

Summary of Catenary Forces for alternative doors
Compared to Certified Testing Laboratories Test Report No. CTLA-1024W-1 and CTLA-1194W-1
Rolling Sheet Door
Janus Drawing No. T1005
Test Door: 16' wide x 8' high, Design Windload +35.0 / -38.0 psf
Static air pressure test conducted in accordance with ASTM E330-97

	Width ft	Design Windload		Door		Catenary Force		Remarks
		Pos psf	Neg psf	Model	gage in	Pos wind plf	Neg wind plf	
Test Door 16 x 8	16	35.0	38.0	3100	0.018			Design test pressure: +35.0 / -38.0 psf Max test pressure: +52.5 / -57.0 psf slip = 0.500 in
Calibration calculations for test door								
Comparative forces by calculation to determine maximum design pressure								
Max Door Size								All doors constructed same as test door slip = 0.500 in
15 x 16	15	38.9	42.2	3100	0.018	1513	1654	Forces <= test door, OK
16 x 16	16	35.0	38.0	3100	0.018	1512	1653	Test Door
17 x 16	17	31.7	34.5	3100	0.018	1510	1653	Forces <= test door, OK
18 x 16	18	29.0	31.5	3100	0.018	1514	1653	Forces <= test door, OK
19 x 16	19	26.6	28.9	3100	0.018	1513	1652	Forces <= test door, OK
20 x 16	20	24.5	26.7	3100	0.018	1511	1654	Forces <= test door, OK

Design wind forces are calculated to produce catenary forces at the guides equal to or less than those calculated for the test door. This indicates that the curtain, windlocks, windlock connections, guide angles, and jamb anchorages will all be stressed to approximately the same as those in the test door, provided that the door is constructed the same for all opening widths.

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