

## RedHeader RO™ Allowable Opening Widths for Jamb Studs (Exterior Framing)

(Wall dead load = 12psf, deflection factor = 0.7)				Wind pressure (psf)													
Wall height	Wall size	Jamb Stud Member	Gauge (mills)	20 psf			25 psf			30 psf							
				Deflection Limit													
				L/240	L/360	L/600	L/240	L/360	L/600	L/240	L/360	L/600					
9'-0"	3-5/8"	362JS300-33	20ga (33mil)	3'-1"*	3'-1"*	-	-	-	-	-	-	-	-				
		362JS300-43	18ga (43mil)	5'-8"*	5'-8"*	4'-0"	4'-3"*	4'-3"*	-	3'-3"*	3'-3"*	-	-				
		362JS300-54	16ga (54mil)	16'-0"	10'-5"	5'-8"	12'-7"*	8'-0"	8'-0"	4'-2"	10'-3"*	6'-5"	3'-3"	-			
		362JS300-68	14ga (68mil)	16'-0"	13'-7"	7'-6"	16'-0"	10'-7"	5'-9"	13'-7"	8'-6"	4'-6"	4'-6"	-			
		362JS300-97	12ga (97mil)	16'-0"	16'-0"	11'-8"	16'-0"	16'-0"	9'-1"	16'-0"	13'-2"	7'-4"	7'-4"	-			
		362JS350-54	16ga (54mil)	16'-0"	11'-2"	6'-1"	12'-11"*	8'-7"	4'-7"	10'-6"*	6'-11"	3'-7"	3'-7"	-			
	4"	3-5/8"	362JS350-68	14ga (68mil)	16'-0"	14'-8"	8'-2"	16'-0"	11'-5"	6'-3"	14'-1"*	9'-3"	5'-0"	-			
			362JS350-97	12ga (97mil)	16'-0"	16'-0"	12'-8"	16'-0"	16'-0"	9'-10"	16'-0"	14'-3"	7'-11"	-			
			400JS300-33	20ga (33mil)	3'-8"*	3'-8"*	-	-	-	-	-	-	-	-	-		
			400JS300-43	18ga (43mil)	6'-8"*	6'-8"*	5'-4"	5'-0"*	5'-0"*	3'-11"	3'-11"*	3'-11"*	3'-0"	3'-0"	-		
			400JS300-54	16ga (54mil)	16'-0"	13'-4"	7'-5"	14'-5"*	10'-4"	5'-7"	11'-9"*	8'-5"	4'-5"	4'-5"	-		
			400JS300-68	14ga (68mil)	16'-0"	16'-0"	9'-10"	16'-0"	13'-7"	7'-6"	15'-7"*	11'-1"	6'-0"	6'-0"	-		
		6"	3-5/8"	400JS300-97	12ga (97mil)	16'-0"	16'-0"	15'-1"	16'-0"	16'-0"	11'-9"	16'-0"	16'-0"	9'-6"	9'-6"	-	
				400JS350-54	16ga (54mil)	16'-0"	14'-3"	7'-11"	14'-8"*	11'-1"	6'-1"	12'-0"*	9'-0"	4'-10"	4'-10"	-	
				400JS350-68	14ga (68mil)	16'-0"	16'-0"	10'-7"	16'-0"	14'-8"	8'-2"	16'-0"	11'-11"	6'-7"	6'-7"	-	
				400JS350-97	12ga (97mil)	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	12'-8"	16'-0"	16'-0"	10'-4"	10'-4"	-	
				600JS300-33	20ga (33mil)	6'-11"*	6'-11"*	6'-11"*	5'-3"*	5'-3"*	5'-3"*	4'-1"*	4'-1"*	4'-1"*	4'-1"*	-	
				600JS300-43	18ga (43mil)	14'-5"*	14'-5"*	14'-5"*	11'-3"*	11'-3"*	11'-3"*	9'-1"*	9'-1"*	9'-1"*	9'-1"*	-	
			8"	3-5/8"	600JS300-54	16ga (54mil)	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	16'-10"	20'-0"	20'-0"	13'-9"	13'-9"	-
					600JS300-68	14ga (68mil)	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	17'-8"	17'-8"	-
					600JS300-97	12ga (97mil)	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	-
					600JS350-54	16ga (54mil)	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	17'-10"	20'-0"	20'-0"	14'-7"	14'-7"	-
					600JS350-68	14ga (68mil)	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	18'-11"	18'-11"	-
					600JS350-97	12ga (97mil)	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	-
	11'-0"	3-5/8"	800JS300-43	18ga (43mil)	16'-0"	16'-0"	16'-0"	15'-7"*	15'-7"*	15'-7"*	12'-9"*	12'-9"*	12'-9"*	12'-9"*	-		
			800JS300-54	16ga (54mil)	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	-		
			800JS300-68	14ga (68mil)	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	-		
			800JS300-97	12ga (97mil)	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	-		
			800JS350-54	16ga (54mil)	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	-		
			800JS350-68	14ga (68mil)	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	-		
		4"	3-5/8"	800JS350-97	12ga (97mil)	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	-	
				400JS300-33	20ga (33mil)	-	-	-	-	-	-	-	-	-	-	-	
				400JS300-43	18ga (43mil)	3'-2"*	3'-2"*	-	-	-	-	-	-	-	-	-	
				400JS300-54	16ga (54mil)	8'-2"	5'-0"	-	6'-3"	3'-8"	-	5'-0"	-	-	-	-	
				400JS300-68	14ga (68mil)	10'-10"	6'-8"	3'-5"	8'-4"	5'-1"	-	6'-8"	4'-0"	-	-	-	
				400JS300-97	12ga (97mil)	16'-0"	10'-6"	5'-8"	12'-11"	8'-1"	4'-3"	10'-6"	6'-6"	3'-4"	3'-4"	-	
6"			3-5/8"	400JS350-54	16ga (54mil)	8'-10"	5'-5"	-	6'-9"	4'-0"	-	5'-5"	3'-1"	-	-		
				400JS350-68	14ga (68mil)	11'-8"	7'-4"	3'-9"	9'-1"	5'-6"	-	7'-4"	4'-4"	-	-		
				400JS350-97	12ga (97mil)	16'-0"	11'-4"	6'-3"	13'-11"	8'-9"	4'-8"	11'-4"	7'-1"	3'-8"	3'-8"	-	
				400JS300-33	20ga (33mil)	-	-	-	-	-	-	-	-	-	-	-	
				400JS300-43	18ga (43mil)	3'-9"*	3'-9"*	-	-	-	-	-	-	-	-	-	
				400JS300-54	16ga (54mil)	10'-7"	6'-7"	3'-4"	8'-2"	5'-0"	-	6'-7"	3'-11"	-	-	-	
8"	3-5/8"	400JS300-68	14ga (68mil)	13'-11"	8'-9"	4'-8"	10'-10"	6'-8"	3'-5"	8'-9"	5'-4"	-	-				
		400JS300-97	12ga (97mil)	16'-0"	13'-6"	7'-6"	16'-0"	10'-6"	5'-9"	13'-6"	8'-6"	4'-6"	4'-6"	-			
		400JS350-54	16ga (54mil)	11'-4"	7'-1"	3'-8"	8'-10"	5'-4"	-	7'-1"	4'-3"	-	-				
		400JS350-68	14ga (68mil)	15'-0"	9'-6"	5'-1"	11'-8"	7'-3"	3'-9"	9'-6"	5'-10"	-	-				
		400JS350-97	12ga (97mil)	16'-0"	14'-7"	8'-2"	16'-0"	11'-4"	6'-3"	14'-7"	9'-3"	4'-11"	4'-11"	-			
		600JS300-33	20ga (33mil)	3'-11"*	3'-11"*	3'-11"*	-	-	-	-	-	-	-	-			
	6"	3-5/8"	600JS300-43	18ga (43mil)	8'-9"*	8'-9"*	7'-7"	6'-8"*	6'-8"*	5'-9"	5'-4"*	5'-4"*	4'-7"	4'-7"			
			600JS300-54	16ga (54mil)	20'-0"	19'-3"	10'-11"	16'-4"*	15'-1"	8'-6"	13'-5"*	12'-4"	6'-10"	6'-10"			
			600JS300-68	14ga (68mil)	20'-0"	20'-0"	14'-2"	20'-0"	19'-4"	11'-0"	17'-4"*	15'-11"	8'-11"	8'-11"			
			600JS300-97	12ga (97mil)	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	16'-10"	20'-0"	20'-0"	13'-9"	13'-9"			
			600JS350-54	16ga (54mil)	20'-0"	20'-0"	11'-8"	16'-9"	16'-0"	9'-0"	13'-9"*	13'-1"	7'-3"	7'-3"			
			600JS350-68	14ga (68mil)	20'-0"	20'-0"	15'-2"	20'-0"	20'-0"	11'-10"	18'-0"*	17'-0"	9'-7"	9'-7"			
8"	3-5/8"	600JS350-97	12ga (97mil)	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	17'-11"	20'-0"	20'-0"	14'-8"	14'-8"				
		800JS300-43	18ga (43mil)	12'-2"*	12'-2"*	12'-2"*	9'-6"*	9'-6"*	9'-6"*	7'-8"*	7'-8"*	7'-8"*	7'-8"*				
		800JS300-54	16ga (54mil)	19'-6"*	19'-6"*	19'-6"*	15'-4"*	15'-4"*	15'-4"*	12'-6"*	12'-6"*	12'-6"*	12'-6"*				
		800JS300-68	14ga (68mil)	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	18'-11"	18'-11"				
		800JS300-97	12ga (97mil)	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"				
		800JS350-54	16ga (54mil)	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	18'-3"	19'-6"*	19'-6"*	15'-0"	15'-0"				
8"	3-5/8"	800JS350-68	14ga (68mil)	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"				
		800JS350-97	12ga (97mil)	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"				

Table notes:

1. This table was prepared conservatively with an analysis of the opening being vertically centered in relation to the overall wall height indicated.
2. Minimum opening height is 36 inches, at the center of the wall height. For door openings, this table is conservative, and therefore applicable.
3. Opening widths are limited to 16'-0" for 3-5/8" & 4" members and 20'-0" for 6" & 8" members. (20ga and 18ga members are also limited to 16'-0")
4. Physical properties and this table have been calculated in conformance with the AISI 2001 NASPEC w/2004 supplement or by Direct Strength Method.
5. Effective properties incorporate the strength increase from the Cold Work of Forming as applicable per NASPEC A7.2.
6. On exterior framing, lateral deflection calculations are based on using 0.7 times the Components and Cladding wind load.
7. The tabulated values for flexural stress were based upon a fully braced side jamb.
8. Web crippling must be checked separately for end bearing lengths other than 1".
9. This table is not applicable for load bearing walls but is applicable for a curtainwall application.
10. The strength analysis included separate bending and shear checks plus the combined interaction of bending and shear effects per section C3.3 of 2001 NASPEC.
11. Tables were prepared using a 16" o.c. spacing from the jamb stud to the first adjacent typical wall stud.
12. Tabled widths marked with an \* (asterisk) require web stiffening at each end of the jamb. Web crippling check uses 1" of bearing length.
13. For opening conditions outside the profiles noted above, please submit a RedHeader RO sizing sheet to CW Technical Services.



## RedHeader RO™ Allowable Opening Widths for Jamb Studs (Exterior Framing)

(Wall dead load = 12psf, deflection factor = 0.7)				Wind pressure (psf)									
Wall height	Wall size	Jamb Stud Member	Gauge (mills)	20 psf			25 psf			30 psf			
				Deflection Limit									
				L/240	L/360	L/600	L/240	L/360	L/600	L/240	L/360	L/600	
<b>13'-0"</b>	3-5/8"	362JS300-33	20ga (33mil)	-	-	-	-	-	-	-	-	-	-
		362JS300-43	18ga (43mil)	-	-	-	-	-	-	-	-	-	-
		362JS300-54	16ga (54mil)	4'-5"	-	-	3'-3"	-	-	-	-	-	-
		362JS300-68	14ga (68mil)	6'-0"	3'-6"	-	4'-6"	-	-	3'-6"	-	-	-
		362JS300-97	12ga (97mil)	9'-5"	5'-9"	-	7'-3"	4'-4"	-	5'-9"	3'-4"	-	-
		362JS350-54	16ga (54mil)	4'-9"	-	-	3'-6"	-	-	-	-	-	-
	362JS350-68	14ga (68mil)	6'-6"	3'-10"	-	4'-11"	-	-	3'-10"	-	-	-	
	362JS350-97	12ga (97mil)	10'-3"	6'-4"	3'-2"	7'-11"	4'-9"	-	6'-4"	3'-8"	-	-	
	400JS300-33	20ga (33mil)	-	-	-	-	-	-	-	-	-	-	
	400JS300-43	18ga (43mil)	-	-	-	-	-	-	-	-	-	-	
	400JS300-54	16ga (54mil)	5'-10"	3'-5"	-	4'-5"	-	-	3'-5"	-	-	-	
	400JS300-68	14ga (68mil)	7'-10"	4'-9"	-	6'-0"	3'-6"	-	4'-9"	-	-	-	
	400JS300-97	12ga (97mil)	12'-2"	7'-8"	4'-0"	9'-5"	5'-10"	-	7'-8"	4'-7"	-	-	
	400JS350-54	16ga (54mil)	6'-4"	3'-9"	-	4'-9"	-	-	3'-9"	-	-	-	
	400JS350-68	14ga (68mil)	8'-6"	5'-2"	-	6'-6"	3'-10"	-	5'-2"	-	-	-	
	400JS350-97	12ga (97mil)	13'-2"	8'-3"	4'-4"	10'-3"	6'-4"	3'-2"	8'-3"	5'-0"	-	-	
	600JS300-33	20ga (33mil)	-	-	-	-	-	-	-	-	-	-	
	600JS300-43	18ga (43mil)	5'-8"*	5'-8"*	4'-0"	4'-3"*	4'-3"*	-	3'-4"*	3'-4"*	-	-	
	600JS300-54	16ga (54mil)	14'-2"*	11'-1"	6'-1"	11'-1"*	8'-7"	4'-7"	9'-0"*	6'-11"	3'-7"	-	
	600JS300-68	14ga (68mil)	18'-4"*	14'-4"	8'-0"	14'-4"*	11'-2"	6'-1"	11'-9"*	9'-1"	4'-10"	-	
	600JS300-97	12ga (97mil)	20'-0"	20'-0"	12'-5"	20'-0"	17'-1"	9'-8"	18'-8"*	14'-0"	7'-9"	-	
	600JS350-54	16ga (54mil)	14'-6"*	11'-10"	6'-6"	11'-4"*	9'-2"	4'-11"	9'-2"*	7'-5"	3'-10"	-	
	600JS350-68	14ga (68mil)	18'-11"*	15'-4"	8'-7"	14'-11"*	12'-0"	6'-7"	12'-2"*	9'-9"	5'-3"	-	
	600JS350-97	12ga (97mil)	20'-0"	20'-0"	13'-3"	20'-0"	18'-2"	10'-4"	19'-1"*	14'-11"*	8'-4"	-	
	800JS300-43	18ga (43mil)	8'-1"*	8'-1"*	8'-1"*	6'-2"*	6'-2"*	6'-2"*	4'-11"*	4'-11"*	4'-11"*	-	
	800JS300-54	16ga (54mil)	13'-3"*	13'-3"*	13'-0"	10'-4"*	10'-4"*	10'-1"	8'-4"*	8'-4"*	8'-2"	-	
	800JS300-68	14ga (68mil)	20'-0"	20'-0"	17'-1"	20'-0"	20'-0"	13'-4"	18'-0"*	18'-0"*	10'-11"	-	
	800JS300-97	12ga (97mil)	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	16'-7"	-	
	800JS350-54	16ga (54mil)	20'-0"	20'-0"	13'-6"	16'-2"*	16'-2"*	10'-6"	13'-3"*	13'-3"*	8'-6"	-	
	800JS350-68	14ga (68mil)	20'-0"	20'-0"	18'-2"	20'-0"	20'-0"	14'-3"	18'-8"*	18'-8"*	11'-7"	-	
	800JS350-97	12ga (97mil)	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	17'-7"	-	
	<b>15'-0"</b>	3-5/8"	362JS300-33	20ga (33mil)	-	-	-	-	-	-	-	-	-
			362JS300-43	18ga (43mil)	-	-	-	-	-	-	-	-	-
			362JS300-54	16ga (54mil)	-	-	-	-	-	-	-	-	-
			362JS300-68	14ga (68mil)	3'-5"	-	-	-	-	-	-	-	-
			362JS300-97	12ga (97mil)	5'-8"	3'-3"	-	4'-3"	-	-	3'-3"	-	-
362JS350-54			16ga (54mil)	-	-	-	-	-	-	-	-	-	
362JS350-68		14ga (68mil)	3'-9"	-	-	-	-	-	-	-	-		
362JS350-97		12ga (97mil)	6'-2"	3'-7"	-	4'-8"	-	-	3'-7"	-	-		
400JS300-33		20ga (33mil)	-	-	-	-	-	-	-	-	-		
400JS300-43		18ga (43mil)	-	-	-	-	-	-	-	-	-		
400JS300-54		16ga (54mil)	3'-4"	-	-	-	-	-	-	-	-		
400JS300-68		14ga (68mil)	4'-7"	-	-	3'-5"	-	-	-	-	-		
400JS300-97		12ga (97mil)	7'-6"	4'-6"	-	5'-8"	3'-3"	-	4'-6"	-	-		
400JS350-54		16ga (54mil)	3'-7"	-	-	-	-	-	-	-	-		
400JS350-68		14ga (68mil)	5'-1"	-	-	3'-9"	-	-	-	-	-		
400JS350-97		12ga (97mil)	8'-1"	4'-11"	-	6'-2"	3'-7"	-	4'-11"	-	-		
600JS300-33		20ga (33mil)	-	-	-	-	-	-	-	-	-		
600JS300-43		18ga (43mil)	3'-10"*	3'-10"*	-	-	-	-	-	-	-		
600JS300-54		16ga (54mil)	10'-1"*	6'-9"	3'-5"	7'-10"*	5'-1"	-	6'-3"*	4'-0"	-		
600JS300-68		14ga (68mil)	13'-2"*	8'-10"	4'-9"	10'-3"*	6'-10"	3'-6"	8'-4"*	5'-5"	-		
600JS300-97		12ga (97mil)	20'-0"	13'-8"	7'-7"	16'-5"*	10'-8"	5'-9"	13'-5"*	8'-7"	4'-7"		
600JS350-54		16ga (54mil)	10'-4"*	7'-3"	3'-9"	8'-0"*	5'-6"	-	6'-5"*	4'-4"	-		
600JS350-68		14ga (68mil)	13'-8"*	9'-6"	5'-1"	10'-8"*	7'-4"	3'-9"	8'-8"*	5'-10"	-		
600JS350-97		12ga (97mil)	20'-0"	14'-7"	8'-2"	16'-10"*	11'-5"	6'-3"	13'-9"*	9'-3"	4'-11"		
800JS300-43		18ga (43mil)	5'-7"*	5'-7"*	5'-0"	4'-2"*	4'-2"*	3'-9"	3'-3"*	3'-3"*	-		
800JS300-54		16ga (54mil)	9'-5"*	9'-5"*	8'-0"	7'-3"*	7'-3"*	6'-1"	5'-10"*	5'-10"*	4'-10"		
800JS300-68		14ga (68mil)	20'-0"	18'-9"	10'-8"	15'-10"*	14'-9"	8'-3"	13'-0"*	12'-0"	6'-7"		
800JS300-97		12ga (97mil)	20'-0"	20'-0"	16'-4"	20'-0"	20'-0"	12'-9"	20'-0"	18'-3"	10'-4"		
800JS350-54		16ga (54mil)	14'-10"*	14'-10"*	8'-4"	11'-7"*	11'-7"*	6'-4"	9'-5"*	9'-5"*	5'-1"		
800JS350-68		14ga (68mil)	20'-0"	20'-0"	11'-5"	16'-5"*	15'-8"	8'-10"	13'-5"*	12'-10"	7'-1"		
800JS350-97		12ga (97mil)	20'-0"	20'-0"	17'-3"	20'-0"	20'-0"	13'-6"	20'-0"	19'-4"	11'-0"		

**Table notes:**

1. This table was prepared conservatively with an analysis of the opening being vertically centered in relation to the overall wall height indicated.
2. Minimum opening height is 36 inches, at the center of the wall height. For door openings, this table is conservative, and therefore applicable.
3. Opening widths are limited to 16'-0" for 3-5/8" & 4" members and 20'-0" for 6" & 8" members. (20ga and 18ga members are also limited to 16'-0")
4. Physical properties and this table have been calculated in conformance with the AISI 2001 NASPEC w/2004 supplement or by Direct Strength Method.
5. Effective properties incorporate the strength increase from the Cold Work of Forming as applicable per NASPEC A7.2.
6. On exterior framing, lateral deflection calculations are based on using 0.7 times the Components and Cladding wind load.
7. The tabulated values for flexural stress were based upon a fully braced side jamb.
8. Web crippling must be checked separately for end bearing lengths other than 1".
9. This table is not applicable for load bearing walls but is applicable for a curtainwall application.
10. The strength analysis included separate bending and shear checks plus the combined interaction of bending and shear effects per section C3.3 of 2001 NASPEC.
11. Tables were prepared using a 16" o.c. spacing from the jamb stud to the first adjacent typical wall stud.
12. Tabled widths marked with an \* (asterisk) require web stiffening at each end of the jamb. Web crippling check uses 1" of bearing length.
13. For opening conditions outside the profiles noted above, please submit a RedHeader RO sizing sheet to CW Technical Services.

