



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS  
BUREAU OF CONSTRUCTION CODES  
IRVIN J. POKE  
DIRECTOR

STEVEN H. HILFINGER  
DIRECTOR

**DOCUMENT #12-02**

January 4, 2012

TO: Members of the Construction Code Commission

FROM: Larry Lehman, Chief Building Division *Larry*

SUBJECT: Continuing Education Program Applicants

The programs listed on the attached pages are those for which approval has been requested by providers or sponsors of continuing education programs required of building officials, inspectors and plan reviewers to renew their registrations. Document #12-02 is a list of programs that have been submitted for approval for the cycle beginning September 17, 2009 through September 16, 2012.

Each provider has documented appropriate content in relation to one or more of the continuing education categories and registrant classifications set forth in the administrative rules promulgated pursuant to 1986 PA 54.

**It is the recommendation of Bureau staff that the programs submitted pursuant to the provisions of Act 54 be approved by the Commission.**

LL/kld

Attachments

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Explanatory notes to accompany BCC Approved Continuing Education Program List:

DOCUMENT #12-02

\* Registrants holding one or more Inspector classification are required to attend Technical and Specialty training to be eligible for reregistration at the end of the present code cycle. If that is successfully accomplished, there are no additional Technical or Specialty credits necessary to also become eligible for reregistration as either a Building Official and/or Plan Reviewer. A person who is registered **only** as a Building Official and/or Plan Reviewer **without any Inspector classification** will receive the listed Technical and/or Specialty credit towards reregistration qualification for attending this program.

Specialty approvals are granted for one of the four Inspector (trade) classifications. Inspectors receive credits only for attending programs associated with their trade; a Mechanical Inspector does not satisfy those requirements by attending a Building, Electrical or Plumbing program. Someone registered **only** as a Building Official and/or Plan Reviewer **without any Inspector classification** will receive credit for all Specialty programs attended, regardless of the trade(s).

Technical approvals are granted for programs addressing a specific code. Inspectors receive Technical credit only for programs addressing the code they enforce. Someone registered **only** as a Building Official and/or Plan Reviewer without any Inspector classification will receive credit for all Technical programs in **their** cycle which they attended, regardless of the trade.

\*\* Programs approved for Plan Review credits satisfy unique requirements placed on Plan Reviewer registrants. Even though the title of an individual program may refer to a specific trade or code, all Plan Review program credits apply to any Plan Reviewer.

\*\*\*\* Credit for documented participation in/attendance at formal code change hearings conducted and reported by a nationally recognized code-promulgating organization will be recognized when the subject is a code enforced by the registrant. Credit is granted in one-hour increments and is divided between Technical and Specialty. The first hour is Technical, the second Specialty, the third Technical, the fourth Specialty, etc. Seven hours would be credited as four Technical and three Specialty, for example.

*ISC =Independent Study Course*

*I = Internet Course*

*CR = Classroom*

Department of Licensing and Regulatory Affairs - Bureau of Construction Codes - 2009/2012 Act 54, PA 1986 Continuing Education Programs

Program Number	Credit Hours			Contact	Organization	Phone	Title	Type	Continual ?	Approval Date	Expire Date	Instructor Number
	Admin	Comm	Spec Tech									
			PR									Active
16239			3	Dale Stevens	Integrity Diagnostics, LLC	(231) 492-5010	Existing Buildings-Air Sealing & Energy Code	CR	X	01/04/2012	09/16/2012	1566
16240	1		1	Bruce Migazzi	Lomanco Inc	(262) 490-2903	Concepts and Design of Attic Ventilation	CR	X	01/04/2012	09/16/2012	2000
16241	3			Robert Logan	MIAM	(248) 649-5443	2009 Michigan Codes and ICC Legal Aspects of Code Administration	CR	X	01/04/2012	09/16/2012	1089
16242	1		3	Curtis E. Stowe	CIT - Certified Inspectors Training	(248) 624-0570	2009 Residential Code Review	CR	X	01/04/2012	09/16/2012	157
16243			6	Larry Pickel	Washtenaw Community College	(734) 677-5259	Plan Review Workshop for Residential Occupancies Chapter 9, Venting	CR	X	01/04/2012	09/16/2012	121
16244			2	James R. Russell		(248) 546-2616		CR	X	01/04/2012	09/16/2012	982
16245			3	Curtis E. Stowe	CIT - Certified Inspectors Training	(248) 624-0570	2009 Michigan Plumbing Code - Chapters 5 thru 8	CR	X	01/04/2012	09/16/2012	1331
16246			2	Todd Cordill	BCC, Plan Review	(517) 241-9328	Michigan Barrier Free Design Requirements	CR	X	01/04/2012	09/16/2012	1529
16247			3	Curtis E. Stowe	CIT - Certified Inspectors Training	(248) 624-0570	2009 Michigan Mechanical Code - Chapters 1-3	CR	X	01/04/2012	09/16/2012	1331
16248	3			Irvin J. Poke	LARA, BCC, Administration	(517) 241-9302	Bureau & Legislative Update	CR	X	01/04/2012	09/16/2012	20
16249			1	Thomas W. Bowes	Detroit Electrical JATC	(586) 751-6600	Electrical Vehicle Supply Equipment Installation Requirements	CR	X	01/04/2012	09/16/2012	1512
16250			6	Russell O. Thornburg		(507) 413-2027	2009 Wall Bracing-R602.10	CR	X	01/04/2012	09/16/2012	1874
16251			4	Russell O. Thornburg		(507) 413-2027	"The Base"-Soils, Footings and Foundations	CR	X	01/04/2012	09/16/2012	1874
16252			1	Allen R. Decker	A R Decker & Associates	(248) 243-3940	Tall Wall and Braced Wall Design and Construction	CR	X	01/04/2012	09/16/2012	1135
16253	4			Ronald A. Schwartz		(519) 892-3221	Risk Management and Legal Issues for Inspectors	CR	X	01/04/2012	09/16/2012	315
16254			1	Scott Cope		(586) 752-3936	Special Inspection Requirements of the Michigan Building Code	CR	X	01/04/2012	09/16/2012	1808

Department of Licensing and Regulatory Affairs-Bureau of Construction Codes-2009/2012 Inspector Continuing Education Programs

16255						Warren M. Wisner	SE Michigan	(734) 475-2425	Sewage Pumping Systems/2009 Michigan Plumbing Code
16256						George Little	IAEI-Michigan Chapter	(248) 933-1139	Fire Pump & Alarms for Plan Review
16257			1	2		George Little	IAEI-Michigan Chapter	(248) 933-1139	NEC Changes for 2011 & NEC 702.5
16258	2					George Little	IAEI-Michigan Chapter	(248) 933-1139	Smoke Alarms & Article 645
16259				2		Bob Clark	APA-The Engineered Wood Association	(734) 823-5412	2009 Wall Bracing Provisions
16260				2		Bob Clark	APA-The Engineered Wood Association	(734) 823-5412	Advanced Framing
16261				6		Robert G. Konyndyk	LARA/BCC/Plumbing Division	(517) 241-9330	2009 MPC: Performing Commerical Plumbing Inspections
16262				2		Joseph Tyson	Tyson Marketing	(734) 455-0922	Anchoring and Tie Downs for Manufactured Homes
16263				2		Douglas Davis	Great Lakes Concrete Products	(269) 751-4101	Superior Walls Precast Foundations and the 2009 MRC
16264				2		David Vallier	Cooper Industries	(586) 201-1348	Selective Coordination and Overcurrent Protection



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**DOCUMENT #12-03**

January 4, 2012

TO: Members of the Construction Code Commission

FROM: Larry Lehman, Chief Building Division 

SUBJECT: Continuing Education Instructor Applications

Attached is a list of those individuals who have applied for approval as instructors of continuing education programs required of building officials, inspectors and plan reviewers. The instructors listed have been granted lifetime approval.

Each has documented training and experience in the topic which they propose to teach.

**It is the recommendation of Bureau staff that they be approved as instructors by the Commission.**

LL/kld

Attachments

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Department of Licensing and Regulatory Affairs-Bureau of Construction Codes-2009/2012 New Instructors

Instructor Number	Last Name	First Name	MI	Affiliation/Experience
2000	Migazzi	Bruce	D	ICC
2001	Muhammad	Lawrence	A	Geo Netzero L3C
2002	Roberts	Thomas	L	IAEI-Michigan Chapter
2003	Flowers	David	A	IAEI-Michigan Chapter
2004	Tyson	Joseph	E	Tyson Marketing

Department of Licensing and Regulatory Affairs-Bureau of Construction Codes-2009/2012 Renewal Instructors

Instructor

Number	Last Name	First Name	MI	Affiliation/Experience
1135	Decker	Allen	R	A R Decker & Associates, Inc.



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**Document #12-04a-f**

January 4, 2012

TO: Members of the Construction Code Commission

FROM: Larry Lehman, Chief Building Division 

SUBJECT: 1986 PA 54 Registration Applicants

Attached you will find lists of applicants recommended for provisional registration as building officials, building inspectors, plan reviewers, electrical inspectors, mechanical inspectors and plumbing inspectors.

LL/kld

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**BUILDING OFFICIALS**

01/04/12 ecc

BERGER, Timothy H.  
Registered Building Inspector and Plan Reviewer #004329 (11/1999)  
Additional Building Official  
City of Sterling Heights – Macomb County

BOULIER, Delos J.  
Registered Building Inspector and Plan Reviewer #005329 (05/2006)  
Additional Building Official  
City of St. Clair – St. Clair County

HERRIMAN, David P.  
Registered Building Inspector and Plan Reviewer #004930 (03/2003)  
Replacing Alan Hogan (#4526)  
Lyon Township – Oakland County

MORGAN, Leroy  
Registered Building Inspector and Plan Reviewer #005353 (11/2009)  
Additional Building Official  
City of Inkster – Wayne County

ROGIEN, Ross E.  
Registered Building Inspector and Plan Reviewer #004358 (01/2000)  
Additional Building Official  
City of South Haven – Van Buren County

**BUILDING INSPECTORS**

01/04/12 ccc

BEEM, Gary J.  
24,960 Hours of Building Experience  
Additional Inspector  
Fort Gratiot Charter Township – St. Clair County

CRANSON, Gary M.  
9,000 Hours of Building Experience  
Additional Inspector  
Oneida Township – Eaton County

QUAIN, Sean T.  
8,448 Hours of Building Experience  
Additional Inspector  
City of Marysville – St. Clair County

RIVARD, Mark R.  
31,920 Hours of Building Experience  
Replacing Dennis Alberts (#005664)  
Luce County

STRONG, Craig E.  
12,480 hours of Building Experience (Previous Registration #002752)  
Additional Inspector  
City of Milan – Monroe County

VIAU, Randy J.  
9,512 Hours of Building Experience  
Replacing Peter E. Getzen (Reg#003882)  
City of Stephenson – Menominee County

PLAN REVIEWERS

01/04/12 ccc

ALBERTS, Dennis J.  
Registered Building Inspector #005664 (07/2010)  
Additional Plan Reviewer  
Portage Township – Mackinac County

BEEM, Gary J.  
24,960 Hours of Building Experience  
Additional Inspector  
Fort Gratiot Charter Township – St. Clair County

CRANSON, Gary M.  
9,000 Hours of Building Experience  
Additional Plan Reviewer  
Oneida Township – Eaton County

FRITZ, Lonnie D.  
Master Plumber License #8107801 and 8,000 hours of HVAC Experience  
Additional Plan Reviewer  
Huron County

NICHOLS, Jeffrey S.  
Master Electrician #6215355 (06/2008)  
Replacing Doug Sink (Reg#005038)  
Pennfield Charter Township – Calhoun County

QUAIN, Sean T.  
8,448 hours experience Structural Carpentry  
Additional Inspector  
City of Marysville – St. Clair County

RIVARD, Mark R.  
31,920 Hours of Building Experience  
Replacing Dennis Alberts (#005664)  
Luce County

STRONG, Craig E.  
12,480 hours of Building Experience (Previous Registration #002752)  
Additional Plan Reviewer  
City of Milan – Monroe County

VIAU, Randy J.  
9,512 Hours of Building Experience  
Replacing Peter E. Getzen (Reg#003882)  
City of Stephenson – Menominee County

WEISS, Thomas J.  
Registered Plumbing Inspector #004300 (09/1999)  
Replacing Jerome Halash (#002654)  
City of Hamtramck-Wayne County

Document #12-04d

**ELECTRICAL INSPECTORS**

01/04/12 ccc

NICHOLS, Jeffrey S.  
Master License #6215355 (06/2008)  
Replacing Doug Sink (Reg#005038)  
Pennfield Charter Township – Calhoun County

Document #12-04e

**MECHANICAL INSPECTORS**

01/04/12 ccc

FRITZ, Lonnie D.  
8,000 hours HVAC Experience  
Additional Inspector  
Huron County

Document #12-04f

**PLUMBING INSPECTORS**

01/04/12 ccc

FRITZ, Lonnie D.  
Master Plumber License #8107801  
Additional Inspector  
Huron County



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STEVEN H. HILFINGER  
DIRECTOR

October 7, 2011

TO: Members of the Construction Code Commission

FROM: Kevin D. Kalakay, Chief, Mechanical Division

SUBJECT: Product Approval for Rinnai Hydronic Air Handler AHB

Document #12-01

The applicant has requested consideration of a product approval to provide product acceptance through approval clarification. Previous AHA series was approved. AHB series come equipped with an ECM motor.

**APPLICANT REPRESENTATIVE:**

Mr. Donald N. Emen

**APPLICANT:**

Rinnai America Corporation  
103 International Drive  
Peachtree City, GA 30269

**AUTHORITY:**

Section 21 of Act 230, 1972 being section 125.1521 of the Michigan Compiled Laws.

**PRODUCTS:**

Copper tube, aluminum fin heat exchanger, Models 37AHB04508KAS,  
37AHB06012KAS, 37AHB07514KAS and 37AHB09016KAS

**APPLICATION:**

To be installed with Rinnai tankless water heater for space heating for medium size Residential and light commercial applications.

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Members of the Construction Code Commission  
Page 2  
October 7, 2011

**TEST REPORTS:**

Intertek Laboratories-Report # 100031014COL-001  
340 Union St.  
Stirling, New Jersey 07980

**CONDITIONS OF USE AND INSTALLATION:**

1. Must be installed to the Michigan Mechanical Code
2. Must be installed to the Michigan Plumbing Code
3. Must only be used with Rinnai Tankless Water Heater for space heating
4. Water heater must be used for domestic water as well as space heating
5. Must be installed to manufacturer's installation instructions.
6. This approval shall become void if and when the product no longer meets the requirements of the Michigan Mechanical Code.

**RECOMMENDATION:**

Staff recommends that the product be forwarded to the commission for approval.

KDK/dmc



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STEVEN H. HILFINGER  
DIRECTOR

July 19, 2011

TO: Members of the State Board of Mechanical Rules  
FROM: Kevin D. Kalakay, Chief, Mechanical Division  
SUBJECT: Product Approval for Rinnai Hydronic Air Handler AHB

The applicant has requested consideration of a product approval to provide product acceptance through approval clarification. Previous AHA series was approved. AHB series come equipped with an ECM motor.

**APPLICANT REPRESENTATIVE:**

Mr. Donald N. Emen

**APPLICANT:**

Rinnai America Corporation  
103 International Drive  
Peachtree City, GA 30269

**AUTHORITY:**

Section 21 of Act 230, 1972 being section 125.1521 of the Michigan Compiled Laws.

**PRODUCTS:**

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**APPLICATION:**

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Members of the State Board of Mechanical Rules  
Page 2  
July 19, 2011

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4. Water heater must be used for domestic water as well as space heating
5. Must be installed to manufacturer's installation instructions.

**RECOMMENDATION:**

Staff recommends that the product be forwarded to the commission for approval.

KDK/dmc



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS  
BUREAU OF CONSTRUCTION CODES  
IRVIN J. POKE  
DIRECTOR

STEVEN H. HILFINGER  
DIRECTOR

July 27, 2011

Rinnai  
Attn: Mr. Donald Emen  
103 International Drive  
Peachtree City, GA 30269

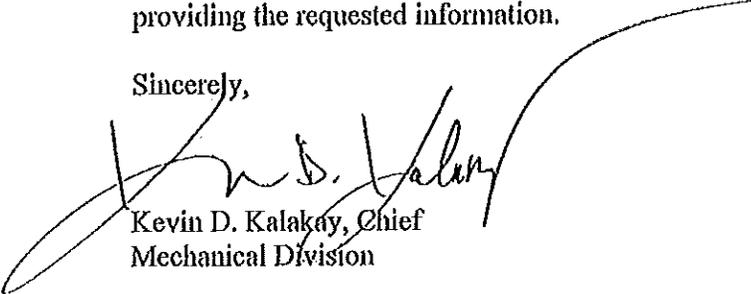
Dear Mr. Emen:

The Bureau of Construction Codes, Mechanical Division, has received your Product Approval application for Rinnai AHB-Series Air Handlers.

Your request will be scheduled for the State Board of Mechanical Rules meeting. The next meeting will be held on August 24, 2011, located at 2501 Woodlake Circle, Okemos, Michigan. The Board of Mechanical Rules Board meeting will begin promptly at 9:00 a.m., Eastern Standard Time. If approved by the board, your product will be referred to the Construction Code Commission for final approval. Please call this office for attendance information should you desire to represent your product at the Construction Code Commission meeting.

Please contact me at 517/241-9325, if you have any further questions in this matter prior to providing the requested information.

Sincerely,



Kevin D. Kalakay, Chief  
Mechanical Division

KDK/dmc

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# Rinnai

---

103 International Drive  
Peachtree City, Georgia 30269

Telephone: 1-678-829-1703  
Toll Free: 1-800-621-9419  
Fax: 1-678-829-1703

May 10, 2011

Kevin Kalakay  
Bureau of Construction Codes  
P. O. Box 30254  
Lansing, MI 48909

**RE: Application Extension Rinnai AHB-Series Hydronic Air Handlers**

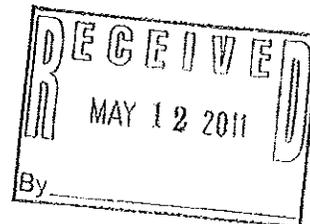
Dear Mr. Kalakay:

I have attached a letter that was sent to Mr. Tennison Barry on October 26, 2010. The purpose of this letter was to extend the approval of the Rinnai AHA-Series hydronic furnaces to the AHB-Series furnaces. I was informed that Mr. Barry has since resigned from his post as the Chief of the Mechanical Division. Please review the original for action and let me know if you have any questions.

Sincerely,



Donald N. Emen  
Product Certification Engineer



# Rinnai

---

103 International Drive  
Peachtree City, Georgia 30269

Telephone: 1-678-829-1703  
Toll Free: 1-800-621-9419  
Fax: 1-678-829-1703

April 5, 2011

Kevin Kalakay  
Bureau of Construction Codes  
P. O. Box 30254  
Lansing, MI 48909

**RE: Application Extension Rinnai AHB-Series Hydronic Air Handlers**

Dear Mr. Kalakay:

I have attached a letter that was sent to Mr. Tennison Barry on October 26, 2010. The purpose of this letter was to extend the approval of the Rinnai AHA-Series hydronic furnaces to the AHB-Series furnaces. I was informed that Mr. Barry has since resigned from his post as the Chief of the Mechanical Division. Please review the original for action and let me know if you have any questions.

Sincerely,



Donald N. Emen  
Product Certification Engineer

**Kalakay, Kevin (DELEG)**

---

**From:** Don Emen [DEmen@rinnai.us]  
**Sent:** Tuesday, July 12, 2011 4:39 PM  
**To:** Kalakay, Kevin (DELEG)  
**Subject:** Rinnai Air Handler Approval

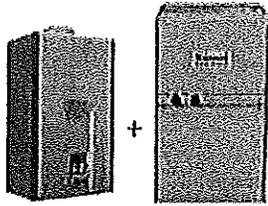
Hello Kevin:

As requested, the difference between the Rinnai air handler AHA series and AHB series is that the AHB series comes equipped with the ECM motors.

Sincerely,  
Don Emen

**Rinnai Corporation**  
Product Certification Engineer  
Toll Free: 1-800-621-9419, Ext. 4414  
Fax: 678-829-1666  
Email: [demen@rinnai.us](mailto:demen@rinnai.us)

07/12/2011



+ = comfortable heating system

# Rinnai.

## RINNAI TANKLESS HEATING SYSTEM COMFORTABLE HOME HEATING AND ENDLESS HOT WATER IN ONE INNOVATIVE SYSTEM

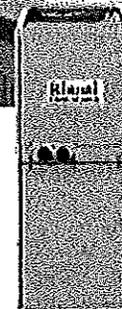
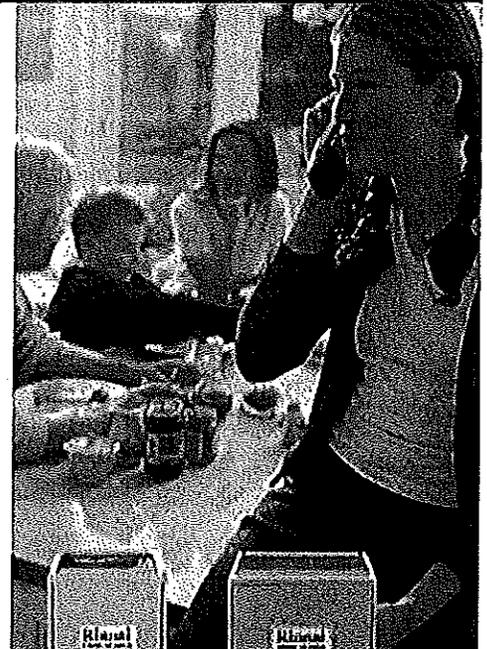
### RINNAI HYDRONIC AIR HANDLER AND TANKLESS WATER HEATER SYSTEM

#### Heat Your Home While You Heat Your Water

Experience a never-ending supply of hot water and a more comfortable way to heat your home – all made possible by the reliable, efficient Rinnai tankless water heater. With Rinnai's Tankless Heating System, your Rinnai tankless water heater is paired with the new Rinnai hydronic air handler to deliver comfortable, efficient heat to your entire home.

#### Rinnai Tankless Heating System ... For All The Right Reasons.

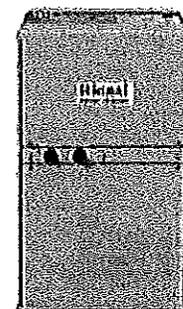
- **Only Rinnai Gives You a Matched Component System.** Rinnai is the only company to offer a complete home heating system designed specifically for use with a Rinnai tankless water heater.
- **Easy, Flexible Installation Saves You Money & Hassles.** The hydronic air handler requires no venting or gas lines so you can place it in a closet, crawl space, attic or basement.
- **You Enjoy Comfortable Hydronic Heat.** Using a hot-water coil, your home's air is less dry than with a typical gas furnace.
- **Heat Your Air as Efficiently as Your Water.** The Rinnai Tankless Heating System delivers the same efficiency as your Rinnai tankless water heater.
- **Domestic Hot Water Priority System** – a flow sensor (included with each air handler) interfaces with the control board to suspend operation during periods of heavy household hot water use, thus preventing the unit from blowing cold air and improving pump reliability.



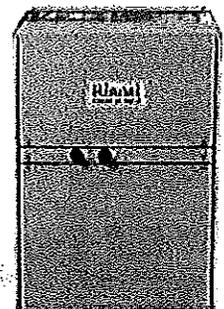
AH45



AH60

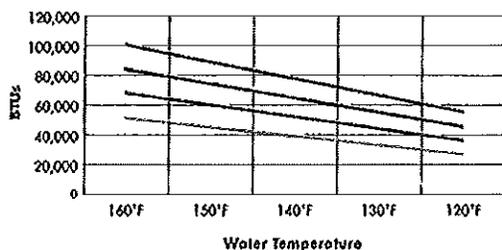


AH75



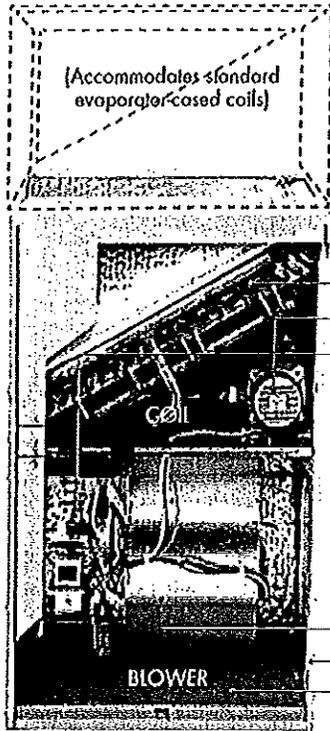
AH90

Heating Capacity Chart



■ AH45 ■ AH60 ■ AH75 ■ AH90

FOR MORE INFORMATION ON THE RINNAI TANKLESS HEATING SYSTEM,  
GO TO WWW.FOREVERHOTWATER.COM



(Accommodates standard evaporator-coiled coils)

**Hydronic Air Handler Standard Features**

- Removable front panels for ease of serviceability
- Copper tube heating coil with aluminum fins
- High-pressure, low-flow pump
- Control board facilitates automatic purge, domestic hot water priority, and has the following features:
  - Selectable A/C or Heat Pump modes
  - Selectable single- or two-stage operation
- Control board include the following connections:
  - Humidifier
  - Electronic Air Cleaner
  - UV Light
- Multi-Speed Blower Assembly
- Fully Insulated cabinet with cleanable surface
- Integrated filter
- Multi-position installation: upflow, downflow or horizontal left or right

**Hydronic Air Handlers Model Chart (4 Sizes Available)**

MODEL NO.	MODEL SERIES/DESCRIPTION
37AH04508XAS	AH45/45,000 BTU Hydronic Air Handler
37AH06012XAS	AH60/60,000 BTU Hydronic Air Handler
37AH07514XAS	AH75/75,000 BTU Hydronic Air Handler
37AH09016XAS	AH90/90,000 BTU Hydronic Air Handler

ACCESSORIES	DESCRIPTION	APPLICATION
603000016	Thermostatic Mixing Valve	DHW Priority System
603000018	Programmable Thermostat (A/C Version)	All
603000021	Programmable Thermostat (Heat Pump Version)	All
603000015	External Filter Rack For Side Panel Return Air Location (Requires Bottom Fill Plate)	For Side Air Return
603000011	AH45 Bottom Fill Plate	For Side Air Return
603000012	AH60 Bottom Fill Plate	For Side Air Return
603000013	AH75 Bottom Fill Plate	For Side Air Return
603000014	AH90 Bottom Fill Plate	For Side Air Return

**Hydronic Air Handlers Dimensions**

MODELS	AH45	AH60	AH75	AH90
Dimensions W" x H" x D"	14 x 34 x 22	17.5 x 34 x 22	21 x 34 x 22	24.5 x 34 x 22
Weight (lbs.)	92	109	118	136

**A NOTE ON COOLING:** The Rinnai hydronic air handler was designed specifically to accommodate most brands of evaporator coils. This allows you and your HVAC professional to use the cooling equipment of your choice. The Rinnai hydronic air handler can be used as the backup or cold-weather heat source in "dual fuel" or "hybrid systems" with heat pumps. This may provide the most efficient way to heat your home.

**NOTE:** Be sure to have a licensed, hotbed professional size your Rinnai tankless water heater and hydronic air handler to suit your home's specific hot water and hot air requirements.

Rinnai is continually updating and improving products; therefore, specifications are subject to change without prior notice. Local, state, provincial and federal codes must be adhered to prior to and upon installation.

**FOR MORE INFORMATION ON RINNAI PRODUCTS    ADDITIONAL RINNAI LITERATURE AVAILABLE**

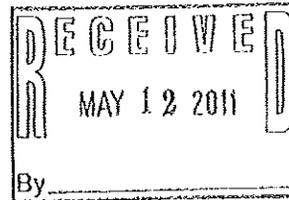


**Rinnai Corporation**  
103 International Drive  
Peachtree City, GA 30269

**Toll Free 1-866-RINNAI-1**  
Phone: 678-829-1700 • Fax: 678-364-8643  
Visit our Websites: [www.rinnai.us](http://www.rinnai.us) • [www.foreverhotwater.com](http://www.foreverhotwater.com)  
E-mail: [marketing@rinnai.us](mailto:marketing@rinnai.us)



1.0 Reference and Address					
Report Number:	100031014COL-001	Original Issued:	10-Feb-2010	Revised:	25-Oct-2010
Standard(s)	Standard for Safety Heating and Cooling Equipment ANSI/UL 1995, CSA C22.2 No. 236-05, Third Edition dated February 18, 2005 with revisions through July 30th, 2009				
Applicant	Bard Manufacturing Company, Inc.	Manufacturer	Bard Manufacturing Company, Inc.		
Address	1914 Randolph Drive Bryan, OH 43512	Address	1914 Randolph Drive Bryan, OH 43512		
Country	USA	Country	USA		
Contact	Eric Grisler	Contact	Eric Grisler		
Phone	(419) 636-1194	Phone	(419) 636-1194		
FAX	(419) 636-2640	FAX	(419) 636-2640		
Email	eric@bardhvac.com	Email	eric@bardhvac.com		
Manufacturer 2:	Bard Manufacturing Company, Inc.				
Address	1310 Monticello Highway Madison, GA 30650				
Country	USA				
Contact	Eric Grisler				
Phone	(419) 636-1194				
FAX	(419) 636-2640				
Email	eric@bardhvac.com				



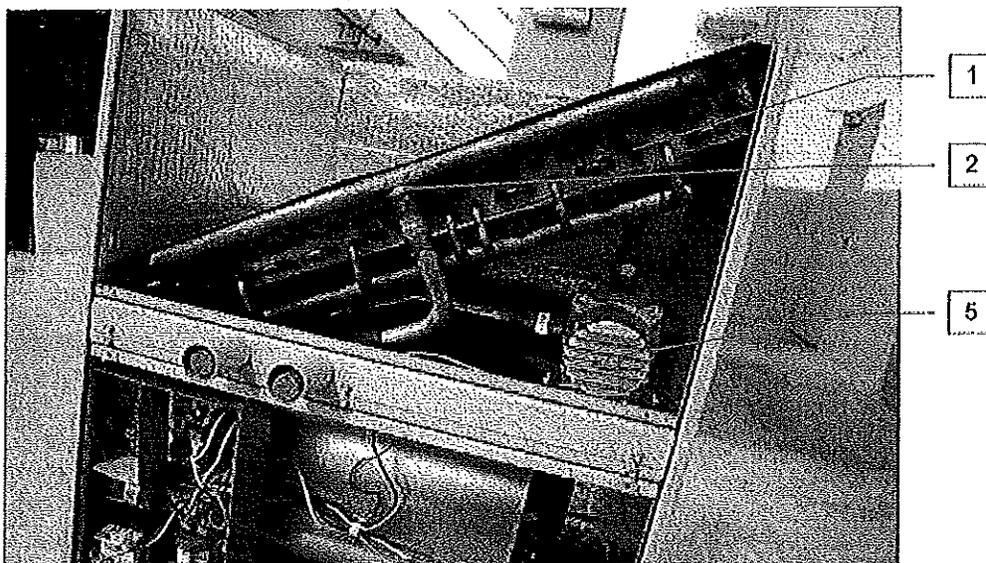
<b>2.0 Product Description</b>	
<b>Product</b>	Hydronic Furnace Fan Coil Unit
<b>Brand name</b>	NA
<b>Description</b>	The product covered by this report is a Hot Water Coil with water pump and blower.
<b>Models</b>	37AH followed by A or B followed by 04508K, 6012K, 7514K, or 9016K followed by letter, followed by 2 or 5
<b>Model Similarity</b>	Difference is in size and overall BTU ratings (at 150 degree water at rated airflow): 045 - 45000 060 - 60000 075 - 75000 090 - 90000
<b>Ratings</b>	115V, 60Hz, 1 Phase, MCA: 15A, MOPD: 15A for Models -04508K, -6012K, -7514K, 115V, 60Hz, 1 Phase, MCA: 20A, MOPD: 20A for Model -9016K
<b>Other Ratings</b>	N/A

**3.0 Product Photographs**

**Photo 1 - External View of Unit**

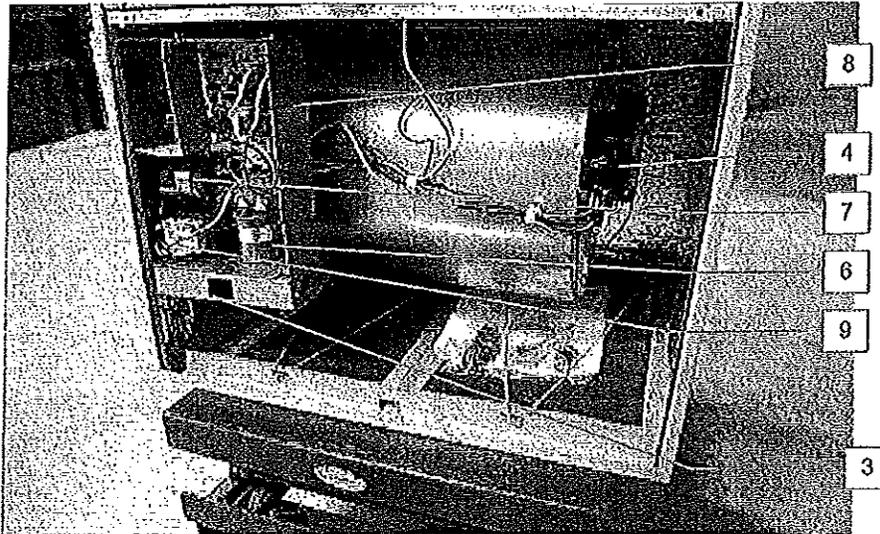


**Photo 2 - Hot water coil and pump section**



**3.0 Product Photographs**

Photo 3 - Blower and controller section



4.0 Critical Components						
Photo #	Item no. 1	Name	Manufacturer/ trademark <sup>2</sup>	Type / model <sup>2</sup>	Technical data and securement means	Mark(s) of conformity <sup>3</sup>
2	1	Hot Water Coils	Bard	AHA045	2 tubes deep, 5 circuits, 18x18.5x1.732 inches, 16 fins per inch 3/8 O.D copper tubing, 0.012 thick copper	NR
				AHA060	2 tubes deep, 5 circuits, 20x18.5x1.732 inches, 16fpi, 3/8 O.D copper tubing, 0.012 thick copper	
				AHA075	3 tubes deep, 6 circuits, 22x18.5x2.598 inches, 14 fpi, 3/8 O.D copper tubing, 0.012 thick copper	
				AHA090	3 tubes deep, 6 circuits, 26x18.5x2.598 inches, 15fpi, 3/8 O.D copper tubing, 0.012 thick copper	
2	2	Header	Bard	Various	7/8" Copper tubing, Wall thickness of 0.049"	NR
3	3	Door Switch	Tyco	T014-147903-1	250Vac, 21FLA, 3/4HP, Single Pole	cURus
3	4	Indoor Blower Motor	Emerson	K55HXMYK-0749	115V, 1 Ph, 60Hz, 1/3HP, 3.5FLA used on 37AHA045	UR, CSA
				K55HXMRZ-0675	115V, 1 Ph, 60Hz, 1/2HP, 6.0FLA used on 37AHA075	
				K55HXMSA-0676	115V, 1PH, 60Hz, 3/4HP, 9.5FLA used on 37AHA075	
				K55HXMWZ-0738	115V, 1Ph, 60Hz, 1HP, 10FLA, used on 37AHA090	
				M055PWCTP02	115V, 1Ph, 1HP, 11.5FLA used on 99	
				M055PWCTR03	115V, 1Ph, 60Hz, 8.5FLA used on 075 models	
			M055PWCTS03	115V, 1Ph, 60Hz, 6.2FLA used on 045 and 060 models		
			Regal-Beliot	5KCP39FG Y770S	115V, 1 Ph, 60Hz, 1/3HP, 3.2FLA used on 37AHA045	
				5KCP39LG Y769S	115V, 1PH, 60Hz, 1/2HP, 5.5HP used on 37AHA060	
				5KCP39PG Y773S	115V, 1Ph, 60Hz, 3/4HP, 10FLA, used on 37AHA075	
5KCP39SG BA67S	115V, 1Ph, 60Hz, 1HP, 10.2FLA, used on 37AHA090					
2	5	Pump Motor	Taco	009-B6-11FC 009-S6-11FC	115V, 1PH, 60Hz, 1/8HP, 1.8FLA	cURus
3	6	Indoor Motor Capacitor	Various	Various	Oil filled, 10uF, 370V min., 5000 min AFC rating, plated or painted casing, used on all units except AHA090 units	cURus
			Various	Various	Oil filled, 25uF, 370V min., 5000 min AFC rating, plated or painted casing, for AHA090 units	

4.0 Critical Components						
Photo #	Item no. <sup>1</sup>	Name	Manufacturer/ trademark <sup>2</sup>	Type / model <sup>2</sup>	Technical data and securement means	Mark(s) of conformity <sup>3</sup>
3	7	Pump Motor Capacitor	Various	Various	Oil filled, 14uF or 15uF, 250V min. rating, 5000 min. AFC rating, plated or painted casing	cURus
3	8	Electrical Enclosure	Various	Various	8x10x3 inches, Galv. Steel G90, 0.0346" thickness	NR
3	9	Transformer	Tyco/Products Unlimited	4000-01E07AE07A	120Vac primary, 24Vac Secondary, 50/60Hz, 40VA, Class 2	cURus
3	10	Bushings (Not Shown)	Heyco	Various	Listed Heyco Part 1167	cULus

NOTES:

- 1) Not all item numbers are indicated (called out) in the photos, as their location is obvious.
- 2) "Various" means any type, from any manufacturer that complies with the "Technical data and securement means" and meets the "Mark(s) of conformity" can be used.
- 3) Indicates specific marks to be verified, which assures the agreed level of surveillance for the component. "NR" - Indicates Unlisted and only visual examination is necessary. "See 5.0" Indicates Unlisted components or assemblies to be evaluated periodically refer to section 5.0 for details.

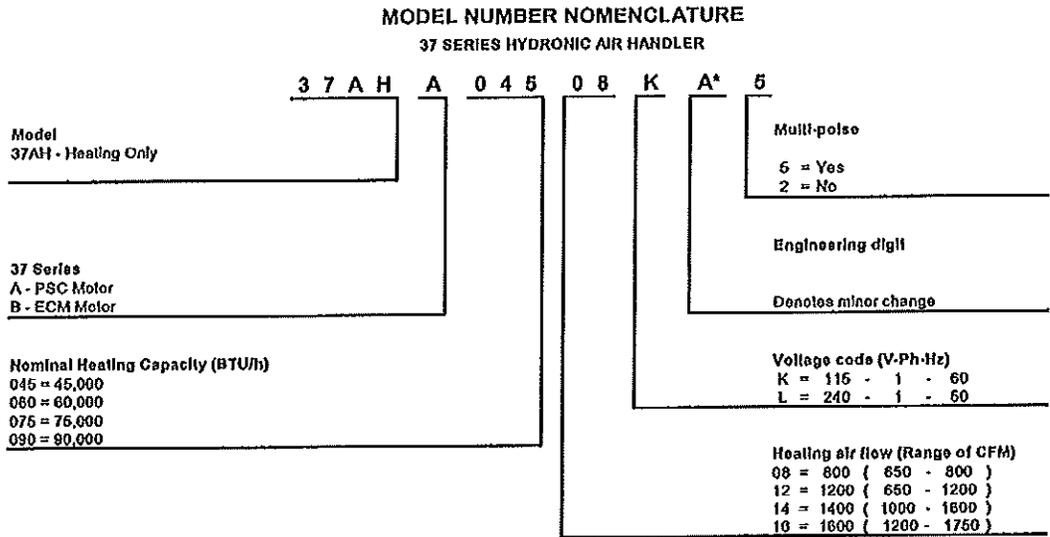
**5.0 Critical Unlisted CEC Components**

No Unlisted CEC components are used in this report.

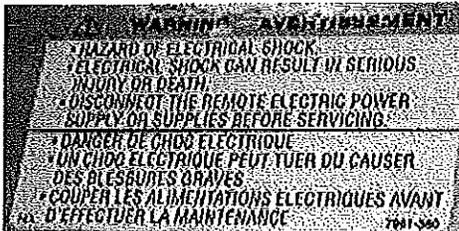
<b>6.0 Critical Features</b>	
<b>Recognized Component</b>	- A component part, which has been previously evaluated by an accredited certification body with restrictions and must be evaluated as part of the basic product considering the restrictions as specified by the Conditions of Acceptability.
<b>Listed Component</b>	- A component part, which has been previously Listed or Certified by an accredited Certification Organization with no restrictions and is used in the Intended application within its ratings.
<b>Unlisted Component</b>	- A part that has not been previously evaluated to the appropriate designated component standard. It may also be a Listed or Recognized component that is being used outside of its evaluated Listing or component recognition.
<b>Critical Features/Components</b>	- An essential part, material, subassembly, system, software, or accessory of a product that has a direct bearing on the product's conformance to applicable requirements of the product standard.
<b>Construction Details</b>	- For specific construction details, reference should be made to the photographs and descriptions. All dimensions are approximate unless specified as exact or within a tolerance. In addition to the specific construction details described in this Report, the following general requirements also apply.
1. <b>Spacing</b>	- In primary circuits, minimum spacing are maintained through air and over surfaces of insulating material between current-carrying parts of opposite polarity and minimum between such current-carrying parts and dead-metal parts or low voltage isolated circuits.
2. <b>Mechanical Assembly</b>	- Components such as switches, fuseholders, connectors, wiring terminals and display lamps are mounted and prevented from shifting or rotating by the use of lockwashers, starwashers, or other mounting format that prevents turning of the component.
3. <b>Corrosion Protection</b>	- All ferrous metal parts are protected against corrosion by painting, plating or the equivalent.
4. <b>Accessibility of Live Parts</b>	- All uninsulated live parts in primary circuitry are housed within a metal or enclosure constructed with no openings other than those specifically described in Sections 4 and 5.
5. <b>Grounding</b>	- All exposed dead-metal parts and all dead-metal parts within the enclosure that are exposed are connected to the equipment grounding terminal.
6. <b>Internal Wiring</b>	- Internal wiring is routed away from sharp or moving parts. Internal wiring leads terminating in soldered connections are made mechanically secure prior to soldering. Recognized Component separable (quick disconnect) connectors of the positive detent type, closed loop connectors, or other types specifically described in the text of this report are also acceptable as internal wiring terminals. At points where internal wiring passes through metal walls or partitions, the wiring insulation is protected against abrasion or damage by plastic bushings or grommets. All wiring is minimum 18 AWG, with a minimum rating of 60V, 90°C.
7. <b>Schematics</b>	- Refer to Illustration No. 1 for schematics requiring verification during Field Representative Inspection Audits.
8. <b>Markings</b>	- The product is marked: Manufacturer's name, trademark, or tradename catalogue number, style voltage number of phases frequency Horsepower and FLA of each motor Minimum Circuit Amperacity Date code or other method (serial number) Max. inlet for hot water coils Max. overcurrent protective device rating
9. <b>Cautionary Markings</b>	- The following are required: See Illustration 2 for Cautionary and Warning markings.
10. <b>Installation, Operating and Safety Instructions</b>	- Instructions for installation and use of this product are provided by the manufacturer.

**7.0 Illustrations**

**Illustration 1 - Model Nomenclature**



**Illustration 2 - Warnings and Cautions**



8.0 Test Summary			
Evaluation Period	9/16/09 - 9/30/09		Project No. G100031014
Sample Rec. Date	2/11/2010	Condition	Production
Sample ID	000F082504103-1		
Test Location	1914 Randolph Drive, Bryan, OH 43612		
Test Procedure	Supervised Applicant Testing		
Determination of the result includes consideration of measurement uncertainty from the test equipment and methods. The product was tested as indicated below with results in conformance to the relevant test criteria.			
The following tests were performed:			
Test Description	ANSI/UL 1995 CSA/C22.2 No.236 3rd Ed. With revisions through Oct. 24, 2008		
Input	39		
Temperature operation Test	41		

8.1 Signatures			
A representative sample of the product covered by this report has been evaluated and found to comply with the applicable requirements of the standards indicated in Section 1.0.			
Completed by:	Michael Lindeman	Reviewed by:	Ramzi Amawi
Title:	Project Engineer	Title:	Operations/Engineering Manager
Signature:	<i>Signature on file</i>	Signature:	<i>Signature on file</i>

9.0 Correlation Page For Multiple Listings	
The following products, which are identical to those identified in this report except for model number and Listee name, are authorized to bear the ETL label under provisions of the Intertek Multiple Listing Program.	
BASIC LISTEE	Bard Manufacturing Company, Inc.
Address	1914 Randolph Drive Bryan, OH 43512
Country	USA
Product	Hydronic Furnace Fan Coil Unit

MULTIPLE LISTEE 1	None
Address	
Country	
Brand Name	

ASSOCIATED MANUFACTURER	
Address	
Country	

MULTIPLE LISTEE 1 MODELS	BASIC LISTEE MODELS

MULTIPLE LISTEE 2	None
Address	
Country	
Brand Name	

ASSOCIATED MANUFACTURER	
Address	
Country	

MULTIPLE LISTEE 2 MODELS	BASIC LISTEE MODELS

MULTIPLE LISTEE 3	None
Address	
Country	
Brand Name	

ASSOCIATED MANUFACTURER	
Address	
Country	

MULTIPLE LISTEE 3 MODELS	BASIC LISTEE MODELS

#### **10.0 General Information**

The Applicant and Manufacturer have agreed to produce, test and label ETL Listed products in accordance with the requirements of this Report. The Manufacturer has also agreed to notify Intertek and to request authorization prior to using alternate parts, components or materials.

#### **COMPONENTS**

Components used shall be those itemized in this Intertek report covering the product, including any amendments and/or revisions.

#### **LISTING MARK**

The ETL Listing mark applied to the products shall either be separable in form, such as labels purchased from Intertek, or on a product nameplate or other media only as specifically authorized by Intertek. Use of the mark is subject to the control of Intertek.

#### **MANUFACTURING AND PRODUCTION TESTS**

Manufacturing and Production Tests shall be performed as required in this Report.

#### **FOLLOW-UP SERVICE**

Periodic unannounced audits of the manufacturing facility (and any locations authorized to apply the mark) shall be scheduled by Intertek. An audit report shall be issued after each visit. Special attention will be given to the following:

1. Conformance of the manufactured product to the descriptions in this Report.
2. Conformance of the use of the ETL mark with the requirements of this Report and the Certification Agreement.
3. Manufacturing changes.
4. Performance of specified Manufacturing and Production Tests.

In the event that the Intertek representative identifies non-conformance(s) to any provision of this Report, the Applicant shall take one or more of the following actions:

1. Correct the non-conformance.
2. Remove the ETL Mark from non-conforming product.
3. Contact the Issuing product safety evaluation center for instructions.

#### **10.1 Evaluation of Unlisted Components**

Because Unlisted Components are uncontrolled, and they do not fall under a third party follow up program, Intertek may require these components to be tested and/or evaluated at least once annually, more often for certain components, as part of the independent certification process. The Unlisted Components in Section 5.0 require testing and/or evaluation as indicated.

**Note to Intertek Follow Up Inspector: The Component Evaluation Center, CEC, will notify you in writing when these components must be selected and sent to the CEC for re-evaluation**

Ship the samples to:  
Intertek Testing Services NA Inc.  
ETL Component Evaluation Center  
13200 Levan Road  
Livonia, MI 48150 USA  
Attn: Component Evaluation Center

Sample Disposition: Due to the destructive nature of the testing, all samples will be discarded at the conclusion of testing unless, the manufacturer specifically requests the return of the samples. The request for return must accompany the initial component shipment.

**11.0 Manufacturing and Production Tests**

The manufacturer agrees to conduct the following Manufacturing and Production Tests as specified:

**Required Tests**

Dielectric Voltage Withstand Test

**11.1 Dielectric Voltage Withstand Test**

Method

One hundred percent of production of the products covered by this Report shall be subjected to a routine production line dielectric withstand test.

The test shall be conducted on products, which are fully assembled. Prior to applying the test potential, all switches, contactors, relays, etc., should be closed so that all primary circuits are energized by the test potential. If all primary circuits cannot be tested at one time, then separate applications of the test potential shall be made.

The test voltage specified below shall be applied between primary circuits and accessible dead-metal parts. The test voltage may be gradually increased to the specified value but must be maintained at the specified value for one second or one minute as required.

Test Equipment

The test equipment shall incorporate a transformer with an essentially sinusoidal output, a means to indicate the applied test potential, and an audible and/or visual indicator of dielectric breakdown.

The test equipment shall incorporate a voltmeter in the output circuit to indicate directly the applied test potential if the rated output of the test equipment is less than 500VA.

If the rated output of the test equipment is 500VA or more, the applied test potential may be indicated by either:

- 1 - a voltmeter in the primary circuit;
- 2 - a selector switch marked to indicate the test potential; or
- 3 - a marking in a readily visible location to indicate the test potential for test equipment having a single test potential output.

In cases 2 and 3, the test equipment shall include a lamp or other visual means to indicate that the test potential is present at the test equipment output. All test equipment shall be maintained in current calibration.

**Products Requiring Dielectric Voltage Withstand Test:**

<u>Product</u>	<u>Test Voltage</u>	<u>Test Time</u>
All products covered by this Report operating at less than 250V and no motor over 1/2HP	1000V	60 s
	or 1200V	1 s
All products covered by this Report operating in excess of 250V or products with a motor greater than 1/2HP.	1000+2V	60s
	Or 1.2*(1000+2V)	1s
V=Rated unit voltage		



MICHIGAN DEPARTMENT OF ENERGY, LABOR & ECONOMIC GROWTH  
BUREAU OF CONSTRUCTION CODES  
P.O. BOX 30254  
LANSING, MI 48909

CERTIFICATE OF ACCEPTABILITY  
PRODUCT APPROVAL

1604-MA

Issued by the Michigan State Construction Code Commission in accordance with authority granted under Section 21, 1972 P.A. 230, MCL 125.1521 on the recommendation of the Bureau of Construction Codes, Mechanical Division.

**MANUFACTURER:**

Rinnai America Corporation

**PRODUCT:**

Copper tube, aluminum fin heat exchanger, Models 37AHA04508KAS, 37AHA06012KAS, 37AHA07514KAS and 37AHA09016KAS

**MANUFACTURER DESIGNATION:**

103 International Drive  
Peachtree City, GA 30269

**CONDITIONS OF USE AND INSTALLATION:**

1. Must be installed to the Michigan Mechanical Code.
2. Must be installed to the Michigan Plumbing Code.
3. Must only be used with Rinnai Tankless Water Heater for space heating.
4. Water heater must be used for domestic water as well as space heating.
5. Must be installed to manufacturer's installation instructions.

**THIS CERTIFICATE SHALL NOT BE USED FOR ADVERTISING PURPOSES.**



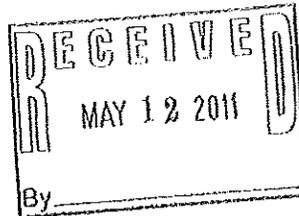
By Direction of the Construction Code Commission

Irvin J. Poke, AIA, Director

Tennison Barry - Chief, Mechanical Division

Effective Date: September 2, 2009

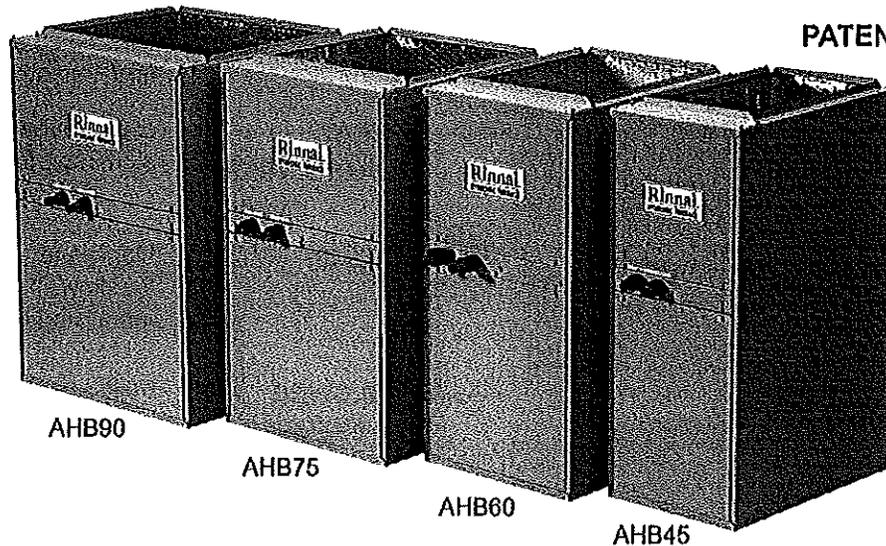
# Rinnai.



## 37AHB Series Hydronic Furnace

Part of the Rinnai Tankless Heating System

PATENT PENDING



### FEATURES

- Four models covering a range of heating capacities
  - 27,100 to 96,300 BTU/hour
- Multi-position (upflow, downflow, horizontal left, horizontal right) without modifications <sup>^</sup>
  - Modifiable for side-entry return air
- Low-flow, high-head pump custom designed to work with Rinnai's tankless water heaters
- Integrated control board with learning algorithm
- No combustion air infiltration losses when used with a Rinnai tankless water heater
- Four selectable heat blower off delay times
- Multi-speed motors (ECM)
- Strong 20-gauge steel cabinet
  - Galvanized, painted
  - Fully insulated cabinet
  - Low 34 inch profile
- Multi-position control box
- Designed for serviceability
- Schrader valves to purge air from the system
- Integral filter rack with filter
- Fan motor with ECM technology

<sup>^</sup> NOTE: The unit is not designed to be installed on its back or face down.

The optimum in hydronic technology, the newly designed Rinnai® multi-position hydronic furnaces offer a unique solution for a wide variety of small- and medium-sized residential and light commercial applications. They are compact and ready to fit in tight spaces which may include, but not limited to, attics, basements, closets, crawlspaces, and utility rooms.

### Intelligent Microprocessor Controller

The 37AHB units are equipped with an intelligent microprocessor control that allows for domestic hot water priority and adapts to available hot water flow for space heating by automatically regulating the pump and fan sequence to maximize comfort.

### Fine Tuned to Work with Rinnai Tankless Water Heaters

These unique hydronic furnaces are designed to work in combination with our line of Rinnai® tankless water heaters to deliver heating capacities that cover a wide spectrum of residential and light commercial heating applications. When combined, the units form the Rinnai Tankless Heating System, the first matched, tankless hydronic heating solution in the industry!



This product is manufactured in a facility registered by UL to ISO 9001.

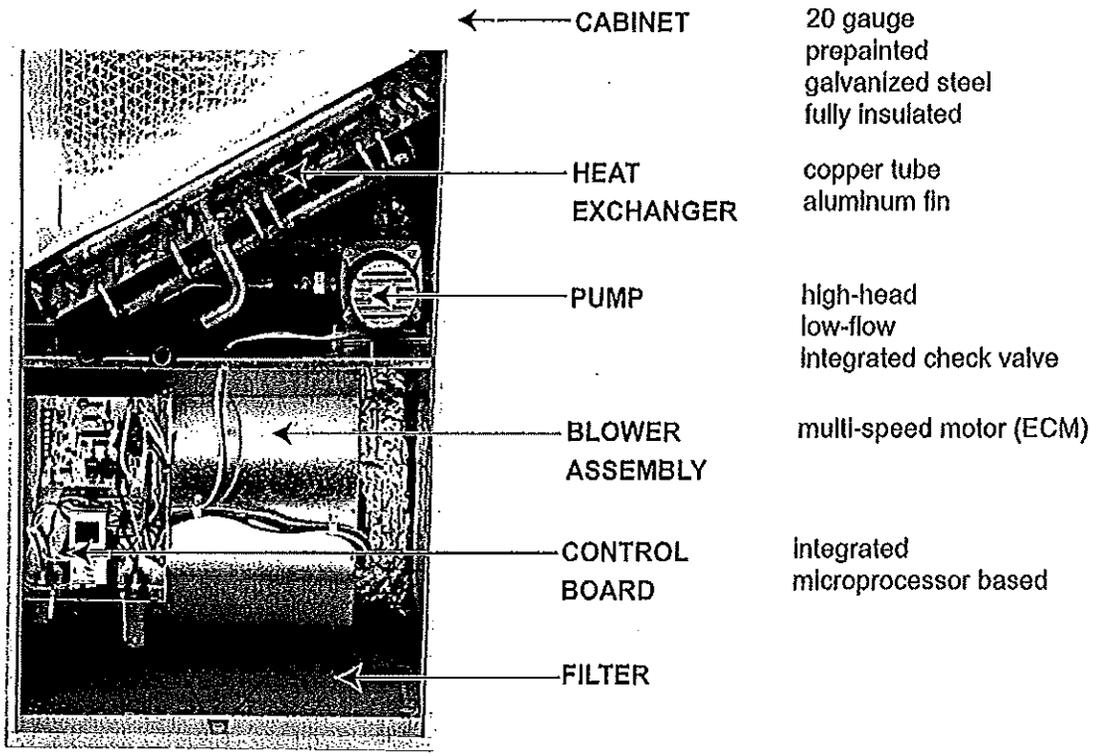
60000060 (7/2010)



# Rinnai

## 37AHB Series Hydronic Furnace

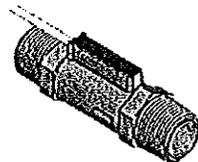
### Equipment



### Accessories



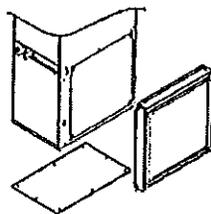
**THERMOSTATS**  
 Programmable, 5-2 days;  
 both A/C and heat pump  
 versions



**FLOW SENSOR \***  
 For domestic hot water priority  
 \* Supplied with the unit



**ANTI-SCALD MIXING VALVE**  
 To maintain safe domestic  
 hot water temperature



**FILTER RACK  
 and BOTTOM FILL PLATES**  
 For modification to allow side-entry  
 return airflow  
 Factory available from Rinnai

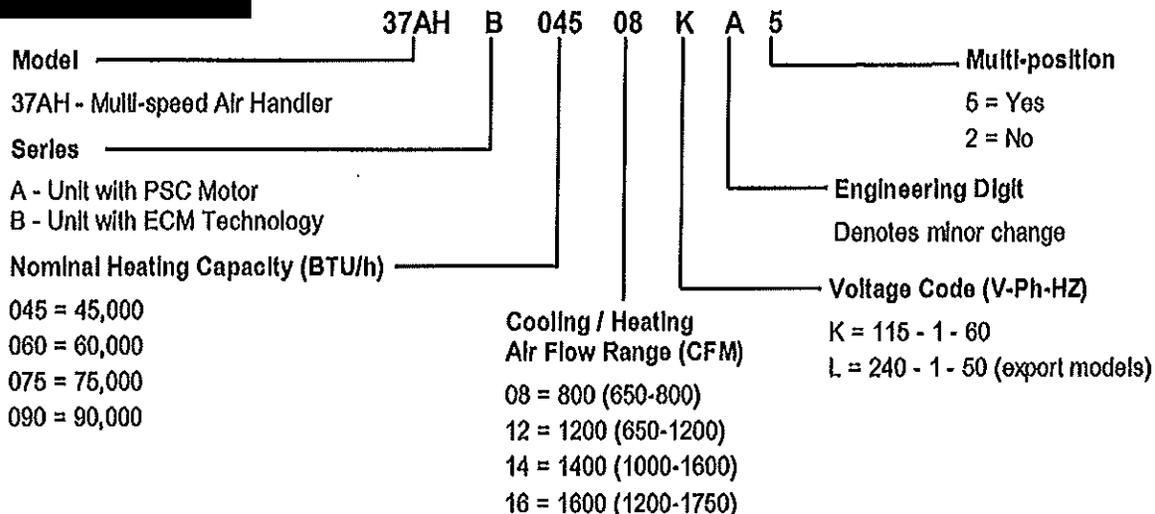


### Optional Equipment

FIELD-SUPPLIED ACCESSORIES capable of interfacing with the Rinnai Air Handler:

- Humidifier (HUM)** Connect an auxiliary 2.5 FLA, 2.5 LRA @ 115 VAC max Humidifier. Connections are made via the "HUM" quick connects. The humidifier output is on whenever a heating demand is being satisfied. The contacts of this output are isolated to allow application of 24 VAC or 115 VAC to one terminal and the humidifier load to the other.
- Electronic Air Cleaner (EAC)** Connect an auxiliary Electronic Air Cleaner; rating shall be max 1.0 Amp @ 115 VAC. This output is energized whenever any of the four blower speeds are energized. Connections are made via 0.250 x 0.032" male quick connect terminals labeled "EAC" and "N3".
- UV Lamp** Connect an auxiliary UV lamp (if required); rating shall be max 1.0 Amp @ 115 VAC. This output is energized whenever any of the four blower speeds are energized. Connections are made via 0.250 x 0.032" male quick connect terminals labeled "UV" and "N2".
- Cooling Coil** Can accommodate most brands of evaporator A-coil for cooling applications.

### Nomenclature



### Heating Capacities

Nominal heating capacities as tested with Rinnai tankless water heaters. For final rated capacities refer to the Air Delivery and Performance Table in the Operation and Installation Manual.

	AHB45 (BTU)	AHB60 (BTU)	AHB75 (BTU)	AHB90 (BTU)
120°F	27,100	36,400	47,000	54,900
130°F	32,300	45,100	54,300	63,900
140°F	39,700	50,800	63,000	76,200
150°F	45,200	59,700	72,000	86,600
160°F	51,200	68,100	80,400	96,300



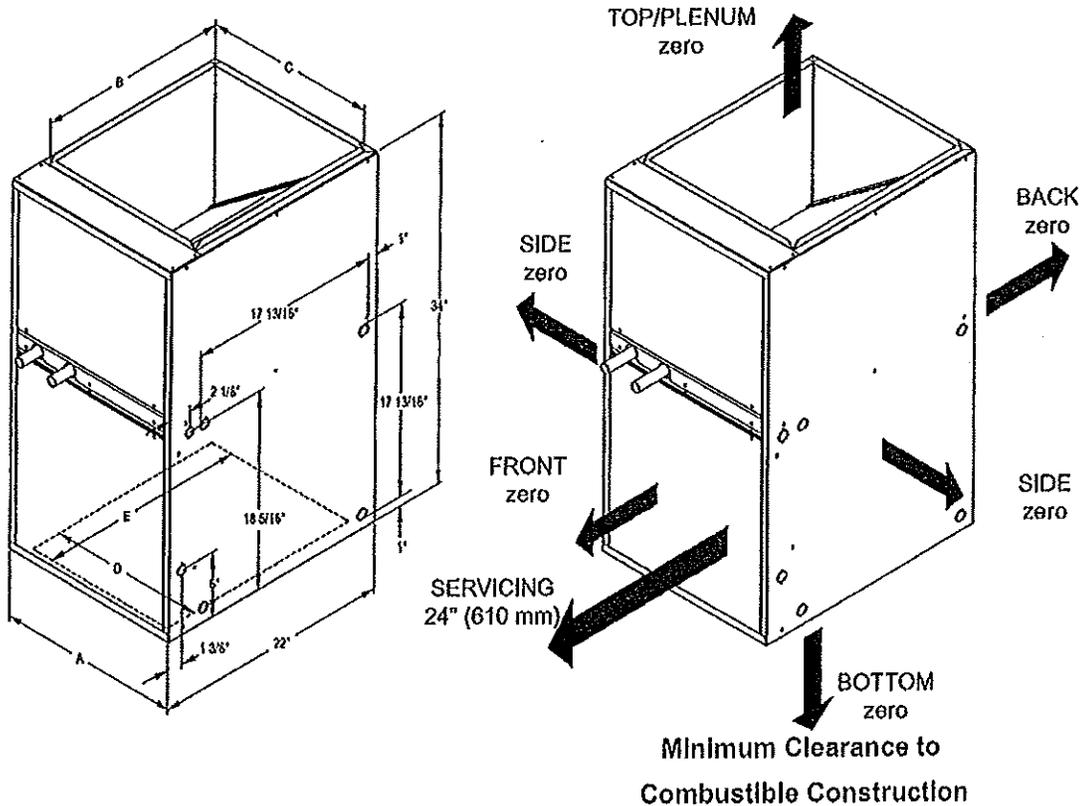


# Rinnai

## 37AHB Series Hydronic Furnace

### Dimensions

UNIT SIZE	A		B		C		D		E	
	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm
37AHB04508KA5 (AHB45)	14	355.6	18	457.2	12	304.8	10 1/2	266.7	19	482.6
37AHB06012KA5 (AHB60)	17 - 1/2	444.5	18	457.2	16	406.4	16 - 11/16	423.9	19 - 1/4	489
37AHB07614KA5 (AHB76)	21	533.4	18	457.2	20	508	18 - 11/16	474.7	19 - 1/2	495.3
37AHB09016KA5 (AHB90)	24 - 1/2	622.3	18	457.2	24	609.6	21 - 1/8	536.6	19	482.6



### Warranty

Parts: 5 years \* / Labor: 1 year \*

\* In order to receive full warranty coverage on the hydronic air handler when connected to any other type or brand of product other than a Rinnai tankless water heater, the flow rate through the air handler must not exceed a maximum of 5 GPM.

Rinnai will repair or replace the covered product or any part or component that is defective in materials or workmanship as set forth.

Rinnai will pay reasonable labor charges associated with the repair or replacement of any such part or component.

All repair parts must be genuine Rinnai parts. All repairs or replacements must be performed by an individual or servicing company that is properly trained, state qualified or licensed to do the type of repair.



# Rinnai

## 37AHB Series Hydronic Furnace

### Specifications

UNIT MODELS		37AHB04508KA5	37AHB06012KA5	37AHB07514KA5	37AHB09016KA5
Trade Name		AHB45	AHB60	AHB75	AHB90
RATING AND PERFORMANCE		Descriptor (Typ.)			
Nominal Output Capacity (BTU/h) †		45,000	60,000	75,000	90,000
Air Side Temperature Rise Rate In °F (68°F Entering Air @ 160°F Entering Water)	Heat Speed	60	60	60	60
External Static Pressure	(in. W.C.)	0 to 1.0	0 to 1.0	0 to 1.0	0 to 1.0
Nominal Airflow (CFM)	Heating	800 ‡	1200 ‡	1400 ‡	1600 ‡
	Cooling Range	650 - 800	650 - 1200	1000 - 1600	1200 - 1750
ELECTRICAL					
Power Supply	V - HZ - PH	115-60-1			
Minimum Circuit Ampacity	MCA	9.6	9.6	12.43	16.2
Max. Rating of Overcurrent Protective Device	MOP (Calculated)	13.6	13.6	18	23.7
Maximum Fuse or CKT BKR Size	Amps	16	15	20	25
Transformer (24V)		40 VA (Primary: 120 VAC / Secondary: 24 VAC)			
Printed Circuit Board	PCB	INTEGRAL (with connections for A/C system, UV lamp, Humidifier, and electronic air cleaner)			
CONTROLS					
Available Unit Configurations	A/C or HP	Dip Switch Selectable (SW1)			
	Single or Two Stage	Dip Switch Selectable (SW1)			
	FS or WH	Shunt Selectable (P-7)			
Safety Door Switch	Rated Voltage	125 VAC			
	Resistive Load	21 Amp			
Blower Off Delay	HTG/CLG	Dip-switch Selectable/Fixed 30 Sec			
Cool / Heat Blower On Delay	Varies	Cool: 1 second / Heat: 26 seconds (see Sequence of Operations)			
INDOOR BLOWER MOTOR					
Type		DIRECT DRIVE MOTOR (ECM)			
Motor HP		1/2	1/2	3/4	1
Motor (Full Load Amps)	FLA	6.2	6.2	8.5	11.5
Run Capacitor	mfd/volts	N/A			
Volts-PH-HZ		115-1-60			
CIRCULATING PUMP					
Type		Wet Rotor			
Volts-PH-HZ		115-1-60			
Motor (Full Load Amps/Locked Rotor Amps)	FLA/LRA	1.6 / 2.6			
Pump Motor HP		1/8			
Run Capacitor	mfd/volts	14/250			
Maximum Working Pressure	PSI	125			
Min/Max Fluid Temperature	°F (°C)	120 (49) / 160 (71)			
HYDRONIC HEATING COIL					
Coil Construction		3/8" OD copper tubes, aluminum fins, galvanized steel frame			
Rows...Fins/in		2...16	2...16	3...14	3...16
Total Face Area	Sq. Ft.	2.3	2.6	2.8	3.3
Approximate Internal Volume	Gallons	0.47	0.63	0.66	1.02
PIPING CONNECTIONS - (QTY)					
Type		Copper Stubs			
Supply Diameter	Inches	(1) 3/4			
Return Diameter	Inches	(1) 3/4			
RETURN AIR FILTERS					
Filter Type (Throwaway)	Inches ††	12 X 20 X 1	16 X 20 X 1	20 X 20 X 1	(2) 12 X 20 X 1
UNIT WEIGHT					
Shipping	lbs	92	109	118	138
Installed (with water)	lbs	107	127	138	169

† Tested in accordance with ANSI/ASHRAE Standard 37-Latest edition.

‡ Airflows shown are for bottom only return-air (blower speeds are factory set). For air delivery other than stated, refer to the Air Delivery & Performance table.

†† Required filter sizes shown are based on the larger of the AHRI (Air Conditioning & Refrigeration Institute) rated cooling airflow or the heating airflow velocity of 300 ft/min for throwaway type or 450 ft/min for high-capacity type.

Side intake filter to be (1) 20"x20"x1" typical for all models.

Air filter pressure drop for non-standard filters must not exceed 0.08 in. wg. This product is manufactured in a facility registered by UL to ISO 9001, File No. A6887.

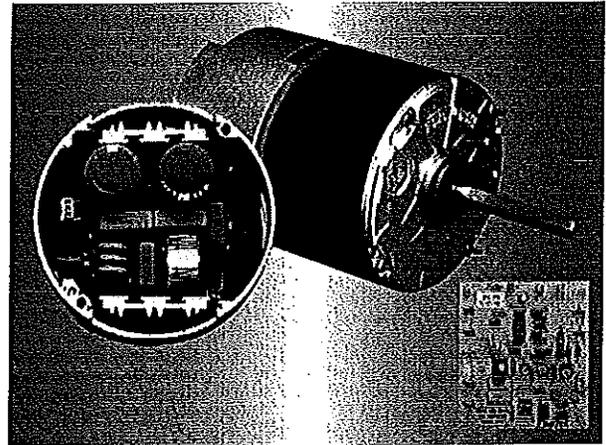
### Air Delivery

AIR DELIVERY AND CAPACITY CHART (BOTTOM OR SIDE RETURN w/ FILTER)													
UNIT SIZE	ECM SPEED TAP	SUPPORTS COOLING CAP. RANGE (TONS)	External Static Pressure (ESP)										
			0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
AIRFLOW (CFM)													
37AHB045 with RC98HP, RC80HP, R94LS, R75LS, or V53i	TAP 3 (H)	2.0	948	921	891	868	841	819	795	772	701	596	567
	TAP 4 (M)	2.0	921	891	864	836	812	788	768	742	699	594	559
	TAP 5 (L)	1.5	803	768	740	712	682	652	628	596	569	541	510
37AHB060 with RC98HP, RC80HP, R94LS, R75LS, or V53i	TAP 1 (H)	3.0	1343	1318	1296	1270	1248	1225	1197	1168	1109	1025	889
	TAP 2 (MH)	2.5	1148	1128	1103	1072	1045	1012	984	955	937	908	690
	TAP 4 (ML)	2.0	971	942	911	880	847	817	784	751	715	680	642
	TAP 5 (L)	1.5	844	810	777	734	698	665	626	581	533	504	466
37AHB075 with RC98HP, RC80HP, R94LS, or R75LS	TAP 1 (H)	4.0	1700	1666	1635	1604	1576	1543	1518	1492	1465	1430	1402
	TAP 2 (MH)	3.5	1561	1524	1490	1456	1428	1396	1364	1330	1230	1265	1224
	TAP 3 (ML)	3.0	1391	1350	1320	1281	1245	1209	1190	1131	1090	1064	1031
	TAP 4 (L)	2.5	1222	1174	1140	1100	1063	1014	979	937	887	829	777
37AHB090 with RC98HP, RC80HP, R94LS, or R75LS	TAP 1 (H)	5.0	1934	1889	1857	1818	1784	1750	1715	1680	1568	1491	1377
	TAP 2 (MH)	4.0	1777	1732	1694	1650	1630	1592	1553	1517	1464	1441	1361
	TAP 3 (ML)	3.5	1573	1530	1490	1448	1417	1372	1327	1293	1253	1221	1175
	TAP 4 (L)	3.0	1400	1351	1317	1275	1225	1183	1134	1095	1053	1011	951

# THE ECM MOTOR STORY

## EPIC™/ECM MOTOR TECHNOLOGY

- Significant energy savings (67% average compared to PSC motors)
- Unique factory pre-set air volume capability (+/- 5%)
- Pressure Independent fan operation
- LED for visual indication of air volume
- Field adjustable fan air volume controller
- Remote fan air volume adjustment capability from BAS
- Larger turn down ratios mean more flexibility for tenant changes



Since 1985, equipment manufacturers have used GE ECM™ motors in residential air conditioners and furnaces. These motors have made it possible to achieve SEER ratings of 12 and higher. Until more recently though, they were only manufactured in 120 and 240 VAC, which precluded their use in commercial applications. Following two years of research and development and the availability of a new 277 VAC version, Nailor was first to introduce the GE ECM™ motor to the commercial HVAC market (ASHRAE Journal, April 1997) as an option for use in series fan powered terminal unit applications.

## WHAT IS AN ECM MOTOR?

The ECM (Electronically Commutated Motor) is an ultra high efficiency programmable brushless DC motor utilizing a permanent magnet rotor and a built-in inverter. DC motors are significantly more energy efficient than AC motors and much easier to control. The major weakness of series fan powered terminal units until now, has been their low fan motor efficiency. The widely used single speed fractional horsepower permanent split capacitor (PSC) induction motor in combination with an electronic SCR speed controller is extremely inefficient at typical operating conditions. Due to acoustical considerations, the fan motor is usually adjusted to operate at considerably less than full load (where PSC motor efficiencies may be as high as 62%). PSC motor efficiency drops off dramatically when turned down; typically by at least half. Installed PSC motor efficiencies are therefore typically in the range of only 12 – 45%. ECM motors in contrast, maintain a high efficiency of 65 – 72% at all speeds.

In addition to lower operating costs, EPIC™/ECM motor technology allows Nailor to pre-set the fan airflow volume at the factory.

The graphs in Table 1 show the lower watts per cfm (translating into lower operating costs as shown on the next page) and wider operating ranges of series terminals employing GE ECM™ motors versus PSC induction motors.

## FEATURES AND BENEFITS

Soft starts and slowed speed ramps are programmed into the ECM motor eliminating stress transmitted to the mounting bracket or hardware. They incorporate ball bearings providing permanent lubrication unlike sleeve bearings requiring a minimum rpm operation for oiling. The wider operating range of

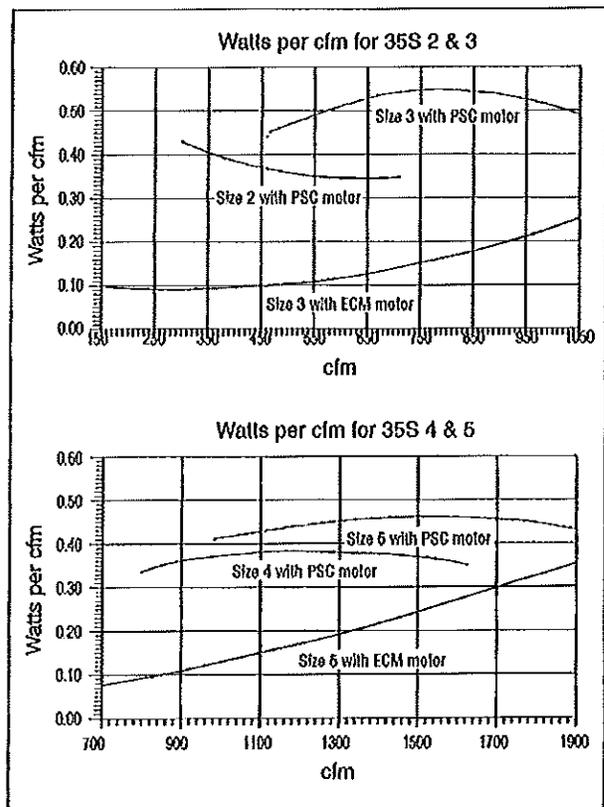
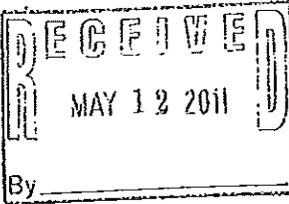


Table 1. Power consumption comparison of GE ECM™ versus PSC motors.

the ECM motor allows each model to actually replace two models using induction motors. This feature alone provides several benefits; a simpler product line to choose from, little or no equipment changes necessary when tenants change, more similar sized units on the job, decreased spare parts inventory and increased contractor flexibility. The low operating temperature of the ECM motor (essentially ambient) requires very little energy to offset the heat gain from the motor versus PSC motors which run hot (typically around 90 – 150°F).



Petition Application for Approval of Material, Product or Method  
 Michigan Department of Energy, Labor & Economic Growth  
 Bureau of Construction Codes  
 P.O. Box 30255, Lansing, MI 48909  
 www.michigan.gov/bcc

Agency Use Only

Application Fee: \$500.00

Authority: 1972 PA 230  
 Completion: Mandatory  
 Penalty: Use of material, product or method will not be approved

DELEG is an equal opportunity employer/program. Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities

PRODUCT INFORMATION

NATURE OF APPLICATION

Material  Product  Method of Manufacture or Construction  Component

CODE UNDER WHICH APPROVAL IS SOUGHT

Building (140)  Electrical (116)  Mechanical (130)  Plumbing (98)

NAME OF MATERIAL, PRODUCT OR METHOD OF MANUFACTURE (Limit To One Item Per Application)

Copper tube, aluminum fin heat exchanger.

OTHER IDENTIFICATION (Model Number)

37AHB04508KAS, 37AHB06012KAS, 37AHB07514KAS & 37AHB09016KAS.

DESCRIPTION (Use Additional Sheets If Necessary)

Hydronic Air Handler.

INTENDED USE (Use Additional Sheets If Necessary)

To be installed with Rinnai tankless water heater for space heating for medium size residential and light commercial applications.

DATA SUBMITTED

Letter  Manual  Standards  Installation Instructions  Display Catalog

Reports  
 ICC - NES  
 BOCA - NES  
 ICBO  
 SBCC  
 NRB  
 Other

Product Sample or Model  
 Prior Approvals by Other Agencies  
 Recommendations by Model Code Bodies

LABORATORY TEST BY

Underwriters Laboratories (UL) & Intertek

PILOT SERVICE EXPERIENCE AND CONDITIONS (Use Additional Sheets If Necessary)

RESTRICTIONS FOR USE (Use Additional Sheets If Necessary)

For indoor installation only.

APPLICANT (Note: All correspondence will be sent to this address)

NAME OF COMPANY

Rinnai America Corporation

APPLICANT NAME

Donald Emen

ADDRESS

103 International Drive

CITY

Peachtree City

STATE

GA

ZIP CODE

30269

TELEPHONE NUMBER (Include Area Code)

(800) 621-9419

APPLICANT SIGNATURE (Must be an original signature)

*Donald Emen*

DATE

July 7, 2011

FAX NUMBER (Include Area Code)

(678) 829-1666



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENERGY, LABOR & ECONOMIC GROWTH  
LANSING

STEVEN H. HILFINGER  
DIRECTOR

April 20, 2011

Rinnai  
Mr. Donald Emen, Product Certification Engineer  
103 International Drive  
Peachtree, GA 30269

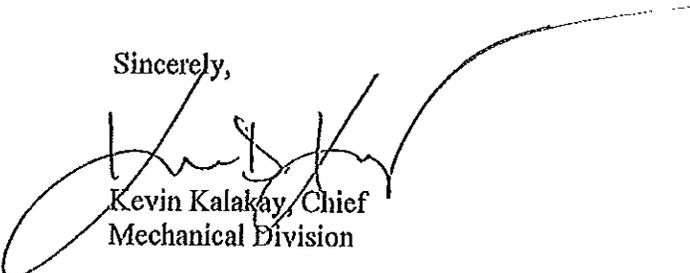
Mr. Emen,

I am in receipt of your letter of application for the Rinnai AHB-Series Hydronic Air Handlers. The current procedure for product approval requires that a Petition Application for Approval of Material, Product or Method be submitted, along with the required \$500.00 application fee. I have enclosed the application for your convenience.

Once the appropriate application and fees have been received, I will review the entire application.

Should you have any questions, please contact me at (517) 241-9325.

Sincerely,



Kevin Kalakay, Chief  
Mechanical Division

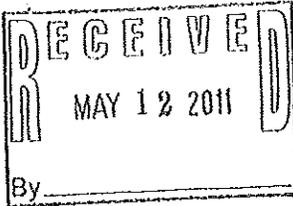
Enclosure

KDK/mb

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[www.michigan.gov/dleg](http://www.michigan.gov/dleg)

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**Petition Application for Approval of Material, Product or Method**  
 Michigan Department of Energy, Labor & Economic Growth  
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 P.O. Box 30255, Lansing, MI 48909  
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Agency Use Only

**Application Fee: \$500.00**

Authority: 1972 PA 230 Completion: Mandatory Penalty: Use of material, product or method will not be approved	DELEG is an equal opportunity employer/program. Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.
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**PRODUCT INFORMATION**

NATURE OF APPLICATION

Material                       Product                       Method of Manufacture or Construction                       Component

CODE UNDER WHICH APPROVAL IS SOUGHT

Building (140)                       Electrical (115)                       Mechanical (130)                       Plumbing (08)

NAME OF MATERIAL, PRODUCT OR METHOD OF MANUFACTURE (Limit To One Item Per Application)

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OTHER IDENTIFICATION (Model Number)

37AHB04508KAS, 37AHB06012KAS, 37AHB07514KAS & 37AHB09016KAS.

DESCRIPTION (Use Additional Sheets If Necessary)

Hydronic Air Handler.

INTENDED USE (Use Additional Sheets If Necessary)

To be installed with Rinnal tankless water heater for space heating for medium size residential and light commercial applications.

DATA SUBMITTED

<input checked="" type="checkbox"/> Letter <input checked="" type="checkbox"/> Manual <input checked="" type="checkbox"/> Standards <input checked="" type="checkbox"/> Installation Instructions <input type="checkbox"/> Display Catalog	Reports <input type="checkbox"/> ICC - NES <input type="checkbox"/> BOCA - NES <input type="checkbox"/> ICBO <input type="checkbox"/> SBCC <input type="checkbox"/> NRB <input type="checkbox"/> Other	<input type="checkbox"/> Product Sample or Model <input type="checkbox"/> Prior Approvals by Other Agencies <input type="checkbox"/> Recommendations by Model Code Bodies
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LABORATORY TEST BY

Underwriters Laboratories (UL) & Intertek

PILOT SERVICE EXPERIENCE AND CONDITIONS (Use Additional Sheets If Necessary)

RESTRICTIONS FOR USE (Use Additional Sheets If Necessary)

For indoor installation only.

**APPLICANT (Note: All correspondence will be sent to this address)**

NAME OF COMPANY		APPLICANT NAME	
Rinnal America Corporation		Donald Emen	
ADDRESS			
103 International Drive			
CITY	STATE	ZIP CODE	TELEPHONE NUMBER (Include Area Code)
Peachtree City	GA	30269	(800) 621-9419
APPLICANT SIGNATURE (Must be an original signature)		DATE	FAX NUMBER (Include Area Code)
			(678) 829-1666



State of Michigan  
 Dept of Licensing & Regulatory Affairs  
 Bureau of Construction Codes  
 PO Box 30254  
 Lansing MI 48909

Receipt Number: 113721-08

# Receipt of Purchase

Current Date 5/17/11

Company RINNAI

Individual \_\_\_\_\_

Check

Cash

Money Order

Check or Money Order # 278939

Amount Paid \$ 500.00

Account #	Description	Charges
130	MECH PRODUCT APPROVAL	\$ 500.00

Tran Info: 130 16898959-1 05/16/11  
 Chk#: 278939 Amt: 4500.00  
 ID: RINNAI

J. L. - Office of Mgmt Svs

Received By \_\_\_\_\_



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS  
BUREAU OF CONSTRUCTION CODES  
IRVIN J. POKE  
DIRECTOR

STEVEN H. HILFINGER  
DIRECTOR

**DOCUMENT NO. 12-15**

December 15, 2011

TO: Members of the Construction Code Commission

FROM: Robert G. Konyndyk, Chief, Plumbing Division 

SUBJECT: Wedi Shower System, BCCP-11-008

The applicant has requested product approval for the Wedi, Fundo Shower System to provide product acceptance through approval clarification.

**APPLICANT REPRESENTATIVE:**

Mr. Bastian Lohmann

**APPLICANT:**

Wedi Corporation  
1100 Landmeier Road  
Suite 200  
Elk Grove Village, IL 60007

**AUTHORITY:**

Section 21 of 1972 PA 230 being section 125.1521 of the Michigan Compiled Laws.

**PRODUCTS:**

Wedi Shower System  
Fundo, round conventional drain

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Members of the Construction Code Commission

Page 2

December 15, 2011

**APPLICATION:**

A waterproof (core) and pitched shower floor which is the ready upon installation. They come with water proof wall panels, curb, joint sealants, and fasteners. The system is made of extruded polystyrene foam core (DOW chemicals) and coated with a cement based resin on the surfaces.

**APPLICABLE CODE SECTION:**

Section 417.5 Shower floors or receptors and 417.5.2 Shower lining

**TEST REPORTS:**

SGS US Testing Company Inc. Test Report No. 574890 for conformance to IAPMO PS 46-2010

IAPMO Listed Product File No. 4953 May 2011, manufactured in compliance with IAPMO PS 46-2010

**APPROVAL BY OTHER AGENCIES:**

City of Los Angeles dated 11/01/2010

Common Wealth of Massachusetts dated May 3, 2011

**CONDITIONS OF USE AND INSTALLATION:**

1. All requirements of the Michigan Plumbing Code shall be applicable.
2. Installed in accordance with the manufacturer's installation instructions.

**RECOMMENDATION:**

The State Plumbing Board at their December 13, 2011 board meeting recommended the product to the commission for approval.

RGK/jll

# wedi® Fundo: The Total Solution

The wedi® Fundo Total Shower Solution is the industry's innovative application for constructing waterproof tiled showers. With its uncomplicated assembly process and ability to be tiled the same day, the system installs quickly and efficiently, reducing substrate preparedness from days to hours. Additionally, with being up to 80% less weight than conventional shower methods, the wedi® system offers the advantage of constructing sustainable showers without threatening a building's structural properties.

The wedi® Fundo base is composed of a closed cell extruded polystyrene foam, giving it a 100% waterproof core. The foam is coated in modified cement slurry and fiberglass mesh for exceptional strength and durability. With products available in a kit or separately to fit a variety of standard sizes, the Fundo bases can be easily cut to size or extended using pre-sloped extension panels to fit any custom shower application.

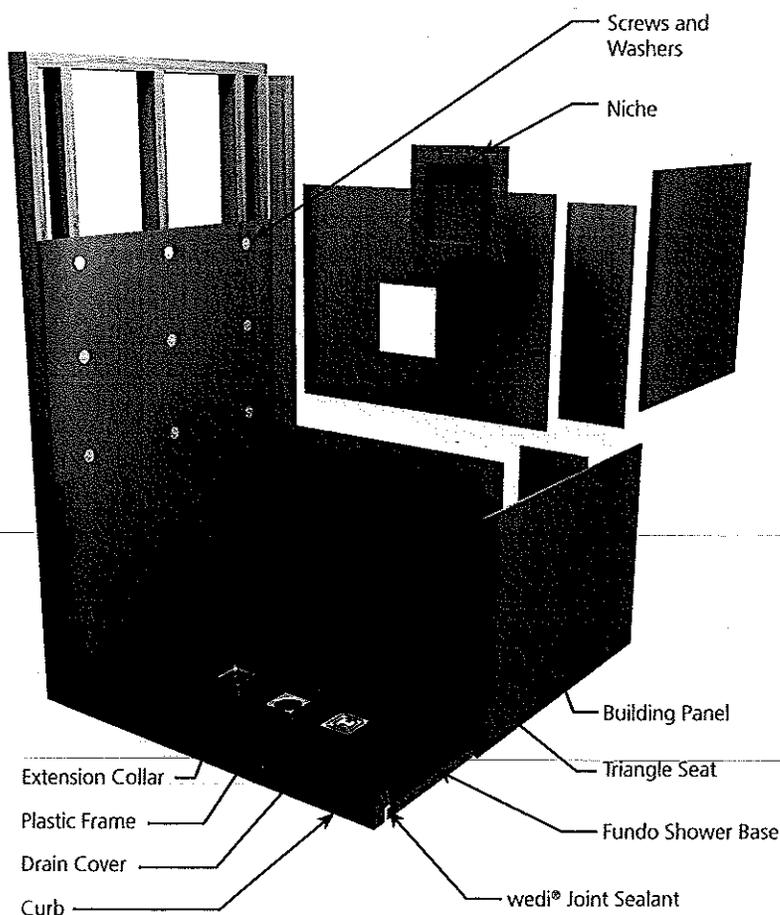
Approved by the International Association of Plumbing and Mechanical Officials (IAPMO) to meet the most current requirements of the Uniform Plumbing Code (UPC) and the International Plumbing Code (IPC), wedi's Fundo Shower System is in a league of its own.

## Fundo Shower Base standard sizes

Square, center drain	*36" x 36" incl. drain
	*48" x 48" incl. drain
	60" x 60" incl. drain
	72" x 72" incl. drain
Rectangular, center drain	*36" x 48" incl. drain
	*36" x 60" incl. drain
	*48" x 60" incl. drain
	*48" x 72" incl. drain
	60" x 72" incl. drain
	48" x 84" incl. drain
	60" x 84" incl. drain
Rectangular, offset drain	*36" x 72" incl. drain

\*All kits sizes come with the following: Fundo base with drain assembly and drain cover, building panels for 80" of wall space, full foam curb, wedi® Joint Sealant, fasteners and washers.

## Fundo Shower Kit



## wedi® Building Panels

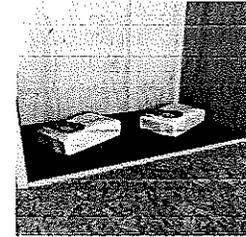
wedi® Building Panels are the industry standard for single step waterproof installation over framework, thanks to superior versatility, ease of installation, thermal insulation and water impermeability.

Installed directly to stud walls and sealed with wedi® Joint Sealant, the hassle of heavy cement boards with skim-coated joints and multiple applications of liquid membrane for waterproof walls and floors are no longer necessary. Save time, energy, and the risk of a failure with a top coat application...choose wedi® Building Panels for all wet areas.

Standard sizes	XL & XXL Sizes
Length x Width x Thickness	Length x Width x Thickness
3' x 5' x 1/4"	3' x 8' x 1/2"
3' x 5' x 1/2"	3' x 8' x 2"
2' x 4' x 1/8"	4' x 8' x 1/2"
2' x 8' x 5/8"	4' x 8' x 2"
2' x 8' x 1"	
2' x 8' x 3/4"	
2' x 8' x 1 1/4"	
2' x 8' x 1 1/2"	
2' x 8' x 2"	

**Tools & Materials**

- Bucket
- Notch Trowel
- Drill with Thinset Mixer
- Utility Knife
- Straight Edge/T-Square 5 ft. or longer
- Speed Square
- Caulk Gun
- Handsaw
- Flat Head Screwdriver
- Screw Gun
- Solid Putty Knife
- Paper Towels
- Level
- Circular Saw
- Saw Horse
- Tape Measure
- Permanent Marker
- Extension Cord for Power tools

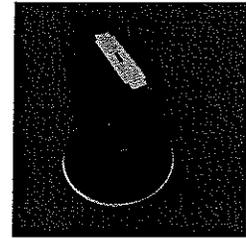


9) Press the Fundo firmly into the thinset bed, ensuring that the installation is level and void free. Apply weight (thinset bags) equally across the Fundo

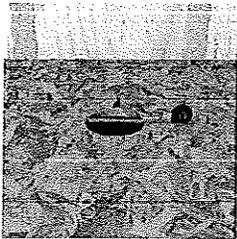
**Installing wedi® Fundo Shower Base onto wooden floors**

**Before Installation**

- Have (2) 2 x 4's installed below the studs (horizontally/on floor) to back the bottom of wedi® wall assembly.
- Subfloor is sound, level and meets deflection criteria.
- 2" PVC or ABS pipe should be cut flush or 1/8" (maximum) above subfloor surface.
- 2" drain assembly below floor is stabilized and will not sink under water load.
- Only wedi® products (Building Panels, Curb, Joint Sealant and Fasteners) are used for wedi® Fundo Shower System assembly.
- Installer has received instructions from wedi® technical sales staff or is informed about proper installation methods as described.

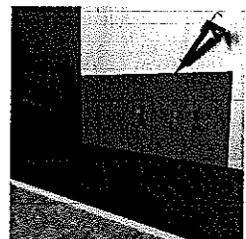
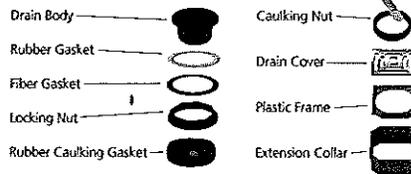


10) Tighten (squeeze) the rubber caulking gasket firmly with the caulking nut (use a flat head screwdriver).

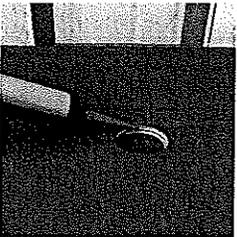


1) Cut the 2" pipe flush or 1/8" (maximum) above subfloor surface. Make sure that the cut out fits to the Fundo panel drain. Cut out a 5" diameter hole around the 2" pipe to allow the wedi® drain to be inserted into the subfloor. The drain and trap must be securely fastened to the subfloor.

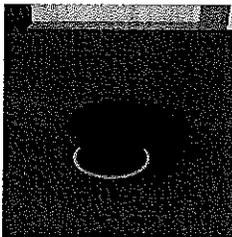
2) Review drain assembly materials. Assemble the drain unit following the instruction drawing.



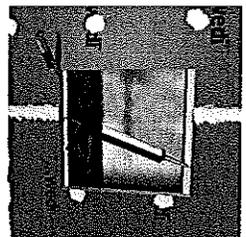
13) Install the wedi® panels around the Fundo, fixed and sealed in the Fundo channel's bead of sealant. Fasten the panels directly to the studs using one wedi® fastener per foot. One extra fastener is set in between seams of panels to create a flush transition.



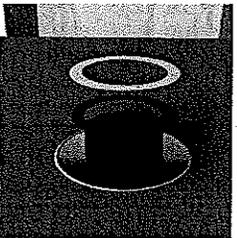
3) Set up a continuous 1/4" bead of wedi® Joint Sealant along the top side of the wedi® Fundo's valve groove profile.



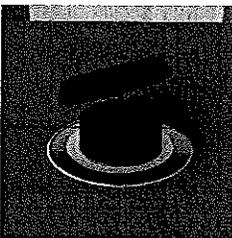
4) Drop the drain body firmly into the sealant.



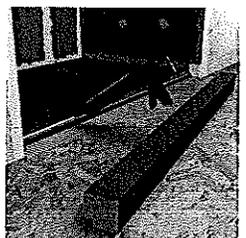
15) wedi® Niches are installed in a cut out in the wedi® wall and attached with its flange right into the center of 16 o.c. studs. wedi® Joint Sealant is set along the connection of wall to niche



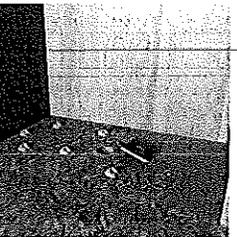
5) Turn the Fundo base upside down and apply the rubber and the fiber gaskets.



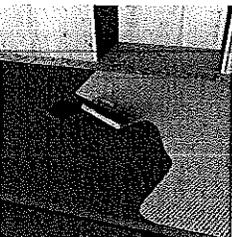
6) Tighten the gaskets firmly to the base's steel ring using the locking nut. Make sure the drain body is still firmly seated in the valve-bead of sealant; smooth out excess sealant.



17) Apply a 1/2" bead of wedi® Joint Sealant to the curbside channel of the Fundo Shower Base, the 1/2" channel on the curb, and to the wall where the curb will butt tight to the existing wall panel.



7) \*Skim coat the thinset (ANSI A118.4) and comb through with a 1/4" x 1/4" notch trowel. Channels pointing to the entrance.



8) Trowel the thinset on the bottom side of the Fundo again using a 1/4" x 1/4" notch trowel.

**After Installation**

• Using a 2" drain plug, the wedi® pressure fit drain/sealing gasket is water tested prior to ceramic tile installation.

\* Dry fit the Fundo base to the shower subfloor and drain opening. If the Fundo base needs to be trimmed, contact wedi® technical assistance at 1-877-357-9815 or go to [www.wedicorp.com](http://www.wedicorp.com) to watch an installation video for proper cutting instructions.



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS  
BUREAU OF CONSTRUCTION CODES  
IRVIN J. POKE  
DIRECTOR

STEVEN H. HILFINGER  
DIRECTOR

Document No. 12-05

January 4, 2012

**TO:** Members of the Construction Code Commission  
**FROM:** Todd Y. Cordill, NCARB Chief, Plan Review Division

**SUBJECT:** **Compliance Assurance No. 533**  
Certificate of Acceptability  
Schweitzer Engineering Laboratories Inc  
2401 Whitehall Park Drive, Suite 200  
Charlotte, North Carolina 28273

The above manufacturer has submitted a Compliance Assurance Program and appropriate fees. The inspection and evaluation agency has been previously certified by the Construction Code Commission. The Plan Review Division has evaluated the submission for compliance with Rules 1161 through 1168 and recommends that the Commission issue a Certificate of Acceptability, in accordance with Sections 4 and 19 of 1972 PA 230, MCL 125.1504, and the General Rules, Part 11 Premanufactured Units, Rule 1132(1).

TYC/mt

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DIRECTOR

STEVEN H. HILFINGER  
DIRECTOR

DOCUMENT # 12-06

January 4, 2012

TO: Members of the Construction Code Commission

FROM: Todd Y. Cordill, NCARB *Todd Y. Cordill*

SUBJECT: Request for Interpretation by Harry A. Lewis, RA  
2009 Michigan Building Code MBC Section 3202.2

Question: When MBC Section 1008.1.2 requires egress doors to swing in the direction of egress travel and the exit discharge through such doors is to a public right-of-way, does MBC Section 3202.2 prohibit exit doors from encroaching into the public right-of-way?

Answer: Yes.

Discussion: The intent of MBC Section 3202.2 is that encroachments above grade and below 8 feet in height are prohibited such that hazards to health and safety are not created in the right-of-way.

MBC Section 3202.2 states:

Encroachments into the public right-of-way above grade and below 8 feet in height shall be prohibited except as provided for in sections 3202.2.1 through 3202.2.3. Doors and windows shall not open or project into the public right-of-way.

A zoning ordinance adopted by a local unit of government cannot supercede the MBC regarding the means of egress and exit location from a building. This is in accordance with the definition of "construction regulation" in Section 2a (m) of 1972 PA 230, the Stille-Derossett-Hale Single State Construction Code Act. The definition of "construction regulation" is: *means a law, act, rule, regulation, or code, general or special, or compilation thereof, relating to the design, construction, or use of buildings and structures and the installation of equipment in the building or structure. Construction regulation does not include a zoning ordinance and related to zoning.* Construction regulation is the exclusive purview of the Michigan Building Code for encroachments of an exit door into a public right-of-way.

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RECEIVED

August 4, 2011

AUG 08 2011

Todd Dordill, Chief of Plan Review  
Michigan Construction Code Commission  
PO Box 30254  
Lansing, MI 48909

BUREAU OF CONSTRUCTION CODES  
PLAN REVIEW DIVISION

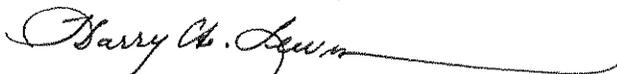
Subject: **MBC codes interpretation**

Dear Mr. Dordill,

Where conditions require egress doors to swing in the direction of travel under Chapter 10 (Means of Egress), and where discharge through such doors is to a public right-of-way, based on Chapter 32 (Encroachments into the Public Right-of-Way) shows under Section 3202.2 that "doors and windows shall not open or project into the public right-of-way." I have contended that this also includes exits doors that must swing outward as stated. I have also contended that zoning ordinances requiring buildings to be aligned with right of ways does not take precedence over the Code relative to the above.

I herewith request an interpretation of the MBC as it pertains to the above.

Respectfully,

  
Harry A. Lewis, R.A.