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

OFFICE USE ONLY

APPLICATION #: OPM-0080

OSHPD Preapproval of Manufacturer's Certification (OPM)

Type: ☐ New ☒ Renewal/Update

Manufacturer Information

Manufacturer: Steris

Manufacturer's Technical Representative: Lloyd Dupuis

Mailing Address: 490 boul. Armand-Paris, Quebec, QC G1C8A3

Telephone: (418) 664-1549 Email: Lloyd_Dupuis@steris.com

Product Information

Product Name: AMSCO 7053L & RELIANCE VISION SINGLE-CHAMBER 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 re-circulation of cleaning solution and thermal disinfection.

Applicant Information

Applicant Company Name: ISAT SEISMIC BRACING

Contact Person: WILLIAM JOERGER

Mailing Address: 14848 Northam Street, La Mirada, CA 90638

Telephone: (714) 920-6066 Email: wvjoerger@isatsb.com

Title:

Registered Design Professonal Preparing Engineering Recommendations

Company Name: ISAT SEISMIC BRACING

Name: WILLIAM JOERGER California License Number: S4545

Mailing Address: 14848 Northam Street, La Mirada, CA 90638

Telephone: (714) 920-6066 Email: wvjoerger@isatsb.com

OSHPD Special Seismic Certification Preapproval (OSP)

☐ Special Seismic Certification is preapproved under OSP OSP Number:

Certification Method

Testing in accordance with: ☐ ICC-ES AC156 ☐ FM 1950-16

☐ Other(s) (Please Specify):

*Use of criteria other than those adopted by the California Building Standards Code, 2019 (CBSC 2019) 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 2019 may be used when approved by OSHPD prior to testing.

☒ Analysis

☐ Experience Data

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

OSHPD Approval

Date: 7/6/2020

Name: Haeseong Lim Title: Senior Structural Engineer

Condition of Approval (if applicable):

INTERNATIONAL SEISMIC APPLICATION TECHNOLOGY

Submittal Documents

OSHPD OPM-0080

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

STERIS

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REGISTERED PROFESSIONAL ENGINEER
WILLIAM V. JOERGER
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EXP. 06/30/2022
STRUCTURAL
STATE OF CALIFORNIA

03 JUL 20

FILE NO.: CLT-0214-025 and 026 ***"Empowered by Experience"*** CBC 2019 REV 1

INTERNATIONAL SEISMIC APPLICATION TECHNOLOGY

OSHPD OPM-0080

DRAWING INDEX

DRAWING INDEX

OSHPD OPM-0080

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 2019. THE DEMAND (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE CBC 2019.
2. SEISMIC CRITERIA USED: S_{DS} = 2.5 I_P = 1.5 ap = 1.0 Rp = 1.5 (OTHER EQUIPMENT) z/h = 0.0 FpHorz = 1.19 Wp FOR EQUIPMENT AT GRADE AND FpVertical = 0.50 Wp.
3. SUPPORT AND ATTACHMENT FORCES ARE DETERMINED USING ASCE 7-16 CHAPTER 19 "SEISMIC DESIGN REQUIREMENTS FOR NONSTRUCTURAL COMPONENTS". AN OVERSTRENGTH FACTOR Ω_0 = 1.5 (CBC 2019 SECTION 1617A.1.23) IS USED FOR CONCRETE ANCHORAGE FORCES PER ASCE 7-16 TABLE 13.6-1. LOADS SHOWN ARE STRENGTH DESIGN LOADS.
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} <= 2.5. REFER TO "ELEVATED SLAB LAYOUT" AND "ELEVATED SLAB NOTES" FOR OTHER CONDITIONS THAT ARE PART OF OPM-0080.

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. CHECK FOR POST-INSTALLED ANCHOR INTERACTION WHERE OTHER ANCHORS ARE WITHIN 6 h_{ef} = 19.5".
4. VERIFY THAT THE EXISITNG STRUCTURE IS ADEQUATE FOR THE IMPOSED DEAD, LATERAL AND TENSION FORCES SHOWN IN ADDTION TO ALL OTHER LOADS.
5. VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH CBC 2019 AND WITH THE OPM-0080 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 z/h VALUES RESULT IN SEISMIC FORCES (Eh AND Ev) 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	0.50"	4"	6"	9"	10"	40 FT-LBS

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

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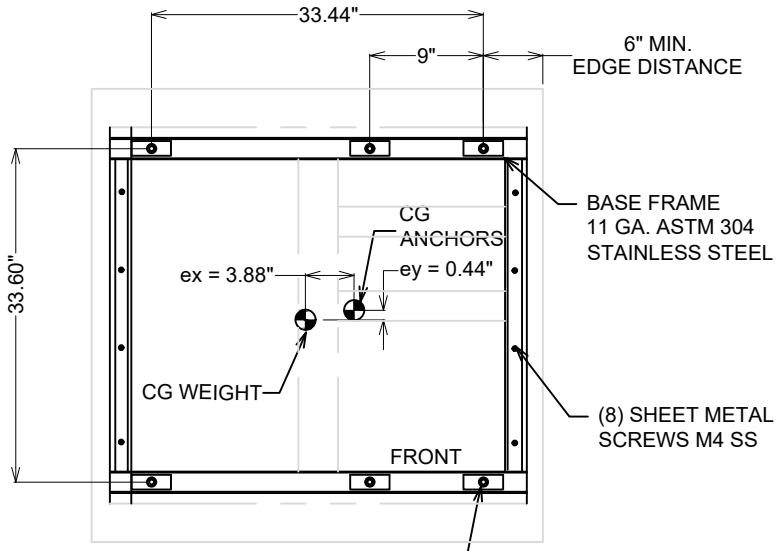
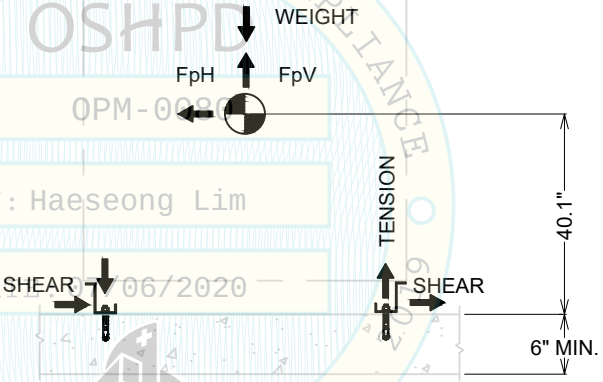
DRAWN BY: WVJ	
DATE: 03/04/14	
REVISED BY: WVJ	
DATE: 07/03/20	
REV NO: 5	
SCALE N.T.S.	**PAGE** GRADE NOTES

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



SCHEMATIC ATTACHMENT PLAN



EQUIPMENT ELEVATION

OPM-0080

AMSCO 7053L EQUIPMENT ATTACHMENT LAYOUT FOR SLAB-ON-GRADE

SEE "GRADE NOTES" FOR NOTES AND "FORCES" FOR DIMENSIONS AND FORCES

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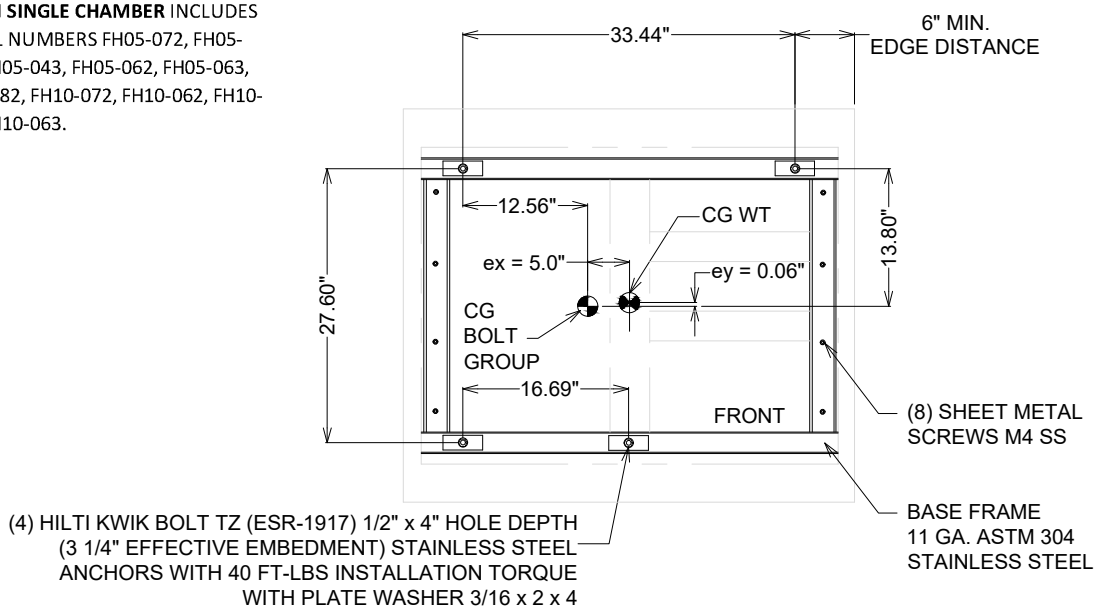
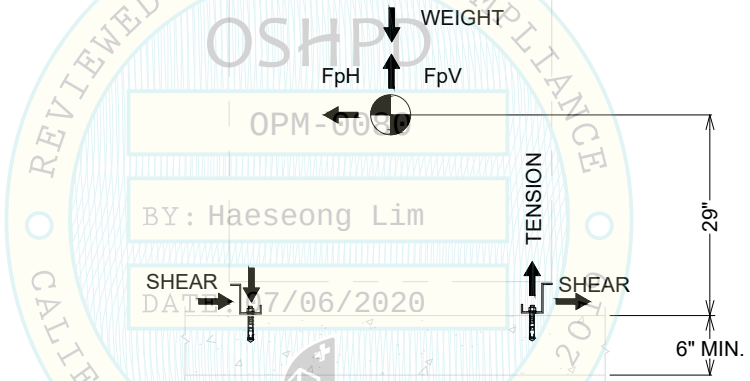
VISION SINGLE CHAMBER INCLUDES MODEL NUMBERS FH05-072, FH05-042, FH05-043, FH05-062, FH05-063, FH10-082, FH10-072, FH10-062, FH10-032, FH10-063.



SCHEMATIC ATTACHMENT PLAN



EQUIPMENT ELEVATION

OPM-0080

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

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 2019. THE DEMAND (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE CBC 2019.
2. SEISMIC CRITERIA USED: S_{DS} = 2.5 I_P = 1.5 ap = 1.0 Rp = 1.5 (OTHER EQUIPMENT) z/h ≤ 1.0 FpHorz = 3.00 Wp FpVertical = 0.50 Wp.
3. SUPPORT AND ATTACHMENT FORCES ARE DETERMINED USING ASCE 7-16 CHAPTER 19 "SEISMIC DESIGN REQUIREMENTS FOR NONSTRUCTURAL COMPONENTS". AN OVERSTRENGTH FACTOR Ω_0 = 1.5 (CBC 2019 SECTION 1617A.1.23) IS USED FOR CONCRETE MATERIALS AND Ω_0 = 1.0 FOR STEEL MATERIALS PER ASCE 7-16. LOADS SHOWN ARE STRENGTH DESIGN LOADS.
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 ≤ 1 AND S_{DS} <= 2.5. REFER TO "SLAB-ON-GRADE LAYOUT" AND "SLAB-ON-GRADE NOTES" FOR OTHER CONDITIONS THAT ARE PART OF OPM-0080.

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 ADDTION TO ALL OTHER LOADS.
5. VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH CBC 2019 AND WITH THE OPM-0080 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 z/h VALUES RESULT IN SEISMIC FORCES (Eh AND Ev) DO NOT EXCEED THE VALUES SHOWN IN THESE DETAILS.

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

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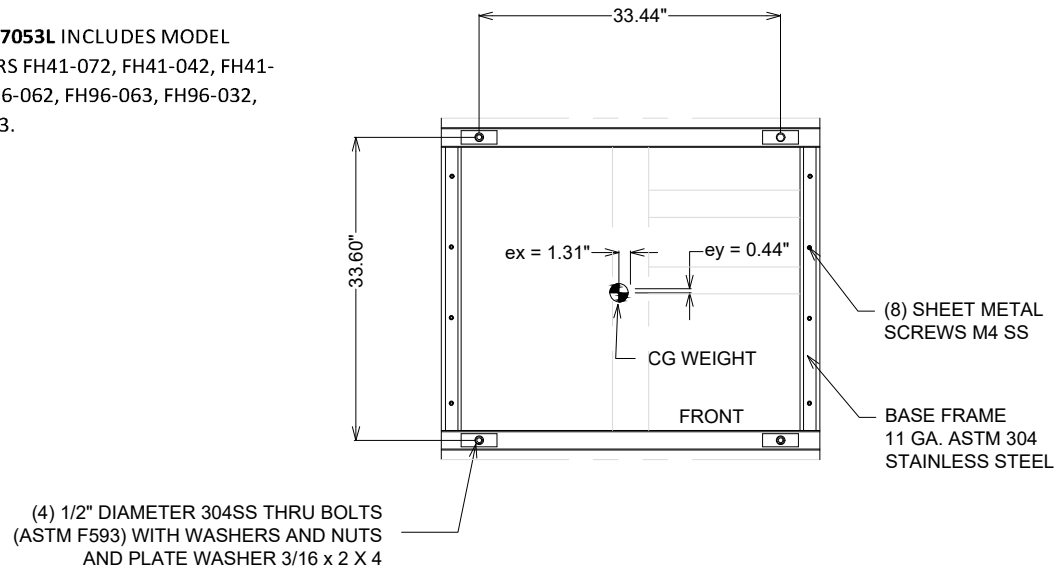
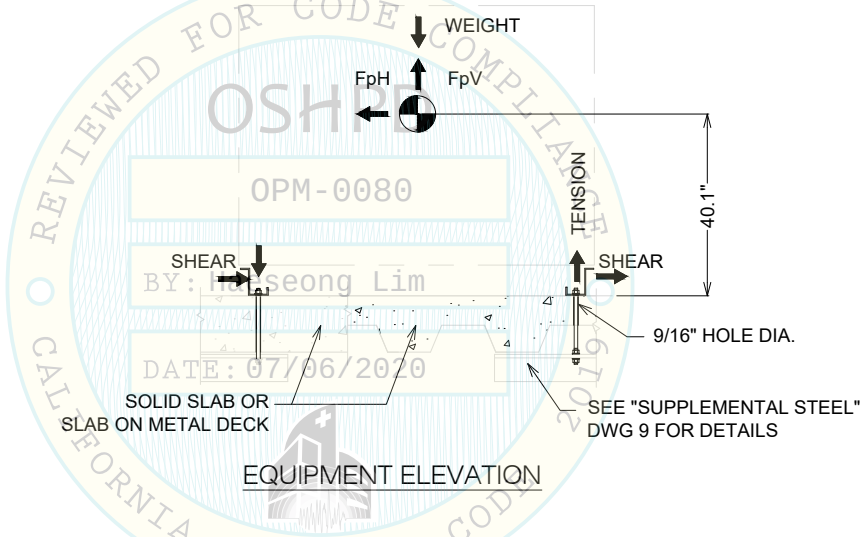
SCALE N.T.S.	**PAGE** ELEV NOTES

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



SCHEMATIC ANCHOR PLAN



EQUIPMENT ELEVATION

OPM-0080 AMSCO 7053L EQUIPMENT ATTACHMENT LAYOUT FOR ELEVATED SLABS

SEE "ELEV NOTES" FOR NOTES AND "FORCES" FOR DIMENSIONS AND FORCES

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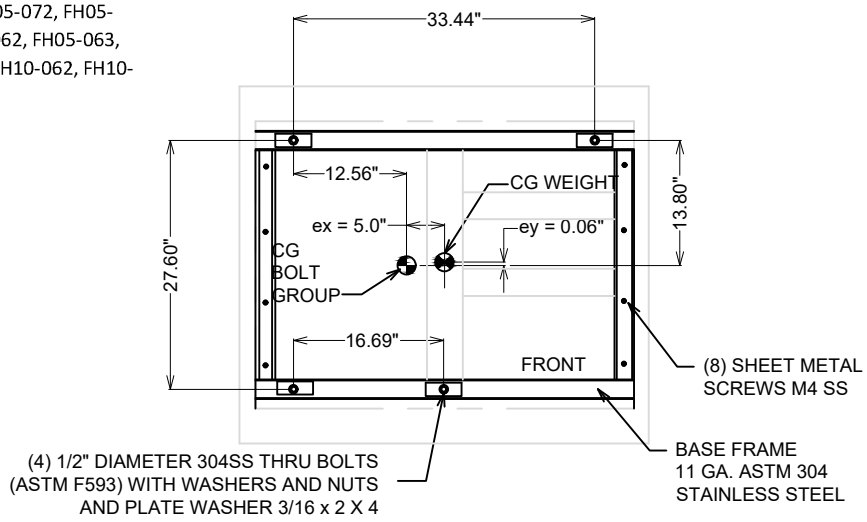
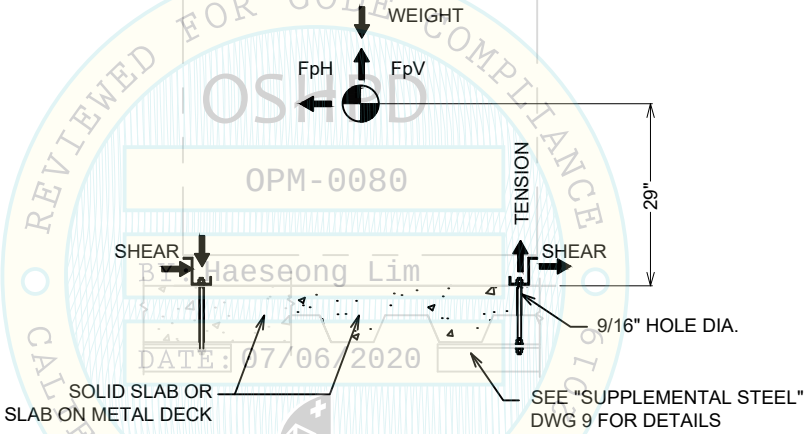
VISION SINGLE CHAMBER INCLUDES MODEL NUMBERS FH05-072, FH05-042, FH05-043, FH05-062, FH05-063, FH10-082, FH10-072, FH10-062, FH10-032, FH10-063.



SCHEMATIC ANCHOR PLAN



EQUIPMENT ELEVATION

OPM-0080

VISION SINGLE CHAMBER EQUIPMENT ATTACHMENT LAYOUT FOR ELEVATED SLABS

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OSHPD OPM-0080

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	1125	433
Vision	33.44"	27.6"	29"	5.0"	0.06"	1187	925	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	2082	1576
Vision	33.44"	27.6"	29"	5.0"	0.06"	1187	1703	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

AMSCO 7053L AND VISION SINGLE CHAMBER ATTACHMENT FORCES

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PAGE FORCES

OSHPD OPM-0080

MANUFACTURE: STERIS

EQUIPMENT TYPE: WASHER/DISINFECTOR

ATTACHMENT GENERAL NOTES:

1. THIS OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE CBC 2019. THE DEMAND (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE CBC 2019.
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 2019) 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 = 10". 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 2019 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 2019 CALIFONIA BUILDING CODE SECTION 1910A.5 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. TESTING AND INSPECTION OF EXPANSION ANCHORS SHALL BE PERFORMED BY AN INDEPENDENT AGENCY EMPLOYED BY THE FACILITY OWNER PER CBC 1704A AND 1910A.5 AND CAC 7-149. REPORT OF TEST REPORTS ARE TO BE SUBMITTED TO THE INSPECTOR OF RECORD, THE OWNER, AND THE ARCHITECT OR ENGINEER IN RESPONSIBLE CHARGE.

ELEVATED SLAB NOTES:

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

OPM-0080 ATTACHMENT NOTES

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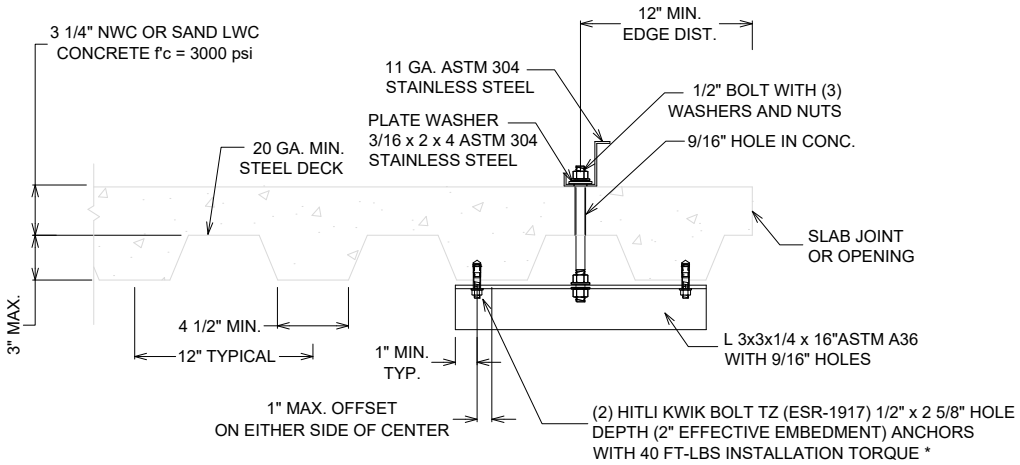
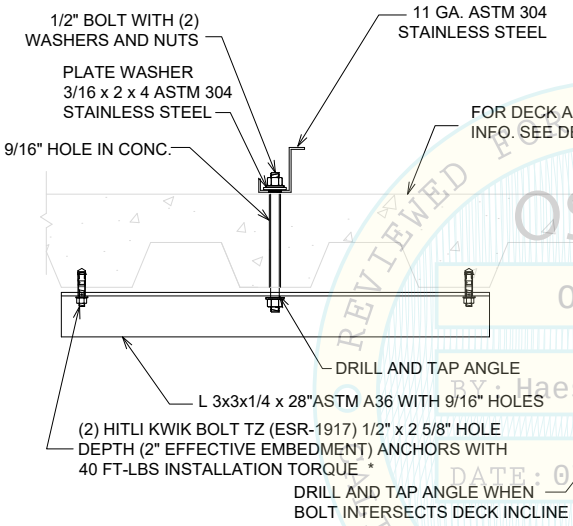
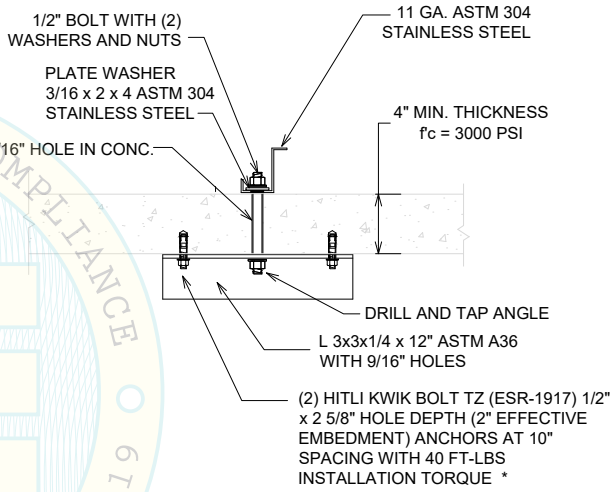
OSHPD OPM-0080 DWG - 8



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 SUPPLEMENTAL STEEL DETAIL AT ELEVATED SLABS

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

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