

Rev C - Jul-11-2017

Series Specifications 20FR-E.E6 (20FR-E)

(also includes Series 20FR-EC)

**Table 20FR-E.E6.6C  
 (Series 20FR-E)  
 Support Spacing (ft)**

(Limited by Bending Stress, Deflection of 0.50 in. over 3 spans, and Max. Spacing of 30.0 ft)

(See notes for information on what value of bending stress to use)

Size in.	Rating psi	500 psi SG = 0.85			1000 psi SG = 1.0			1500 psi SG = 1.15		
		1000 psi SG = 0.85	1500 psi SG = 0.85	500 psi SG = 1.0	1000 psi SG = 1.0	1500 psi SG = 1.15	1000 psi SG = 1.15	1500 psi SG = 1.15		
0.50	200	7.0	8.6	8.6	7.0	8.6	8.6	6.9	8.6	8.6
0.75	200	7.9	9.7	9.7	7.7	9.6	9.6	7.6	9.5	9.5
1.00	200	8.5	10.5	10.5	8.3	10.4	10.4	8.2	10.3	10.3
1.50	200	9.5	11.9	11.9	9.2	11.8	11.8	9.0	11.6	11.6
2.00	200	10.6	13.4	13.4	10.2	13.2	13.2	9.9	13.0	13.0
2.50	200	10.7	14.0	14.0	10.3	13.7	13.7	9.9	13.5	13.5
3.00	200	11.1	14.8	14.8	10.6	14.5	14.5	10.2	14.2	14.2
4.00	200	11.7	16.2	16.2	11.1	15.7	15.8	10.6	15.0	15.5
5.00	200	12.1	16.2	16.2	11.5	15.8	15.8	10.9	15.4	15.5
6.00	200	13.7	19.3	19.3	12.9	18.3	18.8	12.3	17.4	18.3
8.00	200	15.3	21.7	21.9	14.5	20.5	21.3	13.7	19.4	20.8
10.00	200	16.8	23.8	24.3	15.8	22.4	23.5	15.0	21.3	22.9
12.00	200	18.2	25.7	26.4	17.1	24.2	25.6	16.2	22.9	24.9
14.00	150	17.5	24.7	26.9	16.4	23.2	26.0	15.5	21.9	25.3
16.00	150	18.8	26.5	28.8	17.6	24.9	27.8	16.6	23.5	27.1
18.00	150	20.0	28.2	30.0	18.7	26.5	29.6	17.7	25.0	28.7
20.00	150	21.1	29.8	30.0	19.8	28.0	30.0	18.7	26.4	30.0
24.00	150	23.2	30.0	30.0	21.7	30.0	30.0	20.5	29.0	30.0
30.00	100	21.8	30.0	30.0	20.3	28.7	30.0	19.1	27.0	30.0
36.00	100	23.9	30.0	30.0	22.3	30.0	30.0	21.0	29.7	30.0
42.00	50	18.7	26.4	30.0	17.4	24.5	30.0	16.3	23.0	28.2
48.00	50	20.1	28.4	30.0	18.6	26.3	30.0	17.4	24.7	30.0
54.00	50	21.3	30.0	30.0	19.8	28.0	30.0	18.5	26.2	30.0
60.00	50	22.5	30.0	30.0	20.9	29.6	30.0	19.6	27.7	30.0
66.00	50	23.7	30.0	30.0	22.0	30.0	30.0	20.6	29.1	30.0
72.00	50	24.8	30.0	30.0	23.0	30.0	30.0	21.5	30.0	30.0

Notes: Normally, we recommend 1000psi (6.9MPa) for an allowable bending stress due to support spacing, however, this value can range from 500psi (3.5MPa) to 1500psi (13.4MPa), depending upon the other axial & bending stresses in the system. At design temperatures of 200F (93c) or more, 500psi (3.5MPa) may be needed. At very low pressures and temperatures, 1500psi (13.4MPa) may be satisfactory.  
 For seawater, multiply the support spacings for SG=1.0 by 0.986 (i.e., the support spacings for seawater are approximately 98.6% of the values for SG=1.0 (water)).

Rev C - Jul-11-2017

Series Specifications 20FR-E.E6 (20FR-E)

(also includes Series 20FR-EC)

**Table 20FR-E.E6M.6C (Metric)  
 (Series 20FR-E)**

**Support Spacing (m)**

(Limited by Bending Stress, Deflection of 12.5 mm over 3 spans, and Max. Spacing of 9.0 m)

(See notes for information on what value of bending stress to use)

Size mm	Rating bar	3.4 MPa	6.8 MPa	10.3 MPa	3.4 MPa	6.8 MPa	10.3 MPa	3.4 MPa	6.8 MPa	10.3 MPa
		SG = 0.85	SG = 0.85	SG = 0.85	SG = 1.0	SG = 1.0	SG = 1.0	SG = 1.15	SG = 1.15	SG = 1.15
15	14	2.1	2.6	2.6	2.1	2.6	2.6	2.1	2.6	2.6
20	14	2.4	2.9	2.9	2.3	2.9	2.9	2.3	2.9	2.9
25	14	2.6	3.2	3.2	2.5	<b>3.2</b>	3.2	2.5	3.1	3.1
40	14	2.9	3.6	3.6	2.8	<b>3.6</b>	3.6	2.7	3.5	3.5
50	14	3.2	4.1	4.1	3.1	<b>4.0</b>	4.0	3.0	4.0	4.0
65	14	<del>3.2</del>	<del>4.3</del>	<del>4.3</del>	<del>3.1</del>	<del>4.2</del>	<del>4.2</del>	<del>3.0</del>	<del>4.1</del>	<del>4.1</del>
80	14	3.4	4.5	4.5	3.2	<b>4.4</b>	4.4	3.1	4.3	4.3
100	14	3.5	4.9	4.9	3.4	<b>4.8</b>	4.8	3.2	4.5	4.7
125	14	3.7	4.9	4.9	3.5	4.8	4.8	3.3	4.7	4.7
150	14	4.1	5.8	5.9	3.9	<b>5.5</b>	5.7	3.7	5.3	5.6
200	14	4.6	6.6	6.7	4.4	<b>6.2</b>	6.5	4.2	5.9	6.3
250	14	5.1	7.2	7.4	4.8	<b>6.8</b>	7.2	4.6	6.4	7.0
300	14	5.5	7.8	8.0	5.2	<b>7.3</b>	7.8	4.9	6.9	7.6
350	10	5.3	7.5	8.2	5.0	<b>7.0</b>	7.9	4.7	6.6	7.7
400	10	5.7	8.0	8.8	5.3	<b>7.5</b>	8.5	5.0	7.1	8.2
450	10	6.0	8.5	9.0	5.7	<b>8.0</b>	9.0	5.3	7.6	8.8
500	10	6.4	9.0	9.0	6.0	<b>8.5</b>	9.0	5.7	8.0	9.0
600	10	7.0	9.0	9.0	6.6	<b>9.0</b>	9.0	6.2	8.8	9.0
750	7	6.6	9.0	9.0	6.2	<b>8.7</b>	9.0	5.8	8.2	9.0
900	7	7.2	9.0	9.0	6.8	<b>9.0</b>	9.0	6.4	9.0	9.0
1050	3	5.7	8.0	9.0	5.3	<b>7.4</b>	9.0	4.9	7.0	8.6
1200	3	6.1	8.6	9.0	5.6	<b>8.0</b>	9.0	5.3	7.5	9.0
1350	3	<del>6.5</del>	<del>9.0</del>	<del>9.0</del>	<del>6.0</del>	<del>8.5</del>	<del>9.0</del>	<del>5.6</del>	<del>7.9</del>	<del>9.0</del>
1500	3	6.8	9.0	9.0	6.3	<b>9.0</b>	9.0	5.9	8.4	9.0
1650	3	<del>7.2</del>	<del>9.0</del>	<del>9.0</del>	<del>6.7</del>	<del>9.0</del>	<del>9.0</del>	<del>6.2</del>	<del>8.8</del>	<del>9.0</del>
1800	3	<del>7.5</del>	<del>9.0</del>	<del>9.0</del>	<del>7.0</del>	<del>9.0</del>	<del>9.0</del>	<del>6.5</del>	<del>9.0</del>	<del>9.0</del>

Notes: Normally, we recommend 1000psi (6.9MPa) for an allowable bending stress due to support spacing, however, this value can range from 500psi (3.5MPa) to 1500psi (13.4MPa), depending upon the other axial & bending stresses in the system. At design temperatures of 200F (93c) or more, 500psi (3.5MPa) may be needed. At very low pressures and temperatures, 1500psi (13.4MPa) may be satisfactory.  
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