

Component Weights 20FR16.E14
Rev 1.0A, Oct-15-2001

(also includes Series 20FR16-C)

Table 20FR16.E14.1A

Component Weights (lbs or lbs per foot)

Size in.	Rating psi	Pipe (lb/ft)	Fig.10 Flange	Fig.16 Blind Flange	Fig.20 90 Elbow	Fig.30 45 Elbow	Fig.40 Tee Fitting
1.00	232	1.0	1.4	0.9	0.2		1.8
1.50	232	1.3	1.6	1.0	0.4		2.7
2.00	232	1.5	2.2	1.4	0.7	0.3	2.0
2.50	232	1.9	2.9	1.9	0.9	0.4	2.4
3.00	232	2.2	3.3	2.2	1.5	0.8	3.4
4.00	232	2.9	5.1	3.6	2.6	1.3	5.0
6.00	232	4.3	8.9	6.0	5.8	2.9	9.3
8.00	232	7.8	14.5	9.3	13.1	6.5	18.7
10.00	232	11.0	24.6	15.4	24.6	12.3	32.9
12.00	232	16.3	35.8	22.3	41.6	20.8	53.0
14.00	232	20.8	49.1	28.3	64.9	32.5	79.7
16.00	232	27.9	67.6	39.7	95.6	47.8	114.1
18.00	232	33.7	80.3	46.6	134.8	67.4	295.5
20.00	232	40.0	100.3	60.2	183.4	91.7	379.1
22.00	232	49.7	120.8	71.1	220.3	110.2	481.2
24.00	232	57.3	146.7	89.4	312.9	156.4	611.3
30.00	150	59.3	198.2	124.1	387.6	193.8	653.8
36.00	150	84.9	309.6	203.5	666.9	333.5	1053.4
42.00	100	77.0	342.4	246.1	716.9	358.4	1002.4
48.00	100	100.1	498.6	348.4	1032.0	516.0	1497.5
54.00	50	64.5	440.6	343.9	755.3	377.7	960.8
60.00	50	79.1	623.5	465.2	1079.9	539.9	1256.1
66.00	50						
72.00	50						

1. For non-L3 applications, the wall thicknesses in sizes 2", 3", and 4" are less than for L3 fire endurance applications. The pipe weights are 1.2, 1.8, and 2.4 lbs/foot, respectively.

Component Weights 20FR16.E14
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(also includes Series 20FR16-C)

Table 20FR16.E14.1B

Component Weights (lbs or lbs per foot)

Size in.	Rating psi	Fig.46 Flgd Olet	Fig.48 PE Olet	Fig.60 Reducer	Fig.80 Lateral	Fig.96 Hemicap	Shop Butt Weld
1.00	232	2.0	0.9		2.8		0.4
1.50	232	2.5	1.3	0.1	3.9		0.5
2.00	232	3.3	1.6	0.3	4.2	0.1	0.7
2.50	232	4.3	2.0	0.2	5.1	0.2	0.8
3.00	232	5.0	2.3	0.4	6.8	0.2	1.0
4.00	232	7.6	3.2	0.5	10.0	0.4	1.3
6.00	232	16.3	8.0	1.5	19.4	0.9	2.5
8.00	232	30.4	16.2	2.6	43.4	2.1	5.1
10.00	232	54.2	29.5	3.9	73.6	3.9	9.9
12.00	232	75.4	49.7	5.5	123.2	6.6	12.3
14.00	232	109.8	76.3	7.4	180.4	10.3	18.3
16.00	232	155.8	108.5	9.5	262.0	15.2	27.4
18.00	232	210.1	152.2	11.9	360.1	21.5	37.8
20.00	232	274.4	199.0	14.6	465.9	29.2	50.0
22.00	232	348.5	257.4	17.5	588.9	35.1	67.0
24.00	232	439.8	324.7	41.5	754.6	49.8	85.3
30.00	150	427.4	283.4	61.7	821.8	61.7	70.9
36.00	150	696.9	459.4	88.5	1385.8	106.1	115.6
42.00	100	617.7	347.7	81.5	1329.8	114.1	84.0
48.00	100	905.1	521.1	102.7	1956.5	164.3	122.7
54.00	50	592.3	235.6	66.8	1277.8	120.2	46.9
60.00	50	828.8	346.1	85.9	1730.9	171.9	64.8
66.00	50						
72.00	50						



Component Weights 20FR16.E14
Rev 1.0B, Dec-12-2009

(also includes Series 20FR16-C)

Table 20FR16.E14M.1A

Component Weights (kg or kg per meter)

Size mm	Rating bar	Pipe (kg/m)	Fig.10 Flange	Fig.16 Blind Flange	Fig.20 90 Elbow	Fig.30 45 Elbow	Fig.40 Tee Fitting
25	16	1.5	0.6	0.4	0.1		0.8
38	16	2.0	0.7	0.4	0.2		1.2
51	16	2.3	1.0	0.6	0.3	0.2	0.9
64	16	2.8	1.3	0.9	0.4	0.2	1.1
76	16	3.3	1.5	1.0	0.7	0.3	1.5
102	16	4.4	2.3	1.7	1.2	0.6	2.3
152	16	6.4	4.0	2.7	2.6	1.3	4.2
203	16	11.6	6.6	4.2	5.9	3.0	8.5
254	16	16.4	11.2	7.0	11.2	5.6	15.0
305	16	24.3	16.3	10.1	18.9	9.4	24.0
356	16	31.0	22.3	12.9	29.5	14.7	36.2
406	16	41.6	30.7	18.0	43.4	21.7	51.8
457	16	50.2	36.5	21.2	61.2	30.6	134.2
508	16	59.6	45.5	27.4	83.3	41.6	172.1
559	16	74.1	54.9	32.3	100.0	50.0	218.5
610	16	85.4	66.6	40.6	142.1	71.0	277.5
762	10	88.3	90.0	56.3	176.0	88.0	296.8
914	10	126.4	140.6	92.4	302.8	151.4	478.3
1067	7	114.7	155.4	111.7	325.5	162.7	455.1
1219	7	149.2	226.4	158.2	468.5	234.3	679.9
1372	3	96.0	200.0	156.1	342.9	171.5	436.2
1524	3	117.9	283.1	211.2	490.3	245.1	570.3
1676	3						
1829	3						

1. For non-L3 applications, the wall thicknesses in sizes 2", 3", and 4" are less than for L3 fire endurance applications. The pipe weights are 1.8, 2.7, and 3.5 kg/meter, respectively.

Component Weights 20FR16.E14
Rev 1.0B, Dec-12-2009

(also includes Series 20FR16-C)

Table 20FR16.E14M.1B

Component Weights (kg or kg per meter)

Size mm	Rating bar	Fig.46 Flgd Olet	Fig.48 PE Olet	Fig.60 Reducer	Fig.80 Lateral	Fig.96 Hemicap	Shop Butt Weld
25	16	0.9	0.4		1.3		0.2
38	16	1.2	0.6	0.0	1.8		0.2
51	16	1.5	0.7	0.1	1.9	0.0	0.3
64	16	1.9	0.9	0.1	2.3	0.1	0.4
76	16	2.3	1.1	0.2	3.1	0.1	0.4
102	16	3.4	1.5	0.2	4.5	0.2	0.6
152	16	7.4	3.6	0.7	8.8	0.4	1.1
203	16	13.8	7.4	1.2	19.7	0.9	2.3
254	16	24.6	13.4	1.8	33.4	1.8	4.5
305	16	34.2	22.6	2.5	55.9	3.0	5.6
356	16	49.8	34.6	3.4	81.9	4.7	8.3
406	16	70.7	49.2	4.3	119.0	6.9	12.4
457	16	95.4	69.1	5.4	163.5	9.7	17.1
508	16	124.6	90.3	6.6	211.5	13.3	22.7
559	16	158.2	116.9	8.0	267.4	15.9	30.4
610	16	199.7	147.4	18.8	342.6	22.6	38.7
762	10	194.0	128.7	28.0	373.1	28.0	32.2
914	10	316.4	208.6	40.2	629.2	48.2	52.5
1067	7	280.4	157.8	37.0	603.7	51.8	38.1
1219	7	410.9	236.6	46.6	888.2	74.6	55.7
1372	3	268.9	106.9	30.3	580.1	54.6	21.3
1524	3	376.3	157.1	39.0	785.8	78.0	29.4
1676	3						
1829	3						



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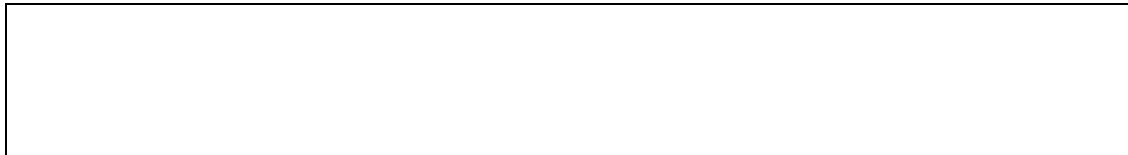
(also includes Series 20FR16-C)

Table 20FR16.E14.1D

Component Weights (lbs or lbs per foot)

(Pressure ratings are 232psig: 1" - 24", 150psig: 30" - 36", 100psig: 42" - 48", 50psig: 54" and larger)

Header Size in.	Fig.88 Reducing Lateral (includes header pipe)											
	Size	(lb)	Size	(lb)	Size	(lb)	Size	(lb)	Size	(lb)	Size	(lb)
1.00												
1.50	x 1.00						x 1.00					
2.00	x 1.50	3.7	x 1.00	3.4			x 1.50		x 1.00			
2.50	x 2.00	4.4	x 1.50	4.3	x 1.00	4.0	x 2.00		x 1.50		x 1.00	
3.00	x 2.50	6.0	x 2.00	5.8	x 1.50	5.6	x 2.50		x 2.00		x 1.50	
4.00	x 3.00	9.0	x 2.50	8.4	x 2.00	8.1	x 3.00		x 2.50		x 2.00	
6.00	x 4.00	14.9	x 3.00	13.7	x 2.50	13.0	x 4.00		x 3.00		x 2.50	
8.00	x 6.00	31.7	x 4.00	29.4	x 3.00	28.2	x 6.00		x 4.00		x 3.00	
10.00	x 8.00	57.0	x 6.00	49.8	x 4.00	47.5	x 8.00		x 6.00		x 4.00	
12.00	x 10.00	92.7	x 8.00	83.6	x 6.00	76.4	x 10.00		x 8.00		x 6.00	
14.00	x 12.00	139.5	x 10.00	126.2	x 8.00	117.1	x 12.00		x 10.00		x 8.00	
16.00	x 14.00	201.0	x 12.00	184.2	x 10.00	170.9	x 14.00		x 12.00		x 10.00	
18.00	x 16.00		x 14.00	254.4	x 12.00	237.7	x 16.00		x 14.00		x 12.00	
20.00	x 18.00		x 16.00		x 14.00	305.6	x 18.00		x 16.00		x 14.00	
22.00	x 20.00		x 18.00		x 16.00		x 20.00		x 18.00		x 16.00	
24.00	x 22.00		x 20.00		x 18.00		x 22.00		x 20.00		x 18.00	
30.00	x 24.00		x 22.00		x 20.00		x 24.00		x 22.00		x 20.00	
36.00	x 30.00		x 24.00		x 22.00		x 30.00		x 24.00		x 22.00	
42.00	x 36.00		x 30.00		x 24.00		x 36.00		x 30.00		x 24.00	
48.00	x 42.00		x 36.00		x 30.00		x 42.00		x 36.00		x 30.00	
54.00	x 48.00		x 42.00		x 36.00		x 48.00		x 42.00		x 36.00	
60.00	x 54.00		x 48.00		x 42.00		x 54.00		x 48.00		x 42.00	
66.00	x 60.00		x 54.00		x 48.00		x 60.00		x 54.00		x 48.00	
72.00	x 66.00		x 60.00		x 54.00		x 66.00		x 60.00		x 54.00	



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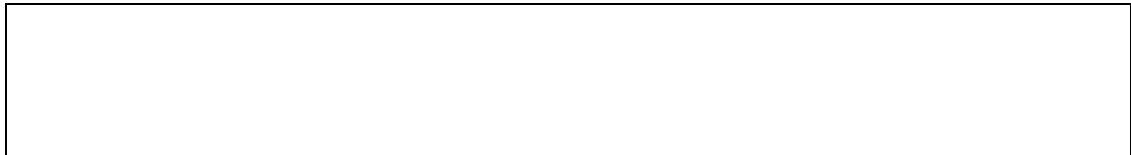
(also includes Series 20FR16-C)

Table 20FR16.E14M.1D

Component Weights (kg or kg per meter)

(Pressure ratings are 16.0bar: 1" - 24", 10.3bar: 30" - 36", 6.9bar: 42" - 48", 3.4bar: 54" and larger)

Header Size mm	Fig.88 Reducing Lateral (includes header pipe)									
	Size	(kg)	Size	(kg)	Size	(kg)	Size	(kg)	Size	(kg)
25										
38	x 25						x 25			
51	x 38	1.7	x 25	1.6			x 38		x 25	
64	x 51	2.0	x 38	1.9	x 25	1.8	x 51		x 38	x 25
76	x 64	2.7	x 51	2.6	x 38	2.5	x 64		x 51	x 38
102	x 76	4.1	x 64	3.8	x 51	3.7	x 76		x 64	x 51
152	x 102	6.7	x 76	6.2	x 64	5.9	x 102		x 76	x 64
203	x 152	14.4	x 102	13.3	x 76	12.8	x 152		x 102	x 76
254	x 203	25.9	x 152	22.6	x 102	21.5	x 203		x 152	x 102
305	x 254	42.1	x 203	38.0	x 152	34.7	x 254		x 203	x 152
356	x 305	63.3	x 254	57.3	x 203	53.2	x 305		x 254	x 203
406	x 356	91.3	x 305	83.6	x 254	77.6	x 356		x 305	x 254
457	x 406		x 356	115.5	x 305	107.9	x 406		x 356	x 305
508	x 457		x 406		x 356	138.8	x 457		x 406	x 356
559	x 508		x 457		x 406		x 508		x 457	x 406
610	x 559		x 508		x 457		x 559		x 508	x 457
762	x 610		x 559		x 508		x 610		x 559	x 508
914	x 762		x 610		x 559		x 762		x 610	x 559
1067	x 914		x 762		x 610		x 914		x 762	x 610
1219	x 1067		x 914		x 762		x 1067		x 914	x 762
1372	x 1219		x 1067		x 914		x 1219		x 1067	x 914
1524	x 1372		x 1219		x 1067		x 1372		x 1219	x 1067
1676	x 1524		x 1372		x 1219		x 1524		x 1372	x 1219
1829	x 1676		x 1524		x 1372		x 1676		x 1524	x 1372



Component Weights 20FR16.E14
 Rev 1.0A, Oct-15-2001

(also includes Series 20FR16-C)

Table 20FR16.E14.1E

Component Weights (lbs or lbs per foot)

(Pressure ratings are 232psig: 1" - 24", 150psig: 30" - 36", 100psig: 42" - 48", 50psig: 54" and larger)

Header Size in.	Fig.46 Flanged Olet (includes header pipe) (branch size is shown horizontally)																						
	1.00	1.50	2.00	2.50	3.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00	24.00	30.00	36.00	42.00	48.00	54.00	60.00	
1.00																							
1.50	3.1																						
2.00	3.3	4.0																					
2.50	3.6	4.3	5.2																				
3.00	3.9	4.6	5.6	6.7																			
4.00	4.5	5.2	6.3	7.4	8.4																		
6.00	5.6	6.5	7.6	8.9	10.0	13.3																	
8.00	8.5	9.7	11.1	12.7	14.1	17.9	29.2																
10.00	11.2	12.6	14.3	16.2	17.9	22.2	34.6	52.5															
12.00	15.6	17.5	19.6	21.9	24.0	29.3	43.4	63.0	92.3														
14.00	19.4	21.6	24.2	26.8	29.3	35.3	51.0	72.1	102.8	130.9													
16.00	25.3	28.1	31.3	34.5	37.6	44.8	62.8	86.3	119.4	149.8	193.6												
18.00	30.1	33.5	37.1	40.8	44.3	52.5	72.5	97.9	132.9	165.3	211.0	268.2											
20.00	35.4	39.3	43.4	47.6	51.7	60.9	83.0	110.5	147.7	182.1	229.9	289.2	356.9										
22.00	43.5	48.1	53.1	58.1	63.0	73.9	99.1	129.9	170.3	208.0	259.0	321.5	392.4	473.3									
24.00	49.8	55.1	60.7	66.4	71.9	84.0	111.8	145.1	188.0	228.2	281.8	346.9	420.3	503.7	596.9								
30.00	51.4	56.9	62.6	68.5	74.2	86.6	115.1	149.0	192.5	233.4	287.6	353.4	427.4	511.5	605.3	716.4							
36.00	72.7	80.3	88.2	96.2	104.0	120.7	157.7	200.2	252.2	301.7	364.4	438.6	521.2	613.8	716.2	835.8	908.3						
42.00	66.2	73.2	80.4	87.7	94.9	110.3	144.7	184.5	234.0	280.8	340.9	412.6	492.5	582.5	682.3	799.3	863.9	1210.4					
48.00	85.5	94.3	103.5	112.8	121.8	141.1	183.2	230.7	287.9	342.4	410.2	489.6	577.2	675.0	782.4	907.1	994.9	1364.5	1385.4				
54.00	55.7	61.6	67.8	74.1	80.2	93.5	123.7	159.4	204.7	247.3	303.2	370.7	446.4	532.3	627.8	740.7	792.7	1126.7	1111.9	1463.8			
60.00	68.0	75.1	82.5	90.0	97.3	113.1	148.2	188.7	238.9	286.4	347.2	419.6	500.2	590.9	691.4	809.1	875.8	1224.4	1224.3	1590.9	1357.3		
66.00	2.0	2.5	3.3	4.3	5.0	7.6	16.3	30.4	54.2	75.4	109.8	155.8	210.1	274.4	348.5	439.8	427.4	696.9	617.7	905.1	592.3	828.8	
72.00	2.0	2.5	3.3	4.3	5.0	7.6	16.3	30.4	54.2	75.4	109.8	155.8	210.1	274.4	348.5	439.8	427.4	696.9	617.7	905.1	592.3	828.8	



Component Weights 20FR16.E14
 Rev 1.0B, Dec-12-2009

(also includes Series 20FR16-C)

Table 20FR16.E14M.1E

Component Weights (kg or kg per meter)
 (Pressure ratings are 16.0bar: 1" - 24", 10.3bar: 30" - 36", 6.9bar: 42" - 48", 3.4bar: 54" and larger)

Header Size mm	Fig.46 Flanged Olet (includes header pipe) (branch size is shown horizontally)																						
	25	38	51	64	76	102	152	203	254	305	356	406	457	508	559	610	762	914	1067	1219	1372	1524	
25																							
38	1.4																						
51	1.5	1.8																					
64	1.6	1.9	2.4																				
76	1.8	2.1	2.5	3.0																			
102	2.0	2.4	2.8	3.4	3.8																		
152	2.5	2.9	3.5	4.1	4.5	6.0																	
203	3.9	4.4	5.0	5.8	6.4	8.1	13.3																
254	5.1	5.7	6.5	7.4	8.1	10.1	15.7	23.8															
305	7.1	7.9	8.9	10.0	10.9	13.3	19.7	28.6	41.9														
356	8.8	9.8	11.0	12.2	13.3	16.0	23.1	32.7	46.7	59.4													
406	11.5	12.8	14.2	15.7	17.1	20.3	28.5	39.2	54.2	68.0	87.9												
457	13.7	15.2	16.8	18.5	20.1	23.8	32.9	44.4	60.3	75.0	95.8	121.8											
508	16.1	17.8	19.7	21.6	23.5	27.7	37.7	50.2	67.0	82.7	104.4	131.3	162.0										
559	19.7	21.9	24.1	26.4	28.6	33.5	45.0	59.0	77.3	94.4	117.6	146.0	178.1	214.9									
610	22.6	25.0	27.5	30.1	32.6	38.1	50.8	65.9	85.3	103.6	127.9	157.5	190.8	228.7	271.0								
762	23.3	25.8	28.4	31.1	33.7	39.3	52.2	67.6	87.4	106.0	130.6	160.4	194.0	232.2	274.8	325.3							
914	33.0	36.5	40.0	43.7	47.2	54.8	71.6	90.9	114.5	137.0	165.4	199.1	236.6	278.7	325.2	379.5	412.4						
1067	30.1	33.2	36.5	39.8	43.1	50.1	65.7	83.8	106.2	127.5	154.8	187.3	223.6	264.5	309.8	362.9	392.2	549.5					
1219	38.8	42.8	47.0	51.2	55.3	64.0	83.2	104.7	130.7	155.5	186.2	222.3	262.1	306.4	355.2	411.8	451.7	619.5	629.0				
1372	25.3	28.0	30.8	33.6	36.4	42.5	56.2	72.4	92.9	112.3	137.6	168.3	202.7	241.7	285.0	336.3	359.9	511.5	504.8	664.5			
1524	30.9	34.1	37.4	40.9	44.2	51.3	67.3	85.7	108.4	130.0	157.6	190.5	227.1	268.3	313.9	367.3	397.6	555.9	555.9	722.2	616.2		
1676	0.9	1.2	1.5	1.9	2.3	3.4	7.4	13.8	24.6	34.2	49.8	70.7	95.4	124.6	158.2	199.7	194.0	316.4	280.4	410.9	268.9	376.3	
1829	0.9	1.2	1.5	1.9	2.3	3.4	7.4	13.8	24.6	34.2	49.8	70.7	95.4	124.6	158.2	199.7	194.0	316.4	280.4	410.9	268.9	376.3	

Component Weights 20FR16.E14
 Rev 1.0A, Oct-15-2001

(also includes Series 20FR16-C)

Table 20FR16.E14.1F

Component Weights (lbs or lbs per foot)

(Pressure ratings are 232psig: 1" - 24", 150psig: 30" - 36", 100psig: 42" - 48", 50psig: 54" and larger)

Header Size in.	Fig.48 Plain End Olet (includes header pipe) (branch size is shown horizontally)																						
	1.00	1.50	2.00	2.50	3.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00	24.00	30.00	36.00	42.00	48.00	54.00	60.00	
1.00																							
1.50	2.0																						
2.00	2.2	2.7																					
2.50	2.5	3.0	3.5																				
3.00	2.8	3.4	3.8	4.4																			
4.00	3.4	4.0	4.5	5.1	5.7																		
6.00	4.5	5.2	5.9	6.6	7.3	8.9																	
8.00	7.4	8.4	9.4	10.4	11.4	13.6	21.0																
10.00	10.1	11.4	12.6	13.9	15.2	17.9	26.4	38.2															
12.00	14.5	16.2	17.9	19.6	21.3	24.9	35.2	48.8	67.5														
14.00	18.3	20.4	22.4	24.5	26.6	31.0	42.7	57.9	78.1	105.3													
16.00	24.2	26.9	29.5	32.2	34.9	40.4	54.5	72.1	94.6	124.2	160.1												
18.00	29.0	32.2	35.3	38.5	41.7	48.2	64.2	83.7	108.2	139.7	177.5	220.9											
20.00	34.3	38.0	41.6	45.3	49.0	56.6	74.7	96.3	122.9	156.5	196.4	241.9	299.0										
22.00	42.4	46.9	51.3	55.8	60.3	69.5	90.9	115.7	145.5	182.3	225.5	274.2	334.5	397.9									
24.00	48.7	53.9	58.9	64.1	69.2	79.6	103.5	130.9	163.2	202.6	248.3	299.5	362.4	428.3	505.8								
30.00	50.3	55.6	60.9	66.2	71.5	82.2	106.8	134.8	167.8	207.8	254.1	306.0	369.5	436.1	514.3	601.3							
36.00	71.6	79.1	86.5	93.9	101.3	116.3	149.4	185.9	227.5	276.0	330.9	391.3	463.3	538.4	625.2	720.7	764.2						
42.00	65.1	71.9	78.6	85.4	92.2	105.9	136.4	170.3	209.2	255.2	307.4	365.2	434.6	507.1	591.2	684.2	719.9	973.0					
48.00	84.4	93.1	101.7	110.4	119.1	136.7	174.9	216.5	263.1	316.8	376.7	442.3	519.4	599.5	691.4	792.0	850.8	1127.0	1115.4				
54.00	54.7	60.4	66.1	71.8	77.5	89.2	115.4	145.2	179.9	221.6	269.7	323.4	388.5	456.8	536.8	625.5	648.7	889.2	841.9	1079.8			
60.00	66.9	73.8	80.7	87.7	94.6	108.7	139.9	174.5	214.1	260.8	313.7	372.2	442.3	515.5	600.3	694.0	731.8	987.0	954.3	1206.9	1000.5		
66.00	0.9	1.3	1.6	2.0	2.3	3.2	8.0	16.2	29.5	49.7	76.3	108.5	152.2	199.0	257.4	324.7	283.4	459.4	347.7	521.1	235.6	346.1	
72.00	0.9	1.3	1.6	2.0	2.3	3.2	8.0	16.2	29.5	49.7	76.3	108.5	152.2	199.0	257.4	324.7	283.4	459.4	347.7	521.1	235.6	346.1	



Component Weights 20FR16.E14
 Rev 1.0B, Dec-12-2009

(also includes Series 20FR16-C)

Table 20FR16.E14M.1F

Component Weights (kg or kg per meter)
 (Pressure ratings are 16.0bar: 1" - 24", 10.3bar: 30" - 36", 6.9bar: 42" - 48", 3.4bar: 54" and larger)

Header Size mm	Fig.48 Plain End Olet (includes header pipe) (branch size is shown horizontally)																						
	25	38	51	64	76	102	152	203	254	305	356	406	457	508	559	610	762	914	1067	1219	1372	1524	
25																							
38	0.9																						
51	1.0	1.2																					
64	1.1	1.4	1.6																				
76	1.3	1.5	1.7	2.0																			
102	1.5	1.8	2.1	2.3	2.6																		
152	2.0	2.4	2.7	3.0	3.3	4.1																	
203	3.4	3.8	4.3	4.7	5.2	6.2	9.5																
254	4.6	5.2	5.7	6.3	6.9	8.1	12.0	17.4															
305	6.6	7.4	8.1	8.9	9.7	11.3	16.0	22.2	30.7														
356	8.3	9.3	10.2	11.1	12.1	14.1	19.4	26.3	35.5	47.8													
406	11.0	12.2	13.4	14.6	15.8	18.4	24.8	32.7	43.0	56.4	72.7												
457	13.2	14.6	16.0	17.5	18.9	21.9	29.2	38.0	49.1	63.4	80.6	100.3											
508	15.6	17.3	18.9	20.6	22.3	25.7	33.9	43.7	55.8	71.1	89.2	109.8	135.7										
559	19.2	21.3	23.3	25.3	27.4	31.6	41.3	52.5	66.1	82.8	102.4	124.5	151.9	180.6									
610	22.1	24.4	26.8	29.1	31.4	36.2	47.0	59.4	74.1	92.0	112.7	136.0	164.5	194.4	229.7								
762	22.8	25.3	27.6	30.0	32.4	37.3	48.5	61.2	76.2	94.3	115.4	138.9	167.8	198.0	233.5	273.0							
914	32.5	35.9	39.3	42.6	46.0	52.8	67.8	84.4	103.3	125.3	150.2	177.7	210.3	244.4	283.8	327.2	347.0						
1067	29.6	32.7	35.7	38.8	41.9	48.1	61.9	77.3	95.0	115.8	139.6	165.8	197.3	230.2	268.4	310.6	326.8	441.7					
1219	38.3	42.3	46.2	50.1	54.1	62.1	79.4	98.3	119.5	143.8	171.0	200.8	235.8	272.2	313.9	359.6	386.3	511.7	506.4				
1372	24.8	27.4	30.0	32.6	35.2	40.5	52.4	65.9	81.7	100.6	122.4	146.8	176.4	207.4	243.7	284.0	294.5	403.7	382.2	490.2			
1524	30.4	33.5	36.7	39.8	43.0	49.4	63.5	79.2	97.2	118.4	142.4	169.0	200.8	234.0	272.6	315.1	332.2	448.1	433.3	547.9	454.2		
1676	0.4	0.6	0.7	0.9	1.1	1.5	3.6	7.4	13.4	22.6	34.6	49.2	69.1	90.3	116.9	147.4	128.7	208.6	157.8	236.6	106.9	157.1	
1829	0.4	0.6	0.7	0.9	1.1	1.5	3.6	7.4	13.4	22.6	34.6	49.2	69.1	90.3	116.9	147.4	128.7	208.6	157.8	236.6	106.9	157.1	



Component Weights 20FR16.E14
Rev 1.0B, Mar-31-2005

(also includes Series 20FR16-C)

Table 20FR16.E14.1G

Component Weights (lbs)

Size in.	Rating psi	O-Ring Gasket	Full-Face Gasket
1.00	232	0.01	0.10
1.50	232	0.01	0.10
2.00	232	0.02	0.10
2.50	232	0.02	0.10
3.00	232	0.02	0.20
4.00	232	0.04	0.30
6.00	232	0.05	0.40
8.00	232	0.06	0.50
10.00	232	0.07	0.70
12.00	232	0.08	0.90
14.00	232	0.09	1.00
16.00	232	0.11	1.20
18.00	232	0.12	1.30
20.00	232	0.14	1.50
22.00	232		
24.00	232	0.16	1.90
30.00	150		2.50
36.00	150		3.50
42.00	100		4.50
48.00	100		5.20
54.00	50		
60.00	50		
66.00	50		
72.00	50		

Component Weights 20FR16.E14
Rev 1.0B, Mar-31-2005

(also includes Series 20FR16-C)

Table 20FR16.E14M.1G

Component Weights (kg)

Size mm	Rating bar	O-Ring Gasket	Full-Face Gasket
25	16	0.01	0.05
38	16	0.01	0.05
51	16	0.01	0.05
64	16	0.01	0.05
76	16	0.01	0.09
102	16	0.02	0.14
152	16	0.02	0.18
203	16	0.03	0.23
254	16	0.03	0.32
305	16	0.04	0.41
356	16	0.04	0.45
406	16	0.05	0.54
457	16	0.05	0.59
508	16	0.06	0.68
559	16		
610	16	0.07	0.86
762	10		1.14
914	10		1.59
1067	7		2.04
1219	7		2.36
1372	3		
1524	3		
1676	3		
1829	3		

Component Weights 20FR16.E14
Rev 1.0C, Jun-06-2005

(also includes Series 20FR16-C)

Table 20FR16.E14.1H

Component Weights (lbs)

(Pressure ratings are 232psig: 1" - 24", 150psig: 30" - 36", 100psig: 42" - 48", 50psig: 54" and larger)

Header Size in.	Fig.43 Reducing Tees						Fig.43 Reducing Tees					
	Size	(lb)	Size	(lb)	Size	(lb)	Size	(lb)	Size	(lb)	Size	(lb)
1.00												
1.50												
2.00												
2.50												
3.00												
4.00												
6.00												
8.00	x 6.00	16.6										
10.00	x 8.00	29.9	x 6.00	26.9								
12.00	x 10.00	48.7	x 8.00	44.5								
14.00	x 12.00	74.2	x 10.00	68.4								
16.00	x 14.00	107.1	x 12.00	99.6	x 10.00	93.1						
18.00	x 16.00	270.4	x 14.00	246.7	x 12.00	230.8						
20.00	x 18.00	351.3	x 16.00	326.1	x 14.00	302.5	x 12.00	286.6	x 10.00	272.4		
22.00												
24.00	x 20.00	533.9	x 18.00	506.0	x 16.00	480.9	x 14.00	457.3	x 12.00	441.3	x 10.00	427.2
30.00	x 24.00	640.1										
36.00	x 30.00	920.4										
42.00	x 36.00	1019.5										
48.00	x 42.00	1332.5										
54.00												
60.00												
66.00												
72.00												

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Component Weights 20FR16.E14
Rev 1.0D, Dec-12-2009

(also includes Series 20FR16-C)

Table 20FR16.E14M.1H

Component Weights (kg)

(Pressure ratings are 16.0barg: 1" - 24", 10.3barg: 30" - 36", 6.9barg: 42" - 48", 3.4barg: 54" and larger)

Header Size mm	Fig.43 Reducing Tees				Fig.43 Reducing Tees					
	Size	(kg)	Size	(kg)	Size	(kg)	Size	(kg)	Size	(kg)
25										
38										
51										
64										
76										
102										
152										
203	x 6.00	7.5								
254	x 8.00	13.6	x 6.00	12.2						
305	x 10.00	22.1	x 8.00	20.2						
356	x 12.00	33.7	x 10.00	31.1						
406	x 14.00	48.6	x 12.00	45.2	x 10.00	42.3				
457	x 16.00	122.8	x 14.00	112.0	x 12.00	104.8				
508	x 18.00	159.5	x 16.00	148.0	x 14.00	137.3	x 12.00	130.1	x 10.00	123.7
559										
610	x 20.00	242.4	x 18.00	229.7	x 16.00	218.3	x 14.00	207.6	x 12.00	200.4
762	x 24.00	290.6								
914	x 30.00	417.9								
1067	x 36.00	462.8								
1219	x 42.00	605.0								
1372										
1524										
1676										
1829										

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Component Weights 20FR16.E14
Rev 1.0C, Jun-06-2005

(also includes Series 20FR16-C)

Table 20FR16.E14.1I

Component Weights (lbs)

Size in.	Rating psi	Fig.10-O Orifice Flg	Fig.11 Van. "Stub"	Fig.17 Bleed Ring	Fig.18 1/4" Spc Ring	Fig.19FC Blind w/ FNPT	Fig.210,226 Wear Pad
1.00	232						0.5
1.50	232						0.7
2.00	232	4.6	7.4	2.3	0.4	3.2	0.8
2.50	232						
3.00	232	6.2	12.0	3.3	0.6	4.0	1.1
4.00	232	8.6	15.6	4.6	0.8	5.4	1.5
6.00	232	13.7	22.4	6.0	1.0	7.8	2.1
8.00	232	21.0	29.8	8.4	1.4	11.1	2.8
10.00	232	32.7	46.9	11.0	2.2	17.2	3.5
12.00	232	46.0	62.8	15.3	2.6	24.1	4.2
14.00	232	61.4	81.8			30.1	4.9
16.00	232	82.4	111.4			41.5	5.6
18.00	232	97.5	120.8			48.4	6.3
20.00	232	120.3	158.5			62.0	7.0
22.00	232	141.7				72.9	
24.00	232	172.9	201.8			91.2	8.3
30.00	150	234.2				125.9	10.4
36.00	150	358.4				205.3	12.5
42.00	100	401.0				247.9	14.5
48.00	100	576.3				350.2	16.6
54.00	50						
60.00	50						
66.00	50						
72.00	50						

Component Weights 20FR16.E14

Rev 1.0C, Jun-06-2005

(also includes Series 20FR16-C)

Table 20FR16.E14.1J

Component Weights (lbs)

Size in.	Rating psi	Fig.40PPF Tee w/ Flg	Fig.40X2 Tee w/ 2" Olet	Fig.70 Cross	Fig.47JF MNPT Olet	Fig.97 FNPT Olet
1.00	232			2.6	2.5	
1.50	232			3.9	2.7	
2.00	232			4.6		
2.50	232			5.6		
3.00	232		7.9	7.4		
4.00	232		9.5	11.0		
6.00	232		13.8	23.9		
8.00	232		23.2	52.0		
10.00	232		37.4	90.4		
12.00	232		57.5	156.8		
14.00	232		153.7	232.5		
16.00	232		224.7	342.8		
18.00	232		300.0	467.3		
20.00	232		383.6	604.5		
22.00	232			771.7		
24.00	232		615.8	983.5		
30.00	150		659.0	1002.9		
36.00	150		1057.9	1626.3		
42.00	100		1007.1	1492.0		
48.00	100		1502.0	2227.9		
54.00	50					
60.00	50					
66.00	50					
72.00	50					

Component Weights 20FR16.E14
Rev 1.0D, Dec-12-2009

(also includes Series 20FR16-C)

Table 20FR16.E14M.11

Component Weights (kg or kg per meter)

Size mm	Rating bar	Fig.10-O Orifice Flg	Fig.11 Van. "Stub"	Fig.17 Bleed Ring	Fig.18 1/4" Spc Ring	Fig.19FC Blind w/ FNPT	Fig.210,226 Wear Pad
25	16						0.2
38	16						0.3
51	16	2.1	3.4	1.0	0.2	1.5	0.4
64	16						
76	16	2.8	5.4	1.5	0.3	1.8	0.5
102	16	3.9	7.1	2.1	0.3	2.5	0.7
152	16	6.2	10.2	2.7	0.5	3.6	1.0
203	16	9.5	13.5	3.8	0.6	5.0	1.3
254	16	14.9	21.3	5.0	1.0	7.8	1.6
305	16	20.9	28.5	7.0	1.2	10.9	1.9
356	16	27.9	37.1			13.7	2.2
406	16	37.4	50.6			18.8	2.5
457	16	44.3	54.8			22.0	2.9
508	16	54.6	72.0			28.2	3.2
559	16	64.3				33.1	
610	16	78.5	91.6			41.4	3.8
762	10	106.3				57.1	4.7
914	10	162.7				93.2	5.7
1067	7	182.1				112.5	6.6
1219	7	261.6				159.0	7.5
1372	3						
1524	3						
1676	3						
1829	3						

Component Weights 20FR16.E14
Rev 1.0D, Dec-12-2009

(also includes Series 20FR16-C)

Table 20FR16.E14M.1J

Component Weights (kg or kg per meter)

Size mm	Rating bar	Fig.40PPF Tee w/ Flg	Fig.40X2 Tee w/ 2" Olet	Fig.70 Cross	Fig.47JF MNPT Olet	Fig.97 FNPT Olet
25	16			1.2	1.1	
38	16			1.8	1.2	
51	16			2.1		
64	16			2.5		
76	16		3.6	3.3		
102	16		4.3	5.0		
152	16		6.3	10.9		
203	16		10.5	23.6		
254	16		17.0	41.0		
305	16		26.1	71.2		
356	16		69.8	105.5		
406	16		102.0	155.6		
457	16		136.2	212.1		
508	16		174.2	274.5		
559	16			350.4		
610	16		279.6	446.5		
762	10		299.2	455.3		
914	10		480.3	738.3		
1067	7		457.2	677.4		
1219	7		681.9	1011.5		
1372	3					
1524	3					
1676	3					
1829	3					