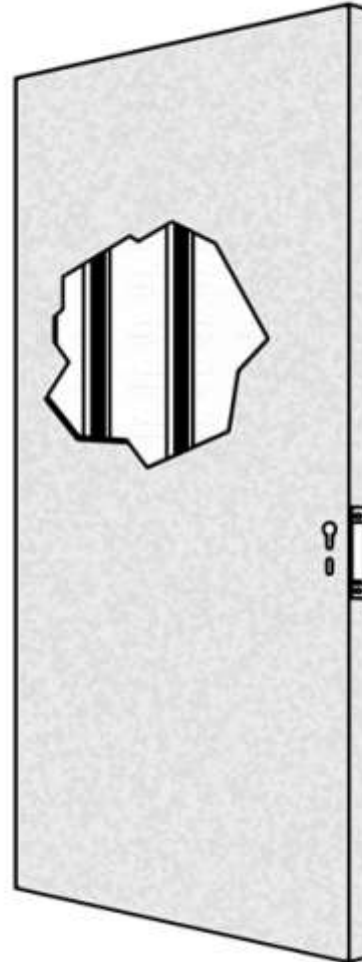


**ENGINEERING DETAILS for STANDARD
SERIES LW FULL FLUSH 1-3/4" Doors**

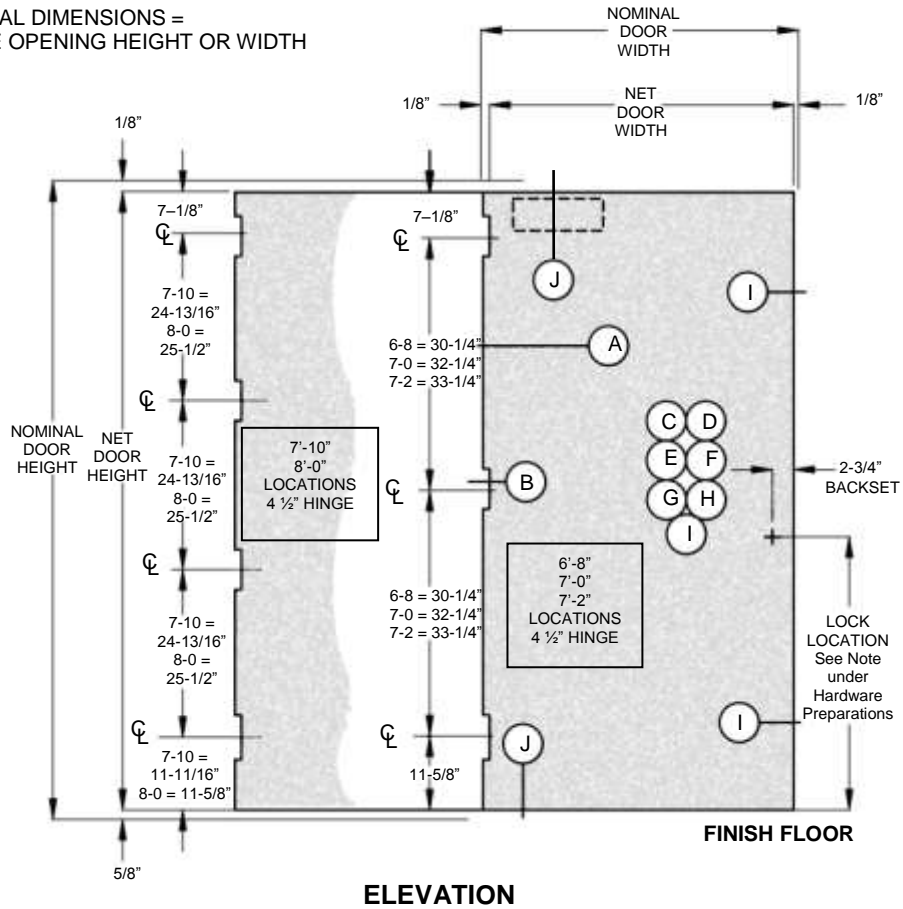
Specifications

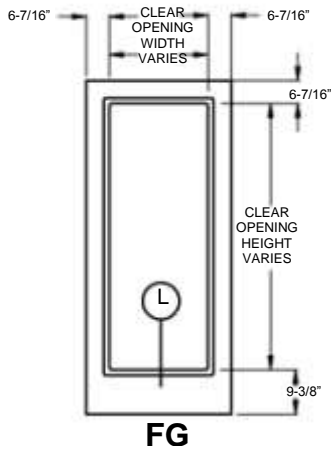
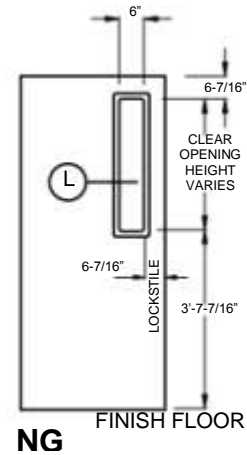
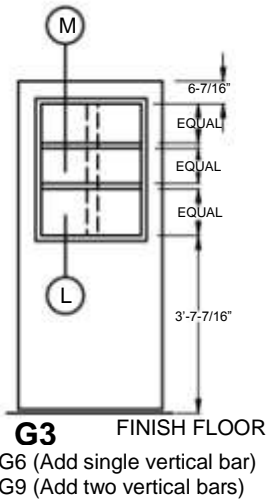
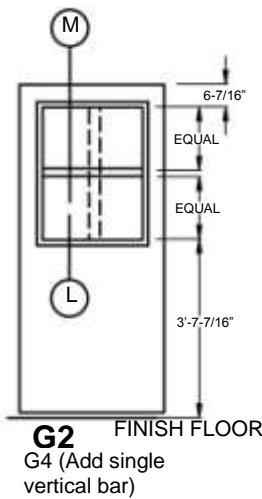
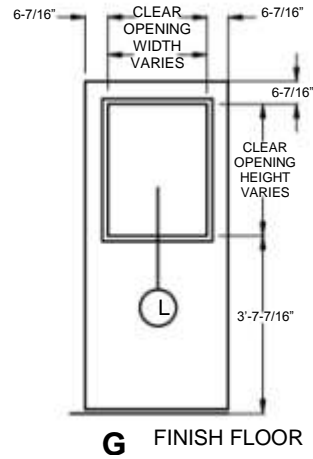
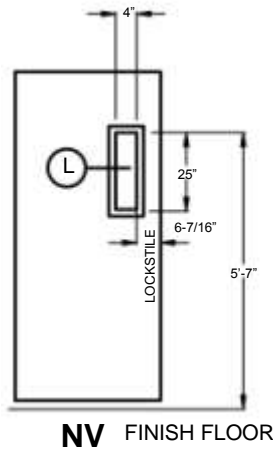
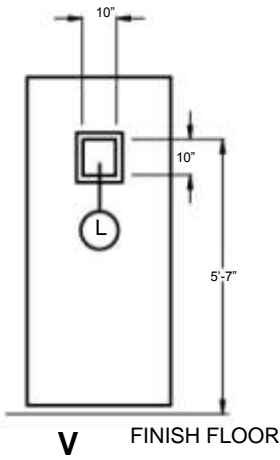
1. Doors shall be formed from two 16 or 18 gage CQ class 1 steel sheets per ASTM A1008, 568 & 569 OR A60 Galv. steel sheet per ASTM A 924 and A653 and shall be 1-3/4" thick.
2. Doors shall be internally reinforced with pairs of hat-shaped steel stiffeners joined together and running vertically full height of door, not more than 6" apart. Stiffeners shall be spot welded 4" o.c. to both faces of doors, and arc-welded to each other top and bottom.
3. Voids between stiffeners shall be filled with fiberglass Or mineral wool insulation.
4. Doors shall have vertical mechanical interlocking seams on hinge and lock edges. There shall be no seams on the faces of door.
5. Exterior doors shall be capped to retard moisture penetrating the door.
6. All hinge reinforcements shall be 3/16" thick. Top hinge reinforcement shall be provided with a back-up reinforcement.
7. All doors shall be internally reinforced with a 12 gage plate both sides of the door for application of surface applied door closers and holders.
8. Glass light moulding shall be Pioneer standard steel moulding, with no exposed screws on the secure side of door.
9. Louvers shall be Pioneer standard design for application required.
10. Fire rated doors, where indicated, shall be manufactured in accordance with the UL or WHI procedures and bear the appropriate classification mark.
11. All doors shall be cleaned and given one coat of baked- on, rust-inhibitive metal primer in compliance with ANSI A 250.10-2004
12. Door construction complies with ANSI A 250.8- 2003 (SDI 100)
13. Hardware reinforcements are in accordance with ANSI A 250.6-2003. Locations are in accordance with ANSI/BHMA A156.115
14. Doors shall be packaged to minimize damage in transit and handling.



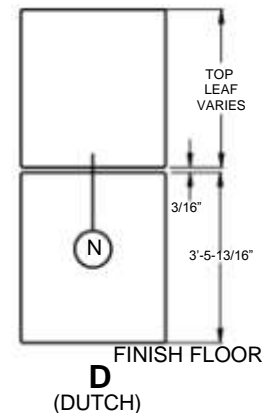
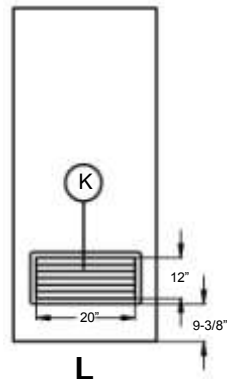
Standard SERIES LW Seamless 1 3/4" Doors

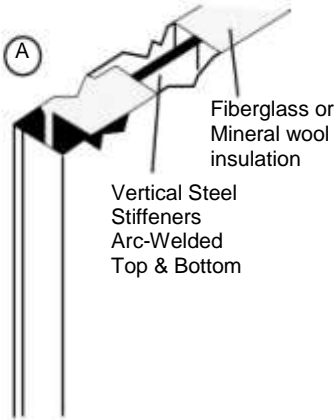
NOTE: NOMINAL DIMENSIONS =
FRAME OPENING HEIGHT OR WIDTH



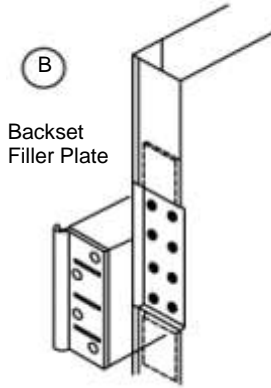


NOTE: 12" x 12" Louver standard for 2' -0" & 2'-4" door – all others 20" x 12", 20" x 24" Louver available

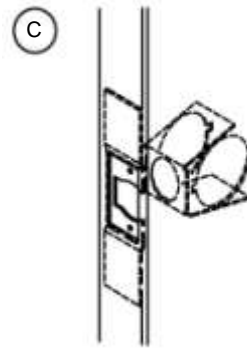




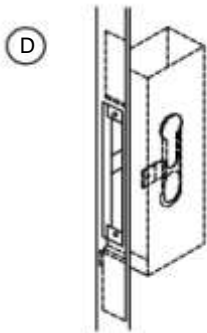
LOCK SEAM EDGE & INTERNAL CONSTRUCTION



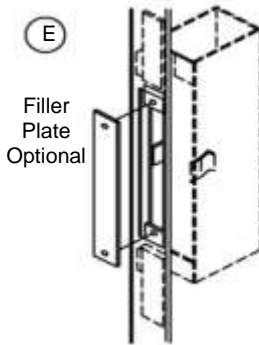
STANDARD HINGE REINFORCEMENT



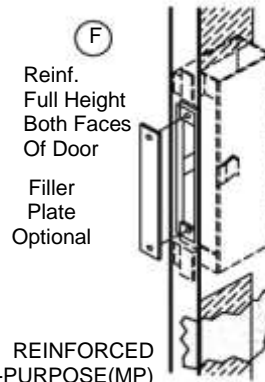
GOVT. 161 CYLINDRICAL (CYL) LOCK PREPARATION



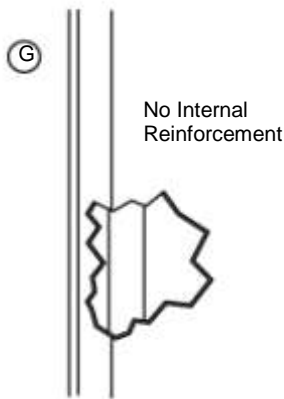
GOVT. 86/MORTISE (M) LOCK PREPARATION



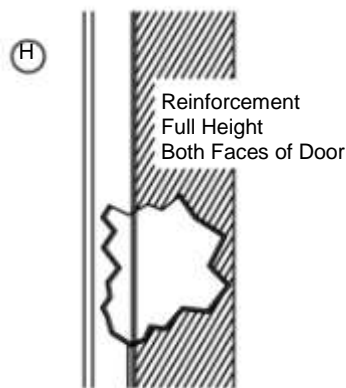
MULTI-PURPOSE (MP) PREPARATION



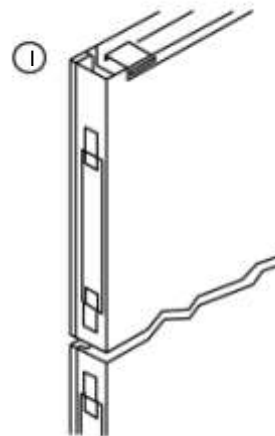
REINFORCED MULTI-PURPOSE (MP) (RMP) PREPARATION



BLANK ACTIVE (BA) PREPARATION



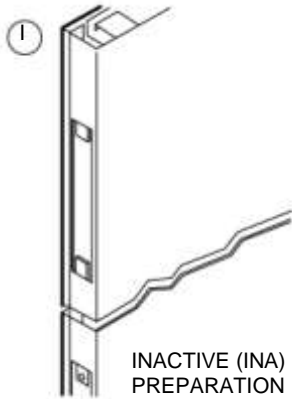
REINFORCED (RBA) BLANK ACTIVE PREPARATION



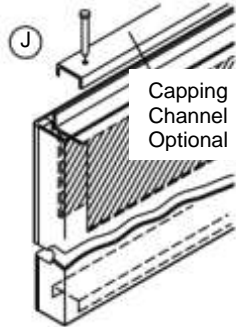
INACTIVE (INA) PREPARATION

TECHNICAL DATA – DOORS

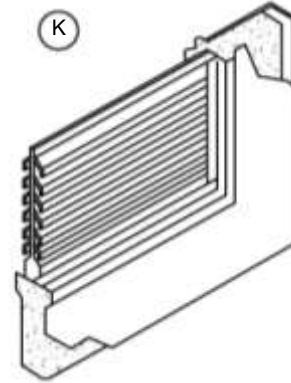
LW SERIES



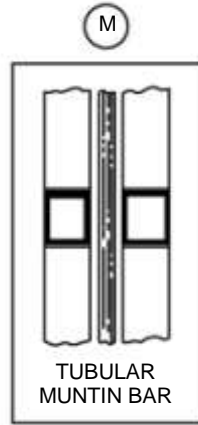
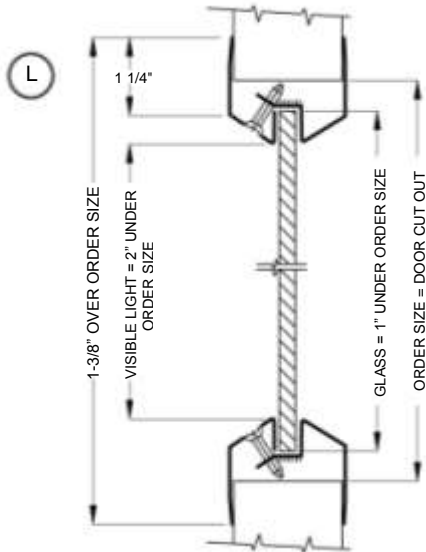
INACTIVE (INA) PREPARATION



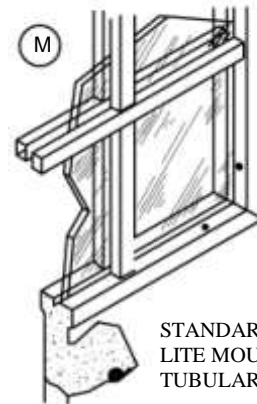
CLOSER REINFORCEMENT TOP & BOTTOM CHANNELS



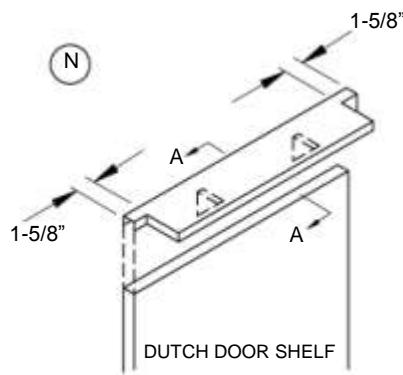
STANDARD LOUVER



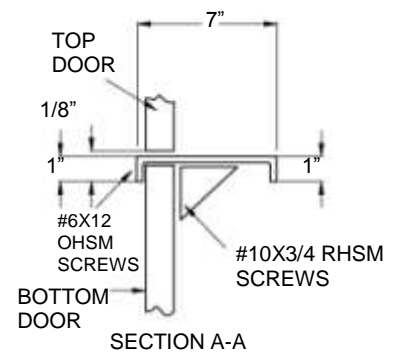
TUBULAR MUNTIN BAR



STANDARD STEEL GLASS LITE MOULDING WITH TUBULAR MUNTIN BAR



DUTCH DOOR SHELF



SECTION A-A

STANDARD HARDWARE PREPARATIONS

HINGES: Doors to be mortised and reinforced for application of 4-1/2" x 4-1/2" full mortised template butt hinges; 1-1/2 pair @ 6'8", 7'0" and 7'2" doors; 2 pair @ 7'10" and 8'0" doors. All hinge reinforcements shall be 3/16" thick; with the top hinge further reinforced with high frequency back-up reinforcement.

LOCKS: Active Doors to be prepared as follows:

1. Gov't 161 Cylindrical (CYL) Lock/Latch, with 2 3/4" backset.
2. Universal Gov't 86 Mortise (M) Lock/Latch {to be used with full escutcheon trim}, with 2 3/4" backset.
3. Multi-purpose (MP) preparation consisting of a Gov't 86 edge preparation, with lock reinforcement installed, No cutouts on the faces of the door.
4. Reinforced Multi-purpose (RMP) preparation consisting of Gov't 86 edge preparation, with lock reinforcement installed. The lock stile to be reinforced full height of the door on both sides. The hinge stile is reinforced on both faces at panic device height. No cutouts on the faces of the door.
5. Blank Active (BA) preparation provides a totally blank lock stile — no lock preparation and no internal reinforcements. No cutouts on edges or faces of door.
6. Reinforced Blank Active (RBA) preparation provides a totally blank lock stile — no lock preparation. The lock stile to be reinforced full height of the door on both sides. The hinge stile is reinforced on both faces at panic device height. No cutouts on the faces of the door.

Inactive Doors to be prepared as follows:

1. Inactive (INA) preparation consisting of two ANSI A156.115 flush bolts -12" top and bottom rod dimension on doors up to and including 7'-2", 12" bottom and 18" top on doors over 7'-2" and up to and including 7'-6" and 12" bottom and 24", 36" or 48" top as required for doors over 7'-6". A 12" top rod dimension is optionally available on 7'-10" and 8'-0" doors. Inactive door is provided with an ASA 4-7/8" strike preparation (no lip cutout - to maintain reversibility of door). Net door width is 1/8" greater than active door.
2. Blank inactive (BI) preparation provides a totally blank lock stile —no lock preparation and no internal reinforcements. No cutouts on edges or faces of the door. Net door width is 1/8" greater than active door.
3. Reinforced Blank Inactive (RBI) preparation provides a totally blank lock stile — no lock preparation, the lock stile to be reinforced full height of the door on both sides. The hinge stile is reinforced on both faces at panic device height. No cutouts on faces of the door. Net door width is 1/8" greater than active door.

LOCK LOCATION: All locks located to conform to standard 38" C of strike on frame.

CLOSERS AND HOLDERS: All Series LW Doors are reinforced internally both sides of the door for application of most types of surface applied closers and holders. A 12 Ga. Reinforcement plate 4-1/2" high measured from top of door and 16" long measured from a point 1-7/8" from the door jamb will accommodate most of the door closers currently manufactured and used on hinge side installations.

NOTES

In order to provide our customers with the finest products, manufactured in the most up date manner, Pioneer Industries reserves the right to make design or specific construction changes without notice.

Series LW Doors are individually cartoned in corrugated cardboard and banded with straps. Muntin Bars for multiple glass lights are factory installed.

Series LW Doors are baked prime finish. Factory prefinished Series LW Doors are optionally available. Paint primer not compatible with urethane or epoxy topcoats.

Vertical steel stiffeners are fastened to both face sheets by spotwelds (resistance welding) spaced at 4" on center. Due to molecular changes in steel at the spotweld locations, marking may be visible even after a high quality finish process. Also, although marking may not be visible on the prime coated door skin, some weld marks or "shrink marks" may become noticeable when a high gloss finish is applied. Use of a flat finish coat may produce a more desirable appearance.

Series LW Doors are reversible, within the limits of the type and application of the required hardware. Handed or handed and beveled doors, for any application, are optionally available.

Pairs of doors are furnished as two individual doors.

Fire Rated Doors – See Fire Rated Section for critical information and details.

TECHNICAL DATA – DOORS

LW SERIES

* CONSULT FACTORY FOR OTHER SIZES

| STANDARD SIZES* | | |
|---------------------|--------------------|-------|
| DOOR OPENING HEIGHT | DOOR OPENING WIDTH | |
| | SINGLE | PAIR |
| | 2'-0" | 4'-0" |
| | 2'-4" | 4'-8" |
| | 2'-6" | 5'-0" |
| 6'-8" | 2'-8" | 5'-4" |
| 7'-0" | 2'-10" | 5'-8" |
| 7'-2" | 3'-0" | 6'-0" |
| 7'-10" | 3'-4" | 6'-8" |
| 8'-0" | 3'-6" | 7'-0" |
| | 3'-8" | 7'-4" |
| | 3'-10" | 7'-8" |
| | 4'-0" | 8'-0" |