

BROMBAL ITALY

FARO & ALFA MULLION STIFFENERS

(WZ3)(IMPACT)

INSTALLATION NOTES:

- ONE (1) INSTALLATION ANCHOR IS REQUIRED AT EACH ANCHOR LOCATION SHOWN, UNLESS OTHERWISE STATED.
- THE NUMBER OF INSTALLATION ANCHORS DEPICTED IS THE MINIMUM NUMBER OF ANCHORS TO BE USED FOR PRODUCT INSTALLATION.
- INSTALL INDIVIDUAL INSTALLATION ANCHORS WITHIN A TOLERANCE OF ±1/2 INCH OF THE DEPICTED LOCATION IN THE ANCHOR LAYOUT DETAIL (I.E., WITHOUT CONSIDERATION OF TOLERANCES). TOLERANCES ARE NOT CUMULATIVE FROM ONE INSTALLATION ANCHOR TO THE NEXT.
- MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDE 1X BUCKING, SHEATHING, & WALL FINISHES, INCLUDING BUT NOT LIMITED TO STUCCO, FOAM, BRICK VENEER, AND SIDING.
- INSTALLATION ANCHORS AND ASSOCIATED HARDWARE MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.
- INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BY THE ANCHOR MANUFACTURER.
- INSTALLATION ANCHOR CAPACITIES FOR PRODUCTS HEREIN ARE BASED ON SUBSTRATE MATERIALS WITH THE FOLLOWING PROPERTIES:
 - WOOD - MINIMUM SPECIFIC GRAVITY OF 0.55.
 - CONCRETE -MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI.
 - GROUT-FILLED CMU- UNIT STRENGTH CONFORMS TO ASTM C-90 WITH MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI AND GROUT CONFORMS TO ASTM C 476, MINIMUM GROUT COMPRESSIVE STRENGTH OF 2000 PSI.
 - HOLLOW BLOCK CMU - UNIT STRENGTH CONFORMS TO ASTM C-90 WITH MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI.
 - STEEL - MINIMUM WALL THICKNESS OF 54 MILS (16 GA.) WHEN THROUGH GUSSET INSTALLATION.
 - ALUMINUM - 1/8" MINIMUM THICKNESS (6063-T5)

GENERAL NOTES:

- THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE CURRENT FLORIDA BUILDING CODE (FBC) EXCLUDING HVHZ, INTERNATIONAL BUILDING CODE & INTERNATIONAL RESIDENTIAL CODE. ALL PRODUCTS UNDER THE SCOPE OF THIS DOCUMENT HAVE BEEN EVALUATED TO THE FOLLOWING:
 - TAS 201-94
 - TAS 202-94
 - TAS 203-94
 - ASTM E1886-13
 - ASTM E1996-14
- ADEQUACY OF THE EXISTING STRUCTURAL CONCRETE/MASONRY, 2X AND METAL STUD FRAMING AS A MAIN WIND FORCE RESISTING SYSTEM CAPABLE OF WITHSTANDING AND TRANSFERRING APPLIED PRODUCT LOADS TO THE FOUNDATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
- 1X AND 2X BUCKS (WHEN USED) SHALL BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO THE STRUCTURE. BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
- THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.
- APPROVED IMPACT PROTECTIVE SYSTEM **IS NOT REQUIRED** TO PROTECT THIS PRODUCT IN AREAS REQUIRING IMPACT RESISTANCE IN WIND ZONES 3 OR LESS. APPROVED IMPACT SYSTEM IS REQUIRED IN WIND ZONE 4.
- MULLION MATERIAL:
 - CARBON STEEL (S235JRC, Min. Fy = 34 KSI, Fu = 52 kSI)
 - STAINLESS STEEL (AISI304/316, Min. Fy = 30 KSI, Fu = 75 KSI)
- DISSIMILAR METALS INCLUDING FASTENERS SHALL BE PROTECTED FROM GALVANIC CORROSION IN ACCORDANCE WITH FBC REQUIREMENTS.
- CUSTOM SIZES AVAILABLE UPON REQUEST. CUSTOM DESIGN PRESSURE WILL BE ASSIGNED EQUAL TO NEXT LARGER STANDARD SIZE.
- MULL ASSEMBLIES ARE QUALIFIED FOR TWO OR MORE UNITS PER OPENING IN THE FOLLOWING CONFIGURATION:
 - "ONE WAY" - RIBBON OR STACKED MULLIONS
 - "TWO WAY" - 'X' OR 'T' MULLIONS.

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17	80X20 TWO WAY DESIGN PRESSURE TABLE
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19	120X20 TWO WAY DESIGN PRESSURE TABLE

MULLING INSTRUCTIONS:

- STEP 1: ESTABLISH MULL STIFFENER THICKNESS AND DEPTH.
- STEP 2: VERIFY MULL ASSEMBLY CONSTRUCTION FROM SHEET 2.
- STEP 3: DETERMINE ALLOWABLE LOAD OF MULL ASSEMBLY FROM APPLICABLE LOAD TABLE, REFER TO SHEETS 6-19.
- STEP 4: INSTALL MULLION BASED ON APPLICABLE SPECIFICATIONS & DETAILS SHOWN ON SHEETS 3-5.

WIND ZONE	MISSILE IMPACT RATING
WIND ZONE 3 OR LESS	IMPACT RATED
WIND ZONE 4	NOT IMPACT RATED



BROMBAL ITALY
VIA VALLA, 24
CASELLE DI ALTIVOLE (TV), ITALY
PH: ++39 0423 566189
FX: ++39 0423 919168

TITLE:
BROMBAL ITALY
FARO & ALFA MULLION STIFFENERS
(WZ3) (IMPACT)
GENERAL AND
INSTALLATION NOTES

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
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REMARKS	BY	DATE
FBC UPDATES	SM	08/21
FBC UPDATES	SM	09/22

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Digitally signed by Hermes F. Norero, P.E.
Reason: I am approving this document
Date: 2022.10.17 15:15:14 -0400

HERMES F. NORERO, P.E.
FLORIDA P.E. No 73778
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD. # 338
DANIA BEACH, FL 33004
FBPE CERT. OF AUTHORIZATION No. 29578

FL #:
FL21041

DATE: **10.09.15**

DWG. BY: **LMS** CHK. BY: **HFN**

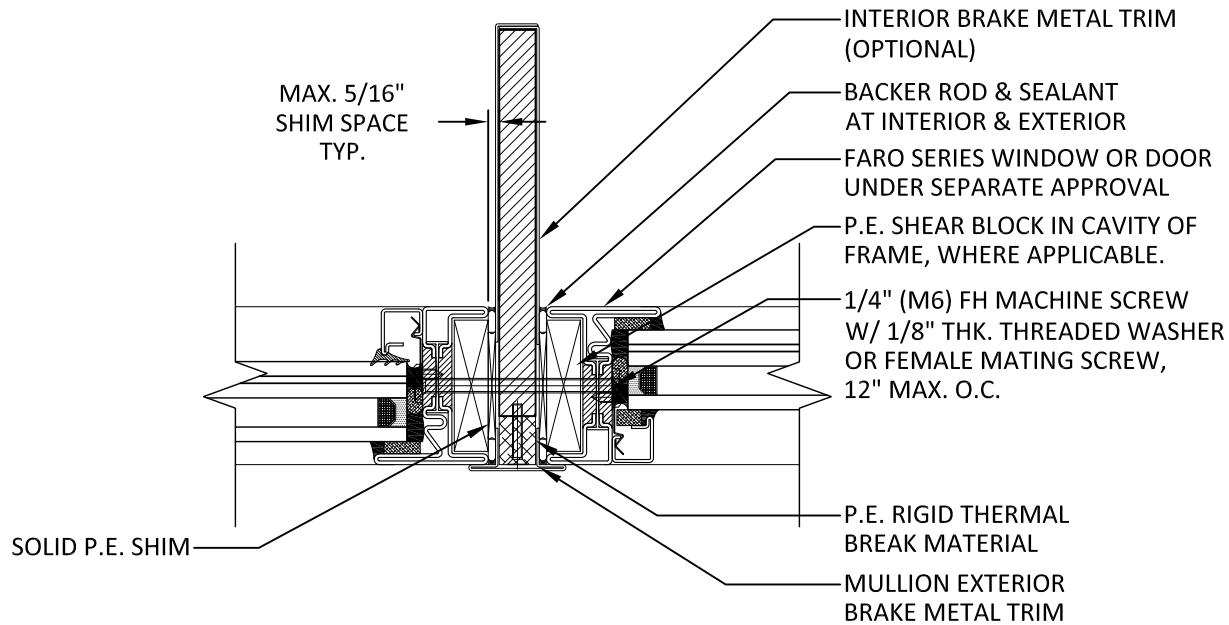
SCALE: **NTS**

DWG. #: **BRB007**

SHEET: OF 19

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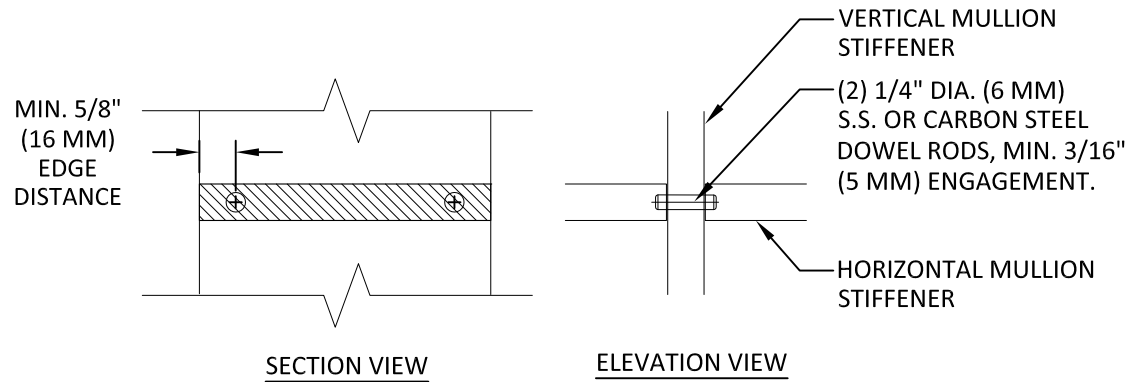
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A
2

FARO TO FARO

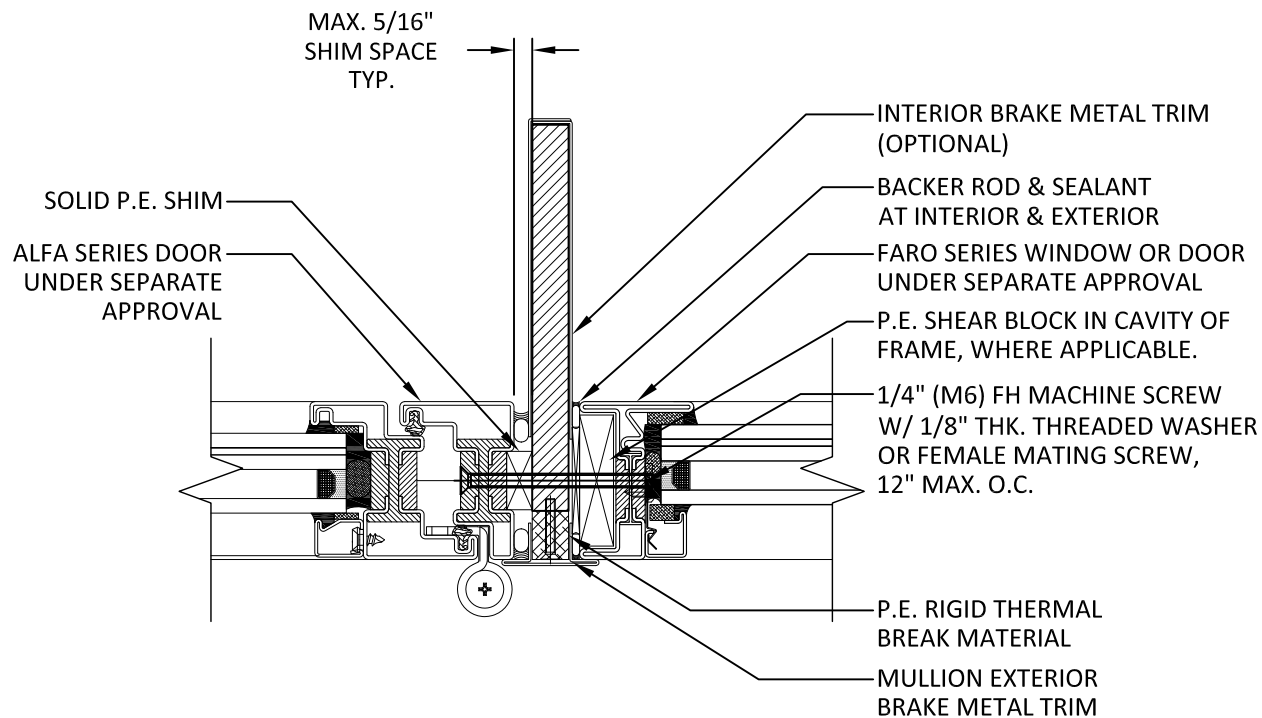
VERTICAL OR HORIZONTAL MULL
TYPICAL STIFFENER DETAIL



C
2

'X' CONNECTION

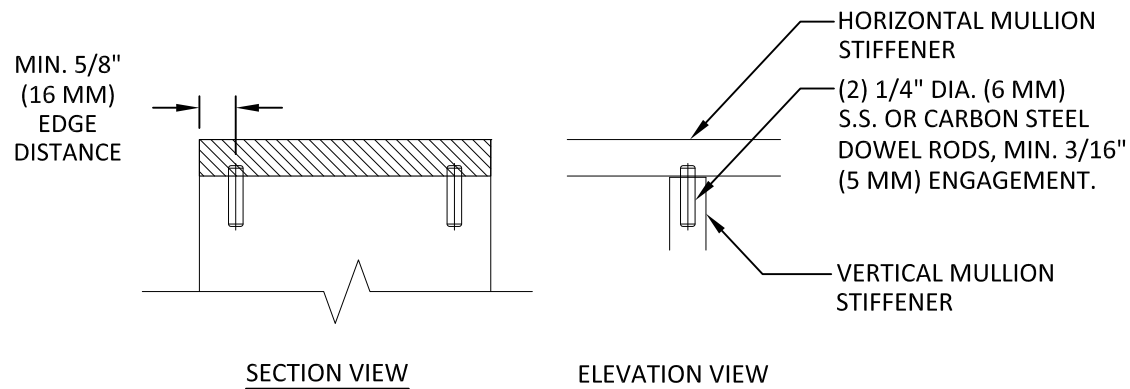
STIFFENER INTERSECTION
TYP. TWO WAY MULL JOINING DETAILS



B
2

ALFA TO FARO

VERTICAL OR HORIZONTAL MULL
TYPICAL STIFFENER DETAIL



D
2

'T' CONNECTION

STIFFENER INTERSECTION
TYP. TWO WAY MULL JOINING DETAILS



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MULL ASSEMBLY SECTIONS &
INTERSECTION DETAILS

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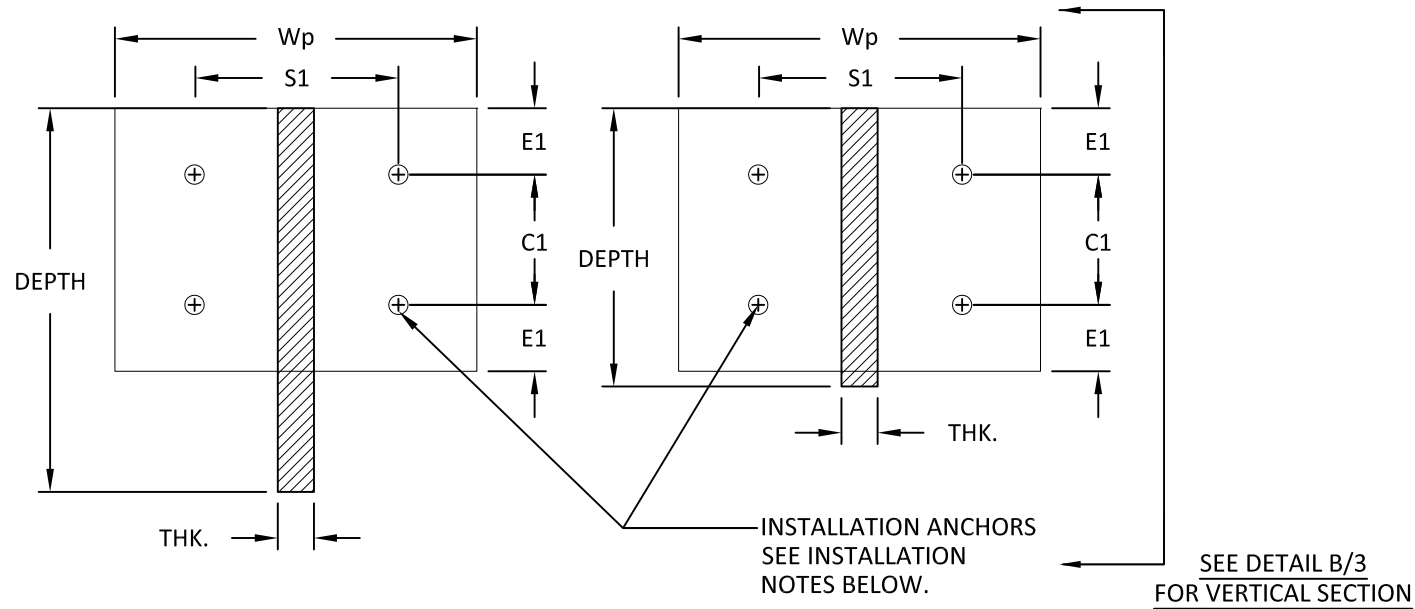


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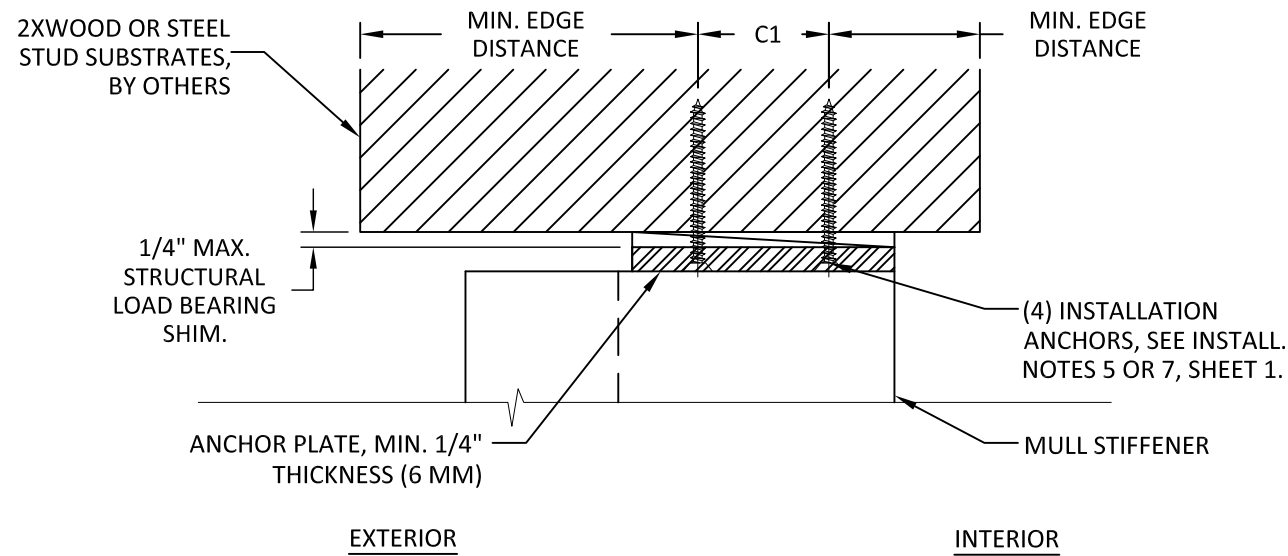
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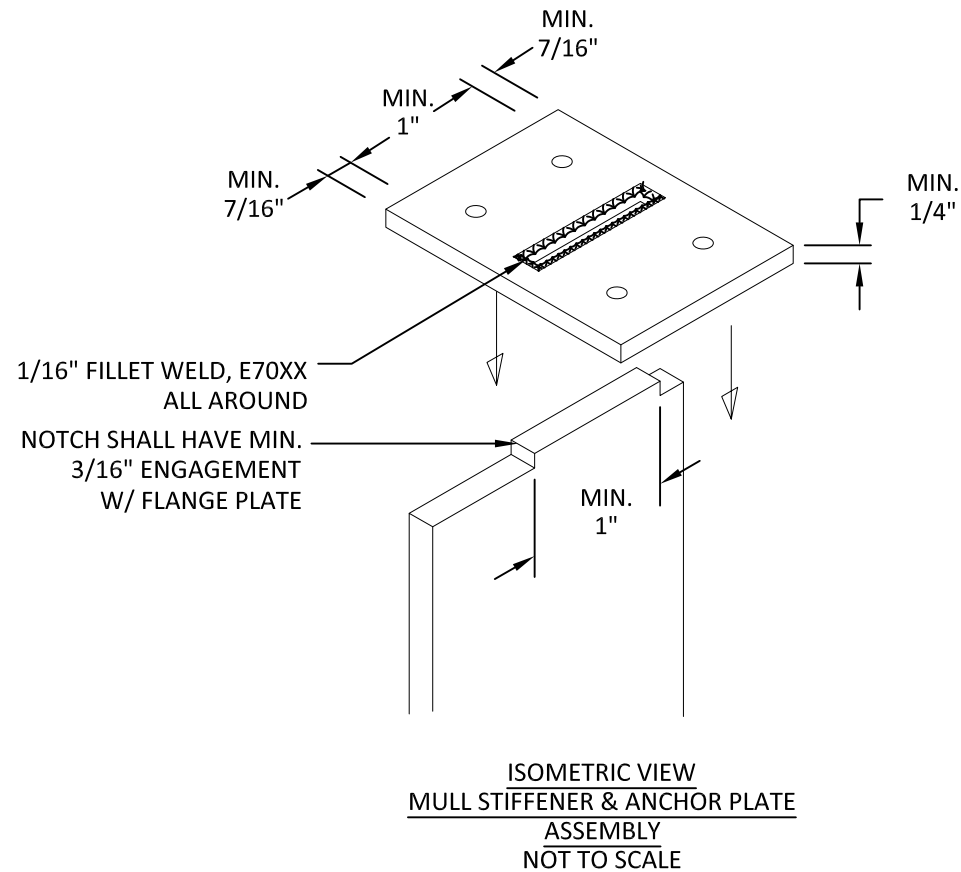
A
3 **HORIZONTAL SECTION**
TYP. ANCHOR DETAILS
WOOD/STEEL STUD SUBSTRATES



B
3 **VERTICAL SECTION**
TYP. ANCHOR DETAIL
WOOD/STEEL STUD SUBSTRATES

INSTALLATION NOTES:

- FOR INSTALLATION INTO 2X BUCK USE (4) #12 FH WOOD SCREWS. INSTALLATION SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
 - MINIMUM EMBEDMENT OF 1-1/2" INTO WOOD
 - MINIMUM EDGE DISTANCE OF 1"
- FOR INSTALLATION THROUGH METAL FRAME USE (2) #12 FH SELF-DRILLING OR SELF-TAPPING, SAE GR. 5, TYPE SCREWS. INSTALLATION SHALL CONFORM TO THE FOLLOWING REQUIREMENTS.
 - THREE (3) THREADS MINIMUM PENETRATION BEYOND METAL FRAME WALL.
 - MINIMUM EDGE DISTANCE OF 3/4"
- MINIMUM ANCHOR PLATE DIMENSIONS:
 - Wp = 5"
 - E1 = 1/2"
 - C1 = 1"
 - S1 = 3"
- SEE SHEET 1, INSTALLATION NOTE 7 FOR SUBSTRATE MINIMUM PROPERTIES.



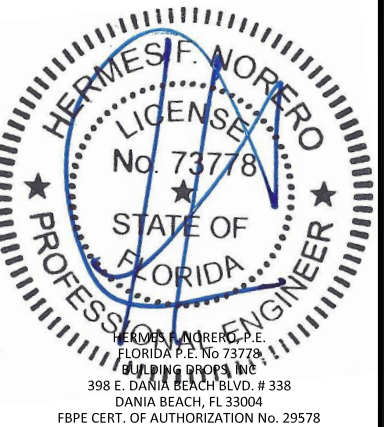
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(WZ3) (IMPACT)
STANDARD INSTALLATION -
WOOD & METAL STUD SUBSTRATES

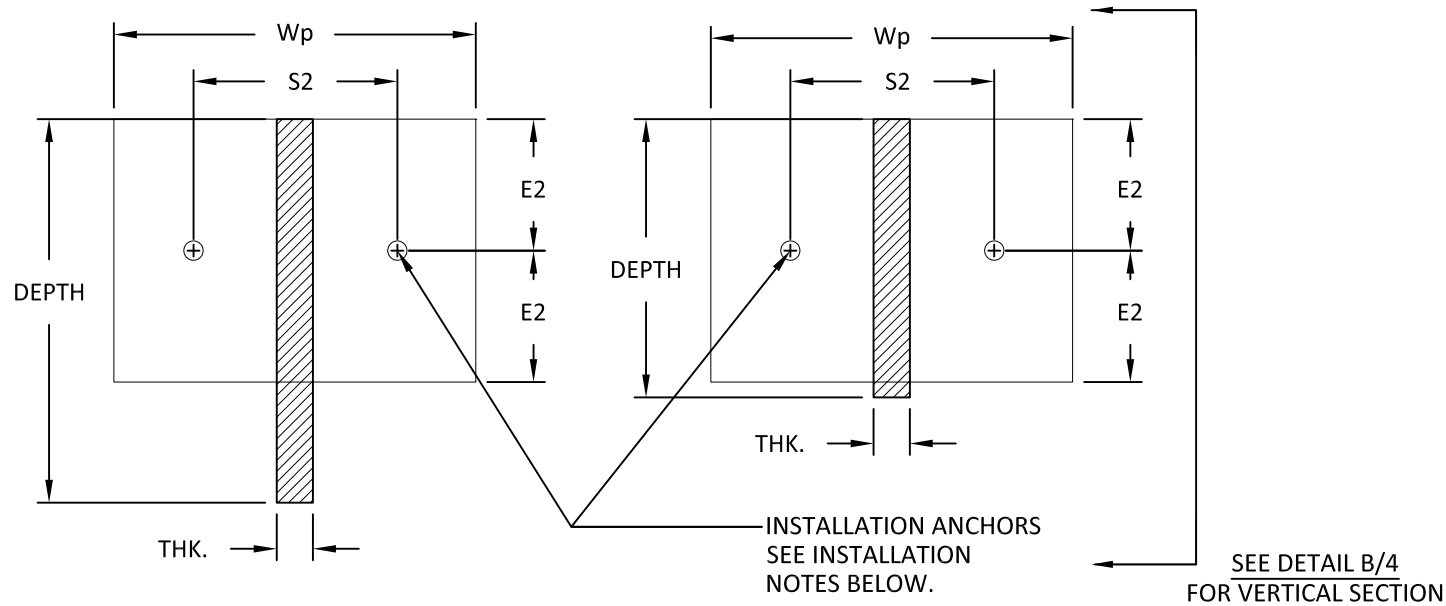
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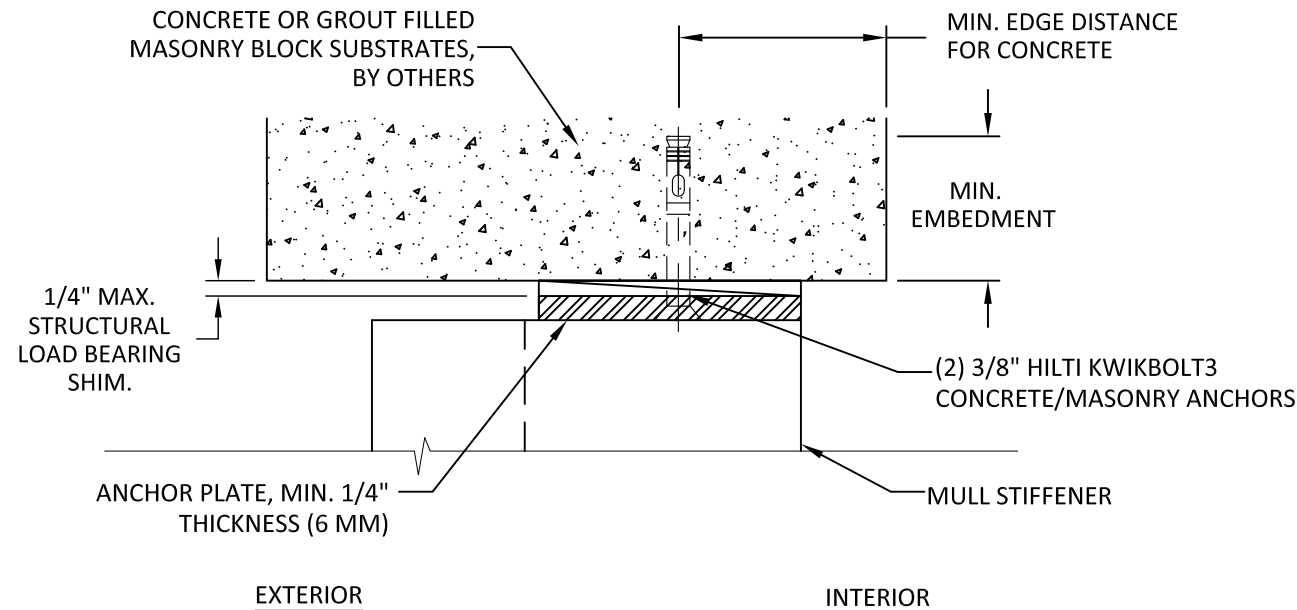
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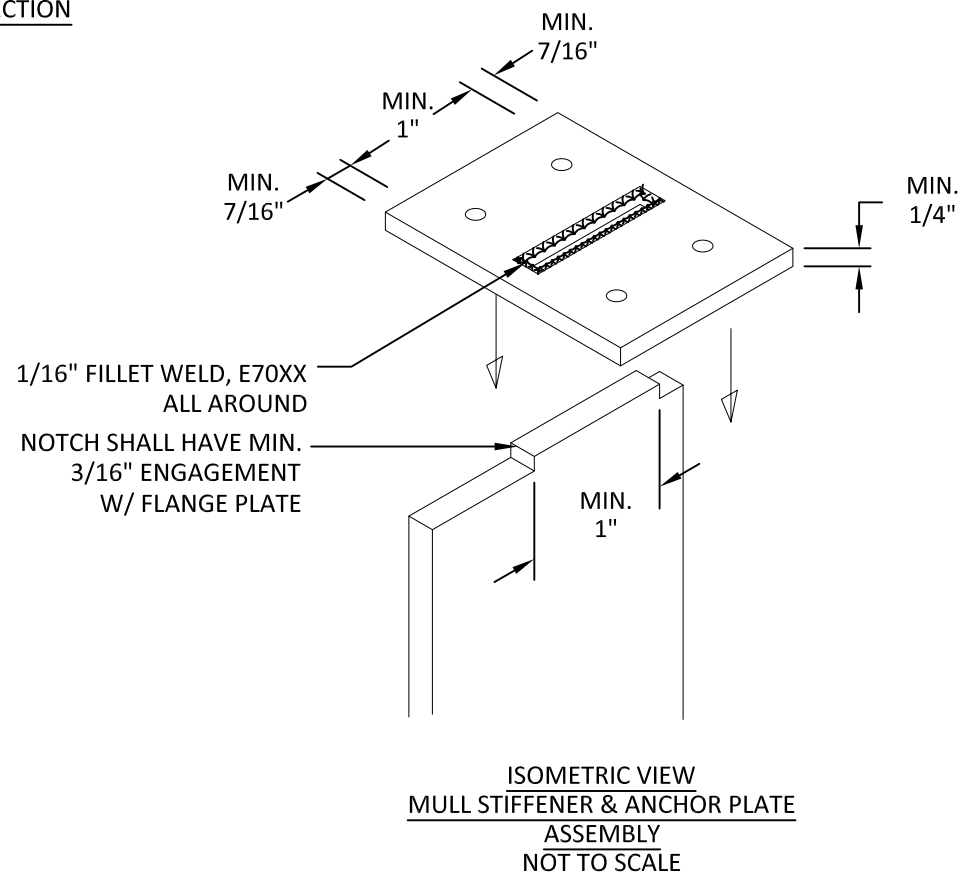


A
4 **HORIZONTAL SECTION**
TYP. ANCHOR DETAILS
CONCRETE/MASONRY SUBSTRATES



B
4 **VERTICAL SECTION**
TYP. ANCHOR DETAIL
CONCRETE/MASONRY SUBSTRATES

- INSTALLATION NOTES:**
- FOR INSTALLATION DIRECT TO CONCRETE/MASONRY OR THROUGH 1X INTO CONCRETE/MASONRY, USE (2) 3/8" HILTI KWIKBOLT 3 ANCHORS. INSTALLATION SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
 - MINIMUM EMBEDMENT OF 2-1/2" INTO GROUT FILLED MASONRY
 - MINIMUM EMBEDMENT OF 2-3/8" INTO CONCRETE
 - MINIMUM EDGE DISTANCE OF 3"
 - MINIMUM ANCHOR PLATE DIMENSIONS:
 - Wp = 6"
 - E2 = 1"
 - S2 = 4-1/2"
 - SEE SHEET 1, INSTALLATION NOTE 7 FOR SUBSTRATE MINIMUM PROPERTIES.



BROMBAL
SERRAMENTI

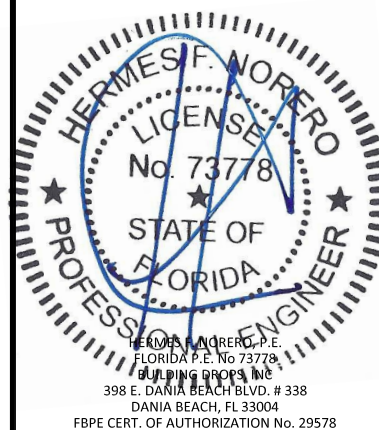
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STANDARD INSTALLATION -
CONCRETE & GROUT FILLED CMU

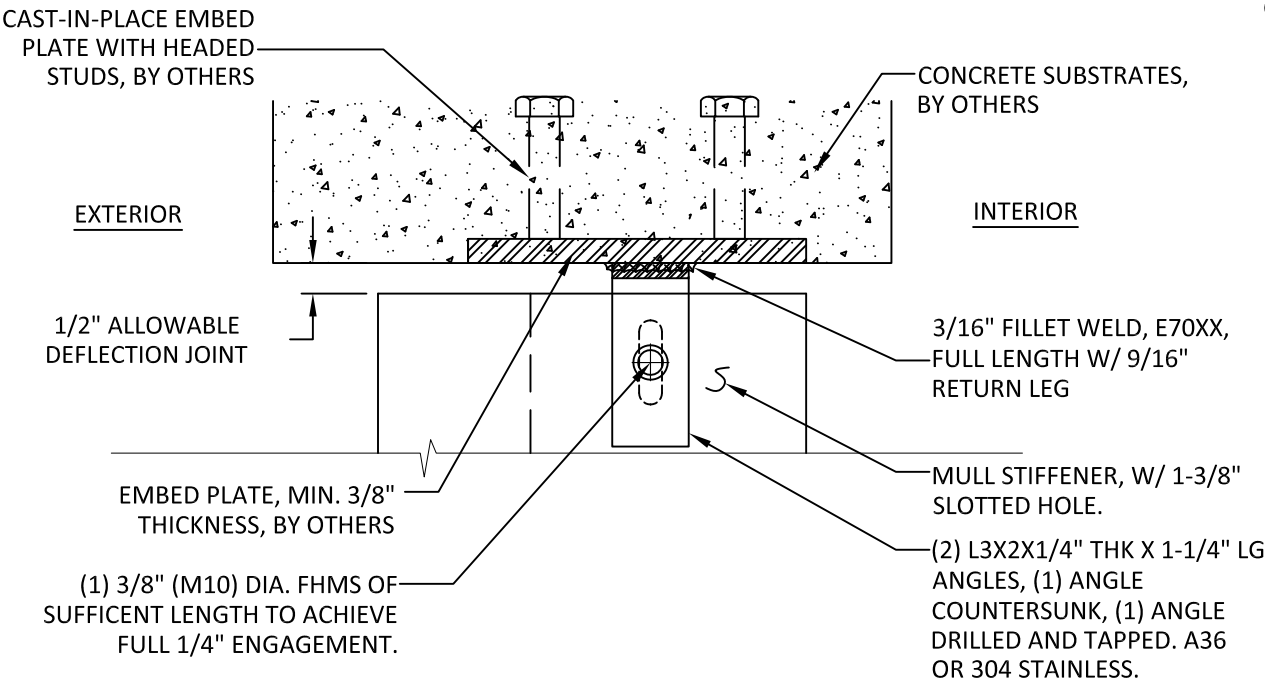
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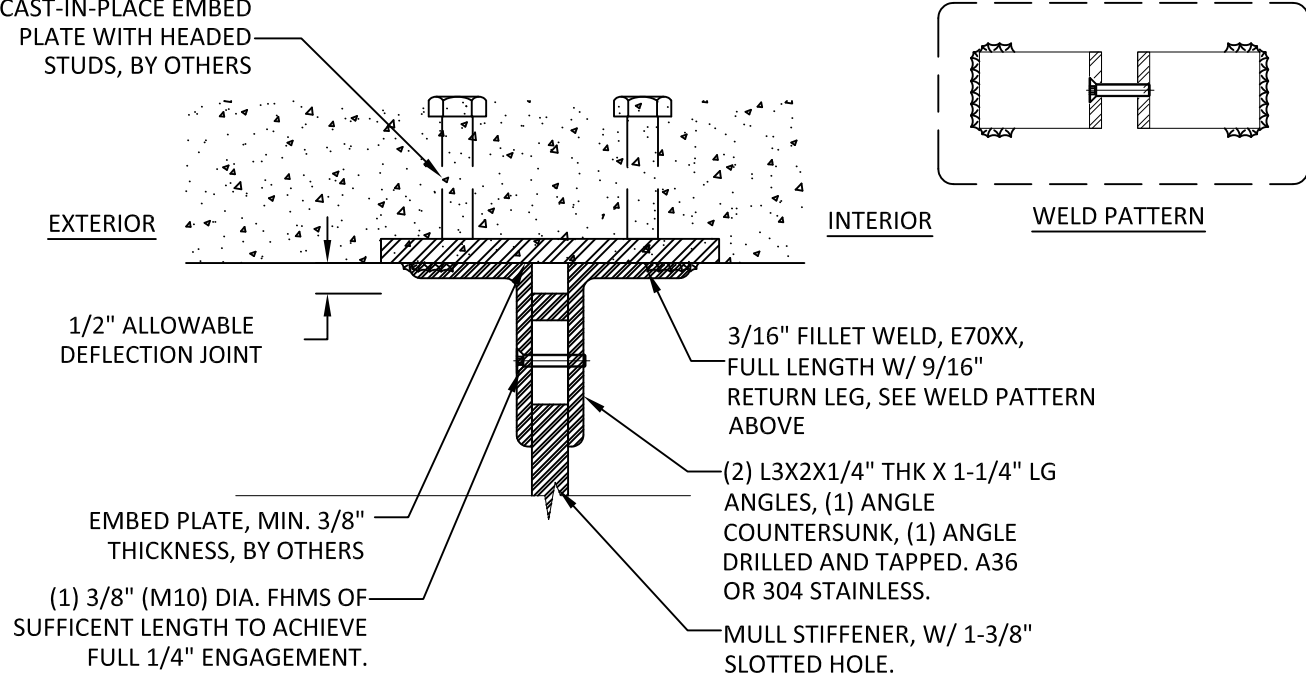
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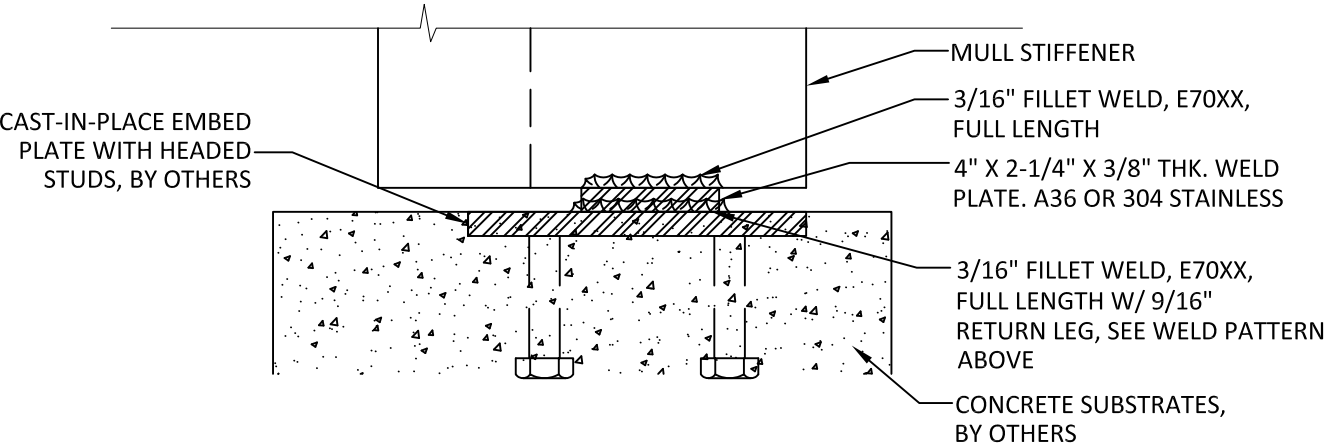
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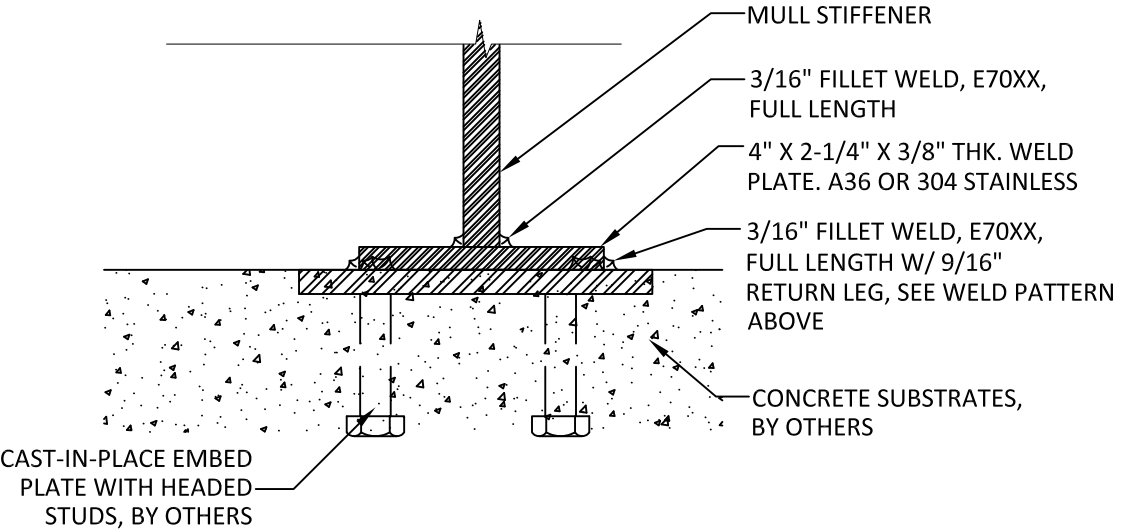
A
5 **VERTICAL SECTION**
DEFLECTION ANCHOR
CAST IN PLACE ANCHOR - CONCRETE



B
5 **ELEVATION VIEW**
DEFLECTION ANCHOR
CAST IN PLACE ANCHOR - CONCRETE



C
5 **VERTICAL SECTION**
WELD PLATE
CAST IN PLACE ANCHOR - CONCRETE



D
5 **ELEVATION VIEW**
WELD PLATE
CAST IN PLACE ANCHOR - CONCRETE



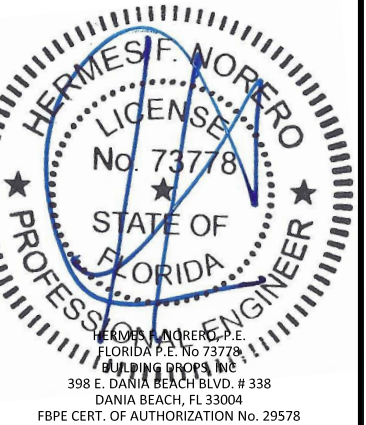
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WELD PLATE AND DEFLECTION
ANCHOR INSTALLATION

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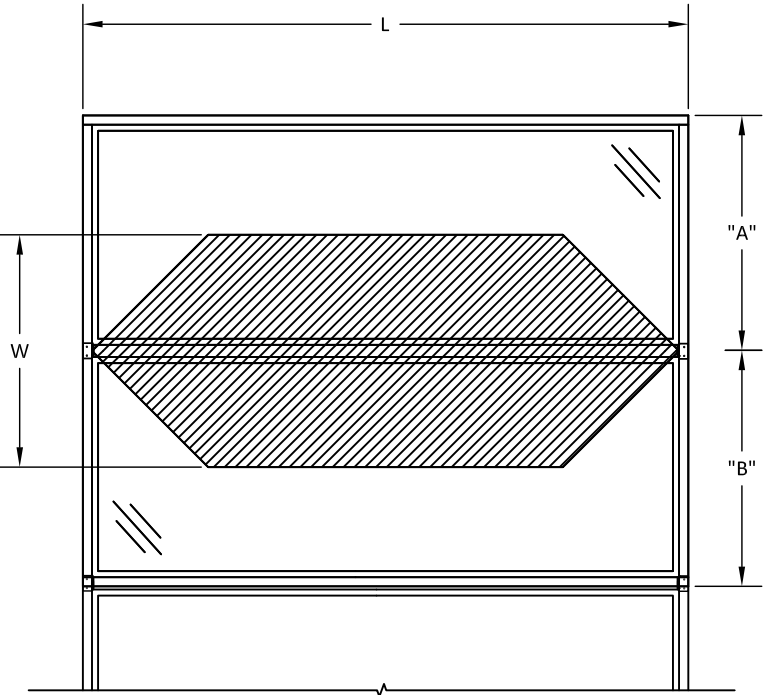
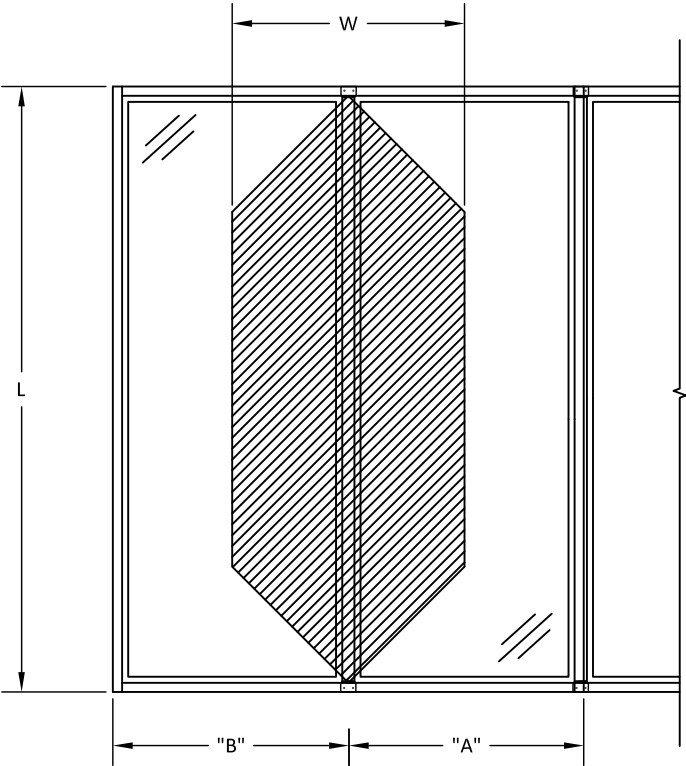
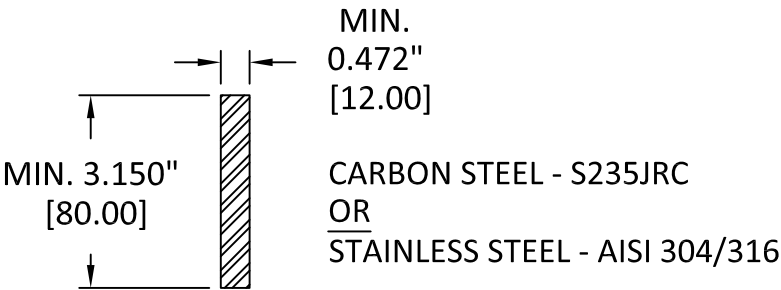
80x12 MM STIFFENER FOR FARO & ALFA SERIES PRODUCTS

DESIGN PRESSURE CAPACITIES FOR ONE-WAY CONFIGURATIONS

MAXIMUM DESIGN PRESSURE CAPACITY CHART (PSF)																			
L - Mullion Length (in)	W - Tributary Width (in)																		
	18.0	21.0	24.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0	69.0	72.0
60.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
63.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	98.3	97.3	97.0	97.0	97.0	97.0
66.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.5	93.8	90.8	88.4	86.6	85.4	84.6	84.3	84.3	84.3
69.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.4	92.2	87.9	84.3	81.4	79.0	77.1	75.7	74.6	74.0	73.8	73.8
72.0	100.0	100.0	100.0	100.0	100.0	100.0	94.5	88.6	83.7	79.6	76.2	73.4	71.0	69.1	67.6	66.5	65.6	65.1	65.0
75.0	100.0	100.0	100.0	100.0	100.0	93.1	86.4	80.9	76.4	72.5	69.3	66.6	64.3	62.4	60.9	59.6	58.7	58.0	57.6
78.0	100.0	100.0	100.0	100.0	93.2	85.6	79.4	74.3	70.0	66.4	63.3	60.7	58.5	56.7	55.1	53.9	52.9	52.1	51.5
81.0	100.0	100.0	100.0	94.8	86.1	79.0	73.2	68.4	64.4	61.0	58.1	55.6	53.5	51.7	50.2	49.0	47.9	47.1	46.5
84.0	100.0	100.0	98.1	87.9	79.8	73.2	67.8	63.3	59.5	56.3	53.5	51.2	49.2	47.5	46.0	44.7	43.7	42.8	42.1
87.0	100.0	100.0	91.3	81.7	74.1	68.0	62.9	58.7	55.1	52.1	49.5	47.3	45.3	43.7	42.3	41.1	40.0	39.2	38.4
90.0	100.0	96.8	85.2	76.2	69.1	63.3	58.6	54.6	51.2	48.4	45.9	43.8	42.0	40.4	39.0	37.8	36.8	36.0	35.2
93.0	100.0	90.6	79.7	71.2	64.5	59.1	54.6	50.9	47.7	45.0	42.7	40.7	39.0	37.5	36.1	35.0	34.0	33.2	32.4
96.0	98.6	84.9	74.7	66.7	60.4	55.3	51.1	47.6	44.6	42.0	39.8	37.9	36.3	34.8	33.6	32.5	31.5	30.7	30.0
108.0	77.7	66.9	58.7	52.4	47.4	43.4	40.0	37.2	34.7	32.7	30.9	29.3	28.0	26.8	25.7	24.8	24.0	23.2	22.6
114.0	69.7	59.9	52.6	47.0	42.5	38.8	35.7	33.2	31.0	29.2	27.5	26.1	24.9	23.8	22.8	22.0	21.2	20.5	19.9
120.0	62.9	54.0	47.4	42.3	38.2	34.9	32.2	29.8	27.9	26.2	24.7	23.4	22.3	21.3	20.4	19.6	18.9	18.3	17.7
126.0	57.0	49.0	43.0	38.3	34.6	31.6	29.1	27.0	25.2	23.6	22.3	21.1	20.1	19.2	18.4	17.6	17.0	16.4	15.9
132.0	51.9	44.6	39.1	34.9	31.5	28.7	26.4	24.5	22.9	21.4	20.2	19.1	18.2	17.4	16.6	15.9	15.3	-	-
138.0	47.4	40.7	35.7	31.9	28.8	26.2	24.1	22.4	20.9	19.6	18.4	17.4	16.6	15.8	15.1	-	-	-	-
144.0	42.2	36.2	31.8	28.3	25.6	23.4	21.5	19.9	18.6	17.5	16.5	15.6	-	-	-	-	-	-	-

NOTE:

- 1. MULLION CHART APPLIES TO ASSEMBLIES WHEN MULLED IN ONE-WAY, STACK OR RIBBON, CONFIGURATIONS. TYPICAL ELEVATIONS SHOWN AT RIGHT.
- 2. DESIGN PRESSURE VALUES ARE POSITIVE AND NEGATIVE IN PSF.
- 3. MAXIMUM DEFLECTION HAS BEEN LIMITED TO L/175.
- 4. DESIGN PRESSURE OF ASSEMBLY IS LIMITED TO THE LESSER DESIGN PRESSURE OF THE MULLION ASSEMBLY OR THE INDIVIDUAL UNIT OF INSTALLATION. ADJACENT WINDOWS SHALL BE UNDER SEPARATE FL APPROVAL.
- 5. TRIBUTARY WIDTH = W = (A+B)/2
- 6. REFER TO SHEETS 3-5 FOR INSTALLATION DETAILS.
- 7. WHEN WINDOWS ARE STACKED VERTICALLY, THE MANUFACTURER/INSTALLER SHALL ENSURE THAT THE WEIGHT OF UNITS ABOVE WILL NOT CAUSE DEFLECTIONS OR STRESSES WHICH WILL AFFECT OPERATION OR STRUCTURAL ADEQUACY OF UNITS BELOW.



BROMBAL ITALY
VIA VALLA, 24
CASELLE DI ALTIVOLE (TV), ITALY
PH: ++39 0423 566189
FX: ++39 0423 919168

TITLE: BROMBAL ITALY
FARO & ALFA MULLION STIFFENERS
(WZ3) (IMPACT)
80X12 ONE WAY
DESIGN PRESSURE TABLE

PREPARED BY: BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
PH: (954)399-8478
FAX: (954)744-4738
WEB: www.buildingdrops.com



REMARKS	BY	DATE
FBC UPDATES	SM	08/21
FBC UPDATES	SM	09/22

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FL #:	FL21041
DATE:	10.09.15
DWG. BY:	LMS
CHK. BY:	HFN
SCALE:	NTS
DWG. #:	BRB007
SHEET:	OF 19

10/14/2022 12:37 PM

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NOTE:

-
- MIN. 0.472" [12.00]
- MIN. 3.150" [80.00]
- CARBON STEEL - S235JRC
OR
STAINLESS STEEL - AISI 304/316



TITLE: BROMBAL ITALY
FARO & ALFA MULLION STIFFENERS
(WZ3) (IMPACT)
80X12 TWO WAY
DESIGN PRESSURE TABLE

PREPARED BY:
BUILDING DROPS, INC.



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DATE: 10.09.15

CHK. BY:
HFN

SCALE: NTS

DWG. #: BRB007

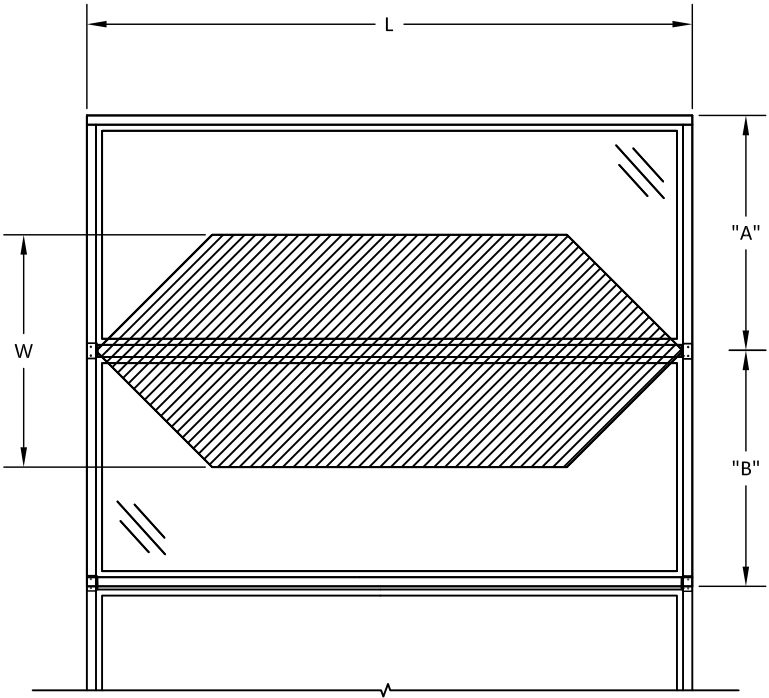
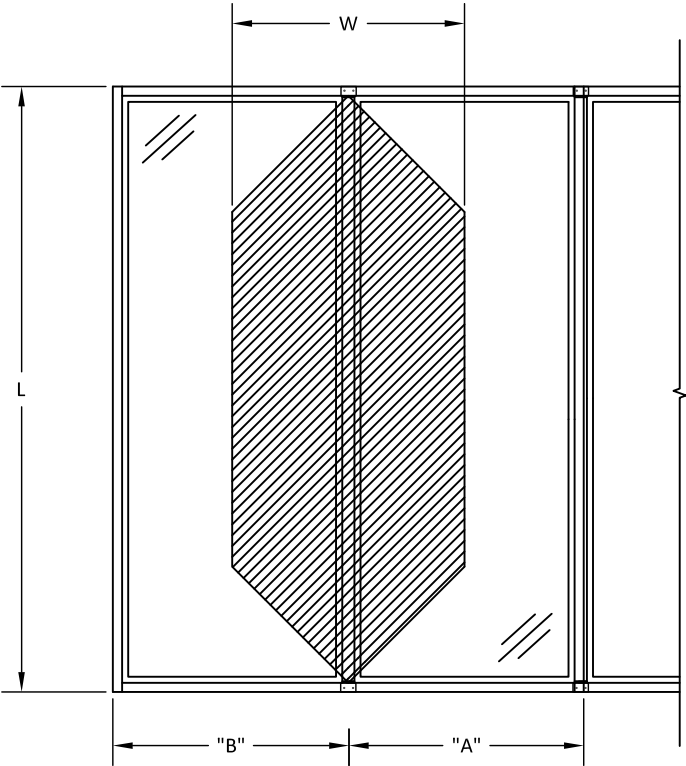
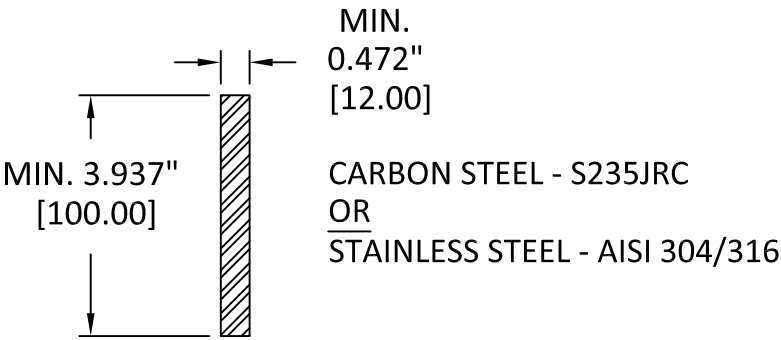
SHEET: OF 19

100X12 MM STIFFENER FOR FARO & ALFA SERIES PRODUCTS

DESIGN PRESSURE CAPACITIES FOR ONE-WAY CONFIGURATIONS

MAXIMUM DESIGN PRESSURE CAPACITY CHART (PSF)																			
L - Mullion Length (in)	W - Tributary Width (in)																		
	18.0	21.0	24.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0	69.0	72.0
60.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
63.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
66.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
69.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
72.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.5	95.1	93.2	91.7	90.7	90.0
78.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.9	94.9	91.4	88.6	86.2	84.2	82.6	81.4	80.5
81.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	95.3	90.8	86.9	83.6	80.8	78.5	76.5	74.9	73.6	72.6
84.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.9	92.9	87.9	83.6	80.0	76.8	74.1	71.8	69.9	68.3	66.9	65.8
87.0	100.0	100.0	100.0	100.0	100.0	100.0	98.3	91.7	86.1	81.4	77.3	73.9	70.9	68.3	66.1	64.2	62.5	61.2	60.0
90.0	100.0	100.0	100.0	100.0	100.0	98.9	91.5	85.3	80.0	75.6	71.7	68.4	65.6	63.1	61.0	59.1	57.5	56.2	55.0
93.0	100.0	100.0	100.0	100.0	100.0	92.4	85.4	79.5	74.6	70.4	66.7	63.6	60.9	58.5	56.5	54.7	53.1	51.8	50.7
96.0	100.0	100.0	100.0	100.0	94.4	86.5	79.9	74.4	69.7	65.7	62.3	59.3	56.7	54.5	52.5	50.8	49.3	48.0	46.8
108.0	100.0	100.0	91.8	81.9	74.1	67.7	62.5	58.0	54.3	51.1	48.3	45.9	43.7	41.9	40.2	38.7	37.5	36.3	35.3
114.0	100.0	93.6	82.2	73.4	66.3	60.6	55.9	51.9	48.5	45.6	43.0	40.8	38.9	37.2	35.7	34.3	33.1	32.1	31.1
120.0	98.2	84.4	74.1	66.1	59.7	54.5	50.2	46.6	43.5	40.9	38.6	36.6	34.8	33.3	31.9	30.6	29.5	28.6	27.7
126.0	89.0	76.5	67.1	59.9	54.1	49.4	45.4	42.1	39.3	36.9	34.8	33.0	31.4	29.9	28.7	27.5	26.5	25.6	24.8
132.0	81.1	69.6	61.1	54.5	49.2	44.9	41.3	38.3	35.7	33.5	31.6	29.9	28.4	27.1	25.9	24.9	24.0	23.1	22.3
138.0	74.1	63.7	55.8	49.8	44.9	41.0	37.7	34.9	32.6	30.6	28.8	27.2	25.9	24.7	23.6	22.6	21.7	21.0	20.2
144.0	68.0	58.4	51.2	45.7	41.2	37.6	34.6	32.0	29.9	28.0	26.4	24.9	23.7	22.5	21.5	20.6	19.8	19.1	18.4

- NOTE:
- 1. MULLION CHART APPLIES TO ASSEMBLIES WHEN MULLED IN ONE-WAY, STACK OR RIBBON, CONFIGURATIONS. TYPICAL ELEVATIONS SHOWN AT RIGHT.
 - 2. DESIGN PRESSURE VALUES ARE POSITIVE AND NEGATIVE IN PSF.
 - 3. MAXIMUM DEFLECTION HAS BEEN LIMITED TO L/175.
 - 4. DESIGN PRESSURE OF ASSEMBLY IS LIMITED TO THE LESSER DESIGN PRESSURE OF THE MULLION ASSEMBLY OR THE INDIVIDUAL UNIT OF INSTALLATION. ADJACENT WINDOWS SHALL BE UNDER SEPARATE FL APPROVAL.
 - 5. TRIBUTARY WIDTH = W = (A+B)/2
 - 6. REFER TO SHEETS 3-5 FOR INSTALLATION DETAILS.
 - 7. WHEN WINDOWS ARE STACKED VERTICALLY, THE MANUFACTURER/INSTALLER SHALL ENSURE THAT THE WEIGHT OF UNITS ABOVE WILL NOT CAUSE DEFLECTIONS OR STRESSES WHICH WILL AFFECT OPERATION OR STRUCTURAL ADEQUACY OF UNITS BELOW.



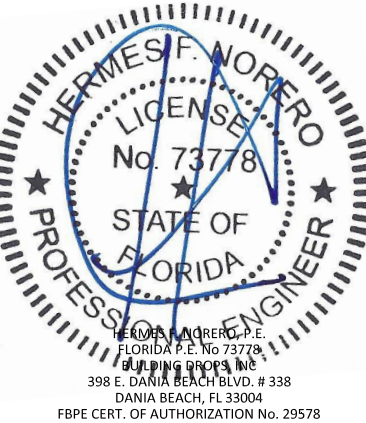
BROMBAL ITALY
VIA VALLA, 24
CASELLE DI ALTIVOLE (TV), ITALY
PH: ++39 0423 566189
FX: ++39 0423 919168

TITLE:
BROMBAL ITALY
FARO & ALFA MULLION STIFFENERS
(WZ3) (IMPACT)
100X12 ONE WAY
DESIGN PRESSURE TABLE

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
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REMARKS	BY	DATE
FBC UPDATES	SM	08/21
FBC UPDATES	SM	09/22

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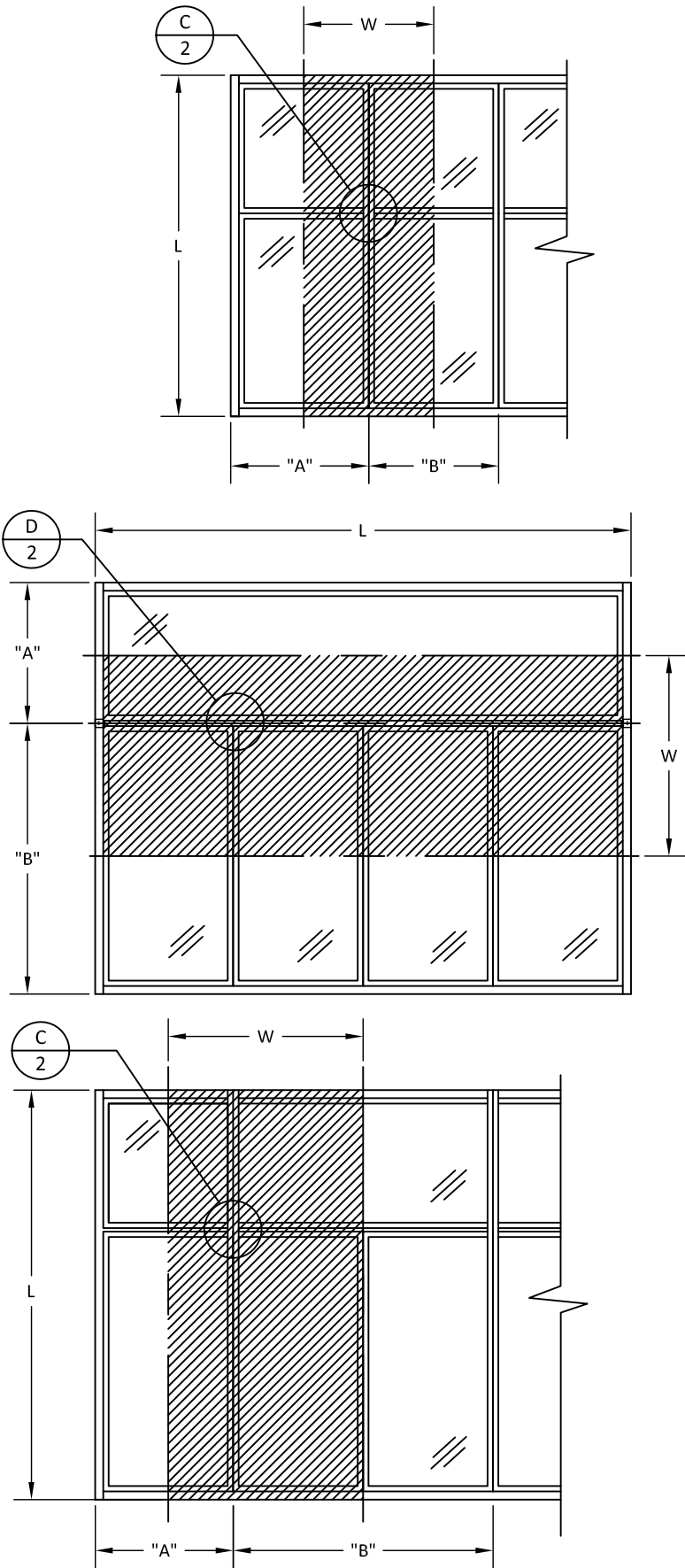
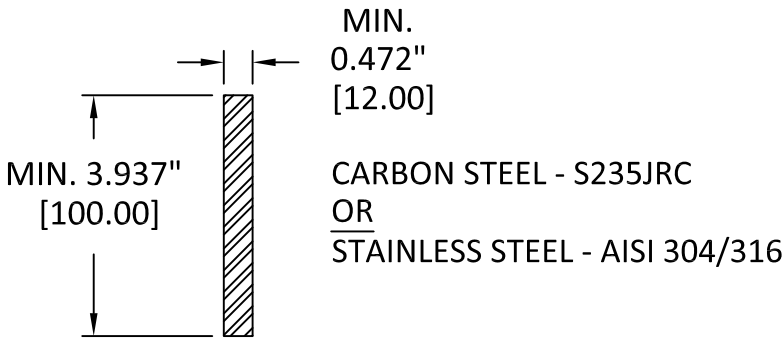
FL #:	FL21041
DATE:	10.09.15
DWG. BY:	LMS
CHK. BY:	HFN
SCALE:	NTS
DWG. #:	BRB007
SHEET:	OF 19

100X12 MM STIFFENER FOR FARO & ALFA SERIES PRODUCTS

DESIGN PRESSURE CAPACITIES FOR TWO-WAY CONFIGURATIONS

MAXIMUM DESIGN PRESSURE CAPACITY CHART (PSF)																			
L - Mull Length (in)	W - Tributary Width (in)																		
	18.0	21.0	24.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0	69.0	72.0
60.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.1	91.5	87.3	83.5	80.1
63.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.3	91.5	87.1	83.2	79.6
66.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.0	91.9	87.3	83.2	79.4	76.0
69.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.3	92.8	87.9	83.5	79.6	76.0	69.6
72.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.2	89.0	84.3	80.1	76.3	69.6	66.7
75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	93.5	88.0	83.2	78.8	74.8	71.3	68.0	65.1	62.4
78.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.8	92.3	86.5	81.4	76.9	72.8	69.2	65.9	62.9	60.2	57.7
81.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.7	91.7	85.5	80.2	75.5	71.3	67.5	64.2	61.1	58.3	55.8	53.5
84.0	100.0	100.0	100.0	100.0	100.0	100.0	99.4	91.8	85.2	79.5	74.6	70.2	66.3	62.8	59.7	56.8	54.2	51.9	49.7
87.0	100.0	100.0	100.0	100.0	100.0	100.0	92.7	85.6	79.5	74.2	69.5	65.4	61.8	58.5	55.6	53.0	50.6	48.4	46.3
90.0	100.0	100.0	100.0	100.0	100.0	94.5	86.6	80.0	74.2	69.3	65.0	61.1	57.7	54.7	52.0	49.5	47.2	45.2	43.3
93.0	100.0	100.0	100.0	100.0	97.3	88.5	81.1	74.9	69.5	64.9	60.8	57.3	54.1	51.2	48.7	46.4	44.2	42.3	40.6
96.0	100.0	100.0	100.0	100.0	91.4	83.0	76.1	70.3	65.3	60.9	57.1	53.7	50.8	48.1	45.7	43.5	41.5	39.7	38.1
108.0	100.0	100.0	90.2	80.2	72.2	65.6	60.2	55.5	51.6	48.1	45.1	42.5	40.1	38.0	36.1	34.4	32.8	31.4	30.1
114.0	100.0	92.5	81.0	72.0	64.8	58.9	54.0	49.8	46.3	43.2	40.5	38.1	36.0	34.1	32.4	30.8	29.4	28.2	27.0
120.0	97.4	83.5	73.1	65.0	58.5	53.2	48.7	45.0	41.8	39.0	36.5	34.4	32.5	30.8	29.2	27.8	26.6	25.4	24.4
126.0	88.4	75.8	66.3	58.9	53.0	48.2	44.2	40.8	37.9	35.4	33.1	31.2	29.5	27.9	26.5	25.3	24.1	23.1	22.1
132.0	80.5	69.0	60.4	53.7	48.3	43.9	40.3	37.2	34.5	32.2	30.2	28.4	26.8	25.4	24.2	23.0	22.0	21.0	20.1
138.0	73.7	63.2	55.3	49.1	44.2	40.2	36.8	34.0	31.6	29.5	27.6	26.0	24.6	23.3	22.1	21.1	20.1	-	-
144.0	67.7	58.0	50.8	45.1	40.6	36.9	33.8	31.2	29.0	27.1	25.4	23.9	22.6	21.4	20.3	-	-	-	-

- NOTE:
- 1. MULLION CHART APPLIES TO ASSEMBLIES WHEN MULLED IN TWO-WAY,'X' OR 'T' CONFIGURATIONS. TYPICAL ELEVATIONS SHOWN AT RIGHT.
 - 2. DESIGN PRESSURE VALUES ARE POSITIVE AND NEGATIVE IN PSF.
 - 3. MAXIMUM DEFLECTION HAS BEEN LIMITED TO L/175.
 - 4. DESIGN PRESSURE OF ASSEMBLY IS LIMITED TO THE LESSER DESIGN PRESSURE OF THE MULLION ASSEMBLY OR THE INDIVIDUAL UNIT OF INSTALLATION. ADJACENT WINDOWS SHALL BE UNDER SEPARATE FL APPROVAL.
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BROMBAL
SERRAMENTI

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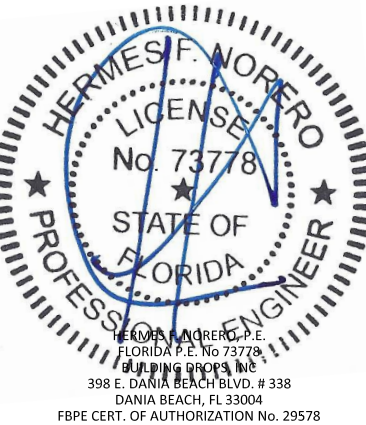
TITLE: BROMBAL ITALY
FARO & ALFA MULLION STIFFENERS
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B.D.
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REMARKS	BY	DATE
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DWG. BY:	LMS
CHK. BY:	HFN
SCALE:	NTS
DWG. #:	BRB007
SHEET:	OF 19

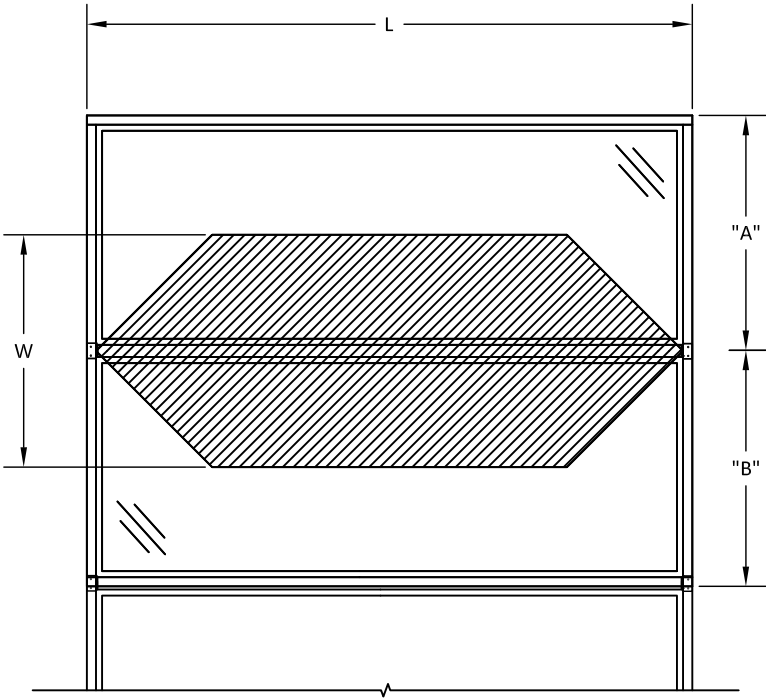
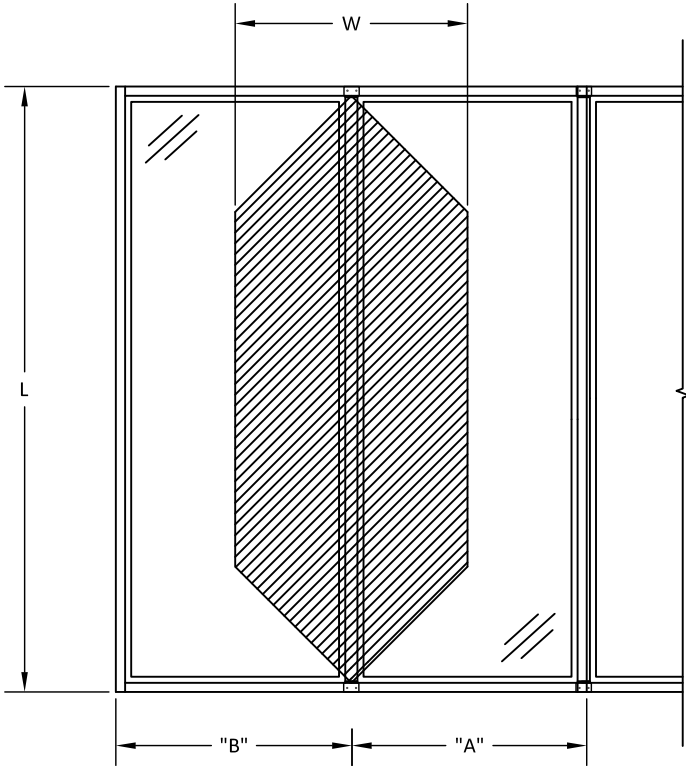
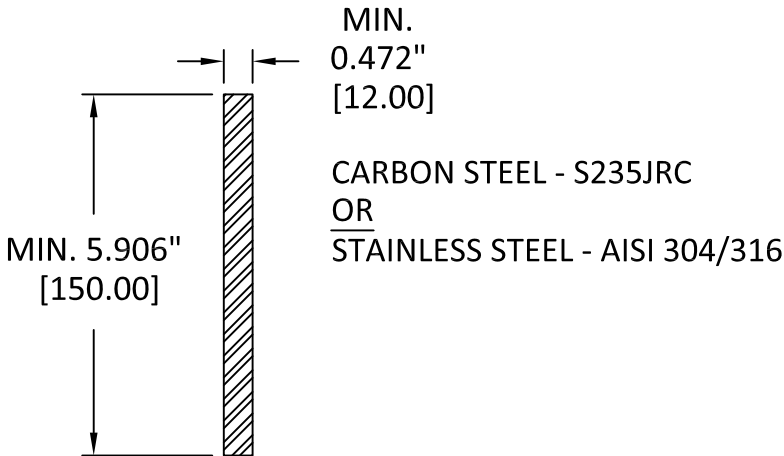
150X12 MM STIFFENER FOR FARO & ALFA SERIES PRODUCTS

DESIGN PRESSURE CAPACITIES FOR ONE-WAY CONFIGURATIONS

MAXIMUM DESIGN PRESSURE CAPACITY CHART (PSF)																			
L - Mullion Length (in)	W - Tributary Width (in)																		
	18.0	21.0	24.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0	69.0	72.0
60.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
63.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
66.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
69.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
72.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
78.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
81.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
84.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
87.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.9	97.0	95.5	94.2
90.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.7	96.1	93.9	91.9	90.3	89.0
93.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.0	94.1	91.5	89.3	87.3	85.7	84.3
96.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.2	92.8	89.9	87.3	85.1	83.2	81.5	80.1
108.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.7	89.9	85.8	82.2	79.1	76.3	73.9	71.8	69.9	68.2	66.7
114.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	93.9	88.6	84.0	80.1	76.6	73.6	71.0	68.6	66.5	64.7	63.1	61.6
120.0	100.0	100.0	100.0	100.0	100.0	100.0	94.2	88.2	83.2	78.8	75.1	71.8	68.9	66.3	64.1	62.0	60.2	58.6	57.2
126.0	100.0	100.0	100.0	100.0	100.0	95.7	89.0	83.3	78.4	74.3	70.6	67.5	64.7	62.2	60.0	58.1	56.4	54.8	53.4
132.0	100.0	100.0	100.0	100.0	98.5	90.7	84.3	78.8	74.2	70.2	66.7	63.7	61.0	58.6	56.5	54.6	52.9	51.4	50.0
138.0	100.0	100.0	100.0	100.0	93.7	86.3	80.1	74.8	70.4	66.5	63.2	60.3	57.7	55.4	53.1	50.9	48.9	47.2	45.6
144.0	100.0	100.0	100.0	98.2	89.4	82.2	76.3	71.2	67.0	63.0	59.3	56.1	53.2	50.7	48.5	46.5	44.6	43.0	41.5

NOTE:

- 1. MULLION CHART APPLIES TO ASSEMBLIES WHEN MULLED IN ONE-WAY, STACK OR RIBBON, CONFIGURATIONS. TYPICAL ELEVATIONS SHOWN AT RIGHT.
- 2. DESIGN PRESSURE VALUES ARE POSITIVE AND NEGATIVE IN PSF.
- 3. MAXIMUM DEFLECTION HAS BEEN LIMITED TO L/175.
- 4. DESIGN PRESSURE OF ASSEMBLY IS LIMITED TO THE LESSER DESIGN PRESSURE OF THE MULLION ASSEMBLY OR THE INDIVIDUAL UNIT OF INSTALLATION. ADJACENT WINDOWS SHALL BE UNDER SEPARATE FL APPROVAL.
- 5. TRIBUTARY WIDTH = W = (A+B)/2
- 6. REFER TO SHEETS 3-5 FOR INSTALLATION DETAILS.
- 7. WHEN WINDOWS ARE STACKED VERTICALLY, THE MANUFACTURER/INSTALLER SHALL ENSURE THAT THE WEIGHT OF UNITS ABOVE WILL NOT CAUSE DEFLECTIONS OR STRESSES WHICH WILL AFFECT OPERATION OR STRUCTURAL ADEQUACY OF UNITS BELOW.



BROMBAL ITALY
VIA VALLA, 24
CASELLE DI ALTIVOLE (TV), ITALY
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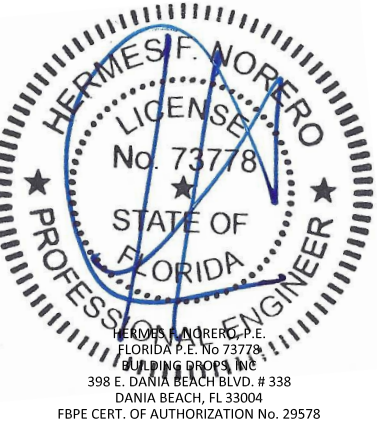
TITLE: BROMBAL ITALY
FARO & ALFA MULLION STIFFENERS
(WZ3) (IMPACT)
150X12 ONE WAY
DESIGN PRESSURE TABLE

PREPARED BY: BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
PH: (954)399-8478
FAX: (954)744-4738
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REMARKS	BY	DATE
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DWG. BY:	LMS
CHK. BY:	HFN
SCALE:	NTS
DWG. #:	BRB007
SHEET:	OF 19

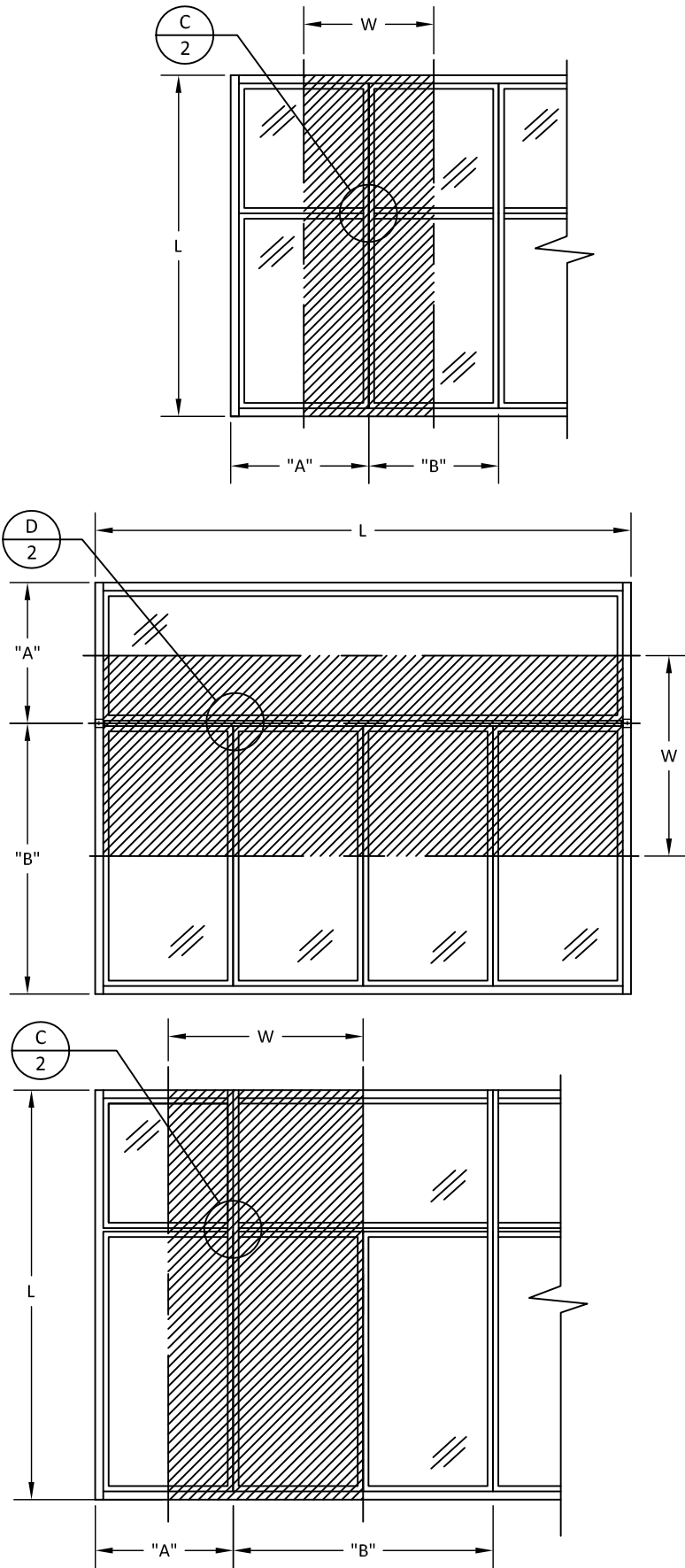
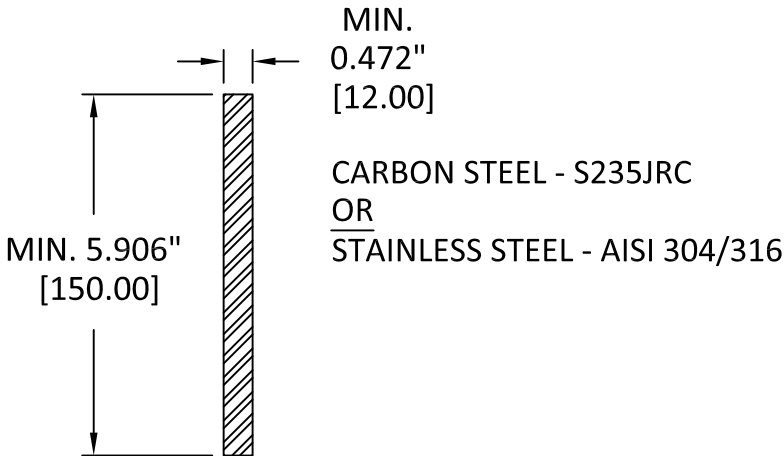
150X12 MM STIFFENER FOR FARO & ALFA SERIES PRODUCTS

DESIGN PRESSURE CAPACITIES FOR TWO-WAY CONFIGURATIONS

MAXIMUM DESIGN PRESSURE CAPACITY CHART (PSF)																			
L - Mull Length (in)	W - Tributary Width (in)																		
	18.0	21.0	24.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0	69.0	72.0
60.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.1	91.5	87.3	83.5	80.1
63.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.3	91.5	87.1	83.2	79.6
66.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.0	91.9	87.3	83.2	79.4	76.0
69.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.3	92.8	87.9	83.5	79.6	76.0	69.6
72.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.2	89.0	84.3	80.1	76.3	72.8	69.6	66.7
75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.1	90.4	85.4	80.9	76.9	73.2	69.9	66.8	64.1
78.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.5	92.4	86.9	82.1	77.8	73.9	70.4	67.2	64.3	61.6
81.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.9	89.0	83.7	79.1	74.9	71.2	67.8	64.7	61.9	59.3
84.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.0	91.5	85.8	80.7	76.3	72.2	68.6	65.4	62.4	59.7	57.2
87.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.7	88.3	82.8	78.0	73.6	69.7	66.3	63.1	60.2	57.6	55.2
90.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.5	91.5	85.4	80.1	75.4	71.2	67.4	64.1	61.0	58.2	55.7	53.4
93.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	95.4	88.6	82.6	77.5	72.9	68.9	65.2	62.0	59.0	56.4	53.9	51.7
96.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	92.4	85.8	80.1	75.1	70.6	66.7	63.2	60.0	57.2	54.6	52.2	50.0
108.0	100.0	100.0	100.0	100.0	100.0	97.0	89.0	82.1	76.3	71.2	66.7	62.8	59.3	56.2	53.4	50.8	48.5	46.4	44.5
114.0	100.0	100.0	100.0	100.0	100.0	91.9	84.3	77.8	72.2	67.4	63.2	59.5	56.2	53.2	50.6	48.2	46.0	44.0	42.1
120.0	100.0	100.0	100.0	100.0	96.1	87.3	80.1	73.9	68.6	64.1	60.0	56.5	53.4	50.6	48.0	45.8	43.7	41.8	40.0
126.0	100.0	100.0	100.0	100.0	91.5	83.2	76.3	70.4	65.4	61.0	57.2	53.8	50.8	48.2	45.8	43.6	41.6	39.8	38.1
132.0	100.0	100.0	100.0	97.0	87.3	79.4	72.8	67.2	62.4	58.2	54.6	51.4	48.5	46.0	43.7	41.6	39.7	38.0	36.4
138.0	100.0	100.0	100.0	92.8	83.5	76.0	69.6	64.3	59.7	55.7	52.2	49.1	46.4	44.0	41.8	39.8	38.0	36.3	34.8
144.0	100.0	100.0	100.0	89.0	80.1	72.8	66.7	61.6	57.2	53.4	50.0	47.1	44.5	42.1	40.0	38.1	36.4	34.8	33.4

NOTE:

1. MULLION CHART APPLIES TO ASSEMBLIES WHEN MULLED IN TWO-WAY,'X' OR 'T' CONFIGURATIONS. TYPICAL ELEVATIONS SHOWN AT RIGHT.
2. DESIGN PRESSURE VALUES ARE POSITIVE AND NEGATIVE IN PSF.
3. MAXIMUM DEFLECTION HAS BEEN LIMITED TO L/175.
4. DESIGN PRESSURE OF ASSEMBLY IS LIMITED TO THE LESSER DESIGN PRESSURE OF THE MULLION ASSEMBLY OR THE INDIVIDUAL UNIT OF INSTALLATION. ADJACENT WINDOWS SHALL BE UNDER SEPARATE FL APPROVAL.
5. TRIBUTARY WIDTH = W = (A+B)/2
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BROMBAL
SERRAMENTI

BROMBAL ITALY
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CASELLE DI ALTIVOLE (TV), ITALY
PH: ++39 0423 566189
FX: ++39 0423 919168

TITLE:

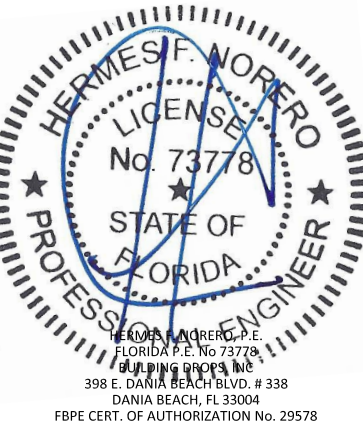
BROMBAL ITALY
FARO & ALFA MULLION STIFFENERS
(WZ3) (IMPACT)
150X12 TWO WAY
DESIGN PRESSURE TABLE

PREPARED BY:

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REMARKS	BY	DATE
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CHK. BY:	HFN
SCALE:	NTS
DWG. #:	BRB007
SHEET:	OF 19

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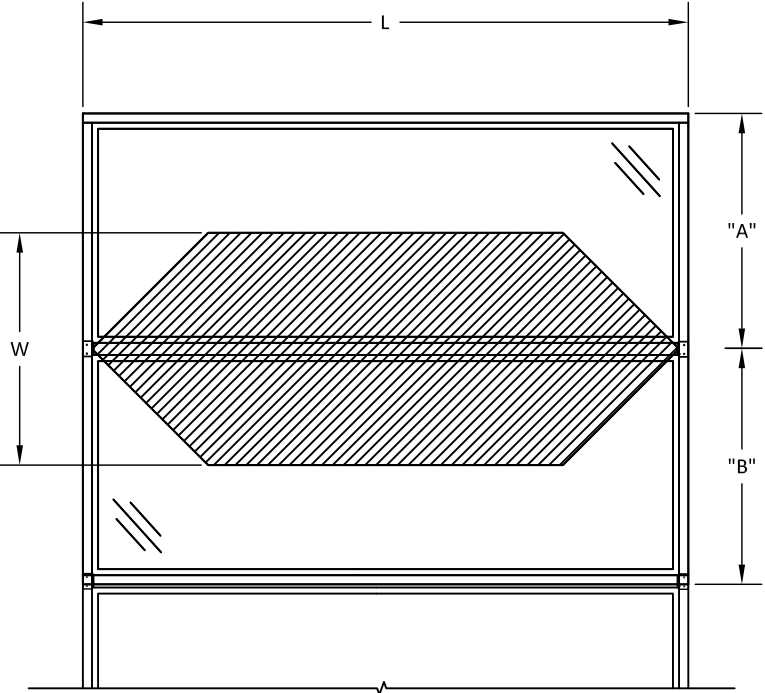
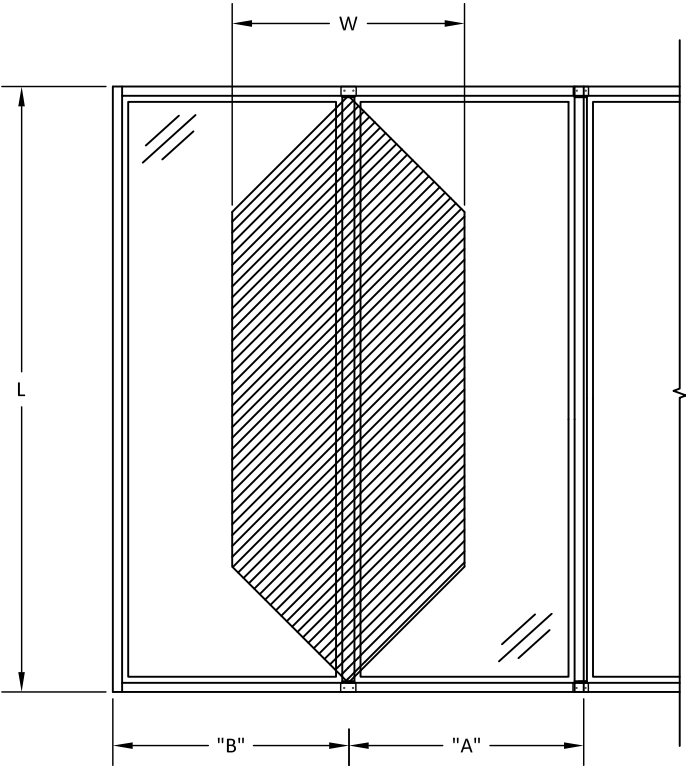
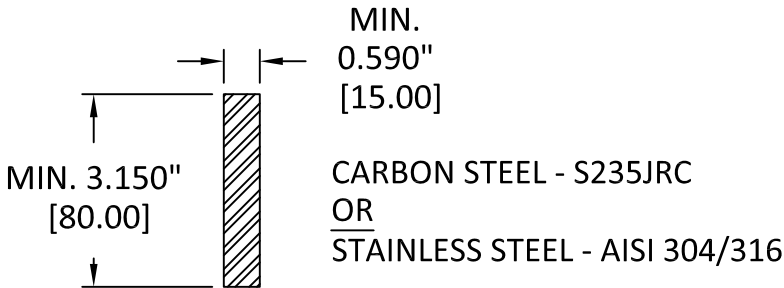
80x15 MM STIFFENER FOR FARO & ALFA SERIES PRODUCTS

DESIGN PRESSURE CAPACITIES FOR ONE-WAY CONFIGURATIONS

MAXIMUM DESIGN PRESSURE CAPACITY CHART (PSF)																			
L - Mull Length (in)	W - Tributary Width (in)																		
	18.0	21.0	24.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0	69.0	72.0
60.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
63.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
66.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
69.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.7	96.4	94.6	93.3	92.5	92.3	92.3
72.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.5	95.3	91.7	88.8	86.4	84.5	83.1	82.0	81.4	81.2
75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	95.5	90.7	86.6	83.2	80.4	78.0	76.1	74.5	73.4	72.5	72.0
78.0	100.0	100.0	100.0	100.0	100.0	100.0	99.3	92.9	87.5	83.0	79.1	75.9	73.2	70.8	68.9	67.3	66.1	65.1	64.4
81.0	100.0	100.0	100.0	100.0	100.0	98.8	91.6	85.6	80.5	76.2	72.6	69.5	66.9	64.7	62.8	61.2	59.9	58.9	58.1
84.0	100.0	100.0	100.0	100.0	99.7	91.5	84.7	79.1	74.4	70.3	66.9	64.0	61.5	59.3	57.5	55.9	54.6	53.5	52.7
87.0	100.0	100.0	100.0	100.0	92.7	85.0	78.6	73.3	68.9	65.1	61.9	59.1	56.7	54.6	52.8	51.3	50.0	48.9	48.0
90.0	100.0	100.0	100.0	95.3	86.4	79.1	73.2	68.2	64.0	60.5	57.4	54.7	52.5	50.5	48.8	47.3	46.0	44.9	44.0
93.0	100.0	100.0	99.6	89.0	80.7	73.9	68.3	63.6	59.7	56.3	53.4	50.9	48.7	46.8	45.2	43.8	42.5	41.4	40.5
96.0	100.0	100.0	93.3	83.4	75.6	69.2	63.9	59.5	55.7	52.6	49.8	47.4	45.4	43.6	42.0	40.6	39.4	38.4	37.5
108.0	97.2	83.6	73.4	65.5	59.3	54.2	50.0	46.4	43.4	40.9	38.6	36.7	35.0	33.5	32.2	31.0	30.0	29.0	28.2
114.0	87.1	74.9	65.8	58.7	53.1	48.5	44.7	41.5	38.8	36.4	34.4	32.7	31.1	29.7	28.5	27.5	26.5	25.7	24.9
120.0	78.6	67.5	59.3	52.9	47.8	43.6	40.2	37.3	34.8	32.7	30.9	29.3	27.9	26.6	25.5	24.5	23.6	22.8	22.1
126.0	71.2	61.2	53.7	47.9	43.3	39.5	36.4	33.7	31.5	29.5	27.9	26.4	25.1	24.0	22.9	22.0	21.2	20.5	19.8
132.0	64.9	55.7	48.9	43.6	39.3	35.9	33.0	30.6	28.6	26.8	25.3	23.9	22.7	21.7	20.8	19.9	19.2	18.5	17.9
138.0	59.3	50.9	44.7	39.8	35.9	32.8	30.2	28.0	26.1	24.4	23.0	21.8	20.7	19.7	18.9	18.1	17.4	16.8	16.2
144.0	52.7	45.3	39.7	35.4	32.0	29.2	26.9	24.9	23.3	21.8	20.6	19.5	18.5	17.7	16.9	16.2	15.6	15.0	-

NOTE:

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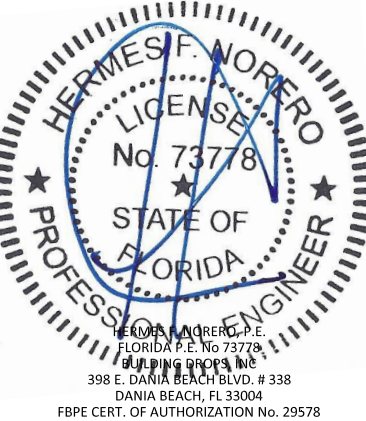
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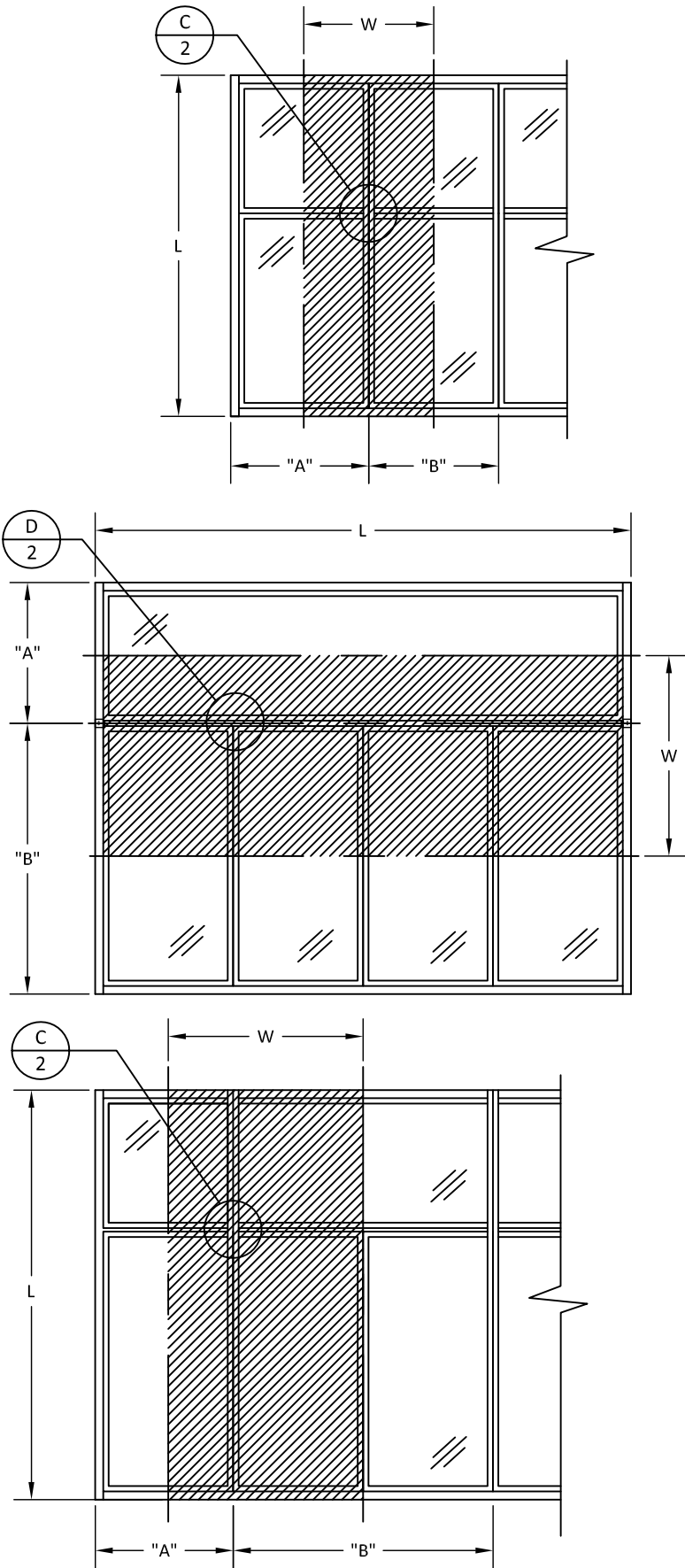
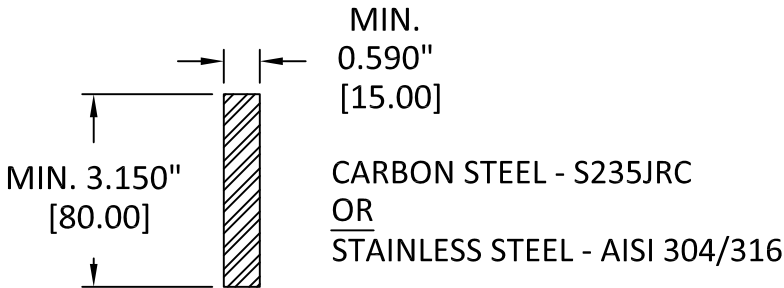
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80x15 MM STIFFENER FOR FARO & ALFA SERIES PRODUCTS

DESIGN PRESSURE CAPACITIES FOR TWO-WAY CONFIGURATIONS

MAXIMUM DESIGN PRESSURE CAPACITY CHART (PSF)																			
L - Mull Length (in)	W - Tributary Width (in)																		
	18.0	21.0	24.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0	69.0	72.0
60.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.5	93.5	89.1	85.0	81.3	78.0
63.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	94.3	89.3	84.8	80.8	77.1	73.8	70.7
66.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.6	91.0	85.9	81.4	77.3	73.6	70.3	67.2	64.4
69.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.3	88.4	83.2	78.6	74.5	70.7	67.4	64.3	61.5	58.9
72.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	92.8	86.6	81.2	76.4	72.2	68.4	65.0	61.9	59.1	56.5	54.1
75.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	92.1	85.5	79.8	74.8	70.4	66.5	63.0	59.9	57.0	54.4	52.1	49.9
78.0	100.0	100.0	100.0	100.0	100.0	100.0	92.3	85.2	79.1	73.8	69.2	65.1	61.5	58.3	55.4	52.7	50.3	48.1	46.1
81.0	100.0	100.0	100.0	100.0	100.0	93.3	85.5	79.0	73.3	68.4	64.2	60.4	57.0	54.0	51.3	48.9	46.7	44.6	42.8
84.0	100.0	100.0	100.0	100.0	95.5	86.8	79.5	73.4	68.2	63.6	59.7	56.1	53.0	50.2	47.7	45.5	43.4	41.5	39.8
87.0	100.0	100.0	100.0	98.9	89.0	80.9	74.2	68.4	63.6	59.3	55.6	52.3	49.4	46.8	44.5	42.4	40.4	38.7	37.1
90.0	100.0	100.0	100.0	92.4	83.2	75.6	69.3	64.0	59.4	55.4	52.0	48.9	46.2	43.8	41.6	39.6	37.8	36.2	34.6
93.0	100.0	100.0	97.3	86.5	77.9	70.8	64.9	59.9	55.6	51.9	48.7	45.8	43.3	41.0	38.9	37.1	35.4	33.9	32.4
96.0	100.0	100.0	91.4	81.2	73.1	66.4	60.9	56.2	52.2	48.7	45.7	43.0	40.6	38.5	36.5	34.8	33.2	31.8	30.5
108.0	96.2	82.5	72.2	64.2	57.7	52.5	48.1	44.4	41.2	38.5	36.1	34.0	32.1	30.4	28.9	27.5	26.2	25.1	24.1
114.0	86.4	74.0	64.8	57.6	51.8	47.1	43.2	39.9	37.0	34.6	32.4	30.5	28.8	27.3	25.9	24.7	23.6	22.5	21.6
120.0	78.0	66.8	58.5	52.0	46.8	42.5	39.0	36.0	33.4	31.2	29.2	27.5	26.0	24.6	23.4	22.3	21.3	20.3	-
126.0	70.7	60.6	53.0	47.1	42.4	38.6	35.4	32.6	30.3	28.3	26.5	25.0	23.6	22.3	21.2	20.2	-	-	-
132.0	64.4	55.2	48.3	43.0	38.7	35.1	32.2	29.7	27.6	25.8	24.2	22.7	21.5	20.3	-	-	-	-	-
138.0	58.9	50.5	44.2	39.3	35.4	32.2	29.5	27.2	25.3	23.6	22.1	20.8	-	-	-	-	-	-	-
144.0	52.4	44.9	39.3	35.0	31.5	28.6	26.2	24.2	22.5	21.0	-	-	-	-	-	-	-	-	-

- NOTE:
- 1. MULLION CHART APPLIES TO ASSEMBLIES WHEN MULLED IN TWO-WAY,'X' OR 'T' CONFIGURATIONS. TYPICAL ELEVATIONS SHOWN AT RIGHT.
 - 2. DESIGN PRESSURE VALUES ARE POSITIVE AND NEGATIVE IN PSF.
 - 3. MAXIMUM DEFLECTION HAS BEEN LIMITED TO L/175.
 - 4. DESIGN PRESSURE OF ASSEMBLY IS LIMITED TO THE LESSER DESIGN PRESSURE OF THE MULLION ASSEMBLY OR THE INDIVIDUAL UNIT OF INSTALLATION. ADJACENT WINDOWS SHALL BE UNDER SEPARATE FL APPROVAL.
 - 5. TRIBUTARY WIDTH = W = (A+B)/2
 - 6. REFER TO SHEETS 3-5 FOR INSTALLATION DETAILS.
 - 7. WHEN WINDOWS ARE STACKED VERTICALLY, THE MANUFACTURER/INSTALLER SHALL ENSURE THAT THE WEIGHT OF UNITS ABOVE WILL NOT CAUSE DEFLECTIONS OR STRESSES WHICH WILL AFFECT OPERATION OR STRUCTURAL ADEQUACY OF UNITS BELOW.



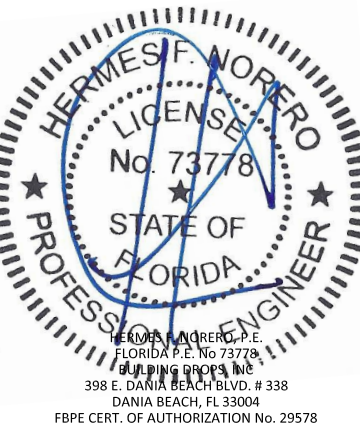
BROMBAL ITALY
VIA VALLA, 24
CASELLE DI ALTIVOLE (TV), ITALY
PH: ++39 0423 566189
FX: ++39 0423 919168

TITLE: BROMBAL ITALY
FARO & ALFA MULLION STIFFENERS
(WZ3) (IMPACT)
80X15 TWO WAY
DESIGN PRESSURE TABLE

PREPARED BY: BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
PH: (954)399-8478
FAX: (954)744-4738
WEB: www.buildingdrops.com

REMARKS	BY	DATE
FBC UPDATES	SM	08/21
FBC UPDATES	SM	09/22

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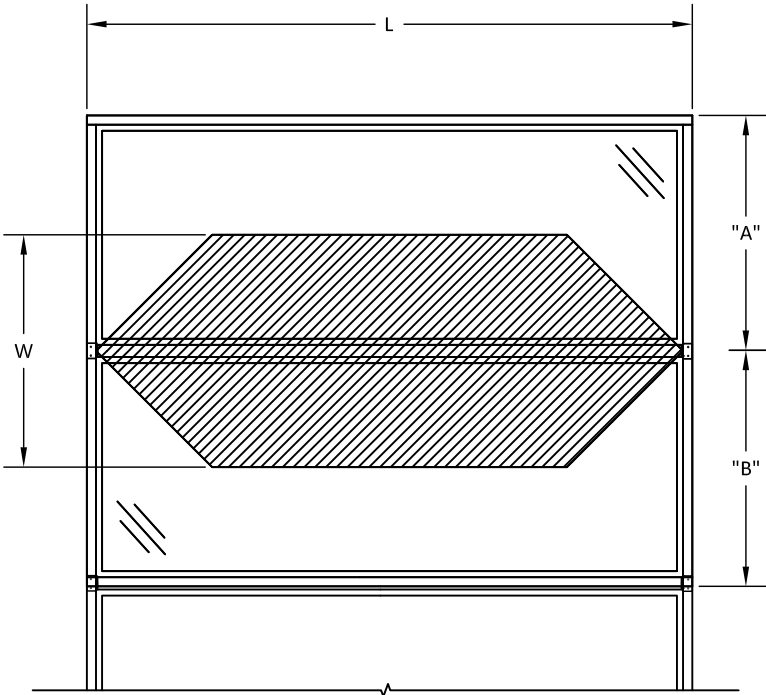
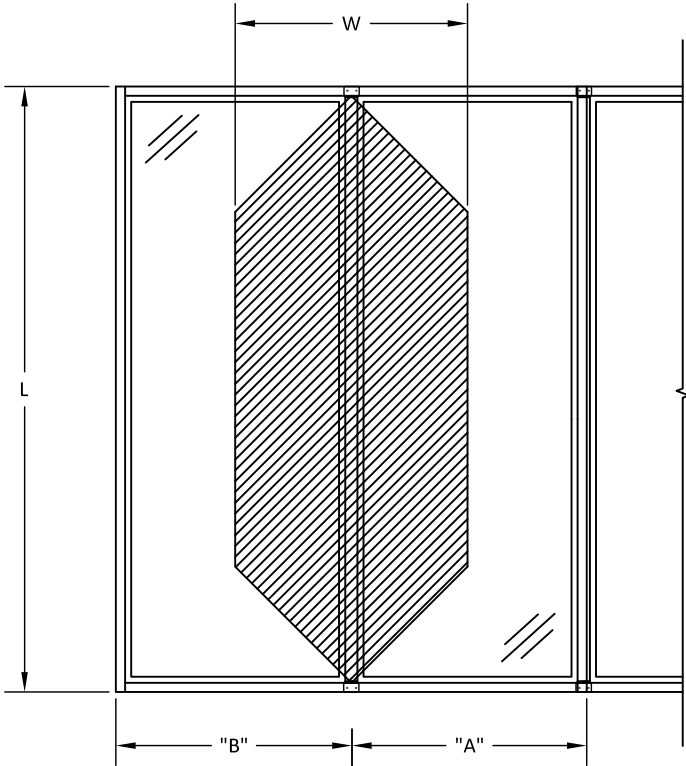
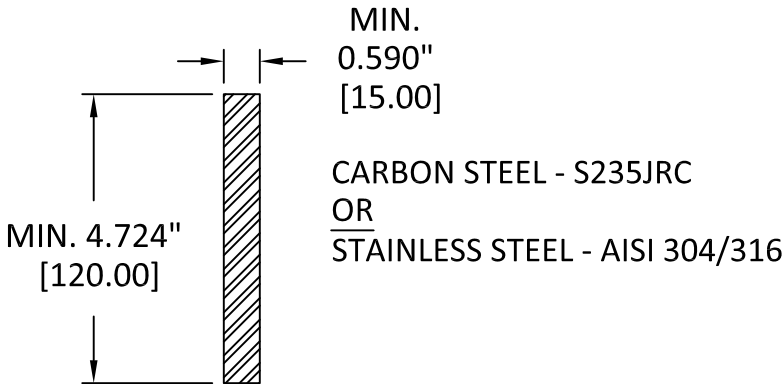
FL #:	FL21041
DATE:	10.09.15
DWG. BY:	LMS
CHK. BY:	HFN
SCALE:	NTS
DWG. #:	BRB007
SHEET:	OF 19

120x15 MM STIFFENER FOR FARO & ALFA SERIES PRODUCTS

DESIGN PRESSURE CAPACITIES FOR ONE-WAY CONFIGURATIONS

MAXIMUM DESIGN PRESSURE CAPACITY CHART (PSF)																				
L - Mullion Length (in)	W - Tributary Width (in)																			
	18.0	21.0	24.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0	69.0	72.0	
60.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
63.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
66.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
69.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
72.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
78.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
81.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
84.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
87.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
90.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.7	96.1	93.9	91.9	90.3	89.0
93.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.0	94.1	91.5	89.3	87.3	85.7	84.3
96.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.2	92.8	89.9	87.3	85.1	83.2	81.5	80.1	
108.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.7	89.9	85.8	82.2	78.7	75.3	72.4	69.7	67.4	65.3	63.5	
114.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	93.3	87.2	82.0	77.4	73.5	70.0	66.9	64.2	61.8	59.6	57.7	56.0	
120.0	100.0	100.0	100.0	100.0	100.0	98.2	90.4	83.9	78.4	73.6	69.5	65.9	62.7	59.9	57.4	55.2	53.2	51.4	49.8	
126.0	100.0	100.0	100.0	100.0	97.3	88.8	81.8	75.9	70.8	66.5	62.7	59.4	56.5	53.9	51.6	49.6	47.7	46.1	44.6	
132.0	100.0	100.0	100.0	98.0	88.5	80.8	74.3	68.9	64.3	60.3	56.9	53.8	51.2	48.8	46.7	44.8	43.1	41.6	40.2	
138.0	100.0	100.0	100.0	89.6	80.9	73.8	67.9	62.9	58.7	55.0	51.8	49.0	46.6	44.4	42.5	40.7	39.1	37.7	36.4	
144.0	100.0	100.0	92.2	82.2	74.2	67.6	62.2	57.6	53.7	50.4	47.4	44.9	42.6	40.6	38.8	37.2	35.7	34.4	33.2	

- NOTE:
- 1. MULLION CHART APPLIES TO ASSEMBLIES WHEN MULLED IN ONE-WAY, STACK OR RIBBON, CONFIGURATIONS. TYPICAL ELEVATIONS SHOWN AT RIGHT.
 - 2. DESIGN PRESSURE VALUES ARE POSITIVE AND NEGATIVE IN PSF.
 - 3. MAXIMUM DEFLECTION HAS BEEN LIMITED TO L/175.
 - 4. DESIGN PRESSURE OF ASSEMBLY IS LIMITED TO THE LESSER DESIGN PRESSURE OF THE MULLION ASSEMBLY OR THE INDIVIDUAL UNIT OF INSTALLATION. ADJACENT WINDOWS SHALL BE UNDER SEPARATE FL APPROVAL.
 - 5. TRIBUTARY WIDTH = W = (A+B)/2
 - 6. REFER TO SHEETS 3-5 FOR INSTALLATION DETAILS.
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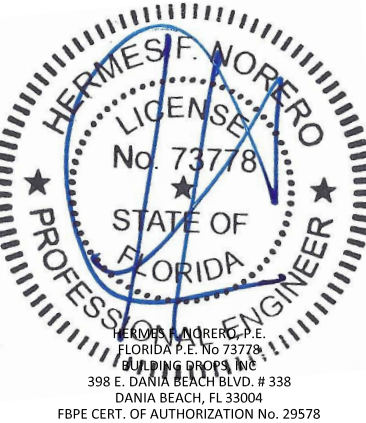
BROMBAL ITALY
VIA VALLA, 24
CASELLE DI ALTIVOLE (TV), ITALY
PH: ++39 0423 566189
FX: ++39 0423 919168

TITLE:
BROMBAL ITALY
FARO & ALFA MULLION STIFFENERS
(WZ3) (IMPACT)
120X15 ONE WAY
DESIGN PRESSURE TABLE

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
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REMARKS	BY	DATE
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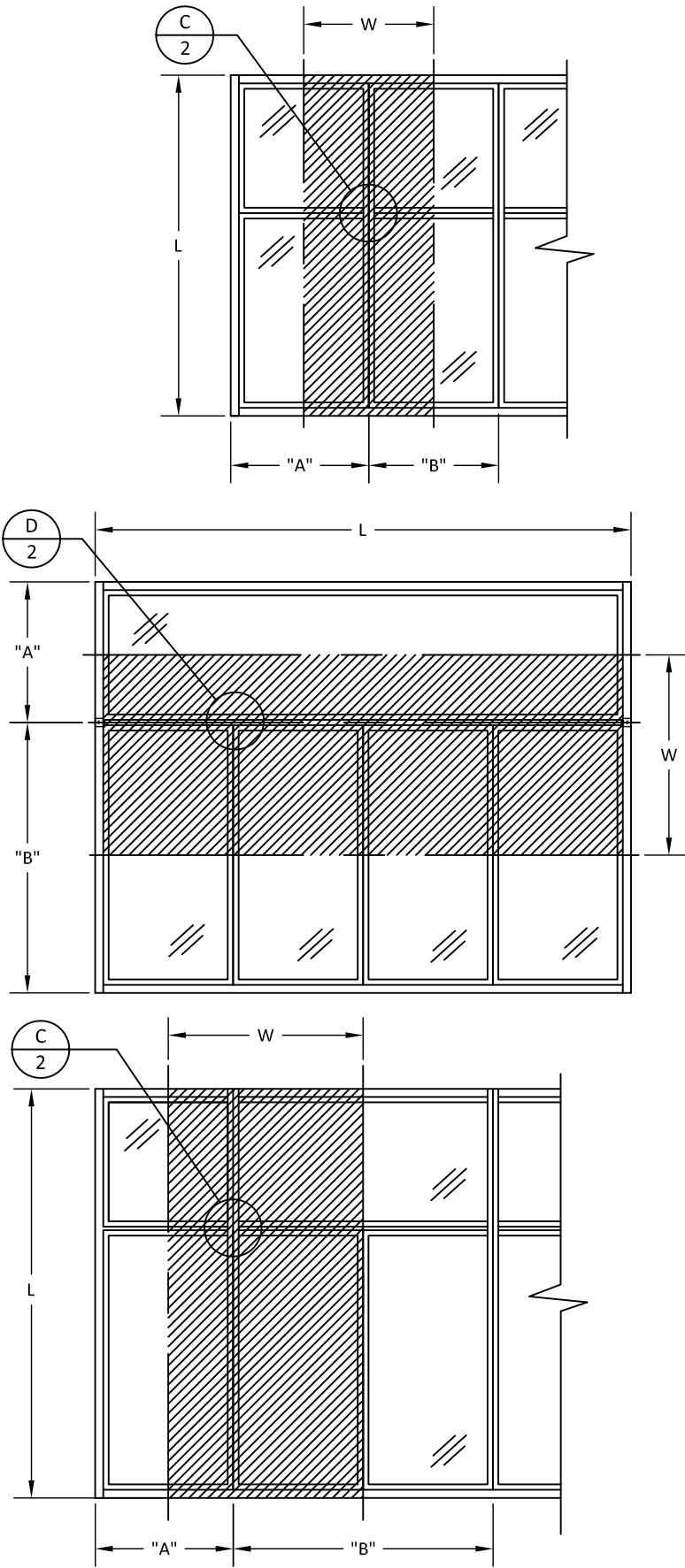
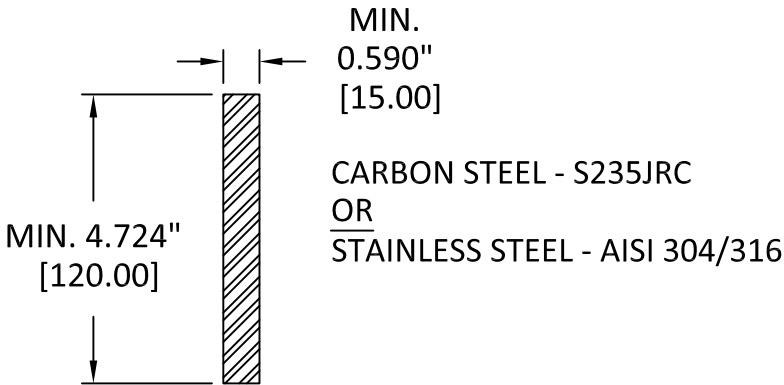
FL #:	FL21041
DATE:	10.09.15
DWG. BY:	LMS
CHK. BY:	HFN
SCALE:	NTS
DWG. #:	BRB007
SHEET:	OF 19

120x15 MM STIFFENER FOR FARO & ALFA SERIES PRODUCTS

DESIGN PRESSURE CAPACITIES FOR TWO-WAY CONFIGURATIONS

L - Mull Length (in)	MAXIMUM DESIGN PRESSURE CAPACITY CHART (PSF)																		
	W - Tributary Width (in)																		
	18.0	21.0	24.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0	69.0	72.0
60.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.1	91.5	87.3	83.5	80.1
63.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.3	91.5	87.1	83.2	79.6	76.3
66.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.0	91.9	87.3	83.2	79.4	76.0	72.8
69.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.3	92.8	87.9	83.5	79.6	76.0	72.6	69.6
72.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.2	89.0	84.3	80.1	76.3	72.8	69.6	66.7
75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.1	90.4	85.4	80.9	76.9	73.2	69.9	66.8	64.1
78.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.5	92.4	86.9	82.1	77.8	73.9	70.4	67.2	64.3	61.6
81.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.9	89.0	83.7	79.1	74.9	71.2	67.8	64.7	61.9	59.3
84.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.0	91.5	85.8	80.7	76.3	72.2	68.6	65.4	62.4	59.7	57.2
87.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.7	88.3	82.8	78.0	73.6	69.7	66.3	63.1	60.2	57.6	55.2
90.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.5	91.5	85.4	80.1	75.4	71.2	67.4	64.1	61.0	58.2	55.7	53.4
93.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	95.4	88.6	82.6	77.5	72.9	68.9	65.2	62.0	59.0	56.4	53.9	51.7
96.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	92.4	85.8	80.1	75.1	70.6	66.7	63.2	60.0	57.2	54.6	52.2	50.0
108.0	100.0	100.0	100.0	100.0	100.0	97.0	89.0	82.1	76.3	71.2	66.7	62.8	59.3	56.2	53.4	50.8	48.5	46.4	44.5
114.0	100.0	100.0	100.0	100.0	100.0	91.9	84.3	77.8	72.2	67.4	63.2	59.5	56.2	53.2	50.6	48.2	46.0	44.0	42.1
120.0	100.0	100.0	100.0	100.0	96.1	87.3	80.1	73.9	68.6	64.1	60.0	56.5	53.4	50.6	48.0	45.8	43.7	41.8	40.0
126.0	100.0	100.0	100.0	100.0	91.5	83.2	76.3	70.4	65.4	61.0	57.2	53.8	50.8	48.2	45.8	43.6	41.6	39.8	38.1
132.0	100.0	100.0	100.0	96.6	87.0	79.1	72.5	66.9	62.1	58.0	54.4	51.2	48.3	45.8	43.5	41.4	39.5	37.8	36.2
138.0	100.0	100.0	99.5	88.4	79.6	72.3	66.3	61.2	56.8	53.1	49.7	46.8	44.2	41.9	39.8	37.9	36.2	34.6	33.2
144.0	100.0	100.0	91.4	81.2	73.1	66.4	60.9	56.2	52.2	48.7	45.7	43.0	40.6	38.5	36.5	34.8	33.2	31.8	30.5

- NOTE:
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FARO & ALFA MULLION STIFFENERS
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DWG. #:	BRB007
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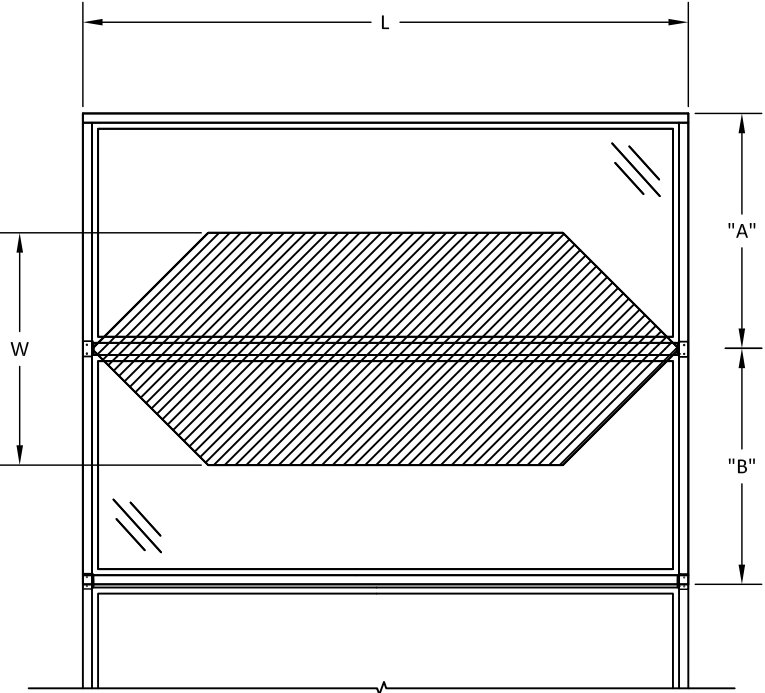
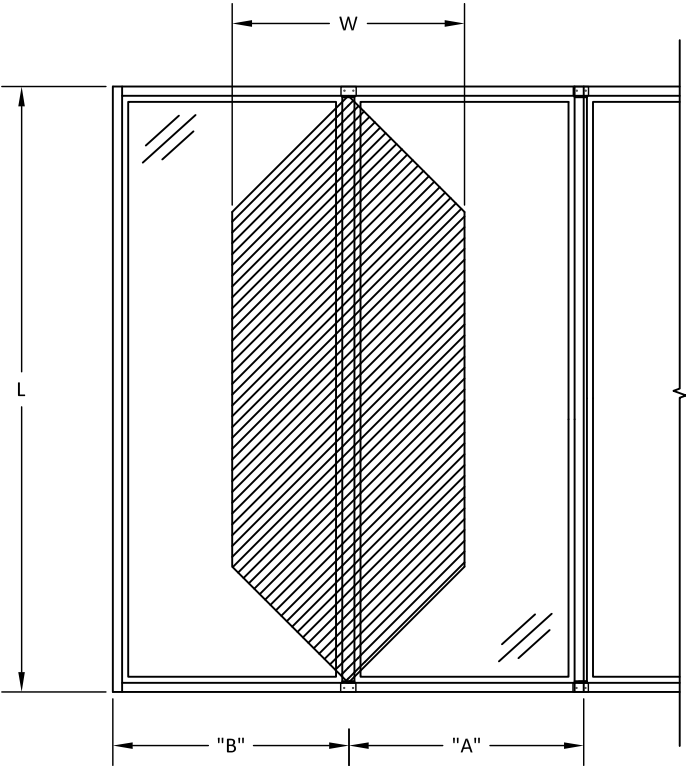
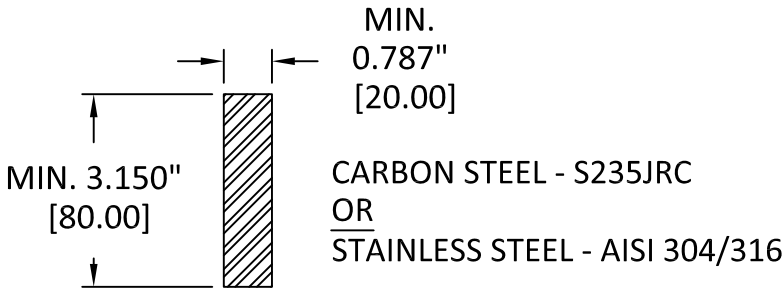
80x20 MM STIFFENER FOR FARO & ALFA SERIES PRODUCTS

DESIGN PRESSURE CAPACITIES FOR ONE-WAY CONFIGURATIONS

MAXIMUM DESIGN PRESSURE CAPACITY CHART (PSF)																			
L - Mull Length (in)	W - Tributary Width (in)																		
	18.0	21.0	24.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0	69.0	72.0
60.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
63.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
66.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
69.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
72.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.4	97.8	96.7	96.0
78.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.5	94.5	91.9	89.8	88.1	86.8	85.9
81.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.8	92.7	89.2	86.2	83.7	81.6	79.9	78.5	77.4
84.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.1	93.8	89.2	85.3	82.0	79.1	76.6	74.6	72.8	71.4	70.2
87.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.8	91.9	86.8	82.5	78.8	75.6	72.8	70.5	68.4	66.7	65.3	64.1
90.0	100.0	100.0	100.0	100.0	100.0	100.0	97.6	91.0	85.4	80.6	76.5	73.0	70.0	67.3	65.0	63.1	61.4	59.9	58.7
93.0	100.0	100.0	100.0	100.0	100.0	98.5	91.1	84.8	79.6	75.1	71.2	67.8	65.0	62.4	60.2	58.3	56.7	55.3	54.0
96.0	100.0	100.0	100.0	100.0	100.0	92.2	85.2	79.3	74.3	70.1	66.4	63.2	60.5	58.1	56.0	54.1	52.5	51.2	49.9
108.0	100.0	100.0	97.9	87.4	79.0	72.3	66.6	61.9	57.9	54.5	51.5	48.9	46.6	44.6	42.9	41.3	39.9	38.7	37.6
114.0	100.0	99.9	87.7	78.3	70.8	64.6	59.6	55.3	51.7	48.6	45.9	43.5	41.5	39.7	38.0	36.6	35.3	34.2	33.2
120.0	100.0	90.0	79.0	70.5	63.7	58.2	53.6	49.7	46.4	43.6	41.2	39.0	37.1	35.5	34.0	32.7	31.5	30.5	29.5
126.0	95.0	81.6	71.6	63.9	57.7	52.6	48.5	45.0	42.0	39.4	37.1	35.2	33.5	31.9	30.6	29.4	28.3	27.3	26.4
132.0	86.5	74.3	65.2	58.1	52.5	47.9	44.1	40.8	38.1	35.7	33.7	31.9	30.3	28.9	27.7	26.6	25.5	24.6	23.8
138.0	79.1	67.9	59.6	53.1	47.9	43.7	40.2	37.3	34.8	32.6	30.7	29.1	27.6	26.3	25.2	24.1	23.2	22.4	21.6
144.0	70.3	60.4	53.0	47.2	42.7	38.9	35.8	33.2	31.0	29.1	27.4	26.0	24.7	23.5	22.5	21.6	20.8	20.0	19.4

NOTE:

1. MULLION CHART APPLIES TO ASSEMBLIES WHEN MULLED IN ONE-WAY, STACK OR RIBBON, CONFIGURATIONS. TYPICAL ELEVATIONS SHOWN AT RIGHT.
2. DESIGN PRESSURE VALUES ARE POSITIVE AND NEGATIVE IN PSF.
3. MAXIMUM DEFLECTION HAS BEEN LIMITED TO L/175.
4. DESIGN PRESSURE OF ASSEMBLY IS LIMITED TO THE LESSER DESIGN PRESSURE OF THE MULLION ASSEMBLY OR THE INDIVIDUAL UNIT OF INSTALLATION. ADJACENT WINDOWS SHALL BE UNDER SEPARATE FL APPROVAL.
5. TRIBUTARY WIDTH = W = (A+B)/2
6. REFER TO SHEETS 3-5 FOR INSTALLATION DETAILS.
7. WHEN WINDOWS ARE STACKED VERTICALLY, THE MANUFACTURER/INSTALLER SHALL ENSURE THAT THE WEIGHT OF UNITS ABOVE WILL NOT CAUSE DEFLECTIONS OR STRESSES WHICH WILL AFFECT OPERATION OR STRUCTURAL ADEQUACY OF UNITS BELOW.



BROMBAL ITALY
VIA VALLA, 24
CASELLE DI ALTIVOLE (TV), ITALY
PH: ++39 0423 566189
FX: ++39 0423 919168

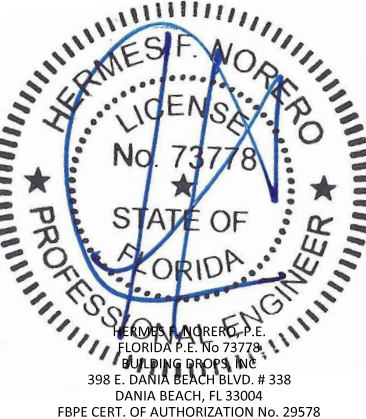
TITLE: BROMBAL ITALY
FARO & ALFA MULLION STIFFENERS
(WZ3) (IMPACT)
80X20 ONE WAY
DESIGN PRESSURE TABLE

PREPARED BY: BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
PH: (954)399-8478
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REMARKS	BY	DATE
FBC UPDATES	SM	08/21
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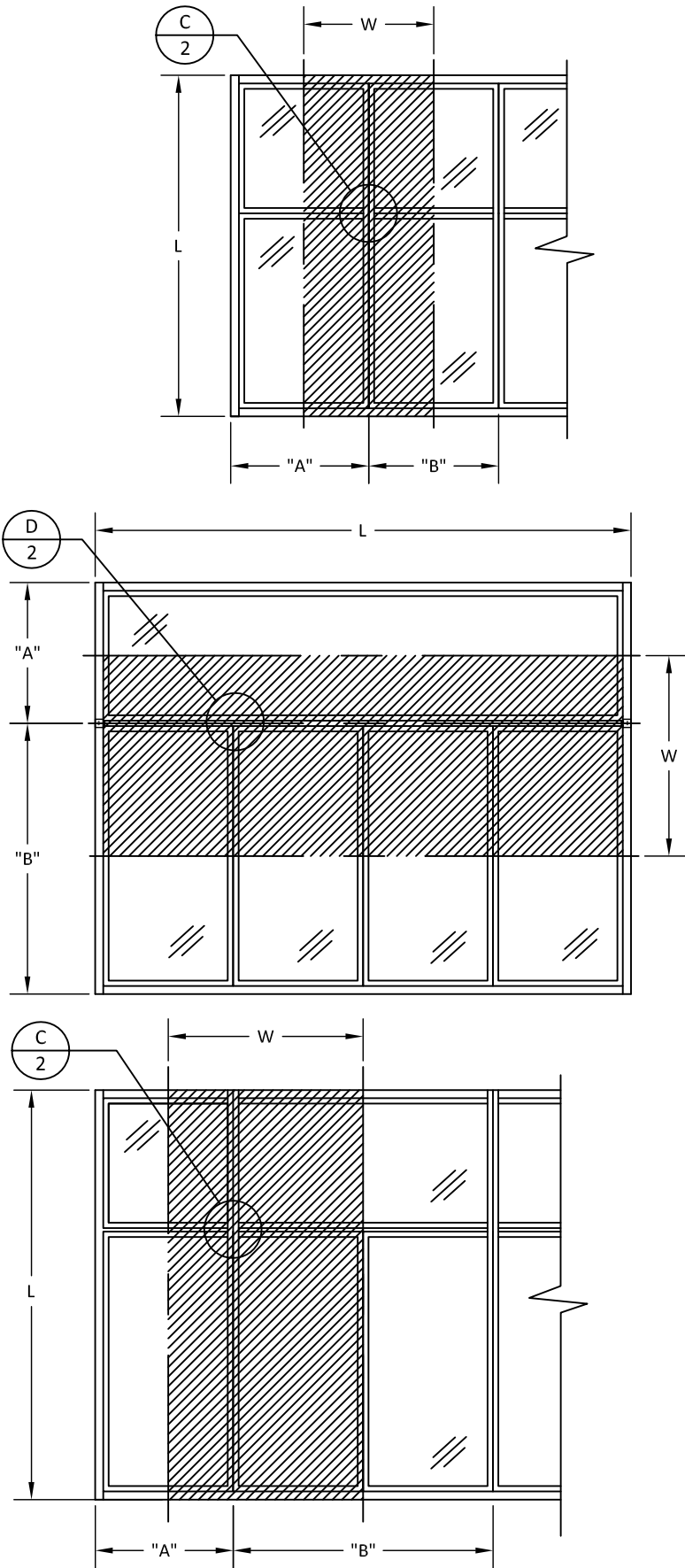
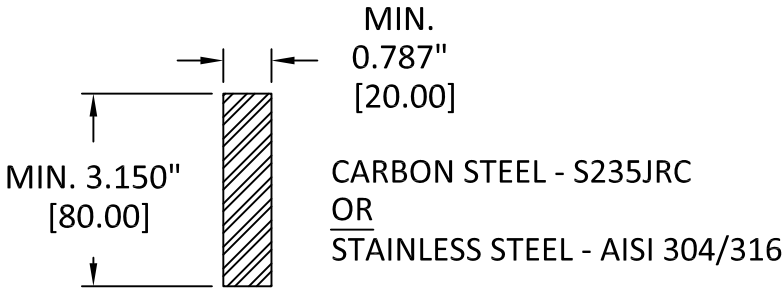
FL #:	FL21041
DATE:	10.09.15
DWG. BY:	LMS
CHK. BY:	HFN
SCALE:	NTS
DWG. #:	BRB007
SHEET:	OF 19

80x20 MM STIFFENER FOR FARO & ALFA SERIES PRODUCTS

DESIGN PRESSURE CAPACITIES FOR TWO-WAY CONFIGURATIONS

L - Mull Length (in)	MAXIMUM DESIGN PRESSURE CAPACITY CHART (PSF)																		
	W - Tributary Width (in)																		
	18.0	21.0	24.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0	69.0	72.0
60.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.1	91.5	87.3	83.5	80.1
63.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.0	91.9	87.1	83.2	79.6	76.3
66.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.3	92.8	87.9	83.5	79.6	76.0	72.8
69.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.3	92.8	87.9	83.5	79.6	76.0	72.6	69.6
72.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.2	89.0	84.3	80.1	76.3	72.8	69.6	66.7
75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.1	90.4	85.4	80.9	76.9	73.2	69.9	66.8	64.1
78.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.4	92.3	86.8	82.0	77.7	73.8	70.3	67.1	64.2	61.5
81.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.8	91.2	85.5	80.5	76.0	72.0	68.4	65.2	62.2	59.5	57.0
84.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.9	90.9	84.8	79.5	74.9	70.7	67.0	63.6	60.6	57.9	55.3	53.0
87.0	100.0	100.0	100.0	100.0	100.0	100.0	98.9	91.3	84.7	79.1	74.2	69.8	65.9	62.4	59.3	56.5	53.9	51.6	49.4
90.0	100.0	100.0	100.0	100.0	100.0	100.0	92.4	85.3	79.2	73.9	69.3	65.2	61.6	58.4	55.4	52.8	50.4	48.2	46.2
93.0	100.0	100.0	100.0	100.0	100.0	94.4	86.5	79.9	74.2	69.2	64.9	61.1	57.7	54.6	51.9	49.4	47.2	45.1	43.3
96.0	100.0	100.0	100.0	100.0	97.4	88.6	81.2	75.0	69.6	65.0	60.9	57.3	54.1	51.3	48.7	46.4	44.3	42.4	40.6
108.0	100.0	100.0	96.2	85.5	77.0	70.0	64.2	59.2	55.0	51.3	48.1	45.3	42.8	40.5	38.5	36.7	35.0	33.5	32.1
114.0	100.0	98.7	86.4	76.8	69.1	62.8	57.6	53.2	49.4	46.1	43.2	40.6	38.4	36.4	34.6	32.9	31.4	30.0	28.8
120.0	100.0	89.1	78.0	69.3	62.4	56.7	52.0	48.0	44.5	41.6	39.0	36.7	34.6	32.8	31.2	29.7	28.3	27.1	26.0
126.0	94.3	80.8	70.7	62.9	56.6	51.4	47.1	43.5	40.4	37.7	35.4	33.3	31.4	29.8	28.3	26.9	25.7	24.6	23.6
132.0	85.9	73.6	64.4	57.3	51.5	46.9	43.0	39.6	36.8	34.4	32.2	30.3	28.6	27.1	25.8	24.5	23.4	22.4	21.5
138.0	78.6	67.4	58.9	52.4	47.2	42.9	39.3	36.3	33.7	31.4	29.5	27.7	26.2	24.8	23.6	22.5	21.4	20.5	-
144.0	69.9	59.9	52.4	46.6	41.9	38.1	35.0	32.3	30.0	28.0	26.2	24.7	23.3	22.1	21.0	-	-	-	-

- NOTE:
- 1. MULLION CHART APPLIES TO ASSEMBLIES WHEN MULLED IN TWO-WAY,'X' OR 'T' CONFIGURATIONS. TYPICAL ELEVATIONS SHOWN AT RIGHT.
 - 2. DESIGN PRESSURE VALUES ARE POSITIVE AND NEGATIVE IN PSF.
 - 3. MAXIMUM DEFLECTION HAS BEEN LIMITED TO L/175.
 - 4. DESIGN PRESSURE OF ASSEMBLY IS LIMITED TO THE LESSER DESIGN PRESSURE OF THE MULLION ASSEMBLY OR THE INDIVIDUAL UNIT OF INSTALLATION. ADJACENT WINDOWS SHALL BE UNDER SEPARATE FL APPROVAL.
 - 5. TRIBUTARY WIDTH = W = (A+B)/2
 - 6. REFER TO SHEETS 3-5 FOR INSTALLATION DETAILS.
 - 7. WHEN WINDOWS ARE STACKED VERTICALLY, THE MANUFACTURER/INSTALLER SHALL ENSURE THAT THE WEIGHT OF UNITS ABOVE WILL NOT CAUSE DEFLECTIONS OR STRESSES WHICH WILL AFFECT OPERATION OR STRUCTURAL ADEQUACY OF UNITS BELOW.



BROMBAL
SERRAMENTI

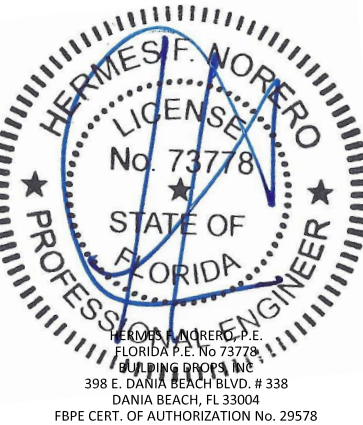
BROMBAL ITALY
VIA VALLA, 24
CASELLE DI ALTIVOLE (TV), ITALY
PH: ++39 0423 566189
FX: ++39 0423 919168

TITLE: BROMBAL ITALY
FARO & ALFA MULLION STIFFENERS
(WZ3) (IMPACT)
80X20 TWO WAY
DESIGN PRESSURE TABLE

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REMARKS	BY	DATE
FBC UPDATES	SM	08/21
FBC UPDATES	SM	09/22

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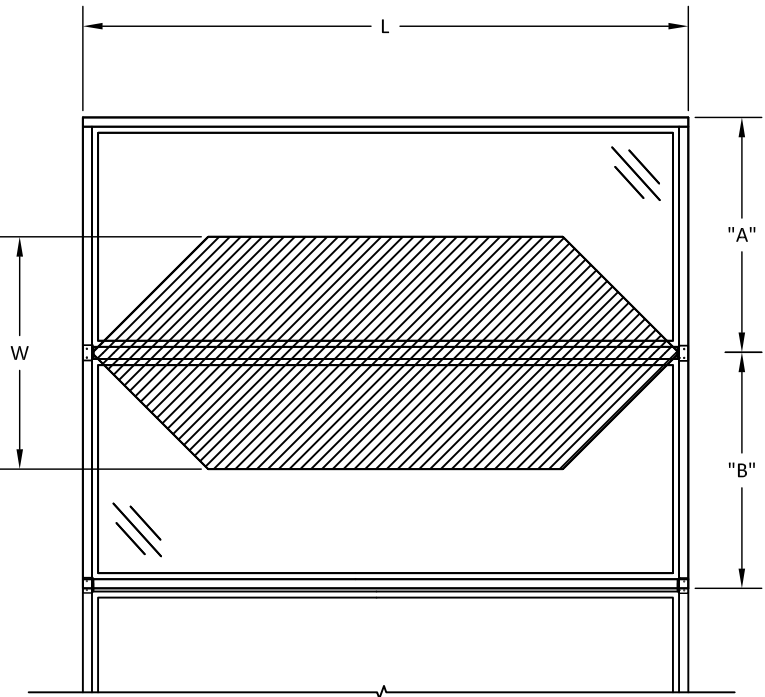
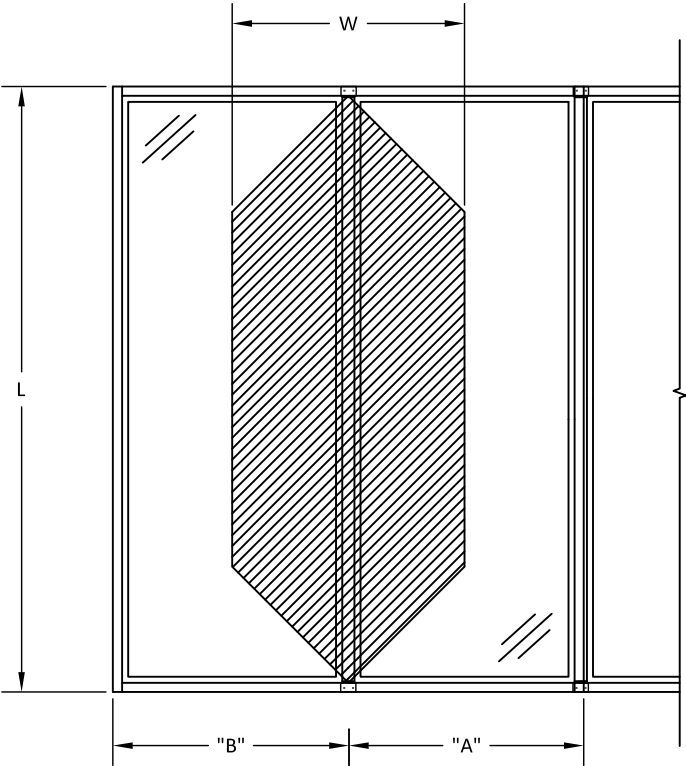
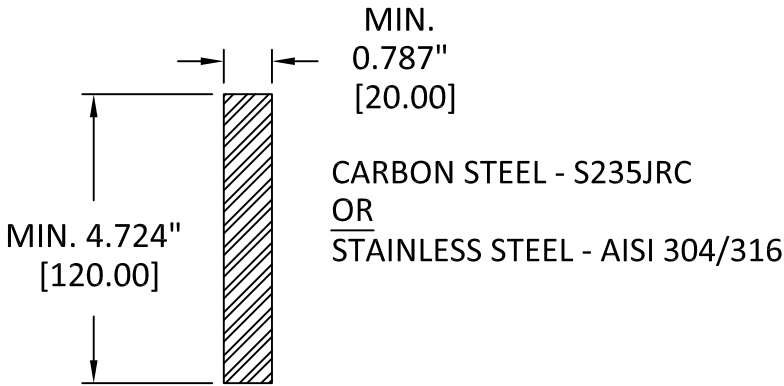
FL #:	FL21041
DATE:	10.09.15
DWG. BY:	LMS
CHK. BY:	HFN
SCALE:	NTS
DWG. #:	BRB007
SHEET:	OF 19

120x20 MM STIFFENER FOR FARO & ALFA SERIES PRODUCTS

DESIGN PRESSURE CAPACITIES FOR ONE-WAY CONFIGURATIONS

MAXIMUM DESIGN PRESSURE CAPACITY CHART (PSF)																			
L - Mullion Length (in)	W - Tributary Width (in)																		
	18.0	21.0	24.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0	69.0	72.0
60.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
63.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
66.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
69.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
72.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
78.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
81.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
84.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
87.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.9	97.0	95.5	94.2
90.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.7	96.1	93.9	91.9	90.3	89.0
93.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.0	94.1	91.5	89.3	87.3	85.7	84.3
96.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.2	92.8	89.9	87.3	85.1	83.2	81.5
108.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.7	89.9	85.8	82.2	79.1	76.3	73.9	71.8	69.9	68.2	66.7
114.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	93.9	88.6	84.0	80.1	76.6	73.6	71.0	68.6	66.5	64.7	63.1	61.6
120.0	100.0	100.0	100.0	100.0	100.0	100.0	94.2	88.2	83.2	78.8	75.1	71.8	68.9	66.3	64.1	62.0	60.2	58.6	57.2
126.0	100.0	100.0	100.0	100.0	100.0	95.7	89.0	83.3	78.4	74.3	70.6	67.5	64.7	62.2	60.0	58.1	56.4	54.8	53.4
132.0	100.0	100.0	100.0	100.0	98.5	90.7	84.3	78.8	74.2	70.2	66.7	63.7	61.0	58.6	56.5	54.6	52.9	51.4	50.0
138.0	100.0	100.0	100.0	100.0	93.7	86.3	80.1	74.8	70.4	66.5	63.2	60.3	57.7	55.4	53.4	51.6	49.9	48.4	47.1
144.0	100.0	100.0	100.0	98.2	89.4	82.2	76.3	71.2	67.0	63.3	60.0	57.2	54.7	52.5	50.6	48.8	47.2	45.8	44.3

- NOTE:
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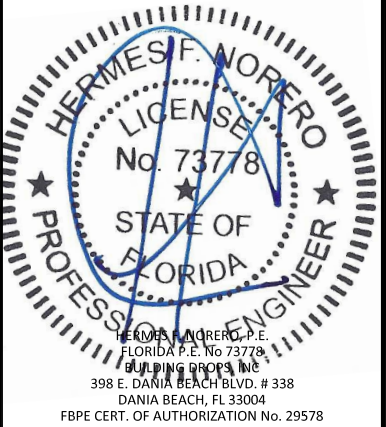
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PH: ++39 0423 566189
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TITLE:
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FARO & ALFA MULLION STIFFENERS
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120X20 ONE WAY
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OF 19

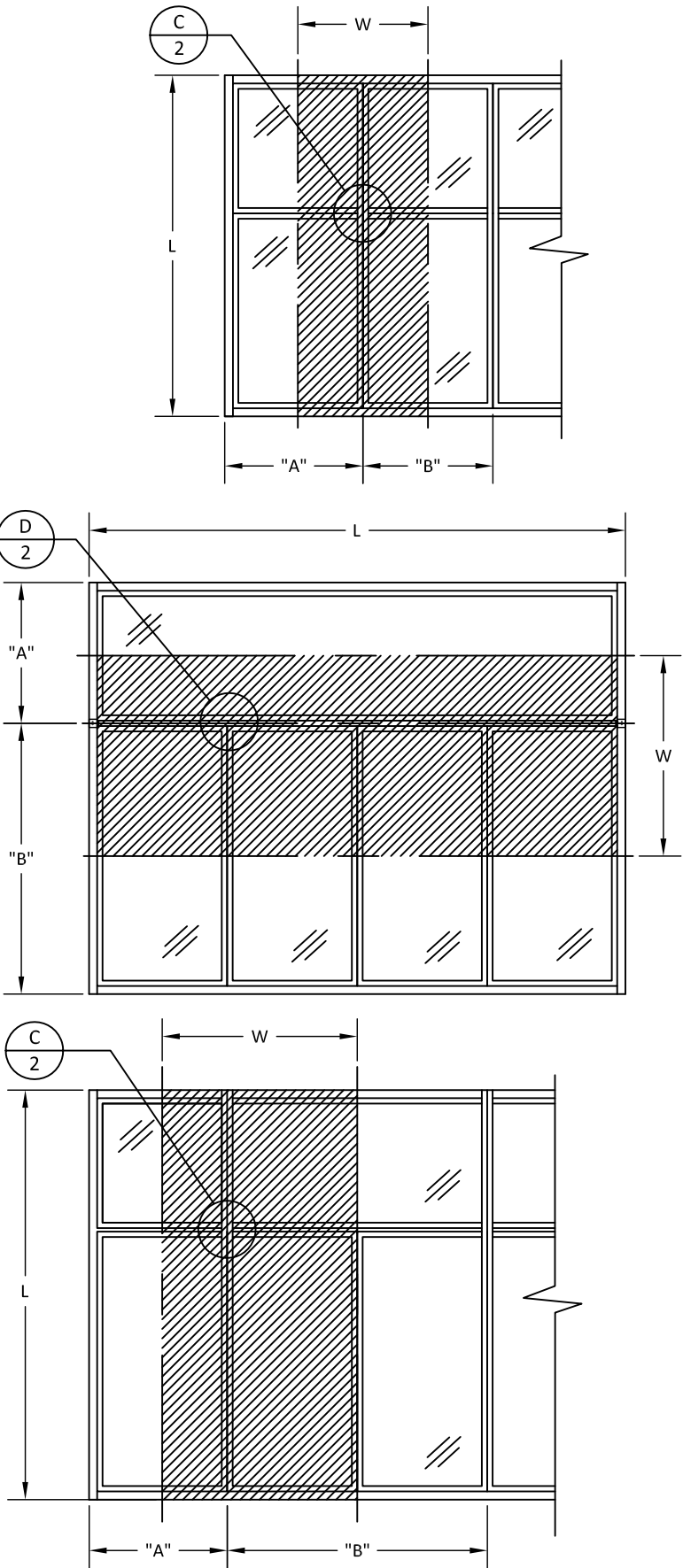
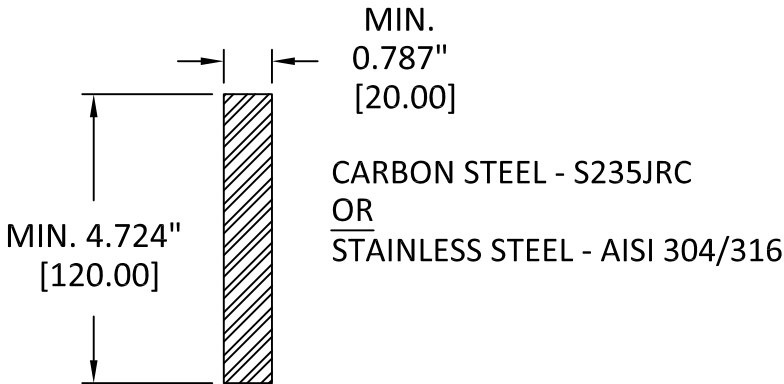
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MAXIMUM DESIGN PRESSURE CAPACITY CHART (PSF)																			
L - Mull Length (in)	W - Tributary Width (in)																		
	18.0	21.0	24.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0	69.0	72.0
60.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.1	91.5	87.3	83.5	80.1
63.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.3	91.5	87.1	83.2	79.6
66.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.0	91.9	87.3	83.2	79.4	76.0
69.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.3	92.8	87.9	83.5	79.6	76.0	72.6	69.6
72.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.2	89.0	84.3	80.1	76.3	72.8	69.6	66.7
75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.1	90.4	85.4	80.9	76.9	73.2	69.9	66.8	64.1
78.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.5	92.4	86.9	82.1	77.8	73.9	70.4	67.2	64.3	61.6
81.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.9	89.0	83.7	79.1	74.9	71.2	67.8	64.7	61.9	59.3
84.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.0	91.5	85.8	80.7	76.3	72.2	68.6	65.4	62.4	59.7	57.2
87.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.7	88.3	82.8	78.0	73.6	69.7	66.3	63.1	60.2	57.6	55.2
90.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.5	91.5	85.4	80.1	75.4	71.2	67.4	64.1	61.0	58.2	55.7	53.4
93.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	95.4	88.6	82.6	77.5	72.9	68.9	65.2	62.0	59.0	56.4	53.9	51.7
96.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	92.4	85.8	80.1	75.1	70.6	66.7	63.2	60.0	57.2	54.6	52.2	50.0
108.0	100.0	100.0	100.0	100.0	100.0	97.0	89.0	82.1	76.3	71.2	66.7	62.8	59.3	56.2	53.4	50.8	48.5	46.4	44.5
114.0	100.0	100.0	100.0	100.0	100.0	91.9	84.3	77.8	72.2	67.4	63.2	59.5	56.2	53.2	50.6	48.2	46.0	44.0	42.1
120.0	100.0	100.0	100.0	100.0	96.1	87.3	80.1	73.9	68.6	64.1	60.0	56.5	53.4	50.6	48.0	45.8	43.7	41.8	40.0
126.0	100.0	100.0	100.0	100.0	91.5	83.2	76.3	70.4	65.4	61.0	57.2	53.8	50.8	48.2	45.8	43.6	41.6	39.8	38.1
132.0	100.0	100.0	100.0	97.0	87.3	79.4	72.8	67.2	62.4	58.2	54.6	51.4	48.5	46.0	43.7	41.6	39.7	38.0	36.4
138.0	100.0	100.0	100.0	92.8	83.5	76.0	69.6	64.3	59.7	55.7	52.2	49.1	46.4	44.0	41.8	39.8	38.0	36.3	34.8
144.0	100.0	100.0	100.0	89.0	80.1	72.8	66.7	61.6	57.2	53.4	50.0	47.1	44.5	42.1	40.0	38.1	36.4	34.8	33.4

NOTE:

1. MULLION CHART APPLIES TO ASSEMBLIES WHEN MULLED IN TWO-WAY,'X' OR 'T' CONFIGURATIONS. TYPICAL ELEVATIONS SHOWN AT RIGHT.
2. DESIGN PRESSURE VALUES ARE POSITIVE AND NEGATIVE IN PSF.
3. MAXIMUM DEFLECTION HAS BEEN LIMITED TO L/175.
4. DESIGN PRESSURE OF ASSEMBLY IS LIMITED TO THE LESSER DESIGN PRESSURE OF THE MULLION ASSEMBLY OR THE INDIVIDUAL UNIT OF INSTALLATION. ADJACENT WINDOWS SHALL BE UNDER SEPARATE FL APPROVAL.
5. TRIBUTARY WIDTH = W = (A+B)/2
6. REFER TO SHEETS 3-5 FOR INSTALLATION DETAILS.
7. WHEN WINDOWS ARE STACKED VERTICALLY, THE MANUFACTURER/INSTALLER SHALL ENSURE THAT THE WEIGHT OF UNITS ABOVE WILL NOT CAUSE DEFLECTIONS OR STRESSES WHICH WILL AFFECT OPERATION OR STRUCTURAL ADEQUACY OF UNITS BELOW.



BROMBAL ITALY
VIA VALLA, 24
CASELLE DI ALTIVOLE (TV), ITALY
PH: ++39 0423 566189
FX: ++39 0423 919168

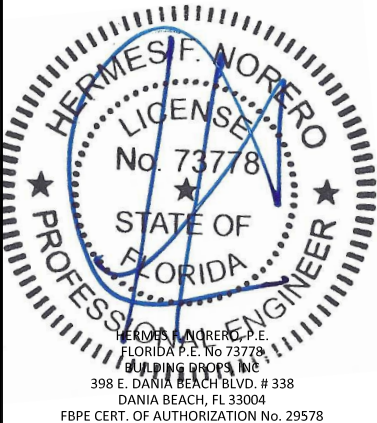
TITLE: BROMBAL ITALY
FARO & ALFA MULLION STIFFENERS
(WZ3) (IMPACT)
120X20 TWO WAY
DESIGN PRESSURE TABLE

PREPARED BY: BUILDING DROPS, INC.
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REMARKS	BY	DATE
FBC UPDATES	SM	08/21
FBC UPDATES	SM	09/22

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.



FL #:	FL21041
DATE:	10.09.15
DWG. BY:	LMS
CHK. BY:	HFN
SCALE:	NTS
DWG. #:	BRB007
SHEET:	OF 19