FALK®
PANELS CANADA LTD.

LOAD & SPAN TABLES

HIDDEN FIXED WALL PANEL

HFW-40 Wall Panel														
Panel Thickness	Span Condition	Allowable Positive and Connection Load (psf)												
		Panel Span (ft)												
		4	5	6	7	8	9	10	11	12	13	14	15	16
2.5" thick	Two Spans	45.8	36.1	29.7	25.3	22.0	19.6	17.6	16.1	14.8	13.6	12.6	11.7	10.9
	3 or More	47.3	37.8	31.6	27.2	23.9	21.4	19.4	17.7	16.4	15.1	14.0	13.1	12.2
3" thick	Two Spans	48.2	38.0	31.4	26.7	23.3	20.7	18.6	17.0	15.6	14.3	13.2	12.3	11.5
	3 or More	49.5	39.6	33.1	28.5	25.1	22.4	20.3	18.6	17.2	15.9	14.7	13.7	12.9
4" thick	Two Spans	52.9	41.9	34.6	29.5	25.7	22.8	20.6	18.8	17.3	15.9	14.6	13.6	12.7
	3 or More	53.9	43.1	36.1	31.1	27.4	24.6	22.3	20.4	18.9	17.4	16.2	15.1	14.1
5" thick	Two Spans	57.5	45.6	37.8	32.3	28.2	25.1	22.6	20.6	19.0	17.4	16.1	14.9	13.9
	3 or More	58.2	46.7	39.1	33.8	29.8	26.7	24.3	22.3	20.6	19.0	17.6	16.4	15.4
6" thick	Two Spans	62.0	50.1	42.2	36.6	32.5	29.2	26.7	24.7	23.0	21.6	20.4	19.3	18.5
	3 or More	62.6	51.0	43.4	38.0	34.0	30.9	28.4	26.4	24.8	23.4	22.2	21.2	20.3

Notes

1. Based on HFW-40 panel with 26 ga. Box exterior & interior faces (min Fy = 33 ksi).
2. For connection with clips to min. 14 gage steel, HFW standard clips are fastened with (2) 12-14 SDS DP 3 for 2.5" panels and (3) 12-14 SDS DP 3 for 3" and thicker panels. For 12 gage or thicker steel, #12-24 SDS DP 5 may be used. In lieu of self-drilling screws, self-tapping screws may be used.
3. Allowable positive and connection load is the lowest value of panel bending strength, shear strength, deflection limit and connection strength for each fastener pattern.
4. Allowable loads based on panel stress and deflection design criteria are derived from ASTM E72 structural testing and calculated with factor of safety of 2.5 for bending stress, 3.0 for shear stresses and deflection limitation of L/180.
5. The panel connection strength was determined from ASTM E1592 testing and the allowable loads are calculated with factor of safety of 2.
6. The structural capacity of the supports are not considered and must be examined independently by others.
7. Multiple equal spans are based on 2 spans or three or more spans conditions.

COLD STORAGE WALL PANEL

FALK PANELS
Allowable Single Span for Inward or Outward Load of 5 psf
Deflection Limit L/120

Panel Type	Thickness (in)	Design Criteria			Allowable Span (ft)
		Bending Stress	Shear Stress	Deflection Limit	
CSW-44 26-26	3	33.4	85.8	26.7	**26.7**
	4	38.9	106.8	32.7	**32.7**
	5	43.4	123.1	38.2	**38.2**
	6	46.8	134.7	43.3	**43.3**
	7	49.8	141.5	48.1	**48.1**
	8	50.2	143.8	52.7	**50.2**

1. Based on panels with 26 ga. exterior & interior 'Box' profiles (min Fy = 33 ksi) for single span condition.
2. Allowable span is the lowest value of panel bending strength, shear strength and deflection limit.
3. The spans based on panel stress and deflection design criteria are derived from E-72 structural testing. The allowable loads are calculated with a factor of safety of 2 and 3 for bending and shear stresses, respectively, and deflection limitation of L/120.
4. The structural capacity of the girts and the panel attachment to the girts are not considered and must be examined independently.

STANDING SEAM ROOF PANEL

Falk Panel
SSR-42 Panel
Allowable Inward & Uplift Loads

Panel Description	Support Spacing (in)	Allowable Inward Load (psf)	Allowable Outward Load (psf)
SSR-42 Panel	36	116.8	**51.2**
Min. 26 ga. Exterior	42	100.1	49.2
& Interior Skins	48	87.6	47.1
	54	77.9	45.1
	60	70.1	43.0
Panel Core Thickness:	66	63.7	40.9
3", 4", 5" & 6"	72	58.4	37.5
	78	53.9	34.6
	84	50.1	32.1
	90	46.7	30.0
	96	43.8	28.1
	102	41.2	26.5
	108	38.9	25.0
	114	36.9	23.7
	120	35.0	**22.5**

Notes:

1. Allowable load is the lowest value of panel strength, connection strength & deflection limit of L/180.
2. Allowable load is applicable to two or more span conditions.
3. Panels are fastened to min. 14 gage steel with SSR standard clips and (2) 12-14 SDS DP 3. For 12 gage or thicker steel, #12-24 SDS DP 5 may be used. In lieu of self-drilling screws, self-tapping screws may be used.
4. The bold numbers indicate design loads obtained from SSR test reports. Inward load obtained from HFW-40 panel test report.
5. The structural capacity of support are not considered and must be examined independently by others.
6. Minimum bearing width of support is 2.25".

RIBBED ROOF PANEL

FALK PANEL
RRP-40 Panel
Allowable Inward & Uplift Loads

Panel Description	Support Spacing (in)	Allowable Inward Load (psf) Min 26-26 Ga.	Allowable Uplift Load (psf)	
			26-26 Ga.	24-26 Ga.
RRP-40 Panel Min. 26 ga. Exterior & Interior Skins Panel Core Thickness: 1.5", 2", 2.5", 3" 4", 5" & 6"	36	108.4	**87.5**	120.0
	39	100.0	78.8	110.8
	42	92.9	73.1	102.9
	45	86.7	68.3	96.0
	48	81.3	64.0	90.0
	51	76.5	60.2	84.7
	54	72.2	56.9	80.0
	57	68.4	53.9	75.8
	60	65.0	51.2	72.0
	63	61.9	48.8	68.6
	66	59.1	46.5	65.5
	69	56.5	44.5	62.6
	72	54.2	42.7	60.0
	75	52.0	41.0	57.6
	78	50.0	39.4	55.4
	81	48.2	37.9	53.3
	84	46.4	36.6	51.4
	87	44.8	35.3	49.7
	90	43.3	34.1	48.0
	93	42.0	33.0	46.5
	96	**40.6**	**32.0**	**45.0**

Notes:

1. Allowable load is the lowest value of panel strength, connection strength & deflection limit of L/240.
2. Allowable load is applicable to two or more span conditions.
3. The bold numbers indicate design loads obtained from test report.
4. Panels fastened at all ribs with #12-14 SDS with 3/4" bonded washer in minimum 14 ga. steel.
5. Fastener shall be of sufficient length to penetrate through the support a minimum of 3/4".
6. Panels must be installed as per Falk Panel's current installation procedure.
7. The structural capacity of support are not considered and must be examined independently by others.
8. Minimum bearing width of support is 2.25".

RDECK ROOF PANEL

RDek Roof Panel												
Panel Thickness	Design Criteria	Allowable Positive Load (psf) for Two or More Equal Spans										
		Panel Span (ft)										
		5	6	7	8	9	10	11	12	13	14	15	16
3" thick	Bending & Shear	75.7	62.3	52.9	45.9	40.4	36.0	32.5	29.6	27.2	25.2	22.5	19.5
	Deflection (L/180)	119.7	94.9	77.3	64.2	53.6	45.2	38.4	32.9	28.3	24.5	21.4	18.7
4" thick	Bending & Shear	95.4	78.3	66.4	57.6	50.9	45.4	40.9	37.3	34.2	31.6	29.4	27.4
	Deflection (L/180)	166.4	133.0	109.2	91.5	77.7	66.5	57.2	49.6	43.2	37.8	33.2	29.4
5" thick	Bending & Shear	111.3	91.3	77.3	67.0	59.1	52.9	47.7	43.4	39.8	36.8	34.1	31.9
	Deflection (L/180)	209.2	168.3	139.0	117.1	100.2	86.7	75.5	66.0	58.0	51.2	45.4	40.4
6" thick	Bending & Shear	122.9	100.8	85.2	73.8	65.1	58.2	52.6	47.9	43.9	40.5	37.6	35.1
	Deflection (L/180)	250.1	202.0	167.6	141.9	121.9	105.9	92.9	82.1	72.6	64.5	57.6	51.6
7" thick	Bending & Shear	130.3	106.8	90.3	78.1	68.8	61.5	55.6	50.7	46.6	42.9	39.8	37.2
	Deflection (L/180)	288.8	234.2	195.0	165.6	142.7	124.5	109.6	97.3	86.9	77.6	69.6	62.7
8" thick	Bending & Shear	133.3	109.3	92.4	79.9	70.3	62.8	56.7	51.7	47.5	44.0	40.8	38.0
	Deflection (L/180)	325.2	264.5	220.9	188.1	162.6	142.2	125.6	111.8	100.2	90.2	81.3	73.5

Notes

1. Based on RDek panel with 26 ga. 'MircoRib' exterior & 26 ga. 'Box' interior faces (min Fy = 33 ksi).
2. Refer to the allowable connection load chart, for suction loads, which controls support spacing requirements
3. Allowable positive or suction load is the lowest value of panel bending strength, shear strength, deflection limit and connection strength .
4. Allowable loads based on panel stress and deflection design criteria are derived from ASTM E72 structural testing and calculated with factor of safety of 2.5 for bending stress, 3.0 for shear stresses and deflection limitation of L/180.
5. The structural capacity of the supports are not considered and must be examined independently by others.
6. Consult Falk Panel for recommendtions on panel profile and thickness suitable for thermal stresses.