

Project Summary
Entire House
Absolute Mechanical Systems Inc.

Job:
 Date: May 19, 2015
 By: Kevin Gorgoglione

2 Quimby Rd., Brookline, NH 03033 Phone: 603-249-9800 Fax: 978-423-7122 CELL Email: kevin@absolutemechanical.com

Project Information

For: Bazzaboni Home Builders
 64 Layrelcrest, Brookline, NH

Notes:

Design Information

Weather: Manchester Grenier AFB, NH, US

Winter Design Conditions

Outside db -3 °F
 Inside db 70 °F
 Design TD 73 °F

Summer Design Conditions

Outside db 88 °F
 Inside db 75 °F
 Design TD 13 °F
 Daily range M
 Relative humidity 50 %
 Moisture difference 23 gr/lb

Heating Summary

Structure 34352 Btuh
 Ducts 6350 Btuh
 Central vent (0 cfm) 0 Btuh
 Humidification 3615 Btuh
 Piping 0 Btuh
 Equipment load 44317 Btuh

Sensible Cooling Equipment Load Sizing

Structure 15956 Btuh
 Ducts 3532 Btuh
 Central vent (0 cfm) 0 Btuh
 Blower 0 Btuh
 Use manufacturer's data y
 Rate/swing multiplier 1.00
 Equipment sensible load 19489 Btuh

Infiltration

Method	Simplified	
Construction quality	Semi-tight	
Fireplaces	1 (Tight)	
	Heating	Cooling
Area (ft ²)	2684	2684
Volume (ft ³)	22329	22329
Air changes/hour	0.28	0.15
Equiv. AVF (cfm)	104	56

Latent Cooling Equipment Load Sizing

Structure 1648 Btuh
 Ducts 844 Btuh
 Central vent (0 cfm) 0 Btuh
 Equipment latent load 2492 Btuh
 Equipment total load 21980 Btuh
 Req. total capacity at 0.70 SHR 2.3 ton

Heating Equipment Summary

Make	n/a
Trade	n/a
Model	n/a
AHRI ref	n/a
Efficiency	n/a
Heating input	
Heating output	0 Btuh
Temperature rise	0 °F
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	n/a

Cooling Equipment Summary

Make	n/a
Trade	n/a
Cond	n/a
Coil	n/a
AHRI ref	n/a
Efficiency	n/a
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Project Summary
Bedroom Lvl. A/H
Absolute Mechanical Systems Inc.

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Project Information

For: Bazzaboni Home Builders
 64 Layrelcrest, Brookline, NH

Notes:

Design Information

Weather: Manchester Grenier AFB, NH, US

Winter Design Conditions

Outside db -3 °F
 Inside db 70 °F
 Design TD 73 °F

Summer Design Conditions

Outside db 88 °F
 Inside db 75 °F
 Design TD 13 °F
 Daily range M
 Relative humidity 50 %
 Moisture difference 23 gr/lb

Heating Summary

Structure 13607 Btuh
 Ducts 5517 Btuh
 Central vent (0 cfm) 0 Btuh
 Humidification 1680 Btuh
 Piping 0 Btuh
 Equipment load 20804 Btuh

Sensible Cooling Equipment Load Sizing

Structure 4945 Btuh
 Ducts 3255 Btuh
 Central vent (0 cfm) 0 Btuh
 Blower 0 Btuh
 Use manufacturer's data y
 Rate/swing multiplier 1.00
 Equipment sensible load 8201 Btuh

Infiltration

Method Simplified
 Construction quality Semi-tight
 Fireplaces 1 (Tight)

	Heating	Cooling
Area (ft ²)	1150	1150
Volume (ft ³)	9200	9200
Air changes/hour	0.32	0.17
Equiv. AVF (cfm)	48	26

Latent Cooling Equipment Load Sizing

Structure 394 Btuh
 Ducts 384 Btuh
 Central vent (0 cfm) 0 Btuh
 Equipment latent load 778 Btuh
 Equipment total load 8979 Btuh
 Req. total capacity at 0.70 SHR 1.0 ton

Heating Equipment Summary

Make Rheem
 Trade RHEEM
 Model R92PA0401317MSA
 AHRI ref 6468401

Efficiency	92 AFUE
Heating input	42000 Btuh
Heating output	39000 Btuh
Temperature rise	61 °F
Actual air flow	587 cfm
Air flow factor	0.031 cfm/Btuh
Static pressure	0.70 in H2O
Space thermostat	

Cooling Equipment Summary

Make Rheem
 Trade RHEEM
 Cond RA1318AJ1
 Coil RCF2417STAM
 AHRI ref 7507439

Efficiency	11.0 EER, 13 SEER
Sensible cooling	12320 Btuh
Latent cooling	5280 Btuh
Total cooling	17600 Btuh
Actual air flow	587 cfm
Air flow factor	0.072 cfm/Btuh
Static pressure	0.70 in H2O
Load sensible heat ratio	0.91

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Project Summary
Main Lvl. A/H
Absolute Mechanical Systems Inc.

Job:
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Project Information

For: Bazzaboni Home Builders
 64 Layrelcrest, Brookline, NH

Notes:

Design Information

Weather: Manchester Grenier AFB, NH, US

Winter Design Conditions

Outside db -3 °F
 Inside db 70 °F
 Design TD 73 °F

Summer Design Conditions

Outside db 88 °F
 Inside db 75 °F
 Design TD 13 °F
 Daily range M
 Relative humidity 50 %
 Moisture difference 23 gr/lb

Heating Summary

Structure 20746 Btuh
 Ducts 832 Btuh
 Central vent (0 cfm) 0 Btuh
 Humidification 1935 Btuh
 Piping 0 Btuh
 Equipment load 23513 Btuh

Sensible Cooling Equipment Load Sizing

Structure 11018 Btuh
 Ducts 278 Btuh
 Central vent (0 cfm) 0 Btuh
 Blower 0 Btuh
 Use manufacturer's data y
 Rate/swing multiplier 1.00
 Equipment sensible load 11297 Btuh

Infiltration

Method Simplified
 Construction quality Semi-tight
 Fireplaces 1 (Tight)

	Heating	Cooling
Area (ft ²)	1534	1534
Volume (ft ³)	13129	13129
Air changes/hour	0.25	0.14
Equiv. AVF (cfm)	56	30

Latent Cooling Equipment Load Sizing

Structure 1254 Btuh
 Ducts 459 Btuh
 Central vent (0 cfm) 0 Btuh
 Equipment latent load 1713 Btuh
 Equipment total load 13010 Btuh
 Req. total capacity at 0.70 SHR 1.3 ton

Heating Equipment Summary

Make Rheem
 Trade RHEEM
 Model R92PA0401317MSA
 AHRI ref 6468401

Efficiency	92 AFUE
Heating input	42000 Btuh
Heating output	39000 Btuh
Temperature rise	60 °F
Actual air flow	600 cfm
Air flow factor	0.028 cfm/Btuh
Static pressure	0.70 in H2O
Space thermostat	

Cooling Equipment Summary

Make Rheem
 Trade RHEEM
 Cond RA1318AJ1
 Coil RCF2417STAM
 AHRI ref 7507439

Efficiency	11.0 EER, 13 SEER
Sensible cooling	12320 Btuh
Latent cooling	5280 Btuh
Total cooling	17600 Btuh
Actual air flow	600 cfm
Air flow factor	0.053 cfm/Btuh
Static pressure	0.70 in H2O
Load sensible heat ratio	0.87

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.