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Negative Pressure Fire Door Capabilities

Fire Rating	VTI Door Types		Maximum Size Single		Maximum Size Std. Pair		Maximum Size DE Pair		Maximum Transom Size
	5 Ply Wood	HPDL	Door Only	Door w/Transom	With CVRED	Without CVRED	With CVRED	Without CVRED	
90 Minute Mineral Core	5511	1111	4-0 x 10-0	4-0 x 10-0	8-0 x 9-0	8-0 x 9-0	8-0 x 8-0	8-0 x 8-0	4-0 x 3-4
60 Minute Mineral Core	5511	1111	4-0 x 10-0	4-0 x 10-0	8-0 x 9-0	8-0 x 9-0	8-0 x 8-0	8-0 x 8-0	4-0 x 3-4
60 Minute Dutch	5511	1111	4-0 x 8-0	N/A	N/A	N/A	N/A	N/A	N/A
45 Minute Mineral Core	5545	1345	4-0 x 10-0	4-0 x 10-0	8-0 x 9-0	8-0 x 9-0	8-0 x 8-0	8-0 x 8-0	4-0 x 3-4
45 Minute Dutch	5511	1111	4-0 x 8-0	N/A	N/A	N/A	N/A	N/A	N/A
20 Minute Particle Board	5502	101, 303, or 404	4-0 x 10-0	4-0 x 10-0	8-0 x 9-0	8-0 x 10-0	8-0 x 9-0	8-0 x 10-0	8-0 x 3-4
20 Minute SCL (Timberstrand)	5508	808	4-0 x 10-0	4-0 x 10-0	8-0 x 9-0	8-0 x 10-0	8-0 x 9-0	8-0 x 10-0	8-0 x 3-4
20 Minute Stave	5507	707	4-0 x 10-0	4-0 x 10-0	8-0 x 9-0	8-0 x 10-0	8-0 x 9-0	8-0 x 10-0	8-0 x 3-4
20 Minute Dutch	Same as 20 Min.		4-0 x 8-0	N/A	N/A	N/A	N/A	N/A	N/A
20 Minute STC 39	5540	1240	4-0 x 8-0	N/A	N/A	N/A	N/A	N/A	N/A
20 Minute STC 45	5550	1250	4-0 x 8-0	N/A	N/A	N/A	N/A	N/A	N/A
20 Minute Lead Lined	5520	2020	4-0 x 10-0	N/A	N/A	8-0 x 10-0	N/A	N/A	N/A

Max. Lite (1/4" wire glass)*			Max. Louver (fusible link)			Hinges & Pivots	Locks	Fire Exit Devices
Width	Length	Square Inches	Width	Length	Square Inches			
10"	33"	100	24"	24"	576	Per NFPA 80 Table 2A	Cylinder, Mort. Unit & Cyl. Deadbolt	Rim, Surface, Mortised & CVRED
10"	33"	100	24"	24"	576	Same	Same	Same
N/A			N/A			Same	Same	N/A
30"	54"	1296	24"	24"	576	Same	Same	Same
N/A			N/A			Same	Same	N/A
30"	54"	1296	N/A			Same	Same	Same
30"	54"	1296	N/A			Same	Same	Same
30"	54"	1296	N/A			Same	Same	Same
N/A			N/A			Same	Same	N/A
Nonrated STC doors available with 6" x 36" (216 sq. in.) max. lite kit. 20-Min. STC doors must use std. 115 vision panel. STC rating void.			N/A			Same	Same	N/A
			N/A			Same	Same	N/A
16"	16"	256	N/A			Same	Same	Rim, Mortised & Surface Vert. Rod

* Larger lite sizes available with special glass & stops

Closers	Viewer 2 per door max.	Flush Bolts	Auto Door Bottoms	Kick Plates	Fire Rating
Surface	1" Dia.	Listed Auto or Manual, 24" max.	Surface Semi-mortised & Mortised	PVC or Metal 48"	90 Minute Mineral Core
Surface	1" Dia.	Listed Auto or Manual, 24" max.	Same	Same	60 Minute Mineral Core
Surface	1" Dia.	N/A	Same	Same	60 Minute Dutch
Surface	1" Dia.	Listed Auto or Manual, 24" max.	Same	Same	45 Minute Mineral Core
Surface	1" Dia.	N/A	Same	Same	45 Minute Dutch
Surface or Mortised	1" Dia.	Listed Auto or Manual, 24" max.	Same	Same	20 Minute Particle Board
Surface or Mortised	1" Dia.	Listed Auto or Manual, 24" max.	Same	Same	20 Minute SCL (Timberstrand)
Surface or Mortised	1" Dia.	Listed Auto or Manual, 24" max.	Same	Same	20 Minute Stave
Surface or Mortised	1" Dia.	N/A	Same	Same	20 Minute Dutch
Surface	1" Dia.	N/A	Same	Same	20 Minute STC 39
Surface	1" Dia.	N/A	Same	Same	20 Minute STC 45
Surface	1" Dia.	Listed Auto or Manual, 12" max.	Same	Same	20 Minute Lead Lined

MISCELLANEOUS NOTES:

FIRE RATED TRANSOMS

1. Frame transom bar or astragal required if the meeting rails are square.
2. No transom bar or astragal required if meeting rails have 1/2" rabbet with G.P. FireStop material (2" meeting rails @ 20 minute and 5" @ 45 through 90 minute).
3. Springbolts for transoms & side panels shall be placed 6" (152 mm) from each corner with the minimum number centered on each side as follows:
 - Panels up to 18" (457 mm) in height - 2 spring bolts per side
 - Panels up to 36" (914 mm) in height - 3 spring bolts per side
 - Panels up to 48" (1219 mm) in height - 4 spring bolts per side
 - Side Panels over 48" (1219 mm)

MACHINING OF DUTCH DOORS

All preparations and requirements of the current edition of NFPA 80 shall be followed.

Hinges: Per NFPA 80, Table 2-8.1.1.

Cylindrical Locksets: One (maximum 2-1/8"/54 mm bore) per leaf to provide latching between top and bottom leaves, and between either top or bottom leaf into frame.

(Neutral Pressure) Maximum Opening Sizes For Fire Rated Pairs With Metal Edges

Hardware Prep	Std. Pair (Single Egress)				Double Egress Pair			
	20 Minute	45 Minute	60 Minute	90 Minute	20 Minute	45 Minute	60 Minute	90 Minute
3 Point Latching	8-0 X 8-0	8-0 X 8-0	8-0 X 8-0	8-0 X 8-0	8-0 X 8-0	6-0 X 7-0	6-0 X 7-0	6-0 X 7-0
Surface Vertical Rod Exit Device	8-0 X 10-0	8-0 X 9-0	8-0 X 9-0	8-0 X 9-0	8-0 X 10-0	8-0 X 8-0	8-0 X 8-0	8-0 X 8-0
Rim X Rim	N/A	8-0 X 8-0	8-0 X 8-0	8-0 X 8-0	N/A	N/A	N/A	N/A
Surface LBR	8-0 X 9-0	8-0 X 8-0	8-0 X 8-0	8-0 X 8-0	8-0 X 9-0	N/A	N/A	N/A
Concealed Vertical Rod	8-0 X 9-0	8-0 X 9-0	8-0 X 9-0	8-0 X 9-0	8-0 X 9-0	8-0 X 8-0	8-0 X 8-0	8-0 X 8-0
Concealed LBR	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

- Dimensions given are maximum opening sizes. Specific hardware requirements may affect opening size.
- Specific hardware may affect the amount of blocking needed.
- Specific hardware may require the use of intumescent.
- LBR devices require the use of thermal pins (door to floor/sill).
- All metal astragals and edge sets may be veneer wrapped. Please specify.

(Neutral Pressure) Maximum Opening Sizes For Fire Rated Pairs Without Metal Edges

Hardware Prep	Std. Pair (Single Egress)				Double Egress Pair			
	20 Minute	45 Minute	60 Minute	90 Minute	20 Minute	45 Minute	60 Minute	90 Minute
3 Point Latching	8-0 X 10-0	8-0 X 8-0	8-0 X 8-0	8-0 X 8-0	8-0 X 10-0	N/A	N/A	N/A
Surface Vertical Rod Exit Device	8-0 X 10-0	8-0 X 8-0	8-0 X 8-0	8-0 X 8-0	8-0 X 10-0	8-0 X 8-0	8-0 X 8-0	8-0 X 8-0
Rim X Rim	N/A	8-0 X 8-0	8-0 X 8-0	8-0 X 8-0	N/A	N/A	N/A	N/A
Surface LBR	8-0 X 9-0	8-0 X 8-0* Thermal Pin: door to door	8-0 X 8-0* Thermal Pin: door to door	8-0 X 8-0	8-0 X 9-0	N/A	N/A	N/A
Concealed Vertical Rod	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concealed LBR	8-0 X 9-0	8-0 X 8-0	8-0 X 8-0	8-0 X 8-0	8-0 X 9-0	8-0 X 8-0	8-0 X 8-0	8-0 X 8-0

- Dimensions given are maximum opening sizes. Specific hardware requirements may affect opening size.
- Specific hardware may affect the amount of blocking needed.
- Specific hardware may require the use of intumescent.
- LBR devices require the use of thermal pins applied door to floor/sill (unless noted otherwise).