

MASA/MASAP *Mudsill Anchors*

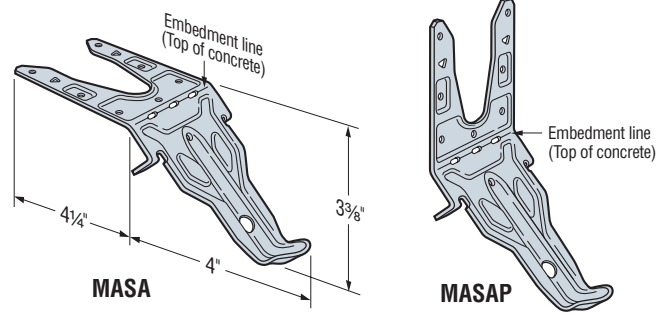
New Testing for MASA Anchors

Mudsill anchors have always been a time-saving alternative to anchor bolts, and the new MASA anchors provide even greater load-carrying capacity than our original MAS. As a result, the MASA provides an alternative for 3/4" and 1/2" mudsill anchor bolts on 2x, double-2x and 3x mudsills. It also eliminates the need for 3" square plate washers for seismic design and, in some cases, has load capacities that meet or exceed the parallel and perpendicular to plate shear capacity of other cast-in-place anchors. Two versions of the MASA are available – the standard MASA for installation on standard forms and the MASAP for panelized forms.

The MASA and MASAP are code listed by ICC-ES under the 2006 and 2009 IBC® and IRC® and have been tested to meet the requirements of ICC-ES acceptance criteria AC-398 for cracked and uncracked concrete. New test data is reflected in the table below.

CODES: ICC-ES ESR-2555

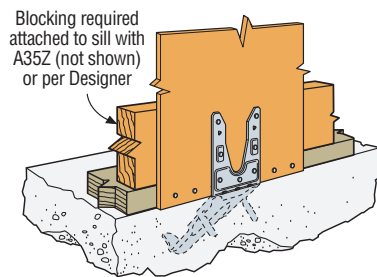
These products are available with additional corrosion protection.



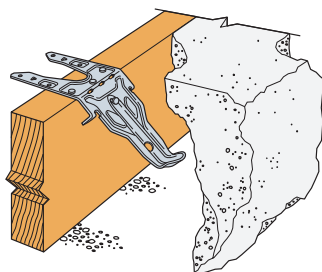
Model No.	Sill Size	Fasteners		Allowable Loads (lbs) ^{1,2,3,4,5,6}											
		Sides	Top	Non Cracked						Cracked					
				Wind and SDC A & B ^{5,6}		SDC C-F ⁶		Wind and SDC A & B ^{5,6}			SDC C-F ⁶				
Uplift	F ₁	F ₂	Uplift	F ₁	F ₂	Uplift	F ₁	F ₂	Uplift	F ₁	F ₂				
STANDARD INSTALLATION – Attached to DF/SP Sill Plate															
MASA or MASAP	2x4, 2x6	3-10dx1½	6-10dx1½	920	1515	1095	745	1235	1045	785	1515	910	660	1235	765
	3x4, 3x6	5-10dx1½	4-10dx1½	650	1215	725	550	1020	725	495	1215	725	415	1020	640
ONE LEG UP INSTALLATION – Attached to DF/SP Sill Plate															
MASA or MASAP	2x4, 2x6	6-10dx1½	3-10dx1½	785	1005	995	660	845	995	595	1005	965	500	845	810
BOTH LEGS OVER MAX. ½" PLYWOOD OR OSB INSTALLATION – Attached to DF/SP Sill Plate															
MASA or MASAP	2x4, 2x6	9-10dx1½	—	880	1150	900	740	965	755	665	1150	660	560	965	550
DOUBLE 2x INSTALLATION – Attached to DF/SP Sill Plate															
MASA or MASAP	Dbl 2x4, Dbl 2x6	5-10dx1½	2-10dx1½	875	1075	785	735	900	785	660	1075	785	555	900	785
STANDARD INSTALLATION – Attached to HF Sill Plate															
MASA or MASAP	2x4, 2x6	3-10dx1½	6-10dx1½	790	1305	940	640	1060	900	675	1305	785	570	1060	660
	3x4, 2x6	5-10dx1½	4-10dx1½	560	1045	625	475	875	625	425	1045	625	355	875	550
ONE LEG UP INSTALLATION – Attached to HF Sill Plate															
MASA or MASAP	2x4, 2x6	6-10dx1½	3-10dx1½	675	865	855	565	725	855	510	865	830	430	725	695
BOTH LEGS OVER MAX. ½" PLYWOOD OR OSB INSTALLATION – HF Sill Plate															
MASA or MASAP	2x4, 2x6	9-10dx1½	—	570	990	775	635	830	650	570	990	565	480	830	475
DOUBLE 2x INSTALLATION – Attached to HF Sill Plate															
MASA or MASAP	Dbl 2x4, Dbl 2x6	5-10dx1½	2-10dx1½	750	925	675	630	775	675	660	925	675	555	775	675

For SI: 1 inch = 25.4 mm, 1 pound = 4.45 N, 1 psi = 6.895 kPa

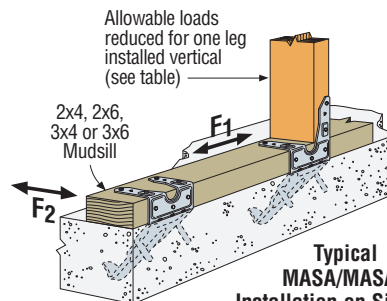
- Loads are based on allowable stress design (ASD) and include the load duration factor C_D (with C_D = 1.6) for wind/earthquake loading. No further increase is allowed. Reduce where other loads govern.
- Minimum concrete compression strength, f_c is 2500 psi.
- Allowable loads are based on a minimum stemwall width of 6".
- For simultaneous loads in more than one direction, the connector must be evaluated using the Unity Equation.
- Per Section 1613 of the 2006 IBC, detached one- and two-family dwellings in SDC C may use the "Wind and SDC A&B" allowable loads.
- In SDC D-F a 3x sill plate is required when the allowable design shearwall shear load is equal to or greater than 600 plf. If the allowable design shear load is greater than 350 plf but less than 600 plf, it is acceptable to use a 2x sill plate provided that the sill is anchored using double the number of MASA mudsill anchors required by design.
- MASA/P loads are based on testing procedures and calculations from ICC-ES Acceptance Criteria, AC398.
- NAILS:** 10dx1½" = 0.148" dia. x 1½" long.



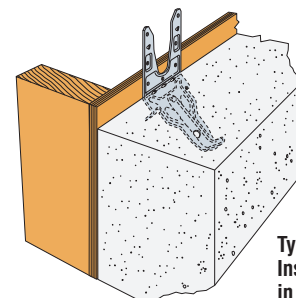
MASA/MASAP Rim Joist or Blocking Installation in Concrete over Max. ½" Sheathing



Typical MASA Installation in Concrete



Typical MASA/MASAP Installation on Sill Plate



Typical MASAP Installation in Concrete