

# Technical Data And Specifications

## ULTRA DOOR AND STAINABLE STEEL ENTRY DOOR NEW CONSTRUCTION & REPLACEMENT UNITS

All Polaris® Entrance Doors, regardless of style or size, are designed to provide ultimate superiority in patented features and long, continuing satisfaction essential to your comfort and security. Outstanding advantages include the following:

### GENERAL

All steel doors and stainable steel doors shall be Ultra Door insulated steel entrance door systems, manufactured by Polaris Technologies, Youngstown, Ohio. The Ultra Door entrance system shall be comprised of the door and frame assembly. The door shall have hinges, bottom weatherstrip and shall be prepared to accept lock hardware. The frame assembly shall include jambs, header, brickmold, weatherstrip, threshold, and corner seals.

### DOOR

Doors shall be (flush or embossed) 1.75" thick formed of 24 gauge galvanized steel on the Ultra Door and 22 gauge galvanized steel on the Stainable Steel door, stiffened, insulated and sound-deadened with an environmentally friendly solid urethane core blown at a density of 2.0-2.5 lbs./ft.<sup>3</sup>. The doors shall be formed utilizing an exclusive unitized (2) two-piece steel construction for strength and durability. The insulating R-Value of the core is 13.0 (U =

.076). The acoustical performance of the door (or STC rating) is 23. Door shall be fitted with 4" x 10" composite lock block. Edge of door at lock block shall accept standard 1" x 2.25" or 1.125" x 2.25" rectangular face latch bolt or round face latch bolt. Door shall also have 12-gauge galvanized steel plates located at each hinge (three per door) to allow for fine adjustment after door is in place without removal of door from opening. Door bottom weatherstrip retainer shall be roll formed from 22-gauge hot dipped galvanized steel and mechanically fastened to bottom member.

All surfaces of the door shall receive a factory prime finish for added protection. The primed surface shall be suitable for finish painting. The Stainable Steel door will be primed with a special beige primer that accepts artist oil stains or paint.

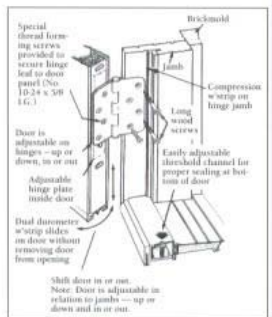
Bottom weatherstrip shall be a dual durometer vinyl extrusion that shall slide on or off the door without removing the door from the opening.

### HARDWARE

Hinges (three per door) shall be 12-gauge steel 4" x 4" with full length pin — no buttons. Hinges to be secured to jambs with #10 screws. Screws to be thread forming, heat treated, and plated.

### FRAMES

Header, jambs, and brickmold door frame members shall be finger joint construction, prime painted white, kiln dried, and toxic treated. Jambs and header shall be kerf cut to accept weatherstripping. Hinge jamb shall be mortised to accept three (3) 4" x 4" hinges. Jambs are to be dadoed and predrilled to receive Endura threshold assembly. Hinge jambs shall be fitted with a soft T.P.E. weatherstrip to seal against front surface and edge of door and fits in saw kerf. T.P.E. to remain soft and flexible even in cold weather.



### GLASSLITES

Polaris glasslites shall be insulated and tempered complying with ANSI Z-97.1 and C.P.S.C. standard 16 CFR 1201 for architectural glass. Glasslite surround trim shall be finished in either molded polystyrene, polyurethane, or extruded polyvinyl trim.

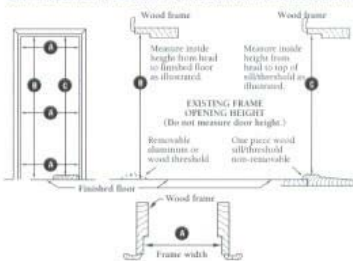
### STORM DOORS

A glass storm door without proper venting will build up heat that can damage the door or doorlite frame. Be sure to vent your storm door.

### FIRE LABELED DOORS AND FRAMES

Labeled Polaris brand doors have W.H. 1-1/2 hour "B" fire ratings maximum in accordance with ASTM E152. Fitted Frame steel frames have a W.H. 1-1/2 hour "B" fire rating maximum in accordance with ASTM E152. Note: We reserve the right to make changes in specifications, construction, design and details without notice, at any time in such manner as we may consider necessary or advisable. Subsequent printings of this publication shall be corrected to reflect any such changes.

### REPLACEMENT DOOR MEASUREMENT DIAGRAM



### HOW TO MEASURE FOR A REPLACEMENT DOOR

**NOTE: DO NOT MEASURE THE OLD DOOR PANEL!**

Measure the frame inside to inside.

- 1.) MEASURE THE WIDTH** - measure at "A" (hinge to strike) at three places, and use the narrowest measurement.
- 2.) MEASURE THE HEIGHT** - if your old door has a removable aluminum or wood threshold, measure from bottom of header to finished floor as shown ("B")

If your old door has a non-removable (one-piece) threshold, measure from bottom of header to top of threshold as shown ("C"). The new threshold is 1-1/8" high - you may want to remove the old wood riser and adjust your measurement accordingly.

### DETERMINE DOOR OPENING SIZES FROM THIS TABLE

Nominal Replacement Door Size	EXISTING OPENING SIZES ACCOMMODATED			
	Opening Width		Opening Height	
	Minimum	Maximum	Minimum	Maximum
2'-6" x 6'-8"	29 1/2"	30 1/2"	80"	80 1/2"
2'-8" x 6'-8"	31 1/2"	32 1/2"	80"	80 1/2"
2'-10" x 6'-8"	33 1/2"	34 1/2"	80"	80 1/2"
3'-0" x 6'-8"	35 1/2"	36 1/2"	80"	80 1/2"
3'-6" x 6'-8"	41 1/2"	42 1/2"	80"	80 1/2"
2'-6" x 7'-0"	29 1/2"	30 1/2"	84"	84 1/2"
2'-8" x 7'-0"	31 1/2"	32 1/2"	84"	84 1/2"
2'-10" x 7'-0"	33 1/2"	34 1/2"	84"	84 1/2"
3'-0" x 7'-0"	35 1/2"	36 1/2"	84"	84 1/2"
3'-6" x 7'-0"	41 1/2"	42 1/2"	84"	84 1/2"
5'-0" x 6'-8"	59 1/2"	60"	80"	80 1/2"
5'-4" x 6'-8"	63 1/2"	64"	80"	80 1/2"
5'-8" x 6'-8"	67 1/2"	68"	80"	80 1/2"
6'-0" x 6'-8"	71 1/2"	72"	80"	80 1/2"

# Rough Opening Sizes

New Construction Units — Wood Frames\* (for Inswing & Outswing Doors) & Cladded Inswing Frames

Description	Actual Frame Width Size †		Stud to Stud Rough Opening Minimum		Actual Unit Size Outside Brickmold w/Inswing Door(s) ‡		Actual Unit Size Outside Brickmold w/Outswing Door(s) ‡		Rough Opening Heights			
									6'8"	7'0"		
1-2'-6" Door	31-1/2"		32"		34"		34-3/4"		82" for Inswing/Outswing	86" for Inswing/Outswing		
1-2'-8" Door	33-1/2"		34"		36"		36-3/4"					
1-2'-10" Door	35-1/2"		36"		38"		38-3/4"					
1-3'-0" Door	37-1/2"		36"		40"		40-3/4"					
1-3'-6" Door	43-1/2"		44"		46"		46-3/4"					
1-5'-0" Door	62"		62-1/2"		64-1/2"		65-1/4"					
5'4" Door	66"		66-1/2"		68-1/2"		69-1/4"					
6'0" Door	74"		74-1/2"		76-1/2"		77-1/4"					
<b>Opening Dimensions for Door(s) with Fixed Sidelites or Direct Set Glass</b>												
<b>Sidelite Size</b>	<b>12"</b>	<b>14"</b>	<b>12"</b>	<b>14"</b>	<b>12"</b>	<b>14"</b>	<b>12"</b>	<b>14"</b>				
1-2'-6" Door w/ 1 Sidelite	45"	47"	46"	48"	47-1/2"	49-1/2"	47-7/8"	49-7/8"				
1-2'-8" Door w/ 1 Sidelite	47"	49"	48"	50"	49-1/2"	51-1/2"	49-7/8"	51-7/8"				
1-2'-10" Door w/ 1 Sidelite	49"	51"	50"	52"	51-1/2"	53-1/2"	51-7/8"	53-7/8"				
1-3'-0" Door w/ 1 Sidelite	51"	53"	52"	54"	53-1/2"	55-1/2"	53-7/8"	55-7/8"				
5'4" Door w/ 1 Sidelite	79-1/2"	81-1/2"	80-1/2"	82-1/2"	82"	84"	82-3/8"	84-3/8"				
6'0" Door w/ 1 Sidelite	87-1/2"	89-1/2"	88-1/2"	90-1/2"	90"	92"	90-3/8"	92-3/8"				
1-2'-6" Door w/ 2 Sidelites	58-1/2"	62-1/2"	59-1/2"	63-1/2"	61"	65"	61-3/8"	65-3/8"				
1-2'-8" Door w/ 2 Sidelites	60-1/2"	64-1/2"	61-1/2"	65-1/2"	63"	67"	63-3/8"	67-3/8"				
1-2'-10" Door w/ 2 Sidelites	62-1/2"	66-1/2"	63-1/2"	67-1/2"	65"	69"	65-3/8"	69-3/8"				
1-3'-0" Door w/ 2 Sidelites	64-1/2"	68-1/2"	65-1/2"	69-1/2"	67"	71"	67-3/8"	71-3/8"				
5'4" Door w/ 2 Sidelites	93"	97"	94"	98"	95-1/2"	99-1/2"	95-7/8"	99-7/8"				
6'0" Door w/ 2 Sidelites	101"	105"	102"	106"	103-1/2"	107-1/2"	103-7/8"	107-7/8"				

\* NOTE: For MASONRY CONSTRUCTION, add 1/4" to outside brickmold dimensions shown.

† NOTE: Actual frame height is 81-3/8" for 6'8" doors, 85-3/8" for 7'0" doors. Fiberglass doors are 1/4" bigger.

‡ Actual unit size height (outside brickmold) is 83" for 6'8" doors, 87" for 7'0" doors.

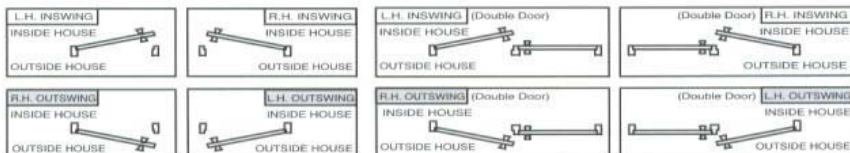
NOTE: Fiberglass not available in 7'0".

## TRANSOM ROUGH OPENINGS (6'8" door Height)

	Transom Type	Rough Opening Widths*	Rough Opening Heights	Unit Size
Rough Opening (stud to stud) For inswing & outswing doors.	TR-98	(see above chart)	102-3/4"	102-1/4"
	TR-97	"	102-3/4"	102-1/4"
	TR-96/99	"	93-3/4"	93-1/4"
	TR-95	"	varies	varies
	TR-91	"	93-3/4"	93-1/4"
	TR-92	"	102-3/4"	102-1/4"
	TR-93	"	varies	varies

\* 7'0" Door add 4"

## HINGING OF DOORS



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