Pony Wall Heavy (12ga)

Partial wall framing connection to the floor

The ClarkDietrich Pony Wall Heavy is intended to support out-of-plane loading of cantilevered partial wall systems that are unsupported at the top track. Out-of-plane loads are transferred to the floor system through the base-plate, which is welded to the Pony Wall Heavy stud member.

INSTALLATION

Install the Pony Wall inside the track or directly to the floor structure. Anchor to the floor as designed by EOR. Attach the studs to both flanges of the Pony Wall. A minimum of 3-1/2" stud member can be used.

PRODUCT DIMENSIONS

PW24 = 23-3/4" tall with 3-3/8" wide x 8" long plate
PW36 = 35-3/4" tall with 3-3/8" wide x 8" long plate
PW48 = 47-3/4" tall with 3-3/8" wide x 8" long plate
PW60 = 59-3/4" tall with 3-3/8" wide x 8" long plate

MATERIAL SPECIFICATIONS

Plate Material: ASTM A36 1/2" thick hot rolled steel
Stud Material: ASTM A1011 SS Grade 50, 50ksi (340 MPa)
         12ga (97mils), 0.1017" Design thickness, 0.0966" Min. thickness
Coating: Envirocron® Powder Coating
**Packaging:** Individually
ASTM: A36, A1011

Pony Wall Heavy (PW)

Product code	Thickness		Size (in)	Packaging
	Mils (Gauge)	Design thickness (in)		
PW24			23-3/4"	Individually
PW36	97mils (12ga)	0.1242	35-3/4"	Individually
PW48			47-3/4"	Individually
PW60			59-3/4"	Individually

Pony Wall Heavy (PW) Rotational Stiffness

Product code	Member length, in	No. of Anchors	Rotational Stiffness for Wind Deflection (in-lbs/rad)*
PW	24/36/48/60	1	945,000
		4	1,128,775

*Rotational stiffness is the max allowable moment divided by the Pony Wall Heavy (PW) rotation measured at the max allowable moment.
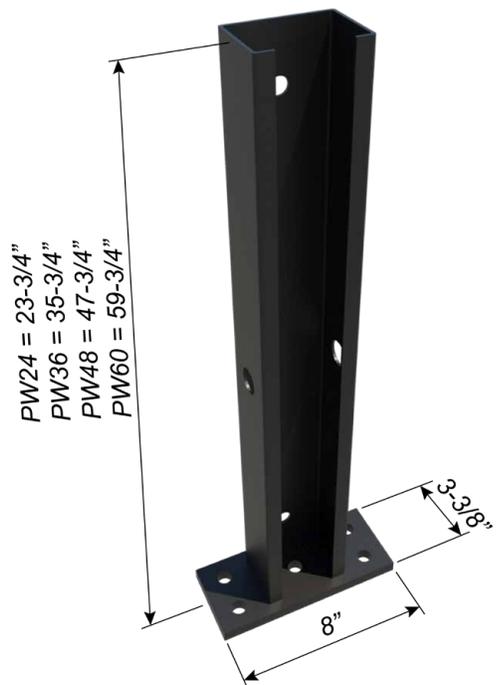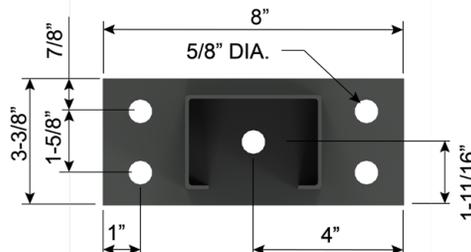
Pony Wall Heavy (PW) Allowable Loads

CONCENTRATED LOAD AT FREE END

MATERIAL SPECIFICATION:

PONY WALL HEAVY STUD
Material Thickness: 12ga (97mils), 0.1017" design thickness
Material Strength: Structural grade 50, 50ksi minimum yield strength
ASTM: A1011

PONY WALL HEAVY BASE PLATE
Material Thickness: 1/2" minimum thickness
Material Strength: 36ksi minimum yield strength
ASTM: A36

Pony Wall Heavy (PW) Allowable Loads

CONCENTRATED LOAD AT FREE END

Member designation	Pony Wall Length (in)	Max point load @ cantilever end, lbs					Moment (ASD) due to point load, in-lbs				
		L/720*	L/360*	L/240*	L/180*	Max	L/720*	L/360*	L/240*	L/180*	Max
Pony Wall Heavy	24	165	330	495	661	763	3,964	7,927	11,891	15,854	18,316
	36	73	147	220	294	509	2,642	5,285	7,927	10,569	18,316
	48	41	83	124	165	382	1,982	3,964	5,945	7,927	18,316
	60	26	53	79	106	305	1,585	3,171	4,756	6,342	18,316

* The values shown are based on deflection of the strut member only which has an effective moment of inertia = 0.7739 in⁴. For overall assembly deflection, designers also need to consider deflection due to rotation at the base. The values needed for this additional analysis are provided in the rotational stiffness table.

Notes:
1 ClarkDietrich Pony Wall Heavy is intended to support out-of-plane loading of cantilevered partial wall systems that are unsupported at the top track.
2 Out-of-plane loads are transferred to the floor system through the base-plate, which is welded to Pony Wall Heavy member.
3 ClarkDietrich Pony Wall Heavy (PW) may be used in place of standard framing members, or in conjunction with them to frame the wall.
4 Listed allowable loads are based on Allowable Stress Design (ASD).
5 Base connection between ClarkDietrich Pony Wall Heavy and support structure are designed by others.
6 Serviceability/deflection needs to be checked separately. To do this, designers need to consider deflection of strut (effective moment of inertia = 0.7739 in⁴) and deflection due to rotation at the base (see rotational stiffness table).
7 Listed maximum point load at cantilever end calculated using maximum allowable moment. When both point load and uniform loads are applied, combined loads should be limited to maximum allowable moment.
8 It is the responsibility of the designer to properly detail connections on the contract drawings.

Pony Wall Heavy (PW) Allowable Loads w/Anchors

CONCENTRATED LOAD AT FREE END

Member designation	Pony Wall length, in	Anchors to structure	No. of Anchors	Max point load @ cantilever end, lbs					Allowable base moment, in-lbs				
				L/720*	L/360*	L/240*	L/180*	Max	L/720	L/360	L/240	L/180	Max
PW24	24	1/2" φ Hilti KB1 Expansion Anchor (3-5/8" Nominal Embedment, 3000psi Uncracked concrete)	1	142	142	142	142	142	3,403	3,403	3,403	3,403	3,403
			4	165	330	452	452	452	3,964	7,927	10,840	10,840	10,840
PW36	36		1	73	95	95	95	95	2,642	3,403	3,403	3,403	3,403
			4	73	147	220	294	301	2,642	5,285	7,927	10,569	10,840
PW48	48		1	41	71	71	71	71	1,982	3,403	3,403	3,403	3,403
			4	41	83	124	165	226	1,982	3,964	5,945	7,927	10,840
PW60	60		1	26	53	57	57	57	1,585	3,171	3,403	3,403	3,403
			4	26	53	79	106	181	1,585	3,171	4,756	6,342	10,840

(1) Anchor to structure

(4) Anchors to structure

* The values shown are based on deflection of the strut member only which has an effective moment of inertia = 0.7739 in⁴. For overall assembly deflection, designers also need to consider deflection due to rotation at the base. The values needed for this additional analysis are provided in the rotational stiffness table.

Notes:
1 ClarkDietrich Pony Wall Heavy is intended to support out-of-plane loading of cantilevered partial wall systems that are unsupported at the top track.
2 Out-of-plane loads are transferred to the floor system through base-plate, which is welded to Pony Wall Heavy member.
3 ClarkDietrich Pony Wall Heavy (PW) may be used in place of standard framing members, or in conjunction with them to frame the wall.
4 Listed allowable loads are based on Allowable Stress Design (ASD).
5 Serviceability/deflection needs to be checked separately. To do this, designers need to consider deflection of strut (effective moment of inertia = 0.7739 in⁴) and deflection due to rotation at the base (see rotational stiffness table).
6 Above listed capacities w/anchors shall be used only when using 1/2" φ Hilti KB1 Expansion Anchors to concrete.
7 Other anchors may be used to achieve full Pony Wall Heavy capacity, but must be designed separately.
8 Above listed capacities have not been increased for wind, seismic, or other factors.
9 Hilti is a registered trademark of Hilti Aktiengesellschaft Corporation.
10 It is the designer's responsibility to check for minimum concrete edge distance and minimum concrete thickness when using anchors.
11 It is the responsibility of the designer to properly detail connections on the contract drawings.

RIGID CONNECTIONS

Pony Wall Heavy (12ga)

Pony Wall Heavy (PW) Allowable Loads

MAXIMUM ALLOWABLE LOADS

MATERIAL SPECIFICATION:

PONY WALL HEAVY STUD
Material Thickness: 12ga (97mils), 0.1017" design thickness
Material Strength: Structural grade 50, 50ksi minimum yield strength
ASTM: A1011

PONY WALL HEAVY BASE PLATE
Material Thickness: 1/2" minimum thickness
**Material Strength:** 36ksi minimum yield strength
ASTM: A36

Pony Wall Heavy (PW) Allowable Loads

Member designation	Pony Wall Length (in)	Anchors to structure	Strength based capacity (ASD)		
			Allowable moment, in-lbs	Max point load @ cantilever end, lbs	Max uniform live (UDL) load, lbs/ft
Pony Wall	24	Designed by others	18,316	763	763
	36			509	339
	48			382	191
	60			305	122

Notes:

1 ClarkDietrich Pony Wall Heavy (PW) is intended to support out-of-plane loading of cantilevered partial wall systems that are unsupported at the top track.

2 Out-of-plane loads are transferred to the floor system through the base-plate, which is welded to Pony Wall Heavy member.

3 ClarkDietrich Pony Wall Heavy (PW) may be used in place of standard framing members, or in conjunction with them to frame the wall.

4 Listed allowable loads are based on Allowable Stress Design (ASD).

5 Base connection between ClarkDietrich Pony Wall Heavy and support structure are designed by others.

6 Serviceability/deflection needs to be checked separately. To do this, designers need to consider deflection of strut (effective moment of inertia = 0.7739 in^4) and deflection due to rotation at the base (see rotational stiffness table).

7 Listed maximum point load at cantilever end calculated using maximum allowable moment. Similarly, listed maximum uniformly distributed load calculated using maximum allowable moment. When both point load and uniform loads are applied, combined loads should be limited to maximum allowable moment.

8 It is the responsibility of the designer to properly detail connections on the contract drawings.
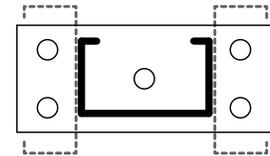
Pony Wall Heavy (PW) Allowable Loads w/Anchors

Member designation	Anchors to structure	Strength based capacity (ASD)	
		No. of Anchors to Structure	Allowable base moment, in-lbs
PW24/PW36/PW48/P60	1/2" ϕ Hilti KB1 Expansion Anchor (3-5/8" Nominal Embedment, 3000psi Uncracked Concrete)	1	3,403
		4	10,840

Notes:

1 ClarkDietrich Pony Wall Heavy is intended to support out-of-plane loading of cantilevered partial wall systems that are unsupported at the top track.

2 Out-of-plane loads are transferred to the floor system through base-plate, which is welded to Pony Wall Heavy member.

3 ClarkDietrich Pony Wall Heavy (PW) may be used in place of standard framing members, or in conjunction with them to frame the wall.

4 Listed allowable loads are based on Allowable Stress Design (ASD).

5 Serviceability/deflection needs to be checked separately. To do this, designers need to consider deflection of strut (effective moment of inertia = 0.7739 in^4) and deflection due to rotation at the base (see rotational stiffness table).

6 Above listed capacities w/anchors shall be used only when using 1/2" ϕ Hilti KB1 Expansion Anchors to concrete.

7 Other anchors may be used to achieve full Pony Wall Heavy capacity, but must be designed separately.

8 Above listed capacities have not been increased for wind, seismic, or other factors.

9 Hilti is a registered trademark of Hilti Aktiengesellschaft Corporation.

10 It is the designer's responsibility to check for minimum concrete edge distance and minimum concrete thickness when using anchors.

11 It is the responsibility of the designer to properly detail connections on the contract drawings.

Uniformly distributed loads are based on framing members placed on each side of the Pony Wall

(1) Anchor to structure

(4) Anchors to structure
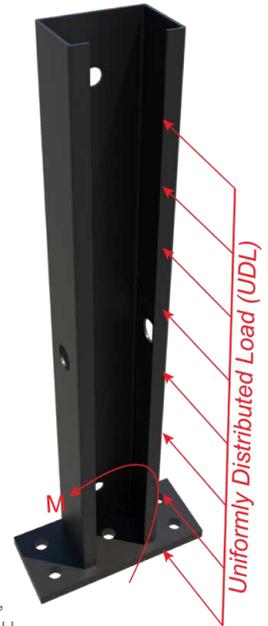
Pony Wall Heavy (PW) Allowable Loads

MATERIAL SPECIFICATION:

PONY WALL HEAVY STUD
Material Thickness: 12ga (97mils), 0.1017" design thickness
Material Strength: Structural grade 50, 50ksi minimum yield strength
ASTM: A1011

PONY WALL HEAVY BASE PLATE
Material Thickness: 1/2" minimum thickness
Material Strength: 36ksi minimum yield strength
ASTM: A36

Pony Wall Heavy (PW) Allowable Loads — UNIFORMLY DISTRIBUTED LOAD

Member designation	Pony Wall Length (in)	Uniformly distributed load, lbs/ft					Moment (ASD) due to uniform load, in-lbs				
		L/720*	L/360*	L/240*	L/180*	Max	L/720*	L/360*	L/240*	L/180*	Max
Pony Wall Heavy	24	220	440	661	763	763	5,285	10,569	15,854	18,316	18,316
	36	65	130	196	261	339	3,523	7,046	10,569	14,093	18,316
	48	28	55	83	110	191	2,642	5,285	7,927	10,569	18,316
	60	14	28	42	56	122	2,114	4,228	6,342	8,456	18,316

* The values shown are based on deflection of the strut member only which has an effective moment of inertia = 0.7739 in⁴. For overall assembly deflection, designers also need to consider deflection due to rotation at the base. The values needed for this additional analysis are provided in the rotational stiffness table.

Notes:

1 ClarkDietrich Pony Wall Heavy is intended to support out-of-plane loading of cantilevered partial wall systems that are unsupported at the top track.

2 Out-of-plane loads are transferred to the floor system through the base-plate, which is welded to Pony Wall member.

3 ClarkDietrich Pony Wall Heavy (PW) may be used in place of standard framing members, or in conjunction with them to frame the wall.

4 Listed allowable loads are based on Allowable Stress Design (ASD).

5 Base connection between ClarkDietrich Pony Wall Heavy and support structure are designed by others.

6 Serviceability/deflection needs to be checked separately. To do this, designers need to consider deflection of strut (effective moment of inertia = 0.7739 in⁴) and deflection due to rotation at the base (see rotational stiffness table).

7 Listed maximum point load at cantilever end calculated using maximum allowable moment. When both point load and uniform loads are applied, combined loads should be limited to maximum allowable moment.

8 It is the responsibility of the designer to properly detail connections on the contract drawings.

Uniformly distributed loads are based on framing members placed on each side of the Pony Wall

(1) Anchor to structure

(4) Anchors to structure
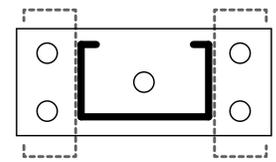
Pony Wall Heavy (PW) Allowable Loads w/Anchors — UNIFORMLY DISTRIBUTED LOAD

Member designation	Pony Wall length, in	Anchors to structure	No. of Anchors	Uniformly distributed loads, lbs/ft					Allowable base moment, in-lbs				
				L/720	L/360	L/240	L/180	Max	L/720	L/360	L/240	L/180	Max
PW24	24	1/2" ϕ Hilti KB1 Expansion Anchor (3-5/8" Nominal Embedment, 3000psi Uncracked concrete)	1	142	142	142	142	142	3,403	3,403	3,403	3,403	3,403
			4	220	440	452	452	452	5,285	10,569	10,840	10,840	10,840
PW36	36		1	63	63	63	63	63	3,403	3,403	3,403	3,403	3,403
			4	65	130	196	201	201	3,523	7,046	10,569	10,840	10,840
PW48	48		1	28	35	35	35	35	2,642	3,403	3,403	3,403	3,403
			4	28	55	83	110	113	2,642	5,285	7,927	10,569	10,840
PW60	60		1	14	23	23	23	23	2,114	3,403	3,403	3,403	3,403
			4	14	28	42	56	72	2,114	4,228	6,342	8,456	10,840

* The values shown are based on deflection of the strut member only which has an effective moment of inertia = 0.7739 in⁴. For overall assembly deflection, designers also need to consider deflection due to rotation at the base. The values needed for this additional analysis are provided in the rotational stiffness table.

Notes:

1 ClarkDietrich Pony Wall Heavy is intended to support out-of-plane loading of cantilevered partial wall systems that are unsupported at the top track.

2 Out-of-plane loads are transferred to the floor system through base-plate, which is welded to Pony Wall member.

3 ClarkDietrich Pony Wall Heavy (PW) may be used in place of standard framing members, or in conjunction with them to frame the wall

4 Listed allowable loads are based on Allowable Stress Design (ASD).

5 Serviceability/deflection needs to be checked separately. To do this, designers need to consider deflection of strut (effective moment of inertia = 0.7739 in⁴) and deflection due to rotation at the base (see rotational stiffness table).

6 Above listed capacities w/anchors shall be used only when using 1/2" ϕ Hilti KB1 Expansion Anchors to concrete.

7 Other anchors may be used to achieve full Pony Wall Heavy capacity, but must be designed separately.

8 Above listed capacities have not been increased for wind, seismic, or other factors.

9 Hilti is a registered trademark of Hilti Aktiengeselschaft Corporation.

10 It is the designer's responsibility to check for minimum concrete edge distance and minimum concrete thickness when using anchors.

11 It is the responsibility of the designer to properly detail connections on the contract drawings.