



DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
OFFICE OF STATEWIDE HOSPITAL PLANNING AND DEVELOPMENT

APPLICATION FOR HCAI SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP-0702

HCAI Special Seismic Certification Preapproval (OSP)

Type: ☐ New ☒ Renewal

Manufacturer Information

Manufacturer: Philips Medical Systems DMC GmbH Manufacturer's

Technical Representative: Leo Louis

Mailing Address: Röntgenstraße 24, 22335 Hamburg-Nord, Germany

Telephone: +31 68 794 5888

Email: leo.louis@philips.com

Product Information

Product Name: CombiDiagnost R90

Product Model Number(s): CombiDiagnost R90

Product Category: Fluoroscopy and Radiography Systems

Product Sub-Category: Fluoroscopy and Radiography Systems

General Description: Multiple component digital radiography and fluoroscopy medical diagnostic imaging system.

Mounting Description: Several - See Certified Product Tables and UUT Sheet

Tested Seismic Enhancements: Seismic enhancements made to the test units and/or modifications required to address anomalies during the tests shall be incorporated into the production units.

Applicant Information

Applicant Company Name: WE Gundy & Associates, Inc

Contact Person: Travis Soppe

Mailing Address: PO Box 9121, Boise, ID 83707

Telephone: (208) 342-5989

Email: tsoppe@wegai.com

Title: President



**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
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California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)

Company Name: W.E. GUNDY & ASSOCIATES INC.

Name: Travis Soppe

California License Number: S6115

Mailing Address: P.O. Box 9121, Boise, ID 83707

Telephone: (208) 342-5989

Email: tsoppe@wegai.com

Certification Method

☐ GR-63-Core

☒ ICC-ES AC156

☐ IEEE 344

☐ IEEE 693

☐ NEBS 3

☐ Other (Please Specify): _____

Testing Laboratory

Company Name: IABG TEST LABORATORY

Contact Person: Arbo Simon

Mailing Address: Einsteinstraße 20, 85521 Ottobrunn, Germany

Telephone: +49 89 60882052

Email: simon@iabg.de

BY: Mohammad Karim

DATE: 09/18/2026



DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
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Seismic Parameters

Certified Response Spectral Acceleration Factors:(F_p/W_p)

Horizontal (A Flx-H), g= 3.20 (A Rig-H), g= 2.15

Vertical (A Flx-V), g= 1.67 (A Rig-V), g= 0.67

SDS (Design spectral response acceleration at short period, g) = 2.50 @ z/h = 0; 2.00 @ z/h = 1

H_f (Force amplification height factor) = 1 @ z/h = 0; 3.5 @ z/h = 1

R_u (Structure ductility reduction factor) = 1 @ z/h = 0; 1.3 @ z/h = 1

I_p (Importance factor) = 1.5

z/h (Height ratio factor) = 0 and 1

HCAI Approval (For Office Use Only) - Approval Expires on 09/20/2032

Date: 9/18/2026

Name: Mohammad Karim

Title: Supervisor, Health Facilities

Condition of Approval (if applicable):

OSP-0702

BY: Mohammad Karim

DATE: 09/18/2026

Table 1	PHILIPS MEDICAL SYSTEMS DMC GmbH SPECIAL SEISMIC CERTIFICATION CERTIFIED SYSTEM AND COMPONENTS					 W.E. GUNDY & ASSOCIATES, INC. STRUCTURAL & EARTHQUAKE ENGINEERING			
System: CombiDiagnost R90				Manufacturer: Philips Medical Systems DMC GmbH					
System Component ¹	Philips Part Number	Dimensions (in)			Weight (lb)	Mounting	UUT		
		Width	Depth	Height					
Geometry Stand									
CombiDiagnost R90 1.1	9890-010-70151	93.9	80.4	109.2	2976 ²	floor	UUT-6A		
CombiDiagnost R90 1.1	9890-010-70151	153.3	80.4	140.7	2976	floor	UUT-6B		
Generator Cabinets									
M-Cabinet RF	4512-202-03621	21.7	20.5	77.0	420	floor/wall	UUT-11		
Generator Cabinet GCF	9890-000-70307	21.7	20.5	77.0	745	floor/wall	UUT-12		
Geometry Cabinet	4512-202-03591	21.7	20.5	77.0	485	floor/wall	UUT-13		
Touch Screen Console and M-Shield									
Geo Touch Screen Console CombiDiagnost	4512-134-69652	14.0	14.0	4.3	12	floor	UUT-10		
M-Shield (AXIOMTEC)	4512-133-65532	9.1	6.0	1.8	1	wall	UUT-3		
M-Shield (AXIOMTEC)	4512-133-65534	9.1	6.0	1.8	1	wall	same ³		
Notes: ¹ All components are manufactured by Philips Medical Systems DMC GmbH unless noted in (). The part numbers listed uniquely identify the type of component, manufacturer, and material of construction for each sub-component within the tested units. ² Geometry stand weight does not include simulated patient weight used for test on UUT-6A. See UUT summary sheet for simulated patient weight. ³ The M-Shield device is the same as tested, the only difference is in color / software indicated by the part number.									
SEISMIC CERTIFICATION LIMITS									
CODE	Ip	S _{DS}	z / h	H _f	R _μ	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2025	1.5	2.0g	1.0	3.5	1.3	3.2g	2.15g	-	-
		2.5g	0	1.0	1.0	-	-	1.68g	0.68g

UUT-6A

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Floor mount with 8 – ¾ inch grade 8 bolts with washers.



Manufacturer: Philips Medical Systems DMC GmbH **Test Location:** IABG mbH, Germany
Component: CombiDiagnost R90 Geometry Stand **Test Date:** September 2, 2020
Model Number: 9890-010-70151 **Report Number:** TAB3-PB-20-128-V0
UUT Function: Radiography and Fluoroscopy imaging system
UUT Description: CombiDiagnost R90 Geometry Stand in horizontal normal operating position.

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
2976	93.9	80.4	109.2	3.2	3.7	3.5

The patient table moves laterally both ways and vertically to accommodate different patients and procedures. The system was tested in the normal operating position with the table horizontally centered, a table top height of 32.9", and a total simulated patient weight of 500lbs.

SEISMIC TEST PARAMETERS – CBC 2025 / ICC-ES AC 156-24

	S _{DS} (g)	z / h	H _f	R _μ	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
	2.00	1.0	3.5	1.3	1.5	3.20	2.15	-	-
	2.50	0.0	1.0	1.0	1.5	-	-	1.67	0.67

Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 test.

UUT-6B**UNIT UNDER TEST (UUT)
SUMMARY SHEET**

Mounting Details: Floor mount with 8 – ¾ inch grade 8 bolts with washers.



Manufacturer: Philips Medical Systems DMC GmbH **Test Location:** IABG mbH, Germany

Component: CombiDiagnost R90 Geometry Stand **Test Date:** March 4, 2021

Model Number: 9890-010-70151 **Report Number:** TAB3-PB-20-128-V0

UUT Function: Radiography and Fluoroscopy imaging system

UUT Description: CombiDiagnost R90 Geometry Stand in vertical normal operating position.

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
2976	153.3	80.4	140.7	3.1	3.8	3.1

The patient table moves laterally both ways and vertically to accommodate different patients and procedures. The system was tested in the normal vertical operating position with the table horizontally centered and rotated 90°.

SEISMIC TEST PARAMETERS – CBC 2025 / ICC-ES AC 156-24

	S _{DS} (g)	z / h	H _f	R _μ	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
	2.00	1.0	3.5	1.3	1.5	3.20	2.15	-	-
	2.50	0.0	1.0	1.0	1.5	-	-	1.67	0.67

Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 test.

UUT-10

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Floor mount with 3 – M5 grade 8 bolts.



DATE: 09/18/2026

Manufacturer: Philips Medical Systems DMC GmbH	Test Location: IABG mbH, Germany
Component: Geo Touch Screen Console	Test Date: September 3, 2020
Model Number: 4512-134-69652	Report Number: TAB3-PB-20-128-V0

UUT Function: Operation for CombiDiagnost Radiography and Fluoroscopy imaging system

UUT Description: Base mounted touch screen console

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
12	14.0	14.0	4.3	> 33	> 33	> 33

SEISMIC TEST PARAMETERS – CBC 2025 / ICC-ES AC 156-24

	S _{DS} (g)	z / h	H _f	R _μ	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
	2.00	1.0	3.5	1.3	1.5	3.20	2.15	-	-
	2.50	0.0	1.0	1.0	1.5	-	-	1.67	0.67

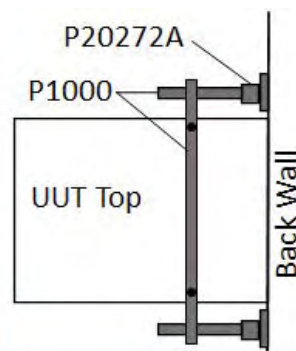
Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 test.

UUT-11

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Combined floor, wall, top restraint. Floor restrained in the front with 2 – 3/8" grade 8 bolts / washers, wall restrained in the rear with 4 – 1/4" grade 8 bolts / washers, and top restrained with 2 – M8 grade 8 bolts to a Unistrut top support (see detail below).



Manufacturer: Philips Medical Systems DMC GmbH **Test Location:** IABG mbH, Germany

Component: M-Cabinet RF **Test Date:** September 3, 2020

Model Number: 4512-202-03621 **Report Number:** TAB3-PB-20-128-V0

UUT Function: Generator for CombiDiagnost Radiography and Fluoroscopy imaging system

UUT Description: Component of CombiDiagnost system

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
420	21.7	20.5	77.0	NA	NA	NA

SEISMIC TEST PARAMETERS – CBC 2025 / ICC-ES AC 156-24

	S _{DS} (g)	z / h	H _f	R _μ	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
	2.00	1.0	3.5	1.3	1.5	3.20	2.15	-	-
	2.50	0.0	1.0	1.0	1.5	-	-	1.67	0.67

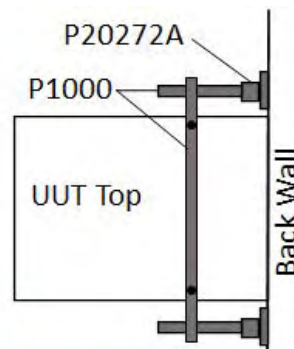
Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 test.

UUT-12

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Combined floor, wall, top restraint. Floor restrained in the front with 2 – 3/8" grade 8 bolts / washers, wall restrained in the rear with 4 – 1/4" grade 8 bolts / washers, and top restrained with 2 – M8 grade 8 bolts to a Unistrut top support (see detail below).



Manufacturer: Philips Medical Systems DMC GmbH **Test Location:** IABG mbH, Germany

Component: Generator Cabinet GCF

Test Date: September 3, 2020

Model Number: 9890-000-70307

Report Number: TAB3-PB-20-128-V0

UUT Function: Generator for CombiDiagnost Radiography and Fluoroscopy imaging system

UUT Description: Component of CombiDiagnost system

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
745	21.7	20.5	77.0	NA	NA	NA

SEISMIC TEST PARAMETERS – CBC 2025 / ICC-ES AC 156-24

	S _{DS} (g)	z / h	H _f	R _μ	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
	2.00	1.0	3.5	1.3	1.5	3.20	2.15	-	-
	2.50	0.0	1.0	1.0	1.5	-	-	1.67	0.67

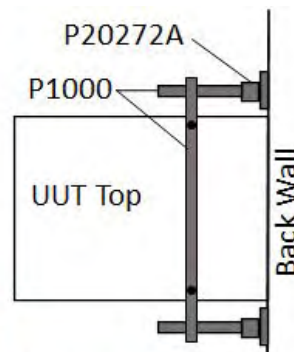
Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 test.

UUT-13

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Combined floor, wall, top restraint. Floor restrained in the front with 2 – 3/8" grade 8 bolts / washers, wall restrained in the rear with 4 – 1/4" grade 8 bolts / washers, and top restrained with 2 – M8 grade 8 bolts to a Unistrut top support (see detail below).



Manufacturer: Philips Medical Systems DMC GmbH **Test Location:** IABG mbH, Germany

Component: Geometry Cabinet

Test Date: September 3, 2020

Model Number: 4512-202-03591

Report Number: TAB3-PB-20-128-V0

UUT Function: Generator for CombiDiagnost Radiography and Fluoroscopy imaging system

UUT Description: Component of CombiDiagnost system

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
485	21.7	20.5	77.0	NA	NA	NA

SEISMIC TEST PARAMETERS – CBC 2025 / ICC-ES AC 156-24

	S _{DS} (g)	z / h	H _f	R _μ	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
	2.00	1.0	3.5	1.3	1.5	3.20	2.15	-	-
	2.50	0.0	1.0	1.0	1.5	-	-	1.67	0.67

Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 test.

UUT-3

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Wall mounted with 4 – M3 grade 5 screws.



Manufacturer: AXIOMTEC **Test Location:** IABG mbH, Germany

Component: M-Shield **Test Date:** March 4, 2021

Model Number: 4512-133-65532 **Report Number:** TAB3-PB-20-128-V0

UUT Function: Firewall hardware

UUT Description: Component of Philips Radiography and Fluoroscopy imaging systems

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
1	9.1	6.0	1.8	NA	NA	NA

SEISMIC TEST PARAMETERS – CBC 2025 / ICC-ES AC 156-24

	S _{DS} (g)	z / h	H _f	R _μ	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
	2.00	1.0	3.5	1.3	1.5	3.20	2.15	-	-
	2.50	0.0	1.0	1.0	1.5	-	-	1.67	0.67

Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 test.