



**EASE**  
**EQUIPMENT ANCHORAGE & SEISMIC ENGINEERING**

2801 Connery Way, Suite B

Missoula, MT 59808

Phn: (406) 541-EASE (3273) Fax: (406) 541-3274

Sheet 1 of 6

**Office of Statewide Health Planning and Development**  
**ANCHORAGE PRE-APPROVAL**

**OPA-1644**

Equipment Manufacturer: Getinge USA, Inc.

Equipment Type: 600 Series Steam Sterilizer

**GENERAL NOTES**

**1. EXPANSION ANCHORS:**

- (a) ATTACHMENT IS TO BE MADE WITH THE ANCHORS LISTED BELOW AND INSTALLED AS DESCRIBED  
IN THE CORRESPONDING ICBO REPORT.

Anchor Diameter	Concrete Type	Min. f <sub>c</sub> (psi)	Anchor Type	ICBO Report No.	Min. Embedment (inches)	Test Loads	
3/8"	Hardrock	2500	Hilti Kwik Bolt III	ESR-1385	2-1/2	Direct Pull Tension - 1100 lbs	Torque 25 Ft-Lbs

**2. TESTING OF EXPANSION ANCHORS:**

- (a) AFTER AT LEAST 24 HOURS HAVE ELAPSED SINCE INSTALLATION, DIRECT PULL TENSION TEST  
OR TORQUE TEST AT LEAST 50% OF THE ANCHORS.
- (b) ACCEPTANCE CRITERIA:
- (1) DIRECT PULL TENSION TEST:  
THE ANCHOR SHOULD HAVE NO OBSERVABLE MOVEMENT AT THE TEST LOAD. A PRACTICAL WAY  
TO DETERMINE OBSERVABLE MOVEMENT IS THAT THE WASHER BECOMES LOOSE.
- (2) TORQUE TEST: THE SPECIFIED TORQUE MUST BE REACHED WITHIN ONE-HALF (1/2) TURN OF THE NUT.
- (3) IF ANY ANCHOR FAILS, TEST ALL ANCHORS.





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**GENERAL NOTES (CONTINUED)**

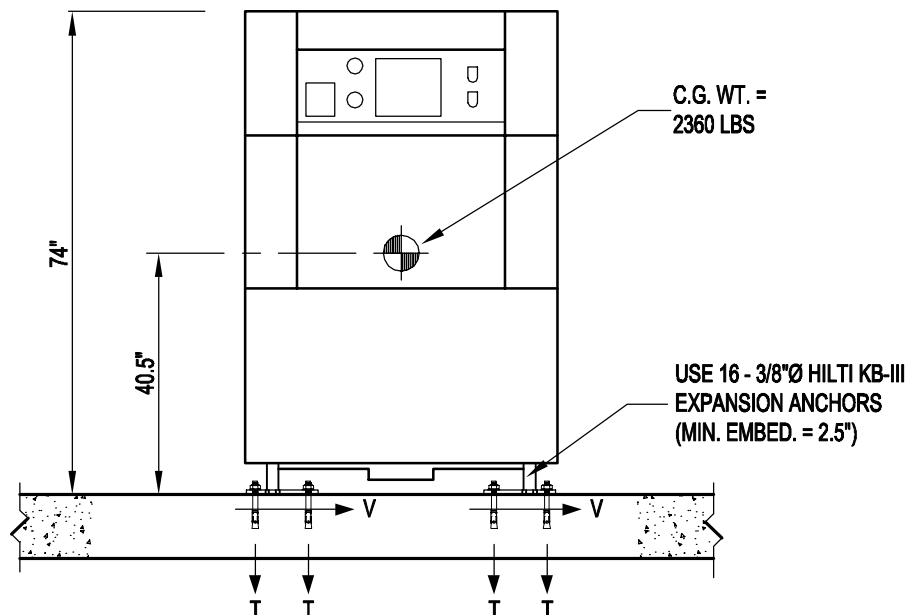
3. FORCES ARE DETERMINED PER 2001 CBC 1632A.2, EQUATIONS 32-A1, A2 & A3, WHERE  $C_a = .66$ ,  $a_p = 1.0$ ,  $I_p = 1.5$   
 $R_p = 3.0$  FOR UPPER FLOOR AND  $R_p = 1.5$  FOR SLAB ON GRADE.  
PLEASE NOTE THAT THE RESULT FROM EQUATIONS 32-A1, A2 & A3  
HAVE BEEN REDUCED BY A FACTOR OF 1.4 FOR ALLOWABLE STRESS DESIGN.
4. THIS PRE-APPROVAL CONFORMS TO THE 2001 CALIFORNIA BUILDING CODE.
5. THE DETAILS IN THIS PRE-APPROVAL MAY BE USED AT ANY LOCATION AND AT ANY HEIGHT IN THE STATE OF CALIFORNIA.  
THE UPPER FLOOR DETAILS MAY BE USED AT ANY HEIGHT IN A BUILDING.
6. THE ENGINEER OF RECORD SHALL DESIGN BACKING BARS, STUDS, ETC.  
WHICH THE UNITS ARE ATTACHED TO AS NOTED ON THE DRAWINGS. THE ENGINEER OF RECORD  
SHALL ALSO VERIFY THE ADEQUACY OF THE STRUCTURES (SUCH AS WALLS AND FLOORS)  
WHICH SUPPORT THE UNITS FOR THE LOADS IMPOSED ON THEM BY THE UNITS AS WELL AS ALL OTHER LOADS.
7. ALL ANCHOR FORCES SHOWN ON THE DRAWINGS ARE WORKING LOADS (AS OPPOSED TO ULTIMATE LOADS)  
AND MAY BE USED FOR ALLOWABLE STRENGTH DESIGN.



<b>EASE</b> EQUIPMENT ANCHORAGE & SEISMIC ENGINEERING www.equipmentanchorage.com		GETINGE PART NO. 700601	
<b>GETINGE USA, INC.</b> ROCHESTER, NEW YORK		DES. <b>R. LA BRIE</b>	SHEET <b>3</b> OF 6 SHEETS
<b>600 SERIES STEAM STERILIZER</b> <b>VESSEL SIZE: 26"W X 26"H X 26"L</b> <b>OR 39"L OR 51"L</b>		EASE JOB NO. <b>36-0701</b>	
		DATE <b>2/30/07</b>	
		REVISION CURRENT <b>A</b>	ECO NUMBER <b>122413</b>
		PREVIOUS	DATE <b>6/14/07</b>

SEISMIC ANCHORAGE PRE-APPROVAL

SLAB ON GRADE

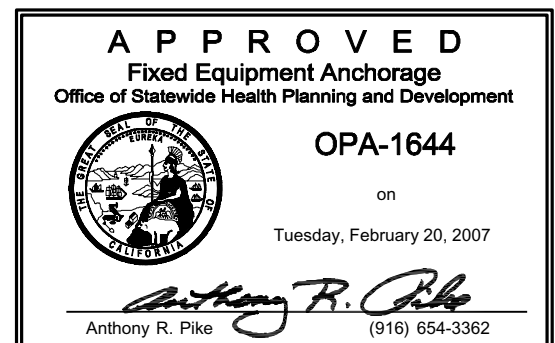
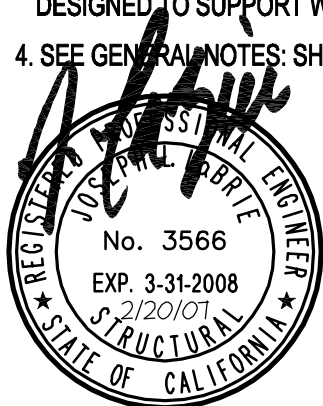


$T_{\text{MAX}} = 140 \text{ LBS / BOLT}$   
 $V_{\text{MAX}} = 92 \text{ LBS / BOLT}$

FRONT ELEVATION

## NOTES:

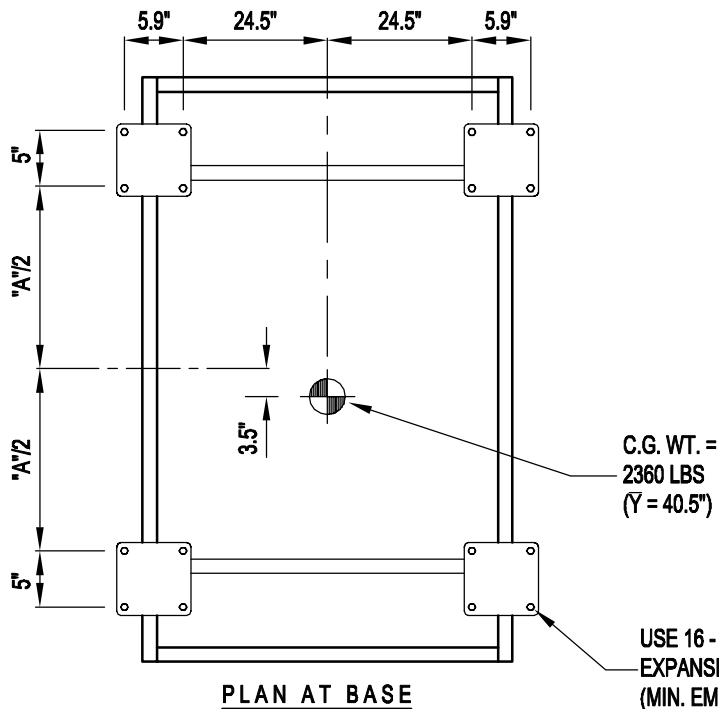
- ANCHORAGE DESIGN PER 2001 CALIFORNIA BUILDING CODE - SECTION 1632A AND HAVE BEEN FACTORED TO REPRESENT WORKING DESIGN LOADS, NOT ULTIMATE.  
 HORIZONTAL FORCE ( $V_H$ ) =  $0.50W$  ( $C_a = .66$ ,  $I_p = 1.5$ ,  $a_p = 1.0$ ,  $R_p = 1.5$ )  
 VERTICAL FORCE ( $V_V$ ) =  $0.33(V_H)$
- CENTER OF GRAVITY (C.G.) WEIGHT IS A MAXIMUM. THIS PRE-APPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.
- ENGINEER OF RECORD FOR THE BUILDING SHALL PROVIDE SUPPORT STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN, IN ADDITION TO ALL OTHER LOADS.
- SEE GENERAL NOTES: SHEETS 1-2



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SEISMIC ANCHORAGE PRE-APPROVAL


SLAB ON GRADE



EQUIPMENT LIST	
MODELS	TYPE
600 SERIES	STEAM STERILIZERS
61301607027	INSTALLATION MANUAL

UNIT	A
26"	23.7"
39"	36.7"
51"	48.7"

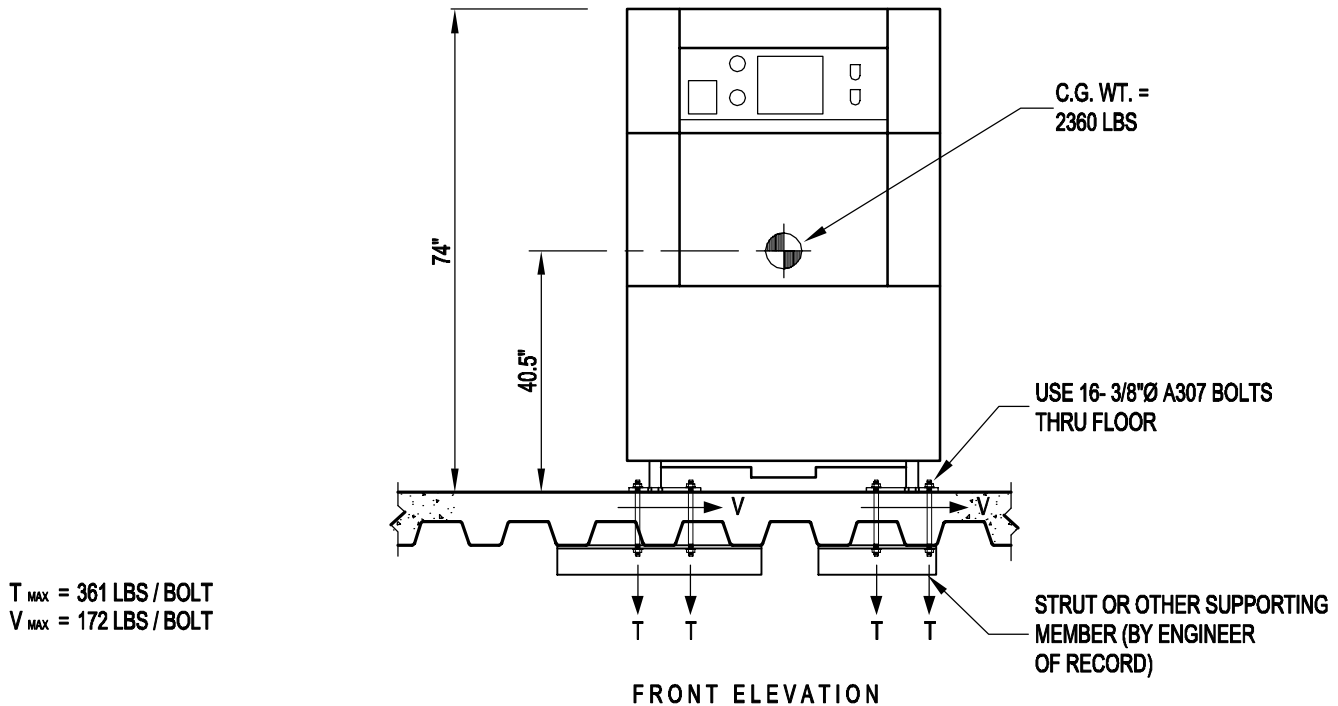


<b>APPROVED</b> Fixed Equipment Anchorage Office of Statewide Health Planning and Development	
OPA-1644 on Tuesday, February 20, 2007	
 Anthony R. Pike (916) 654-3362	

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<b>GETINGE USA, INC.</b> ROCHESTER, NEW YORK		DES. <b>R. LA BRIE</b>	SHEET <b>5</b> OF 6 SHEETS
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SEISMIC ANCHORAGE PRE-APPROVAL

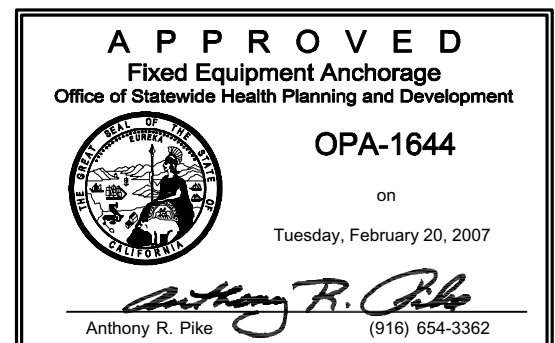
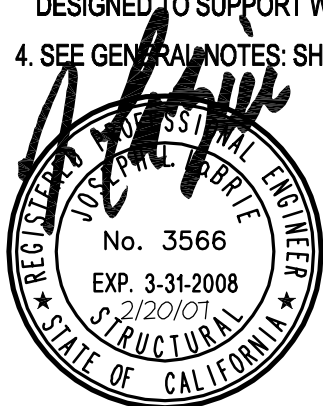
UPPER FLOOR



T<sub>MAX</sub> = 361 LBS / BOLT  
 V<sub>MAX</sub> = 172 LBS / BOLT

**NOTES:**

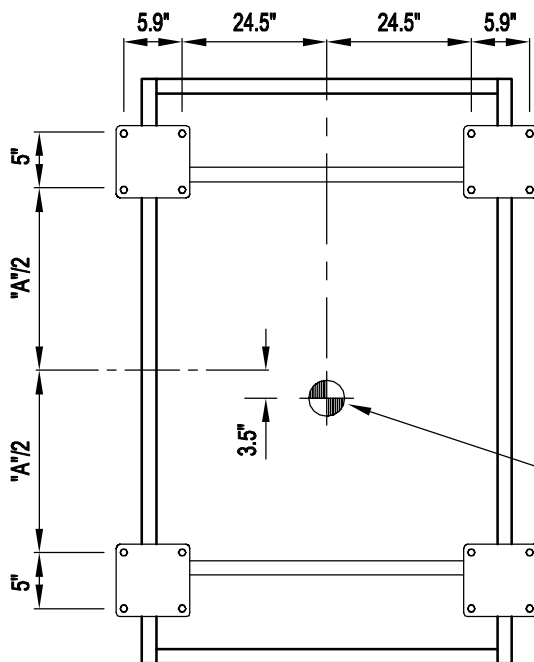
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 HORIZONTAL FORCE ( $V_H$ ) =  $0.94W$  ( $C_a = .66$ ,  $I_p = 1.5$ ,  $a_p = 1.0$ ,  $R_p = 3.0$ )  
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SEISMIC ANCHORAGE PRE-APPROVAL

UPPER FLOOR



PLAN AT BASE


C.G. WT. =  
 2360 LBS  
 (Y = 40.5")

USE 16- 3/8"Ø A307 BOLTS  
 THRU FLOOR TO  
 STRUT OR OTHER SUPPORTING  
 MEMBER (BY ENGINEER  
 OF RECORD)

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61301607027	INSTALLATION MANUAL

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