

TECHNICAL DATA- FRAMES

WF SERIES

ENGINEERING DETAILS for STANDARD



SERIES WF-14 WF-16 AND WF18

FRAMES FOR 1 3/4" Doors

with integral compressible sealing system

Specifications

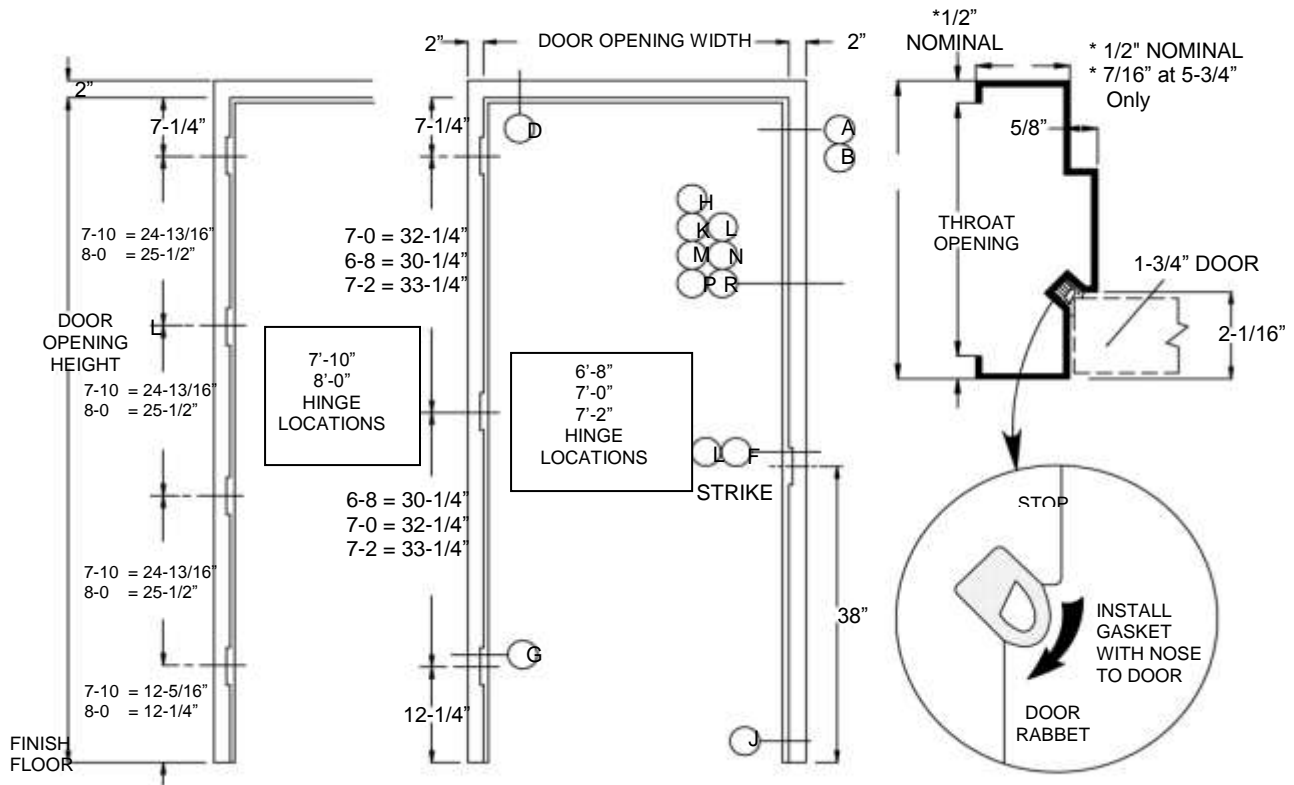
1. Frames shall be formed with a continuous integral groove in the active rabbet. A closed cell neoprene gasket shall be furnished for field installation in the frame groove after finish painting. Frames shall be manufactured of 14 or 16 gage steel per ASTM A 1008, 568 & 569. or A60 Galvannealed steel Per ASTM A924 & A653
2. Frames shall be knocked down for field assembly. Mitters shall have a precision hairline joint when assembled.

OPTION: Corners shall be arc-welded and ground smooth. Frames shall be provided with a steel bottom spreader.
3. Heads shall be reinforced for surface applied closers, holders or brackets as required.
4. Dual purpose hinge reinforcements shall be 3/16" thick. It comes equipped with galvanneal back-up filler plate for standard weight hinges. Conversion from standard weight to heavy weight hinges is done by removing the filler plate. All reinforcements for hinges and strikes shall have steel-plaster guards.
5. Frames are available with appropriate anchors required to suit wall conditions. Frames shall have floor clips at the bottom of all jambs for attachment to finished floor.
6. Heads of frames over 4'-0" wide to be prepared with a universal "knock-out" to accept flush bolt on inactive door leaf. OPTION: Heads of pair frames shall be prepared to receive mortised flush bolt strike as required.
7. Frames shall be prime painted by Pioneer's exclusive "DURA-BOND" process, consisting of a wash, phosphate treatment, "flo-coat" painting and oven baking in compliance with ANSI A250.10-2004
8. 14 and 16 gage Frames to be furnished with UL or WHI Positive and Negative Pressure Rated listing mark (label) as required. Frames must be installed in accordance with NFPA 80 and per Pioneer's Installation Instruction.
9. Frame construction complies with ANSI A 250.8-2003 (SDI -100)
10. Hardware preparations and reinforcements comply with ANSI A250.6-2003. Locations are in accordance with ANSI/BHMA A156.115-2006


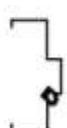


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ELEVATION

STANDARD SIZES*			
DOOR OPENING HEIGHT	DOOR OPENING		JAMB DEPTH
	SINGLE	PAIR	
6'-8" 7'-0" 7'-2" 7'-10" 8'-0"	2'-0"	4'-8"	 3-5/8" MIN 4-1/2" MAX.
	2'-4"	5'-0"	
	2'-6"	5'-4"	
	2'-8"	5'-8"	
	2'-10"	6'-0"	
	3'-0"	6'-8"	
	3'-4"	7'-0"	 4-3/4" MIN. 7-3/4" MAX.
	3'-6"	7'-4"	
	3'-8"	7'-8"	
	3'-10"	8'-0"	
	4'-0"		

Communicating Uni-Seal jamb width = 6-3/4" minimum

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HARDWARE PREPARATIONS

Standard Hinge Preparation

1-1/2 pair of 4-1/2" x 4-1/2" standard weight full mortise template hinges for 6'-8" , 7'-0" & 7'-2" height. Two pair for 7'-10" & 8'-0".

Standard Strike Preparation:

ASA 4-7/8" furnished as standard. 2-3/4" strike is optional. Extended Lip Strike no less than 1-1/4" lip to center is necessary.

Standard Anchors:

Jamb Anchors – Wire Masonry anchors are available for all frames. Three (3) anchors per jamb for 6'-8", 7'-0" & 7'-2" height; four anchors per jamb for 7'-10" & 8'-0".

Base Anchors – Rigid Floor Knee furnished as standard for all frames, unless otherwise specified.

Fire Rated Label:

All 14 Ga and 16 Ga. frames available with **Underwriters Laboratories** listing mark unless specifically prohibited by



Standard Finish:

All frames are furnished with a baked "Dura-Bond" prime finish.

Limitations:

Slam-action type latching necessary. Not recommended for use with Push & Pull, Unit Lock, Electric Strikes, Roton Hinges, Offset Pivot Hinges or other hinges which may require other than a standard backset or may interfere with proper gasket function.

Consult appropriate hardware templates where stop mounted hardware such as Parallel Arm Closers, Brackets, Holders, Stops, Panic Device Roller Strikes, Vertical Rod Panic Device or other mortise strikes at head or jambs interfere with gasket function. Slight adjustment in mounting may be necessary.

Doors used in Uni-Seal must be square edge.

MANUFACTURING TOLERANCES - FRAMES

Door opening width
 nominal opening+ 1/16",-0"
 Door opening height
 nominal opening ± 1/16"
 Jamb width (depth)..... ± 1/16"
 Throat (between returns)..... ± 1/16"

Hardware cutouts

Template dimension+1/64",-0"

Hardware Prep location

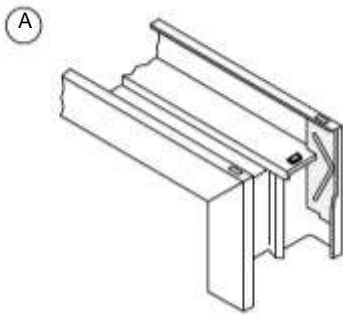
Height ± 1/64"
 Backset..... ± 1/64"
 Depth +1/32",-0"

GASKET PHYSICAL PROPERTIES

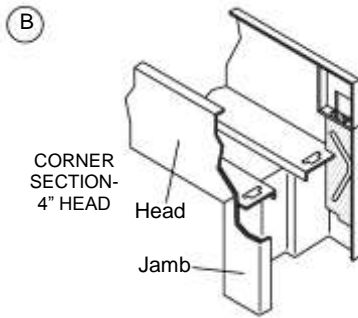
Polymer.....Neoprene
 ColorBlack
 ASTM Specifications..... SCE-42
 Compression Deflection (P.S.I.) 5.0 to 9.0
 Compression Set (Average) 15% to 25%
 Water Absorption by Weight (Max) ...5%
 Density P.C.F. (Average) 15-35
 Temperature Range —
 -40°F to +150° continuous
 -40°F to +200° intermittent
 Chemical Resistance (Room Temperature)
 Water Good
 Oil Good
 GasolineFair

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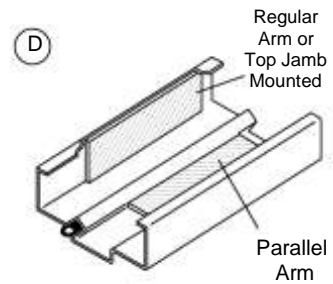
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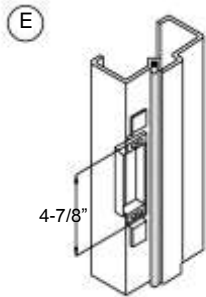
CORNER SECTION



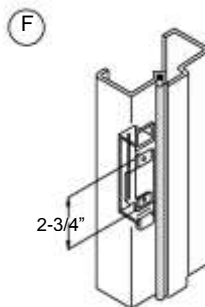
CORNER SECTION-
4" HEAD
Head
Jamb



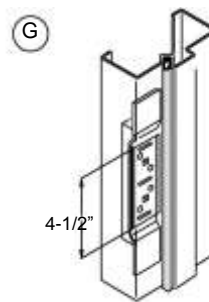
CLOSER REINF. (Available for various trim and stop applied devices)



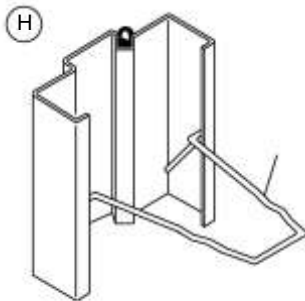
STRIKE PREPARATION –
ASA 4-7/8" (Standard)



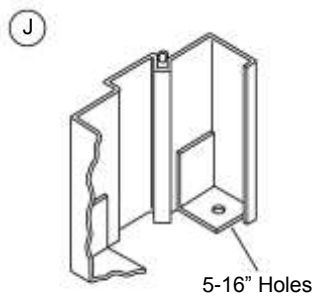
STRIKE PREPARATION –
2-3/4" OPTIONAL



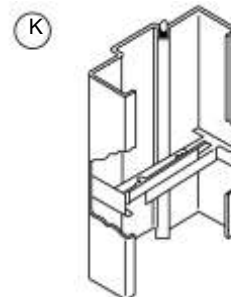
DUAL PURPOSE MORTISE HINGE
PREPARATION WITH BACK-UP
FILLER PLATGE (Standard)



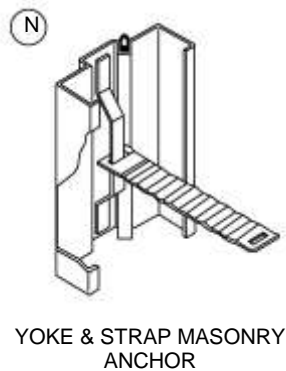
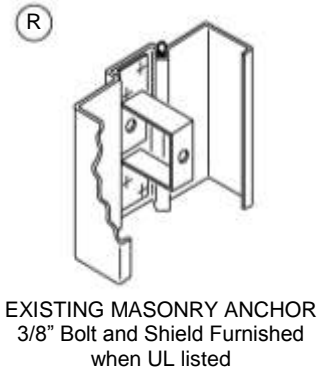
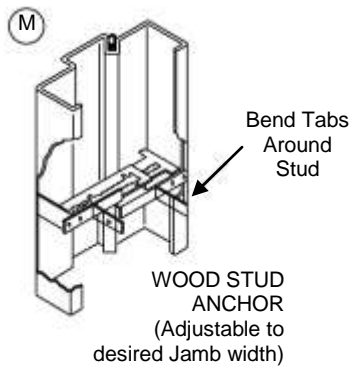
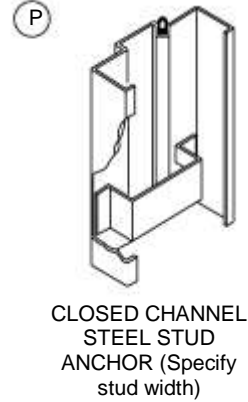
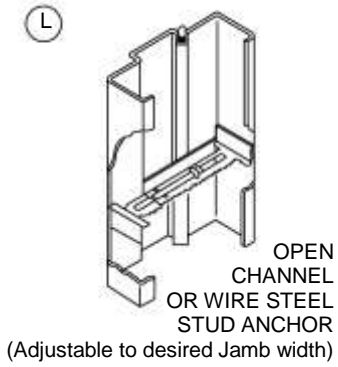
WIRE MASONRY ANCHOR
(Adjustable to desired Jamb width)



BASE ANCHOR



CLOSED CHANNEL STEEL STUD
ANCHOR
(Adjustable to desired Jamb width)



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

Pioneer Industries will not be responsible for errors incurred by other parties through the use of this data sheet without written confirmation from Pioneer. Other trades should contact Pioneer for exact hardware locations.

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Performance Criteria

Air Infiltration: Test Procedure ASTM E 283-73 Performed on an operating door assembly.

WIND PRESSURE		AIR INFILTRATION cfm per ft. of crack length
Miles per hour	Pounds per square foot	
25 ¹	1.56	0.35
30	2.25	0.42
35	3.06	0.64
40	4.00	0.79

¹Uni-Seal performance exceeds proposed ANSI A 123.6 acceptance criteria of 0.75 cfm ft. at a wind pressure of 25 mph.

Water Penetration: Test Procedure ASTM E 331-70(75) performed on an operating door assembly.

WIND PRESSURE		WATER PENETRATION In ounces after a 15 min. test period
Miles per hour	Pounds per square foot	
34 ²	2.86	None
39	3.80	None
44	4.84	None
49	5.98	None
54	7.29	None
59	8.69	None
64	10.20	None
69	11.90	1.20

²Uni-Seal performance exceeds proposed ANSI A 123.5 acceptance criteria of no water penetration at a wind pressure of 34 mph, with water applied at a minimum rate of 5.0 U.S. gallons per sq. ft., per hour, for a period of 15 minutes.

Sound Transmission: Test Procedure ASTM E-90-75 performed on an operating door assembly

STC RATING with Conventional Gaskets	STC RATING with UNI- SEAL
35	35
40	40
42	41
45	44
48	46

Note: Operating acoustical door assemblies employing Uni-Seal, in lieu of conventional surface applied rubber and aluminum extrusions, will maintain upto 95% of its original sound insulating properties.

Suggested Performance Specifications

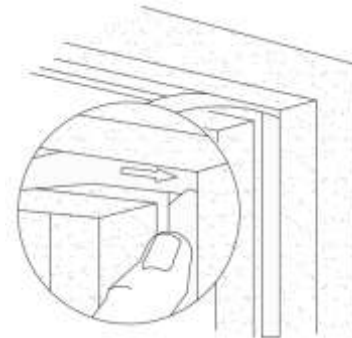
1. Test Reports, certified by an independent testing laboratory indicating compliance to these criteria shall be submitted for approval prior to submission of proposal.

2. Air infiltration: The rate of leakage shall not exceed _____ cfm per foot of crack length at a static air pressure of _____ psf (equivalent to _____ mph wind velocity) based on a 3'-0" x 7'-0" operating door assembly.

3. Water Penetration: No water shall pass the interior face of the unit when tested at a static air pressure of _____ psf (equivalent to _____ mph wind velocity) with water applied at a minimum rate of 5.0 U.S. gallons per sq. ft. per hour, for a time period of 15 minutes based on a 3'-0" x 7'-0" operating door assembly.

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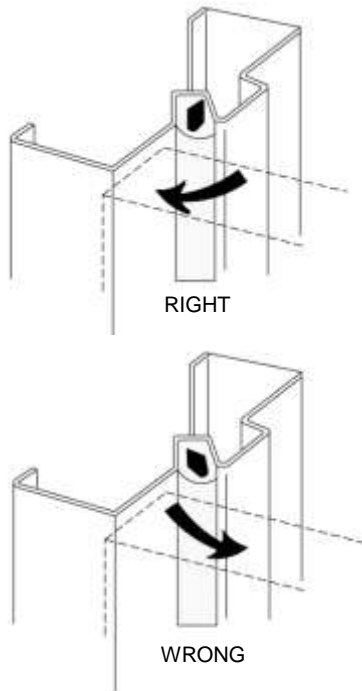
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Enough material to properly seal a single-swing frame up to 4'-0" x 7'-0" or a pair-swing frame up to 6'-0" x 7'-0" or bulk lengths have been provided.

Cut and install only as described at right. Weatherstripping is designed to provide an effective barrier against air and moisture infiltration. If installed incorrectly it will not function properly.

The shape of the seal is not symmetrical. Install with "nose" of the gasket pointed toward the door rabbett, not the stop of the frame.



U.S. Patent No. 4115968

1. Cut the gasketing to size. Scissors or any sharp instrument will do the job.

HEAD

Cut width of door opening + 1" (3'-0" door width — cut 37", etc.).

JAMBS

Cut height of door opening less 1/2" (7'-0" door height — cut 83 1/2", etc.). Cut bevelled at top to lap over gasket at head.

2. Install the HEAD seal first. Note that the excess is pushed on thru the frame at each side of the head.
DO NOT stretch the seal.
3. Push the seal into the groove with your fingers. This will not seat the seal. See (5) below.
4. Install the JAMB seals. Butt the top against the head seal and work down — pushing the seal into the groove with your fingers. DO NOT stretch the seal.
5. Using a dull tipped instrument, such as a putty knife, seat the seal by PUSHING the material firmly to the bottom of the groove. Do not abrade the seal. This will damage the material.

Note: Closer speed may require adjustment to overcome gasket compression initially. Lock functions with fixed knob and key retracted latch bolt may require door to be forced tighter into gasket when turning key.