# A Smarter Mudsill Anchor for Factory-Built, Sheathed Wall Panels

## Introducing the Simpson Strong-Tie® MASOZ™ mudsill anchor for offsite construction.

***This product is preferable to similar connectors because of (a) easier installation, (b) higher loads, (c) lower installed cost, or a combination of these features.***

The latest in our growing line of offsite construction solutions, the MASOZ is an ideal mudsill anchor for factory-built, sheathed wall panels. The connector provides a very efficient anchorage method that reduces onsite labor costs. It provides a convenient alternative to traditional cast-in-place anchor bolts because crews don't waste time hassling with misaligned anchors. In addition, it saves labor over post-installed anchors by eliminating the need for a separate crew to drill and set anchors after wall panels are in place. Finally, the MASOZ eliminates the need for additional blocking and connectors required by our MASA product when used over sheathing. Two versions of the MASOZ are available — the standard MASOZ for installation on standard form boards, and the MASOPZ™ for panelized forms.

## Features

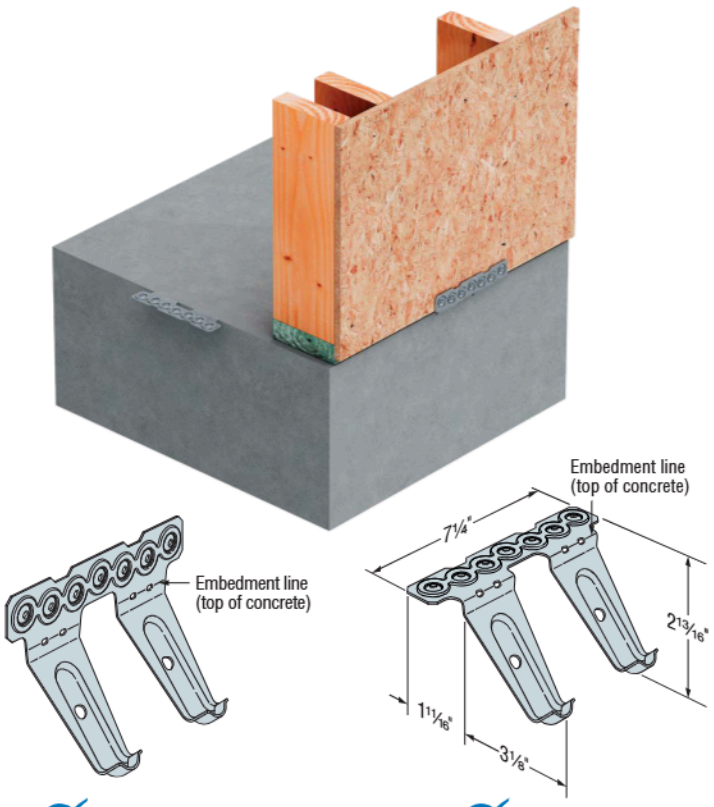
**Labor-saving anchorage for sheathed wall panels**

- Strategic nail hole and bend-line locations provide a versatile design that works with up to ½"-thick sheathing when flush to or overhanging the edge of concrete.
- Nail holes include our raised emboss to allow speedy installation of nails with a power framing nailer.
- $F_1$ (shear parallel-to-plate) allowable loads exceed those of code-prescribed ½" anchor bolts on 2x sill plates.
- Compound bend at the intersection of the top of the form-board and concrete, along with notches at the outside edge provide form-board alignment features for more intuitive installation.
- MASOZ installs to the outside of the wall panel, allowing panels to be placed without the hassle of aligning sill plate holes with protruding anchor bolts.

**Material:** 16 gauge

**Finish:** ZMAX® coating

**Codes:** ICC-ES ESR-2555, FL10441




**MASOPZ**
*(Patent/Patents Pending, strongtie.com/patents)*

**MASOZ**
*(Patent/Patents Pending, strongtie.com/patents)*

## Prescriptive Spacing for MASOZ and MASOPZ to Replace Mudsill Anchor Bolts

| Model No. | Anchor Bolt Size to Replace | Anchor Bolt Spacing to Replace | MASOZ/MASOPZ Spacing | | | |
|---|---|---|---|---|---|---|
| | | | DF/SP 2x Sill Plate | | SPF/HF 2x Sill Plate | |
| | | | Wind and SDC A&B | SDC C-E | Wind and SDC A&B | SDC C-E |
| MASOZ MASOPZ | ½" diameter | 6' o.c. | 6'–0" | 6'–0" | 6'–0" | 6'–0" |
| | | 4' o.c. | 4'–0" | 4'–0" | 4'–0" | 4'–0" |
| MASOZ MASOPZ | ⅝" diameter | 6' o.c. | 5'–0" | 5'–0" | 4'–10" | 4'–10" |
| | | 4' o.c. | 3'–4" | 3'–4" | 3'–2" | 3'–2" |

1. Detached one- and two- family dwellings in SDC C may use "Wind and SDC A&B" spacing per 2012/2015/2018/2021 IBC® Section 1613 and IRC® Section 301.2.2.
2. Spacing is based on the parallel-to-plate ($F_1$) load direction only.
3. ⅝" anchor bolts required for Seismic Design Category E.
4. The prescriptive spacing shown for DF/SP 2x sill plates requires the use of WSP consisting of OSB, Structural 1 plywood, or plywood of a species known to have an assigned specific gravity (SG) equal to or greater than 0.50.

**⚠ Warning**

This product is not compatible with all power framing nailers and nails. Do not use any tool that has been altered or modified. Before using the MASOZ/MASOPZ with any power framing nailer, you must determine whether the nailer is compatible with the MASOZ/MASOPZ product. If the nail is unable to be installed in accordance with the information above, or if the nail is not centered in the fastener feature, do not use that power framing nailer with the MASOZ/MASOPZ product. Wear eye and hand protection. Follow the manufacturer's safety precautions when using any power nailer.

**Important Notes for Installers**

This product is compatible with many power framing nailers and nails.

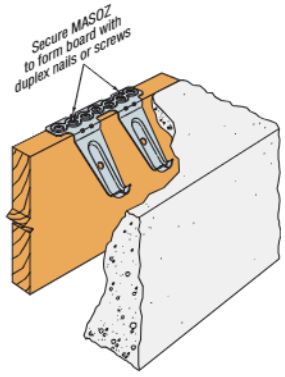
- Use only nails with concentric, full-round heads that comply with ASTM F1667.
- Do not use 28° wire-weld nails, or any nails with offset, clipped, or D heads.

Place the tool's nosepiece in the MASOZ/MASOPZ fastener feature. The outer ring of the power framing nailer nosepiece should fit within the outer ring of the fastener feature. Install a few nails to ensure nail install acceptance. The nail should be seated into the center of the MASOZ/MASOPZ fastener feature. Adjust air pressure or drive depth to achieve the correct nail placement. Operate framing nailers in single-drive, sequential actuation mode only.

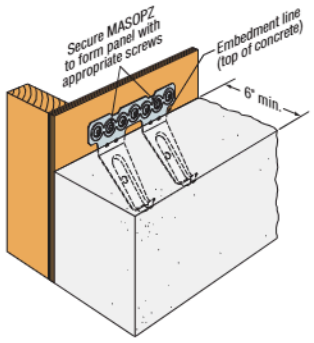
# Mudsill Anchorage for Offsite Construction (MASOZ™/MASOPZ™)

## Installation

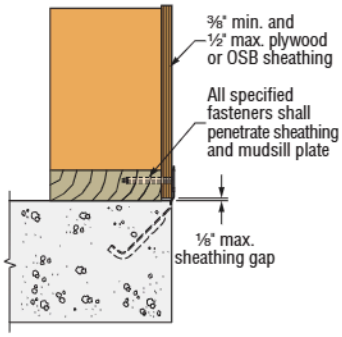
- Use all specified fasteners; see *Wood Construction Connectors* catalog (C-C-2024), General Information pages.
- Concrete shall have a minimum f'c = 2,500 psi. Use a concrete vibrator or other means to ensure full consolidation of concrete around the part.
- The MASOZ is designed to be attached through wood structural panel sheathing. For direct attachment to the sill plate, use MASA.
- Spalling — Full loads apply for spalls up to a maximum height of 1" and a maximum depth of ⅝". Any exposed portion of the mudsill anchor must be protected against possible corrosion.
- For prescriptive anchor spacing, refer to the table on the previous page.
- Minimum MASOZ end distance to the center of the part is 6" and minimum center-to-center spacing is 12" for full load. For reduced center-to-center spacing and/or end distance, contact Simpson Strong-Tie for reduced loads.
- For continuous load path, uplift connectors should be installed on the same side of the wall as the MASOZ.
- For installation in severe corrosion environments, refer to **strongtie.com/cipcorrosion** for additional considerations.



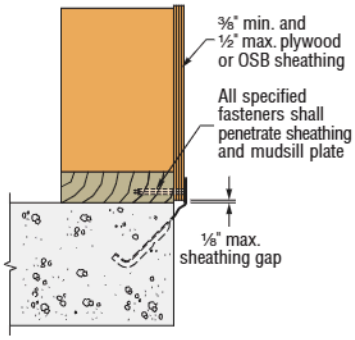

Typical MASOZ Installation in Concrete



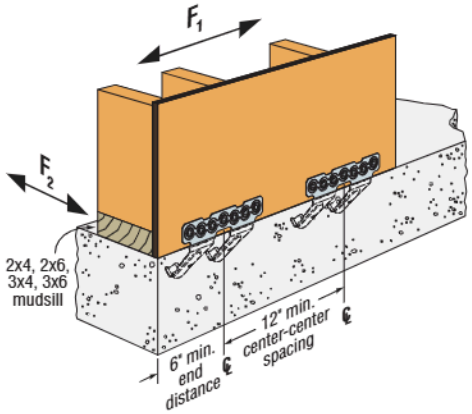

Typical MASOPZ Installation in Concrete




Typical MASOZ/MASOPZ Final Installation with Sheathing Flush




Typical MASOZ/MASOPZ Final Installation with Overhanging Sheathing




Typical MASOZ/MASOPZ Installation on Mudsill Plate

| Model No. | Sill Size | Fasteners (in.) | Allowable Loads | | | | | | | | | | | | Code Ref. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Uncracked | | | | | | Cracked | | | | | | |
| | | | Wind and SDC A & B[6] | | | SDC C–F | | | Wind and SDC A&B[6] | | | SDC C–F | | | |
| | | | Uplift | $F_1$ | $F_2$ | Uplift | $F_1$ | $F_2$ | Uplift | $F_1$ | $F_2$ | Uplift | $F_1$ | $F_2$ | |
| DF/SP Sill Plate with WSP sheathing[8] | | | | | | | | | | | | | | | |
| MASOZ or MASOPZ | 2x4, 2x6, 3x4, 3x6 | (7) 0.148 x 2½ | 970 | 1,295 | 465 | 850 | 1,295 | 465 | 675 | 1,295 | 465 | 595 | 1,190 | 465 | IBC*, FL, LA |
| HF/SPF Sill Plate with WSP sheathing | | | | | | | | | | | | | | | |
| MASOZ or MASOPZ | 2x4, 2x6, 3x4, 3x6 | (7) 0.148 x 2½ | 920 | 1,120 | 405 | 850 | 1,120 | 405 | 675 | 1,120 | 405 | 595 | 1,120 | 405 | — |

1. Loads have been increased for wind or earthquake loading, with no further increases allowed. Reduce where other loads govern.
2. Concrete shall have a minimum compressive strength of f'c = 2,500 psi.
3. Allowable loads are based on a minimum stem wall width of 6"
4. For simultaneous loads in more than one direction, the connector must be evaluated using the Unity Equation, as described in C-C-2024, General Instructions for the Designer.
5. Minimum wood structural sheathing thickness shall be ⅜" and maximum sheathing thickness shall be ½". Refer to installation images for additional requirements.
6. Detached one- and two- family dwellings in SDC C may use "Wind and SDC A&B" spacing per 2012/2015/2018/2021 IBC Section 1613 and IRC* Section 301.2.2.
7. For designs under the 2015/2018/2021 IBC, sill plate size shall comply with the shearwall requirements of the 2015/2021 Special Design Provisions for Wind and Seismic.
8. The tabulated values for DF/SP sill plates require the use of WSP consisting of OSB, Structural 1 plywood, or plywood of a species known to have an assigned specific gravity (SG) equal to or greater than 0.50. For other WSP conditions used in conjunction with DF/SP sill plates, use HF/SPF tabulated values.
9. Fasteners: Nail dimensions are listed diameter by length. See **strongtie.com** for fastener information.
10. Contact Simpson Strong-Tie for load reductions associated with gaps larger than ⅛" between the sheathing and concrete.





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