

Red-S™ Heavy S-Clip Lateral Bearing Clip with Extended Base Plate

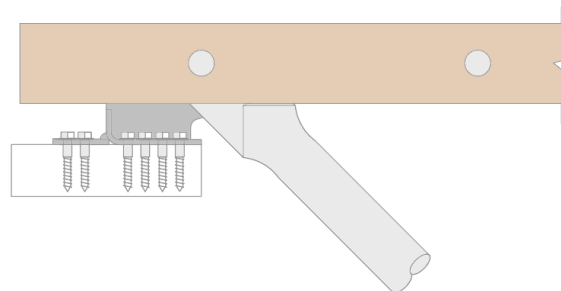
The RedBuilt™ Heavy S-Clip for the Red-S™ open-web truss is intended for demanding uplift and lateral load applications. This technical bulletin provides clip capacity and related design information.

The Heavy S-Clip is fabricated from steel plate components, individually formed and welded together. The heavy-gauge, formed angle base plate and welded assembly provide greater uplift and lateral capacity than the standard, light-gauge S-Clip. The extended base plate provides lateral strength on sawn lumber supports that are not permitted with the standard Heavy S-Clip base plate.

The Heavy S-Clip is to be fastened to the wood support with Simpson Strong-Drive® SDS wood screws. See descriptions below for more details.

The standard S-Clip is suitable for most applications with lower uplift and lateral demands. Please refer to the "Open-Web Truss Bearing Clip Capacities" section of the RedBuilt [Open-Web Truss](#) guide for more information. The design guide may be found on the "[Product Resources](#)" page at www.redbuilt.com.

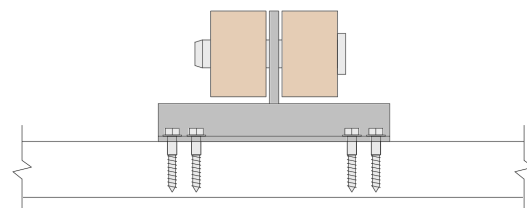
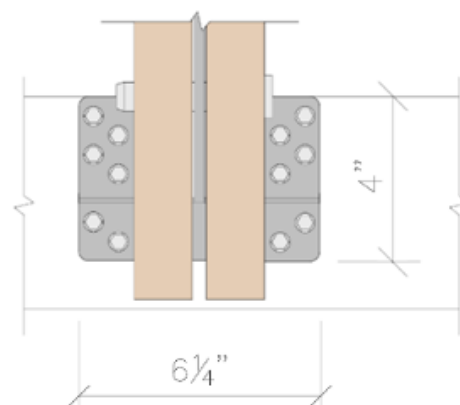
For more design alternatives, please refer to the "Wind or Seismic Connections" section of the [Open-Web Truss](#) guide. Note that the Heavy S-Clip with extended base plate is not compatible with Detail 66 in the guide.



Maximum Bearing Clip Capacities

| Truss Series | Clip Type | Gravity Capacity (lb) | Uplift Capacity (lb) | Lateral Capacity (lb) |
|--------------|------------------------|-----------------------|----------------------|-----------------------|
| Red-S™ | Heavy S-Clip - Lateral | 5390 | 2820 | 3080 |

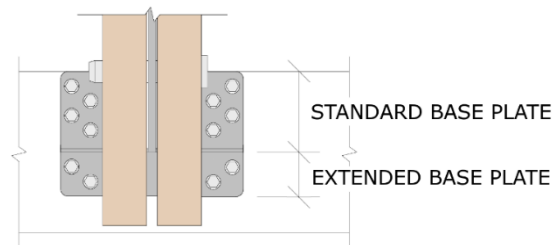
- (1) Gravity Capacity refers to the bearing clip. It is the responsibility of the Design Professional of Record to check bearing capacity of support materials. Bearing area for design is 17.2 in².
- (2) Uplift and Lateral Capacity refers to the bearing clip. Capacity may be further limited by fastener capacity and support type. See next page for connection capacities with various connections.
- (3) No increase for duration of load permitted.
- (4) Sloped applications greater than 1/4" per foot require a sloped bearing seat to match.
- (5) For combinations of gravity and lateral loading, capacity is subject to the unity equation: (Design Gravity / Allowable Gravity) + (Design Lateral / Allowable Lateral) ≤ 1.0. Design loads are to be factored in accordance with building code load combination factors.
- (6) For combinations of uplift and lateral loading, capacity is subject to the unity equation: (Design Uplift / Allowable Uplift) + (Design Lateral / Allowable Lateral) ≤ 1.0.
- (7) 5½" support width required. Minimum support depth equals screw length.
- (8) Capacities based on a 2¾" chord cutoff, the distance from the center of the bearing pin to the end of the chord.



Design Values for Various Fasteners

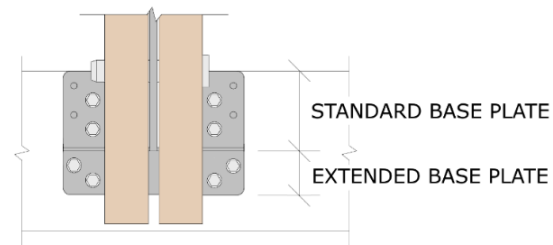
8 Screws in Standard Base Plate, 4 Screws in Extended Base Plate

| Fasteners | Size (in) | Gravity (lb) | DF/SP | | SPF/HF | |
|-----------------|-----------|--------------|------------------|-------------------|------------------|-------------------|
| | | | Uplift 160% (lb) | Lateral 160% (lb) | Uplift 160% (lb) | Lateral 160% (lb) |
| SDS25200 | ¼ × 2 | 5390 | 2750 | 2870 | 1940 | 2460 |
| SDS25300 | ¼ × 3 | 5390 | 2820 | 2870 | 2820 | 2460 |



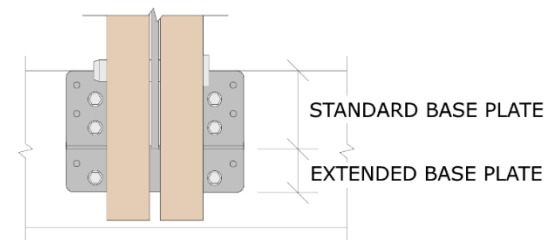
4 Screws in Standard Base Plate, 4 Screws in Extended Base Plate

| Fasteners | Size (in) | Gravity (lb) | DF/SP | | SPF/HF | |
|-----------------|-----------|--------------|------------------|-------------------|------------------|-------------------|
| | | | Uplift 160% (lb) | Lateral 160% (lb) | Uplift 160% (lb) | Lateral 160% (lb) |
| SDS25200 | ¼ × 2 | 5390 | 1380 | 2870 | 970 | 2460 |
| SDS25300 | ¼ × 3 | 5390 | 2200 | 2870 | 1550 | 2460 |



4 Screws in Standard Base Plate, 2 Screws in Extended Base Plate

| Fasteners | Size (in) | Gravity (lb) | DF/SP | | SPF/HF | |
|-----------------|-----------|--------------|------------------|-------------------|------------------|-------------------|
| | | | Uplift 160% (lb) | Lateral 160% (lb) | Uplift 160% (lb) | Lateral 160% (lb) |
| SDS25200 | ¼ × 2 | 5390 | 1380 | 1430 | 970 | 1230 |
| SDS25300 | ¼ × 3 | 5390 | 2200 | 1430 | 1550 | 1230 |



- (1) Sloped applications greater than 1/4" per foot require a sloped bearing seat to match.
- (2) 5½" support width required. Minimum support depth equals screw length.
- (3) Effective depth for shear design of support: 3.8". See 2018 NDS Section 3.4.3.3.
- (4) Uplift capacity is based on full penetration of SDS screw threads in support. Designed as a #14 wood screw in accordance with [ESR-2236](#) Section 4.1.3. For other wood screws, it is the responsibility of the designer to account for actual thread length.
- (5) Lateral capacity is based on full penetration of the SDS screw. Designed as a #14 wood screw in accordance with 2018 NDS Section 12.3, not to exceed [ESR-2236](#) Table 2.
- (6) SCL support is permitted in flatwise orientation. Minimum equivalent specific gravity for DF/SP values: 0.50. Minimum equivalent specific gravity for SPF/HF values: 0.42.
- (7) For combinations of gravity and lateral loading, capacity is subject to the unity equation: (Design Gravity / Allowable Gravity) + (Design Lateral / Allowable Lateral) ≤ 1.0. Design loads are to be factored in accordance with building code load combination factors.
- (8) For combinations of uplift and lateral loading, capacity is subject to the unity equation: (Design Uplift / Allowable Uplift) + (Design Lateral / Allowable Lateral) ≤ 1.0. Design loads are to be factored in accordance with building code load combination factors.
- (9) For combinations of uplift and lateral loading on wood screws in standard base plate, fastener design is to be in accordance with 2018 NDS 12.4. Wood screws in extended base plate to be designed for lateral load only.
- (10) No further increase for duration of load permitted.