



MASON INDUSTRIES, Inc.

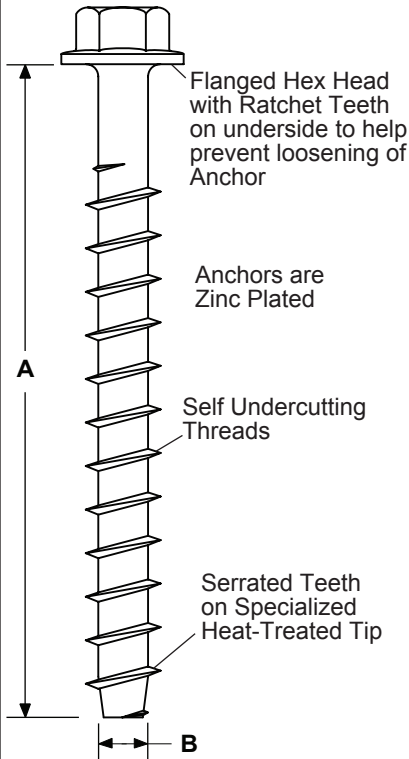
Manufacturers of Vibration Control Products

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JOB NAME _____
 CUSTOMER _____
 CUSTOMER P.O. _____
 MASON M.I. _____
 DWG. NO. _____

SAST

Seismic
Anchor
Self Tapping



TYPE SAST ANCHOR BOLT RATINGS BASED ON ALLOWABLE STRESS DESIGN (ASD)

Type and Size	Embedment Depth (in) (mm)	Installed into 2500 psi (17.2 Mpa) Normal Weight Concrete*		Installed into 2500 psi (17.2 Mpa) Lightweight Concrete*		Maximum Tightening Torque	
		Tension† (lbs) (kg)	Shear (lbs) (kg)	Tension† (lbs) (kg)	Shear (lbs) (kg)	(Ft-lbs)	(N-m)
SAST-3/8	3 1/4 83	920 410	1160 525	555 250	695 315	50	68
SAST-1/2	4 102	1500 680	2010 910	900 405	1205 545	65	88
SAST-5/8	4 1/2 114	1810 820	3870 1755	1085 490	2325 1055	140	190
SAST-3/4	5 1/2 140	2070 940	3925 1780	1245 565	2355 1065	150	205

For combined allowable stress design tension and shear forces on anchors, use the following equation:

$$\frac{T_{Applied}}{T_{Allowable (ASD)}} + \frac{V_{Applied}}{V_{Allowable (ASD)}} \leq 1.2$$

* These values are applicable when the anchors are installed with periodic special inspection as set forth in Section 1701.5.2 and Section 1704.13 of the IBC.

† The Tension values may be increased for greater compressive strength, up to 8500 psi (58.6 MPa), by multiplying the value by $(F'_c/2500)^{0.5}$, where F'_c is the specified strength of concrete in psi.

For example: SAST-1/2 in 4000 psi normal weight concrete

$$T = \left(\frac{4000}{2500}\right)^{0.5} \times 1500 \text{ lbs} = 1895 \text{ lbs}$$

TYPE SAST ANCHOR BOLT DIMENSIONS

Type and Size	A (in) (mm)	B (in) (mm)
SAST-3/8	4 102	3/8 10
SAST-1/2	5 127	1/2 13
SAST-5/8	6 152	5/8 16
SAST-3/4	7 178	3/4 19

NOTES:

- All values are for single anchors with no edge distance or spacing reduction and assume supplementary reinforcement condition B. Shear values exclude consideration of the concrete breakout failure mode.
- Anchorage must be designed in accordance with ACI 318-05 Appendix D.
- Allowable loads are for the attachment of non-structural components.
- Allowable loads are based on 100% seismic loading in seismic design categories C-F.

Anchors have the following Code Reports:

- ICC-ES-ESR-2713 and City of Los Angeles Report RR25741 for cracked & uncracked concrete
- ICC-ES-ESR-1056 and City of Los Angeles Report RR25560 for CMU (Concrete Masonry Units)
- Florida Statewide Approval FL11506.7
- Factory Mutual 3017082

CERTIFICATION DATA

Mason Industries Designs are in accordance with ACI 318-05 Appendix D.

TYPE	QTY.	TAG

Form S-105 07/2010

FORM BY: SJ

DWN:

CHKD:

DATE:

DWG. No.