

# SONORA™ WALL PANEL ALLOWABLE LOAD CHART (ALLOWABLE LOADS IN PSF)

Panel Depth	Support Condition	Load Type	Connection	Support Spacing										
				3'	4'	5'	6'	7'	8'	9'	10'	11'	12'	13'
2"	1-Span	Pressure	--	159.82	110.58	80.44	60.35	46.28	36.10	28.58	22.92	18.59	15.25	12.63
		Suction	no Fab-Lok® <sup>5</sup>	56.08	42.06	33.65	28.04	24.03	21.03	18.69	16.82	15.29	14.02	12.63
		Suction	with Fab-Lok® <sup>5,7</sup>	84.11	63.09	50.47	42.06	36.05	31.54	28.04	22.92	18.59	15.25	12.63
	2-Span	Pressure	--	162.76	115.58	87.26	68.47	55.16	45.26	37.67	31.69	26.89	22.39	18.68
		Suction	no Fab-Lok® <sup>5</sup>	60.29	43.97	34.32	28.04	23.67	20.47	18.03	16.11	14.57	13.29	12.22
		Suction	with Fab-Lok® <sup>5,7</sup>	90.43	65.96	51.48	42.06	35.51	30.71	27.05	24.17	21.85	19.94	18.33
	3-Span and greater	Pressure	--	164.00	116.85	88.19	68.90	55.06	44.72	36.78	30.55	25.60	21.61	18.37
		Suction	no Fab-Lok® <sup>5</sup>	61.58	45.57	36.13	29.93	25.54	22.28	19.76	17.76	16.12	14.77	13.62
		Suction	with Fab-Lok® <sup>5,7</sup>	92.37	68.36	54.20	44.89	38.31	33.42	29.65	26.64	24.19	21.61	18.37
2 1/2"	1-Span	Pressure	--	198.68	139.71	103.46	79.04	61.68	48.91	39.30	31.95	26.23	21.74	18.18
		Suction	no Fab-Lok® <sup>5</sup>	54.86	41.14	32.91	27.43	23.51	20.57	18.29	16.46	14.96	13.71	12.66
		Suction	with Fab-Lok® <sup>5,7</sup>	82.29	61.71	49.37	41.14	35.27	30.86	27.43	24.69	22.44	20.57	18.18
	2-Span	Pressure	--	201.06	143.99	109.62	86.75	70.50	58.40	49.06	41.68	35.72	29.20	24.24
		Suction	no Fab-Lok® <sup>5</sup>	58.21	43.53	33.99	27.76	23.41	20.22	17.79	15.87	14.33	13.07	12.01
		Suction	with Fab-Lok® <sup>5,7</sup>	87.32	65.30	50.99	41.64	35.11	30.33	26.68	23.81	21.50	19.60	18.01
	3-Span and greater	Pressure	--	202.24	145.39	110.86	87.60	70.87	58.28	48.53	40.80	34.58	29.52	25.35
		Suction	no Fab-Lok® <sup>5</sup>	60.00	44.76	35.46	29.34	25.03	21.82	19.34	17.37	15.77	14.44	13.32
		Suction	with Fab-Lok® <sup>5,7</sup>	89.99	67.14	53.18	44.01	37.54	32.73	29.02	26.06	23.66	21.66	19.97
3"	1-Span	Pressure	--	235.15	167.23	125.44	97.12	76.81	61.71	50.19	41.26	34.23	28.63	24.14
		Suction	no Fab-Lok® <sup>5</sup>	53.64	40.23	32.18	26.82	22.99	20.11	17.88	16.09	14.63	13.41	12.38
		Suction	with Fab-Lok® <sup>5,7</sup>	80.46	60.34	48.27	40.23	34.48	30.17	26.82	24.14	21.94	20.11	18.57
	2-Span	Pressure	--	237.10	170.88	130.90	104.24	85.25	71.09	60.14	51.46	44.42	36.54	30.19
		Suction	no Fab-Lok® <sup>5</sup>	56.38	42.95	33.57	27.41	23.10	19.94	17.52	15.62	14.10	12.84	11.79
		Suction	with Fab-Lok® <sup>5,7</sup>	84.57	64.42	50.35	41.12	34.65	29.90	26.28	23.43	21.14	19.26	17.69
	3-Span and greater	Pressure	--	231.67	169.30	132.33	105.40	86.01	71.38	59.98	50.90	43.54	37.49	32.47
		Suction	no Fab-Lok® <sup>5</sup>	58.01	43.90	34.76	28.75	24.50	21.35	18.92	16.99	15.42	14.11	13.01
		Suction	with Fab-Lok® <sup>5,7</sup>	87.01	65.85	52.14	43.12	36.76	32.03	28.38	25.48	23.13	21.17	19.52
4"	1-Span	Pressure	--	287.51	215.42	164.43	129.75	104.65	85.72	68.86	55.78	46.10	38.73	33.00
		Suction	no Fab-Lok® <sup>5</sup>	51.20	38.40	30.72	25.60	21.94	19.20	17.07	15.36	13.96	12.80	11.82
		Suction	with Fab-Lok® <sup>5,7</sup>	76.80	57.60	46.08	38.40	32.91	28.80	25.60	23.04	20.95	19.20	17.72
	2-Span	Pressure	--	277.51	203.89	159.78	130.62	110.06	94.07	80.36	69.44	60.56	53.12	43.45
		Suction	no Fab-Lok® <sup>5</sup>	53.11	40.75	32.49	26.56	22.38	19.30	16.94	15.08	13.59	12.36	11.34
		Suction	with Fab-Lok® <sup>5,7</sup>	79.67	61.12	48.75	39.85	33.58	28.95	25.41	22.63	20.39	18.55	17.01
	3-Span and greater	Pressure	--	271.43	198.63	155.72	127.73	108.16	93.76	80.89	69.58	60.32	52.63	46.18
		Suction	no Fab-Lok® <sup>5</sup>	54.42	41.99	33.28	27.51	23.43	20.40	18.06	16.20	14.70	13.45	12.39
		Suction	with Fab-Lok® <sup>5,7</sup>	81.63	62.99	49.94	41.27	35.15	30.60	27.10	24.31	22.05	20.17	18.59

## Notes:

1. Allowable values are based on a 42" wide panel with a 26 ga. fascia and a 26 ga. liner with 2- 1/4"-14 SDS and 1- HW-2320 clip at each supporting structural member.
2. Allowable values have been derived from tests conducted in accordance with the ASTM E72 and ASTM E1592 test specifications.
3. Allowable face buckling, shear and panel disengagement loads have been calculated using a 1.875 safety factor derived from test data scatter.
4. Allowable values include a deflection check using a limit of Spacing/240 based on 10-year wind pressures.
5. Pullout of the self-drilling screws from the supporting structural member **must be checked separately**.
6. Allowable loads are given for equally-spaced supports.
7. Fab-Lok®, where required, are to be installed in the following pattern:
  - 36" wide panel: Install through support structure into ribs of liner in contact with support member at 6" from each panel side with one at mid panel width.
  - 42" wide panel: Install through support structure into ribs of liner in contact with support member at 9" from each panel side with one at mid panel width.
8. This information is subject to change without notice. Please contact IPS for most current information.