

**New & Improved Design**

### Usage:

» Higher loads using fewer fasteners.

### Features:

» Reduces eccentricity in the studs/post with decreased centerline dimension (CL).

» No thru-bolts to countersink.

**USP supplies quality products to build Stronger Safer Structures**

Customer Service:  
 Burnsville, MN  
 Phone: 1-800-328-5934  
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Manufacturing:  
 Montgomery, MN  
 Livermore, CA  
 Largo, FL  
 Thornhill, Ontario

Warehouses:  
 Houston, TX  
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**Materials:** See chart

**Finish:** G90 galvanizing

**Codes:** IAPMO ES ER-0200

### Installation:

- Use all specified fasteners.
- **Place the PHDA over the anchor bolt. No washer is required.**
- Install with USP's code evaluated WS3 (1/4" x 3") Wood Screws, which are provided with the holdown.
- Tighten anchor bolt nuts finger tight snug to base, plus 1/3 to 1/2 additional turns with a wrench. To prevent loosening of the anchor nut during critical loading, use a locking nut or tighten a second nut over the first to lock nuts in place.
- **PHDA Predeflected Holdowns may be installed off sill plate with no load reduction.** (Refer to USP's Full Line Catalog for STBL anchor bolts) The design engineer may specify any alternate anchorage calculated to resist the tension load for a specific application. Anchorage exposure length should take the bearing plate height of 1 5/8" into account, anchor bolt thread should visibly extend above nut.
- If used to anchor a built-up post, such as a double 2 x 4, the post component shall be designed to act as a single unit. Holddown fasteners specified shall not be considered to attach multiple plys together.



**Typical PHDA installation**

USP Stock No.	Ref. No.	Steel Gauge	Dimensions				Fastener Schedule			Allowable Tension Loads (Lbs.) <sup>1,4,7</sup>			Ctn Qty
			W	H	D	CL	Anchor Bolts <sup>2</sup>		WS3 Wood Screws <sup>5</sup>	DF-L / SP	S-P-F	Deflection at Allowable Load Δ (in) at 160% <sup>3,5</sup>	
							Qty	Dia.					
PHD2A	HDU2-SDS2.5	14	3	7-3/4	2-5/8	1-3/8	1	5/8	6	3215	2700	0.155	20
PHD4A	HDU4-SDS2.5	14	3	9-3/8	2-5/8	1-3/8	1	5/8	10	5215	4380	0.137	15
PHD5A	HDU5-SDS2.5	14	3	11-11/16	2-5/8	1-3/8	1	5/8	14	6525	5480	0.135	15
PHD8	HDU8-SDS2.5	12	3-1/4	16-1/2	3	1-3/8	1	7/8	24	8185	6875	0.062	6

1) Allowable loads have been increased 60% for wind and seismic loads; no further increase shall be permitted.

2) The designer must specify anchor bolt type, length, and embedment.

3) Deflections are derived from static, monotonic load tests of devices connected to DF-L wood members with specified fasteners.

4) The designer shall consider the effect of compression, bearing, tension, and combined bending due to device eccentricity when applicable.

5) The PHD/PHDA may be elevated off the sill.

6) WS3 wood screws are 1/4" x 3" and are included with PHD/PHDA models.

7) Minimum post thickness is 3" or greater. Consult USP for installations less than 3".

Consult USP for pricing.