



CERTIFICATE OF COMPLIANCE

SEISMIC DESIGN OF NONSTRUCTURAL COMPONENTS AND SYSTEMS



Certification No.

VMA-45678-01C (Revision 11)

Expiration Date: 4/30/2028

Certification Parameters:

The nonstructural products (mechanical and/or electrical components) listed on this certificate are **CERTIFIED¹** FOR SEISMIC APPLICATIONS in accordance with the following building code² releases.

IBC 2024, 2021, 2018, 2015

The following model designations, options, and accessories are included in this certification. Reference report number VMA-45678-01 as issued by The VMC Group for a complete list of certified models, included accessories/options, and certified installation methods.

ClimateCraft; Custom Air Handlers
CAH Series-II; Custom Sizes and Ratings

The above referenced equipment is **APPROVED** for seismic application when properly installed³, used as intended, and contains a Seismic Certification Label referencing this Certificate of Compliance⁴. As limited by the tabulated values, below grade, grade, and roof-level installations, installations in essential facilities, for life safety applications, and/or of equipment containing hazardous contents are permitted and included in this certification with an Equipment Importance Factor assigned as $I_p=1.5$. The equipment is qualified by successful seismic shake table testing at the nationally recognized University of California Berkeley Pacific Earthquake Engineering Research Center and Curtiss-Wright Flow Control Company Qualtech NP (formerly Trentec) under the witness of the ISO Accredited Product Certification Agency, the VMC Group.

Certified Seismic Design Levels			
Certified IBC	Importance $I_p \leq 1.5$ Soil Classes A-E Risk Categories I-IV Design Categories A-F	$z/h \leq 1.0$	$z/h = 0.0$
		$S_{DS} \leq 1.930\text{ g}$	$S_{DS} \leq 1.930\text{ g}$

Certified Seismic Installation Methods	
Rigid Mounting From Unit Base To Rigid Structure	Directly To Rigid Curb/Rail



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Certified Product Table:

Configuration	Ship Splits	Enclosure Materials	Max Unit Length [in]	Max Unit Width [in]	Max Ship Split Length [in]	Max Unit Weight [psf]	
Single Tunnel	None	Carbon & Stainless Steels	564	144	564	120	
	Single		1,128				
Single Tunnel w/ Side Vestibule	Multiple		Unlimited	288	576		
Single Tunnel w/ Doghouse	Single		1,128	144	564		
Single Tunnel Plenum	None		564				
	Single		1,128				
Single Tunnel Plenum w/ Side Vestibule	Multiple		Unlimited	288	576		
Single Tunnel Plenum w/ Doghouse	Single		1,128	144	564		
Wide Tunnel	Multiple		Unlimited	576	576		
Wide Tunnel w/ Side Vestibule				720			
Dual Tunnel				576			
Dual Tunnel w/ Center Vestibule							
Wide Tunnel Plenum				720			
Wide Tunnel Plenum w/ Side Vestibule							
Dual Tunnel Plenum				576			
Dual Tunnel Plenum w/ Center Vestibule				720			
L-Shape Single Tunnel Plenum w/ Side Vestibule							
T-Shape Single Tunnel Plenum				576			
U-Shape Single Tunnel Plenum w/ Side Vestibule				720			

Note: All configurations certified for maximum Non-Stacked height of 150" and maximum Stacked height of 205." Refer to manufacturer for weight limitations regarding specific configurations

Group	Type	$S_{DS} (z/h=0)$	$S_{DS} (z/h=1)$	A_{Flex-H}	A_{Rig-H}	A_{Flex-V}	A_{Rig-V}	(ASCE 7-16) F_p/W_p	(ASCE 7-22) F_p/W_p
Seismic	AC156	1.930	1.930	3.089	2.320	1.287	0.520	1.448	2.181

This certification only includes air handler unit modules as detailed in the above charts. The air handler shall be installed and attached to the building structure per the manufacturer's supplied seismic installation instructions. For a list of certified configurations and options please directly contact the manufacturer. This certification excludes all non-factory supplied accessories, all connections for electrical, fuel, heating or cooling fluid, or other pipe/conduit connections and configurations not detailed in the above charts. Flexibility in the connections must be maintained as to not transmit load into the equipment. Design specials are outside the scope of this certification.



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Notes & Comments:

1. All equipment listed herein successfully passed the seismic acceptance criteria for shake testing non-structural components and systems as set forth in the ICC AC-156. The Test Response Spectrum (TRS) enveloped the Required Response Spectrum (RRS) for all units tested. The tested units were representative sample(s) of a contingent of models and all remained captive and structurally sound after the seismic shake simulation. The units also remained functionally operational after the simulation testing as functional testing was completed by the equipment manufacturer before and after the seismic simulations. Although a seismic qualified unit inherently contains some wind resisting capacity, that capacity is undetermined and is excluded from this certification. Snow/Ice loads have been neglected and thus limit the unit to be installed both indoors (covered by an independent protective structure) and out of doors (exposed to accumulating snow/ice) for ground snow loads no greater than 30 psf for all applications.
2. The following building codes are addressed under this certification:
 - IBC 2024 referencing ASCE7-22 and ICC-ES AC-156
 - IBC 2021 referencing ASCE7-16 and ICC-ES AC-156
 - IBC 2018 referencing ASCE7-16 and ICC-ES AC-156
 - IBC 2015 referencing ASCE7-10 and ICC-ES AC-156
3. Refer to the manufacturer supplied installation drawings for anchor requirements and mounting considerations for seismic applications. Required anchor locations, size, style, and load capacities (tension and shear) may be specified on the installation drawings or specified by a 3rd party. Mounting requirement details such as anchor brand, type, embedment depth, edge spacing, anchor-to-anchor spacing, concrete strength, special inspection, wall design, and attachment to non-building structures must be outlined and approved by the Engineer of Record for the project or building. Structural walls, structural floors, and housekeeping pads must also be seismically designed and approved by the project or building Structural Engineer of Record to withstand the seismic anchor loads as defined on the installation drawings. The installing contractor is responsible for ensuring the proper installation of all anchors and mounting hardware.
4. For this certificate and certification to remain valid, this certificate must correspond to the "Seismic Certification Label" found affixed to the unit by the factory. The label ensures the manufacturer built the unit in conformance to the IBC seismic design criteria set forth by the Certified Seismic Qualification Agency, the VMC Group, and meets the seismic design levels claimed by this certificate.
5. Mechanical, Electrical, and Plumbing connections to the equipment must be flexibly attached as to not transfer load through the connection. The structural integrity of any conduit, cable trays, piping, ductwork and/or flexible connections is the responsibility of others. This certification makes no statements of compliance in regards to NEMA, IP, UL, CSA, or other relevant standards after a seismic event. For compliance to other relevant standards, please contact the manufacturer.
6. This certificate applies to units manufactured at:
1427 NW 3rd Street, Oklahoma City, OK 73106
7. This certification follows the VMC Group's ISO-17065 Scheme.



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