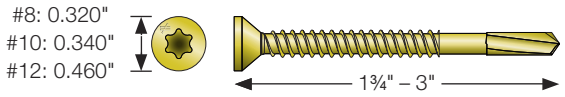
Strong-Drive®
PPHD SHEATHING-TO-CFS Screw

Common Application:
Wood structural panel/sheathing to cold-formed steel
(#8 — maximum thickness: 54 mil / 16 ga.; #10 and #12 — maximum thickness: 97 mil / 12 ga.)

Codes/Standards: ASTM C1513 compliant, ICC-ES ESR-4208

For more information: see pp. 119 and 202, C-F-2025 *Fastening Systems* catalog



PPHD — Pullout Loads — Steel Connections

Model No.	Size	Load Description	Pullout (lb.)					
			Steel Thickness: mil (ga.)					
			27 (22)	33 (20)	43 (18)	54 (16)	68 (14)	97 (12)
PPHD11516 PPHDQ11516	#8	Allowable Strength (ASD)	60	85	135	195	—	—
		Design Strength (LRFD)	100	140	220	315	—	—
		Nominal Strength	155	225	335	485	—	—
PPHD134 PPHDQ134 PPHD3	#10	Allowable Strength (ASD)	60	85	140	205	310	440
		Design Strength (LRFD)	100	140	220	330	500	700
		Nominal Strength	155	225	340	505	765	1,075
PPHDQ134	#12	Allowable Strength (ASD)	65	85	140	210	335	475
		Design Strength (LRFD)	105	140	225	335	540	760
		Nominal Strength	170	235	350	515	825	1,170

1. Screws and connections have been tested per AISI Standard Methods S904-17.
2. Values are based on cold-formed steel (CFS) members with a minimum yield strength, F_y of 33 ksi and minimum tensile strength, F_u of 45 ksi for 43 mil (18 ga.) to 27 mil (22 ga.), and a minimum yield strength, F_y of 50 ksi and minimum tensile strength, F_u of 65 ksi for 54 mil (16 ga.) to 97 mil (12 ga.).
3. For design purposes, steel-sheet thicknesses are 0.0283" for 27 mil (22 ga.), 0.0346" for 33 mil (20 ga.), 0.0451" for 43 mil (18 ga.), 0.0566" for 54 mil (16 ga.), 0.0713" for 68 mil (14 ga.) and 0.1017" for 97 mil (12 ga.). The actual sheet thickness shall not be less than 95% of these design thicknesses as specified in AISI S100-12.
4. A minimum of three exposed screw threads are required to achieve the loads in the Table.
5. PPHDQxxx models have Quik Guard® coating; PPHDxxx models have yellow zinc coating.

PPHD — Pull-Through Loads — Rated Sheathing Panels

Model No.	Size	Load Description	Reference Pull-Through Loads (lb.)					
			Minimum Nominal Panel Thickness (in.)					
			Plywood			OSB		
			15/32	19/32	23/32	15/32	19/32	23/32
PPHD11516 PPHDQ11516	#8	ASD	83	84	116	49	109	117
		LRFD	179	181	250	106	235	255
		Nominal strength	415	420	580	245	545	585
PPHD134 PPHDQ134 PPHD3	#10	ASD	75	85	118	52	111	114
		LRFD	162	184	255	112	240	245
		Nominal strength	375	425	590	260	555	570
PPHDQ134	#12	ASD	135	154	165	86	140	166
		LRFD	290	330	355	185	305	360
		Nominal strength	675	770	825	430	701	830

1. The tabulated values are based on testing per AC233.
2. ASD pull-through loads based on a factor of safety of five applied to the nominal strength value (C_D = 1.0, increases to C_D = 1.6 allowed where applicable).
3. LRFD load based on adjustment of ASD load per NDS 2024, Appendix N using K_F = 3.32, ϕ_z = 0.65, and λ = 1.0.
4. PPHDQxxx models have Quik Guard® coating; PPHDxxx models have yellow zinc coating.

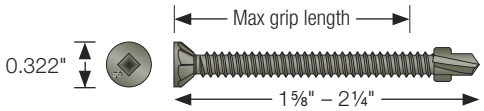
C-F-2025TECHSUP © 2025 Simpson Strong-Tie Company Inc.

CBSDQ Sheathing-to-CFS Screw

Common Application:
Wood structural panel/sheathing to cold-formed steel

Codes/Standards: ASTM C1513 compliant, ICC-ES ESR-4208

For more information: see p. 120, C-F-2025 *Fastening Systems* catalog



CBSDQ — Pullout Loads — Steel Connections

Model No.	Size	Load Description	Reference Pullout Loads (lb.)	
			Steel Thickness [mil (ga.)]	
			43 (18)	54 (16)
CBSDQ158S	#8	ASD	105	175
		LRFD	170	280
		Nominal strength	300	460
CBSDQ214S	#10	ASD	155	255
		LRFD	250	410
		Nominal strength	445	665

1. Screws and connections have been tested per AISI Standard Methods S904-17 and S905-17.
2. Values are based on cold-formed steel (CFS) members with a minimum yield strength of F_y = 33 ksi and tensile strength of F_u = 45 ksi for 43 mil (18 ga.), and a minimum yield strength of F_y = 50 ksi and F_u = 65 ksi for 54 mil (16 ga.).
3. For design purposes, steel sheet thicknesses are 0.0451 inch for 43 mil (18 ga.) and 0.0566 inch for 54 mil (16 ga.).
4. A minimum of three exposed screw threads are required to achieve the loads in the Table.
5. Maximum grip length for the CBSDQ158S is 1.15". Maximum grip length for the CBSDQ214S is 1.73". Grip length is the total connection thickness plus three protruding threads.

CBSDQ — Pull-Through Loads — Rated Sheathing Panels

Model No.	Size	Load Description	Reference Pull-Through Loads (lb.)		
			Minimum Nominal Panel Thickness (in.)		
			OSB		
			15/32	19/32	23/32
CBSDQ158S	#8	ASD	58	63	86
		LRFD	125	135	185
		Nominal strength	290	315	430
CBSDQ214S	#10	ASD	47	47	78
		LRFD	102	102	168
		Nominal strength	235	235	390

1. The tabulated values are based on testing per AC233.
2. ASD pull-through loads based on a factor of safety of five applied to the nominal strength value (C_D = 1.0, increases to C_D = 1.6 allowed when applicable).
3. LRFD load based on adjustment of ASD load per NDS 2024 Appendix N using K_F = 3.32, ϕ_z = 0.65, and λ = 1.0.
4. Maximum grip length for the CBSDQ158S is 1.15". Maximum grip length for the CBSDQ214S is 1.73". Grip length is the total connection thickness plus three protruding threads.

C-F-2025TECHSUP © 2025 Simpson Strong-Tie Company Inc.