RUSKIN®

3900 Dr. Greaves Rd. • Kansas City, MO 64030 • (816) 761-7476 • FAX (816) 765-8955

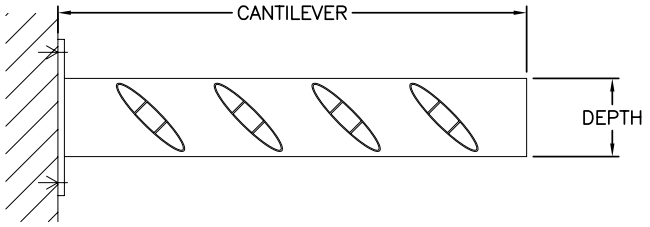
RUSKIN ARCHITECTURAL SUN CONTROL DESIGN GUIDE

Outrigger Analysis

All analysis is conducted on the basis of a 10 psf vertical dead loading applied vertically over the plan area of the sunshade. Live /wind/snow/seismic load added to the dead load is the Design Vertical Load. Live wind and snow loads are available in the local building codes. Ruskin recommends a minimum of 20 psf live/wind/snow load (see Note #1 below).

Max. Section Width 120" (3048)

Consult Ruskin sales representative for section widths that exceed 120" (3048).



Maximum Sunshade Cantilever
Flat Plate Outrigger (1/4" thick)
Design Vertical Load (PSF)

Outrigger Depth (in)	30	40	50	60
4	31	27	24	22
5	38	33	30	28
6	45	40	36	33
7	53	46	42	39
8	61	53	48	44
9	69	60	55	50
10	76	67	61	56
11	84	74	67	61
12	90	82	74	68
13	90	89	80	74
14	90	90	87	80
15	90	90	90	86
16	90	90	90	90

Maximum Sunshade Cantilever
Channel Outrigger (1/4" thick, 2" wide flange)
Design Vertical Load (PSF)

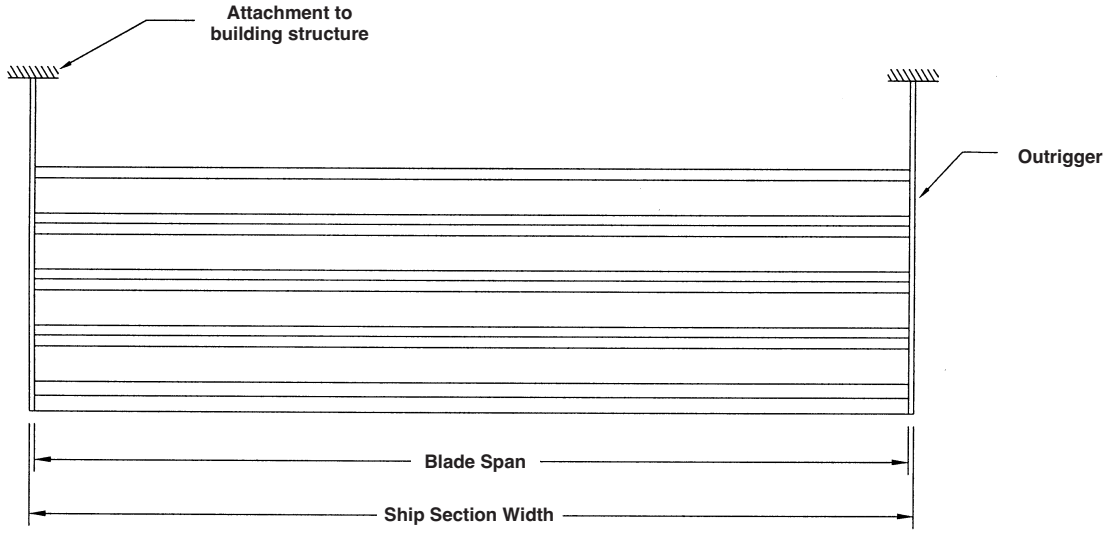
Outrigger Depth (in)	30	40	50	60
4	48	42	38	35
5	56	48	44	41
6	63	55	50	46
7	70	61	56	51
8	76	68	61	56
9	83	74	67	61
10	90	80	72	67
11	90	86	78	71
12	90	90	83	77
13	90	90	89	82
14	90	90	90	87
15	90	90	90	90
16	90	90	90	90

Maximum Sunshade Cantilever
Tube Outrigger (1/8" thick, 2" wide)
Design Vertical Load (PSF)

Outrigger Depth (in)	30	40	50	60
4	51	45	41	37
5	60	53	48	44
6	67	60	54	50
7	76	68	61	56
8	85	75	68	62
9	90	83	75	69
10	90	90	82	75
11	90	90	89	82
12	90	90	90	88
13	90	90	90	90
14	90	90	90	90
15	90	90	90	90
16	90	90	90	90

*Design Vertical Load is comprised of dead load, wind load and/or live load and/or snow load and/or seismic.

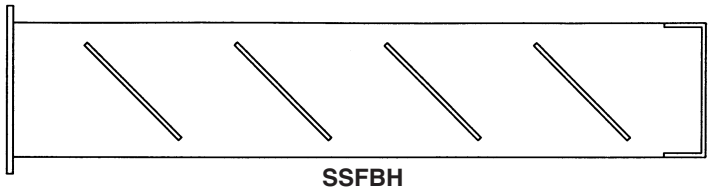
1. Minimum recommended Design Vertical Load is 30 PSF. Required loading varies by site location and type of installation. Consult the local building authority for the appropriate building code or loading information.
2. Diagonal supports may be added for cantilevers in excess of those shown. Consult Ruskin technical sales for guidance.
3. Consult Ruskin technical sales for cantilevers over 90" (2286).
4. Width is only associated with tube and channel outriggers.



Blade Analysis

The following tables provide the maximum unsupported span for given blade types. Blade deflection is limited to L/120. When ship sections are equal to or less than blade span only outriggers are required. See Standard Ship Section (Detail 1). If blade span is less than the section width false outriggers and fascia members are required. See False Outrigger Ship Section (Detail 2).

1/4" THICK FLAT BAR BLADE	Design Vertical Load (PSF)			
	30	40	50	60
4" (102)	32	30	28	26
6" (152)	32	30	28	26
8" (203)	32	30	28	26



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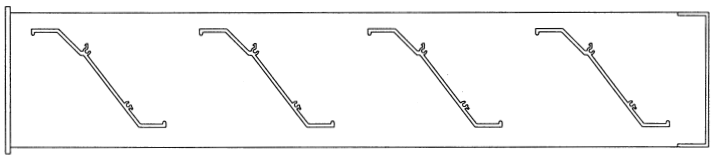
LOUVER BLADE	Design Vertical Load (PSF)			
	30	40	50	60
4" (ELF837)	42	38	36	34
6" (ELF6811)	52	47	42	39



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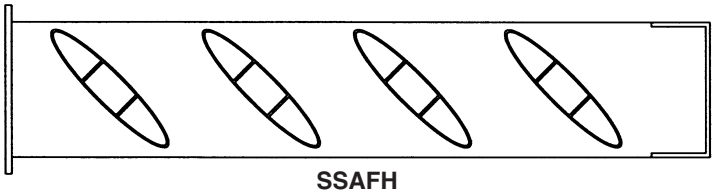
AIRFOIL BLADE	Design Vertical Load (PSF)			
	30	40	50	60
4" (102)	76	70	65	61
6" (152)	98	90	84	80
8" (203)	120	120	113	107



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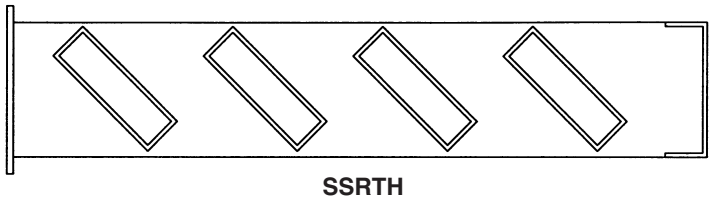
RECTANGULAR TUBE BLADE	Design Vertical Load (PSF)			
	30	40	50	60
4" (102)	120	120	120	120
6" (152)	120	120	120	120
8" (203)	120	120	120	120



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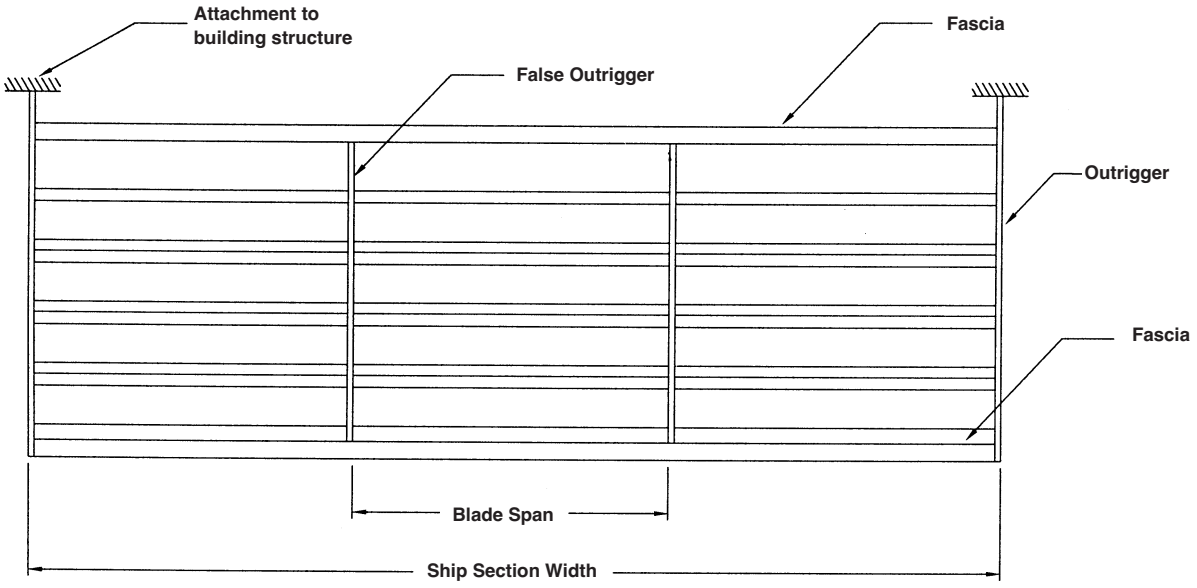
*Design Vertical Load is comprised of wind load and/or live load and/or snow load. Span design based upon blade angle of 45 degrees.



False Outrigger Ship Section

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