

Guide Rail FC-1A (Off-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)	Load to Bolt (LBS)	Steel Stress (KSI) (Max Local @ AB)	Steel Stress (KSI) (Max General)
AWWA	14	13.60	62.4	848.571429	8	16	330.0	25	15
AWWA	20	9.52	62.4	594.0	8	16	330.0	25	15
AWWA	26	7.32	62.4	456.9	8	16	330.0	25	15
AWWA	32	5.95	62.4	371.3	8	16	330.0	25	15
AWWA	38	5.01	62.4	312.6	8	16	330.0	25	15
AWWA	44	4.33	62.4	270.0	8	16	330.0	25	15
AWWA	50	3.81	62.4	237.6	8	16	330.0	25	15
AWWA	56	3.40	62.4	212.1	8	16	330.0	25	15
AWWA	62	3.07	62.4	191.6	8	16	330.0	25	15
AWWA	74	2.57	62.4	160.5	8	16	330.0	25	15
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)	Load to Bolt (LBS)	Steel Stress (KSI) (Max Local @ AB)	Steel Stress (KSI) (Max General)
Full Stress	14	27.20	62.4	1697.1	8	16	660.0	49.5	29.9
Full Stress	20	19.04	62.4	1188.0	8	16	660.0	49.5	29.9
Full Stress	26	14.64	62.4	913.8	8	16	660.0	49.5	29.9
Full Stress	32	11.90	62.4	742.5	8	16	660.0	49.5	29.9
Full Stress	38	10.02	62.4	625.3	8	16	660.0	49.5	29.9
Full Stress	44	8.65	62.4	540.0	8	16	660.0	49.5	29.9
Full Stress	50	7.62	62.4	475.2	8	16	660.0	49.5	29.9
Full Stress	56	6.80	62.4	424.3	8	16	660.0	49.5	29.9
Full Stress	62	6.14	62.4	383.2	8	16	660.0	49.5	29.9
Full Stress	74	5.15	62.4	321.1	8	16	660.0	49.5	29.9

Guide Rail FC-1B (Off-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)	Load to Bolt (LBS)	Steel Stress (KSI) (Max Local @ AB)	Steel Stress (KSI) (Max General)
AWWA	14	21.02	62.4	1311.4	8	16	510.0	21.1	14.8
AWWA	20	14.71	62.4	918.0	8	16	510.0	21.1	14.8
AWWA	26	11.32	62.4	706.2	8	16	510.0	21.1	14.8
AWWA	32	9.19	62.4	573.8	8	16	510.0	21.1	14.8
AWWA	38	7.74	62.4	483.2	8	16	510.0	21.1	14.8
AWWA	44	6.69	62.4	417.3	8	16	510.0	21.1	14.8
AWWA	50	5.88	62.4	367.2	8	16	510.0	21.1	14.8
AWWA	56	5.25	62.4	327.9	8	16	510.0	21.1	14.8
AWWA	62	4.75	62.4	296.1	8	16	510.0	21.1	14.8
AWWA	74	3.98	62.4	248.1	8	16	510.0	21.1	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)	Load to Bolt (LBS)	Steel Stress (KSI) (Max Local @ AB)	Steel Stress (KSI) (Max General)
Full Stress	14	42.45	62.4	2648.6	8	16	1030.0	42.3	29.7
Full Stress	20	29.71	62.4	1854.0	8	16	1030.0	42.3	29.7
Full Stress	26	22.85	62.4	1426.2	8	16	1030.0	42.3	29.7
Full Stress	32	18.57	62.4	1158.8	8	16	1030.0	42.3	29.7
Full Stress	38	15.64	62.4	975.8	8	16	1030.0	42.3	29.7
Full Stress	44	13.51	62.4	842.7	8	16	1030.0	42.3	29.7
Full Stress	50	11.88	62.4	741.6	8	16	1030.0	42.3	29.7
Full Stress	56	10.61	62.4	662.1	8	16	1030.0	42.3	29.7
Full Stress	62	9.58	62.4	598.1	8	16	1030.0	42.3	29.7
Full Stress	74	8.03	62.4	501.1	8	16	1030.0	42.3	29.7

Guide Rail FC-2A (Off-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)	Load to Bolt (LBS)	Steel Stress (KSI) (Max Local @ AB)	Steel Stress (KSI) (Max General)
AWWA	14	21.02	62.4	1311.4	8	16	510.0	20.5	14.5
AWWA	20	14.71	62.4	918.0	8	16	510.0	20.5	14.5
AWWA	26	11.32	62.4	706.2	8	16	510.0	20.5	14.5
AWWA	32	9.19	62.4	573.8	8	16	510.0	20.5	14.5
AWWA	38	7.74	62.4	483.2	8	16	510.0	20.5	14.5
AWWA	44	6.69	62.4	417.3	8	16	510.0	20.5	14.5
AWWA	50	5.88	62.4	367.2	8	16	510.0	20.5	14.5
AWWA	56	5.25	62.4	327.9	8	16	510.0	20.5	14.5
AWWA	62	4.75	62.4	296.1	8	16	510.0	20.5	14.5
AWWA	74	3.98	62.4	248.1	8	16	510.0	20.5	14.5
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)	Load to Bolt (LBS)	Steel Stress (KSI) (Max Local @ AB)	Steel Stress (KSI) (Max General)
Full Stress	14	42.45	62.4	2648.6	8	16	1030.0	41.7	29.4
Full Stress	20	29.71	62.4	1854.0	8	16	1030.0	41.7	29.4
Full Stress	26	22.85	62.4	1426.2	8	16	1030.0	41.7	29.4
Full Stress	32	18.57	62.4	1158.8	8	16	1030.0	41.7	29.4
Full Stress	38	15.64	62.4	975.8	8	16	1030.0	41.7	29.4
Full Stress	44	13.51	62.4	842.7	8	16	1030.0	41.7	29.4
Full Stress	50	11.88	62.4	741.6	8	16	1030.0	41.7	29.4
Full Stress	56	10.61	62.4	662.1	8	16	1030.0	41.7	29.4
Full Stress	62	9.58	62.4	598.1	8	16	1030.0	41.7	29.4
Full Stress	74	8.03	62.4	501.1	8	16	1030.0	41.7	29.4

Guide Rail FC-2B (Off-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)	Load to Bolt (LBS)	Steel Stress (KSI) (Max Local @ AB)	Steel Stress (KSI) (Max General)
AWWA	14	30.91	62.4	1928.6	8	32	750.0	18.5	14.9
AWWA	20	21.63	62.4	1350.0	8	32	750.0	18.5	14.9
AWWA	26	16.64	62.4	1038.5	8	32	750.0	18.5	14.9
AWWA	32	13.52	62.4	843.8	8	32	750.0	18.5	14.9
AWWA	38	11.39	62.4	710.5	8	32	750.0	18.5	14.9
AWWA	44	9.83	62.4	613.6	8	32	750.0	18.5	14.9
AWWA	50	8.65	62.4	540.0	8	32	750.0	18.5	14.9
AWWA	56	7.73	62.4	482.1	8	32	750.0	18.5	14.9
AWWA	62	6.98	62.4	435.5	8	32	750.0	18.5	14.9
AWWA	74	5.85	62.4	364.9	8	32	750.0	18.5	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)	Load to Bolt (LBS)	Steel Stress (KSI) (Max Local @ AB)	Steel Stress (KSI) (Max General)
Full Stress	14	61.81	62.4	3857.1	8	32	1500.0	36.4	29.4
Full Stress	20	43.27	62.4	2700.0	8	32	1500.0	36.4	29.4
Full Stress	26	33.28	62.4	2076.9	8	32	1500.0	36.4	29.4
Full Stress	32	27.04	62.4	1687.5	8	32	1500.0	36.4	29.4
Full Stress	38	22.77	62.4	1421.0	8	32	1500.0	36.4	29.4
Full Stress	44	19.67	62.4	1227.3	8	32	1500.0	36.4	29.4
Full Stress	50	17.31	62.4	1080.0	8	32	1500.0	36.4	29.4
Full Stress	56	15.45	62.4	964.3	8	32	1500.0	36.4	29.4
Full Stress	62	13.96	62.4	871.0	8	32	1500.0	36.4	29.4
Full Stress	74	11.69	62.4	729.7	8	32	1500.0	36.4	29.4

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

