

Fire Rated Doors - Category 'A'

Woodharbor offers a multitude of door panels/profiles and stile/rail profiles in all of our door configurations. See individual fire rating specification pages for more information. With so many styling options to choose from, there will be matching or complementary style fire door for non-rated doors. By specifying all of your doors from Woodharbor, you can maintain design consistency for your entire project.

20-A, 45/60 & 90 MINUTE CATEGORY 'A' FIRE RATED DOORS

Woodharbor Fire Rated Doors conform to all testing standards for both Neutral Pressure and the more stringent, Positive Pressure standards as well as the "S" label for smoke and draft infiltration.

A **Positive Pressure Fire Test** subjects the door assembly to conditions that more closely simulate those present in an actual fire. As heat develops at the fire source, the pressure within an enclosed room begins to build relative to the pressure outside of the room. In a testing environment, positive pressures force super heated gases and flames through gaps and clearances in the door assembly and establishes the neutral pressure plane at 40" from the bottom of the door or sill. This subjects the top 2/3 of the door to fire-like conditions that can cause burning and charring of unprotected edges and result in the failure of the door assembly. If the edges of the door are properly protected, flames must actually burn through the door itself for failure to occur.

For 20, 45/60 & 90 minute Positive Pressure testing, a door must withstand 20, 45, 60, 90 minutes respectively of flame without failure. To achieve the supplemental "S" label, a door must also pass for smoke and air infiltration.

One of the ways positive pressure door assemblies meet this requirement is:

Category 'A' Doors - A fire door that does not require the addition of other edge seal components to comply with positive pressure. In this case, all intumescent is furnished and built into the edge of the door.

Woodharbor 20-A, 45/60 & 90 minute fire doors fall into Category "A" classification as shown above. All doors listed in Category A are eligible to bear the "S" (for Smoke & Draft Control assemblies) if a listed "Category H - Smoke & Draft Control Gasket" has been applied to the assembly. A smoke gasket, Pemko S88, could be applied to jamb to achieve the supplemental "S" label. Please refer to Category H for individual gasket manufacturer's listing.

These doors are eligible for use in any "Category C - Standard" frame. These doors may also be installed in frames listed in "Category C - Proprietary" in the accordance with the frame manufacturer's individual listing.

All doors in this category are identified by a label or marking bearing the wording, "Listed Fire Door", a time interval, a temperature rise rating, a serial number and the Warnock Hersey Certification Mark and "UBC-7-2-97/UL 10C".

MISCELLANEOUS

WOOD SPECIES: Woodharbor's 20, 45/60 & 90 Minute Fire Rated Doors are available in the following wood species:

Red Oak	Birch	Maple
Cherry	Hickory	White Oak
Paintable	Mahogany	
Poplar (Paint & Stain Grade)		

- ◆ Other wood species are available on a quote basis and per approval of Intertek. Density of requested wood species must be greater than Poplar (.42 specific gravity).

FINISH AVAILABILITY: Woodharbor Fire Rated Doors are available unfinished or factory finished with a premium catalyzed conversion varnish finish system.

ARCH OPTIONS: Woodharbor Fire Rated Doors are available with our 20 Series (Roman Arch) and 30 Series (Cathedral Arch). Arch Top doors (40 Series) are **not available** for Rated Doors.

SIZING:

Maximum single 3/6 x 8/0 or 4/0 x 7/0
Maximum double 7/0 x 8/0
(3/6 wide x 8/0 high per leaf)

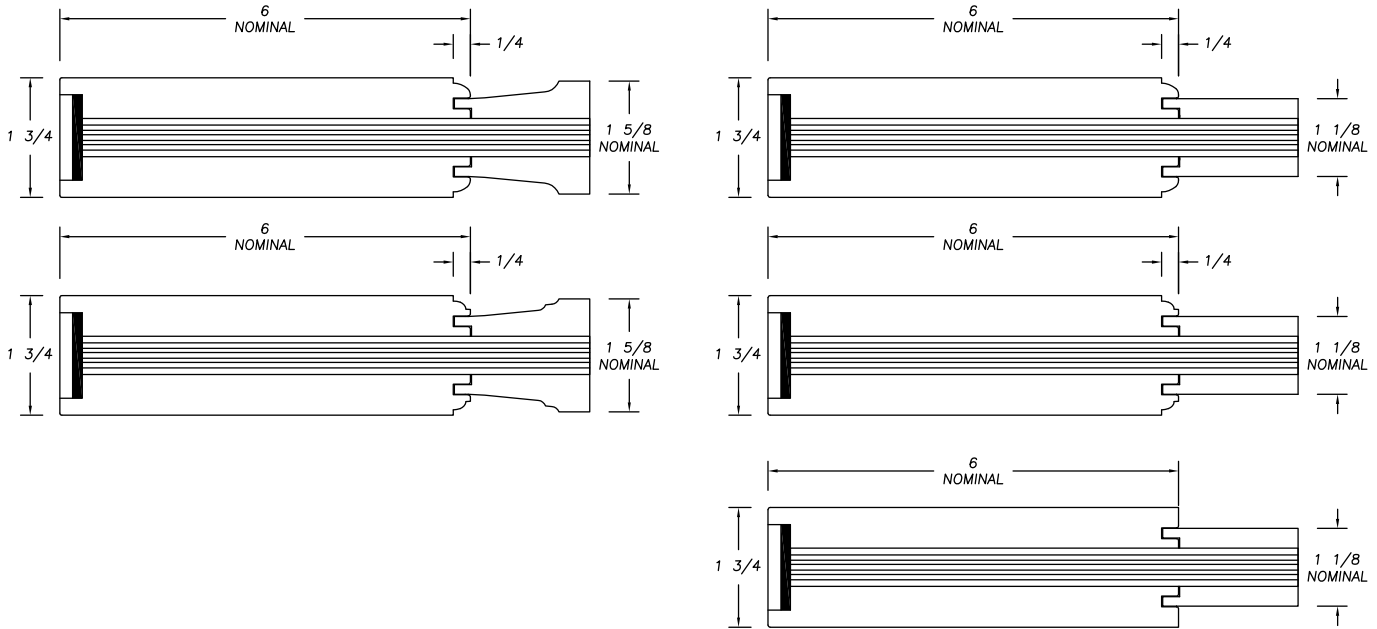
DOUBLE DOOR: Astragal available upon request. Will be surface applied to the face of the door. Call for quote.

JAMBS: See p. FD2.3 for 20-A jamb options. 20, 45//60 & 90 Minute Category 'A' doors are eligible for use in Category 'C' frames.

GLASS LITES/VISION PANELS: Glass lite panels or glass lite kits are available with a maximum exposed glass area of 1216 in² for 20, 45/60 & 90 Minute Fire Rated Doors. Glass lite panels must be installed at the factory.

Fire Rated Doors - Category 'A'

20, 45/60 & 90 MINUTE POSITIVE PRESSURE CATEGORY 'A' WOOD/MDF DOORS



20-A, 45/60 & 90 Minute Positive Pressure WOOD/MDF

Category	Category A*
Thickness	1-3/4" minimum 2-1/4" maximum
Max size single	3/6 x 8/0 or 4/0 x 7/0
Max size pair**	7/0 x 8/0 (3/6 wide x 8/0 high per leaf)
Door Material/ Construction	Stile/rail wood/MDF veneer construction laminated to a continuous engineered core material.
Std Dimensions	Top Rail 6" nominal Bottom Rail 8" nominal Stiles 6" nominal
Panel Construction	Raised Panel Thickness 1-5/8" nominal Flat Panel Thickness 1-1/8" nominal
Panel Size	Minimum No Minimum Maximum No Maximum
Finish	Finished/Unfinished
Styles	Existing fire door configurations. Custom designs may be available on quote basis.
Profiles	Sticking options: Prairie, Std Hip, Dbl Hip Panel options: Flat panel & Raised panel Custom sticking profiles and/or panels may be available on quote basis.
Fire glass max area	1216 in ²
Standards	ASTM E152-81a, UL 10(c) (1998), UBC 7-2 (1997), UBC 7-2 (1994), UL 10 (b) (1997), NFPA 252 (1999), ASTM E2074 (2000), CAN4 S104 (1985)

*20-A, 45/60 & 90-Minute eligible for use in Category 'C' frame

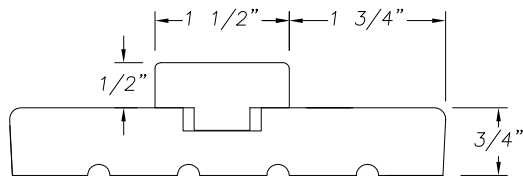
Fire Rated Doors - Category 'A'

PRE-HUNG DOORS

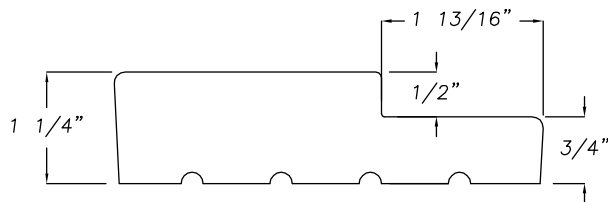
PRE-HUNG UNITS:

Per NFPA 80, Woodharbor Fire Rated Doors must be hung in listed jambs/frames (i.e. Hollow Metal/Aluminum jambs) or in solid wood, 20 Minute Fire Rated jambs of your choice from Woodharbor: T-Stop Jambs, Single Rabbet Jambs or Double Rabbet Jambs. (If Hollow Metal/Aluminum jambs are being used, Door Slabs can be machined for hinges and hardware at Woodharbor and installed in the jambs on-site.)

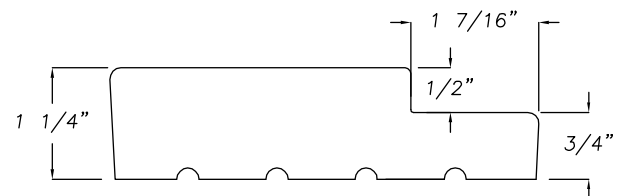
20 MINUTE CATEGORY 'A' FIRE RATED JAMBS



T-STOP JAMB



SINGLE RABBET JAMB



DOUBLE RABBET JAMB

20 MINUTE CATEGORY 'A', SOLID WOOD,
FIRE RATED JAMBS FOR 1 3/4" THICK DOORS

JAMB AVAILABILITY CHART

JAMBS		Red Oak	Poplar	Cherry	Maple	Birch
T-STOP	4 9/16"	✓	✓	✓	✓	✓
	4 13/16"	✓	✓	✓	✓	✓
	6 9/16"	✓	✓	✓	✓	✓
	6 11/16"	✓	✓	✓	✓	✓
	6 13/16"	✓	✓	✓	✓	✓
SINGLE RABBET	*4 9/16"	✓	✓	✓	✓	✓
	*4 13/16"	✓	✓	✓	✓	✓
	*6 9/16"	✓	✓	✓	✓	✓
	6 11/16"	✓	✓	✓	✓	✓
	6 13/16"	✓	✓	✓	✓	✓
DOUBLE RABBET	*4 9/16"	✓	✓	✓	✓	✓
	*4 13/16"	✓	✓	✓	✓	✓
	*6 9/16"	✓	✓	✓	✓	✓
	6 11/16"	✓	✓	✓	✓	✓
	6 13/16"	✓	✓	✓	✓	✓

*Rabbeted jambs are available for 1 3/8" thick doors (non-rated). (4 9/16", 4 13/16", 6 9/16").

•Custom width jambs are also available.

•Jambs are available up to 8/0 height.

INSTALLATION INSTRUCTIONS

WOODHARBOR DOORS & CABINETS, INC.

POSITIVE PRESSURE 20-A, 45/60 & 90 MINUTE WOOD FIRE RATED DOOR

- Trimming for height may be done on the bottom rail only (per NFPA 80, maximum trim of 3/4" (19.0mm) allowed one site).
- Surface mounted hardware must be attached with through bolts.
- A maximum of 1/8" (3.2mm) clearance between the frame and door is allowed.
- A maximum of 1/8" (3.2mm) clearance between the top leaf and the bottom leaf of dutch door, or transom and door, or between leaves of pairs, is allowed.
- For 90 Minute Category 'A' doors:
 - BASF Mortise Lock Installation Kit required to apply intumescent materials to lock case
 - For Concealed Automatic Door Bottoms, Interdens Type 15 intumescent (1/16" thickness) must be applied around perimeter of concealed door bottom.

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MACHINING

Building code authorities enforcing NFPA 80 and the Uniform Building Code require that all fire doors be tested, listed and labeled with an accredited independent certification agency (i.e. Warnock Hersey (ITS)).

Application of the label is accomplished only after the door has been completely machined according to the label instructions. All Category 'A' doors must be machined at Woodharbor.

What machining can be done in the field? Per NFPA 80, all machining for locks, latches, hinges, concealed closers, glass lights, vision panels, astragals, etc. shall be performed in accordance with the manufacturer's inspection service procedure and under label service (by a licensed machiner). Exception: Jobsite preparation is permitted for surface applied hardware, function holes for mortise locks, holes for labeled viewers, a maximum 3/4" undercut of the door and protective plates. Holes shall not be permitted to exceed 1" in diameter.

Contact your in-house customer service rep for other hardware applications

HARDWARE PREPARATION

Rated Hardware	
Hinges	Per NFPA 80 table 2-4.3.1 4-1/2" x 4-1/2" steel butt ball-bearing hinges, includes continuous and pivot hinges.
Latchsets	Minimum latch bolt throw shall be 1/2" unless otherwise noted. Pairs may be 3-point latching or 4-point latching. Surface mount vertical rod, face screwed on each leaf (4-point latching).
Cylindrical	Maximum bore 2-1/8" Maximum backset 2-3/4"
Mortise	Maximum 1-1/16" wide x 4-1/2" deep x 6" height
Deadlock - Cylindrical	Maximum 2-1/8" diameter bore located a minimum 5" above latch cutout, center to center. Maximum backset 2-3/4".
Automatic Door Bottoms	Surface Mount or Concealed only Concealed Centered on thickness of door Maximum cut-out width 1" Maximum cut-out height 1-3/4"
Flush bolts	For 20-A & 45/60-Minute: Surface mount manual flush bolts For 90-Minute: Mortise automatic or surface mounted manual may be used in place of vertical rod on one leaf of pairs
Fire Exit Hardware	Surface mount listed fire exit hardware
Vision Panels	1216 in ²
Closers	Surface mount closers only (must be through bolted).
Viewers	Must be installed on a rail or mullion.