

DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION FACILITIES DEVELOPMENT DIVISION

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

OFFICE USE ONLY

APPLICATION #: OPM-0710

HCAI Preapproval o	f Manufacturer's	Certification	(OPM)
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Type: X New Renewal/Update

Manufacturer Information

Manufacturer: Omnicell, Inc

Manufacturer's Technical Representative: Jonathan Semchee

Mailing Address: 51 Pennwood PI #400, Warrendale, PA 15086

Telephone: (724) 741-7706

Email: jonathan.semchee@omnicell.com

Product Information

Product Name: Omnicell IV dispenser units OPM-0710

Product Type: Automatic IV Robotic Dispenser Unit

Product Model Number: IVX Station DT. Miniati Oc

General Description: Automated medication compounding

Applicant Information

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Applicant Company	Name: Omnicell, Inc	A	
Contact Person: Jo	onathan Semchee	BU	ILDING
Mailing Address: 5	1 Pennwood PI #400, Warrend	ale, PA 1	15086
Telephone: (724) 7	/41-7706	Email:	jonathan.semchee@omnicell.com
Title: Mechanical E	ngineer		

A healthier California where all receive equitable, affordable, and quality health care





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Registered Design Professonal Preparing Engineering Recommendations Company Name: DEGENKOLB ENGINEERS Name: Chad Closs California License Number: S5946 Mailing Address: 225 Broadway, Suite 1325, San Diego, CA 92101 Telephone: (858) 699-5412 Email: ccloss@degenkolb.com

HCAI Special Seismic Certification Preapproval (OSP)				
Special Seismic Certification is preapproved under OSP	OSP Number:			
FORC	ODE COM			
Certification Method	Mp,			
Testing in accordance with: ICC-ES AC156	FM 1950-16			
Other(s) (Please Specify):	1-0710			
*Use of criteria other than those adopted by the California Bu and attachments are not permitted. For distribution system, i criteria other than those adopted in the CBSC 2022 may be	uilding Standards Code, 2022 (CBSC 2022) for component supports neering partition wall, and suspended ceiling seismic bracings, test used when approved by HCAI prior to testing.			
X Analysis				
Experience Data	212512024			
Combination of Testing, Analysis, and/or Experience Da	ta (Please Specify):			
ORNIA				
HCAI Approval	LDING			
Date: 2/25/2024				
Name: William Staehlin	Title: Senior Structural Engineer			
Condition of Approval (if applicable):				





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OMNICELL IVX

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IVX STATION

GENERAL NOTES

1. THIS HCAI PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE CBC 2022. THE DEMAND (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE CBC 2022.

2. PRE-APPROVED DESIGN AND MATERIALS CONFORM WITH THE 2022 EDITION OF THE CALIFORNIA BUILDING CODE. DETAILS WITHIN THIS APPROVAL MAY BE USED ANYWHERE IN THE STATE OF CALIFORNIA WHERE S_{DS} ≤ 2.5

3. SEISMIC FORCES ON EQUIPMENT DETERMINED PER THE 2022 CBC & ASCE 7-16. ALL LOADS BELOW ARE FACTORED LOADS THAT SHALL BE USED FOR STRENGTH DESIGN.

4. EQUIPMENT MAY BE MOUNTED TO AN ELEVATED SLAB AT ANY FLOOR USING THE THROUGH BOLT CONDITION OR TO A NORMAL WEIGHT CONCRETE SLAB ON GRADE. THE MINIMUM REQUIRED SLAB PROPERTIES AND FACTORS USED TO CALCULATE THE SEISMIC DEMANDS ARE AS FOLLOWS:

CASE 1 (EQUIPMENT ABOVE GRADE TO ROOF, THRU-BOLT OPTION): (8 TOTAL) THRU-BOLT

CONCRETE ON METAL DECK f'c >= 3000 PSI NORMAL OR SAND LIGHT-WEIGHT CONCRETE SEE FIGURE ON PAGE 3 FOR MINIMUM STEEL DECK REQUIREMENTS

S_{DS} <= 2.50, I_P = 1.5, z/h <= 1.0 $R_p = 6.0, a_p = 2.5, \Omega_o = 1.0$ (TENSION), $\Omega_o = 2.5$ (SHEAR)

i. $F_p = 1.88W_p$, $F_v = 0.5W_p$

CASE 2 (EQUIPMENT AT OR BELOW GRADE, EXPANSION ANCHOR OPTION): (16 TOTAL) 3/8" HILTI KB-TZ2 EMBED LENGTH = 2"

4" >= THICKNESS <= 5.5" f'c >= 3000 PSI NORMAL WEIGHT CONCRETE PROVIDE 12" MIN DISTANCE TO OPENINGS OR THE EDGE OF SLAB

S_{DS} <= 2.50, I_P = 1.5, z/h = 0 $R_p = 6.0, a_p = 2.5, \Omega_o = 2.5$

i. $F_p = 1.88W_p$, $F_v = 0.5W_p$

CASE 3 (EQUIPMENT AT OR BELOW GRADE, EXPANSION ANCHOR OPTION): (8 TOTAL) 5/8" HILTI KB-TZ2 EMBED LENGTH = 3.25'

THICKNESS >= 5.5" f'c >= 3000 PSI NORMAL WEIGHT CONCRETE PROVIDE 12" MIN DISTANCE TO OPENINGS OR THE EDGE OF SLAB

 $S_{DS} \le 2.50$, $I_P = 1.5$, z/h = 0.0 $R_p = 6.0, a_p = 2.5, \Omega_0 = 2.5$

i. $F_p = 1.88W_p$, $F_v = 0.5W_p$

6. THE STRUCTURAL ENGINEER-OF-RECORD (S.E.O.R.) OR PRINCIPAL-IN-CHARGE OF A PROJECT SPECIFIC SITE IS RESPONSIBLE FOR THE FOLLOWING:

a. VERIFY THAT THE ATTACHMENTS ARE A MINIMUM 12" FROM ANY OPENINGS OR EDGES.

b. VERIFY THAT THE ATTACHMENTS ARE 12" MINIMUM DISTANCE FROM ANY NEW OR EXISTING ANCHORS. VIII 1 Staehlin

c. DESIGN ANY SUPPLEMENTARY MEMBERS TO WHICH THE UNIT IS ATTACHED. TO SUPPORT WEIGHTS AND FORCES SHOWN. VERIFY THE ADEQUACY OF ANY EXISTING MEMBERS AND THEIR ATTACHMENTS FOR THE FORCES EXERTED ON THEM BY THE UNIT IN ADDITION TO ALL OTHER LOADS AND FORCES.

d. VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH THE 2022 CBC AND WITH THE DETAILS SHOWN IN THIS PRE-APPROVAL. VERIFY THAT THE EQUIPMENT'S ACTUAL WEIGHT, CG LOCATION, ANCHOR LOCATIONS, DETAILS AND THE MATERIAL AND GAGE OF THE UNIT WHERE ATTACHMENTS ARE MADE AGREE WITH THE INFORMATION SHOWN IN THIS PRE-APPROVAL

e. THE ATTACHMENTS TO THE ELEVATED AND ON GRADE SLABS HAVE BEEN EVALUATED FOR THE WORST CASE LOADING PER THE 2022 CBC. STRUCTURAL ENGINEER-OF-RECORD (S.E.O.R.) OR PRINCIPAL-IN-CHARGE OF A SITE SPECIFIC PROJECT SHALL EVALUATE THE ATTACHMENT FOR CONDITIONS THAT VARY FROM THIS PRE-APPROVAL.

7. THIS OPM COVERS ONLY THE SUPPORTS AND ATTACHMENTS OF THE UNIT TO THE STRUCTURE.

8. EXPANSION OR WEDGE ANCHORS INTO CONCRETE: HILTI KB-TZ2 (ICC ESR-4266), INSTALL ANCHORS IN ACCORDANCE WITH THE ICC REPORT AND MANUFACTURER'S RECOMMENDATIONS. TEST AT LEAST 50% OF ANCHORS. TESTS SHALL BE CONDUCTED IN THE PRESENCE OF THE SPECIAL INSPECTOR AND A REPORT OF THE TEST RESULTS SHALL BE SUBMITTED TO HCAI.

TEST PER ONE OF THE FOLLOWING METHODS:

a. DIRECT PULL TENSION TEST. ANCHOR IS ACCEPTABLE IF NO MOVEMENT IS OBSERVED FOR A MINIMUM OF 15 SECONDS AT THE TEST LOAD GIVEN IN TABLE ON THE FOLLOWING PAGE. MOVEMENT MAY BE DETERMINED WHEN THE WASHER UNDER THE NUT BECOMES LOOSE.

OF THE NUT.

	ANCHOR TEST LOAD VALUES						
ANCHOR DIAMETER (IN)	EMBED hef (IN)	TENSION LOAD (LBS)	TORQUE LOAD (FT-LB)	CONCRETE TYPE	MINIMUM EDGE DISTANCE	MINIMUM SPACING	
3/8" SS	2"	6,180	30	NORMAL WEIGHT	12"	11"	
5/8" SS	3-1/4"	18,835	60	NORMAL WEIGHT	12"	11"	
3/8" SS	2"	SEE NOTE a	30	SAND LIGHT-WEIGHT	12"	11"	
3/8" CS	1-1/2"	6,490	30	NORMAL WEIGHT	12"	11"	

FREQUENCY PER CBC 2022 1910A.5.1.



b. TORQUE WRENCH TEST: TEST ANCHORS TO THE REQUIRED TORQUE LOAD GIVEN IN TABLE ON THE FOLLOWING PAGE WITHIN THE LIMIT OF ONE-HALF TURN

c. TEST 3/8" EXPANSION ANCHORS USING THE TORQUE WRENCH TEST METHOD PER MANUFACTURER'S RECOMMENDATION AND AS DESCRIBED IN THIS PAGE.

d. IF ANY ANCHOR FAILS TESTING, ALL ANCHORS OF THE SAME TYPE SHALL BE TESTED, WHICH ARE INSTALLED BY THE SAME TRADE, NOT PREVIOUSLY TESTED UNTIL TWENTY CONSECUTIVE ANCHORS PASS. THEN RESUME THE INITIAL TEST

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9. IF ANY ANCHOR FAILS DURING TESTING, UNIT MUST BE MOVED SO THAT NO ANCHOR IS WITHIN 11" OF AN ABANDONED ANCHOR.

10. CONTRACTOR OR SEOR MUST VERIFY ANCHOR SPACING TO ADJACENT EQUIPMENT ANCHORS IS TO BE GREATER THAN 12".

11. ALL MISCELLANEOUS STEEL SHALL CONFORM TO THE FOLLOWING, UNLESS OTHERWISE NOTED:

THROUGH BOLTS	A307 GR. A.
STEEL ANGLES	A36

12. THE TABLE ON PAGE 3 SHOWS THE MOST CRITICAL FORCES CALCULATED FOR THE SUPPORT AND ATTACHMENT DESIGN.

13. FOR THE SUPPORT AND ATTACHMENT DESIGN, THE MOST CRITICAL LOAD COMBINATION IS (0.9 - 0.2Sds) D + E.

14. WHEN z / h = 0, THE DESIGN FORCES FOR THE EXPANSION ANCHORS INTO CONCRETE WERE SCALED UP BY Ω_0 AS REQUIRED BY ASCE 7-16, SUPPLEMENT NO. 1, TABLE 13.6-1.

15. Tult + q IS THE FORCE DEMAND IN THE ANCHOR INCLUDING EFFECTS OF PRYING

16. CENTER OF GRAVITY (C.G.) WEIGHT IS A MAXIMUM. THIS PREAPPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM SHOWN.

17. EQUIPMENT MANUFACTURER MUST DESIGN UNIT TO MAKE C.G. EQUAL OR LESS THAN THE C.G. HEIGHT DIMENSION SHOWN ON ELEVATION ON PAGE 4-6.

18. WHEN INSTALLING DRILLED-IN ANCHORS IN EXISTING NON-PRESTRESSED REINFORCED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS. WHEN INSTALLING THEM INTO EXISTING PRESTRESSED CONCRETE (PRE- OR POST-TENSIONED) LOCATE THE PRESTRESSED TENDONS BY USING A NON-DESTRUCTIVE METHOD PRIOR TO INSTALLATION. EXERCISE EXTREME CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE TENDONS DURING INSTALLATION. MAINTAIN A MINIMUM CLEARANCE OF ONE INCH BETWEEN THE REINFORCEMENT AND THE DRILLED-IN ANCHOR.



COMPONENT		ΜΑΤΕΡΙΔΙ	GRADE	STRENGTH [KSI]		MODULUS [KSI]		TORQUE
				YIELD	YIELD TENSILE		SHEAR (FT-LB)	
1	M8x1.25 SHCS	AISI 316	A4-50	30.5	72.5	28,300	10,900	11.5
2	FRAME MOUNTING PLATE	AISI 4340		68	108	27,800	11,700	
3	M24x3 THREADED ROD	AISI 4340	12.9	159	170	29,000	11,300	1000
4	BASEPLATE MOUNT	AISI 4340		68	108	27,800	11,700	
5	M8x1.25 HEX CAP	AISI 316	A4-70	65	100			11.5
6	BASEPLATE	ASTM A316L		25	70	28,000	11,500	
7	FRAME	AISI 304		30	75	27,500	10,900	





ISOMETRIC VIEW

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NOTES:

- 1. PROVIDE 3/8" HILTI KB-TZ2 W/ 1-1/2" EMBED TO PROVIDE SUPPORT TO ANGLE 2. PROVIDE 12" MINIMUM DISTANCE TO EDGE OF SLAB, OPENINGS OR OTHER ATTACHMENTS
- 3. PROVIDE HEX NUT AT TOP AND BOTTOM OF BOTTOM ANGLE FLANGE, TYP WHERE POSSIBLE
- 4. EXTEND THE BOTTOM ANGLE 2" PAST THE EDGE OF THE SLAB RIB TO INSTALL EXPANSION ANCHOR. DO NOT INSTALL EXPANSION ANCHOR IN THE SAME RIB AS THE
- THROUGH BOLT
- 5. ANCHORAGE DESIGN CONFORMS TO CBC 2022. FORCES GIVEN ARE AT THE STRENGTH LEVEL
- 6. SEE GENERAL NOTES SECTION ON PAGE 1 AND 2
- 7. SEE RESULTANT FORCES AND GEOMETRIC PROPERTIES OF THE EQUIPMENT ON PAGES 4-6
- 8. S.E.O.R. MAY RECALCULATE MAX. ANCHOR FORCES Vu AND TU AT THEIR DISCRETION BASED ON PROJECT SPECIFIC DEMANDS
- 9. ALL HOLES THROUGH STEEL FOR BOLTS SHALL BE STANDARD SIZE HOLES PER AISC 15TH EDITION, TABLE J3.3 UNLESS OTHERWISE NOTED
- 10. FOR CONCRETE ELEVATED SLAB, PROVIDE BOTTOM ANGLE



ANCHORS PER REQUIREMENTS

NWC OR SAND LWC

PROVIDE HEX NUT TOP AND BOTTOM OF ANGLE. WHERE TOP

NUT CANNOT BE INSTALLED, PROVIDE TAPPED HOLE THROUGH ANGLE. TYP AT ALL THROUGH BOLTS. SEE PAGE 3 FOR THROUGH BOLTS

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FORCES		L	W	Н
BS)	T _{ult} (LBS)	(IN)	(IN)	(IN)
	1640	51.21	50.96	91.60



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FOR	CES	L	W	Н	
	ΩT_{ult}	(IN)	(IN)	(IN)	
	1239	51.21	50.96	91.60	



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FOR	CES	L	W	Н	
	ΩT _{ult} (LBS)	(IN)	(IN)	(IN)	
	2478	51.21	50.96	91.60	