



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

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

OFFICE USE ONLY

APPLICATION #: OPM-0080-13

OSHPD Preapproval of Manufacturer's Certification (OPM)

Type: New Renewal Update to Pre-CBC 2013 OPA Number: OPA-1942-07

Manufacturer Information

Manufacturer: STERIS

Manufacturer's Technical Representative: Nicolas Verreault

Mailing Address: 490 Armand-Paris, Québec, QC G1C 8A3, Canada

Telephone: 418-664-1545

Email: Nicolas_verreault@steris.com

Product Information

Product Name(s): AMSCO® 7053L Single-Chamber Washer/Disinfector and Reliance Vision SC Washer/Disinfector

Product Type: Healthcare Washer/Disinfector

Product Model Number: FH41-072, FH41-042, FH41-043, FH96-062, FH96-063, FH96-032, FH96-033, FH05-072, FH05-042, FH05-043, FH05-062, FH05-063, FH10-082, FH10-072, FH10-062, FH10-032, FH10-063

General Description: Both products are surgical instruments single chamber washers/disinfectors. Process is assured by high impingement recirculation of cleaning solution and thermal disinfection.

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: January 03, 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 not 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: May 14, 2014

Print Name: William Staehlin

Title: Senior Structural Engineer

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

OPM-0080-13

OSHPD OPM-0080-13

DATE: 05/14/2014

**ATTACHMENT OPM DRAWINGS
AMSCO 7053L AND RELIANCE VISION
WASHERS/DISINFECTOR**

STERIS

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



FILE NO.: CLT-0214-025 and 026

“Empowered by Experience”

REV 2

OPM-0080-13 DWG - i



OSHPD OPM-0080-13

DRAWING INDEX

DRAWING INDEX

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OSHPD OPM-0080-13

MANUFACTURE: STERIS

EQUIPMENT TYPE: WASHER/DISINFECTOR

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: $S_{DS} = 2.5$ $I_p = 1.5$ $a_p = 1.0$ $R_p = 1.5$ (OTHER EQUIPMENT) $z/h = 0.0$ $F_pHorz = 1.13 W_p$
 $F_pVertical = 0.50 W_p$.
3. SUPPORT AND ATTACHMENT FORCES ARE DETERMINED USING ASCE 7-10 CHAPTER 13 "SEISMIC DESIGN REQUIREMENTS FOR NONSTRUCTURAL COMPONENTS". AN OVERSTRENGTH FACTOR $\Omega_0 = 1.5$ IS USED FOR CONCRETE ANCHORAGE FORCES 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 $S_{DS} \leq 2.5$. REFER TO "ELEVATED SLAB LAYOUT" AND "ELEVATED SLAB NOTES" FOR OTHER CONDITIONS THAT ARE PART OF

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 $6 h_{ef} = 19.5"$.
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-0080-13 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.

DATE: 05/14/2014

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	0.50"	4"	6"	6"	6"	40 FT-LBS

**OPM-0080-13 EQUIPMENT ATTACHMENT NOTES FOR SLAB-ON-GRADE
SEE EQUIPMENT LAYOUT FOR ATTACHMENT PLAN AND EQUIPMENT ELEVATION**

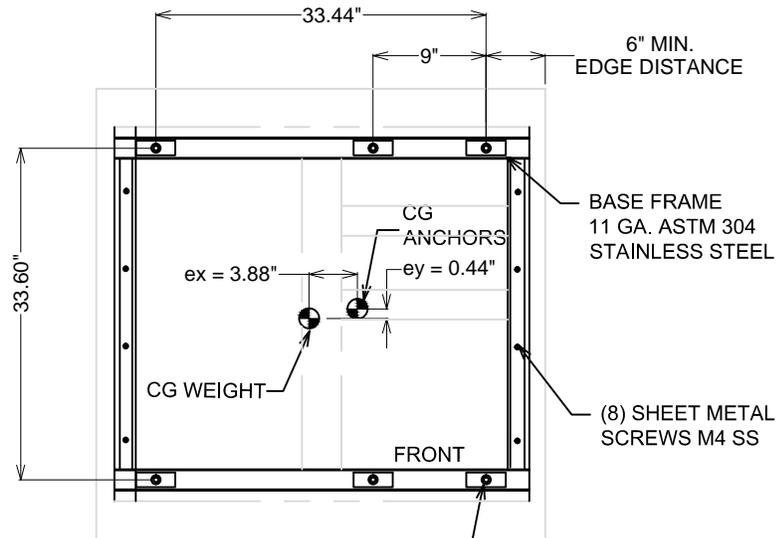


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704-841-4080 www.isatsb.com

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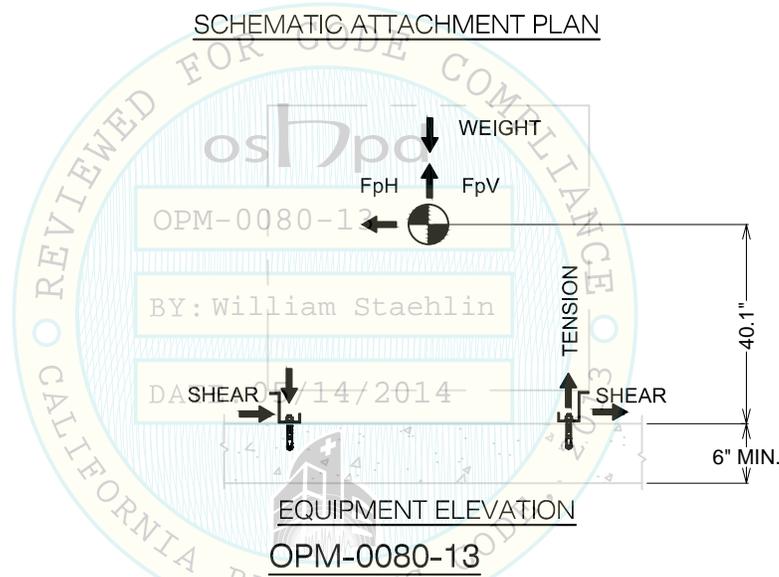
OPM-0080-13 DWG - 1

AMSCO 7053L INCLUDES MODEL NUMBERS FH41-072, FH41-042, FH41-043, FH96-062, FH96-063, FH96-032, FH96-033.



(2 SETS OF 3) HILTI KWIK BOLT TZ (ESR-1917) 1/2" x 4" HOLE DEPTH (3 1/4" EFFECTIVE EMBEDMENT) STAINLESS STEEL ANCHORS WITH 40 FT-LBS INSTALLATION TORQUE WITH PLATE WASHER 3/16 x 2 x 4

SCHEMATIC ATTACHMENT PLAN



EQUIPMENT ELEVATION
OPM-0080-13

AMSCO 7053L EQUIPMENT ATTACHMENT LAYOUT FOR SLAB-ON-GRADE
SEE "GRADE NOTES" FOR NOTES AND "FORCES" FOR DIMENSIONS AND FORCES

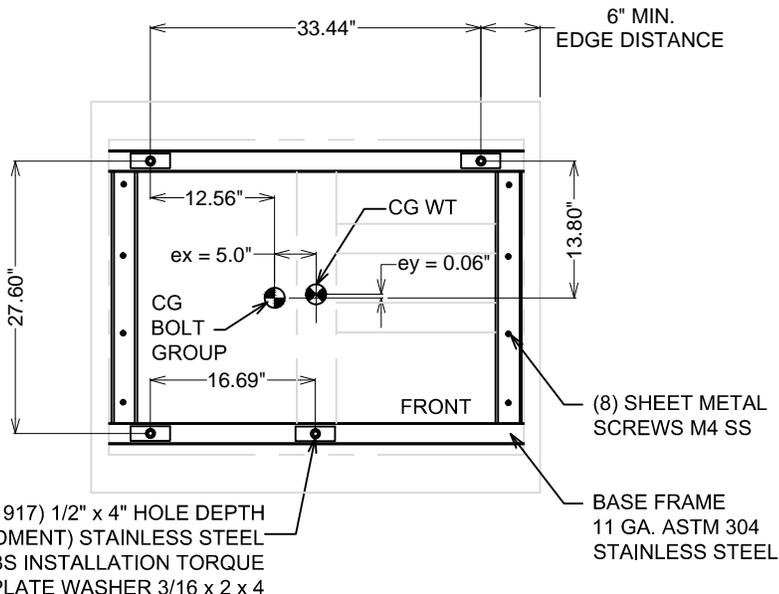


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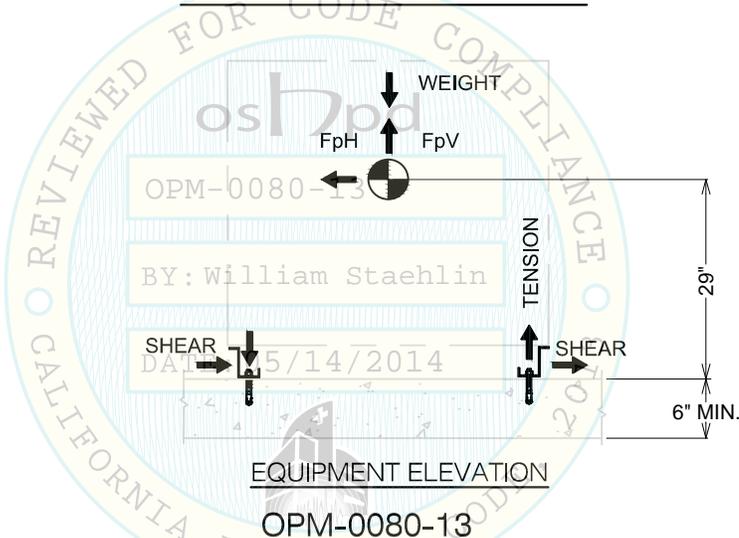
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VISION SINGLE CHAMBER INCLUDES
 MODEL NUMBERS FH05-072, FH05-042, FH05-043, FH05-062, FH05-063, FH10-082, FH10-072, FH10-062, FH10-032, FH10-063.



SCHEMATIC ATTACHMENT PLAN



EQUIPMENT ELEVATION

OPM-0080-13

VISION SINGLE CHAMBER EQUIPMENT ATTACHMENT LAYOUT FOR SLAB-ON-GRADE
SEE "GRADE NOTES" FOR NOTES AND "FORCES" FOR DIMENSIONS AND FORCES

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OSHPD OPM-0080-13

MANUFACTURE: STERIS

EQUIPMENT TYPE: WASHER/DISINFECTOR

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: $S_{DS} = 2.5$ $I_p = 1.5$ $a_p = 1.0$ $R_p = 1.5$ (OTHER EQUIPMENT) $z/h = 1.0$ $F_{pHorz} = 3.00 W_p$
 $F_{pVertical} = 0.50 W_p$.
3. SUPPORT AND ATTACHMENT FORCES ARE DETERMINED USING ASCE 7-10 CHAPTER 13 "SEISMIC DESIGN REQUIREMENTS FOR NONSTRUCTURAL COMPONENTS". AN OVERSTRENGTH FACTOR $\Omega_0 = 1.5$ IS USED FOR 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) 0.50" 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 THIGHTENING 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 $SDS \leq 2.5$. REFER TO "SLAB-ON-GRADE LAYOUT" AND "SLAB-ON-GRADE NOTES" FOR OTHER CONDITIONS THAT ARE PART OF OPM-0080-13.

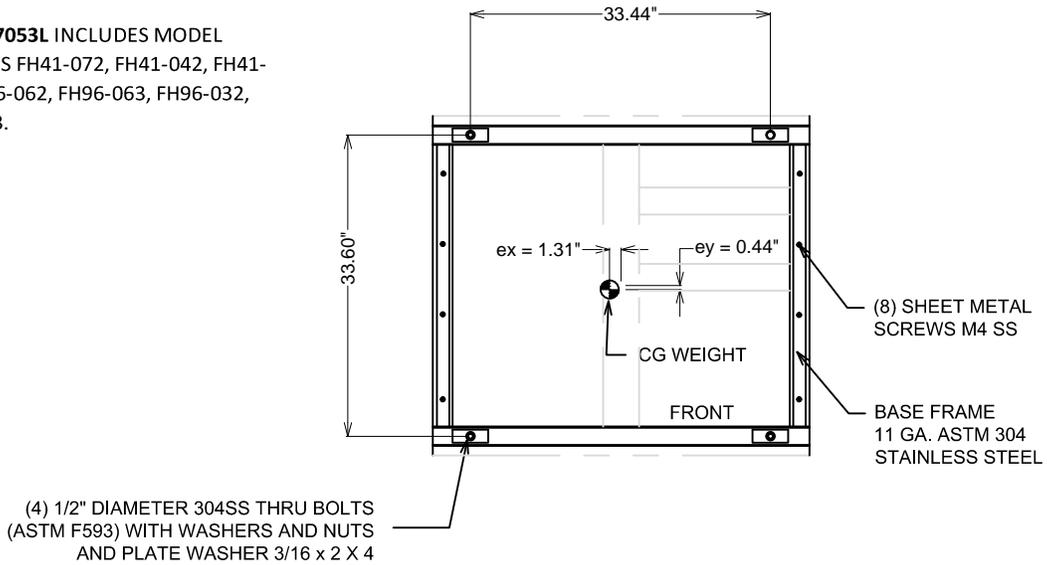
RESPONSIBILITIES OF THE STRUCTURAL ENGINEER OF RECORD

1. CONFIRM THE MATERIAL PROPERTIES AND THICKNESS OF THE CONCRETE SLAB TO WHICH THE EQUIPMENT IS ATTACHED MEETS THE REQUIREMENTS OF THIS OPM.
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.
4. VERIFY THAT THE EXISITNG 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-0080-13 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.

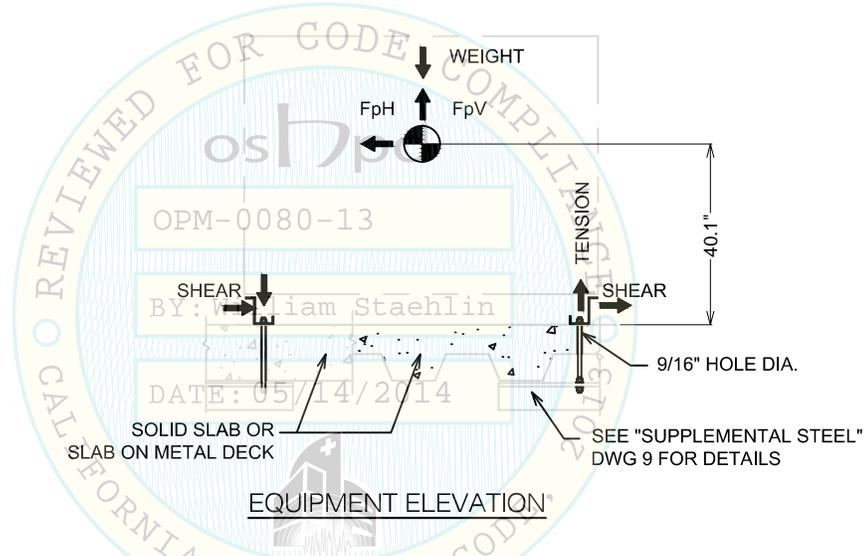
**OPM-0080-13 EQUIPMENT ATTACHMENT NOTES FOR ELEVATED SLABS
SEE "ELEV LAYOUT" FOR DIMENSIONS AND ATTACHMENT FORCES**

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AMSCO 7053L INCLUDES MODEL NUMBERS FH41-072, FH41-042, FH41-043, FH96-062, FH96-063, FH96-032, FH96-033.



SCHEMATIC ANCHOR PLAN

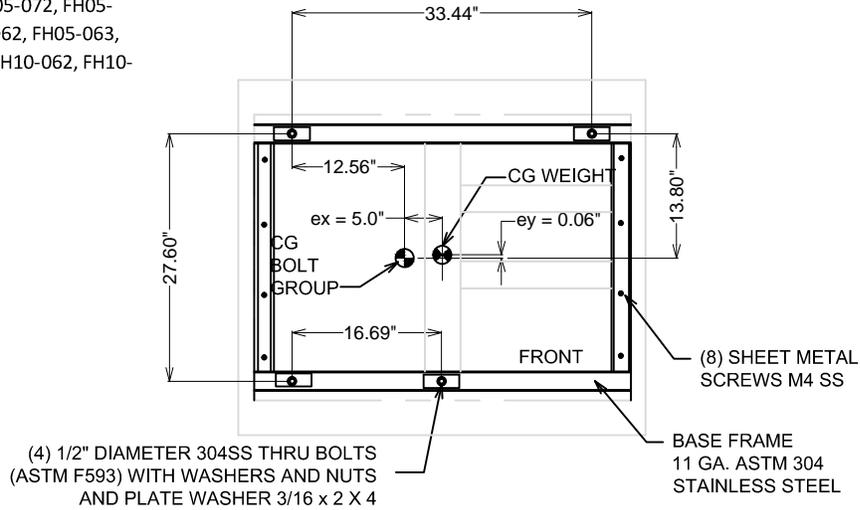


OPM-0080-13 AMSCO 7053L EQUIPMENT ATTACHMENT LAYOUT FOR ELEVATED SLABS
SEE "ELEV NOTES" FOR NOTES AND "FORCES" FOR DIMENSIONS AND FORCES

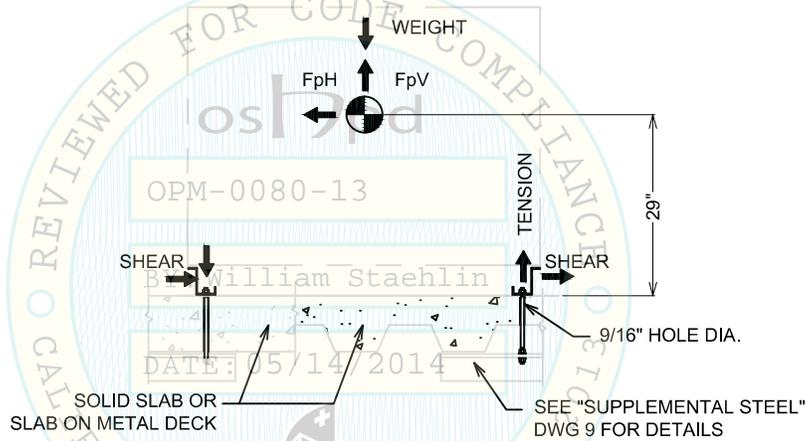
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VISION SINGLE CHAMBER INCLUDES
 MODEL NUMBERS FH05-072, FH05-042, FH05-043, FH05-062, FH05-063, FH10-082, FH10-072, FH10-062, FH10-032, FH10-063.



SCHEMATIC ANCHOR PLAN



EQUIPMENT ELEVATION

OPM-0080-13

VISION SINGLE CHAMBER EQUIPMENT ATTACHMENT LAYOUT FOR ELEVATED SLABS
SEE "ELEV NOTES" FOR NOTES AND "FORCES" FOR DIMENSIONS AND FORCES

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OSHPD OPM-0080-13

MANUFACTURE: STERIS

EQUIPMENT TYPE: WASHER/DISINFECTOR

ULTRASONIC CLEANERS AT GRADE OR BELOW (FpH = 1.13 WEIGHT)							ATTACHMENT FORCES -LBS	
Model	Length	Width	CG Height	ex	ey	Weight Lbs	Tu Tension	Vu Shear
7053L	33.44"	33.60"	40.1"	3.88"	0.44"	1331	1487	433
Vision	33.44"	27.6"	29"	5.0"	0.06"	1187	1152	595

ULTRASONIC CLEANERS AT ELEVATED SLABS (FpH = 3.00 WEIGHT)							ATTACHMENT FORCES -LBS	
Model	Length	Width	CG Height	ex	ey	Weight Lbs	Tu Tension	Vu Shear
7053L	33.44"	33.60"	40.1"	1.31"	0.44"	1331	3258	1576
Vision	33.44"	27.6"	29"	5.0"	0.06"	1187	2106	1586

AMSCO 7053L INCLUDES MODEL NUMBERS FH41-072, FH41-042, FH41-043, FH96-062, FH96-063, FH96-032, FH96-033.

VISION SINGLE CHAMBER INCLUDES MODEL NUMBERS FH05-072, FH05-042, FH05-043, FH05-062, FH05-063, FH10-082, FH10-072, FH10-062, FH10-032, FH10-063.

WEIGHT AND GEOMETERIC PROPERTIES DO NOT VARY WITH MODEL NUMBERS.

OPM-0080-13

AMSCO 7053L AND VISION SINGLE CHAMBER ATTACHMENT FORCES



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OSHPD OPM-0080-13

MANUFACTURE: STERIS

EQUIPMENT TYPE: WASHER/DISINFECTOR

ATTACHMENT GENERAL NOTES:

1. THIS OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE CBC 2013. THE DEMAND (DESIGN
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) 0.50" x 4" HOLE DEPTH (3.25" EFFECTIVE EMBEDMENT) STAINLESS STEEL ANCHORS IN A CONCRETE SLAB WITH A MINIMUM THICKNESS OF 6 INCH; 40 FT-LBS INSTALLATION TORQUE. MINIMUM EDGE DISTANCE AND SPACING = 6". USE (6) ANCHORS FOR AMSCO 7053L AND (4) ANCHORS FOR VISION SINGLE CHAMBER.
4. CONCRETE USED FOR DESIGN IS A NORMAL WEIGHT SLAB WITH A MINIMUM $f'_c = 3000$ 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 1913A.7 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.

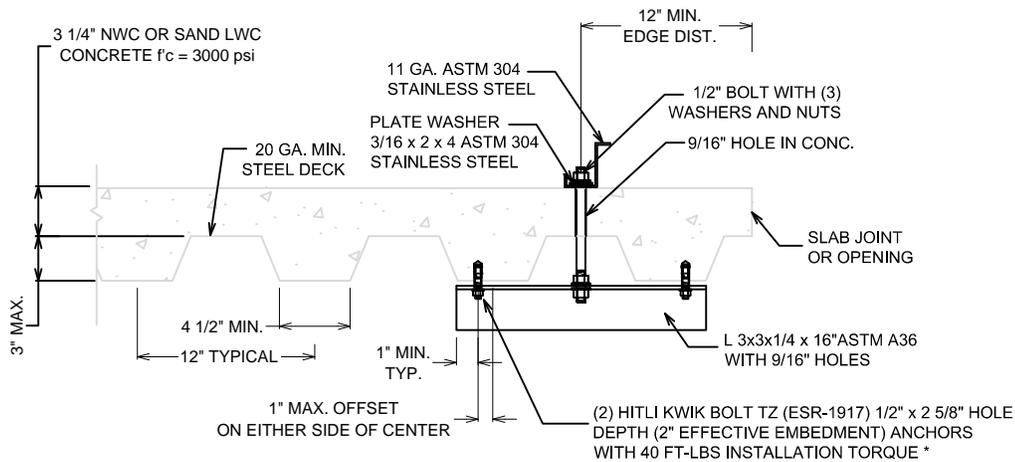
ELEVATED SLAB NOTES:

6. USE (4) 0.50" ASTM A193 BOLTS OR ASTM F593 ALL THREAD ROD 304 STAINLESS STEEL THROUGH BOLTS TO SUPPLEMENTAL STEEL MEMBER BELOW. DESIGN OF THE SUPPLEMENTAL STEEL AND CONNECTIONS TO THE STRUCTURE ARE SHOWN ON PAGE 9 "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 9.

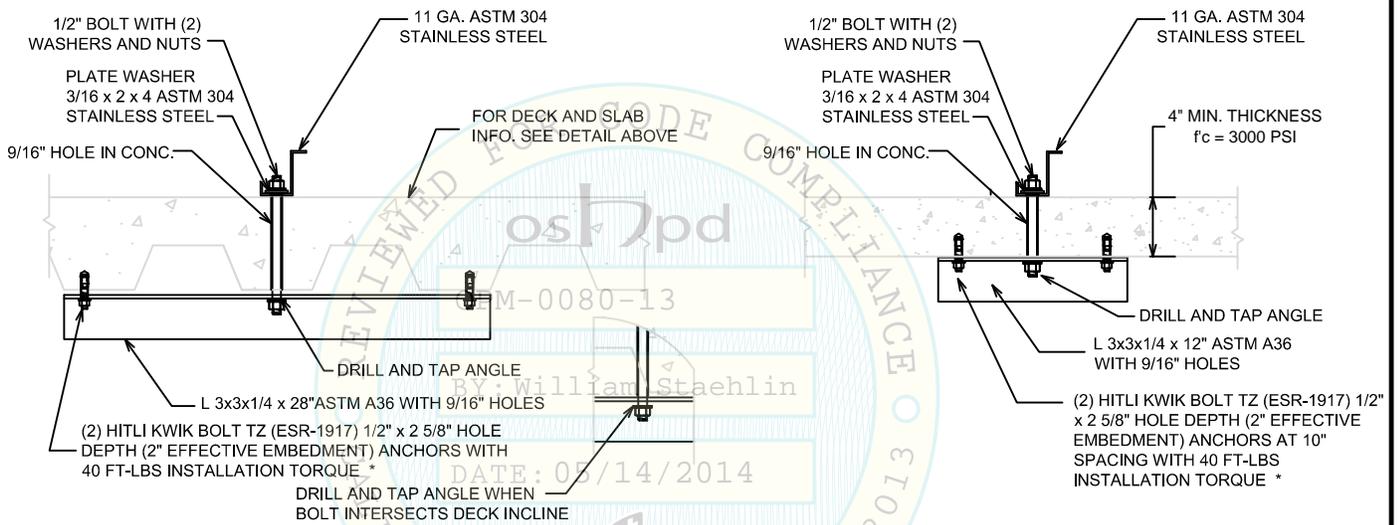
OPM-0080-13 ATTACHMENT NOTES

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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-0080-13 SUPPLEMENTAL STEEL DETAIL AT ELEVATED SLABS

* TESTING: SEE SLAB ON GRADE NOTES, NOTE NO. 5 ON PAGE "ATTACHMENT NOTES"



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