Guide Rail FC-1A (On-Seating)

Analysis Type	Width of Opening (IN)	Hydrostatic Head (FT)	Weight of Water (PCF)	Pressure on Gate (PSF)	Bolt Spacing (Poly Seal to Rail) (IN)	Stiffener Spacing (IN)	Bearing Load to Rail (#/in)	Steel Stress (KSI) (Max Local @ AB)	Steel Stress (KSI) (Max General)
AWWA	14	52.75	62.4	3291	8	16	160.0	NA	14.1
AWWA	20	36.92	62.4	2304.0	8	16	160.0	NA	14.1
AWWA	26	28.40	62.4	1772.3	8	16	160.0	NA	14.1
AWWA	32	23.08	62.4	1440.0	8	16	160.0	NA	14.1
AWWA	38	19.43	62.4	1212.6	8	16	160.0	NA	14.1
AWWA	44	16.78	62.4	1047.3	8	16	160.0	NA	14.1
AWWA	50	14.77	62.4	921.6	8	16	160.0	NA	14.1
AWWA	56	13.19	62.4	822.9	8	16	160.0	NA	14.1
AWWA	62	11.91	62.4	743.2	8	16	160.0	NA	14.1
AWWA	74	9.98	62.4	622.7	8	16	160.0	NA	14.1
Analysis Type	**Width of Opening (IN)**	**Hydrostatic Head (FT)**	**Weight of Water (PCF)**	**Pressure on Gate (PSF)**	**Bolt Spacing (Poly Seal to Rail) (IN)**	**Stiffener Spacing (IN)**	**Bearing Load to Rail (#/in)**	**Steel Stress (KSI) (Max Local @ AB)**	**Steel Stress (KSI) (Max General)**
Full Stress	14	112.09	62.4	6994.3	8	16	340.0	NA	29.5
Full Stress	20	78.46	62.4	4896.0	8	16	340.0	NA	29.5
Full Stress	26	60.35	62.4	3766.1	8	16	340.0	NA	29.5
Full Stress	32	49.04	62.4	3060.0	8	16	340.0	NA	29.5
Full Stress	38	41.30	62.4	2576.8	8	16	340.0	NA	29.5
Full Stress	44	35.66	62.4	2225.5	8	16	340.0	NA	29.5
Full Stress	50	31.38	62.4	1958.4	8	16	340.0	NA	29.5
Full Stress	56	28.02	62.4	1748.6	8	16	340.0	NA	29.5
Full Stress	62	25.31	62.4	1579.4	8	16	340.0	NA	29.5
Full Stress	74	21.21	62.4	1323.2	8	16	340.0	NA	29.5

Guide Rail FC-1B (On-Seating)

Analysis Type	Width of Opening (IN)	Hydrostatic Head (FT)	Weight of Water (PCF)	Pressure on Gate (PSF)	Bolt Spacing (Poly Seal to Rail) (IN)	Stiffener Spacing (IN)	Bearing Load to Rail (#/in)	Steel Stress (KSI) (Max Local @ AB)	Steel Stress (KSI) (Max General)
AWWA	14	95.60	62.4	5965.7	8	16	290.0	NA	14.9
AWWA	20	66.92	62.4	4176.0	8	16	290.0	NA	14.9
AWWA	26	51.48	62.4	3212.3	8	16	290.0	NA	14.9
AWWA	32	41.83	62.4	2610.0	8	16	290.0	NA	14.9
AWWA	38	35.22	62.4	2197.9	8	16	290.0	NA	14.9
AWWA	44	30.42	62.4	1898.2	8	16	290.0	NA	14.9
AWWA	50	26.77	62.4	1670.4	8	16	290.0	NA	14.9
AWWA	56	23.90	62.4	1491.4	8	16	290.0	NA	14.9
AWWA	62	21.59	62.4	1347.1	8	16	290.0	NA	14.9
AWWA	74	18.09	62.4	1128.6	8	16	290.0	NA	14.9
Analysis Type	**Width of Opening (IN)**	**Hydrostatic Head (FT)**	**Weight of Water (PCF)**	**Pressure on Gate (PSF)**	**Bolt Spacing (Poly Seal to Rail) (IN)**	**Stiffener Spacing (IN)**	**Bearing Load to Rail (#/in)**	**Steel Stress (KSI) (Max Local @ AB)**	**Steel Stress (KSI) (Max General)**
Full Stress	14	194.51	62.4	12137.1	8	16	590.0	NA	29.5
Full Stress	20	136.15	62.4	8496.0	8	16	590.0	NA	29.5
Full Stress	26	104.73	62.4	6535.4	8	16	590.0	NA	29.5
Full Stress	32	85.10	62.4	5310.0	8	16	590.0	NA	29.5
Full Stress	38	71.66	62.4	4471.6	8	16	590.0	NA	29.5
Full Stress	44	61.89	62.4	3861.8	8	16	590.0	NA	29.5
Full Stress	50	54.46	62.4	3398.4	8	16	590.0	NA	29.5
Full Stress	56	48.63	62.4	3034.3	8	16	590.0	NA	29.5
Full Stress	62	43.92	62.4	2740.6	8	16	590.0	NA	29.5
Full Stress	74	36.80	62.4	2296.2	8	16	590.0	NA	29.5

Guide Rail FC-2A (On-Seating)

Analysis Type	Width of Opening (IN)	Hydrostatic Head (FT)	Weight of Water (PCF)	Pressure on Gate (PSF)	Bolt Spacing (Poly Seal to Rail) (IN)	Stiffener Spacing (IN)	Bearing Load to Rail (#/in)	Steel Stress (KSI) (Max Local @ AB)	Steel Stress (KSI) (Max General)
AWWA	14	105.49	62.4	6582.9	8	16	320.0	NA	14.8
AWWA	20	73.85	62.4	4608.0	8	16	320.0	NA	14.8
AWWA	26	56.80	62.4	3544.6	8	16	320.0	NA	14.8
AWWA	32	46.15	62.4	2880.0	8	16	320.0	NA	14.8
AWWA	38	38.87	62.4	2425.3	8	16	320.0	NA	14.8
AWWA	44	33.57	62.4	2094.5	8	16	320.0	NA	14.8
AWWA	50	29.54	62.4	1843.2	8	16	320.0	NA	14.8
AWWA	56	26.37	62.4	1645.7	8	16	320.0	NA	14.8
AWWA	62	23.82	62.4	1486.5	8	16	320.0	NA	14.8
AWWA	74	19.96	62.4	1245.4	8	16	320.0	NA	14.8
Analysis Type	**Width of Opening (IN)**	**Hydrostatic Head (FT)**	**Weight of Water (PCF)**	**Pressure on Gate (PSF)**	**Bolt Spacing (Poly Seal to Rail) (IN)**	**Stiffener Spacing (IN)**	**Bearing Load to Rail (#/in)**	**Steel Stress (KSI) (Max Local @ AB)**	**Steel Stress (KSI) (Max General)**
Full Stress	14	217.58	62.4	13577.1	8	16	660.0	NA	30
Full Stress	20	152.31	62.4	9504.0	8	16	660.0	NA	30
Full Stress	26	117.16	62.4	7310.8	8	16	660.0	NA	30
Full Stress	32	95.19	62.4	5940.0	8	16	660.0	NA	30
Full Stress	38	80.16	62.4	5002.1	8	16	660.0	NA	30
Full Stress	44	69.23	62.4	4320.0	8	16	660.0	NA	30
Full Stress	50	60.92	62.4	3801.6	8	16	660.0	NA	30
Full Stress	56	54.40	62.4	3394.3	8	16	660.0	NA	30
Full Stress	62	49.13	62.4	3065.8	8	16	660.0	NA	30
Full Stress	74	41.16	62.4	2568.6	8	16	660.0	NA	30

Guide Rail FC-2B (On-Seating)

Analysis Type	Width of Opening (IN)	Hydrostatic Head (FT)	Weight of Water (PCF)	Pressure on Gate (PSF)	Bolt Spacing (Poly Seal to Rail) (IN)	Stiffener Spacing (IN)	Bearing Load to Rail (#/in)	Steel Stress (KSI) (Max Local @ AB)	Steel Stress (KSI) (Max General)
AWWA	14	158.24	62.4	9874.3	8	32	480.0	NA	14.9
AWWA	20	110.77	62.4	6912.0	8	32	480.0	NA	14.9
AWWA	26	85.21	62.4	5316.9	8	32	480.0	NA	14.9
AWWA	32	69.23	62.4	4320.0	8	32	480.0	NA	14.9
AWWA	38	58.30	62.4	3637.9	8	32	480.0	NA	14.9
AWWA	44	50.35	62.4	3141.8	8	32	480.0	NA	14.9
AWWA	50	44.31	62.4	2764.8	8	32	480.0	NA	14.9
AWWA	56	39.56	62.4	2468.6	8	32	480.0	NA	14.9
AWWA	62	35.73	62.4	2229.7	8	32	480.0	NA	14.9
AWWA	74	29.94	62.4	1868.1	8	32	480.0	NA	14.9
Analysis Type	**Width of Opening (IN)**	**Hydrostatic Head (FT)**	**Weight of Water (PCF)**	**Pressure on Gate (PSF)**	**Bolt Spacing (Poly Seal to Rail) (IN)**	**Stiffener Spacing (IN)**	**Bearing Load to Rail (#/in)**	**Steel Stress (KSI) (Max Local @ AB)**	**Steel Stress (KSI) (Max General)**
Full Stress	14	319.78	62.4	19954.2	8	32	970.0	NA	29.4
Full Stress	20	223.85	62.4	13968.0	8	32	970.0	NA	29.4
Full Stress	26	172.19	62.4	10744.6	8	32	970.0	NA	29.4
Full Stress	32	139.90	62.4	8730.0	8	32	970.0	NA	29.4
Full Stress	38	117.81	62.4	7351.6	8	32	970.0	NA	29.4
Full Stress	44	101.75	62.4	6349.1	8	32	970.0	NA	29.4
Full Stress	50	89.54	62.4	5587.2	8	32	970.0	NA	29.4
Full Stress	56	79.94	62.4	4988.6	8	32	970.0	NA	29.4
Full Stress	62	72.21	62.4	4505.8	8	32	970.0	NA	29.4
Full Stress	74	60.50	62.4	3775.1	8	32	970.0	NA	29.4

Guide Rail Allow. Head - On-Seating (AWWA)