USP STRUCTURAL CONNECTORS®
A GIBRALTAR INDUSTRIES COMPANY

CONNECTIONS

Quarterly Newsletter
for specifiers and building officials

Volume 1 Issue 1
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In this issue:

From the editor

Welcome to the first issue of Connections - our new quarterly newsletter designed to provide you, the specifying professional, with the most up to date information about USP, our products and our industry.

We are excited about the launch of this newsletter. We hope that you will find the information contained in these pages useful. Your feedback on the content of this publication is valuable to us and we would encourage you to email us any industry related news, questions or articles that you would like to see printed in future issues. You can send these to us at **info@uspconnectors.com**.

We are also very excited to launch our new technical support email hotline. This will allow you to reach our staff of engineers with your questions directly and to receive prompt responses and attention to your questions. Email your technical product related questions to us at **techsupport@uspconnectors.com**.

Again, we hope you enjoy our first issue!

Do you have the latest version of USP's Design Manual and Product Catalog?

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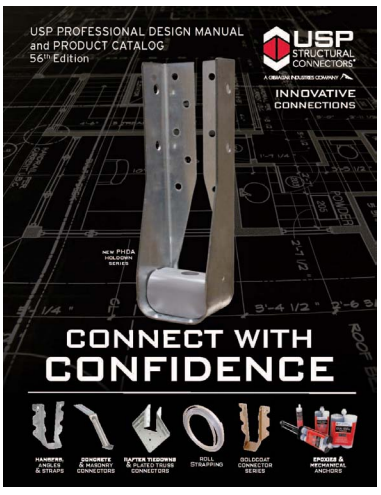


Product Spotlight - PHDA Series Pre-Deflected Holdowns

USP has designed the PHDA series of holdowns as a replacement for the PHD series. The new design provides a more cost effective method of securing to the foundation or floor to floor.

The PHDA series installs using USP's woodscrew which are supplied with the holdown. This provides a great advantage over the older TDX design that used bolts. With the elimination of the bolt and the use of screws, the installation process is much easier and faster. In addition, since the post no longer requires a countersunk bolt, the integrity and strength of the post remains in tact.

The chart below contains the load values for the product as they have been submitted to the code evaluation services for independent review. We expect to have our ESR code approvals and begin shipping this product in late January.

For more information on the PHDA series feel free to contact us at techsupport@uspconnectors.com.

USP Stock No.	Ref. No.	Steel Gauge	Dimensions				Fastener Schedule			Allowable Tension Loads (Lbs.)[1,4,7]			Ctn Qty
			W	H	D	CL	Anchor Bolts[2] Qty	Anchor Bolts[2] Dia.	WS3 Wood Screws[6] Qty	DF-L / SP 160%	DF-L / SP Δ (in)[3,5]	S-P-F 160%	
PHD2A	HDU2-SDS2.5	14	3	7-3/4	3	1-3/8	1	5/8	6	3215	0.155	2700	20
PHD4A	HDU4-SDS2.5	14	3	9-3/8	3	1-3/8	1	5/8	10	5215	0.137	4380	15
PHD5A	HDU5-SDS2.5	14	3	11-11/16	3	1-3/8	1	5/8	14	6525	0.135	5480	15
PHD8A	HDU8-SDS2.5	10	3	15-1/2	3	1-3/8	1	7/8	20	8540	0.079	7175	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 PHDA may be elevated off the sill.
6) WS3 wood screws are 1/4 " x 3" and are included with PHDA models.
7) Minimum post thickness is 3". Consult USP for installations less than 3".
Consult USP for pricing.

ABOVE:
Project: Sunnyvale Senior Housing
Engineer: Greg Mason, LS Mason and Associates
GC: Ross Construction
Framer: Bay Area Construction
Supplied by: California Nail

Jobsite Spotlight

USP participates actively in several large jobs across the country. Each quarter we will take the opportunity to highlight a few of these jobs.

The site pictured to the left is the Sunnyvale Senior Housing project which was designed by **Greg Mason** of **LS Mason and Associates.** USP became involved with the job at the request of the framer - **Bay Area Construction**, who realized that using USP products on this job would save them money through value engineering, competitive pricing and reduced installation costs.

Greg commented that "USP transitioned into this job smoothly and seamlessly. They provided great technical support and customer service."

2009 IRC® CHANGES FOR WALL BRACING (R602.10)

The 2009 International Residential Code® significantly changed the wall bracing requirements from the previous code. Wall bracing was covered in 6 pages of the 2006 IRC and now extends to more than 30 pages in the 2009 IRC. One such change is the total length of bracing required along each braced wall line (R602.10.1.2). The 2006 IRC specified the total required length of wall bracing as a percentage of the total length of the wall line. Of the most commonly used residential bracing methods, this percentage was the same for each method used. Under the 2009 code, for braced wall lines of the same spacing, the minimum total length of required braced wall panels differs depending upon the method of bracing. See Table R602.10.1.2(1). In addition to the values for the total required length of wall bracing shown in the table, appropriate adjustment factors must be applied as the table values are based on a structure with the following attributes:

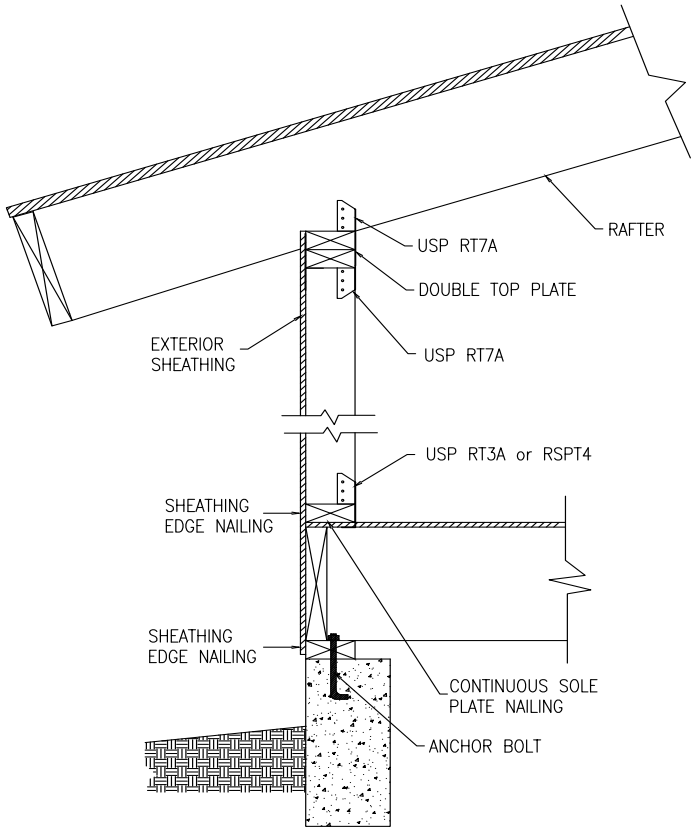
- wind exposure category B
- 30 ft mean roof height
- 10 ft eave to ridge height
- 10 foot wall height
- 2 braced wall lines

Notes a-i located at the end of Table R602.10.1.2(1) provide multipliers to adjust the table value to correspond to the appropriate structural design "model" value. These changes should result in a more fine tuned design than was previously possible.

In addition to modifying wall bracing requirements, the 2009 IRC now requires a braced wall panel uplift load path (R602.10.1.2.1). Section R602.10.1.2.1 applies to all exterior walls that support roof structure whether it consists of rafters or trusses. If the net uplift value at the top of the wall due to the roof structure is less than or equal to 100 PLF, the framing members of the wall should be fastened according to Table R602.3(1). If the net uplift value is greater than 100 PLF, each individual framing member shall be connected so that a continuous load path is created from the roof to the foundation. The net uplift value is determined by the provisions of section R802.11.

USP has connectors such as the RT7A, RT3A RT8A, RT16A and the RSPT4 (shown here) that provide the required additional anchorage to the studs to achieve this continuous load path from the roof to the foundation.

The section below illustrates fastening that will create a continuous load path from the roof to the foundation.



Upcoming Events

Look for USP representative at these upcoming industry events:

January 12 - 15: International Builders Show - Orlando, Florida

January 27: Structural Engineers Association of Central California Meeting- Sacramento, CA

February 2-3: Southern Building Materials Association Show (booths 407-408) - High Point, NC

February 15: Wood Solutions Fair - Raleigh, NC

February 17: Wood Solutions Fair - Atlanta, GA

March 2: Wood Solutions Fair - Long Beach, CA

March 16: Wood Solutions Fair - So. San Francisco, CA

March 20: Charleston Chapter CSI Product Fair - Charleston, SC

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14305 Southcross Drive Suite 200
Burnsville, MN 55306
800-328-5934
952-898-8772
www.uspconnectors.com