

GENERAL INFORMATION

CEILING CLIP ASSEMBLIES

PRODUCT DESCRIPTION

Ceiling Clips are used for acoustical applications, suspended ceiling systems, fixtures and wire components to concrete, concrete-filled steel deck and steel. Several styles and types of angled clips with pre-mounted pins are available. A ceiling clip without a pre-mounted pin is also offered.

GENERAL APPLICATIONS AND USES

- Attaching ceiling wire, pencil rod and components to concrete, concrete over steel deck or steel

APPROVALS AND LISTINGS

- International Code Council, Evaluation Service (ICC-ES), ESR-2024
- Code compliant with the International Building Code/International Residential Code: 2018 IBC/IRC, 2015 IBC/IRC, 2012 IBC/IRC, and 2009 IBC/IRC
- Tested in accordance with ASTM E1190 and ICC-ES AC70 for use in concrete, concrete over steel deck and steel

GUIDE SPECIFICATION

- CSI Divisions: 03 15 00 - Concrete Accessories, 05 05 23 - Metal Fastenings, 09 22 16.23 - Fasteners. Power-driven fasteners shall be ceiling clip assemblies as supplied by DEWALT, Towson, MD. Fasteners shall be installed in accordance with published instructions and the Authority Having Jurisdiction.

SELECTION GUIDE

Pin / Fastener Description	Dimensions		Base Material				DEWALT Tools						Approvals & Listings
	Shank Diameter	Shank Length	Concrete	Lightweight Concrete	Concrete Over Steel Deck	Steel	P1000 / T1000	P2201	P35s	P3500 / PA3500	Sniper	DFD270	
CSI Spiral Ceiling Clip (8mm Head Pin)	0.157"	22mm to 32mm (7/8" to 1-1/4")	●	●	●	●			●	●	●	●	ICC-ES ESR-2024
Standard and Extended Length Ceiling Clips (0.300" & 8mm Head Pins)	0.145"	7/8" to 1-1/4" (22mm to 32mm)	●	●	●	●		○	●	●	●	●	ICC-ES ESR-2024
Economy Ceiling Clip (0.300" Head Pin)	0.145"	7/8" to 1-1/4"	●	●	●	●		○	●	●	●	●	ICC-ES ESR-2024
Ballistic Ceiling Clip (0.300" Head Pin)	0.150"	7/8"	●	●	●	●		○	●	●	●	●	ICC-ES ESR-2024
	0.181/0.150"	1-1/4"	●	●	●	●			●	●	●	●	

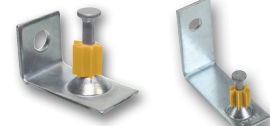
● Suitable ○ May be Suitable

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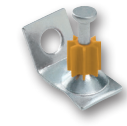
CSI SPIRAL DRIVE PIN WITH CEILING CLIP



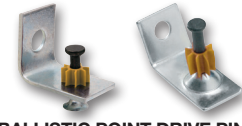
0.300" HEAD DRIVE PINS WITH CEILING CLIPS - STANDARD AND EXTENDED LENGTH (XL)



8MM HEAD DRIVE PINS WITH CEILING CLIPS



0.300" HEAD DRIVE PINS WITH ECONOMY CLIPS



BALLISTIC POINT DRIVE PINS WITH CEILING CLIPS



CEILING CLIP WITHOUT PIN

SUITABLE BASE MATERIALS

- Normal-weight concrete
- Lightweight concrete
- Concrete over steel deck
- Steel

FASTENER SIZE RANGE

- 7/8" length through 1-1/4" length

CODE LISTED
 ICC-ES ESR-2024
 CONCRETE, STEEL

PERFORMANCE DATA

Allowable Load Capacities for Ceiling Clips in Normal-Weight Concrete^{1,2,3,4,5,6,7}

Fastener Description	Min. Embed. Depth in. (mm)	Minimum Concrete Compressive Strength, f 'c							
		2,000 psi		3,000 psi			4,000 psi		
		Tension	Shear	Tension	Shear	45-Degree	Tension	Shear	45-Degree
		lbs. (kN)	lbs. (kN)	lbs. (kN)	lbs. (kN)	lbs. (kN)	lbs. (kN)	lbs. (kN)	lbs. (kN)
CSI Spiral Ceiling Clips with 8mm Head Pin (0.157" Shank)	3/4 (19)	75 (0.3)	135 (0.6)	100 (0.4)	175 (0.8)	130 (0.6)	100 (0.4)	175 (0.8)	130 (0.6)
	1 (25)	135 (0.6)	180 (0.8)	170 (0.8)	230 (1.0)	215 (1.0)	170 (0.8)	230 (1.0)	215 (1.0)
Standard Ceiling Clips with 0.300" Head Pin (0.145" Shank)	3/4 (19)	40 (0.2)	65 (0.3)	125 (0.6)	105 (0.5)	-	190 (0.8)	170 (0.8)	-
	7/8 (22)	40 (0.2)	65 (0.3)	140 (0.6)	160 (0.7)	145 (0.6)	200 (0.9)	245 (1.1)	155 (0.7)
	1 (25)	110 (0.5)	110 (0.5)	140 (0.6)	160 (0.7)	145 (0.6)	200 (0.9)	245 (1.1)	155 (0.7)
	1-1/8 (29)	110 (0.5)	110 (0.5)	150 (0.7)	160 (0.7)	155 (0.7)	225 (1.0)	275 (1.2)	155 (0.7)
Extended Length (XL) Ceiling Clips with 0.300" Head Pin (0.145" Shank)	3/4 (19)	105 (0.5)	175 (0.8)	115 (0.5)	195 (0.9)	-	115 (0.5)	195 (0.9)	-
	1 (25)	135 (0.6)	250 (1.1)	165 (0.7)	280 (1.2)	-	145 (1.1)	280 (1.2)	-
Ceiling Clips with 8mm Head Pin (0.145" Shank)	3/4 (19)	40 (0.2)	65 (0.3)	65 (0.3)	105 (0.5)	-	70 (0.3)	145 (0.6)	-
	7/8 (22)	40 (0.2)	65 (0.3)	75 (0.3)	145 (0.6)	125 (0.6)	70 (0.3)	145 (0.6)	125 (0.6)
	1 (25)	40 (0.2)	110 (0.5)	75 (0.3)	160 (0.7)	125 (0.6)	100 (0.4)	160 (0.7)	125 (0.6)
Economy Ceiling Clips with 0.300" Head Pin (0.145" Shank)	3/4 (19)	40 (0.2)	75 (0.3)	40 (0.2)	75 (0.3)	-	70 (0.3)	145 (0.6)	-
	1 (25)	40 (0.2)	120 (0.5)	40 (0.2)	150 (0.7)	-	100 (0.4)	150 (0.7)	-

1. Fasteners must not be driven until the concrete has reached the minimum designated compressive strength. Linear interpolation may be used to determine allowable loads for intermediate compressive strengths. For a concrete compressive strength of 5,000 psi, the tabulated allowable loads for 0.145-inch shank pins in 4,000 psi concrete compressive strength may be considered for use but allowable loads must not be increased.
2. The tabulated tension and shear values are for the fasteners assemblies. Steel wire or other components connected with the substrate must be investigated for compliance with the applicable code.
3. Allowable load capacities are calculated using minimum required factors of safety in accordance with ICC-ES AC70; the minimum applied factor of safety is 5.0. Consideration of additional safety factors may be necessary depending on the application such as life safety.
4. Concrete member thickness must be a minimum of three times the fastener embedment depth.
5. Ceiling clips with a 0.145-inch shank pin must have a minimum spacing distance of 3 inches and a minimum edge distance of 3 inches in accordance with ASTM E 1190. Consideration of smaller spacing and edge distances may be given based on application or jobsite testing.
6. Ceiling clips with a 0.157-inch shank pin must have a minimum spacing distance of 4 inches and a minimum edge distance of 3-1/2 inches in accordance with ASTM E 1190. Consideration of smaller spacing and edge distances may be given based on application or jobsite testing.
7. Multiple fasteners are recommended for any attachment for increased reliability.

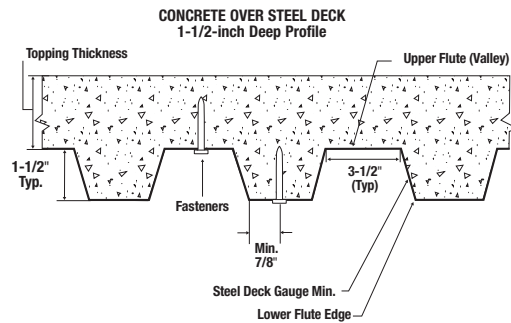
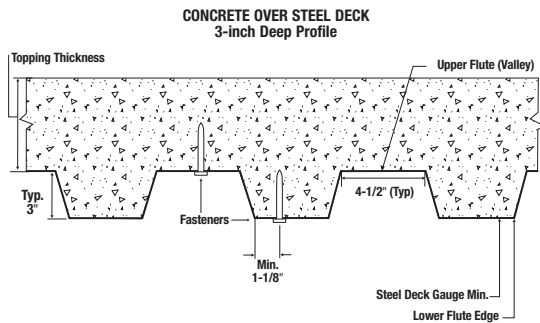
POWDER ACTUATED

CEILING CLIP ASSEMBLIES

Allowable Load Capacities for Ceiling Clips in Lightweight Concrete and Sand-Lightweight Concrete over Steel Deck^{1,2,3,7}

Fastener Description	Min. Embed. Depth in. (mm)	Minimum Concrete Compressive Strength, f'c = 3,000 psi					
		Through Soffit of Steel Deck Into Concrete (3-inch Deep Profile) ^{4,5,6}			Through Soffit of Steel Deck Into Concrete (1-1/2-inch Deep Profile) ^{4,5,6}		
		Upper or Lower Flute			Upper or Lower Flute		
		Tension	Shear	45-Degree	Tension	Shear	45-Degree
		lbs. (kN)	lbs. (kN)	lbs. (kN)	lbs. (kN)	lbs. (kN)	lbs. (kN)
CSI Spiral Ceiling Clips with 8mm Head Pin (0.157" Shank)	3/4 (19)	80 (0.4)	220 (1.0)	135 (0.6)	80 (0.4)	220 (1.0)	135 (0.6)
	7/8 (22)	110 (0.5)	250 (1.1)	205 (0.9)	80 (0.4)	220 (1.0)	135 (0.6)
Standard Ceiling Clips with 0.300" Head Pin (0.145" Shank)	3/4 (19)	50 (0.2)	120 (0.5)	40 (0.2)	35 (0.2)	90 (0.4)	40 (0.2)
	7/8 (22)	80 (0.4)	220 (1.0)	120 (0.5)	80 (0.4)	210 (0.9)	120 (0.5)
	1 (25)	120 ⁽⁸⁾ (0.5)	325 ⁽⁹⁾ (1.4)	145 ⁽¹⁰⁾ (0.6)	-	-	-
	1-1/8 (29)	120 ⁽⁸⁾ (0.5)	325 ⁽⁹⁾ (1.4)	145 ⁽¹⁰⁾ (0.6)	-	-	-
Ceiling Clips with 8mm Head Pin (0.145" Shank)	3/4 (19)	35 (0.2)	120 (0.5)	40 (0.2)	-	-	-
	7/8 (22)	55 (0.2)	285 (1.3)	100 (0.4)	-	-	-
	1 (25)	55 (0.2)	285 (1.3)	100 (0.4)	-	-	-
Economy Ceiling Clips with 0.300" Head Pin (0.145" Shank)	3/4 (19)	30 (0.1)	135 (0.6)	40 (0.2)	-	-	-
	1 (25)	55 (0.2)	135 (0.6)	45 (0.2)	-	-	-

- Fasteners must not be driven until the concrete has reached the minimum designated compressive strength. For a concrete compressive strength of 4,000 psi, the tabulated allowable loads for 0.157-inch shank pins may be considered for use but loads must not be increased. For a concrete compressive strength of 4,000 psi, the tabulated allowable loads for 0.145-inch shank pins may be increased by 12 percent.
- The tabulated tension and shear values are for the fastener assemblies only. Steel wire or components connected with the substrate must be investigated for compliance with the applicable code.
- Allowable load capacities are calculated using minimum required factors of safety in accordance with ICC-ES AC70; the minimum applied factor of safety is 5.0. Consideration of additional safety factors may be necessary depending on the application such as life safety.
- For fasteners installed into the upper flute of the steel deck profile, the concrete thickness above the deck (topping thickness) must be a minimum of 3.25 inches. For fasteners installed into the lower flute of the steel deck profile, the concrete thickness above the deck (topping thickness) must be a minimum of 2.25 inches.
- Fastener assemblies with a 0.157-inch shank pin installed into steel deck profiles must have a minimum spacing distance of 3 inches (upper and lower flute). Fastener assemblies with a 0.145-inch shank pin installed into steel deck profiles must have a minimum spacing distance of 3 inches (upper and lower flute). Unless otherwise noted, fastener assemblies must have a minimum edge distance of 1-1/8 inches (lower flute) for 3-inch-deep profiles and a minimum edge distance of 7/8 inches (lower flute) for 1-1/2 inch-deep profiles; minimum deck end distance is 3-1/2 inches for 0.157-inch shank pins and 3 inches for 0.145-inch shank pins. Consideration of smaller spacing distances may be given based on application or jobsite testing.
- Embedment is measured from the surface of the steel deck; the steel deck panel must have a base-metal thickness of 0.030-inch (22 gauge) to 0.048-inch (18 gauge).
- Multiple fasteners are recommended for any attachment for increased reliability.
- For upper flute locations, these allowable loads may be increased to 135 lbs.
- For upper flute locations, these allowable loads may be increased to 350 lbs.
- For upper flute installations, these allowable loads may be increased to 180 lbs.



Allowable Load Capacities for Ceiling Clips in ASTM A36 Steel^{1,2,3,4,5,6}

Fastener Description	Nominal Steel Thickness (inch)							
	1/8		3/16		1/4		3/8	
	Tension lbs. (kN)	Shear lbs. (kN)	Tension lbs. (kN)	Shear lbs. (kN)	Tension lbs. (kN)	Shear lbs. (kN)	Tension lbs. (kN)	Shear lbs. (kN)
CSI Spiral Ceiling Clips with 8mm Head Pin (0.157 Shank)	-	-	-	-	350 (1.6)	420 (1.9)	325 (1.4)	400 (1.8)
Ceiling Clips with 0.300" Head Pin (0.145" Shank)	140 (0.6)	350 (1.6)	220 (1.0)	240 (1.1)	345 (1.5)	385 (1.7)	190 (0.8)	255 (1.1)
Economy Ceiling Clips with 0.300" Head Pin (0.145" Shank)	190 (0.8)	260 (1.2)	210 (0.9)	260 (1.2)	210 (0.9)	240 (1.1)	-	-
Ballistic Ceiling Clips with 0.300" Head Pin (0.150" Shank)	-	-	-	-	350 (1.6)	510 (2.3)	190 (0.8)	240 (1.1)

- Fastener capacities are based on the base steel with a minimum yield strength (F_y) of 36 ksi and a minimum ultimate tensile strength (F_u) of 58 ksi. The pointed portion of the fastener must penetrate the steel member unless otherwise noted.
- The tabulated tension and shear values are for the fastener assemblies only. Steel wire or other components connected to the steel substrate must be investigated for compliance with the applicable code.
- Allowable load capacities are calculated using minimum required factors of safety in accordance with ICC-ES AC70; the minimum applied factor of safety is 5.0. Consideration of additional safety factors may be necessary depending on the application such as life safety.
- Ceiling clips with a 0.145-inch shank pin or 0.150-inch shank pin must have a minimum spacing distance of 3 inches and a minimum edge distance of 3 inches in accordance with ASTM E 1190. Consideration of smaller spacing and edge distances may be given based on application or jobsite testing.
- Ceiling clips with a 0.157-inch shank pin must have a minimum spacing distance of 4 inches and a minimum edge distance of 3-1/2 inches in accordance with ASTM E 1190. Consideration of smaller spacing and edge distances may be given based on application or jobsite testing.
- Multiple fasteners are recommended for any attachment for increased reliability.

Allowable Load Capacities for Ceiling Clips in ASTM A572 or A992 Steel^{1,2,3,4,5,6}

Fastener Description	Nominal Steel Thickness (inch)			
	1/4		3/8	
	Tension lbs. (kN)	Shear lbs. (kN)	Tension lbs. (kN)	Shear lbs. (kN)
CSI Spiral Ceiling Clips with 8mm Head Pin (0.157 Shank)	350 (1.6)	420 (1.9)	325 (1.4)	400 (1.8)
Standard Ceiling Clips with 0.300" Head Pin (0.145" Shank)	375 (1.7)	415 (1.8)	205 (0.9)	275 (1.2)
Ballistic Ceiling Clips with 0.300" Head Pin (0.150" Shank)	380 (1.7)	550 (2.4)	205 (0.9)	255 (1.1)

- Fastener capacities are based on the base steel with a minimum yield strength (F_y) of 50 ksi and a minimum ultimate tensile strength (F_u) of 65 ksi. The pointed portion of the fastener must penetrate the steel member unless otherwise noted.
- The tabulated tension and shear values are for the fastener assemblies only. Steel wire or other components connected to the steel substrate must be investigated for compliance with the applicable code.
- Allowable load capacities are calculated using minimum required factors of safety in accordance with ICC-ES AC70; the minimum applied factor of safety is 5.0. Consideration of additional safety factors may be necessary depending on the application such as life safety.
- Ceiling clips with a 0.145-inch shank pin or 0.150-inch shank pin must have a minimum spacing distance of 3 inches and a minimum edge distance of 3 inches in accordance with ASTM E 1190. Consideration of smaller spacing and edge distances may be given based on application or jobsite testing.
- Ceiling clips with a 0.157-inch shank pin must have a minimum spacing distance of 4 inches and a minimum edge distance of 3-1/2 inches in accordance with ASTM E 1190. Consideration of smaller spacing and edge distances may be given based on application or jobsite testing.
- Multiple fasteners are recommended for any attachment for increased reliability.

ORDERING INFORMATION

CSI Spiral Drive Pin with Ceiling Clip (90 degree)

Cat. No.	Shank Length	Head Dia.	Shank Dia.	Wire Hole	Ctn Qty.	Mstr Qty.
50212	22mm (7/8") (TH)	8mm	0.157"	0.313"	100	1,000
50213	27mm (1") (TH)	8mm	0.157"	0.313"	100	1,000
50218	32mm (1-1/4") (TH)	8mm	0.157"	0.313"	100	1,000

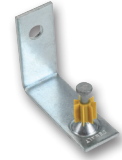
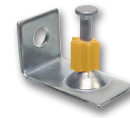
Clips are 3/4-inch wide and 2mm thick.
TH = Top Hat



.300" Head Drive Pins with Ceiling Clips (90 degree)

Cat. No.	Shank Length	Shank Diameter	Wire Hole	Ctn Qty.	Mstr Qty.
50364	1"	0.145"	0.278"	100	1,000
50370	1-1/4"	0.145"	0.278"	100	1,000
DFD3373*	1"	0.145"	0.278"	100	1,000
DFD3374*	1-1/4"	0.145"	0.278"	100	1,000

Clips are 3/4-inch wide and 2mm thick.
* Extended Length (XL) clips



8mm Head Drive Pin with Ceiling Clip (90 degree)

Cat. No.	Shank Length	Shank Diameter	Wire Hole	Ctn Qty.	Mstr Qty.
50272	27mm (1")	0.145"	0.278"	100	1,000
50274	32mm (1-1/4")	0.145"	0.278"	100	1,000
50206	27mm (1") TH	0.177"	0.313"	100	1,000

Clips are 3/4-inch wide and 2mm thick.
TH = Top Hat



0.300" Head Drive Pins with Economy Ceiling Clips (60 degree)

Cat. No.	Shank Length	Shank Diameter	Wire Hole	Ctn Qty.	Mstr Qty.
50368	1-1/8"	0.145"	0.278"	100	1,000
50374	1-1/4"	0.145"	0.278"	100	1,000

Clips are 5/8-inch wide and 14 gauge thick.



Ballistic Point Drive Pin with Ceiling Clip

Cat. No.	Shank Length	Head Dia.	Shank Dia.	Wire Hole	Ctn Qty.	Mstr Qty.
50366	7/8" (TH)	0.300"	0.150"	0.313"	100	1,000
50058	1-1/4"	0.300"	0.181/0.150"	0.278"	100	1,000

Clips are 3/4-inch wide and 2mm thick. Ballistic point pins have a black coating instead of zinc plating.
The 50366 is assembled with a 90 degree clip and the 50058 is assembled with a 60 degree clip.
TH = Top Hat



Ceiling Clip without Pin (90 degree)

Cat. No.	Description	Ctn Qty.	Mstr Qty.
50400	Ceiling Clip (no pin), 3/4-inch wide and 14 gauge thick. Long leg is 1-1/4" long with 7/32" hole; short leg is 5/8" long with 5/16" hole.	100	1,000

