M I	S : (;)	5psf		
Member	Spacing (in) o.c.	L/120	L/240	L/360
	12	17' 6"	13' 10"	12' 1"
250S137-3	3 16	15' 10"	12' 7"	11' 0"
	24	13' 10"	11' 0"	9' 7"
	12	19' 0"	15' 1"	13' 2"
250S137-4	3 16	17' 3"	13' 8"	11' 11"
	24	15' 1"	11' 11"	10' 5"
	12	20' 3"	16' 1"	14' 1"
250S137-5	4 16	18' 5"	14' 8"	12' 9"
	24	16' 1"	12' 9"	11' 2"
	12	21' 8"	17' 2"	15' 0"
250S137-6	8 16	19' 8"	15' 7"	13' 8"
	24	17' 2"	13' 8"	11' 11"
	12	23' 8"	18' 10"	16' 5"
250S137-9	7 16	21' 6"	17' 1"	14' 11"
250S137-9 250S162-3	24	18' 10"	14' 11"	13' 0"
	12	18' 4"	14' 7"	12' 9"
250S162-3		16' 8"	13' 3"	11' 7"
	24	14' 7"	11' 7"	10' 1"
	12	19' 11"	15' 10"	13' 10"
250S162-4	3 16	18' 1"	14' 4"	12' 7"
	24	15' 10"	12' 7"	11' 0"
	12	21' 4"	16' 11"	14' 9"
250S162-5	4 16	19' 4"	15' 5"	13' 5"
	24	16' 11"	13' 5"	11' 9"
	12	22' 9"	18' 1"	15' 9"
250S162-6	8 16	20' 8"	16' 5"	14' 4"
	24	18' 1"	14' 4"	12' 6"
	12	25' 0"	19' 10"	17' 4"
250S162-9	7 16	22' 9"	18' 0"	15' 9"
	24	19' 10"	15' 9"	13' 9"

	Member	S i (i -)	5psf				
		Spacing (in) o.c.	L/120	L/240	L/360		
		12	19' 4"	15' 4"	13' 5"		
	250S200-33	16	17' 7"	13' 11"	12' 2"		
		24	15' 4"	12' 2"	10' 8"		
		12	21' 1"	16' 9"	14' 8"		
	250S200-43	16	19' 2"	15' 3"	13' 4"		
		24	16' 9"	13' 4"	11' 7"		
		12	22' 7"	17' 11"	15' 8"		
	250S200-54	16	20' 6"	16' 4"	14' 3"		
		24	17' 11"	14' 3"	12' 5"		
		12	24' 2"	19' 2"	16' 9"		
5	250S200-68	16	21' 11"	17' 5"	15' 3"		
		24	19' 2"	15' 3"	13' 4"		
		12	26' 7"	21' 1"	18' 5"		
	250S200-97	16	24' 2"	19' 2"	16' 9"		
		24	21' 1"	16' 9"	14' 8"		
		12	22' 4"	17' 9"	15' 6"		
	250S250-43	16	20' 4"	16' 1"	14' 1"		
'		24	17' 9"	14' 1"	12' 4"		
		12	23' 11"	19' 0"	16' 7"		
	250S250-54	16	21' 9"	17' 3"	15' 1"		
		24	19' 0"	15' 1"	13' 2"		
		12	25' 8"	20' 4"	17' 9"		
	250S250-68	16	23' 4"	18' 6"	16' 2"		
		24	20' 4"	16' 2"	14' 1"		
		12	28' 4"	22' 6"	19' 8"		
	250S250-97	16	25' 9"	20' 5"	17' 10"		
		24	22' 6"	17' 10"	15' 7"		

- 1 Studs are checked for simple-span deflection and stress. Stress calculations are made for mid-span fully braced moment, end shear through the unperforated section and shear moment interaction through the perforated section 10" away from the end bearing.
- 2 A 1/3 stress increase is not used.
- 3 Limiting heights are based on continuous lateral support of each flange over the full height of the stud.
- 4 Listed limiting heights are based on steel properties only.
- 5 End reactions must be checked for web crippling separately.
- 6 Web crippling check based on 1-inch end bearing. Where limiting heights are followed by "e", web stiffeners are required.
- 7 Allowable moment is the lesser of local and distortional buckling. Stud distortional buckling based on an assumed $K\Phi = 0$.
- 8 Members marked with an 1 have h/t > 200, and thus require end stiffeners.
- 9 Capacities are calculated according to the AISI S100-16 (2020) w/S2-20. A 1-1/2" by 4" knockout spaced no closer than 24" o.c. is assumed. (3/4" for 2-1/2" studs).
- 10 All values are based on Fy=33ksi for 33mil and 43mil Studs, and Fy=50ksi for 54mil, 68mil and 97mil Studs.
- 11 For deflection calculations, interior wall loads have been multiplied by 1.0 per AISI S240.

INTERIOR WALL HEIGHTS With structural framing 5psf Member Spacing (in) o.c. L/120 L/240 L/360 12 22' 7" 17' 11" 15' 8" 16 20' 7" 16' 4" 14' 3" 350S137-33 24 17' 2" 14' 3" 12' 5" 12 24' 7" 19'6" 17' 1" 350S137-43 16 22' 4" 17' 9" 15' 6" 24 19' 6" 13' 6" 15' 6" 12 26' 4" 20' 11" 18' 3" 350S137-54 16 23' 11" 19' 0" 16' 7" 24 20' 11" 16' 7" 14' 6" 12 28' 2" 22' 4" 19'6" 16 25' 7" 350S137-68 20' 3" 17' 9" 3-1/2" Structural Framing 24 22' 4" 17' 9" 15'6" 12 30' 11" 24' 7" 21' 5" 16 22' 4" 19' 6" 350S137-97 28' 1" 24 24' 7" 19' 6" 17' 0" 12 23' 9" 18' 10" 16' 5" 21'7" 350S162-33 16 17' 1" 14' 11" 24 18' 5" 14' 11" 13' 1" 12 25' 10" 20' 6" 17' 11" 350S162-43 16 23' 5" 18' 7" 16' 3" 14' 2" 24 20'6" 16' 3" 27' 8" 19' 2" 12 21' 11" 350S162-54 16 25' 1" 19' 11" 17' 5" 24 21' 11" 17' 5" 15' 2" 12 29' 7" 20' 6" 23' 6" 350S162-68 16 26' 10" 21' 4" 18' 7" 24 23'6" 18' 7" 16' 3" 12 32' 7" 25' 10" 22' 7" 350S162-97 16 29' 7" 23' 6" 20' 6"

25' 10"

20' 6"

	Member	Ci (i-)	5psf					
		Spacing (in) o.c.	L/120	L/240	L/360			
		12	24' 11"	19' 10"	17' 4"			
	350S200-33	16	22' 8"	18' 0"	15' 9"			
		24	19' 4"	15' 9"	13' 9"			
		12	27' 3"	21' 8"	18' 11"			
	350S200-43	16	24' 9"	19' 8"	17' 2"			
		24	21' 8"	17' 2"	15' 0"			
		12	29' 3"	23' 2"	20' 3"			
	350S200-54	16	26' 6"	21' 1"	18' 5"			
		24	23' 2"	18' 5"	16' 1"			
0.0		12	31' 3"	24' 10"	21' 8"			
.≝	350S200-68	16	28' 5"	22' 7"	19' 8"			
를		24	24' 10"	19' 8"	17' 3"			
ш.		12	34' 7"	27' 5"	24' 0"			
2	350S200-97	16	31' 5"	24' 11"	21' 9"			
12		24	27' 5"	21' 9"	19' 0"			
Structural Framing								
3-1/2"		12	28' 9"	22' 10"	19' 11"			
7	350S250-43	16	26' 1"	20' 9"	18' 1"			
m		24	22' 10"	18' 1"	15' 10"			
		12	30' 9"	24' 5"	21' 4"			
	350S250-54	16	27' 11"	22' 2"	19' 4"			
		24	24' 5"	19' 4"	16' 11"			
		12	33' 1"	26' 3"	22' 11"			
	350S250-68	16	30' 0"	23' 10"	20' 10"			
		24	26' 3"	20' 10"	18' 2"			
		12	36' 7"	29' 1"	25' 5"			
	350S250-97	16	33' 3"	26' 5"	23' 1"			
		24	29' 1"	23' 1"	20' 2"			

Notes:

1 Studs are checked for simple-span deflection and stress. Stress calculations are made for mid-span fully braced moment, end shear through the unperforated section and shear moment interaction through the perforated section 10" away from the end bearing.

24

- 2 A 1/3 stress increase is not used.
- 3 Limiting heights are based on continuous lateral support of each flange over the full height of the stud.
- 4 Listed limiting heights are based on steel properties only.

17' 11"

- **5** End reactions must be checked for web crippling separately.
- 6 Web crippling check based on 1-inch end bearing. Where limiting heights are followed by "e", web stiffeners are required.
- 7 Allowable moment is the lesser of local and distortional buckling. Stud distortional buckling based on an assumed $K\varphi = 0$.
- 8 Members marked with an 1 have h/t > 200, and thus require end stiffeners.
- 9 Capacities are calculated according to the AISI S100-16 (2020) w/S2-20. A 1-1/2" by 4" knockout spaced no closer than 24" o.c. is assumed. (3/4" for 2-1/2" studs).
- 10 All values are based on Fy=33ksi for 33mil and 43mil Studs, and Fy=50ksi for 54mil, 68mil and 97mil Studs.
- 11 For deflection calculations, interior wall loads have been multiplied by 1.0 per AISI S240.

Complies with AISI S100-16 (2020) w/S2-20 • IBC 2024

The technical content of this literature is effective 06/01/24 and supersedes all previous information.

clarkdietrich.com

	C : (1)		5psf	
Member	Spacing (in) o.c.	L/120	L/240	L/360
	12	23' 3"	18' 5"	16' 1"
362S137-33	16	21' 1"	16' 9"	14' 8"
	24	17' 6"	14' 8"	12' 10'
	12	25' 3"	20' 1"	17' 6"
362S137-43	16	23' 0"	18' 3"	15' 11'
	24	20' 1"	15' 11"	13' 11'
	12	27' 1"	21' 6"	18' 9"
362S137-54	16	24' 7"	19' 6"	17' 1"
	24	21' 6"	17' 1"	14' 11'
	12	28' 11"	22' 11"	20' 1"
362S137-68	16	26' 3"	20' 10"	18' 3"
	24	22' 11"	18' 3"	15' 11'
362S137-97	12	31' 10"	25' 3"	22' 1"
	16	28' 11"	22' 11"	20' 1"
	24	25' 3"	20' 1"	17' 6"
	12	24' 4"	19' 4"	16' 11"
362S162-33	16	22' 2"	17' 7"	15' 4"
3023102-33	24	18' 9"	15' 4"	13' 5"
	12	26' 6"	21' 0"	18' 5"
362S162-43	16	24' 1"	19' 1"	16' 8"
0020102-40	24	21' 0"	16' 8"	14' 7"
	12	28' 5"	22' 6"	19' 8"
362S162-54	16	25' 10"	20' 6"	17' 11'
3020102-04	24	22' 6"	17' 11"	15' 7"
	12	30' 5"	24' 1"	21' 1"
362S162-68	16	27' 7"	21' 11"	19' 2"
3020102-00	24	24' 1"	19' 2"	16' 9"
	12	33' 6"	26' 7"	23' 3"
362S162-97	16	30' 5"	24' 2"	21' 1"
3020102 07	24	26' 7"	21' 1"	18' 5"

	Member	C . (;)	5psf					
		Spacing (in) o.c.	L/120	L/240	L/360			
		12	25' 8"	20' 4"	17' 9"			
	362S200-33	16	23' 3"	18' 6"	16' 2"			
		24	19' 8"	16' 2"	14' 1"			
		12	28' 0"	22' 3"	19' 5"			
	362S200-43	16	25' 5"	20' 2"	17' 8"			
		24	22' 3"	17' 8"	15' 5"			
		12	30' 0"	23' 10"	20' 10"			
	362S200-54	16	27' 3"	21' 8"	18' 11"			
		24	23' 10"	18' 11"	16' 6"			
9,0		12	32' 2"	25' 6"	22' 3"			
- 를	362S200-68	16	29' 2"	23' 2"	20' 3"			
Ē		24	25' 6"	20' 3"	17' 8"			
<u> </u>	362S200-97	12	35' 6"	28' 3"	24' 8"			
2		16	32' 3"	25' 8"	22' 5"			
3		24	28' 3"	22' 5"	19' 7"			
Structural Framing								
3-5/8"		12	29' 6"	23' 5"	20' 6"			
Š	362S250-43	16	26' 10"	21' 3"	18' 7"			
m		24	23' 5"	18' 7"	16' 3"			
		12	31' 7"	25' 1"	21' 11"			
	362S250-54	16	28' 8"	22' 9"	19' 11"			
		24	25' 1"	19' 11"	17' 4"			
		12	33' 11"	26' 11"	23' 6"			
	362S250-68	16	30' 10"	24' 6"	21' 5"			
		24	26' 11"	21' 5"	18' 8"			
		12	37' 7"	29' 10"	26' 1"			
	362S250-97	16	34' 2"	27' 1"	23' 8"			
		24	29' 10"	23' 8"	20' 8"			

- 1 Studs are checked for simple-span deflection and stress. Stress calculations are made for mid-span fully braced moment, end shear through the unperforated section and shear moment interaction through the perforated section 10" away from the end bearing.
- 2 A 1/3 stress increase is not used.

Pub. No. CD-STR-TechGuide 6/24

- 3 Limiting heights are based on continuous lateral support of each flange over the full height of the stud.
- 4 Listed limiting heights are based on steel properties only.
- 5 End reactions must be checked for web crippling separately.
- 6 Web crippling check based on 1-inch end bearing. Where limiting heights are followed by "e", web stiffeners are required.
- 7 Allowable moment is the lesser of local and distortional buckling. Stud distortional buckling based on an assumed $K\varphi = 0$.
- 8 Members marked with an 1 have h/t > 200, and thus require end stiffeners.
- 9 Capacities are calculated according to the AISI S100-16 (2020) w/S2-20. A 1-1/2" by 4" knockout spaced no closer than 24" o.c. is assumed. (3/4" for 2-1/2" studs).
- 10 All values are based on Fy=33ksi for 33mil and 43mil Studs, and Fy=50ksi for 54mil, 68mil and 97mil Studs.
- 11 For deflection calculations, interior wall loads have been multiplied by 1.0 per AISI S240.

INTERIOR WALL HEIGHTS With structural framing 5psf Member Spacing (in) o.c. L/120 L/240 L/360 12 25' 1" 19' 11" 17' 5" 16 22' 7" 18' 1" 15' 10" 400S137-33 24 18' 6" 15' 10" 13' 10" 12 27' 4" 21' 8" 18' 11" 400S137-43 16 24' 10' 19'8" 17' 2" 24 21' 8" 17' 2" 15' 0" 12 29' 3" 23' 2" 20' 3" 400S137-54 21' 1" 16 26' 7" 18' 5" 23' 2" 18' 5" 16' 1" 24 12 31' 3" 24' 10" 21' 8" 400S137-68 16 28' 5" 22' 7" 19'8" 24 24' 10" 19'8" 17' 2" Structural Framing 12 34' 5" 27' 4" 23' 11" 400S137-97 16 31' 3" 24' 10" 21' 8" 24 27' 4" 21' 8" 18' 11" 12 26' 3" 20' 10" 18' 3" 16 18' 11" 16' 7" 400S162-33 23' 11" 24 19' 10" 16' 7" 14' 6" 12 28' 7" 22' 8" 19' 10" 400S162-43 16 26' 0" 20'7" 18' 0" 24 18' 0" 22' 8" 15' 9" 12 30' 8" 24' 4" 21' 3" 400S162-54 16 27' 10" 22' 1" 19' 4" 19' 4" 24 24' 4" 16' 10" 12 32' 10" 26' 0" 22' 9" 400S162-68 16 29' 10" 23'8" 20'8" 20' 8" 24 26' 0" 18' 1" 12 36' 3" 28' 9" 25' 1" 400S162-97 16 32' 11" 26' 1" 22' 10"

28' 9"

22' 10"

	AA 1	S : (:)	5psf				
	Member	Spacing (in) o.c.	L/120	L/240	L/360		
	400\$200-33	12	27' 8"	21' 11"	19' 2"		
		16	25' 1"	19' 11"	17' 5"		
		24	20' 10"	17' 5"	15' 2"		
		12	30' 2"	23' 11"	20' 11"		
	400S200-43	16	27' 5"	21' 9"	19' 0"		
		24	23' 11"	19' 0"	16' 7"		
		12	32' 4"	25' 8"	22' 5"		
	400S200-54	16	29' 5"	23' 4"	20' 5"		
		24	25' 8"	20' 5"	17' 10"		
		12	34' 8"	27' 6"	24' 0"		
20	400S200-68	16	31' 6"	25' 0"	21' 10"		
·Ē		24	27' 6"	21' 10"	19' 1"		
Ē	400S200-97	12	38' 5"	30' 6"	26' 7"		
<u>ie</u>		16	34' 10"	27' 8"	24' 2"		
- E		24	30' 6"	24' 2"	21' 1"		
Structural Framing							
		12	31' 9"	25' 3"	22' 0"		
4	400S250-43	16	28' 10"	22' 11"	20' 0"		
		24	25' 3"	20' 0"	17' 6"		
		12	34' 0"	27' 0"	23' 7"		
	400S250-54	16	30' 10"	24' 6"	21' 5"		
		24	27' 0"	21' 5"	18' 8"		
		12	36' 7"	29' 0"	25' 4"		
	400S250-68	16	33' 3"	26' 4"	23' 0"		
		24	29' 0"	23' 0"	20' 1"		
		12	40' 7"	32' 2"	28' 1"		
	400S250-97	16	36' 10"	29' 3"	25' 7"		
		24	32' 2"	25' 7"	22' 4"		

Notes:

1 Studs are checked for simple-span deflection and stress. Stress calculations are made for mid-span fully braced moment, end shear through the unperforated section and shear moment interaction through the perforated section 10" away from the end bearing.

24

- 2 A 1/3 stress increase is not used.
- 3 Limiting heights are based on continuous lateral support of each flange over the full height of the stud.
- 4 Listed limiting heights are based on steel properties only.

19' 11"

- 5 End reactions must be checked for web crippling separately.
- 6 Web crippling check based on 1-inch end bearing. Where limiting heights are followed by "e", web stiffeners are required.
- 7 Allowable moment is the lesser of local and distortional buckling. Stud distortional buckling based on an assumed $K\varphi = 0$.
- 8 Members marked with an 1 have h/t > 200, and thus require end stiffeners.
- 9 Capacities are calculated according to the AISI S100-16 (2020) w/S2-20. A 1-1/2" by 4" knockout spaced no closer than 24" o.c. is assumed. (3/4" for 2-1/2" studs).
- 10 All values are based on Fy=33ksi for 33mil and 43mil Studs, and Fy=50ksi for 54mil, 68mil and 97mil Studs.
- 11 For deflection calculations, interior wall loads have been multiplied by 1.0 per AISI S240.

Complies with AISI S100-16 (2020) w/S2-20 • IBC 2024

The technical content of this literature is effective 06/01/24 and supersedes all previous information.

clarkdietrich.com

AA I	C : (:)		5psf	
Member	Spacing (in) o.c.	L/120	L/240	L/360
	12	31' 7"	25' 7"	22' 5"
550S137-33	16	27' 4"	23' 3"	20' 4"
	24	22' 4"	20' 4"	17' 9"
	12	35' 2"	27' 11"	24' 4"
550S137-43	16	31' 11"	25' 4"	22' 2"
	24	26' 9"	22' 2"	19' 4'
	12	37' 8"	29' 11"	26' 1'
550S137-54	16	34' 3"	27' 2"	23' 9'
	24	29' 11"	23' 9"	20' 9'
	12	40' 4"	32' 0"	28' 0'
550S137-68	16	36' 8"	29' 1"	25' 5'
	24	32' 0"	25' 5"	22' 2'
550S137-97	12	44' 7"	35' 5"	30' 11
	16	40' 6"	32' 2"	28' 1'
	24	35' 5"	28' 1"	24' 6'
	12	33' 8"	26' 9"	23' 4'
550S162-33	16	29' 5"	24' 4"	21' 3'
	24	24' 0"	21' 3"	18' 6'
	12	36' 8"	29' 1"	25' 5'
550S162-43	16	33' 4"	26' 5"	23' 1'
	24	29' 1"	23' 1"	20' 2'
	12	39' 4"	31' 3"	27' 3'
550S162-54	16	35' 9"	28' 5"	24' 9'
	24	31' 3"	24' 9"	21' 8'
	12	42' 2"	33' 6"	29' 3'
550S162-68	16	38' 4"	30' 5"	26' 7'
	24	33' 6"	26' 7"	23' 3'
	12	46' 9"	37' 1"	32' 5'
550S162-97	16	42' 5"	33' 8"	29' 5"
	24	37' 1"	29' 5"	25' 8'

	Member Spacing (in) o.c.		5psf				
	Member	Spacing (in) o.c.	L/120	L/240	L/360		
	550S200-33	12	35' 4"	28' 0"	24' 6"		
		16	31' 4"	25' 5"	22' 3"		
		24	25' 7"	22' 3"	19' 5"		
		12	38' 7"	30' 7"	26' 9"		
	550S200-43	16	35' 1"	27' 10"	24' 4"		
		24	30' 6"	24' 4"	21' 3"		
		12	41' 5"	32' 10"	28' 8"		
	550S200-54	16	37' 7"	29' 10"	26' 1"		
		24	32' 10"	26' 1"	22' 9"		
00		12	44' 5"	35' 3"	30' 10"		
٠ <u>ڦ</u>	550S200-68	16	40' 4"	32' 0"	28' 0"		
l a		24	35' 3"	28' 0"	24' 5"		
<u></u>	550S200-97	12	49' 3"	39' 1"	34' 2"		
2		16	44' 9"	35' 6"	31' 1"		
i i		24	39' 1"	31' 1"	27' 1"		
Structural Framing							
5		12	40' 5"	32' 1"	28' 1"		
5-1/2"	550S250-43	16	36' 9"	29' 2"	25' 6"		
TO.		24	31' 4"	25' 6"	22' 3"		
		12	43' 3"	34' 4"	30' 0"		
	550S250-54	16	39' 3"	31' 2"	27' 3"		
		24	34' 4"	27' 3"	23' 10"		
		12	46' 7"	37' 0"	32' 4"		
	550S250-68	16	42' 4"	33' 7"	29' 4"		
		24	37' 0"	29' 4"	25' 8"		
		12	51' 10"	41' 2"	35' 11"		
	550S250-97	16	47' 1"	37' 4"	32' 8"		
		24	41' 2"	32' 8"	28' 6"		

- 1 Studs are checked for simple-span deflection and stress. Stress calculations are made for mid-span fully braced moment, end shear through the unperforated section and shear moment interaction through the perforated section 10" away from the end bearing.
- 2 A 1/3 stress increase is not used.
- 3 Limiting heights are based on continuous lateral support of each flange over the full height of the stud.
- 4 Listed limiting heights are based on steel properties only.
- 5 End reactions must be checked for web crippling separately.
- 6 Web crippling check based on 1-inch end bearing. Where limiting heights are followed by "e", web stiffeners are required.
- 7 Allowable moment is the lesser of local and distortional buckling. Stud distortional buckling based on an assumed $K\varphi = 0$.
- 8 Members marked with an 1 have h/t > 200, and thus require end stiffeners.
- 9 Capacities are calculated according to the AISI S100-16 (2020) w/S2-20. A 1-1/2" by 4" knockout spaced no closer than 24" o.c. is assumed. (3/4" for 2-1/2" studs).
- 10 All values are based on Fy=33ksi for 33mil and 43mil Studs, and Fy=50ksi for 54mil, 68mil and 97mil Studs.
- 11 For deflection calculations, interior wall loads have been multiplied by 1.0 per AISI S240.

INTERIOR WALL HEIGHTS With structural framing 5psf Member Spacing (in) o.c. L/120 L/240 L/360 12 33' 1" 27' 3" 23' 10" 16 28' 7" 24' 9" 21' 8" 600S137-33 24 23' 4" 21'8" 18' 11" 12 37' 8" 29' 11" 26' 2" 600S137-43 16 34' 3" 27' 2" 23' 9" 24 28' 1" 23' 9" 20' 9" 12 40' 5" 32' 1" 28' 0" 600S137-54 16 36' 9" 29' 2" 25' 6" 24 32' 1" 25' 6" 22' 3" 34' 4" 12 43' 4" 30' 0" 16 39' 4" 600S137-68 31'3" 27' 3" 24 34' 4" 27' 3" 23' 10" 6" Structural Framing 12 47' 11" 38' 0" 33' 2" 600S137-97 16 43' 6" 34' 6" 30' 2" 24 38' 0" 30' 2" 26' 4" 12 35' 6" 28' 8" 25' 0" 600S162-33 16 30' 9" 26' 0" 22' 9" 24 25' 2" 22' 9" 19' 10" 12 39' 4" 31' 2" 27' 3" 600S162-43 16 35' 9" 28' 4" 24' 9" 24' 9" 24 31' 1" 21' 8" 33' 6" 29' 3" 12 42' 2" 600S162-54 16 38' 4" 30' 5" 26' 7" 24 33' 6" 26' 7" 23' 3" 12 45' 3" 35' 11" 31' 4" 16 41' 1" 32' 7" 28' 6" 600S162-68 24 35' 11" 28' 6" 24' 11" 12 50' 1" 39' 9" 34' 9" 600S162-97 16 45' 6" 36' 2" 31' 7" 24 39' 9" 27' 7" 31' 7"

	AA I	C : (')	5psf				
	Member	Spacing (in) o.c.	L/120	L/240	L/360		
	600S200-33	12	37' 9"	30' 0"	26' 2"		
		16	32' 10"	27' 3"	23' 10"		
		24	26' 10"	23' 10"	20' 10"		
		12	41' 3"	32' 9"	28' 7"		
	600S200-43	16	37' 6"	29' 9"	26' 0"		
		24	32' 0"	26' 0"	22' 9"		
		12	44' 4"	35' 2"	30' 9"		
	600S200-54	16	40' 3"	32' 0"	27' 11"		
		24	35' 2"	27' 11"	24' 5"		
	600S200-68	12	47' 7"	37' 9"	33' 0"		
20		16	43' 2"	34' 4"	29' 11"		
·Ē		24	37' 9"	29' 11"	26' 2"		
<u>e</u>	600S200-97	12	52' 10"	41' 11"	36' 7"		
-		16	48' 0"	38' 1"	33' 3"		
į		24	41' 11"	33' 3"	29' 1"		
Structural Framing							
	600S250-43	12	43' 3"	34' 4"	30' 0"		
.9		16	39' 3"	31' 2"	27' 3"		
		24	32' 11"	27' 3"	23' 10"		
		12	46' 3"	36' 8"	32' 1"		
	600S250-54	16	42' 0"	33' 4"	29' 1"		
		24	36' 8"	29' 1"	25' 5"		
		12	49' 10"	39' 7"	34' 7"		
	600S250-68	16	45' 3"	35' 11"	31' 5"		
		24	39' 7"	31' 5"	27' 5"		
		12	55' 5"	44' 0"	38' 5"		
	600S250-97	16	50' 4"	40' 0"	34' 11"		
		24	44' 0"	34' 11"	30' 6"		

Notes:

- 1 Studs are checked for simple-span deflection and stress. Stress calculations are made for mid-span fully braced moment, end shear through the unperforated section and shear moment interaction through the perforated section 10" away from the end bearing.
- 2 A 1/3 stress increase is not used.
- 3 Limiting heights are based on continuous lateral support of each flange over the full height of the stud.
- 4 Listed limiting heights are based on steel properties only.
- **5** End reactions must be checked for web crippling separately.
- 6 Web crippling check based on 1-inch end bearing. Where limiting heights are followed by "e", web stiffeners are required.
- 7 Allowable moment is the lesser of local and distortional buckling. Stud distortional buckling based on an assumed $K\phi = 0$.
- 8 Members marked with an 1 have h/t > 200, and thus require end stiffeners.
- 9 Capacities are calculated according to the AISI S100-16 (2020) w/S2-20. A 1-1/2" by 4" knockout spaced no closer than 24" o.c. is assumed. (3/4" for 2-1/2" studs).
- 10 All values are based on Fy=33ksi for 33mil and 43mil Studs, and Fy=50ksi for 54mil, 68mil and 97mil Studs.
- 11 For deflection calculations, interior wall loads have been multiplied by 1.0 per AISI S240.

Complies with AISI S100-16 (2020) w/S2-20 • IBC 2024

The technical content of this literature is effective 06/01/24 and supersedes all previous information.

clarkdietrich.com

Member	S ()	5psf		
Member	Spacing (in) o.c.	L/120	L/240	L/360
	12	37' 10"	34' 0"	29' 8"
800S137-331	16	32' 9"	30' 11"	27' 0"
	24	26' 9"	26' 9"	23' 7"
	12	45' 11"	37' 5"	32' 8"
800S137-43	16	39' 9"	34' 0"	29' 9"
	24	32' 5"	29' 9"	25' 11'
	12	50' 9"	40' 3"	35' 2"
800S137-54	16	46' 1"	36' 7"	31' 11'
	24	40' 3"	31' 11"	27' 11'
	12	54' 10"	43' 6"	38' 0"
800S137-68	16	49' 10"	39' 6"	34' 6"
	24	43' 6"	34' 6"	30' 2"
	12	60' 10"	48' 4"	42' 2"
800S137-97	16	55' 4"	43' 11"	38' 4"
	24	48' 4"	38' 4"	33' 6"
	12	41' 0"	35' 5"	30' 11'
800S162-331	16	35' 6"	32' 2"	28' 1"
	24	29' 0" e	28' 1"	24' 7"
	12	49' 1"	38' 11"	34' 0"
800S162-43	16	42' 10"	35' 4"	30' 11'
	24	35' 0"	30' 11"	27' 0"
	12	52' 9"	41' 10"	36' 7"
800S162-54	16	47' 11"	38' 1"	33' 3"
	24	41' 10"	33' 3"	29' 0"
	12	57' 0"	45' 3"	39' 6"
800S162-68	16	51' 10"	41' 1"	35' 11'
	24	45' 3"	35' 11"	31' 5"
	12	63' 5"	50' 4"	43' 11'
800S162-97	16	57' 7"	45' 9"	39' 11'
	24	50' 4"	39' 11"	34' 11'

	Member	Ci (i-)		5psf			
		1 8 1	L/120	L/240	L/360		
		12	44' 0"	37' 9"	33' 0"		
	800S200-331	16	38' 1"	34' 3"	29' 11"		
		24	31' 1" e	29' 11" e	26' 2"		
		12	51' 10"	41' 1"	35' 11"		
	800S200-43	16	45' 10"	37' 4"	32' 8"		
		24	37' 5"	32' 8"	28' 6"		
		12	55' 8"	44' 2"	38' 7"		
	800S200-54	16	50' 7"	40' 2"	35' 1"		
		24	44' 2"	35' 1"	30' 8"		
	800S200-68	12	59' 9"	47' 5"	41' 5"		
20		16	54' 4"	43' 1"	37' 8"		
·Ē		24	47' 5"	37' 8"	32' 11"		
E	800S200-97	12	66' 6"	52' 9"	46' 1"		
<u>ie</u>		16	60' 5"	47' 11"	41' 11"		
Structural Framing		24	52' 9"	41' 11"	36' 7"		
ž							
		12	54' 0"	42' 11"	37' 6"		
ò	800S250-43	16	47' 0"	39' 0"	34' 0"		
		24	38' 4"	34' 0"	29' 9"		
		12	57' 10"	45' 11"	40' 1"		
	800S250-54	16	52' 7"	41' 8"	36' 5"		
		24	45' 11"	36' 5"	31' 10"		
		12	62' 4"	49' 6"	43' 3"		
	800S250-68	16	56' 8"	44' 11"	39' 3"		
		24	49' 6"	39' 3"	34' 4"		
		12	69' 6"	55' 2"	48' 2"		
	800S250-97	16	63' 2"	50' 1"	43' 9"		
		24	55' 2"	43' 9"	38' 3"		

- 1 Studs are checked for simple-span deflection and stress. Stress calculations are made for mid-span fully braced moment, end shear through the unperforated section and shear moment interaction through the perforated section 10" away from the end bearing.
- 2 A 1/3 stress increase is not used.
- 3 Limiting heights are based on continuous lateral support of each flange over the full height of the stud.
- 4 Listed limiting heights are based on steel properties only.
- 5 End reactions must be checked for web crippling separately.
- 6 Web crippling check based on 1-inch end bearing. Where limiting heights are followed by "e", web stiffeners are required.
- 7 Allowable moment is the lesser of local and distortional buckling. Stud distortional buckling based on an assumed $K\varphi = 0$.
- 8 Members marked with an 1 have h/t > 200, and thus require end stiffeners.
- 9 Capacities are calculated according to the AISI S100-16 (2020) w/S2-20. A 1-1/2" by 4" knockout spaced no closer than 24" o.c. is assumed. (3/4" for 2-1/2" studs).
- 10 All values are based on Fy=33ksi for 33mil and 43mil Studs, and Fy=50ksi for 54mil, 68mil and 97mil Studs.
- 11 For deflection calculations, interior wall loads have been multiplied by 1.0 per AISI S240.