Nominal Sizes)	No. 350E 90° Type	No. 351E 45° Type	Number of Nubs	No. 374E Nub Type
Inches	Inches	Center to center		Center to center							
¾	.113			2¼"	$ 1.78	$ 3.16					
1	.133	2"	$ 2.63	3	2.15	3.16				3	$.20
1¼	.140	2½	3.07	3¾	2.51	3.58				3	.21
1½	.145	3	3.72	4½	3.05	3.98				3	.22
2	.154	4	4.62	6	3.78	5.15	2 to 16"	$ 2.15	$ 2.37	3	.23
2½	.203	5	7.45	7½	6.11	5.83	2½ to 16	2.71	3.06	3	.27
3	.216	6	10.74	9	8.81	6.56	3 to 20	3.40	4.08	3	.29
3½	.226	7	16.92	10½	13.88	8.35	3½ to 20	4.99	6.24	4	.36
4	.237	8	16.92	12	13.88	8.35	4 to 24	4.99	6.24	4	.36
5	.258	10	34.64	15	28.42	11.44	5 to 24	10.23	13.66	5	.51
6	.280	12	34.64	18	28.42	11.44	6 to 24	10.23	13.66	6	.51
8	.322	16	65.74	24	53.92	14.38	8 to 24	17.07	23.33	8	.65
10	.365	20	135.91	30	117.23	21.45	10 to 24	28.69	40.66	8	.77
12	.375	24	205.32	36	177.09	29.01	12 to 24	37.66	55.00	9	.89
14	.375	28	270.44	42	270.44	50.03					
16	.375	32	394.39	48	394.39	67.97					
18	.375	36	529.64	54	529.64	86.85					
20	.375	40	608.51	60	608.51	106.68					
24	.375	48	766.29	72	766.29	130.30					

REFER TO PAGE 8 FOR REDUCERS

Steel Butt-Welding Fittings

For Use With Extra Strong Pipe

Size of Pipe	Nominal Wall Thickness	90° Elbows				45° Elbows	Tees		Crosses		Caps
		No. 452E Long Radius		No. 431E Short Radius	No. 458E With Long Tangent One End	No. 454E Long Radius	No. 453E		No. 436E		No. 457E
Inches	Inches	Straight	Reducing*				Straight	Reducing*	Straight	Reducing*	
¾	.154	$ 1.07				$ .82	$ 2.43				$ 1.51
1	.179	1.07				.82	2.43	$ 3.06			1.51
1¼	.191	1.25				.97	3.28	4.08			1.51
1½	.200	1.53		$ 2.12	$ 3.34	1.19	4.13	5.16			1.51
2	.218	1.91	$ 5.00	2.63	3.98	1.48	5.68	7.11	$ 13.47	$ 16.90	1.62
2½	.276	3.06	8.01	4.22	6.39	2.34	8.30	10.34	19.68	24.54	1.81
3	.300	4.44	11.64	6.11	9.28	3.42	13.65	17.07	32.37	40.45	2.39
3½	.318	6.91	18.11	9.50	14.37	5.32	19.34	24.18	45.84	57.35	3.56
4	.337	6.91	18.11	9.50	14.37	5.32	19.34	24.18	45.84	57.35	3.56
5	.375	14.31	35.23	19.65	29.70	11.01	39.84	49.80	94.41	118.07	5.46
6	.432	14.31	35.23	19.65	29.70	11.01	39.84	49.80	94.41	118.07	5.46
8	.500	27.18	66.93	37.33	56.39	20.90	66.02	82.53	156.47	195.59	8.88
10	.500	60.05	125.54	77.49	124.53	45.18	115.94	143.44	274.77	339.94	14.15
12	.500	90.53	189.28	116.82	188.40	67.97	161.37	200.81	382.44	475.93	19.13
14	.500	133.91		148.50		101.97	290.95	290.95			28.83
16	.500	195.51		216.81	Prices above do not include Flange.	148.81	361.93	361.93			33.16
18	.500	262.47		291.08		200.18	454.18	454.18			36.99
20	.500	336.62		336.62		250.15	503.85	503.85			43.25
24	.500	405.93		405.93		298.56	695.47	695.47			47.10

*The price of Reducing 90° Elbows, Tees, and Crosses shown above apply only to the list of sizes in the table on page 282, Catalog No. 53, and is determined by the size of the largest opening.

For Use With Extra Strong Pipe

Size of Pipe	Nominal Wall Thickness	Return Bends				Cranelap Stub Ends	Shaped Nipples			Backing Rings	
		No. 472E Short Radius		No. 473E Long Radius		No. 497E	Shaped to Fit Headers (Nominal Sizes)	No. 450E 90° Type	No. 451E 45° Type	Number of Nubs	No. 474E Nub Type
Inches	Inches	Center to center		Center to center							
¾	.154					$ 3.40					
1	.179			3″	$ 2.67	3.40				3	$.20
1¼	.191	2½″	$ 3.81	3¾	3.13	3.80				3	.21
1½	.200	3	4.71	4½	3.86	4.21				3	.22
2	.218	4	5.81	6	4.76	5.59	2 to 16″	$ 2.83	$ 3.16	3	.23
2½	.276	5	9.30	7½	7.62	6.41	2½ to 16	3.85	4.42	3	.27
3	.300	6	13.48	9	11.05	7.40	3 to 20	5.11	6.02	3	.29
3½	.318	7	20.90	10½	17.15	9.79	3½ to 20	6.24	7.95	4	.36
4	.337	8	20.90	12	17.15	9.79	4 to 24	6.24	7.95	4	.36
5	.375	10	43.31	15	35.53	14.67	5 to 24	15.35	20.50	5	.51
6	.432	12	43.31	18	35.53	14.67	6 to 24	15.35	20.50	6	.51
8	.500	16	82.17	24	67.40	21.57	8 to 24	26.18	35.29	8	.65
10	.500	20	170.51	30	147.05	33.74	10 to 24	44.24	62.19	8	.77
12	.500	24	257.04	36	221.69	46.00	12 to 24	56.20	83.72	9	.89
14	.500	28	338.06	42	338.06	67.97					
16	.500	32	493.77	48	493.77	87.80					
18	.500	36	662.82	54	662.82	107.64					
20	.500	40	766.29	60	766.29	128.42					
24	.500	48	924.05	72	924.05	152.97					

REFER TO PAGE 9 FOR REDUCERS

Steel Butt-Welding Fittings

For Use With Standard Pipe

Reducers†

Size of Pipe Inches	No. 359E Concentric	No. 360E Eccentric	Size of Pipe Inches	No. 359E Concentric	No. 360E Eccentric	Size of Pipe Inches	No. 359E Concentric	No. 360E Eccentric	Size of Pipe Inches	No. 359E Concentric	No. 360E Eccentric	Size of Pipe Inches	No. 359E Concentric	No. 360E Eccentric
¾ x½	$ .96		3 x2½	$2.31	$4.66	5x4	$ 6.20	$12.46	10x8	$ 14.65	$ 29.43	18x16	$113.33	$190.19
			x2	2.31	4.66	x3½	6.96	14.01	x6	16.28	32.73	x14	113.33	190.19
1 x¾	1.15	$2.32	x1½	2.50	5.04	x3	6.96	14.01	x5	21.17	42.55	x12	126.66	212.57
x½	1.15	2.32	x1¼	2.50	5.04	x2½	6.96	14.01	x4	21.17	42.55	x10	139.99	234.94
			x1	2.50		x2	6.96	14.01	x3	24.42				
1¼x1	1.53	3.11										20x18	119.99	201.38
x¾	1.53	3.11	3½x3	3.09	6.22	6x5	6.20	12.46	12x10	26.05	52.36	x16	119.99	201.38
x½	1.93	3.88	x2½	3.09	6.22	x4	6.20	12.46	x8	29.31	58.91	x14	133.33	223.77
			x2	3.09	6.22	x3½	6.96	14.01	x6	29.31	58.91	x12	133.33	223.77
1½x1¼	1.53	3.11	x1½	3.47	7.00	x3	6.96	14.01	x5	32.57	65.46			
x1	1.53	3.11	x1¼	3.47	7.00	x2½	6.96	14.01				24x20	186.67	313.28
x¾	1.93	3.88				x2	7.74		14x12	53.32	89.49	x18	206.67	346.84
x½	1.93	3.88	4 x3½	3.09	6.22				x10	53.32	89.49	x16	226.69	380.41
			x3	3.09	6.22	8x6	9.30	18.69	x8	59.99	100.67			
2 x1½	1.73	3.49	x2½	3.09	6.22	x5	11.62	23.37	x6	66.65	111.87			
x1¼	1.73	3.49	x2	3.09	6.22	x4	11.62	23.37						
x1	1.73	3.49	x1½	3.47	7.00	x3½	11.62	23.37	16x14	93.33	156.63			
x¾	2.12	4.28	x1¼	3.47		x3	13.95		x12	93.33	156.63			
			x1	3.47					x10	106.66	179.01			
2½x2	1.93	3.88							x8	113.33	190.19			
x1½	2.12	4.28												
x1¼	2.12	4.28												
x1	2.12	4.28												

†Sizes 12-inch and smaller are for use with Standard pipe (.322-inch thickness on 8-inch size, .365-inch on 10-inch size, and .375-inch on 12-inch size. Sizes 14-inch and larger are for use with O.D. pipe, ⅜-inch thick.

For Use With Extra Strong Pipe

Reducers‡

Size of Pipe Inches	No. 459E Concentric	No. 460E Eccentric	Size of Pipe Inches	No. 459E Concentric	No. 460E Eccentric	Size of Pipe Inches	No. 459E Concentric	No. 460E Eccentric	Size of Pipe Inches	No. 459E Concentric	No. 460E Eccentric	Size of Pipe Inches	No. 459E Concentric	No. 460E Eccentric
¾ x½	$1.74		3 x2½	$4.06	$ 8.17	5x4	$10.85	$21.81	10x8	$ 32.57	$ 65.46	18x16	$197.35	$331.19
			x2	4.06	8.17	x3½	12.20	24.54	x6	35.83	72.00	x14	197.35	331.19
1 x¾	2.12	$4.28	x1½	4.41	8.87	x3	12.20	24.54	x5	39.09	78.55	x12	221.35	371.45
x½	2.12	4.28	x1¼	4.41	8.87	x2½	12.20	24.54	x4	39.09	78.55	x10	245.35	411.74
			x1	4.41		x2	12.20	24.54						
1¼x1	2.70	5.43							12x10	45.60	91.64	20x18	210.01	352.44
x¾	2.70	5.43	3½x3	5.41	10.89	6x5	10.85	21.81	x8	51.30	103.11	x16	210.01	352.44
x½	3.47	7.00	x2½	5.41	10.89	x4	10.85	21.81	x6	51.30	103.11	x14	233.34	391.60
			x2	5.41	10.89	x3½	12.20	24.54	x5	57.01	114.57	x12	233.34	391.60
1½x1¼	2.70	5.43	x1½	6.20	12.46	x3	12.20	24.54						
x1	2.70	5.43	x1¼	6.20		x2½	12.20	24.54	14x12	93.33	156.63	24x20	326.70	548.24
x¾	3.47	7.00				x2	13.56		x10	93.33	156.63	x18	360.04	604.18
x½	3.47	7.00	4 x3½	5.41	10.89				x8	104.99	176.20	x16	393.37	660.13
			x3	5.41	10.89	8x6	20.35	40.89	x6	116.65	195.80			
2 x1½	2.88	5.83	x2½	5.41	10.89	x5	23.72	47.68						
x1¼	2.88	5.83	x2	5.41	10.89	x4	23.72	47.68	16x14	139.99	234.94			
x1	2.88	5.83	x1½	6.20	12.46	x3½	23.72	47.68	x12	139.99	234.94			
x¾	3.66	7.39	x1¼	6.20		x3	27.13		x10	163.35	274.10			
									x8	186.67	313.28			
2½x2	3.47	7.00												
x1½	3.86	7.78												
x1¼	3.86	7.78												
x1	3.86	7.78												

‡Sizes 12-inch and smaller are for use with Extra Strong pipe. Sizes 14-inch and larger are for use with O.D. pipe, ½-inch thick.

Steel Butt-Welding Fittings

For Use With Schedule 160 Pipe

Size of Pipe Inches	Elbows Long Radius No. 552E 90°	Elbows Long Radius No. 554E 45°	Tees No. 553E Straight	Tees No. 553E Reducing*
1	$ 4.29	$ 4.29	$ 5.35	$ 5.35
1¼	5.35	4.82	6.43	6.43
1½	6.43	5.89	7.50	7.50
2	7.50	6.97	10.72	10.72
2½	11.79	10.72	21.46	21.46
3	17.17	15.56	37.56	37.56
4	28.98	26.29	64.41	64.41
5	61.19	55.82	135.28	135.28
6	61.19	55.82	135.28	135.28
8	134.20	121.32	257.69	257.69
10	214.20	192.78	473.52	473.52
12	315.68	284.11	699.03	699.03

For Use With Double Extra Strong Pipe

Size of Pipe Inches	Elbows Long Radius No. 652E 90°	Elbows Long Radius No. 654E 45°	Tees No. 653E Straight	Tees No. 653E Reducing*
1	$ 4.82	$ 4.82	$ 7.50	$ 7.50
1¼	5.89	5.35	9.64	9.64
1½	6.97	6.43	11.79	11.79
2	8.58	8.03	16.09	16.09
2½	13.95	12.87	23.61	23.61
3	19.85	18.24	64.41	64.41
4	31.12	27.90	91.26	91.26
5	64.41	57.97	187.89	187.89
6	64.41	57.97	187.89	187.89
8	134.20	121.32	257.69	257.69

*The price of Reducing Tees shown above apply only to the list of sizes in the table on page 284, Catalog No. 53, and is determined by the size of the largest opening.

Steel Butt-Welding Fittings

Reinforcing Saddles

Size of Pipe (Outlet) Inches	Shaped to Fit Headers (Nominal Sizes)	No. 358E Reinforcing Welding Saddles
1	1¼ to 8″	$ 4.85
1¼	1½ to 8	4.85
1½	1½ to 12	4.85
2	2 to 24	4.85
2½	2½ to 24	5.29
3	3 to 24	5.78
3½	3½ to 24	7.72
4	4 to 24	7.72
5	5 to 24	13.53
6	6 to 24	13.53
8	8 to 24	21.31
10	10 to 24	28.35
12	12 to 24	32.26
14	14 to 24	44.48
16	16 to 24	53.14
18	18 to 24	61.80
20	20 to 24	88.94
24	24	131.79

Sleeves

Size of Pipe Inches	No. 361E Welding Sleeve
1	$ 3.26
1¼	3.26
1½	3.26
2	3.26
2½	3.75
3	4.07
3½	5.04
4	5.04
5	6.76
6	6.76
8	9.30
10	13.49
12	17.47
14	24.12
16	27.48
18	31.56
20	35.64
24	40.74

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CRANE

NET PRICE SCHEDULE WF1
JANUARY 2, 1958

STEEL BUTT-WELDING FITTINGS

CATALOG NUMBER 53

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Net Prices on Steel Butt-Welding Fittings in Net Price Schedule dated August 5, 1957

List prices on Butt-Welding Fittings, Pages 281, 283, 284 and 285, Catalog No. 53.

CRANE CO.

836 S. Michigan Avenue Chicago 5, Illinois

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

Printed in U. S. A.

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Butt-Welding Fittings

Butt-Welding Fittings as regularly manufactured are Carbon Steel, Grade A variety, conforming to ASTM specification A-234.

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Fittings made of genuine wrought iron, stainless steels, or other materials can be furnished; prices on application.

Extra Charges For Special Features

Butt-Welding Fittings

Galvanizing: An extra charge of 33⅓% is made for galvanizing.

Special Bevels or Square Ends: When fittings are required with other than standard bevels, or with square ends, an extra charge of 10% is added to the price of the regular fitting. Standard bevel is 37½° for thickness of ¾-inch or less. "U" bevel is standard for thicknesses greater than ¾-inch.

Ends Taper Bored: When fittings for use with standard or extra strong pipe are wanted taper bored at the ends to match pipe of some other thickness, an extra charge of 10% is added to the price of regular fittings.

Odd Angle Fittings: The following price schedule applies:

Elbows less than 45°	45° price plus 10%
Elbows less than 90°	90° price plus 10%
Return Bends less than 180°	180° price plus 10%

Steel Butt-Welding Fittings

For Use With Standard Pipe

Size of Pipe	Nominal Wall Thickness	90° Elbows				45° Elbows	Tees		Crosses		Caps
		No. 352E Long Radius		No. 331E Short Radius	No. 335E With Long Tangent One End	No. 354E Long Radius	No. 353E		No. 336E		No. 357E
Inches	Inches	Straight	Reducing*				Straight	Reducing*	Straight	Reducing*	
¾	.113	$ .71				$ .53	$ 2.43				$ 1.23
1	.133	.84		$ 1.18		.65	2.43	$ 3.06			1.23
1¼	.140	.99		1.37		.76	3.28	4.08			1.23
1½	.145	1.20		1.67	$ 2.57	.93	4.13	5.16			1.23
2	.154	1.49	$ 4.00	2.07	3.16	1.16	5.68	7.11	$ 13.47	$ 16.90	1.33
2½	.203	2.42	6.45	3.36	5.11	1.87	8.30	10.34	19.68	24.54	1.44
3	.216	3.50	9.30	4.86	7.39	2.72	10.80	13.47	25.62	32.01	1.73
3½	.226	5.46	14.48	7.61	11.52	4.25	14.79	18.49	35.06	43.88	2.69
4	.237	5.46	14.48	7.61	11.52	4.25	14.79	18.49	35.06	43.88	2.69
5	.258	11.30	28.20	15.72	23.79	8.81	31.86	39.84	75.53	94.41	4.33
6	.280	11.30	28.20	15.72	23.79	8.81	31.86	39.84	75.53	94.41	4.33
8	.322	21.47	53.53	29.88	45.19	16.72	51.22	64.03	121.40	151.80	7.36
10	.365	47.86	100.07	61.76	99.45	35.85	90.84	113.55	215.30	269.11	11.17
12	.375	72.33	151.19	93.34	150.34	54.34	131.49	164.35	311.61	389.52	15.97
14	.375	107.11		118.80	Prices above do not include Flange.	81.56	234.18	234.18			23.06
16	.375	156.23		173.25		119.34	283.86	283.86			26.91
18	.375	209.79		232.65		160.14	347.72	347.72			30.75
20	.375	267.31		267.31		197.69	418.70	418.70			34.12
24	.375	336.62		336.62		254.16	539.35	539.35			40.13

*The price of Reducing 90° Elbows, Tees, and Crosses shown above apply only to the list of sizes in the table on page 280, Catalog No. 53, and is determined by the size of the largest opening.

For Use With Standard Pipe

Size of Pipe	Nominal Wall Thickness	Return Bends				Cranelap Stub Ends	Shaped Nipples			Backing Rings	
		No. 372E Short Radius		No. 373E Long Radius		No. 574	Shaped to Fit Headers (Nominal Sizes)	No. 350E 90° Type	No. 351E 45° Type	Number of Nubs	No. 374E Nub Type
Inches	Inches	Center to center		Center to center							
¾	.113			2¼"	$ 1.78	$ 3.16					
1	.133	2"	$ 2.63	3	2.15	3.16				3	$.20
1¼	.140	2½	3.07	3¾	2.51	3.58				3	.21
1½	.145	3	3.72	4½	3.05	3.98				3	.22
2	.154	4	4.62	6	3.78	5.15	2 to 16"	$ 2.15	$ 2.37	3	.23
2½	.203	5	7.45	7½	6.11	5.83	2½ to 16	2.71	3.06	3	.27
3	.216	6	10.74	9	8.81	6.56	3 to 20	3.40	4.08	3	.29
3½	.226	7	16.92	10½	13.88	8.35	3½ to 20	4.99	6.24	4	.36
4	.237	8	16.92	12	13.88	8.35	4 to 24	4.99	6.24	4	.36
5	.258	10	34.64	15	28.42	11.44	5 to 24	10.23	13.66	5	.51
6	.280	12	34.64	18	28.42	11.44	6 to 24	10.23	13.66	6	.51
8	.322	16	65.74	24	53.92	14.38	8 to 24	17.07	23.33	8	.65
10	.365	20	135.91	30	117.23	21.45	10 to 24	28.69	40.66	8	.77
12	.375	24	205.32	36	177.09	29.01	12 to 24	37.66	55.00	9	.89
14	.375	28	270.44	42	270.44	50.03					
16	.375	32	394.39	48	394.39	67.97					
18	.375	36	529.64	54	529.64	86.85					
20	.375	40	608.51	60	608.51	106.68					
24	.375	48	766.29	72	766.29	130.30					

REFER TO PAGE 8 FOR REDUCERS

Steel Butt-Welding Fittings

For Use With Extra Strong Pipe

Size of Pipe	Nominal Wall Thickness	90° Elbows				45° Elbows	Tees		Crosses		Caps
		No. 452E Long Radius		No. 431E Short Radius	No. 458E With Long Tangent One End	No. 454E Long Radius	No. 453E		No. 436E		No. 457E
Inches	Inches	Straight	Reducing*				Straight	Reducing*	Straight	Reducing*	
¾	.154	$ 1.07				$ .82	$ 2.43				$ 1.51
1	.179	1.07				.82	2.43	$ 3.06			1.51
1¼	.191	1.25				.97	3.28	4.08			1.51
1½	.200	1.53		$ 2.12	$ 3.34	1.19	4.13	5.16			1.51
2	.218	1.91	$ 5.00	2.63	3.98	1.48	5.68	7.11	$ 13.47	$ 16.90	1.62
2½	.276	3.06	8.01	4.22	6.39	2.34	8.30	10.34	19.68	24.54	1.81
3	.300	4.44	11.64	6.11	9.28	3.42	13.65	17.07	32.37	40.45	2.39
3½	.318	6.91	18.11	9.50	14.37	5.32	19.34	24.18	45.84	57.35	3.56
4	.337	6.91	18.11	9.50	14.37	5.32	19.34	24.18	45.84	57.35	3.56
5	.375	14.31	35.23	19.65	29.70	11.01	39.84	49.80	94.41	118.07	5.46
6	.432	14.31	35.23	19.65	29.70	11.01	39.84	49.80	94.41	118.07	5.46
8	.500	27.18	66.93	37.33	56.39	20.90	66.02	82.53	156.47	195.59	8.88
10	.500	60.05	125.54	77.49	124.53	45.18	115.94	143.44	274.77	339.94	14.15
12	.500	90.53	189.28	116.82	188.40	67.97	161.37	200.81	382.44	475.93	19.13
14	.500	133.91		148.50		101.97	290.95	290.95			28.83
16	.500	195.51		216.81	Prices above do not include Flange.	148.81	361.93	361.93			33.16
18	.500	262.47		291.08		200.18	454.18	454.18			36.99
20	.500	336.62		336.62		250.15	503.85	503.85			43.25
24	.500	405.93		405.93		298.56	695.47	695.47			47.10

*The price of Reducing 90° Elbows, Tees, and Crosses shown above apply only to the list of sizes in the table on page 282, Catalog No. 53, and is determined by the size of the largest opening.

For Use With Extra Strong Pipe

Size of Pipe	Nominal Wall Thickness	Return Bends				Cranelap Stub Ends	Shaped Nipples			Backing Rings	
		No. 472E Short Radius		No. 473E Long Radius		No. 497E	Shaped to Fit Headers (Nominal Sizes)	No. 450E 90° Type	No. 451E 45° Type	Number of Nubs	No. 474E Nub Type
Inches	Inches	Center to center		Center to center							
¾	.154					$ 3.40					
1	.179			3″	$ 2.67	3.40				3	$.20
1¼	.191	2½″	$ 3.81	3¾	3.13	3.80				3	.21
1½	.200	3	4.71	4½	3.86	4.21				3	.22
2	.218	4	5.81	6	4.76	5.59	2 to 16″	$ 2.83	$ 3.16	3	.23
2½	.276	5	9.30	7½	7.62	6.41	2½ to 16	3.85	4.42	3	.27
3	.300	6	13.48	9	11.05	7.40	3 to 20	5.11	6.02	3	.29
3½	.318	7	20.90	10½	17.15	9.79	3½ to 20	6.24	7.95	4	.36
4	.337	8	20.90	12	17.15	9.79	4 to 24	6.24	7.95	4	.36
5	.375	10	43.31	15	35.53	14.67	5 to 24	15.35	20.50	5	.51
6	.432	12	43.31	18	35.53	14.67	6 to 24	15.35	20.50	6	.51
8	.500	16	82.17	24	67.40	21.57	8 to 24	26.18	35.29	8	.65
10	.500	20	170.51	30	147.05	33.74	10 to 24	44.24	62.19	8	.77
12	.500	24	257.04	36	221.69	46.00	12 to 24	56.20	83.72	9	.89
14	.500	28	338.06	42	338.06	67.97					
16	.500	32	493.77	48	493.77	87.80					
18	.500	36	662.82	54	662.82	107.64					
20	.500	40	766.29	60	766.29	128.42					
24	.500	48	924.05	72	924.05	152.97					

REFER TO PAGE 9 FOR REDUCERS

Steel Butt-Welding Fittings

For Use With Standard Pipe

Reducers†

Size of Pipe Inches	No. 359E Concentric	No. 360E Eccentric	Size of Pipe Inches	No. 359E Concentric	No. 360E Eccentric	Size of Pipe Inches	No. 359E Concentric	No. 360E Eccentric	Size of Pipe Inches	No. 359E Concentric	No. 360E Eccentric	Size of Pipe Inches	No. 359E Concentric	No. 360E Eccentric
¾ x½	$ .96		3 x2½	$2.31	$4.66	5x4	$ 6.20	$12.46	10x8	$ 14.65	$ 29.43	18x16	$113.33	$190.19
			x2	2.31	4.66	x3½	6.96	14.01	x6	16.28	32.73	x14	113.33	190.19
1 x¾	1.15	$2.32	x1½	2.50	5.04	x3	6.96	14.01	x5	21.17	42.55	x12	126.66	212.57
x½	1.15	2.32	x1¼	2.50	5.04	x2½	6.96	14.01	x4	21.17	42.55	x10	139.99	234.94
			x1	2.50		x2	6.96	14.01	x3	24.42				
1¼x1	1.53	3.11										20x18	119.99	201.38
x¾	1.53	3.11	3½x3	3.09	6.22	6x5	6.20	12.46	12x10	26.05	52.36	x16	119.99	201.38
x½	1.93	3.88	x2½	3.09	6.22	x4	6.20	12.46	x8	29.31	58.91	x14	133.33	223.77
			x2	3.09	6.22	x3½	6.96	14.01	x6	29.31	58.91	x12	133.33	223.77
1½x1¼	1.53	3.11	x1½	3.47	7.00	x3	6.96	14.01	x5	32.57	65.46			
x1	1.53	3.11	x1¼	3.47	7.00	x2½	6.96	14.01				24x20	186.67	313.28
x¾	1.93	3.88				x2	7.74		14x12	53.32	89.49	x18	206.67	346.84
x½	1.93	3.88	4 x3½	3.09	6.22				x10	53.32	89.49	x16	226.69	380.41
			x3	3.09	6.22	8x6	9.30	18.69	x8	59.99	100.67			
2 x1½	1.73	3.49	x2½	3.09	6.22	x5	11.62	23.37	x6	66.65	111.87			
x1¼	1.73	3.49	x2	3.09	6.22	x4	11.62	23.37						
x1	1.73	3.49	x1½	3.47	7.00	x3½	11.62	23.37	16x14	93.33	156.63			
x¾	2.12	4.28	x1¼	3.47		x3	13.95		x12	93.33	156.63			
			x1	3.47					x10	106.66	179.01			
2½x2	1.93	3.88							x8	113.33	190.19			
x1½	2.12	4.28												
x1¼	2.12	4.28												
x1	2.12	4.28												

†Sizes 12-inch and smaller are for use with Standard pipe (.322-inch thickness on 8-inch size, .365-inch on 10-inch size, and .375-inch on 12-inch size. Sizes 14-inch and larger are for use with O.D. pipe, ⅜-inch thick.

For Use With Extra Strong Pipe

Reducers‡

Size of Pipe Inches	No. 459E Concentric	No. 460E Eccentric	Size of Pipe Inches	No. 459E Concentric	No. 460E Eccentric	Size of Pipe Inches	No. 459E Concentric	No. 460E Eccentric	Size of Pipe Inches	No. 459E Concentric	No. 460E Eccentric	Size of Pipe Inches	No. 459E Concentric	No. 460E Eccentric
¾ x½	$1.74		3 x2½	$4.06	$ 8.17	5x4	$10.85	$21.81	10x8	$ 32.57	$ 65.46	18x16	$197.35	$331.19
			x2	4.06	8.17	x3½	12.20	24.54	x6	35.83	72.00	x14	197.35	331.19
1 x¾	2.12	$4.28	x1½	4.41	8.87	x3	12.20	24.54	x5	39.09	78.55	x12	221.35	371.45
x½	2.12	4.28	x1¼	4.41	8.87	x2½	12.20	24.54	x4	39.09	78.55	x10	245.35	411.74
			x1	4.41		x2	12.20	24.54						
1¼x1	2.70	5.43							12x10	45.60	91.64	20x18	210.01	352.44
x¾	2.70	5.43	3½x3	5.41	10.89	6x5	10.85	21.81	x8	51.30	103.11	x16	210.01	352.44
x½	3.47	7.00	x2½	5.41	10.89	x4	10.85	21.81	x6	51.30	103.11	x14	233.34	391.60
			x2	5.41	10.89	x3½	12.20	24.54	x5	57.01	114.57	x12	233.34	391.60
1½x1¼	2.70	5.43	x1½	6.20	12.46	x3	12.20	24.54						
x1	2.70	5.43	x1¼	6.20		x2½	12.20	24.54	14x12	93.33	156.63	24x20	326.70	548.24
x¾	3.47	7.00				x2	13.56		x10	93.33	156.63	x18	360.04	604.18
x½	3.47	7.00	4 x3½	5.41	10.89				x8	104.99	176.20	x16	393.37	660.13
			x3	5.41	10.89	8x6	20.35	40.89	x6	116.65	195.80			
2 x1½	2.88	5.83	x2½	5.41	10.89	x5	23.72	47.68						
x1¼	2.88	5.83	x2	5.41	10.89	x4	23.72	47.68	16x14	139.99	234.94			
x1	2.88	5.83	x1½	6.20	12.46	x3½	23.72	47.68	x12	139.99	234.94			
x¾	3.66	7.39	x1¼	6.20		x3	27.13		x10	163.35	274.10			
									x8	186.67	313.28			
2½x2	3.47	7.00												
x1½	3.86	7.78												
x1¼	3.86	7.78												
x1	3.86	7.78												

‡Sizes 12-inch and smaller are for use with Extra Strong pipe. Sizes 14-inch and larger are for use with O.D. pipe, ½-inch thick.

Steel Butt-Welding Fittings

For Use With Schedule 160 Pipe

Size of Pipe Inches	Elbows Long Radius No. 552E 90°	Elbows Long Radius No. 554E 45°	Tees No. 553E Straight	Tees No. 553E Reducing*
1	$ 4.29	$ 4.29	$ 5.35	$ 5.35
1¼	5.35	4.82	6.43	6.43
1½	6.43	5.89	7.50	7.50
2	7.50	6.97	10.72	10.72
2½	11.79	10.72	21.46	21.46
3	17.17	15.56	37.56	37.56
4	28.98	26.29	64.41	64.41
5	61.19	55.82	135.28	135.28
6	61.19	55.82	135.28	135.28
8	134.20	121.32	257.69	257.69
10	214.20	192.78	473.52	473.52
12	315.68	284.11	699.03	699.03

For Use With Double Extra Strong Pipe

Size of Pipe Inches	Elbows Long Radius No. 652E 90°	Elbows Long Radius No. 654E 45°	Tees No. 653E Straight	Tees No. 653E Reducing*
1	$ 4.82	$ 4.82	$ 7.50	$ 7.50
1¼	5.89	5.35	9.64	9.64
1½	6.97	6.43	11.79	11.79
2	8.58	8.03	16.09	16.09
2½	13.95	12.87	23.61	23.61
3	19.85	18.24	64.41	64.41
4	31.12	27.90	91.26	91.26
5	64.41	57.97	187.89	187.89
6	64.41	57.97	187.89	187.89
8	134.20	121.32	257.69	257.69

*The price of Reducing Tees shown above apply only to the list of sizes in the table on page 284, Catalog No. 53, and is determined by the size of the largest opening.

Steel Butt-Welding Fittings

Reinforcing Saddles

Size of Pipe (Outlet) Inches	Shaped to Fit Headers (Nominal Sizes)	No. 358E Reinforcing Welding Saddles
1	1¼ to 8"	$ 4.85
1¼	1½ to 8	4.85
1½	1½ to 12	4.85
2	2 to 24	4.85
2½	2½ to 24	5.29
3	3 to 24	5.78
3½	3½ to 24	7.72
4	4 to 24	7.72
5	5 to 24	13.53
6	6 to 24	13.53
8	8 to 24	21.31
10	10 to 24	28.35
12	12 to 24	32.26
14	14 to 24	44.48
16	16 to 24	53.14
18	18 to 24	61.80
20	20 to 24	88.94
24	24	131.79

Sleeves

Size of Pipe Inches	No. 361E Welding Sleeve
1	$ 3.26
1¼	3.26
1½	3.26
2	3.26
2½	3.75
3	4.07
3½	5.04
4	5.04
5	6.76
6	6.76
8	9.30
10	13.49
12	17.47
14	24.12
16	27.48
18	31.56
20	35.64
24	40.74

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