



CONSTRUCTION PERMIT APPLICATION

Applicant Completes: Sections I, II, III (optional), IV, VI, and VII

C17-000914

I. IDENTIFICATION

1. Proposed Work Site at: **1672 Forge Pond Road, Brick, NJ 08724**

2. Name of Owner in Fee: **Joseph Fili**

Tel. _____ e-mail _____

Address **1672 Forge Pond Road** **Brick, NJ** **08724**

3. Ownership in Fee: Public _____ Private ☒ Municipality _____ zip code _____

4. Principal Contractor: **Allied Construction LLC** Tel. **(856) 528-2822**

Address **100 Dobbs Lane** e-mail **karen.h@alliedconstruct.**

Cherry Hill, NJ 08034

License No. OR, if new home, Builder Reg. No. _____ Exp. Date **03/31/2017**

Home Improvement Contractor Registration No. or Exemption Reason **13VH062202**

Federal Emp. ID No. **274623527** FAX: **(856) 528-2823**

5. Architect or Engineer _____ Contact _____

Address _____ e-mail _____

Tel. _____ FAX: _____

6. Responsible Person in Charge once Work has Begun **Karen Heinze**

Tel. **(856) 528-2822** FAX: **(856) 528-2823**

V. FEE SUMMARY (for office use only)		Update	Update
1. Building	\$ 150		
2. Electrical	\$ 150		
3. Plumbing			
4. Fire Protection			
5. Elevator Devices			
6. Subtotal MECH	\$ 200		
7. Less 20% for State Plan Review	\$		
8. Subtotal	\$		
9. State Permit Surcharge Fee	\$ 19		
10. Subtotal	\$		
11. Cert. of Occupancy			
12. Other			
13. TOTAL	\$		

VI. BUILDING/SITE CHARACTERISTICS

1. Number of Stories _____

2. Height of Structure _____ ft.

3. Area — Largest Floor _____ sq. ft.

4. New Building Area _____ sq. ft.

5. Volume of New Structure _____ cu. ft.

6. Max. Live Load _____

7. Max. Occupancy Load _____

8. If Industrialized Building: State Approved _____ HUD _____

9. Total Land Area Disturbed _____ sq. ft.

10. Flood Hazard Zone _____

11. Base Flood Elevation _____ ft.

12. Wetlands yes _____ no _____

(office use only)

IIa. PROPOSED WORK

☐ Minor Work ☐ New Building ☐ Addition ☐ Demolition

☐ Repair ☐ Alteration ☒ Renovation ☐ Reconstruction

☐ Asbestos Abat. -Subch. 8 ☐ Lead Hazard Abatement ☐ Radon Remediation ☐ Annual Permit

IIb. SUBCODES
(Check all that apply)

	Est. Cost	Plans Rec'd by	Date Rec'd	Rejection Date	Approval Date	Re-viewer	Resubmission Dates Approval	Rejection	Re-viewer
☒ Building	7,500								
☒ Electrical	4,000								
☐ Plumbing									
☐ Fire Protection									
☐ Elevator									
TOTAL COST	\$6,500								

VII. DESCRIPTION OF BUILDING USE

A. RESIDENTIAL (primary use)

1. State Specific Use: _____

2. Use Group, Proposed: **Select Group**

3. Change in Use Group, Indicate Present: **Select Group**

4. No. of dwelling units: **Total Units** **Income-restricted**

Gained, Sale _____

Gained, Rental _____

Lost, Sale _____

Lost, Rental _____

B. NON-RESIDENTIAL (primary use)

1. State Specific Use: _____

2. Use Group, Proposed: **Select Group** **Select Group**

3. Change in Use Group, Indicate Present: **Select Group**

C. MIXED USE -List secondary use(s): _____

D. Construct. Classification: Present _____ Proposed _____

III. PLAN REVIEW (optional)

DO YOU WANT:

1. ☐ Partial Releases

2. ☐ Prototype Processing

IV. DOES OR WILL YOUR BUILDING CONTAIN ANY OF THE FOLLOWING?

1. ☐ Elevators/Escalators/Lifts/ Dumbwaiters/Moving Walks

2. ☐ High Pressure Boilers

3. ☐ Pressure Vessels

4. ☐ Refrigeration Systems

5. ☐ Cross-Connections/Backflow Preventers

6. ☐ Hazardous Uses/Places of Assembly

7. ☐ Sprinklers/Standpipes

8. ☐ Smoke Control Systems in Open Wells

9. ☐ Underground Storage Tanks

10. ☐ Swimming Pools, Spas and Hot Tubs

11. ☐ LPGas Tanks

12. ☐ Fire Alarm

CERTIFICATION IN LIEU OF OATH

I. OWNER SECTION (to be completed if the applicant is the owner in fee)

I hereby certify that I am the owner in fee of the property listed on Page 1.

Mark the following applicable boxes:

- A. ☐ I further certify that a new home (private residence) will be constructed on this property for my own use and occupancy. This dwelling is to be occupied by myself and is not to be used for any purpose other than single family residential use. I attest that all construction, plumbing, or electrical work will be done, in whole or in part, by me or by subcontractors under my supervision, in accordance with all applicable laws; and, I further acknowledge that said new home is not covered under the New Home Warranty and Builders Registration Act (N.J.S.A. 46:3B-1 et seq.) and that such fact shall be disclosed to any person purchasing this property within ten years of the date of issuance of a certificate of occupancy.

I UNDERSTAND THAT IN MARKING BOX A, I ACKNOWLEDGE THAT I AM ASSUMING RESPONSIBILITY FOR THE WORK DONE ON SAID PROPERTY, THE CONDITION OF THE PROPERTY PRIOR TO, DURING, AND AFTER ANY WORK PERFORMED, AND FOR THE PERFORMANCE OF THE SUBCONTRACTORS I HIRE, EMPLOY, OR OTHERWISE CONTRACT OR WITH WHOM I MAKE AGREEMENTS TO PERFORM WORK. I AM VOLUNTARILY AND KNOWINGLY ASSUMING THIS RESPONSIBILITY.

- B. ☐ I further certify the following as required by the New Jersey Uniform Construction Code, N.J.A.C. 5:23-2.15(f)1.ix:

I personally prepared the plans submitted for: 1) the new home referred to in A.; or, 2) an addition, alteration, renovation, or repair to an existing single family residence owned and occupied by myself and located on the property listed on Page 1; or, 3) a new structure that will be physically separate from, but that will be deemed part of, an existing single family residence that is owned and occupied by myself and located on the property listed on Page 1.

- C. ☐ I further certify that I will perform or supervise the following work:

C.1. ☐ Building C.2. ☐ Fire Protection

I further certify that I will perform the following work:

C.3. ☐ Electrical C.4. ☐ Plumbing

- D. ☐ I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals, including such certification as the construction official may require, have been given or will be given prior to permit issuance.

I understand that if any of the above statements are willfully false, I am subject to punishment.

Signature _____ Date _____

II. AGENT SECTION (to be completed if the applicant is not the owner in fee)

I hereby certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(d): the proposed work is authorized by the owner in fee; and I have been authorized by the owner in fee to make this application as his agent.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals, including such certification as the construction official may require, have been given or will be given prior to permit issuance.

I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I understand that if any of the above statements are willfully false, I am subject to punishment.

☒ Check if contractor.

Agent Name Allied Construction LLC

Address 100 Dobbs Lane

Cherry Hill, NJ 08034

Telephone (856) 528-2822

Signature [Signature]

- III. ☐ LEAD HAZARD ABATEMENT: Include Homeowner or Building Owner Affidavit as per N.J.A.C. 5:23-2.15(b)4.

- IV. ☐ HOME ELEVATION: Include Home Elevation Contractor Certification as per N.J.S.A. 52:27D-123.16.



Brick Township
401 Chambersbridge Rd
Brick, NJ 08723

Date Issued 4/28/2017
Control Number C-17-000914
Permit Number 17-0763
Permit Issue Date 3/14/2017
Certificate Number 17-0763

Certificate

Construction Code Division
(Certificate of Approval)

Identification

Work Site Location: 1672 FORGE POND RD. Brick Township, NJ Block: 838 Lot: 16 Qual: _____
Owner in Fee: FILI, JOSEPH
Owner Address: 1672 FORGE POND RD BRICK NJ 08724
Telephone: [REDACTED]
Contractor ALLIED CONSTRUCTION GROUP
Address 100 DOBBS LANE SUITE 102 CHERRY HILL NJ 08034
Telephone: (856) 258-6216 Fax: (856) 528-2823
License Number or Builders Registration Number: 34EB01653400 Federal Emp. Number: _____
13VH06220200
36BI01261500
36B101323400

Home Warranty Number: _____

Type of Warranty Plan: ☐ State ☐ Private

Use Group: R-5 Construction Classification: _____

Maximum Live Load: 0 Maximum Occupancy Load: 0

Description of Work/Use: AIR CONDITIONER, BOILER

Certificate Comments:

☐ **Certificate of Occupancy**

This serves notice that said building or structure has been constructed in accordance with the New Jersey Uniform Construction Code and is approved for occupancy.

☒ **Certificate of Approval**

This serves notice that the work completed has been constructed or installed in accordance with the New Jersey Uniform Construction Code and is approved. If the permit was issued for minor work, this certificate was based upon what was visible at the time of inspection.

☐ **Certificate of Clearance - Lead Abatement 5:17**

This serves notice that based on written certification, lead abatement was performed as per NJAC5:17 to the following extent.

- ☐ Total removal of lead-based paint hazards in scope of work
☐ Partial or limited time period (years); see file

☐ **Certificate of Clearance - Asbestos Abatement**

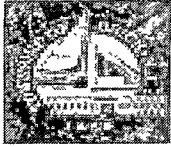
This serves notice that based on written certification, asbestos abatement was performed to the following extent.

Construction Official

Fee: \$0.00

Check Number: _____

Collected By: _____



Brick Township
401 Chambersbridge Rd
Brick, NJ 08723

Date Issued 4/28/2017
Control Number C-17-000914
Permit Number 17-0763
Permit Issue Date 3/14/2017
Certificate Number 17-0763

Certificate

Construction Code Division

(Certificate of Approval)

☐ **Certificate of Continued Occupancy**

This serves notice that based on a general inspection of the visible parts of the building there are no imminent hazards and the building is approved for continued occupancy.

☐ **Temporary Certificate of Compliance**

The following conditions must be met no later than or the owner will be subject to fine or order to vacate:

This certificate has an expiration date of:

Conditions to be met:

☐ Total removal of asbestos hazards in scope of work

☐ Partial or limited time period (years); see file

☐ **Certificate of Compliance**

This serves notice that said potentially hazardous equipment has been installed and/or maintained in accordance with the New Jersey Uniform Construction Code and is approved for use until

☐ **Temporary Certificate of Occupancy**

The following conditions must be met no later than: or the owner will be subject to fine or order to vacate:

This certificate has an expiration date of:

Conditions to be met:

Construction Official

Date Printed: 4/28/2017

U.C.C. F260 (rev. 08/05)

Fee: \$0.00

Check Number: _____

Collected By: _____

Page 2



MECHANICAL INSPECTOR TECHNICAL SECTION



A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 838 Lot 16 Qualification Code _____
Work Site Location 1672 Forge Pond Road, Brick, NJ 08724

Owner in Fee: Joseph Fili

Tel. _____ e-mail _____

Address 1672 Forge Pond Road Brick, NJ 08724

Contractor: Michael Wilson T/A Allied Construction LLC Tel. (856) 528-2822

Address 100 Dobbs Lane, Suite 102 e-mail karen.h@alliedconstruct.co

Cherry Hill, NJ 08034

Contractor License No. or Builder Registration No. _____ Exp. Date 03/31/2018

Home Improvement Contractor Registration No. or Exemption Reason 13VH062202

Federal Emp. ID No. 274623527 FAX: (856) 528-2823

B. MECHANICAL CHARACTERISTICS

Use Group Present: _____ Proposed: _____
Heating System work: [] New OR [] Modification to Existing OR [] Conversion OR [x] Replacement

Type: [] Hydronic [] Hot Air

Fuel Type: [x] Gas [] Oil [] Electric [] Solar [] Other _____

Estimated Cost of Mechanical Work \$ 4,000

JOB SUMMARY (Office Use Only)		INSPECTIONS		DATES		
PLAN REVIEW		Type:	Failure	Failure	Approval	Initial
[] No Plans Required		Gas Piping				
[x] Mechanical Plans Approved		Appliance				
Date: _____ Approved by: _____		Chimney/Vent				
Joint Plan Review Required:		Oil Piping				
[] Bldg. [] Elec. [] Plumb. [] Fire		Oil Tank				
[] Elev.		LPG Tank				
SUBCODE APPROVAL for PERMIT		Hydronic Piping				
Date: _____		Fireplace				
Approved by: _____		Chimney Cert.				
SUBCODE APPROVAL for CERTIFICATE		Other: <u>EMHC 3-28-17</u>				
[] CA [] CCO						
Date: <u>4-17-17</u>						
Approved by: _____						

Date Received
Control #
Date Issued
Permit #

3/4/17
17-0763

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

Sign here: _____

Print name here: Michael Wilson

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK

Replacement of CombiBoiler and AC

NO.	FIXTURE/EQUIPMENT
_____	Water Heater
_____	Fuel Oil Piping Connections
_____	Gas Piping Connections
_____	Steam Boiler
_____	Hot Water Boiler
_____	Hot Air Furnace
_____	Oil Tank
_____	LPG Tank
_____	Fireplace
_____	Other <u>all A/C</u>

FEE (Office Use Only)

\$ _____

Administrative Surcharge \$ _____
Minimum Fee \$ _____
State Permit Surcharge Fee \$ _____
TOTAL FEE \$ _____



ELECTRICAL SUBCODE TECHNICAL SECTION



A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 838 Lot 16 Qualification Code 1672 Forge Pond Rd, Brick, NJ 08724
Work Site Location

Own Tasha E. P.
Tel. [REDACTED]

Address 1672 Forge Pond Rd Brick, NJ 08724
street municipality zip code

Contractor: J & Z Electrical Solutions, LLC Tel. (856) 528-2822

Address 100 Dobbs Lane, Suite 102 e-mail karen.h@alliedconstruct.co

Cherry Hill, NJ 08034

Contractor License No. 34E101795800 Exp. Date 03/31/2018

Home Improvement Contractor Registration No. or Exemption Reason 13VH062202

Federal Emp. ID No. 274623527 FAX: (856) 528-2823

B. ELECTRICAL CHARACTERISTICS

Use Group Present Proposed

[] Pole/Pad # [] Temporary [] Other

Building Occupied as Utility Co.

Est. Cost of Elec. Work \$ 4,000

JOB SUMMARY (Office Use Only)		INSPECTIONS		Dates (Month/Day)	
PLAN REVIEW		Type:	Failure	Failure	Approval Initial
[] No Plans Required		Rough			
[] Partial Underslab Utilities Approved		Barrier-Free			
Date:	Approved by:	Trench			
[] Electric Plans Approved		Temp. Serv.			
Date:	Approved by:	Constr. Serv.			
Joint Plan Review Required:		TCO			
[] Bldg. [] Plumb. [] Fire. [] Elev.		Other			
SUBCODE APPROVAL for PERMIT		Service			
Date:	Approved by:	Final	<u>3-28-17</u>		<u>4-17-17</u>
SUBCODE APPROVAL for CERTIFICATE		Barrier-Free			
[] CO [] CCO [] CA		Temp. Cut-in-Card			
Date:	Approved by:	Final Cut-in-Card			
Annual Pool Inspection					
Date of Grounding and Bonding Certification					

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application and perform the work listed on this application.

Applicant sign/Contractor sign and seal here: [Signature]

Print name here: Stuart A Emmons

☒ Licensed Elec. Contractor [] Certif'd Landscape Irrigation Contr'r [] Exempt Applicant

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK: Replacement A/C, & Combi Boiler

QTY.	SIZE	ITEMS	FEE (Office Use Only)
		Lighting Fixtures	
		Receptacles	
		Switches	
		Detectors	
		Light Poles	
		Motors—Fract. HP	
		Emergency & Exit Lights	
		Communications Points	
		Alarm Devices/F.A.C. Panel	
		TOTAL NUMBERS	\$
		Pool Permit/with UW Lights	
		Storable Pool/Spa/Hot Tub	
		KW Elec. Range/Receptacle	
		KW Oven/Surface Unit	
		KW Elec. Water Heater	
		KW Elec. Dryer/Receptacle	
		KW Dishwasher	
		HP Garbage Disposal	
1	3	KW Central A/C Unit	
1	1	HP/KW Space Heater/Air Handler	
		KW Baseboard Heat	
		HP Motors 1+ HP	
		KW Transformer/Generator	
		AMP Service	
		AMP Subpanels	
		AMP Motor Control Center	
		KW Elec. Sign/Outline Light	
1		Boiler Reconnect	

Administrative Surcharge \$
Minimum Fee \$
State Permit Surcharge Fee \$
TOTAL FEE \$



3/14/17

17-6763

Block **838** Lot **16** Qualification Code _____
Work Site Location **1672 Forge Pond Road, Brick, NJ 08724**

Federal Emp. ID No. 274623527 FAX: (856) 528-2823

D. TECHNICAL SITE DATA

Attic: Add 13 inches of blown fiberglass to 6 inches of fiberglass batt for R-Value 54

PLAN REVIEW			Date	Initial	INSPECTIONS		Dates (Month/Day)		
☐] No Plans Required	_____	_____	_____	_____	Type:	Failure	Failure	Approval	Initial
☐] All	_____	_____	_____	_____	Footing	_____	_____	_____	_____
☐] Footings/Foundations	_____	_____	_____	_____	Footing Bonding	_____	_____	_____	_____
☐] Structural/Framework	_____	_____	_____	_____	Foundation	_____	_____	_____	_____
☐] Exterior	_____	_____	_____	_____	Slab	_____	_____	_____	_____
☐] Interior	_____	_____	_____	_____	Frame	_____	_____	_____	_____
Joint Plan Review Required:					Truss Sys./Bracing	_____	_____	_____	_____
					Barrier-Free	_____	_____	_____	_____
☐] Elec.	☐] Plumb.	☐] Fire	☐] Elevator	_____	Insulation	_____	_____	_____	_____
SUBCODE APPROVAL for PERMIT					Finishes -Base Layer	_____	_____	_____	_____
Date: _____					Finishes -Final	_____	_____	_____	_____
Approved by: _____					Energy	_____	_____	_____	_____
SUBCODE APPROVAL for CERTIFICATE					Mechanical	_____	_____	_____	_____
☐] CO	☐] CCO	☒] CA	_____	_____	TCO	_____	_____	_____	_____
Date: _____					Other	_____	_____	_____	_____
Approved by: _____					Final	_____	_____	_____	_____
					Barrier-Free	_____	_____	_____	_____

Max. Occupancy Load _____ U C C. F110 (rev. 11/09)

☐ New Building
☐ Addition
☒ Rehabilitation
☐ Roofing
☐ Siding
☐ Fence _____ Height (exceeds 6')
☐ Sign _____ Sq. Ft.
☐ Pool
☐ Retaining Wall _____ Sq. Ft.
☐ Asbestos Abatement Subchapter 8
☐ Lead Haz. Abatement NJAC 5:17
☐ Radon Remediation
☐ Other _____
☐ Demolition

[illegible]

Administrative Surcharge	\$	<u> </u>
Minimum Fee	\$	<u> </u>
State Permit Surcharge Fee	\$	<u> </u>
TOTAL FEE	\$	<u> </u>



Date Issued _____
Control # C-17-000914
Permit # _____
17-0763

IDENTIFICATION	Block: <u>838</u>	Lot: <u>16</u>	Qualifier	
Work Site Location:	<u>1672 FORGE POND RD. Brick Township, NJ</u>		Contractor	<u>ALLIED CONSTRUCTION GROUP</u>
			Address	<u>100 DOBBS LANE SUITE 102 CHERRY HILL NJ 08034</u>
Owner in Fee	<u>FILI, JOSEPH</u>			
	<u>1672 FORGE POND RD BRICK NJ 08724</u>		Telephone	<u>(856) 258-6216</u>
			Lic. No. or Bldrs. Reg. No.	<u>36BI01261500 13VH06220200</u>
Telephone:	<u>[REDACTED]</u>		Federal Employee. No.	<u>24ED01652400 36BI01261500</u>

☒ BUILDING ☐ PLUMBING ☐ LEAD HAZARD ABATEMENT

☒ ELECTRICAL ☐ FIRE PROTECTION ☐ DEMOLITION

☐ ELEVATOR DEVICES ☐ ASBESTOS ABATEMENT
(Subchapter 8 only) ☒ OTHER

AIR CONDITIONER, BOILER

Estimated Cost of Work \$9,500

Construction Official

Date _____

U.C.C. F170
equiv (rev 1/04)

1 WHITE - INSPECTOR

2 CANARY - OFFICE

3 PINK - TAX ASSESSOR

SUB: 4 GOLD - APPLICANT	6 20 00
ELZ: 200	4 00 00
KEEP:	4 00 00
SD:	1 00 00

REQUIRED INSPECTIONS

Construction work must be inspected in accordance with the State Uniform Construction Code Regulations N.J.A.C. 5:23-2.18. This agency will carry out such periodic inspections during the progress of work as are necessary to insure that the work installed conforms with the requirements of the Uniform Construction Code.

The owner or other responsible person in charge of work must notify this agency when work is ready for any required inspections specified below. Requests for inspections must be made at least 24 hours prior to the time the inspection is desired. Inspections will be performed within three business days of the time for which they are requested. The work must not proceed in a manner which will preclude the inspection until it has been made and approval granted.

- ☒ Required inspections for all subcodes for one- and two-family dwellings are as follows:
1. The bottom of footing trenches before placement of footings, except that in cases of pile foundations, inspections shall be made in accordance with the requirements of the building subcode.
 2. Foundations and all walls up to grade level prior to back filling.
 3. All structural framing, connections, wall and roof sheathing and insulation; electrical rough wiring, panel and service installation; rough plumbing. The framing inspection shall take place after the rough electrical and plumbing inspections and after the installation of the heating, ventilation and /or air conditioning duct system. The insulation inspection shall be performed after all other subcode rough inspections and prior to the installation of any interior finish material.
 4. Installation of all finished materials, sealings of exterior joints, plumbing piping, trim and fixtures; electrical wiring, devices and fixtures; mechanical systems equipment.

Additional required inspections for all subcodes of construction, for other than one- and two-family dwellings, are fire suppression systems, heat producing devices and Barrier Free subcode accessibility, if applicable.

- ☐ Required special inspections The applicant by accepting the permit will be deemed to have consented to these requirements:

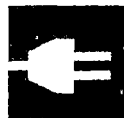
- ☒ A final inspection is required for each applicable subcode area before a final Certificate of Occupancy or Approval may be issued. The final inspections include the installation of all interior and exterior finish materials, sealing of exterior joints, mechanical system and other required equipment, electrical wiring, devices and fixtures; plumbing pipes, trim and fixtures; tests required by any provision of the adopted subcodes, Barrier Free accessibility, if applicable; and verification of compliance with NJAC 5:23-3.5, "Posting structures".

- ☐ A complete copy of released plans must be kept on the job site.

If you do not understand any of this information, please ask



ELECTRICAL SUBCODE TECHNICAL SECTION



Date Received
Control #
Date Issued
Permit #

3/14/17
17-0763

A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 838 Lot 16 Qualification Code _____
Work Site Location 1672 Forge Road Rd, Brick NJ 08724

Owner in Fee: JOSEPH F. P.

Tel. _____ e-mail _____

Address 1672 Forge Road Rd Brick NJ 08724
street municipality zip code

Contractor J & Z Electrical Solutions, LLC Tel. (856) 528-2822

Address 100 Dobbs Lane, Suite 102 e-mail karen.h@alliedconstruct.co
Cherry Hill, NJ 08034

Contractor License No. 34E101795800 Exp Date 03/31/2018

Home Improvement Contractor Registration No. or Exemption Reason 13VH062202

Federal Emp ID No 274623527 FAX: (856) 528-2823

B. ELECTRICAL CHARACTERISTICS

Use Group Present _____ Proposed _____

[] Pole/Pad # _____ [] Temporary [] Other _____

Building Occupied as _____ Utility Co. _____

Est. Cost of Elec. Work \$ 4,000

JOB SUMMARY (Office Use Only)		INSPECTIONS		Dates (Month/Day)	
PLAN REVIEW		Type	Failure	Failure	Approval Initial
[] No Plans Required		Rough			
[] Partial -Underslab Utilities Approved		Barrier-Free			
Date _____ Approved by _____		Trench			
[] Electric Plans Approved		Temp. Serv.			
Date: _____ Approved by _____		Constr. Serv.			
Joint Plan Review Required:		TCO			
[] Bldg [] Plumb. [] Fire. [] Elev		Other			
SUBCODE APPROVAL for PERMIT		Service			
Date: _____		Final			
Approved by _____		Barrier-Free			
SUBCODE APPROVAL for CERTIFICATE		Temp. Cut-in-Card Date Issued			
[] CO [] CCO [] CA		Final Cut-in-Card Date Issued			
Date: _____		Annual Pool Inspection			
Approved by: _____		Date of Grounding and Bonding			
		Certification			

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application and perform the work listed on this application.

Applicant sign/Contractor sign and seal here: [Signature]

Print name here: Stuart A Emmons

☒ Licensed Elec Contractor [] Certif'd Landscape Irrigation Contr'r [] Exempt Applicant

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK
Replacement A/C, & Combi Boiler

QTY.	SIZE	ITEMS	FEE (Office Use Only)
_____	_____	Lighting Fixtures	_____
_____	_____	Receptacles	_____
_____	_____	Switches	_____
_____	_____	Detectors	_____
_____	_____	Light Poles	_____
_____	_____	Motors—Fract HP	_____
_____	_____	Emergency & Exit Lights	_____
_____	_____	Communications Points	_____
_____	_____	Alarm Devices/FAC Panel	_____
_____	_____	TOTAL NUMBERS	\$ _____
_____	_____	Pool Permit/with UW Lights	_____
_____	_____	Storable Pool/Spa/Hot Tub	_____
_____	_____	KW Elec. Range/Receptacle	_____
_____	_____	KW Oven/Surface Unit	_____
_____	_____	KW Elec Water Heater	_____
_____	_____	KW Elec Dryer/Receptacle	_____
_____	_____	KW Dishwasher	_____
_____	_____	HP Garbage Disposal	_____
1	3	KW Central A/C Unit	_____
1	1	HP/KW Space Heater/Air Handler	_____
_____	_____	KW Baseboard Heat	_____
_____	_____	HP Motors 1/+ HP	_____
_____	_____	KW Transformer/Generator	_____
_____	_____	AMP Service	_____
_____	_____	AMP Subpanels	_____
_____	_____	AMP Motor Control Center	_____
1	_____	KW Elec Sign/Outline Light	_____
_____	_____	<u>Boiler Reconnect</u>	_____

Administrative Surcharge \$ _____
Minimum Fee \$ _____
State Permit Surcharge Fee \$ _____
TOTAL FEE \$ _____



MECHANICAL INSPECTOR TECHNICAL SECTION



A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 838 Lot 16 Qualification Code _____
Work Site Location 1672 Forge Pond Road, Brick, NJ 08724

Owner in Fee: Joseph Fili

Tel. _____ e-mail _____

Address 1672 Forge Pond Road Brick, NJ 08724

Contractor: Michael Wilson T/A Allied Construction LLC Tel. (856) 528-2822

Address 100 Dobbs Lane, Suite 102 e-mail karen.h@alliedconstruct.co

Cherry Hill, NJ 08034

Contractor License No. or Builder Registration No. _____ Exp. Date 03/31/2018

Home Improvement Contractor Registration No. or Exemption Reason 13VH062202

Federal Emp. ID No. 274623527 FAX: (856) 528-2823

B. MECHANICAL CHARACTERISTICS

Use Group Present:

Proposed:

Heating System work: ☐ New OR ☐ Modification to Existing OR ☐ Conversion OR ☒ Replacement

Type: ☐ Hydronic ☐ Hot Air

Fuel Type: ☒ Gas ☐ Oil ☐ Electric ☐ Solar ☐ Other _____

Estimated Cost of Mechanical Work \$ 4,000

JOB SUMMARY (Office Use Only)

PLAN REVIEW

☐ No Plans Required

☐ Mechanical Plans Approved

Date: _____ Approved by: _____

Joint Plan Review Required:

☐ Bldg. ☐ Elec. ☐ Plumb. ☐ Fire.

☐ Elev.

SUBCODE APPROVAL for PERMIT

Date: _____

Approved by: _____

SUBCODE APPROVAL for CERTIFICATE

☐ CA ☐ CCO

Date: _____

Approved by: _____

INSPECTIONS

Type:

Gas Piping

Appliance

Chimney/Vent

Oil Piping

Oil Tank

LPG Tank

Hydronic Piping

Fireplace

Chimney Cert.

Other _____

DATES

Failure Failure Approval Initial

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

Sign here: _____

Print name here: Michael Wilson

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK

Replacement of CombiBoiler and AC

NO.	FIXTURE/EQUIPMENT
_____	Water Heater
_____	Fuel Oil Piping Connections
_____	Gas Piping Connections
_____	Steam Boiler
_____	Hot Water Boiler
_____	Hot Air Furnace
_____	Oil Tank
_____	LPG Tank
_____	Fireplace
_____	Other <u>all A/C</u>

FEE (Office Use Only)

\$ _____

Administrative Surcharge \$ _____

Minimum Fee \$ _____

State Permit Surcharge Fee \$ _____

TOTAL FEE \$ _____



3/14/17

1746763

Block 838 Lot 16 Qualification Code _____
Work Site Location 1672 Forge Pond Road, Brick, NJ 08724

Owner in Fee: **Joseph Fili**

Tel. [REDACTED] e-mail [REDACTED]
Address 1672 Forge Pond Road Brick, NJ 08724

Contractor: Allied Construction LLC ^{street} ^{municipality} Tel. (856) 528-2822 ^{zip code}
Address 100 Dobbs Lane, Suite 102 e-mail karen.h@alliedconstruct.co
Cherry Hill, NJ 08034

Contractor License No. or Builder Registration No. _____ Exp. Date 03/31/2018
Home Improvement Contractor Registration No. or Exemption Reason 13VH062202
Federal Emp. ID No. 274623527 FAX: (856) 528-2823

JOB SUMMARY (Office Use Only)

PLAN REVIEW			INSPECTIONS		Dates (Month/Day)			
	Date	Initial	Type:	Failure	Failure	Approval	Initial	
[] No Plans Required	_____	_____	Footings	_____	_____	_____	_____	
[] All	_____	_____	Footings/Bonding	_____	_____	_____	_____	
[] Footings/Foundations	_____	_____	Foundation	_____	_____	_____	_____	
[] Structural/Framework	_____	_____	Slab	_____	_____	_____	_____	
[] Exterior	_____	_____	Frame	_____	_____	_____	_____	
[] Interior	_____	_____	Truss Sys./Bracing	_____	_____	_____	_____	
Joint Plan Review Required:			Barrier-Free	_____	_____	_____	_____	
[] Elec.	[] Plumb.	[] Fire	[] Elevator	Insulation	_____	_____	_____	
SUBCODE APPROVAL for PERMIT				Finishes -Base Layer	_____	_____	_____	
Date: _____				Finishes -Final	_____	_____	_____	
Approved by: _____				Energy	_____	_____	_____	
SUBCODE APPROVAL for CERTIFICATE				Mechanical	_____	_____	_____	
[] CO	[] CCO	[] CA	TCO	_____	_____	_____	_____	
Date: _____				Other	_____	_____	_____	
Approved by: _____				Final	_____	_____	_____	
				Barrier-Free	_____	_____	_____	

B. BUILDING CHARACTERISTICS

Use Group Present _____ Proposed _____

No. of Stories _____

Height of Structure _____ ft.

Area — Largest Floor _____ sq. ft.

New Bldg. Area/All Floors _____ sq. ft.

Volume of New Structure _____ cu. ft.

Max. Live Load _____

Max. Occupancy Load _____

Constr. Class Present _____ Proposed _____

If Industrialized Building:

State Approved _____ **HUD** _____

Est. Cost of Bldg. Work:

1. New Bldg. \$ _____

2. Rehabilitation \$ _____ **1,500**

3. Total (1+ 2) \$ _____ **1,500**

U.S.C. 5110 (rev. 11/09)

U.C.C. F110 (rev. 11/09)
Internet version

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

Sign here: 

Print name here: **Karen Heinze**

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK

Attic: Add 13 inches of blown fiberglass to 6 inches of fiberglass batt for R-Value 54

TYPE OF WORK:

- ☐ New Building
☐ Addition
☒ Rehabilitation
☐ Roofing
☐ Siding
☐ Fence _____ Height (exceeds 6')
☐ Sign _____ Sq. Ft.
☐ Pool
☐ Retaining Wall _____ Sq. Ft.
☐ Asbestos Abatement Subchapter 8
☐ Lead Haz. Abatement NJAC 5:17
☐ Radon Remediation
☐ Other _____
☐ Demolition

FEE (Office Use Only)

[illegible]

Administrative Surcharge \$ _____
Minimum Fee \$ _____
State Permit Surcharge Fee \$ _____
TOTAL FEE \$ _____

Applicant: When submitting this form to your Local Construction Code Enforcement Office, please provide one original plus three photocopies.


KNAUF*energy*

CERTIFICATE OF INSULATION

The undersigned certifies that Knauf Insulation products have been installed in accordance with the manufacturer's recommended applications for these products.

Street Address 1672 Forge Pond Rd
City Buck State VT Zip 08724
Installing Company Allied State License 13V06220200
Signed [Signature] Date 2/20/17

Attic R-Value 54 Thickness add 13 inches

Knauf Insulation GmbH
One Knauf Drive
Shelbyville, IN 46176

Sales and Marketing (800) 825-4434, ext. 8300

Technical Support (800) 825-4434, ext. 8512

Fax (317) 398-3675

Information info.us@knaufinsulation.com

World Wide Web www.knaufinsulation.us





CHIMNEY VERIFICATION FOR REPLACEMENT OF FUEL-FIRED EQUIPMENT

BLOCK 838 LOT 16 QUALIFICATION CODE _____ PERMIT # _____

WORK SITE ADDRESS 1672 Forge Pond Road, Brick, NJ 08724

Owner in Fee Joseph Fili

Verifying Individual Karen Heinze Company Allied Construction LLC

Address 100 Dobbs Lane, Suite 102 Cherry Hill NJ 08034
Street City State Zip Code

Tel: (856) 856 Fax: (856) 528-2822

Check the Appropriate Box(es):

Type of Replacement:

- ☐ Oil to Gas Conversion
☐ Gas to Oil Conversion
☐ Gas to Gas Conversion
☐ Oil to Oil Replacement
☐ Other _____

Existing Vent/Chimney:

- ☐ "B" Label Vent
☐ "L" Label Vent
☐ Flexible Liner
☐ Unlabeled Vent

Size No Longer in Use

- ☐ Chimney-Interior
☐ Chimney-Exterior
☐ Masonry Chimney-Tile Lined
☐ Masonry Chimney-Unlined
☐ Other _____

Type

Appliance 1: Boiler

Fuel Type

Oil / Gas / Other: _____

80,000

Appliance 2: _____ Oil / Gas / Other: _____

Appliance 3: _____ Oil / Gas / Other: _____

CHIMNEY LINER

If a chimney liner is being installed, all documentation on the liner must accompany the Permit application.

Manufacturer: _____ Model: _____ UL Listing: _____

Material of Liner: Stainless Steel _____ Aluminum _____

Size of Appliance Vent: _____ Size of Liner: _____ Height of Chimney: _____

Length of Connector: _____ Vent Connector Rise: _____

How does the appliance vent? ☐ Natural Draft ☐ Fan-assisted ☐ Other: _____

PLEASE SIGN ONE OF THE FOLLOWING VERIFICATION STATEMENTS

For Oil or Coal to Gas Conversions:

I have verified that the chimney/vent is in good repair and clear of obstruction and is substantially clean of residue from its previous use serving an oil or coal appliance. I have verified that the chimney/vent is appropriately lined and sized for the appliance(s) being installed.

Signature _____

Date _____

Oil to Oil or Gas to Gas Replacements or New/Additional Appliances:

I have verified that the existing chimney/vent is in good repair and clear of obstruction. I have verified that the existing chimney/vent is appropriately lined and sized for the appliance(s) being installed and/or remaining.

Signature _____

Date _____

Direct Vent Appliance:

I hereby verify that the appliance(s) being installed is a direct vent appliance. I further verify that the existing chimney/vent is appropriately lined and sized for any remaining appliances.

Signature _____

Date 2/20/17

Verification Not Submitted:

I choose not to submit verification. I understand that I will be required to be present for the inspection to remove and reinstall the chimney vent connector.

Signature _____

Date _____

FOR MINOR AND EMERGENCY WORK, THIS FORM MUST BE PROVIDED WITH YOUR PERMIT APPLICATION. FOR ALL OTHER WORK, THIS FORM MUST BE PRESENTED TO THE CODE OFFICIAL PRIOR TO FINAL INSPECTION.

All applicable information requested on this form must be supplied.

This form may not be submitted by a homeowner in lieu of the required inspection.



Project Report

General Project Information

Project Title: Residence Of Fili
Designed By: Allied Energy Efficiency Experts
Project Date: Wednesday, February 8, 2017
Client Name: Joseph Fili
Client Address: 1672 Forge Pond Rd
Client City: Brick, NJ 08724
Client Phone: 732-330-7486
Company Name: Allied Energy Efficiency Experts
Company Representative: Mr. Will Doyle
Company Address: 100 Dobbs Ln
Company City: Cherry Hill, NJ 08034
Company Phone: 856-528-2822
Company Fax: 856-528-2823

Design Data

Reference City: Lakehurst, New Jersey
Building Orientation: Front door faces Southwest
Daily Temperature Range: Medium
Latitude: 40 Degrees
Elevation: 103 ft.
Altitude Factor: 0.996

	Outdoor Dry Bulb	Outdoor Wet Bulb	Outdoor Rel.Hum	Indoor Rel.Hum	Indoor Dry Bulb	Grains Difference
Winter:	14	12.83	80%	n/a	70	n/a
Summer:	88	74	52%	50%	75	39

Check Figures

Total Building Supply CFM:	658	CFM Per Square ft.:	0.653
Square ft. of Room Area:	1,008	Square ft. Per Ton:	712
Volume (ft³) of Cond. Space:	8,064		

Building Loads

Total Heating Required Including Ventilation Air:	27,495 Btuh	27.495 MBH
Total Sensible Gain:	14,419 Btuh	85 %
Total Latent Gain:	2,574 Btuh	15 %
Total Cooling Required Including Ventilation Air:	16,992 Btuh	1.42 Tons (Based On Sensible + Latent)

Notes

Rhvac is an ACCA approved Manual J and Manual D computer program.
Calculations are performed per ACCA Manual J 8th Edition, Version 2, and ACCA Manual D.
All computed results are estimates as building use and weather may vary.
Be sure to select a unit that meets both sensible and latent loads according to the manufacturer's performance data at your design conditions.



Miscellaneous Report

System 1 Main Input Data	Outdoor Dry Bulb	Outdoor Wet Bulb	Outdoor Rel.Hum	Indoor Rel.Hum	Indoor Dry Bulb	Grains Difference
Winter:	14	12.83	80%	n/a	70	n/a
Summer:	88	74	52%	50%	75	39.48

Duct Sizing Inputs

	Main Trunk	Runouts
Calculate:	Yes	Yes
Use Schedule:	Yes	Yes
Roughness Factor:	0.00300	0.01000
Pressure Drop:	0.1000 in.wg./100 ft.	0.1000 in.wg./100 ft.
Minimum Velocity:	650 ft./min	450 ft./min
Maximum Velocity:	900 ft./min	750 ft./min
Minimum Height:	0 in.	0 in.
Maximum Height:	0 in.	0 in.

Outside Air Data

	Winter	Summer
Infiltration Specified:	0.700 AC/hr 94 CFM	0.400 AC/hr 54 CFM
Infiltration Actual:	0.700 AC/hr	0.400 AC/hr
Above Grade Volume:	X 8,064 Cu.ft. 5,645 Cu.ft./hr X 0.0167	X 8,064 Cu.ft. 3,226 Cu.ft./hr X 0.0167
Total Building Infiltration:	94 CFM	54 CFM
Total Building Ventilation:	0 CFM	0 CFM

---System 1---

Infiltration & Ventilation Sensible Gain Multiplier:	14.25	= (1.10 X 0.996 X 13.00 Summer Temp. Difference)
Infiltration & Ventilation Latent Gain Multiplier:	26.74	= (0.68 X 0.996 X 39.48 Grains Difference)
Infiltration & Ventilation Sensible Loss Multiplier:	61.37	= (1.10 X 0.996 X 56.00 Winter Temp. Difference)
Winter Infiltration Specified:	0.700 AC/hr (94 CFM)	
Summer Infiltration Specified:	0.400 AC/hr (54 CFM)	

Duct Load Factor Scenarios for System 1

No.	Type	Description	Location	Attic Ceiling	Duct Leakage	Duct Insulation	Surface Area	From [T]MDD
1	Supply		Attic	16B	0.12	6	109	No
1	Return		Attic	16B	0.12	6	40	No
2	Supply		Basement	-	0.12	0	54	No
2	Return		Basement	-	0.24	0	10	No



Total Building Summary Loads

Component Description	Area Quan	Sen Loss	Lat Gain	Sen Gain	Total Gain
1D-cv-o: Glazing-Double pane, operable window, clear, vinyl frame, outdoor insect screen with 50% coverage, medium color blinds at 45° with 50% coverage, u-value 0.57, SHGC 0.56	124	3,957	0	3,904	3,904
11D: Door-Wood - Solid Core	42	918	0	394	394
12B-0sw: Wall-Frame, R-11 insulation in 2 x 4 stud cavity, no board insulation, siding finish, wood studs	890	4,835	0	1,908	1,908
16B-50: Roof/Ceiling-Under Attic with Insulation on Attic Floor (also use for Knee Walls and Partition Ceilings), Vented Attic, No Radiant Barrier, Dark Asphalt Shingles or Dark Metal, Tar and Gravel or Membrane, R-50 insulation	1008	1,129	0	968	968
19A-0cp: Floor-Over enclosed unconditioned crawl space, No insulation on exposed walls, sealed or vented space, passive, no floor insulation, carpet or hardwood	1008	6,256	0	1,452	1,452
Subtotals for structure:		17,095	0	8,626	8,626
People:	4		800	920	1,720
Equipment:			0	1,200	1,200
Lighting:	0			0	0
Ductwork:		4,626	336	1,878	2,214
Infiltration: Winter CFM: 94, Summer CFM: 54		5,774	1,438	766	2,204
Ventilation: Winter CFM: 0, Summer CFM: 0		0	0	0	0
AED Excursion:		0	0	1,028	1,028
Total Building Load Totals:		27,495	2,574	14,419	16,992

Check Figures:

Total Building Supply CFM:	658	CFM Per Square ft.:	0.653
Square ft. of Room Area:	1,008	Square ft. Per Ton:	712
Volume (ft³) of Cond. Space:	8,064		

Building Loads

Total Heating Required Including Ventilation Air:	27,495 Btuh	27,495 MBH
Total Sensible Gain:	14,419 Btuh	85 %
Total Latent Gain:	2,574 Btuh	15 %
Total Cooling Required Including Ventilation Air:	16,992 Btuh	1.42 Tons (Based On Sensible + Latent)

Notes

Rhvac is an ACCA approved Manual J and Manual D computer program.
 Calculations are performed per ACCA Manual J 8th Edition, Version 2, and ACCA Manual D.
 All computed results are estimates as building use and weather may vary.
 Be sure to select a unit that meets both sensible and latent loads according to the manufacturer's performance data at your design conditions.



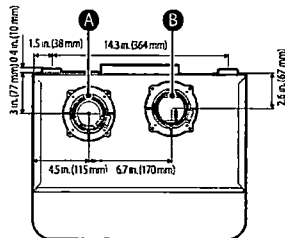
Detailed Room Loads - Room 1 - Whole House (Average Load Procedure)

General

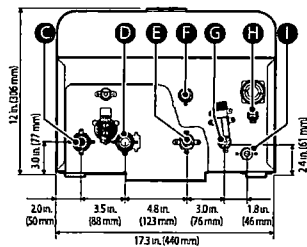
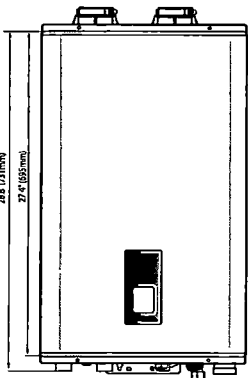
Calculation Mode:	Htg. & clg.	Occurrences:	1
Room Length:	42.0 ft.	System Number:	1
Room Width:	24.0 ft.	Zone Number:	1
Area:	1,008.0 sq.ft.	Supply Air:	658 CFM
Ceiling Height:	8.0 ft.	Supply Air Changes:	4.9 AC/hr
Volume:	8,064.0 cu.ft.	Req. Vent. Clg:	0 CFM
Number of Registers:	6	Actual Winter Vent.:	0 CFM
Runout Air:	110 CFM	Percent of Supply.:	0 %
Runout Duct Size:	6 in.	Actual Summer Vent.:	0 CFM
Runout Air Velocity:	558 ft./min.	Percent of Supply:	0 %
Runout Air Velocity:	558 ft./min.	Actual Winter Infil.:	94 CFM
Actual Loss:	0.199 in.wg./100 ft.	Actual Summer Infil.:	54 CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
SW-Wall-12B-0sw 42 X 8	257	0.097	5.4	1,396	2.1	0	551
SE-Wall-12B-0sw 24 X 8	162	0.097	5.4	880	2.1	0	347
NE-Wall-12B-0sw 42 X 8	300	0.097	5.4	1,630	2.1	0	643
NW-Wall-12B-0sw 24 X 8	171	0.097	5.4	929	2.1	0	367
SW-Door-11D 3 X 7	21	0.390	21.8	459	9.4	0	197
SE-Door-11D 3 X 7	21	0.390	21.8	459	9.4	0	197
SW-Gls-1D-cv-o shgc-0.56 0%S	28	0.570	31.9	894	34.5	0	967
SW-Gls-1D-cv-o shgc-0.56 0%S	18	0.570	31.9	575	34.6	0	622
SW-Gls-1D-cv-o shgc-0.56 0%S	12	0.570	31.9	383	34.6	0	415
SE-Gls-1D-cv-o shgc-0.56 0%S	9	0.570	31.9	287	34.6	0	311
NE-Gls-1D-cv-o shgc-0.56 0%S (4)	36	0.570	31.9	1,148	27.9	0	1,004
NW-Gls-1D-cv-o shgc-0.56 0%S	9	0.570	31.9	287	27.9	0	251
NW-Gls-1D-cv-o shgc-0.56 0%S	12	0.570	31.9	383	27.8	0	334
UP-Ceil-16B-50 42 X 24	1008	0.020	1.1	1,129	1.0	0	968
Floor-19A-0cp 24 X 42	1008	0.295	6.2	6,256	1.4	0	1,452
Subtotals for Structure:				17,095		0	8,626
Infil.: Win.: 94.1, Sum.: 53.8	1,056		5.468	5,774	0.725	1,438	766
Ductwork:				4,626			1,878
AED Excursion:							1,028
People: 200 lat/per, 230 sen/per:	4					800	920
Equipment:						0	1,200
Room Totals:				27,495		2,238	14,419

Dimensions



Connection Size
A Air Intake $\varnothing$ 2"
B Exhaust Gas Vent $\varnothing$ 2"



Connection Size
C Heating Supply Outlet $\varnothing$ 1"
D Heating Return Inlet $\varnothing$ 1"
E DHW Hot Water Outlet $\varnothing$ 3/4"
F Gas Supply Inlet $\varnothing$ 3/4"
G DHW Cold Water Inlet $\varnothing$ 3/4"
H Condensate Outlet $\varnothing$ 1/2"
I Auto Feeder Inlet $\varnothing$ 1/2"

Navien Combination Boiler Space Heating Ratings



Model Number ¹	Heating Input, MBH		Heating Capacity ² , MBH	Net AHRI Rating, Water ³ , MBH	AFUE ² , %
	Min	Max			
NCB-180	14	80	75	65	95.0
NCB-210	18	100	94	82	95.0
NCB-240	18	120	112	97	95.0

¹ Ratings are the same for Natural Gas models converted to Propane use.

² Based on U.S. Department of Energy (DOE) test procedures

³ The NET AHRI Water Ratings shown are based on a piping and pickup allowance of 1.15. Consult Navien before selecting a boiler for installations having unusual piping and pickup requirements, such as intermittent system operation, extensive piping systems, etc.

Specifications

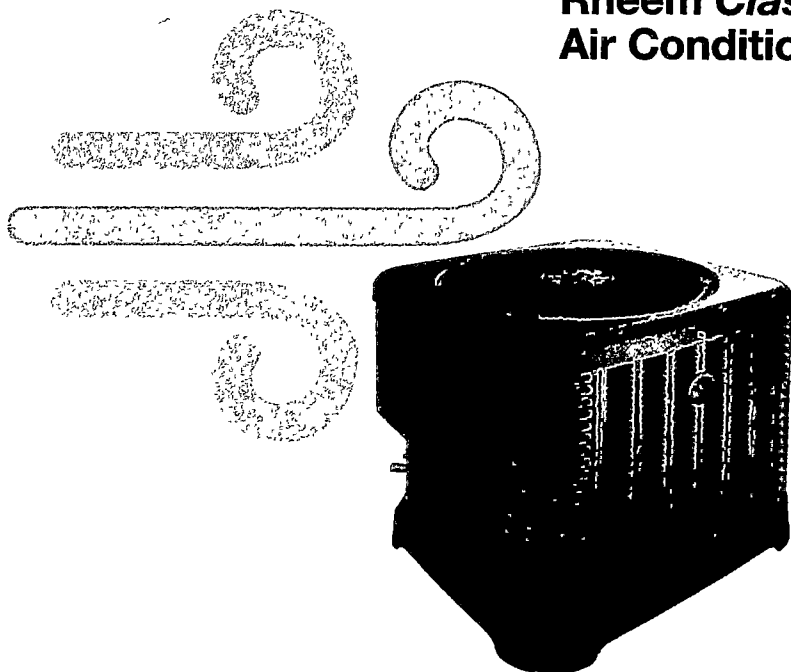
Item		NCB-180	NCB-210	NCB-240
Gas Input	Space Heating	14,000-80,000 BTU/H	18,000-100,000 BTU/H	18,000-120,000 BTU/H
	Domestic Hot Water	14,000-150,000 BTU/H	18,000-180,000 BTU/H	18,000-199,900 BTU/H
Flow Rate (DHW)	77°F (43°C) Temp Rise	3.4 GPM (12.9 L/m)	4.0 GPM (15.1 L/m)	4.5 GPM (17.0 L/m)
Dimensions		17"(W) x 28"(H) x 12"(D)	17"(W) x 28"(H) x 12"(D)	17"(W) x 28"(H) x 12"(D)
Weight		74 lbs (34kg)	84 lbs (38kg)	84 lbs (38kg)
Installation Type		Indoor Wall-Hung		
Venting Type		Forced Draft Direct Vent		
Ignition		Electronic Ignition		
Water Pressure (Hydronic/DHW)		12-30 PSI / 15-150 PSI		
Natural Gas Supply Pressure (from source)		3.5"-10.5" WC		
Propane Gas Supply Pressure (from source)		8.0"-13.5" WC		
Natural Gas Manifold Pressure (min to max)		-0.07" WC to -0.66" WC	-0.05" WC to -0.36" WC	-0.06" WC to -1.2" WC
Propane Gas Manifold Pressure (min to max)		-0.06" WC to -0.62" WC	-0.1" WC to -0.66" WC	-0.03" WC to -0.98" WC
Minimum Flow Rate (DHW)		0.5 GPM (1.9 L/m)		
Connection Sizes	Heating Supply/Return	1" NPT		
	DHW Inlet/Outlet	3/4" NPT		
	Gas Inlet	3/4" NPT		
	Auto Feeder	1/2" NPT		
	Condensate Outlet	1/2" NPT		
Power Supply	Main Supply	120V AC, 60Hz		
	Maximum Power Consumption	200W (up to 2 amperes)		
Materials	Casing	Cold Rolled Carbon Steel		
	Heat Exchangers	Primary/Secondary Heat Exchanger: Stainless Steel DHW Heat Exchanger: Stainless Steel		
Venting	Exhaust	2" or 3" PVC, CPVC, Approved Polypropylene 2" or 3" Special Gas Vent Type BH (Class II, A/B/C)		
	Intake	2" or 3" PVC, CPVC, Polypropylene 2" or 3" Special Gas Vent Type BH (Class II, A/B/C)		
	Vent Clearances	0" to Combustibles		
Safety Devices		Flame Rod, APS, Gas Valve Operation Detector, Ignition Operation Detector, Water Temperature High Limit Switch, Exhaust Temperature High Limit Sensor		

*Navien reserves the right to change specifications at any time without prior notice



The new degree of comfort™

Rheem *Classic*® Series Air Conditioners



RA14 Series

Efficiencies up to 16 SEER/13 EER

Nominal Sizes 1½ to 5 Ton [5.28 to 17.6 kW]

Cooling Capacities 17.3 to 60.5 kBTU
[5.7 to 17.7 kW]



"Proper sizing and installation of equipment is critical to achieve optimal performance. Split system air conditioners and heat pumps must be matched with appropriate coil components to meet Energy Star. Ask your Contractor for details or visit www.energystar.gov."

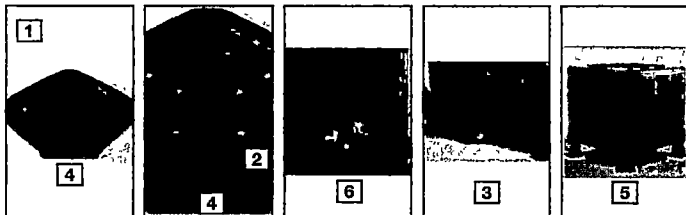
- New composite base pan – dampens sound, captures louver panels, eliminates corrosion and reduces number of fasteners needed
- Powder coat paint system – for a long lasting professional finish
- Scroll compressor – uses 70% fewer moving parts for higher efficiency and increased reliability
- Modern cabinet aesthetics – increased curb appeal with visually appealing design
- Curved louver panels – provide ultimate coil protection, enhance cabinet strength, and increased cabinet rigidity
- Optimized fan orifice – optimizes airflow and reduces unit sound
- Rust resistant screws – confirmed through 1500-hour salt spray testing
- PlusOne™ **Expanded Valve Space** – 3"-4"-5" service valve space – provides a minimum working area of 27-square inches for easier access
- PlusOne™ **Triple Service Access** – 15" wide, industry leading corner service access – makes repairs easier and faster. The two fastener removable corner allows optimal access to internal unit components. Individual louver panels come out once fastener is removed, for faster coil cleaning and easier cabinet reassembly
- Diagnostic service window with two-fastener opening – provides access to the high and low pressure.
- External gauge port access – allows easy connection of "low-loss" gauge ports
- Single-row condenser coil – makes unit lighter and allows thorough coil cleaning to maintain "out of the box" performance
- 35% fewer cabinet fasteners and fastener-free base – allow for faster access to internal components and hassle-free panel removal
- Service trays – hold fasteners or caps during service calls
- QR code – provides technical information on demand for faster service calls
- Fan motor harness with extra long wires allows unit top to be removed without disconnecting fan wire.



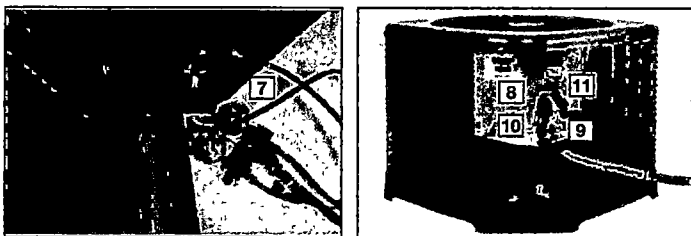
Introduction to RA14 Air Conditioner

The RA14 is our 14 SEER air conditioner and is part of the Rheem air conditioner product line that extends from 13 to 20 SEER. This highly featured and reliable air conditioner is designed for years of reliable, efficient operation when matched with Rheem indoor aluminum evaporator coils and furnaces or air handler units with aluminum evaporators.

Our unique composite base (1) reduces sound emission, eliminates rattles, significantly reduces fasteners, eliminates corrosion and has integrated brass compressor attachment inserts (2). Furthermore it has incorporated into the design, water management features, means for hand placement (3) for unit maneuvering, screw trays (4) and inserts for lifting off unit pad. (5)



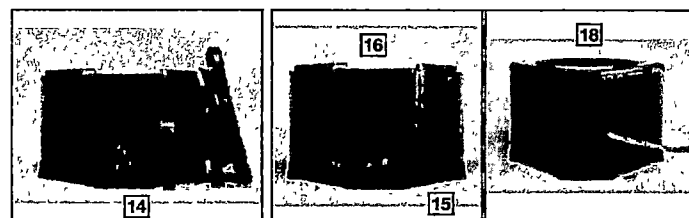
Service Valves (6) are rigidly mounted in the composite base with 3" between suction and discharge valves, 4" clearance below service valves and a minimum of 5" above the service valves, creating industry leading installation ease. The minimum 27 square-inches around the service valves allows ample room to remove service valve schrader prior to brazing, plenty of clearance for easy brazing of the suction and discharge lines to service valve outlets, easy access and hookup of low loss refrigerant gauges (7), and access to the service valve caps for opening. For applications with long-line lengths up to 250 feet total equivalent length, up to 200 feet condenser above evaporator, or up to 80 feet evaporator above condenser, the long-line instructions in the installation manual should be followed.



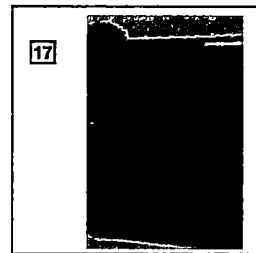
Controls are accessed from the corner of the unit by removing only two fasteners from the control access cover, revealing the industry's largest 15" wide and 14" tall control area (8). With all this room in the control area the high voltage electrical whip (9) can easily be inserted through the right size opening in the bottom of the control area. Routing it leads directly to contractor lugs for connection. The low voltage control wires (10) are easily connected to units low voltage wiring. If contactor or capacitor (11) needs to be replaced there is more than adequate space to make the repair. Furthermore, if high pressure and low pressure model was not purchased but is desired to be installed in the field, the service window (12) can be removed by removing two screws, to access the high and low side schrader fittings for easy field installation. The entire corner can be removed providing ultimate access to install the high and low pressure switch. (13)



If in the rare event, greater access is needed to internal components, such as the compressor, the entire corner of the unit can be removed along with the top cover assembly to have unprecedented access to interior of the unit (14). Extra wire length is incorporated into each outdoor fan and compressor so top cover and control panel can be positioned next to the unit. With minimal effort the plug can be removed from the compressor and the outdoor fan wires can be removed from the capacitor to allow even more uncluttered access to the interior of the unit (15). Outdoor coil heights range from as short as 22" to 32", aiding access to the compressor. Disassembly to this degree and complete reassembly only takes a first time service technician less than 10 minutes. (15)

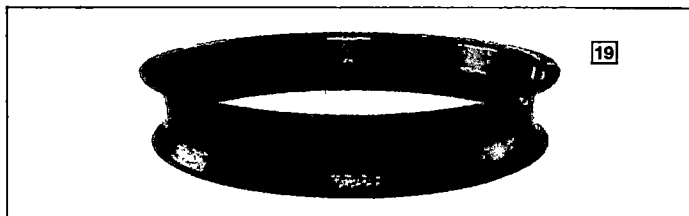


All units utilize strong formed louver panels which provide industry leading coil protection. Louver removal for coil cleaning is accomplished by removing one screw and lifting the panel out of the composite base pan. (17) All RA14 units utilize single row coils (16) making cleaning easy and complete, restoring the performance of the air conditioner back to out of the box performance levels year after year.

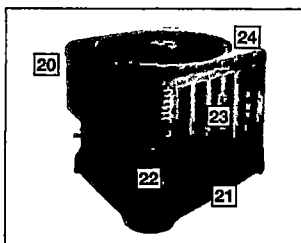


The outdoor fan motor has sleeve bearings and is inherently protected. The motor is totally enclosed for maximum protection from weather, dust and corrosion. Access to the outdoor fan is made by removing four fasteners from the fan grille. The outdoor fan can be removed from the fan grille by removing 4 fasteners in the rare case outdoor fan motor fails.

Each cabinet has optimized composite (19) fan orifice assuring efficient and quiet airflow.

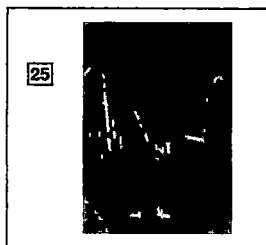


The entire cabinet has powder post paint (20) achieving 1000 hour salt spray rating, allowing the cabinet to retain its aesthetics throughout its life.



Scroll compressors with standard internal pressure relief and internal thermal overload are used on all capacities assuring longevity of high efficient and quiet operation for the life of the product.

Each unit is shipped with filter drier for field installation and will trap any moisture or dirt that could contaminate the refrigerant system.



All cabinets have industry leading structural strength due to the composite base pan (21), interlocking corner post (22), formed curved louver panels (23) and drawn top cover (24) making it the most durable cabinet on the market today.

Each RA14 capacity has undergone rigorous psychometric testing to assure performance ratings of capacity, SEER and EER per AHRI Standard 210/240 rating conditions. Also each unit bears the UL mark and each unit is certified to UL 1995 safety standards.



Each unit has undergone specific strain and modal testing to assure tubing (25) is outside the units natural frequency and that the suction and discharge lines connected to the compressor withstand any starting, steady state operation or shut down forces imposed by the compressor.

All units have been sound tested in sound chamber to AHRI 270 rating conditions, and A-weighted Sound Power Level tables produced, assuring units have acceptable noise qualities (see page 8). Each unit has been ran in cooling operation at 95°F and 82°F and sound ratings for the RA14 range from as low as 74 dBA to 77 dBA.

All units have been ship tested to assure units meet stringent "over the road" shipping conditions.

As manufactured all units in the RA14 family have cooling capability to 55 °F. Addition of low ambient control will allow the unit to operate down to 0°F. Factory testing is performed on each unit. All component parts meet well defined specification and continually go through receiving inspections. Each component installed on a unit is scanned, assuring correct component utilization for a given unit capacity and voltage. All condenser coils are leak tested with pressurization test to 550#s and once installed and assembled, each units' complete refrigerant system is helium leak tested. All units are fully charged from the factory for up to 15 feet of piping. All units are factory run tested. The RA14 has a 10-year conditional compressor and parts warranty (registration required).

Optional Accessories

(Refer to accessory chart for model #)

Compressor Crankcase Heater

Protects against refrigerant migration that can occur during low ambient operation

Compressor Sound Cover

- Reinforced vinyl compressor cover containing a 1½ inch thick batt of fiberglass insulation
- Open edges are sealed with a one-inch wide hook and loop fastening tape

Compressor Hard Start Kit

- Single-phase units are equipped with a PSC compressor motor, this type of motor normally does not need a potential relay and start capacitor
- Kit may be required to increase the compressor starting torque, in conditions such as low voltage

Low Ambient Kit

- Air conditioners operate satisfactorily in the cooling mode down to 55°F outdoor air temperature without any additional controls
- This Kit can be added in the field enabling unit to operate properly down to 0° in the cooling mode
- Crankcase heater and freezestat should be installed on compressors equipped with a low ambient kit

3"/6"/12"

- Gray high density polyethylene feet are available to raise unit off of mounting surface away from moisture

Low Pressure

- Can be added in field enabling the unit to shut off compressor on loss of charge

NOTE: Unit can be purchased with high and low pressure installed at factory. (Refer to SKU list)

High Pressure

- Can be added in field enabling unit to shut off compressor if unit loses outdoor fan operation.

NOTE: Unit can be purchased with high and low pressure installed at factory. (Refer to SKU list)

Decorative Top

- Can be installed on fan grille



Physical Data

PHYSICAL DATA							
Model No.	RA1418A	RA1424A	RA1430A	RA1436A	RA1442B	RA1448A	RA1460A
Nominal Tonnage	1.5	2.0	2.5	3.0	3.5	4.0	5.0
Valve Connections							
Liquid Line O.D. – in.	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Suction Line O.D. – in.	3/4	3/4	3/4	3/4	7/8	7/8	7/8
Refrigerant (R410A) furnished oz. ¹	68	72	12.1	106	121	129	162
Compressor Type	Scroll						
Outdoor Coil							
Net face area – Outer Coil	9.1	11.1	12.1	14.8	17.3	18.9	21.5
Net face area – Inner Coil	—	—	—	—	—	—	—
Tube diameter – in.	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Number of rows	1	1	1	1	1	1	1
Fins per inch	22	22	22	22	22	22	22
Outdoor Fan							
Diameter – in.	20	20	20	24	24	26	26
Number of blades	2	2	2	3	2	2	3
Motor hp	1/10	1/8	1/8	1/6	1/7	1/5	1/5
CFM	2225	2505	2605	3105	3670	4264	4139
RPM	1075	1075	1075	850	1075	820	850
watts	130	163	142	173	190	236	254
Shipping weight – lbs.	143	148	158	178	207	228	247
Operating weight – lbs.	122	141	151	171	200	221	240

Electrical Data

Line Voltage Data (Volts-Phase-Hz)	208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60
Maximum overcurrent protection (amps) ²	20	25	25	30	40	45	50
Minimum circuit ampacity ³	13	15	17	19	24	27	32
Compressor							
Rated load amps	9.7	11.2	12.8	14.1	17.9	19.9	23.7
Locked rotor amps	48	60.8	64	77	112	109	152.5
Condenser Fan Motor							
Full load amps	0.6	0.8	0.8	0.8	0.8	1.2	1.4
Locked rotor amps	1.1	1.5	1.4	1.5	1.5	2.3	2.8
Line Voltage Data (Volts-Phase-Hz)	—	—	—	208/230-3-60	208/230-3-61	208/230-3-62	208/230-3-63
Maximum overcurrent protection (amps) ²	—	—	—	20	30	30	35
Minimum circuit ampacity ³	—	—	—	13	18	18	22
Compressor							
Rated load amps	—	—	—	9	13.2	13.1	15.9
Locked rotor amps	—	—	—	71	88	83.1	110
Condenser Fan Motor							
Full load amps	—	—	—	0.8	1.5	1.2	1.4
Locked rotor amps	—	—	—	1.5	0.8	2.3	2.8
Line Voltage Data (Volts-Phase-Hz)	—	—	—	480-3-60	480-3-60	480-3-60	480-3-60
Maximum overcurrent protection (amps) ²	—	—	—	15	—	15	15
³ Minimum circuit ampacity	—	—	—	8	—	9	10
Compressor							
Rated load amps	—	—	—	56	—	6.1	7.1
Locked rotor amps	—	—	—	38	—	41	52
Condenser Fan Motor							
Full load amps	—	—	—	.5	—	.6	.5
Locked rotor amps	—	—	—	1.1	—	1.6	1.4

¹Refrigerant charge sufficient for 15 ft. length of refrigerant lines. For longer line set requirements see the installation instructions for information about set length and additional refrigerant charge required.

²HACR type circuit breaker or fuse.

³Refer to National Electrical Code manual to determine wire, fuse and disconnect size requirements.





Air

Accessories

Model No.	RA1418	RA1424A	RA1430	RA1436	RA1442	RA1448	RA1460
Compressor crankcase heater*	44-17402-44	44-17402-44	44-17402-44	44-17402-44	44-17402-45	44-17402-45	44-17402-45
Low ambient control	RXAD-A08	RXAD-A08	RXAD-A08	RXAD-A08	RXAD-A08	RXAD-A08	RXAD-A08
Compressor sound cover	68-23427-26	68-23427-26	68-23427-26	68-23427-26	68-23427-25	68-23427-25	68-23427-25
Compressor hard start kit	SK-A1	SK-A1	SK-A1	SK-A1	SK-A1	SK-A1	SK-A1
Compressor time delay	RXMD-B01	RXMD-B01	RXMD-B01	RXMD-B01	RXMD-B01	RXMD-B01	RXMD-B01
Low pressure control	RXAC-A07	RXAC-A07	RXAC-A07	RXAC-A07	RXAC-A07	RXAC-A07	RXAC-A07
High pressure control	RXAB-A07	RXAB-A07	RXAB-A07	RXAB-A07	RXAB-A07	RXAB-A07	RXAB-A07
Liquid Line Solenoid (24 VAC, 50/60 Hz)	Solenoid Valve	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD3T3TVLC	200RD3T3TVLC
	Solenoid Coil	61-AMG24V	61-AMG24V	61-AMG24V	61-AMG24V	61-AMG24V	61-AMG24V
Liquid Line Solenoid (120/240 VAC, 50/60 Hz)	Solenoid Valve	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD3T3TVLC	200RD3T3TVLC
	Solenoid Coil	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V
Classic Top Cap w/Label	91-101123-21	91-101123-21	91-101123-21	91-101123-21	91-101123-21	91-101123-21	91-101123-21

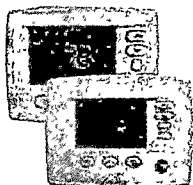
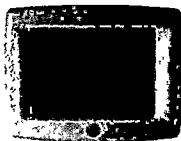
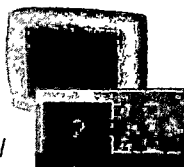
*Crankcase Heater recommended with Low Ambient Kit.

Weighted Sound Power Level (dBA)

A-WEIGHTED SOUND POWER LEVEL (dBA)								
Unit Size - Voltage, Series	Standard Rating (dBA)	TYPICAL OCTAVE BAND SPECTRUM (dBA without tone adjustment)						
		125	250	500	1000	2000	4000	8000
RA1418A	76	51.4	59.6	65.2	65.9	64.3	58.5	53.7
RA1424A	75.2	49.4	60.4	64.3	64.2	63.4	58.9	53.8
RA1430A	74	48.8	57.5	63.5	64	61.9	56.1	51
RA1436A	76	52.2	61.3	65.4	65.3	62.4	57.3	53.1
RA1442B	73	51.5	54.7	63.5	63.3	59.4	54.9	48.4
RA1448A	75.8	52.3	59.1	66.7	65.7	62.4	59.3	55.9
RA1460A	75	53.4	59.1	65.9	66.9	62.8	58.7	54.3

NOTE: Tested in accordance with AHRI Standard 270-08 (not listed in AHRI)

Thermostats

**200-Series ***
Programmable**300-Series ***
Deluxe
Programmable**400-Series ***
Special Applications/
Programmable**500-Series ***
Communicating/
Programmable

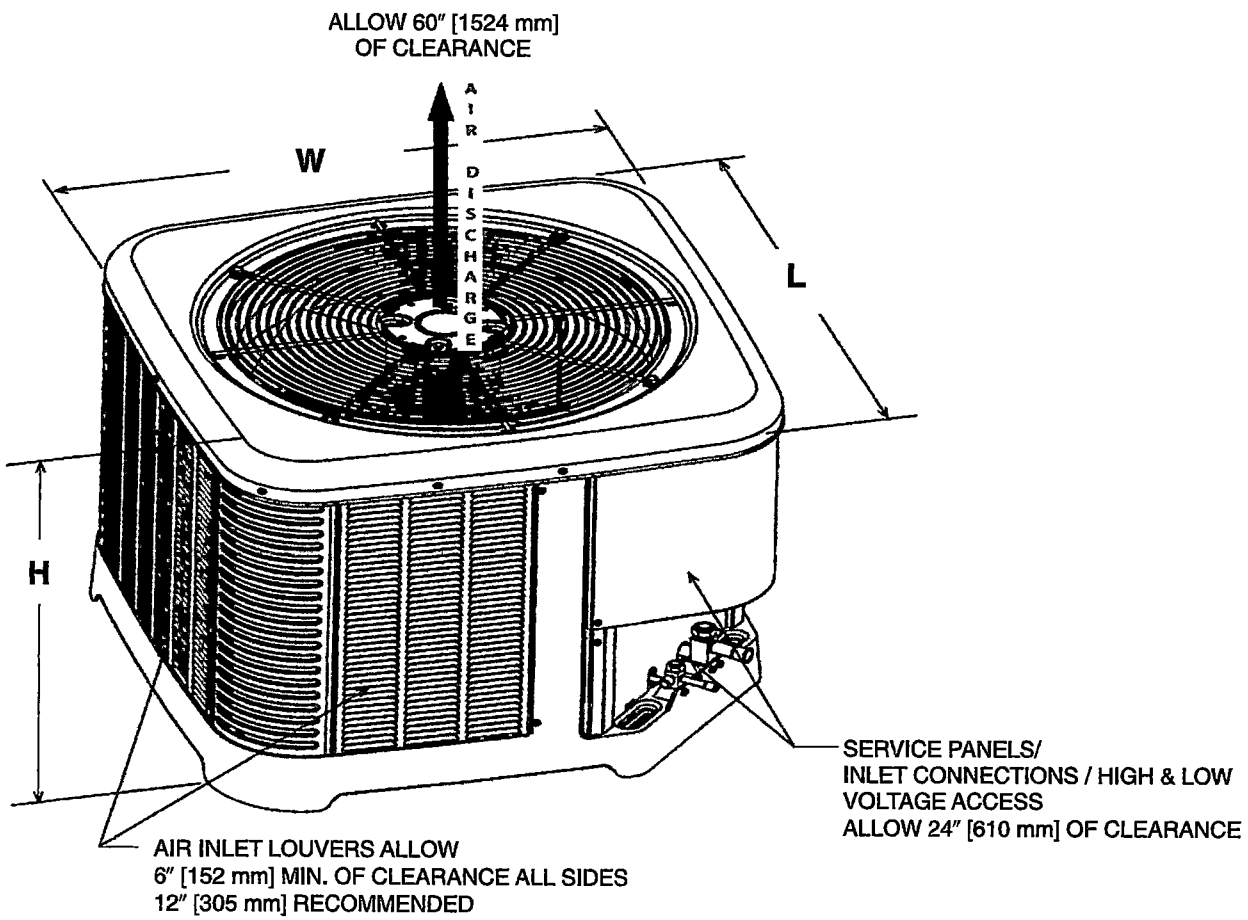
Brand	Descriptor (3 Characters)	Series (3 Characters)	System (2 Characters)	Type (2 Characters)	
RHC	-	TST	213	UN	MS
RHC=Rheem	TST=Thermostat	200=Programmable 300=Deluxe Programmable 400=Special Applications/ Programmable 500=Communicating/ Programmable	GE=Gas/Electric UN=Universal (AC/HP/GE) MD=Modulating Furnace DF=Dual Fuel CM=Communicating	SS=Single-Stage MS=Multi-Stage	

* Photos are representative. Actual models may vary.

For detailed thermostat match-up information,
see specification sheet form number T11-001.

Unit Dimensions

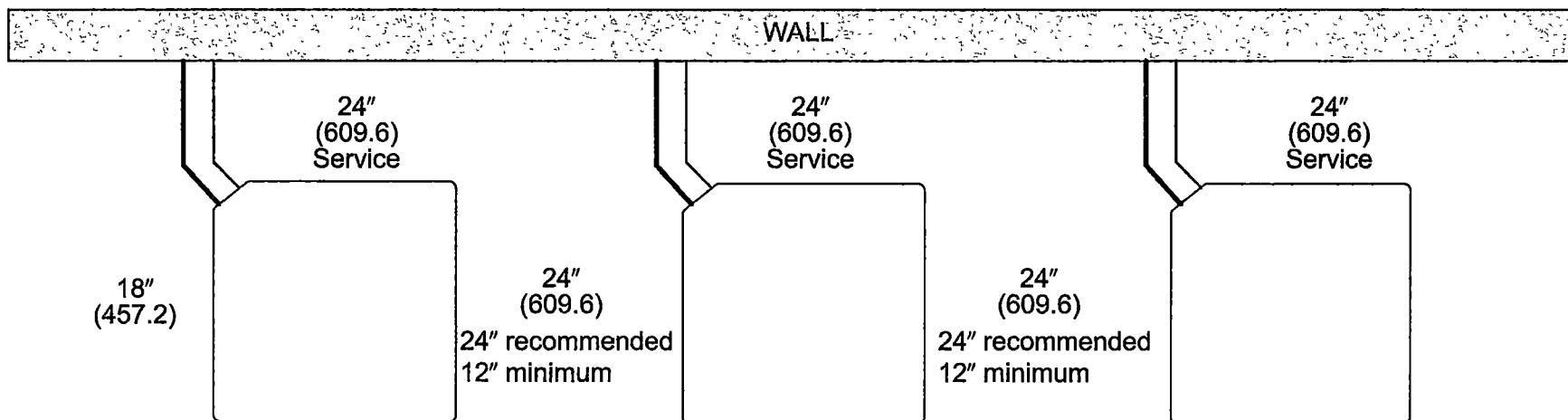
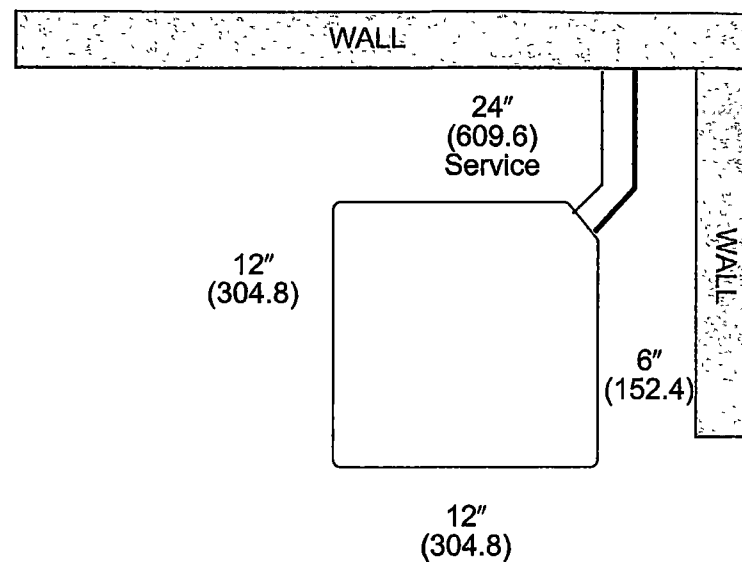
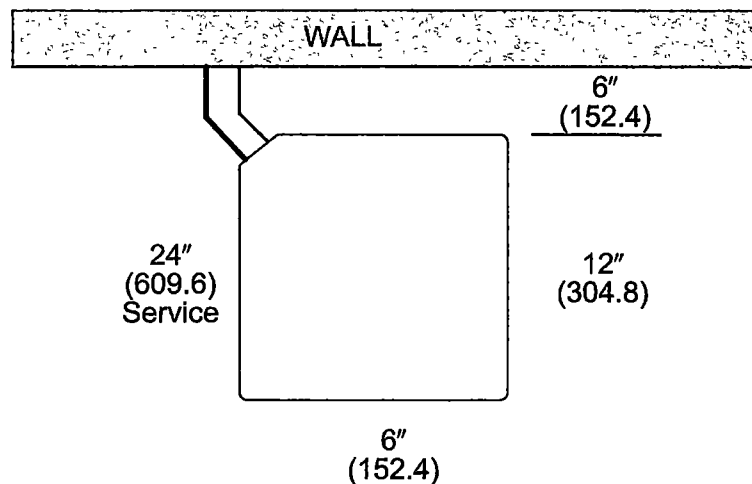
MODEL NO.	OPERATING						SHIPPING					
	H (Height)		L (Length)		W (Width)		H (Height)		L (Length)		W (Width)	
	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm
RA1418A	25	635	29.75	755	29.75	755	26.75	679	32.38	822	32.38	822
RA1422A	25	635	29.75	755	29.75	755	26.75	679	32.38	822	32.38	822
RA1430A	27	685	29.75	755	29.75	755	28.75	730	32.38	822	32.38	822
RA1436A	27	685	33.75	857	33.75	857	28.75	730	36.38	924	36.38	924
RA1442B	31	787	33.75	859	33.75	859	32.75	832	36.38	924	36.38	924
RA1448A	31	787	35.75	908	35.75	908	32.75	832	38.38	975	38.38	975
RA1460A	35	889	35.75	908	35.75	908	36.75	933	38.38	975	38.38	975



[] Designates Metric Conversions

ST-A1226-02-00

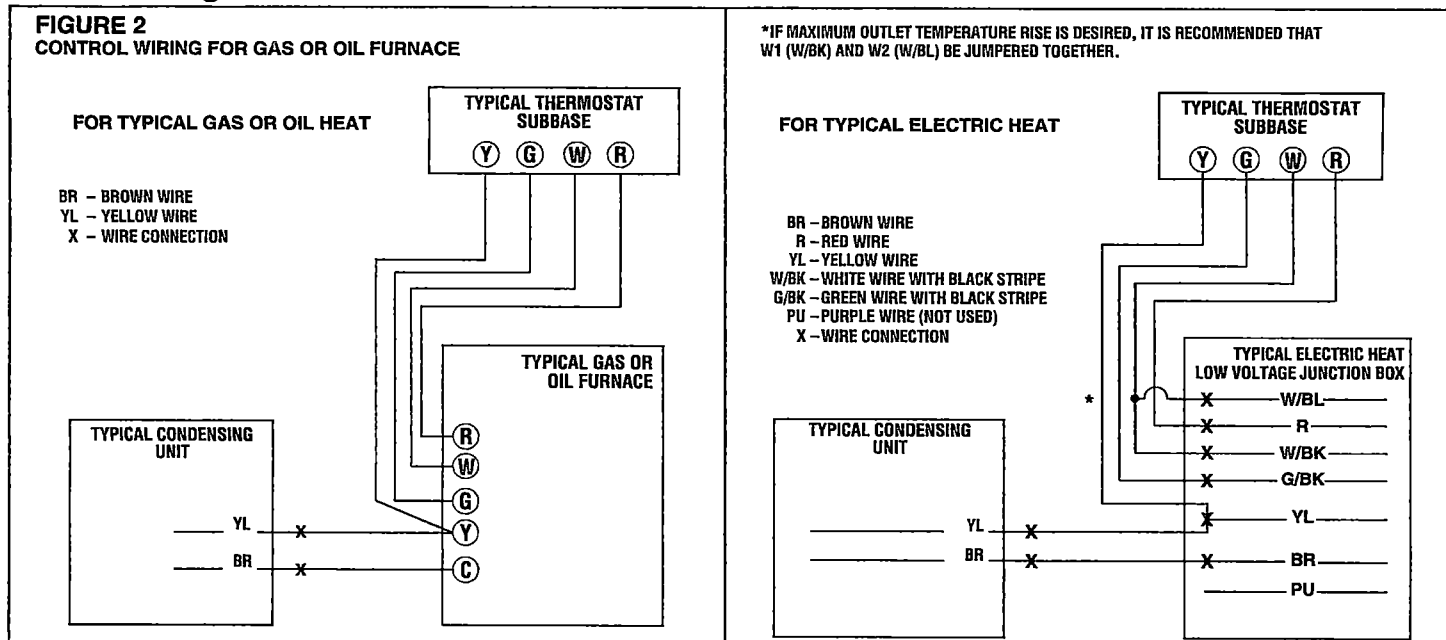
CLEARANCES



NOTE: NUMBERS IN () = mm

IMPORTANT: When installing multiple units in an alcove, roof well or partially enclosed area, ensure there is adequate ventilation to prevent re-circulation of discharge air.

Control Wiring



Application Guidelines

1. Intended for outdoor installation with free air inlet and outlet. Outdoor fan external static pressure available is less than 0.01 -in. wc.
2. Minimum outdoor operation air temperature for cooling mode without low-ambient operation accessory is 55°F (12.8°C).
3. Maximum outdoor operating air temperature is 125°F (51.7°C).
4. For reliable operation, unit should be level in all horizontal planes.
5. Use only copper wire for electric connections at unit. Aluminum and clad aluminum are not acceptable for the type of connector provided.
6. Do not apply capillary tube indoor coils to these units.
7. Factory – supplied filter drier must be installed.

GUIDE SPECIFICATIONS

General

System Description

Outdoor-mounted, air-cooled, split-system air conditioner composite base pan unit suitable for ground or rooftop installation. Unit consists of a hermetic compressor, an air-cooled coil, propeller-type condenser fan, suction and legend line service valve, and a control box. Unit will discharge supply air upward as shown on contract drawings. Unit will be used in a refrigeration circuit to match up to a coil unit.

Quality Assurance

- Unit will be rated in accordance with the latest edition of AHRI Standard 210.
- Unit will be certified for capacity and efficiency, and listed in the latest AHRI directory.
- Unit construction will comply with latest edition of ANSI/ASHRAE and with NEC.
- Unit will be constructed in accordance with UL standards and will carry the UL label of approval. Unit will have c-UL-us approval.
- Unit cabinet will be capable of withstanding ASTM B117 1000-hr salt spray test.
- Air-cooled condenser coils will be leak tested at 150 psig and pressure tested at 550 psig.
- Unit constructed in ISO9001 approved facility.

Delivery, Storage, and Handling

- Unit will be shipped as single package only and is stored and handled per unit manufacturer's recommendations.

Warranty (for inclusion by specifying engineer) — U.S. and Canada only.

Products

Equipment

Factory assembled, single piece, air-cooled air conditioner unit. Contained within the unit enclosure is all factory wiring, piping, controls, compressor, refrigerant charge R-410A, and special features required prior to field start-up.

Unit Cabinet

- Unit cabinet will be constructed of galvanized steel, bonderized, and coated with a powder coat paint.
- All units constructed with louver coil protection and corner post. Louver can be removed by removing one fastener per louver panel.

AIR-COOLED, SPLIT-SYSTEM AIR CONDITIONER

RA14

1-1/2 TO 5 NOMINAL TONS

Fans

- Condenser fan will be direct-drive propeller type, discharging air upward.
- Condenser fan motors will be totally enclosed, 1-phase type with class B insulation and permanently lubricated bearings. Shafts will be corrosion resistant.
- Fan blades will be statically and dynamically balanced.
- Condenser fan openings will be equipped with coated steel wire safety guards.

Compressor

- Compressor will be hermetically sealed.
- Compressor will be mounted on rubber vibration isolators.

Condenser Coil

- Condenser coil will be air cooled.
- Coil will be constructed of aluminum fins mechanically bonded to copper tubes.

Refrigeration Components

- Refrigeration circuit components will include liquid-line shutoff valve with sweat connections, vapor-line shutoff valve with sweat connections, system charge of R-410A refrigerant, and compressor oil.
- Unit will be equipped with filter drier for R-410A refrigerant for field installation.

Operating Characteristics

- The capacity of the unit will meet or exceed _____ Btuh at a suction temperature of _____ °F/°C. The power consumption at full load will not exceed _____ kW.
- Combination of the unit and the evaporator or fan coil unit will have a total net cooling capacity of _____ Btuh or greater at conditions of _____ CFM entering air temperature at the evaporator at _____ °F/°C wet bulb and _____ °F/°C dry bulb, and air entering the unit at _____ °F/°C.
- The system will have a SEER of _____ Btuh/watt or greater at DOE conditions.

Electrical Requirements

- Nominal unit electrical characteristics will be _____ v, single phase, 60 hz. The unit will be capable of satisfactory operation within voltage limits of _____ v to _____ v.
- Nominal unit electrical characteristics will be _____ v, three phase, 60 hz. The unit will be capable of satisfactory operation within voltage limits of _____ v to _____ v.
- Unit electrical power will be single point connection.
- Control circuit will be 24v.

Special Features

- Refer to section of this literature identifying accessories and descriptions for specific features and available enhancements.