



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

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

OFFICE USE ONLY

APPLICATION #: OPM-0508

OSHPD Preapproval of Manufacturer's Certification (OPM)

Type: [] New [X] Renewal/Update

Manufacturer Information

Manufacturer: Belimed

Manufacturer's Technical Representative: Rene Zander

Mailing Address: Grienbachstrasse 11 • 6300, Zug, SZ 6300

Telephone: (71) 644-8580

Email: rene.zander@belimed.com

Product Information

Product Name: WASHER/DISINFECTOR

Product Type: Washer/Disinfector

Product Model Number: WD 290 IQ

General Description: WD 290 IQ offers increased throughput because the prepared batch starts automatically.

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:

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

STATE OF CALIFORNIA - HEALTH AND HUMAN SERVICES AGENCY





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

Registered Design Professional 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: 9/4/2020
Name: Jeffrey Kikumoto Title: Senior Structural Engineer
Condition of Approval (if applicable): _____





TOTAL SUPPORT

Innovation • Engineering • BIM • Fabrication

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Submittal Documents

OPM-0508-19

OSHPD OPM-0508

**ATTACHMENT OPM DRAWINGS
WD 290 IQ STERILIZERS**

BELIMED

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



WVJ 02 Sep 20

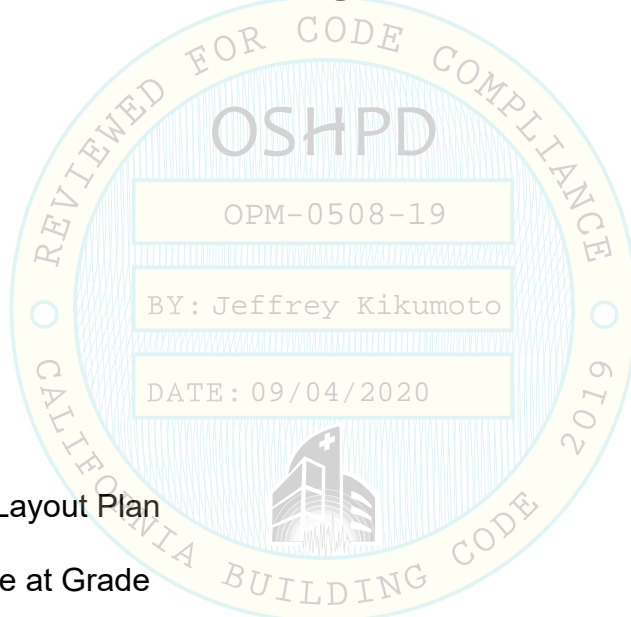


OSHPD OPM-0508

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DRAWING INDEX

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FILE NO.: CLT-0118-207

“Empowered by Experience”

Index Rev 3

OSHPD OPM-0508 DWG - ii

OSHPD OPM-0508

MANUFACTURE: BELIMED
EQUIPMENT TYPE: STERILIZERS

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. SEISMIC CRITERIA USED: $S_{DS} = 1.75$ $I_p = 1.5$ $a_p = 1.0$ $R_p = 1.5$ (OTHER EQUIPMENT). FOR $z/h = 0$ $F_pH = 0.79$ AND FOR $z/h \leq 1.0$ $F_pH = 2.10$ AND $F_pV = 0.35$.
3. SUPPORT AND ATTACHMENT FORCES ARE DETERMINED USING ASCE 7-16 CHAPTER 13 "SEISMIC DESIGN REQUIREMENTS FOR NONSTRUCTURAL COMPONENTS". AN OVERSTRENGTH FACTOR $\Omega_0 = 1.5$ IS USED FOR CONCRETE MATERIALS PER OSHPD CRITERIA. LOADS SHOWN ARE STRENGTH DESIGN LOADS PER ASCE 7-16 SECTION 12.4.3.2.
4. THIS PREAPPROVAL COVERS ONLY THE SUPPORTS AND ATTACHMENTS OF THE EQUIPMENT TO THE STRUCTURE.
5. STEEL MATERIALS: ALL THREAD ROD ASTM F593 CW1 304 STAINLESS STEEL ($F_y = 65$ KSI) FOR BOLTS AT ELEVATED FLOORS, ANGLE ASTM A36 ($F_y = 36$ KSI) HOT DIPPED GALVANIZED.
6. CONCRETE SLABS:
 - a. FOR ELEVATED SOLID CONCRETE SLABS: 6" THICKNESS OF NORMAL WEIGHT CONCRETE WITH 4000 PSI MINIMUM STRENGTH.
 - b. METAL DECK: 3" DEEP COMPOSITE STEEL DECK, 20 GAGE MINIMUM, 4 1/2 INCH MINIMUM BOTTOM FLUTE WIDTH AND MINIMUM FLUTE SPACING OF 12", WITH 3 1/4 INCH SAND LIGHT WEIGHT CONCRETE CONCRETE COVER AT 3000 PSI MINIMUM
 - c. FOR SLAB ON GRADE: 6" THICKNESS NORMAL WEIGHT CONCRETE AT 4000 PSI MINIMUM STRENGTH.
7. POST-INSTALLED CONCRETE ANCHORS: HILTI KWIK BOLT TZ (ESR-1917) STAINLESS STEEL 5/8" DIAMETER x 4" EFFECTIVE EMBEDMENT. DRILL 11/16" DIAMETER x 4.75" INCH MINIMUM DEEP HOLE; INSTALLATION TORQUE SHALL BE 60 FT-LBS; CLEAN HOLE PER MANUFACTURER'S INSTRUCTIONS. FOR ANCHORS INTO THE SOFFIT OF THE METAL DECK USE KWIK BOLT TZ (ESR-1917) 1/2" DIAMETER x 4" MIN. HOLE DEPTH FOR 3 1/4" EFFECTIVE EMBEDMENT WITH 1" MAXIMUM OFFSET FROM THE CENTER OF THE METAL DECK FLUTE; INSTALLATION TORQUE SHALL BE 40 FT-LBS. BOTH ARE SUPPLIED BY INSTALLATION CONTRACTOR.
8. EXERCISE DUE CARE WHEN DRILLING POST-INSTALLED ANCHORS TO AVOID DAMAGING CONCRETE REINFORCEMENT OR TENDONS.

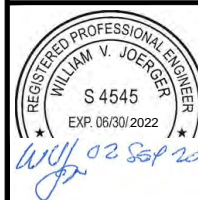
BY: Jeffrey Kikumoto

DATE: 09/04/2020

OPM-0508 BELIMED WD 290 IQ STERILIZER GENERAL NOTES



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SCALE N.T.S.	PAGE GEN NOTES
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OSHPD OPM-0508

MANUFACTURE: BELIMED

EQUIPMENT TYPE: STERILIZERS

ATTACHMENT 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. PERIODIC SPECIAL INSPECTION PER CBC 2019 SECTION 1705A.3.8 AND TABLE 1705A.3 INCLUDING VERIFICATION OF ANCHOR TYPE, ANCHOR DIMENSIONS, CONCRETE TYPE, CONCRETE COMPRESSIVE STRENGTH, ANCHOR SPACING, EDGE DISTANCES, CONCRETE MEMBER THICKNESS, HOLE DIMENSIONS, ANCHOR EMBEDMENT AND ADHERENCE TO THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS. IN ADDITION, FOLLOW THE PROVISIONS OF THE 2019 CALIFORNIA BUILDING CODE SECTION 1910A.5.5 BY CONFIRMING THE INSTALLATION TORQUE SPECIFIED IN NOTE 7 ON PAGE GENERAL NOTES. TESTING IS NOT TO OCCUR UNTIL A MINIMUM OF 24 HOURS HAS ELAPSED AFTER THE INSTALLATION OF THE SUBJECT ANCHORS. TEST 50% OF THE ANCHORS FOR EACH PIECE OF EQUIPMENT. IF ANY ANCHOR FAILS TEST ALL ANCHORS. TESTING AND SPECIAL INSPECTION OF EXPANSION ANCHORS SHALL BE PERFORMED BY AN APPROVED AGENCY EMPLOYED BY THE FACILITY OWNER PER CBC 1704A AND 1910A.5 AND CAC 7-149. ALL REPORTS SHALL BE SENT TO THE INSPECTOR OF RECORD, OWNER AND ARCHITECT OR ENGINEER IN RESPONSIBLE CHARGE. THE SEOR SHALL PROVIDE REMEDIAL ANCHOR DETAILS IN THE EVENT THAT AN ANCHOR FAILS TO MEET THE TEST REQUIREMENTS. FOR THROUGH BOLTS MARK THE NUT LOCATION AT THE SNUG TIGHT CONDITION. INSPECTOR IS TO VERIFY 3/4 TURN.
3. STRENGTH DESIGN WAS USED FOR ANCHOR FORCE CALCULATIONS INCLUDING $\Omega_0 = 1.5$ WHERE REQUIRED FOR ATTACHMENT TO CONCRETE.
4. PROVIDE FOR FULL THREAD ENGAGEMENT OF THE NUT AND WASHER.

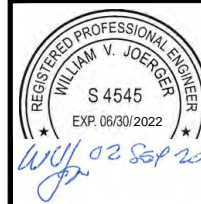
RESPONSIBILITIES OF THE STRUCTURAL ENGINEER OF RECORD

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 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 2019 AND WITH THE OPM-0508 DETAILS INCLUDING MATERIALS AND DIMENSIONS OF THE SUPPORT WHERE THE ATTACHMENTS ARE MADE AGREE WITH THE INFORMATION SHOWN.
6. VERIFY THAT THE PROJECT SPECIFIC S_{DS} AND z/h VALUES RESULT IN SEISMIC FORCES (E_h AND E_v) DO NOT EXCEED THE VALUES

OPM-0508 BELIMED WD 290 IQ STERILIZER ATTACHMENT NOTES

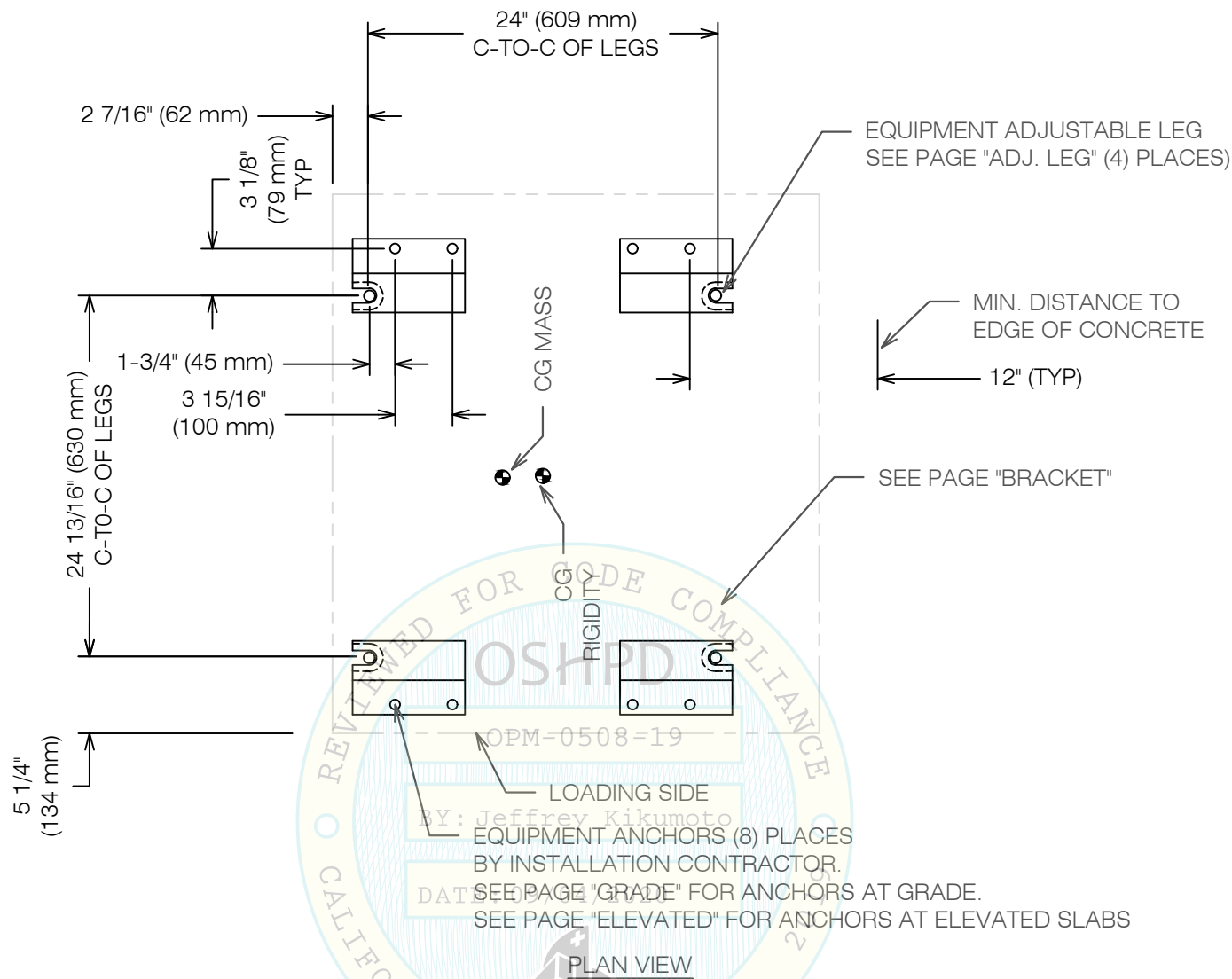


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ANCHOR LAYOUT

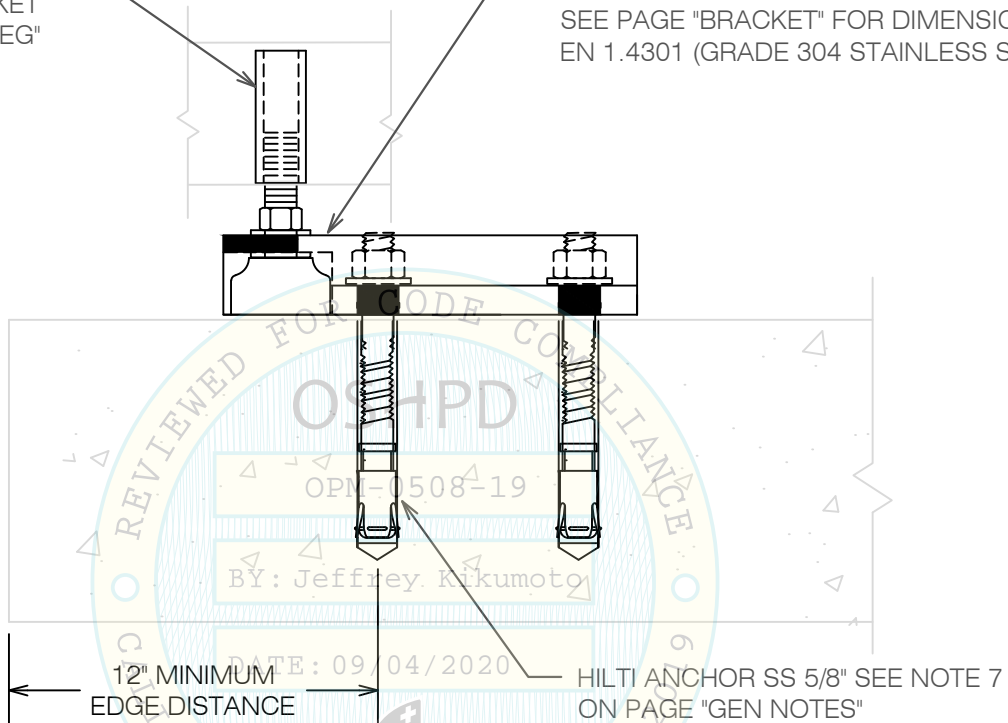


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ADJUSTABLE LEG
AND SOCKET
SEE PAGE "ADJ LEG"

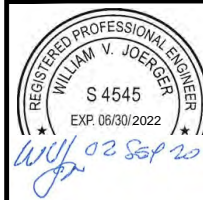
BRACKET BY BELIMED WHERE SHOWN
SEE LAYOUT PLANS
SEE PAGE "BRACKET" FOR DIMENSIONS
EN 1.4301 (GRADE 304 STAINLESS STEEL)



OPM-0508 BELIMED WD 290 IQ STERILIZER
ATTACHMENT DETAILS AT SLAB-ON-GRADE

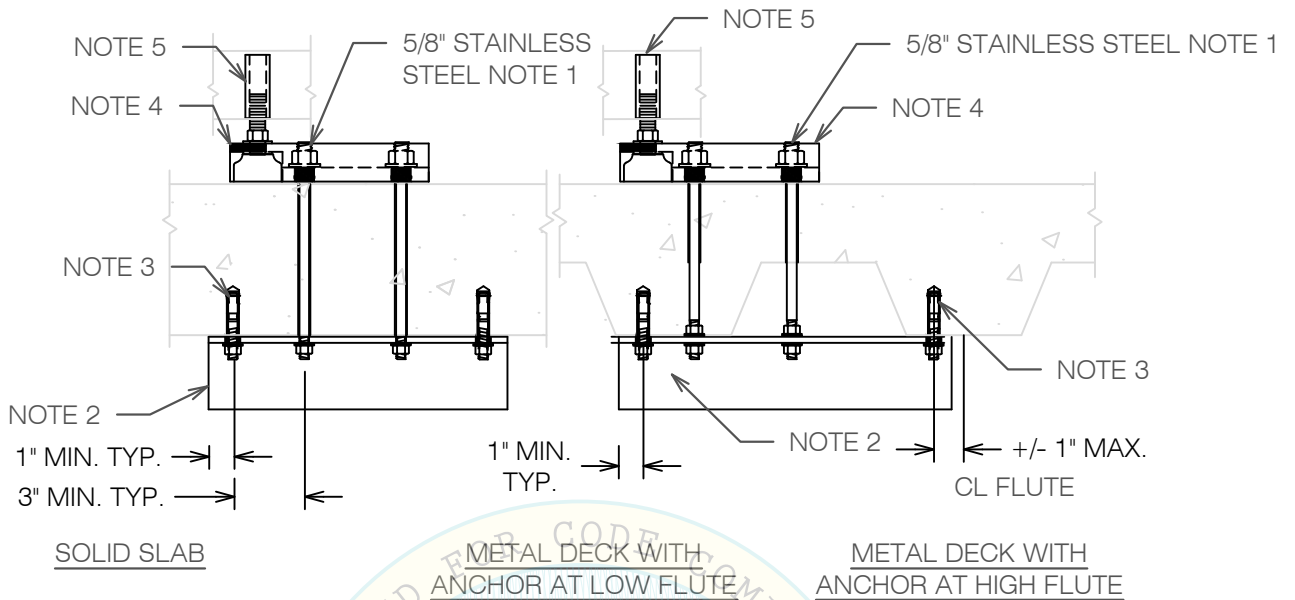


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N.T.S. GRADE



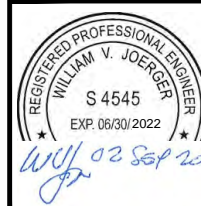
NOTES:

1. DRILL 11/16" HOLE IN THE CONCRETE SLAB TO RECEIVE THE 5/8" ASTM F593 CW1 (Fy = 65 KSI) 304 STAINLESS STEEL RODS WITH MATCHING WASHERS AND NUTS.
2. SUPPLEMENTAL ANGLE SHALL BE L3x3x1/4 ASTM A36. DRILL 11/16" HOLES IN ANGLE FOR EQUIPMENT ATTACHMENT BOLTS. FOR LOCATIONS WHERE A TOP NUT CANNOT BE INSTALLED, DRILL AND TAP THE ANGLE TO RECEIVE THE 5/8" ASTM F593 CW1 (Fy = 65 KSI) EQUIPMENT ATTACHMENT BOLT.
3. ANCHOR INTO BOTTOM OF SLAB SHALL BE HILTI KWIK BOLT TZ 1/2", SEE NOTE 7 ON PAGE "GEN NOTES".
4. BRACKET BY BELIMED WHERE SHOWN SEE LAYOUT PLANS SEE PAGE "BRACKET" FOR DIMENSIONS EN 1.4301 (GRADE 304 STAINLESS STEEL)
5. ADJUSTABLE LEG AND SOCKET, SEE PAGE "ADJ LEG".

OPM-0508 BELIMED WD 290 IQ
ATTACHMENT DETAILS AT ELEVATED SLABS

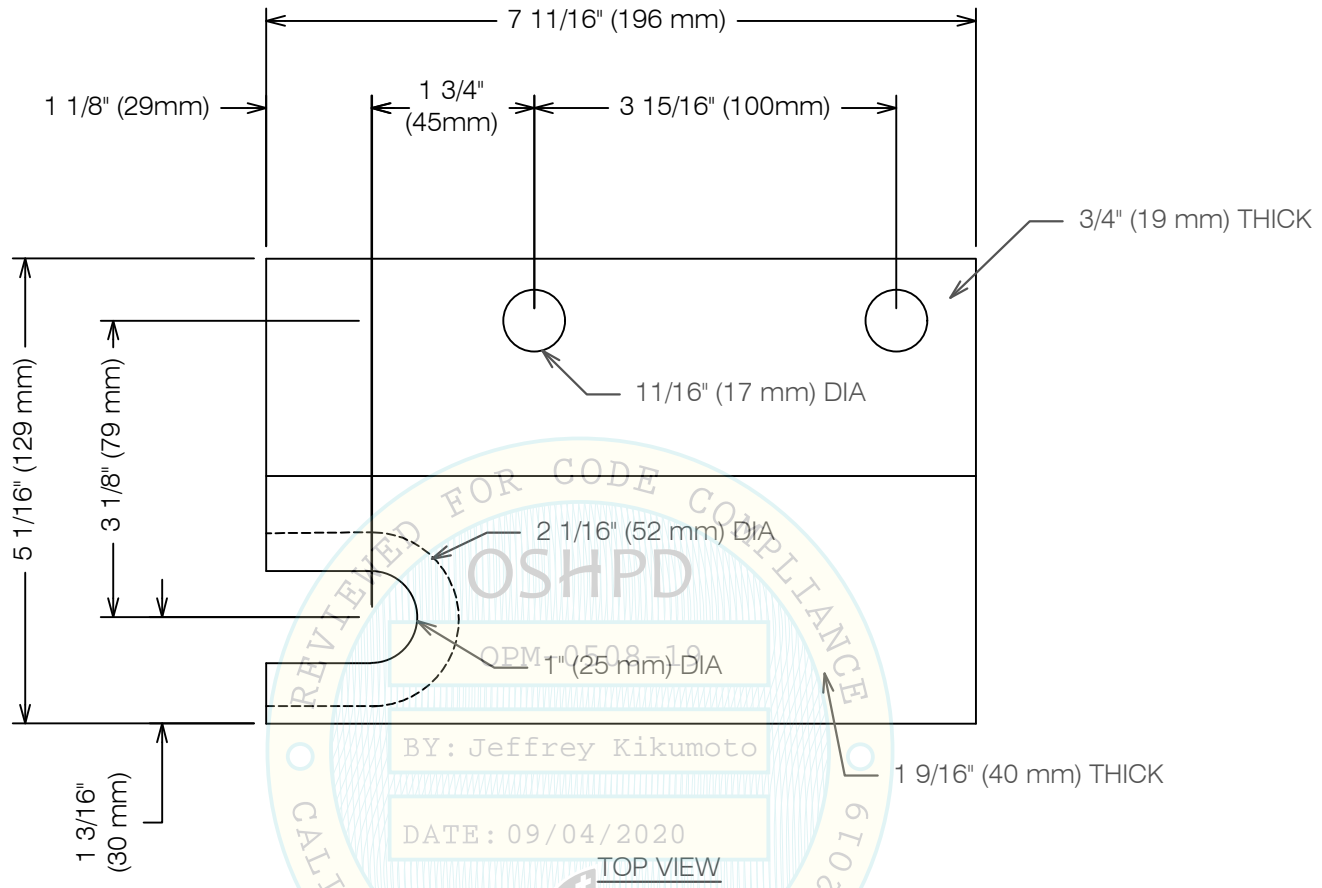


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SEE PAGE "ANC LAYOUT"
FOR BRACKET LOCATIONS



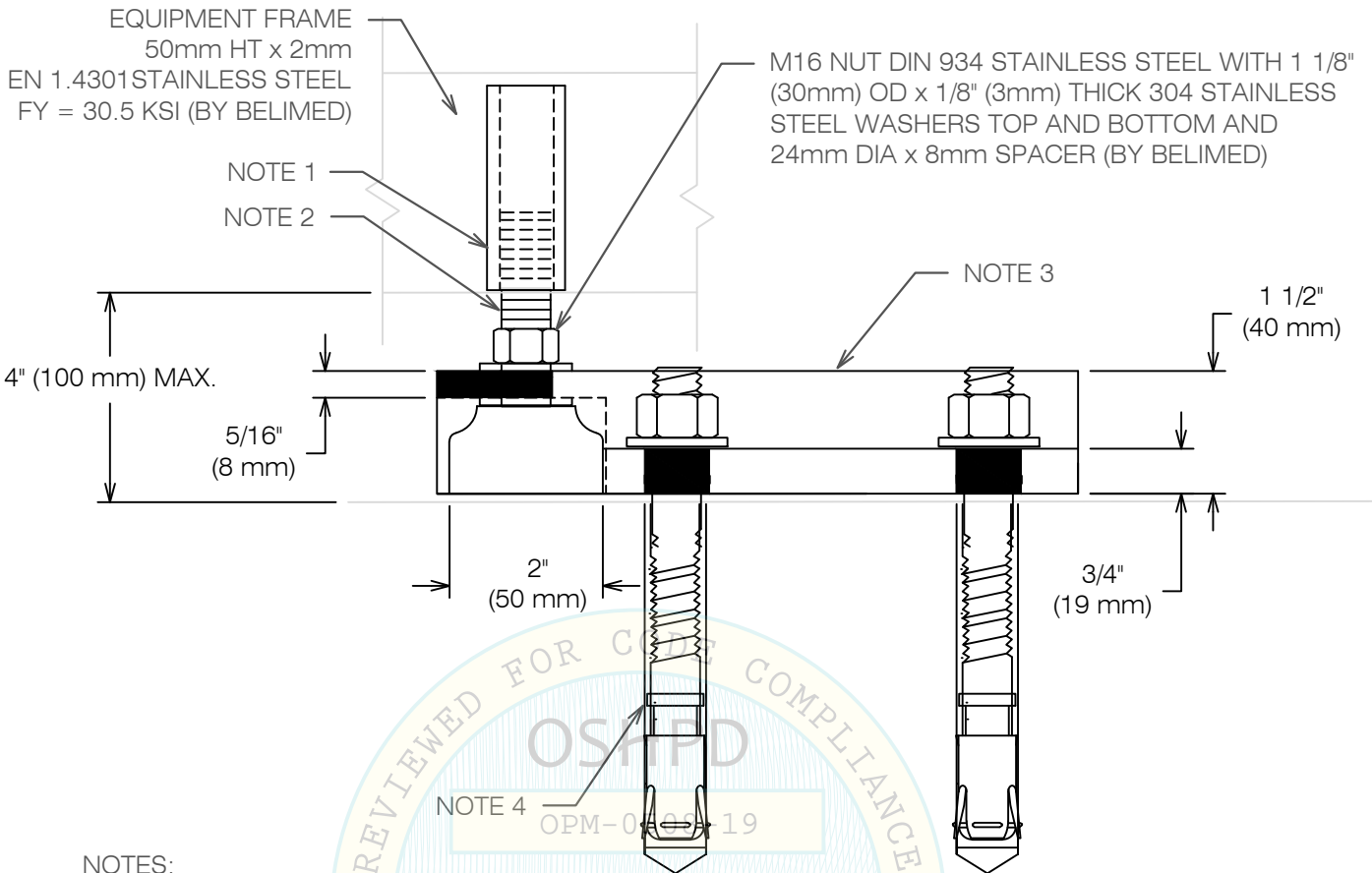
BELIMED PART NO. 1045234 (AS SHOWN) AND 1045238 (OPP. HAND)
EN 1.4301 STAINLESS STEEL (Fy = 30.5 KSI)

OPM-0508 BELIMED WD 290 IQ STERILIZER BRACKET



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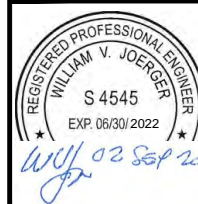
NOTES:

1. SOCKET BY BELIMED, PART NO. 70428 EN 1.4301 304 STAINLESS STEEL (FY = 30.5 KSI), 25 mm DIA. x 70 mm LONG.
2. ADJUSTABLE LEG BY BELIMED, PART NO. 1045834, EN 1.4301 M16 (16 mm) Fy = 30.5 KSI THREADED ROD AND BLACK POLYAMIDE MATERIAL BASE; FULL THREAD ENGAGEMENT INTO UNIT.
3. ATTACHMENT BRACKET BY BELIMED - SEE PAGE "BRACKET".
4. FASTENER - SEE PAGES "GRADE" OR THRU BOLTS SEE PAGE "ELEVATED".

OPM-0508 BELIMED WD 290 IQ
ADJUSTABLE LEG DETAILS

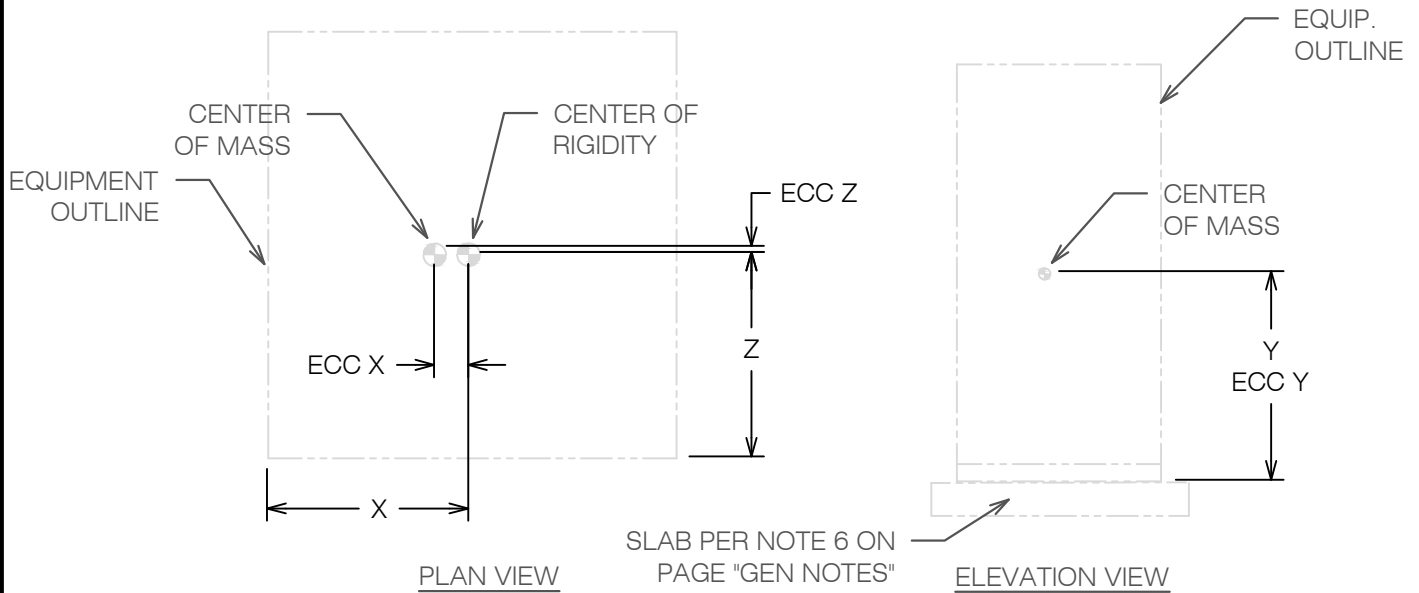


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N.T.S. ADJ LEG



EQUIPMENT WEIGHTS AND DIMENSIONS				
Model and Weight		Center of Mass		
Tag No.	Weight lbs	X in	Yin	Z in
ED 290 IQ W/O CONSTRUCTIONS	1466	17.4	36.1	17.7
ED 290 IQ WITH CONSTRUCTIONS	1845	17.6	44.2	17.7

EQUIPMENT ECCENTRICITIES AND FORCES PER LEG								
Model and Weight		Eccentricities			Forces At Grade		Forces at Elevated	
Tag No.		ex - in	ey - in	ez - in	Vu Lbs.	Tu Lbs.	Vu Lbs.	Tu Lbs.
ED 290 IQ W/O CONSTRUCTIONS		2.93	36.8	0.02	664	907	1770	2774
ED 290 IQ WITH CONSTRUCTIONS		3.13	42.4	0.02	836	1465	2228	4345

1. WEIGHTS AND MOMENTS ARE FACTORED LOADS USING STRENGTH DESIGN AND INCLUDE THE FOLLOWING FACTORS: DL = 0.9, FpH AT GRADE = 0.79 AND FpH ELEVATED = 2.10 AND FpV = 0.35.
2. TABULATED FORCES ARE PER LEG AT STRENGTH DESIGN LEVEL. FOR ANCHOR DESIGN A SHEAR AND TENSION OVERSTRENGTH FACTOR $\Omega = 1.5$ IS USED. FOR THROUGH BOLTS ON ELEVATED SLABS A TENSION OVERSTRENGTH FACTOR OF 1.0 IS USED.

OPM-0508 BELIMED WD 290 IQ STERILIZER
DIMENSIONS AND ANCHORAGE FORCES



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