



Product Update

OCT 16, 2023

#P264

Revision 03

REVEALS

FIRE RATING	CORE TYPE	REVEAL TYPE	MAXIMUM REVEAL WIDTH	MAXIMUM REVEAL DEPTH	MAXIMUM SURFACE AREA
Non-Rated (Neenah / Two Rivers)	Particleboard, Agrifiber, Structural Composite Lumber (SCL)	Shallow Reveal	3/4" (1/4" standard)	3/64"	Unlimited
Non-Rated (Holstein)	Particleboard, Agrifiber, SCL	Shallow Reveal	1/4" (1/8" standard)	1/16"	Unlimited
Non-Rated (Neenah / Two Rivers)	Particleboard, Agrifiber, SCL	Deep Reveal with Lumber Inlay	3/8"	3/8"	31 lineal feet per face
20-Minute (Neenah / Two Rivers)	Particleboard, Agrifiber, SCL	Shallow Reveal	1/4"	3/64"	10%
20-Minute (Neenah / Two Rivers)	Structural Composite Lumber (SCL)	Deep Reveal with Lumber Inlay	3/8"	3/8"	15%
20-Minute (Holstein)	Particleboard, Agrifiber, SCL	Shallow Reveal	1/4" (1/8" standard)	1/16"	10%
45-Minute (Neenah / Two Rivers)	Agrifiber	Shallow Reveal	1/4"	3/64"	25%
45-Minute (Holstein)	Agrifiber	Shallow Reveal	1/4" (1/8" standard)	1/16"	25%
45-Minute (Holstein)	Structural Composite Lumber (SCL)	Shallow Reveal	1/4" (1/8" standard)	1/16"	10%
45-90-Minute (Neenah / Two Rivers)	Fire Composite	Shallow Reveal	1/4"	3/64"	10%
45-90-Minute (Holstein)	Fire Composite	Shallow Reveal	1/4" (1/8" standard)	1/16"	10%



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Reveal Notes

1. Reveals on flush doors may be horizontal, vertical, angular or radiused, and may intersect. Angular or radius edge subject to availability, contact VT.
2. Standard reveals have a rectangular cross-section or V-groove shape (Neenah / Two Rivers Facility). Other shapes are subject to availability, contact VT.
3. For 1-3/8" thick doors, deep reveals with lumber inlays are not allowed.
4. Where reveals are allowed, dimensions from hardware, lite cutouts, and door edges, and inlay requirements will vary depending on construction and/or fire rating.
5. Standard tolerance for location of reveals is +/- 1/8" unless otherwise noted.
6. Width of reveals may need to increase if combined with a sketch face depending on door size and sketch face pattern.
7. Both faces of the door require an identical reveal pattern to maintain the warranty. Exception for SCL core doors with shallow reveals where reveals can then be on one side only or have a different reveal pattern on each face. This exception does not apply to deep reveals with lumber inlays.
8. Reveals of any type with any core for exterior door(s) are not allowed.
9. Deep reveals with lumber inlays are treated like hardware cutouts. They cannot be closer than 3-1/2" to hardware, lite cutouts, or other lumber inlays or 7" to the lock stile of any door having concealed vertical rod hardware. This applies to both horizontal and vertical reveals (See Figure #3).
10. Deep reveals with lumber inlays must be factory machined.
11. Reveals adjacent to a lite cutout are limited to a maximum depth of 3/64" (Neenah / Two Rivers Non-rated doors only).
12. Shallow reveals are the only type of reveal allowed in oversized doors (over 48" W or 120" H), acoustical and lead lined doors and specific bullet resistant doors. STC rating is void if reveal runs through the stiles or rails.
13. Where allowed in 20-min or non-rated doors, shallow reveals may include a decorative metal laminate inlay (Wilsonart Type 418). 1/4"-3/4" reveal width for non-rated. 1/4" for 20-minute. Neenah / Two Rivers Facility.
14. Reveals are not allowed in 45-minute particleboard.

Shallow Reveals Depths

VT Industries door construction varies from facility to facility. The crossband thickness affects the depth of the shallow reveals offered at each location. The Holstein facility construction allows for a 1/16" depth, while the Neenah and Two Rivers construction allows for a 3/64" reveals. Reveals deeper than published can cause structural and aesthetic concerns due to machining through the crossband into the core material. These depths are what are allowed for all fire-rated doors.

Lumber inlays are options when deeper reveals are requested to meet structural and aesthetic concerns. Lumber inlays address structural concerns with deeper reveals, however they do not avoid all aesthetic issues. Aesthetic issues may arise when the requested depth of the reveal is close to the location of the crossband/inlay bond. In such cases the component and machining tolerances may result in part of the reveal having crossband showing at the bottom. To prevent this, the minimum depth of reveals requiring a lumber inlay will be 5/32".



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Finished Options for Reveals

The table below defines the reveal appearance for the reveal finishing selections available with factory finished doors.

SELECTION	SHALLOW REVEAL (WITHOUT LUMBER INLAY) CROSSBAND IS THE VISIBLE SURFACE IN THE REVEAL	DEEP REVEAL (WITH LUMBER INLAY) MATCHING OR COMPATIBLE LUMBER IS THE VISIBLE SURFACE IN THE REVEAL
PAINTED	Reveal will be painted the specified color. Black is standard on stained faces	Reveal will be painted the specified color. Black is standard on stained faces
FINISHED – STAIN TO MATCH	If the face is finished with an <u>opaque varnish</u> (Neenah / Two Rivers Facility) the reveal will match the face. If face is <u>stained</u> the reveal will have the same stain applied as the face, but it will not match the face (usually the reveal will be darker in appearance).	If the face is finished with an <u>opaque varnish</u> (Neenah / Two Rivers Facility) the reveal will match the face. If face is <u>stained</u> the reveal will have the same stain applied as the face and will match the face (natural variation expected between lumber and veneer).
PRIMED	Reveal will be factory primed.	Reveal will be factory primed.
UNFINISHED	Crossband will be unfinished matching unfinished door.	Lumber Inlay will be unfinished, matching the door finish.

Terminology

Due to confusion in using different terms to describe the same constructions this information section is to clarify and standardize the terms we use to describe constructions.

The terms “reveals” “kerfs” and “quirks” have been used interchangeably. To standardize, VT will reference the term “reveal”. The following terms and definitions describe where we will use certain terms.

SHALLOW REVEALS	Reveals machined into crossband, no lumber inlay (See Figure #1).
DEEP REVEALS	Reveals with lumber inlays glued into a groove in the core prior to crossband and face application (See Figures #2 and #3).
LUMBER INLAYS	Lumber glued into a groove in the core prior to crossband and face application.
METAL LAMINATE INLAYS	Metal laminate with a phenolic backer glued into a shallow reveal (See Figure #4).



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