



**OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION**

**APPLICATION FOR OSHPD PREAPPROVAL
OF MANUFACTURER'S CERTIFICATION (OPM)**

OFFICE USE ONLY

APPLICATION #: OPM-0088-13

OSHPD Preapproval of Manufacturer's Certification (OPM)

Type: New Renewal Update to Pre-CBC 2013 OPA Number: _____

Manufacturer Information

Manufacturer: STERIS

Manufacturer's Technical Representative: Zach Miday

Mailing Address: STERIS Corporation, 5900 Heisley Rd, Mentor, Ohio 44060

Telephone: 440-392-7688

Email: Zachary.Miday@Steris.com

Product Information

Product Name: STERIS AMSCO 400 SMALL, CENTURY AND LAB – 16" AND 20" STERILIZERS

Product Type: Steam Sterilizer

OPM-0088-13

Product Model Number: STERIS AMSCO 400 16" and 20", Century 16" and 20", Lab 110 and Lab 250

General Description: The STERIS steam sterilizers are designed for fast, efficient sterilization of surgical instruments, utensils, fabrics, and liquids used in medical applications in the Healthcare industry. Configurations allow for increased access to the chamber or an attached steam generator.

Applicant Information

Applicant Company Name: ISAT Seismic Bracing

Contact Person: William V Joerger

Mailing Address: 1020 Crews Road, Suite Q, Matthews NC 28105

Telephone: 510-714-0216

Email: wvjoerger@isatsb.com

I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2013.

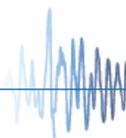
Signature of Applicant: 

Date: October 21, 2014

Title: Principal Structural Engineer

Company Name: ISAT Seismic Bracing

"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"





**OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION**

Registered Design Professional Preparing Engineering Recommendations

Company Name: ISAT Seismic Bracing

Name: William V Joerger California License Number: S4545

Mailing Address: 1020 Crews Rd, Matthews NC 28105

Telephone: 510-714-0216 Email: wvjoerger@isatsb.com

OSHPD Special Seismic Certification Preapproval (OSP)

- Special Seismic Certification is preapproved under OSP- (Separate application for OSP is required)
- Special Seismic Certification is no preapproved

Certification Method(s)

- Testing in accordance with: ICC-ES AC156 FM 1950-10
- Other* (Please Specify): _____

Equipment is considered to be rugged. OPM is for anchorage to concrete slabs.

*Use of criteria other than those adopted by the California Building Standards Code, 2013 (CBSC 2013) for component supports and attachments are not permitted. For distribution system, interior partition wall, and suspended ceiling seismic bracings, test criteria other than those adopted in the CBSC 2013 may be used when approved by OSHPD prior to testing.

- Analysis
- Experience Data
- Combination of Testing, Analysis, and/or Experience Data (Please Specify): _____

List of Attachments Supporting the Manufacturer's Certification

- Test Report Drawings Calculations Manufacturer's Catalog
- Other(s) (Please Specify): _____

OFFICE USE ONLY – OSHPD APPROVAL VALID FOR CBC 2013 ONLY

Signature: *William Staehlin* Date: 02/19/2015

Print Name: William Staehlin

Title: SSE

Condition of Approval (if applicable): _____

"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"





**INTERNATIONAL SEISMIC
APPLICATION TECHNOLOGY**

Submittal Documents

OSHPD OPM-0088-13

OPM-0088-13

**SUPPORT AND ATTACHMENT
OPM DRAWINGS**

DATE: 02/19/2015

**AMSCO 400 SMALL
CENTURY 16" AND CENTURY 20"
LAB 110 AND LAB 250
STERILIZERS - 16" x 16" AND 20" x 20"**

STERIS

ISAT
1020 Crews Road Suite Q
Matthews, N.C. 28105
704-841-4080



FILE NO.: CLT-0314-037 to 040

"Empowered by Experience"

REV 6



OSHPD OPM-0088-13

CONSTRUCTION DRAWING INDEX

DRAWING INDEX

Cover Page	p i
Index Page	p ii
<u>Construction Drawings for OPM-0088-13</u>	
AMSCO 400 Small, Century and Lab Equipment Slab-On-Grade Notes	p 1
AMSCO 400 Small 16", Century 16" and Lab 110 Attachment Layout for Slab-On-Grade	p 2
AMSCO 400 Small 20", Century 20" and Lab 250 Attachment Layout for Slab-On-Grade	p 3
AMSCO 400 Small, Century and Lab Elevated Slab Notes	p 4
AMSCO 400 Small 16", Century 16" and Lab 110 Attachment Layout for Elevated Slab	p 5
AMSCO 400 Small 20", Century 20" and Lab 250 Attachment Layout for Elevated Slab	p 6
AMSCO 400 Small, Century and Lab Attachment Notes	p 7
AMSCO 400 Small Attachment Forces	p 8
AMSCO 400 Small, Century and Lab Equipment Support Detail	p 9
AMSCO 400 Small, Century and Lab Supplemental Steel for Elevated Slab	p 10
Century and Lab Attachment Forces	p 11

OSHPD OPM-0088-13

MANUFACTURER: STERIS

EQUIPMENT TYPE: STERILIZER

GENERAL NOTES FOR ATTACHMENT TO SLAB ON GRADE:

1. THIS OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE CBC 2013. THE DEMAND (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE CBC 2013.
2. SEISMIC CRITERIA USED: $S_{DS} = 2.0$ $I_p = 1.5$ $a_p = 1.0$ $R_p = 2.5$ (WET SIDE EQUIPMENT) $z/h = 0.0$ $F_pHorz = 0.90 W_p$ $F_pVertical = 0.40 W_p$.
3. SUPPORT AND ATTACHMENT FORCES ARE DETERMINED USING ASCE 7-10 CHAPTER 13 "SEISMIC DESIGN REQUIREMENTS FOR NONSTRUCTURAL COMPONENTS". AN OVERSTRENGTH FACTOR $\Omega_0 = 2.5$ IS USED FOR ANCHORAGE TO CONCRETE PER ASCE 7-10 SUPPLEMENT 1 TABLE 13.6-1. LOADS SHOWN ARE STRENGTH DESIGN LOADS PER CBC 2013 SECTION 1909A.
4. THIS PREAPPROVAL COVERS ONLY THE SUPPORTS AND ATTACHMENTS OF THE EQUIPMENT TO THE STRUCTURE.
5. THIS PREAPPROVAL IS FOR CONCRETE SLAB AT GRADE OR BELOW FOR THE DEMAND LOADS SHOWN WHERE $z/h = 0$ AND $S_{DS} \leq 2.0$. REFER TO "ELEVATED SLAB LAYOUT" AND "ELEVATED SLAB NOTES" FOR OTHER CONDITIONS THAT ARE PART OF OPM-0088-13.

RESPONSIBILITIES OF THE STRUCTURAL ENGINEER OF RECORD

1. CONFIRM THE MATERIAL PROPERTIES AND THICKNESS OF THE CONCRETE SLAB TO WHICH THE EQUIPMENT IS ATTACHED MEETS THE REQUIREMENTS OF ICC-ES ESR-1917.
2. PROVIDE A PLAN FOR INSPECTION OF SUPPORTS AND ATTACHMENTS AND VERIFY ITS IMPLEMENTATION.
3. CONFIRM THE SPECIFIED MINIMUM CONCRETE EDGE DISTANCES ARE MAINTAINED BASED ON THE ACTUAL EQUIPMENT LOCATION. VERIFY THAT EXISTING OR NEW ANCHORS ARE AN ADEQUATE DISTANCE FROM THIS UNIT'S ATTACHMENT. CHECK FOR POST-INSTALLED ANCHOR INTERACTION WHERE OTHER ANCHORS ARE WITHIN $6 h_{ef} = 22.5"$.
4. VERIFY THAT THE EXISTING STRUCTURE IS ADEQUATE FOR THE IMPOSED DEAD, LATERAL AND TENSION FORCES SHOWN IN ADDITION TO ALL OTHER LOADS.
5. VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH CBC 2013 AND WITH THE OPM-0088-13 DETAILS. MATERIALS AND GAGE OF THE UNIT WHERE THE ATTACHMENTS ARE MADE TO AGREE WITH THE INFORMATION SHOWN.
6. VERIFY THAT THE PROJECT SPECIFIC S_{DS} AND h/z VALUES RESULT IN SEISMIC FORCES (E_h AND E_v) DO NOT EXCEED THE VALUES SHOWN IN THESE DETAILS.

SLAB-ON-GRADE ANCHOR									
ANCHOR TYPE	ICC-ES ESR NO.	CONCRETE TYPE	MIN. CONC. STRENGTH	DIA	HOLE DEPTH	MIN. SLAB THICKNESS	MIN. SPACING	MIN. EDGE DISTANCE	INSTALLATION TORQUE
HILTI KWIK BOLT TZ	1917	NORMAL WT	3000 PSI	3/4"	4 1/2"	6"	***	10"	110 FT-LBS

*** 16 INCH UNIT SPACING = 6.0" AND 20 INCH UNIT SPACING = 6.75"

OPM-0088-13

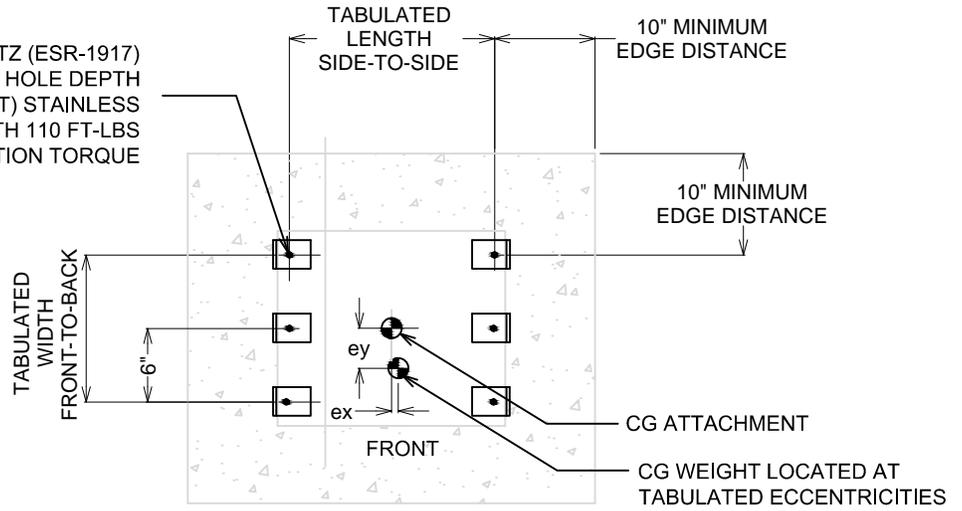
AMSCO 400 SMALL, CENTURY 16", CENTURY 20", LAB 110 AND LAB 250 SLAB-ON GRADE NOTES
SEE EQUIPMENT LAYOUT FOR ATTACHMENT PLAN AND EQUIPMENT ELEVATION



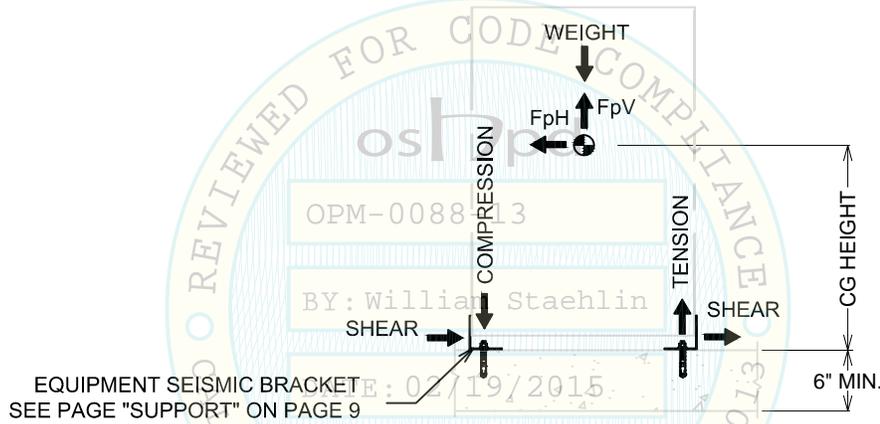
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 704-841-4080 www.isatsb.com

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N.T.S.	GRADE NOTES	

(6) HILTI KWIK BOLT TZ (ESR-1917)
 STAINLESS STEEL 3/4" x 4 1/2" HOLE DEPTH
 (3 3/4" EFFECTIVE EMBEDMENT) STAINLESS
 STEEL ANCHORS WITH 110 FT-LBS
 INSTALLATION TORQUE



SCHEMATIC ATTACHMENT PLAN



EQUIPMENT ELEVATION

OPM-0088-13

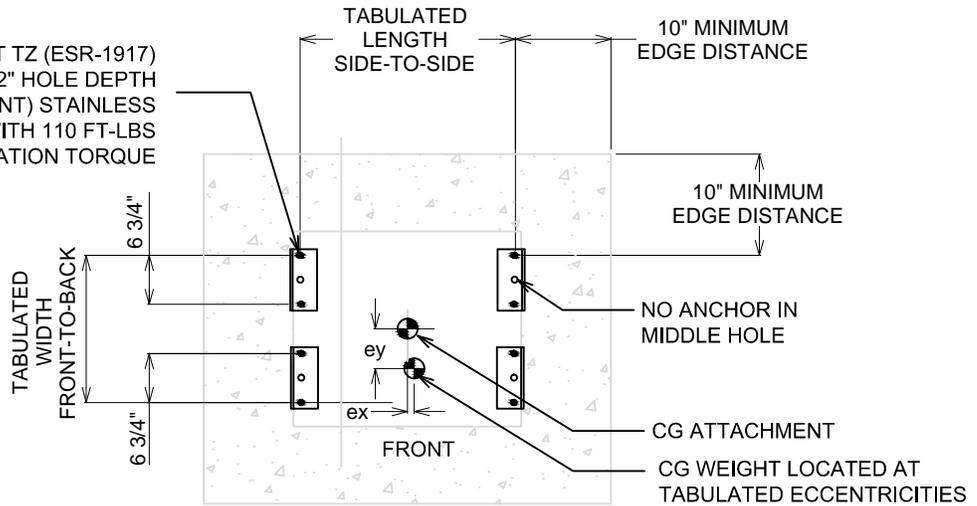
STERIS AMSCO 400 SMALL 16" x 16", CENTURY 16" AND LAB 110 STERILIZERS
ATTACHMENT LAYOUT FOR SLAB-ON-GRADE
SEE "GRADE NOTES" FOR DIMENSIONS AND ATTACHMENT FORCES



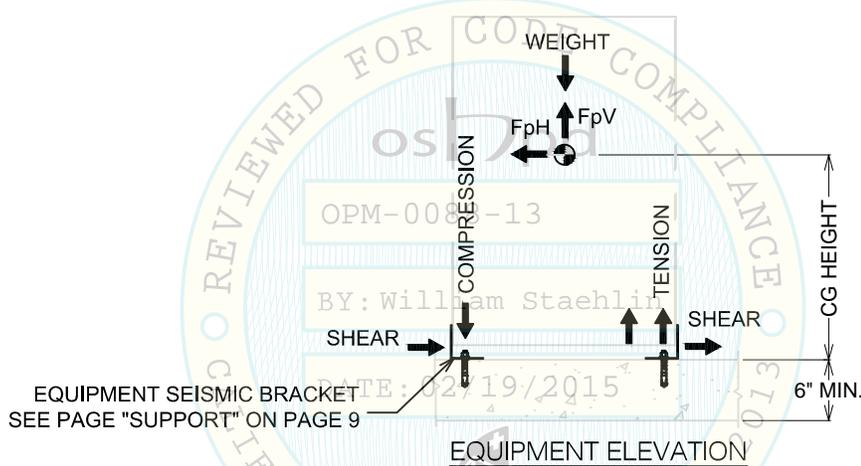
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(8) HILTI KWIK BOLT TZ (ESR-1917)
 STAINLESS STEEL 3/4" x 4 1/2" HOLE DEPTH
 (3 3/4" EFFECTIVE EMBEDMENT) STAINLESS
 STEEL ANCHORS WITH 110 FT-LBS
 INSTALLATION TORQUE



SCHEMATIC ATTACHMENT PLAN



EQUIPMENT ELEVATION

OPM-0088-13

STERIS AMSCO 400 SMALL 20" x 20", CENTURY 20" AND LAB 250 STERILIZERS
ATTACHMENT LAYOUT FOR SLAB-ON-GRADE
SEE "GRADE NOTES" FOR DIMENSIONS AND ATTACHMENT FORCES

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OSHPD OPM-0088-13

MANUFACTURER: STERIS
EQUIPMENT TYPE: STERILIZER

GENERAL NOTES FOR ATTACHMENT TO ELEVATED SLABS:

1. THIS OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE CBC 2013. THE DEMAND (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE CBC 2013.
2. SEISMIC CRITERIA USED: $S_{DS} = 2.0$ $I_p = 1.5$ $a_p = 1.0$ $R_p = 2.5$ (WET SIDE EQUIPMENT) $z/h \leq 1.0$ $F_{pHorz} = 1.44 W_p$ $F_{pVertical} = 0.40 W_p$.
3. SUPPORT AND ATTACHMENT FORCES ARE DETERMINED USING ASCE 7-10 CHAPTER 13 "SEISMIC DESIGN REQUIREMENTS FOR NONSTRUCTURAL COMPONENTS". AN OVERSTRENGTH FACTOR $\Omega_0 = 2.5$ IS USED FOR ANCHORAGE TO CONCRETE MATERIALS AND $\Omega_0 = 1.0$ FOR STEEL MATERIALS PER ASCE 7-10 SUPPLEMENT 1 TABLE 13.6-1. LOADS SHOWN ARE STRENGTH DESIGN LOADS PER CBC 2013 SECTION 1909A.
4. USE (4) 0.75" HOT DIPPED GALVANIZED THROUGH BOLTS TO A SUPPLEMENTAL STEEL MEMBER BELOW. DETAILS OF THE SUPPLEMENTAL STEEL AND CONNECTIONS TO STRUCTURE ARE SHOWN ON PAGE "SUPPLEMENTAL STEEL".
 - a. THROUGH BOLTS ARE TO BE TORQUED BY 3/4 TURN OF THE NUT AFTER SNUG TIGHT CONDITION IS ACHIEVED. SNUG TIGHT CONDITION IS DEFINED AS THE THIGHTNEE REQUIRED TO BRING THE CONNECTED PLIES INTO FIRM CONTACT.
 - b. THROUGH BOLT HOLES SHALL BE 1/16" LARGER THAN THE BOLT SIZE (HOLE SIZE = BOLT SIZE + 1/16") FOR BOTH THE STEEL AND CONCRETE.
 - c. THROUGH BOLTS WITH STEEL-TO-STEEL CONNECTION IN TENSION DO NOT REQUIRE TESTING.
5. THIS PREAPPROVAL COVERS ONLY THE SUPPORTS AND ATTACHMENTS OF THE EQUIPMENT TO THE STRUCTURE.
6. THIS PREAPPROVAL IS FOR ELEVATED CONCRETE SLABS FOR THE DEMAND LOADS SHOWN WHERE $z/h \leq 1$ AND $SDS \leq 2.0$. REFER TO "SLAB-ON-GRADE LAYOUT" AND "SLAB-ON-GRADE NOTES" FOR OTHER CONDITIONS THAT ARE PART OF OPM-0088-13.

RESPONSIBILITIES OF THE STRUCTURAL ENGINEER OF RECORD

1. CONFIRM THE MATERIAL PROPERTIES AND THICKNESS OF THE CONCRETE SLAB TO WHICH THE EQUIPMENT IS ATTACHED MEETS THE REQUIREMENTS OF THE APPLICABLE ICC-ES ESR.
2. PROVIDE A PLAN FOR INSPECTION FOR SUPPORTS AND ATTACHMENTS AND VERIFY ITS IMPLEMENTATION.
3. CONFIRM THE SPECIFIED MINIMUM CONCRETE EDGE DISTANCES ARE MAINTAINED BASED ON THE ACTUAL EQUIPMENT LOCATION. VERIFY THAT EXISTING OR NEW ANCHORS ARE AN ADEQUATE DISTANCE FROM THIS UNIT'S ATTACHMENT.
4. VERIFY THAT THE EXISTING STRUCTURE IS ADEQUATE FOR THE IMPOSED DEAD, LATERAL AND TENSION FORCES SHOWN IN ADDITION TO ALL OTHER LOADS.
5. VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH CBC 2013 AND WITH THE OPM-0088-13 DETAILS. MATERIALS AND GAGE OF THE UNIT WHERE THE ATTACHMENTS ARE MADE TO AGREE WITH THE INFORMATION SHOWN.
6. VERIFY THAT THE PROJECT SPECIFIC S_{DS} AND h/z VALUES RESULT IN SEISMIC FORCES (E_h AND E_v) DO NOT EXCEED THE VALUES SHOWN IN THESE DETAILS.

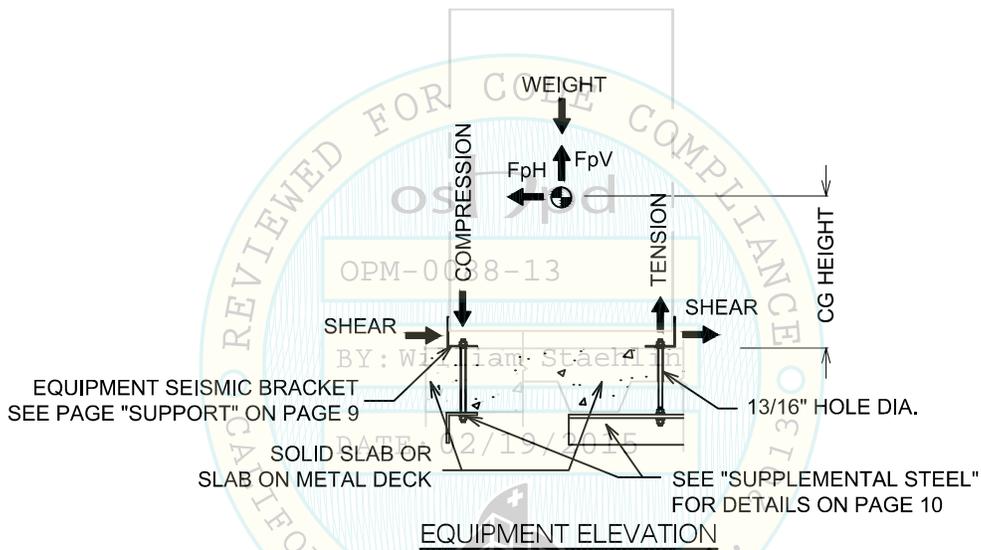
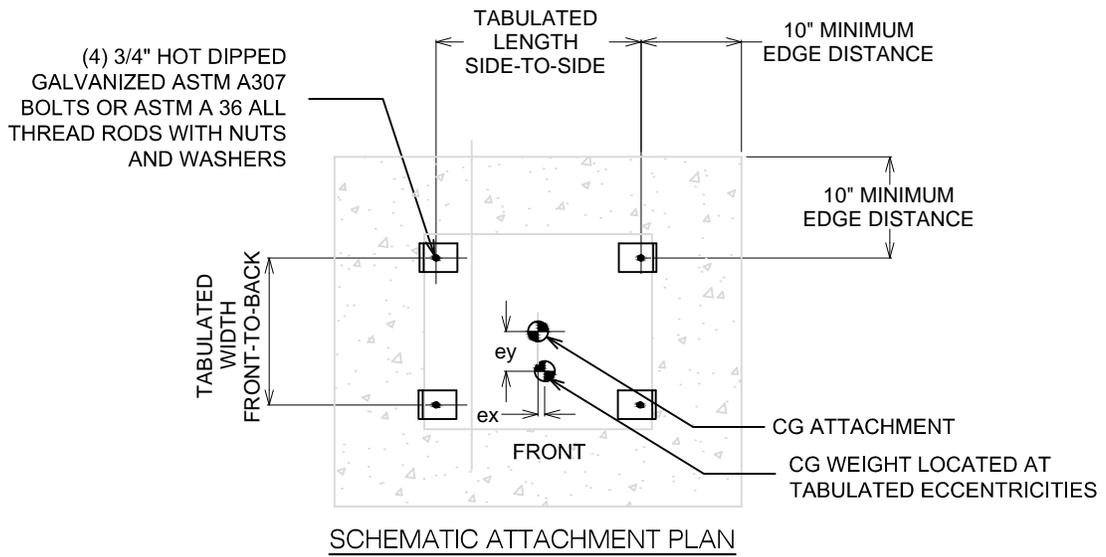
OPM-0088-13

AMSCO 400 SMALL, CENTURY 16", CENTURY 20", LAB 110 AND LAB 250 ELEVATED SLAB NOTES
SEE EQUIPMENT LAYOUT FOR ATTACHMENT PLAN AND EQUIPMENT ELEVATION



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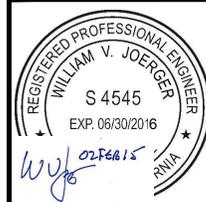


OPM-0088-13

**STERIS AMSCO 400 SMALL 16" x 16", CENTURY 16" AND LAB 110 STERILIZERS
ATTACHMENT LAYOUT FOR ELEVATED SLABS
SEE "ELEV NOTES" FOR DIMENSIONS AND ATTACHMENT FORCES**



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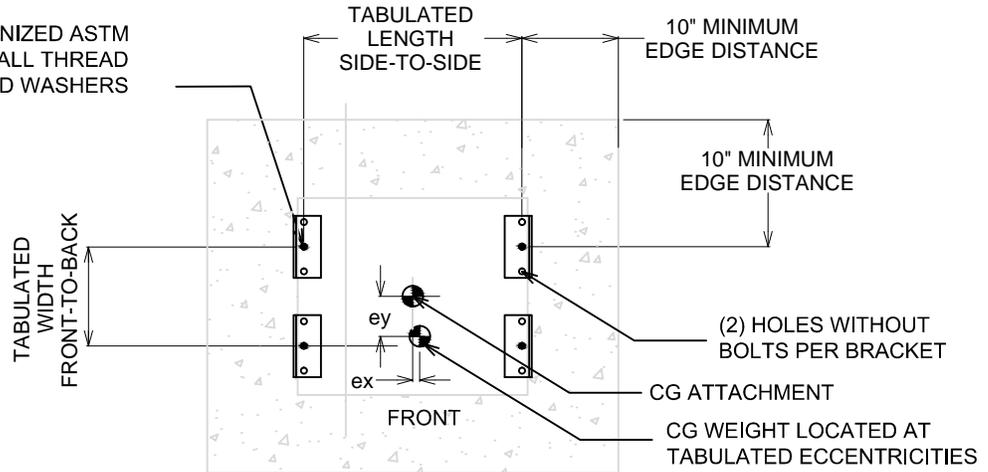


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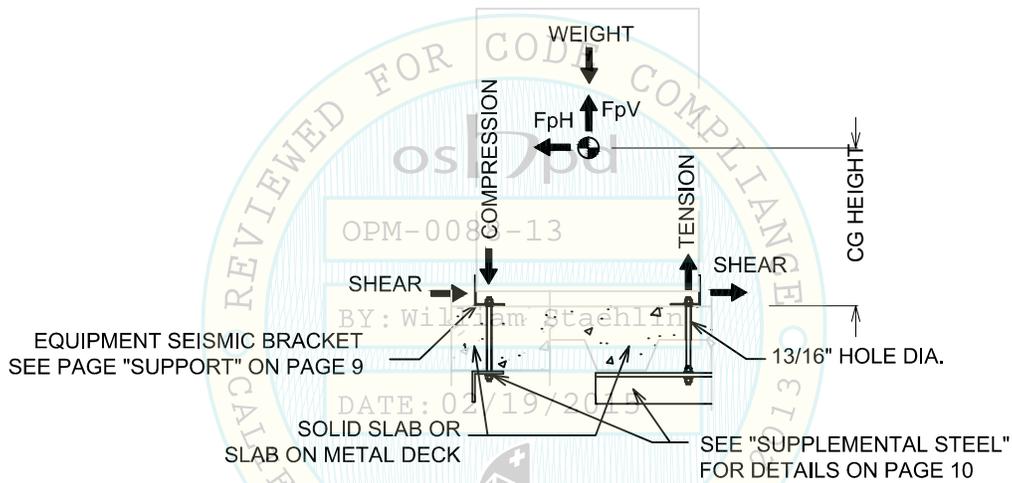
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(4) 3/4" HOT DIPPED GALVANIZED ASTM A307 BOLTS OR ASTM A 36 ALL THREAD RODS WITH NUTS AND WASHERS



SCHEMATIC ATTACHMENT PLAN



EQUIPMENT ELEVATION
OPM-0088-13

STERIS AMSCO 400 SMALL 20" x 20", CENTURY 20" AND LAB 250
ATTACHMENT LAYOUT FOR ELEVATED SLABS
SEE "ELEV NOTES" FOR DIMENSIONS AND ATTACHMENT FORCES



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OSHPD OPM-0088-13

MANUFACTURER: STERIS
EQUIPMENT TYPE: STERILIZER

ATTACHMENT GENERAL NOTES:

1. THIS OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE CBC 2013. THE DEMAND (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE CBC 2013.
2. SEE "SLAB-ON-GRADE NOTES" AND "ELEVATED SLAB NOTES" FOR SEISMIC CRITERIA USED.

SLAB-ON-GRADE NOTES:

3. HILTI KWIK BOLT TZ (ICC-ES ESR-1917 FOR MAY 2013) 0.75" x 4.50" HOLE DEPTH (3.75" EFFECTIVE EMBEDMENT) STAINLESS STEEL ANCHORS IN A CONCRETE SLAB WITH A MINIMUM THICKNESS OF 6 INCH; 110 FT-LBS INSTALLATION TORQUE. MINIMUM EDGE DISTANCE AND SPACING = 10". USE (6) ANCHORS FOR AMSCO 400 16", CENTURY 16" AND LAB 110 AND (8) ANCHORS FOR AMSCO 400 20", CENTURY 20" AND LAB 250.
4. CONCRETE USED FOR DESIGN IS A NORMAL WEIGHT SLAB WITH A MINIMUM $f'c$ = 4000 PSI AT 28 DAYS AND A MINIMUM THICKNESS OF 6 INCHES.
5. PERIODIC SPECIAL INSPECTION PER CBC 2013 SECTION 1705A AND TABLE 1705A INCLUDING VERIFICATION OF ANCHOR TYPE, ANCHOR DIMENSIONS, CONCRETE TYPE, CONCRETE COMPRESSIVE STRENGTH, ANCHOR SPACING, EDGE DISTANCES, CONCRETE MEMBER THICKNESS, TIGHTENING TORQUE, HOLE DIMENSIONS, ANCHOR EMBEDMENT AND ADHERENCE TO THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS. IN ADDITION, FOLLOW THE PROVISIONS OF THE 2013 CALIFORNIA BUILDING CODE SECTION 1916A.7.2 BY CONFIRMING THE INSTALLATION TORQUE SPECIFIED BY THE MANUFACTURER. TESTING IS NOT TO OCCUR UNTIL A MINIMUM OF 24 HOURS HAS ELAPSED AFTER THE INSTALLATION OF THE SUBJECT ANCHORS. TESTING SHALL BE DONE IN THE PRESENCE OF THE SPECIAL INSPECTOR. TEST 50% OF THE ANCHORS FOR EACH PIECE OF EQUIPMENT. USING A CALIBRATED TORQUE WRENCH VERIFY THE INSTALLATION TORQUE IS OBTAINED WITHIN 1/2 TURN OF THE NUT. REPORT OF TEST REPORTS ARE TO BE SUBMITTED TO OSHPD.

ELEVATED SLAB NOTES:

6. USE (4) 0.75" HOT DIPPED GALVANIZED STEEL THROUGH BOLTS TO SUPPLEMENTAL STEEL MEMBER BELOW. DESIGN OF THE SUPPLEMENTAL STEEL AND CONNECTIONS TO THE STRUCTURE ARE SHOWN ON PAGE 10 "SUPPLEMENTAL STEEL".
 - a. THROUGH BOLTS SHALL BE TORQUED BY 3/4 TURN OF THE NUT AFTER SNUG TIGHT CONDITION IS ACHIEVED (UNLESS OTHERWISE NOTED). SNUG TIGHT CONDITION IS DEFINED AS THE TIGHTNESS REQUIRED TO BRING THE CONNECTED PLIES INTO FIRM CONTACT.
 - b. THROUGH BOLT HOLES SHALL BE 1/16" LARGER THAN THE BOLTS SIZE (HOLE SIZE = BOLT SIZE + 1/16") FOR BOTH STEEL AND CONCRETE.
 - c. THROUGH BOLTS WITH STEEL-TO-STEEL CONNECTION IN TENSION DO NOT REQUIRE TESTING.
 - d. USE ONE NUT AND WASHER ON EACH END. WHERE BOLT OCCURS IN THE OPEN AREA OF THE METAL DECK PROVIDE AN ADDITIONAL NUT AND WASHER ON TOP OF THE SUPPLEMENTAL STEEL MEMBER, SEE DWG 10.

OPM-0088-13 AMSCO 400 SMALL, CENTURY 16", CENTURY 20", LAB 110 AND LAB 250
ATTACHMENT NOTES

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OSHPD OPM-0088-13

MANUFACTURER: STERIS
EQUIPMENT TYPE: STERILIZER

STERILIZER AT GRADE OR BELOW (FpH = 0.90 WEIGHT) z/h =0							ATTACHMENT FORCES -LBS	
Model	Length S/S	Width F/B	ex	ey	CG Height	Weight Lbs	Tension Tu	Shear Vu
16 SD	20.125	12	0.04	5.11	38.25	750	3079	369
16 SD G	20.125	12	0.59	3.59	33.96	890	3232	417
16 SD V	20.125	12	0.18	3.05	36.59	838	3271	372
16 SD V G	20.125	12	0.66	1.96	32.92	978	3425	424
16 DD	20.125	12	0.03	0.54	37.24	989	3897	382
20 SD	24.375	20.375	0.28	6.2	38.2	1231	2806	474
20 SD G	24.375	20.375	0.77	5.7	35.5	1371	2902	525
20 SD V	24.375	20.375	0.32	4.57	37.1	1320	2902	472
20 SD V G	24.375	20.375	0.77	4.26	34.67	1460	2999	523
20 DD	24.375	20.375	0.22	0.59	36.8	1606	3436	471
20 DD G	24.375	20.375	0.68	0.59	34.4	1726	3455	519

STERILIZER AT ELEVATED FLOORS (FpH = 1.44 WEIGHT) z/h <= 1.0							ATTACHMENT FORCES -LBS	
Model	Length S/S	Width F/B	ex	ey	CG Height	Weight Lbs	Tension Tu	Shear Vu
16 SD	20.125	12	0.04	5.11	38.25	750	2224	865
16 SD G	20.125	12	0.59	3.59	33.96	890	2327	981
16 SD V	20.125	12	0.18	3.05	36.59	838	2355	880
16 SD V G	20.125	12	0.66	1.96	32.92	978	2460	1006
16 DD	20.125	12	0.03	0.54	37.24	989	2798	914
20 SD	24.375	13.625	0.28	6.2	38.2	1231	4116	1542
20 SD G	24.375	13.625	0.77	5.7	35.5	1371	4252	1706
20 SD V	24.375	13.625	0.32	4.57	37.1	1320	4263	1529
20 SD V G	24.375	13.625	0.77	4.26	34.67	1460	4400	1696
20 DD	24.375	13.625	0.22	0.59	36.8	1606	5078	1511
20 DD G	24.375	13.625	0.68	0.59	34.4	1726	5098	1666

AMSCO 400 SMALL 16" x 16", CENTURY 16" AND LAB 110 INCLUDES MODEL NUMBERS 16 SD, 16 SD G, 16 SD V, 16 SD V G AND 16 DD.

AMSCO 400 SMALL 20" x 20", CENTURY 20" AND LAB 250 INCLUDES MODEL NUMBERS 20 SD, 20 SD G, 20 SD V, 20 SD V G, 20 DD, 20 DD G

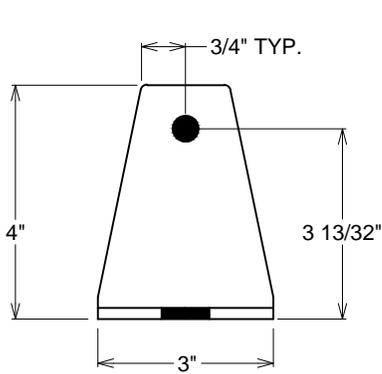
S/S = SIDE-TO-SIDE F/B = FRONT TO BACK

OPM-0088-13 AMSCO 400 SMALL ATTACHMENT FORCES

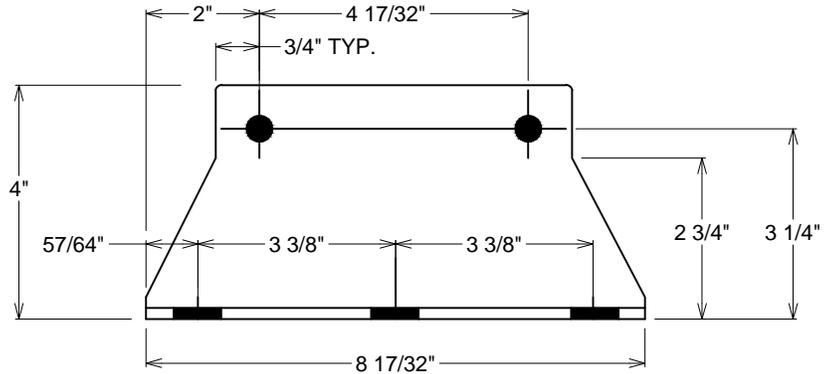


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N.T.S.	AMSCO FORCES	



ELEVATION - SEISMIC BRACKET FOR 16" UNIT



ELEVATION - SEISMIC BRACKET FOR 20" UNIT

3/8" - 16 GRADE 5 BOLT WITH WASHER AND FLANGE NUT WITH THREADS EXCLUDED FORM THE SHEAR PLANE. USE (1) BOLT FOR THE 16" UNIT AND (2) BOLTS FOR THE 20" UNIT.

EQUIPMENT STAND BOTTOM WITH 1 1/4" ACCESS HOLE FOR BOLT SOCKET.

BASE MATERIAL FOR 16" UNIT IS 0.1196" ASTM A 366.
BASE MATERIAL FOR 20" UNIT IS 0.1793" ASTM A 569.

3/4" HILTI KWIK BOLT TZ STAINLESS STEEL (FOR SLAB ON GRADE) - OR - GALVANIZED THRU BOLT 3/4" ASTM A307 BOLT OR ASTM A36 ALL THREAD ROD WITH WASHERS AND NUTS (FOR ELEVATED SLABS)

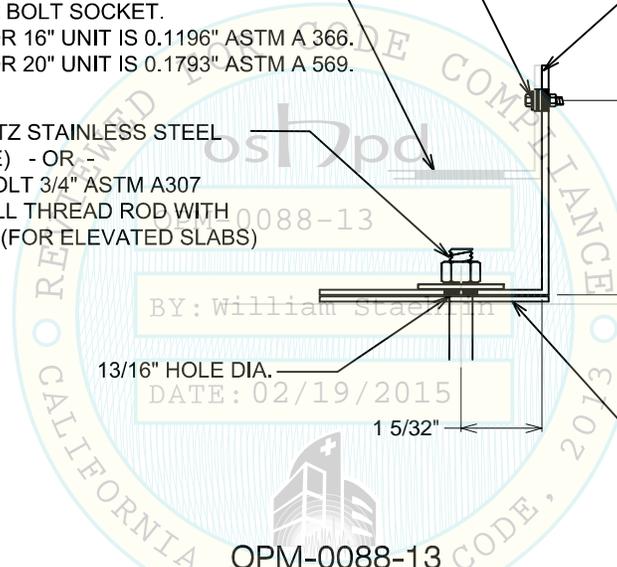
BENT PLATE 3/16 x 4 x 4
316L STAINLESS STEEL SEISMIC BRACKET BY MANUFACTURER WITH DIMENSIONS SHOWN ABOVE (Fy = 25 KSI MINIMUM)

13/16" HOLE DIA.

1 5/32"

SEISMIC SHIM - DIMENSIONS MATCH THE HORIZONTAL LEG OF THE SEISMIC BRACKET. THICKNESS IS 1/16", 1/8" AND 1/4" AS NEEDED. ASTM A240 316L SS Fy = 25 ksi MIN.

3 13/32" FOR 16"
3 1/4" FOR 20"



OPM-0088-13

STERIS AMSCO 400 SMALL 16" x 16" AND 20" x 20", CENTURY 16", CENTURY 20", LAB 110 AND LAB 250 STERILIZERS - EQUIPMENT SUPPORT DETAIL

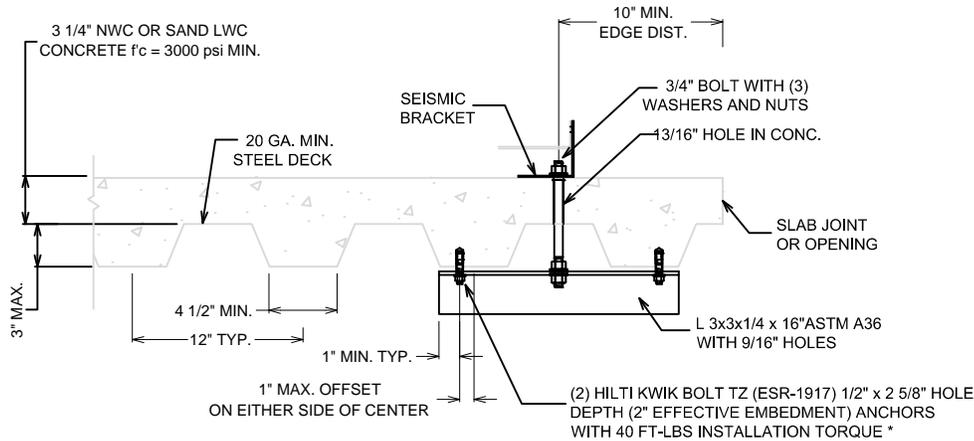


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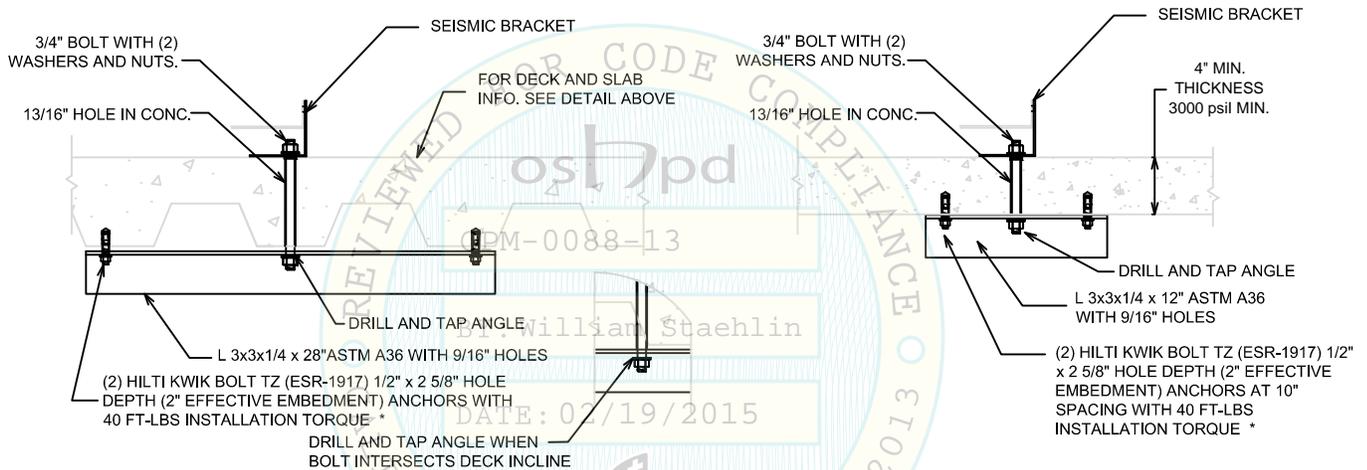


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PAGE SUPPORT



DETAIL FOR ATTACHMENT BOLT BETWEEN FLUTES



DETAIL FOR ATTACHMENT BOLT AT THE SIDE OF THE FLUTE OR AT THE BOTTOM FLUTE

DETAIL FOR ATTACHMENT BOLT AT SOLID CONCRETE SLABS

OPM-0088-13

STERIS AMSCO 400 SMALL 16" x 16" AND 20" x 20", CENTURY 16", CENTURY 20", LAB 110 AND LAB 250 STERILIZERS - SUPPLEMENTAL STEEL DETAIL AT ELEVATED SLABS



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 N.T.S. SUPPL STEEL

OSHPD OPM-0088-13

MANUFACTURER: STERIS

EQUIPMENT TYPE: STERILIZER

STERILIZER AT GRADE OR BELOW (FpH = 0.90 WEIGHT) z/h =0							ATTACHMENT FORCES -LBS	
Model	Length S/S	Width F/B	ex	ey	CG Height	Weight Lbs	Tension Tu	Shear Vu
16 SD	20.125	12	0.04	5.11	38.25	750	3079	369
16 SD G	20.125	12	0.59	3.59	33.96	890	3232	417
16 SD V	20.125	12	0.18	3.05	36.59	838	3271	372
16 SD V G	20.125	12	0.66	1.96	32.92	978	3425	424
16 DD	20.125	12	0.03	0.54	37.24	989	3897	382
20 SD	24.375	20.375	0.28	6.2	38.2	1231	2806	474
20 SD G	24.375	20.375	0.77	5.7	35.5	1371	2902	525
20 SD V	24.375	20.375	0.32	4.57	37.1	1320	2902	472
20 SD V G	24.375	20.375	0.77	4.26	34.67	1460	2999	523
20 DD	24.375	20.375	0.22	0.59	36.8	1606	3436	471
20 DD G	24.375	20.375	0.68	0.59	34.4	1726	3455	519

STERILIZER AT ELEVATED FLOORS (FpH = 1.44 WEIGHT) z/h <= 1.0							ATTACHMENT FORCES -LBS	
Model	Length S/S	Width F/B	ex	ey	CG Height	Weight Lbs	Tension Tu	Shear Vu
16 SD	20.125	12	0.04	5.11	38.25	750	2224	865
16 SD G	20.125	12	0.59	3.59	33.96	890	2327	981
16 SD V	20.125	12	0.18	3.05	36.59	838	2355	880
16 SD V G	20.125	12	0.66	1.96	32.92	978	2460	1006
16 DD	20.125	12	0.03	0.54	37.24	989	2798	914
20 SD	24.375	13.625	0.28	6.2	38.2	1231	4116	1542
20 SD G	24.375	13.625	0.77	5.7	35.5	1371	4252	1706
20 SD V	24.375	20.375	0.32	4.57	37.1	1320	4263	1529
20 SD V G	24.375	20.375	0.77	4.26	34.67	1460	4400	1696
20 DD	24.375	13.625	0.22	0.59	36.8	1606	5078	1511
20 DD G	24.375	13.625	0.68	0.59	34.4	1726	5098	1666

AMSCO 400 SMALL 16" x 16" INCLUDES MODEL NUMBERS 16SD, 16SD G, 16 SD V, 16 SD V G AND 16 DD.

AMSCO 400 SMALL 20" x 20" INCLUDES MODEL NUMBERS 20SD, 20 SD G, 20 SD V, 20 SD V G, 20 DD, 20 DD G

S/S = SIDE-TO-SIDE F/B = FRONT TO BACK

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AMSCO 400 SMALL ATTACHMENT FORCES



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SCALE	PAGE	
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