

PAI/MPAI Purlin Anchors

Wood-to-concrete and -concrete block connectors. The PA's dual embedment line allows installation in concrete or concrete block.

MATERIAL: MPAI—14 gauge; PAI—12 gauge

FINISH: Galvanized. Some products available HDG or ZMAX® coating.

INSTALLATION: • Minimum concrete strength is 15 MPa.

- Use all specified fasteners; some models have extra fastener holes. See General Notes.
- Wood splitting may occur when anchor is nailed to wood less than 3½" wide. To reduce splitting for widths less than 3½", fill every other nail hole with 10dx1½" nails. Reduce the factored resistance based on the size and quantity of fasteners used. (See nail table on page 16.)
- PAI is designed for wood I-joists. Nail spacing is for 10dx1½" nails 3" on centre, to minimize the chance of wood splitting. Maximum ledger width for full loads is 1½".

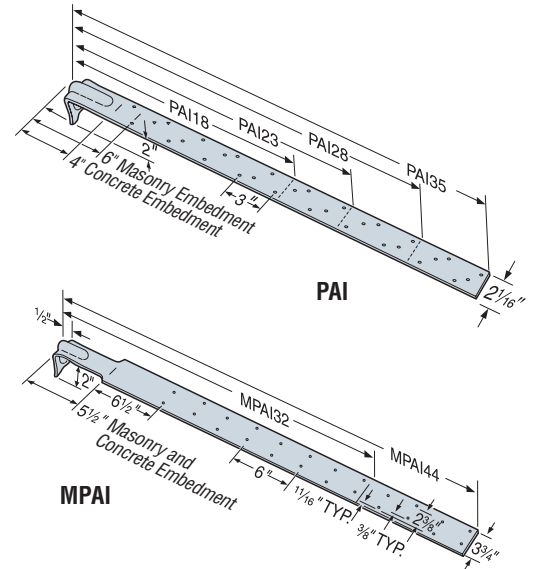
EDGE DISTANCE—Minimum concrete edge distance is 5". Minimum concrete block left-to-right edge distance is 20".

CONCRETE BLOCK WALLS—The masonry embedment line on PAI, MPAI allows for 4" of grout embedment in a standard 8" concrete masonry unit.

The minimum wall specifications are:

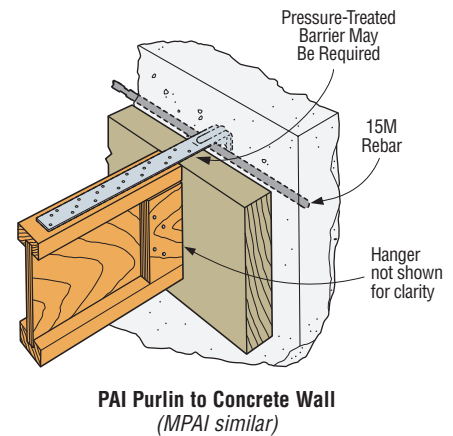
- A** One 15M vertical rebar, 32" long, 16" each side of anchor;
- B** Two courses of grout filled block above and below the anchor (no cold joints allowed);
- C** A horizontal bond beam with two 15M rebars, 40" long, a maximum of two courses above or below the anchor.

All cells grouted with 15MPa ¾" aggregate grout. Grout shall be vibrated per the Code. Rebar quantities, sizes and lengths are minimum requirements and may be increased per any additional wall design requirements.



Anchors

Model No.	L (in)	Fasteners		Factored Tensile Resistance (K _D =1.15)			
				D.Fir-L		S-P-F	
		Masonry	Concrete	Masonry	Concrete	Masonry	Concrete
				lbs	lbs	lbs	lbs
kN							
Maximum Capacity							
PAI18	18	10-10dx1½	12-10dx1½	1600	1920	1390	1670
PAI23	23	15-10dx1½	17-10dx1½	2400	2720	2085	2365
PAI28	29	21-10dx1½	23-10dx1½	3360	3680	2920	3195
PAI35	35	26-10dx1½	29-10dx1½	3870	4640	3615	4030
MPAI32	32	16-10dx1½	—	39.45	—	3110	—
MPAI44	44	24-10dx1½	—	3945	—	3945	—
1½ LVL and 3x Ledger							
PAI18	18	8-10dx1½	10-10dx1½	1280	1600	1110	1390
PAI23	23	13-10dx1½	15-10dx1½	2080	2400	1805	2085
PAI28	29	19-10dx1½	21-10dx1½	3040	3360	2640	2920
PAI35	35	24-10dx1½	27-10dx1½	3840	4320	3335	3755
MPAI32	32	16-10dx1½	—	39.45	—	3110	—
MPAI44	44	24-10dx1½	—	3945	—	3945	—
4x Ledger							
PAI18	18	7-10dx1½	9-10dx1½	1120	1440	975	1250
PAI23	23	12-10dx1½	14-10dx1½	1920	2240	1670	1945
PAI28	29	18-10dx1½	20-10dx1½	2880	3200	2500	2780
PAI35	35	23-10dx1½	26-10dx1½	3680	4160	3195	3615
MPAI32	32	16-10dx1½	—	39.45	—	3110	—
MPAI44	44	24-10dx1½	—	3945	—	3945	—



PAI Purlin to Concrete Wall
(MPAI similar)

1. Factored resistances have been increased 15% for earthquake or wind loading with no further increase allowed; reduce where other loads govern.
2. Factored resistances are for horizontal installation into the side of a concrete or masonry wall.
3. **NAILS:** 10dx1½ = 0.148" dia. x 1½" long. See page 16-17 for other nail sizes and information.