

AGC
ASTA Door Corporation
 4255 McEver Industrial Dr.
 Acworth, GA 30101
 PH: (770) 974-2600/Fax: (770) 974-1455
 www.astadoor.com

**400 SERIES FLAT SLAT CERTIFIED
 WINDLOAD RATED ROLLING STEEL
 SERVICE DOOR**

SCALE: VARIES (DO NOT SCALE DRAWINGS)
 TOLERANCES
 FRACTION = +/- 1/32
 .X = +/- .032
 .XX = +/- .015
 .XXX = +/- .005 < +/- 5
 DRAWN BY: BCLLC
 ISSUE: 02-11-14

TEST SIZE	DESIGN PRESSURE	TEST PRESSURE
18'-6\"/>	+/- 55.0	+/- 82.5
MODELS	TEST LOCATION ELEMENT-ORLANDO 124 PREMIER ROAD ORLANDO, FL 32822	
422FM-22 GAUGE 420FM-20 GAUGE 418FM-18 GAUGE	TEST REPORT #ESP010181P REPORT DATED: 8/17/12	

**Summary of Welded Jamb Connections
E-Guide to Steel Jamb**

all weld spacings are maximums***

Series	Door ID	Slat gage	Tested Door* 16'-6" wide	Design Wind Load		slip in	Slot size	Weld in Slot Only			Weld in Slot plus Fillet Weld at Toe	
				Pos psf	Neg psf			min. 3/16" jamb		3/16" jamb		
								in slot only	in slot	at toe	slot and toe welds staggered	
1/4" Standard Wall Angle												
400	418FM	18		55.0	55.0	0.625	9/16" x 3/4"	1/4" fillet weld**	1/4" fillet weld**	1/4 x 1-1/2		
	420FM	20		55.0	55.0	0.625	9/16" x 3/4"	12" o.c.	12" o.c.	12" o.c.		
	422FM	22	Test	55.0	55.0	0.625	9/16" x 3/4"					

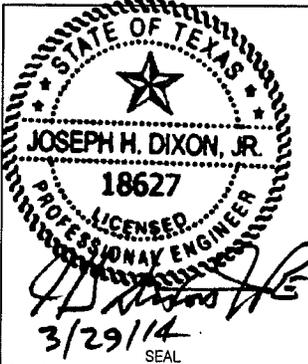
* doors tested with 1/2" bolts @ 12" o.c. connecting to 3/16" steel jamb per drawing

** fillet weld around full perimeter of slot

*** no spacings exceed the fastener spacing of the test

GENERAL NOTES:

- STEEL USED FOR SLATS IS ASTM-A653 WITH MINIMUM YIELD OF 50 KSI AND TENSILE OF 60 KSI.
- GUIDES COMPOSED OF STRUCTURAL STEEL ANGLES WITH MINIMUM YIELD STRENGTH OF 36 KSI.
- THE WINDLOCKS ARE ATTACHED TO EVERY OTHER SLAT BEGINNING AT THE BOTTOM SLAT. WINDLOCKS ARE ATTACHED USING TWO - 1/4" x 15/32" STEEL, ZINC PLATED RIVETS.
- THIS DOOR HAS BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE AND THE INTERNATIONAL BUILDING CODE. THE DESIGN WIND PRESSURES REQUIRED FOR ANY DOOR SHALL BE DETERMINED USING THE APPROPRIATE SECTION OF THE CODE HAVING JURISDICTION WHERE THE BUILDING IS LOCATED.
- THIS DOOR HAS BEEN SUCCESSFULLY TESTED TO:
-THE UNIFORM STATIC AIR PRESSURE TEST PER ASTM E-330 AND ANSI/DASMA 108 TO A DESIGN LOAD OF +/- 55.0PSF.
-REFERENCE ELEMENT-ORLANDO, TEST REPORT #ESP010181P DATED: 8/17/12.
- BOTTOM BAR ASSEMBLY FASTENED 5 3/4" FROM EACH END AND 12" O.C. FROM CENTER USING 5/16" x 1" CARRIAGE BOLTS.

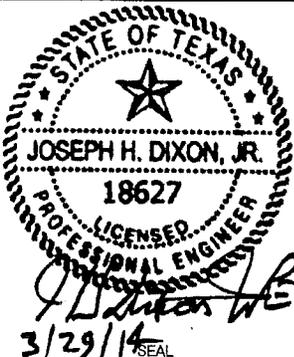
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	400 SERIES FLAT SLAT CERTIFIED WINDLOAD RATED ROLLING STEEL SERVICE DOOR	
TEST SIZE 16'-6"W x 10'H	DESIGN PRESSURE +/- 55.0	TEST PRESSURE +/- 82.5
MODELS 422FM-22 GAUGE 420FM-20 GAUGE 418FM-18 GAUGE	TEST LOCATION ELEMENT-ORLANDO 124 PREMIER ROAD ORLANDO, FL 32822 TEST REPORT #ESP010181P REPORT DATED: 8/17/12	
DRAWING #607-6-400FM-2	SHEET 2 OF 3	

422FM Slat Door
also 420FM and 418FM

**Summary of Catenary Forces for alternative doors
Compared to Element Materials Technology Report No.: ESP010181P, dated 08/17/12
Rolling Steel Slat Door (Flat Slat)
Test Door: 16'-6" wide x 10' high, Design Windload +/- 55 psf
Static air pressure test conducted in accordance with ASTM E330-02 and DASMA 108-05**

	Width	Design Windload		Flat Slat Door	
	ft	Pos psf	Neg psf	Model	gage in
16'-6" x 10'-0" Test Door	16.5	55	55	422FM	0.029
Calibration calculations for test door				420FM	
				418FM	
Comparative forces by calculation to determine maximum design pressure					
Max Door Size					
8 x 30	8	92.4	92.4	422FM	0.029
9 x 30	9	92.4	92.4	422FM	0.029
10 x 30	10	92.4	92.4	422FM	0.029
11 x 30	11	92.4	92.4	422FM	0.029
12 x 30	12	92.4	92.4	422FM	0.029
12'-6" x 30	12.5	92.4	92.4	422FM	0.029
13 x 30	13	85.6	85.6	422FM	0.029
14 x 30	14	74.3	74.3	422FM	0.029
15 x 30	15	65.3	65.3	422FM	0.029
16 x 30	16	58.1	58.1	422FM	0.029
16'-6" x 30	16.5	55.0	55.0	422FM	0.029
17 x 30	17	52.2	52.2	422FM	0.029
18 x 30	18	47.2	47.2	422FM	0.029
19 x 30	19	43.0	43.0	422FM	0.029
20 x 30	20	39.3	39.3	422FM	0.029
20'-6" x 30	20.5	37.7	37.7	422FM	0.029

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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SCALE: VARIES (DO NOT SCALE DRAWINGS)	TEST SIZE 16'-6"W x 10'H	DESIGN PRESSURE +/- 55.0	TEST PRESSURE +/- 52.5
TOLERANCES FRACTION = +/- 1/32 .X = +/- .032 .XX = +/- .015 .XXX = +/- .005 < +/- 5	MODELS 422FM-22 GAUGE 420FM-20 GAUGE 418FM-18 GAUGE	TEST LOCATION ELEMENT-ORLANDO 124 PREMIER ROAD ORLANDO, FL 32822 TEST REPORT #ESP010181P REPORT DATED: 8/17/12	
DRAWN BY: BCLLC ISSUE: 02-11-14	DRAWING #607-6-400FM-2		SHEET 3 OF 3