



**Schlotterbeck Block
117 Preble Street
Portland, Me**

SUBMITTAL COVER SHEET

**Mechanical
23 00 00 2.10 Heat Recovery Resubmission
*Post heaters have Disconnect**

Date: June 4, 2016

Contractor:

**Landry/French Construction
160 Pleasant Hill Road
Scarborough, Maine 04074**

Architect:

**Goduti/Thomas
44 Oak Street
Portland, Me 04101**

Engineer:

**Mechanical Systems Engineers
Royal River Center, Unit 10B
10 Forest Falls Road
Yarmouth, Maine 04096**



COOK



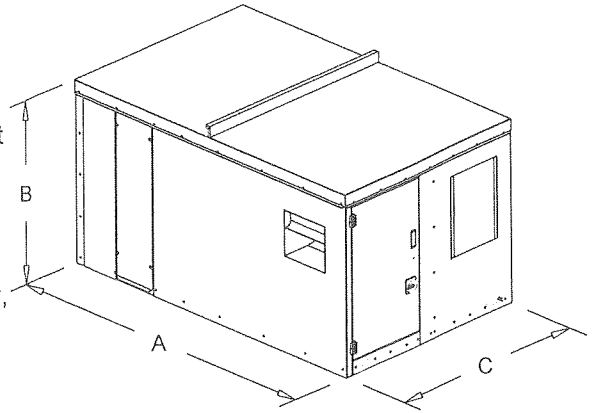
MARK: HRV1
PROJECT: GRANITE - 117 PREBLE 3
DATE: 5/18/2016

ERV

Energy Recovery Ventilator Belt Drive With Heating/Cooling Coils Arrangement V

STANDARD CONSTRUCTION FEATURES:

Energy recovery wheel constructed of fluted synthetic media containing water selective molecular sieve desiccant - Cassette assembly slides out for easy access and consists of energy recovery wheel, drive motor, and drive components - Removable access doors provide access to all internal components - Ventilator cabinet consisting of a minimum 18 gauge galvanized steel housing mounted to a minimum 16 gauge galvanized steel base - Cabinet internally lined with 1" thick, 3 lb. density, FSK insulation - Two DWDI forward curved steel blowers mounted on vibration isolators - Blower wheel bearings rated at 200,000 hours average life - Blower wheels are factory adjusted to specified RPM - Standard size 2" thick, MERV 8 filters in supply and exhaust air streams - All electrical components pre-wired for single point power connection - Interlock disconnect on hinged control panel door.



Dimensions (inches)

A	105-1/2
B	64-1/2
C	66-1/2

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	2731	Unit	2218
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***Includes fan, motor & accessories.

Performance *Bhp includes drive loss: 8%(S), 7%(E)

Qty	Catalog Number	Airstream	Flow (CFM)	Ext. SP** (inwc)	Fan RPM	Power* (HP)	FEG
1	ERV-4500	Supply	2955	1.00	1078	1.55	60
		Exhaust	2955	1.00	1180	1.84	60

Altitude (ft): 0 **Static Pressure external to unit.

Motor Information

Airstream	HP	RPM	Volts/Ph/Hz	Enclosure	Mounted
Supply	2	1725	200/3/60	ODP	YES
Exhaust	2				

Electrical

ERV Full Load Amps	Minimum Circuit Amps	MOCP*
18.48	23.1	30

* Maximum Overload Circuit Protection

Electric Post Heater**

Heater Voltage	Amps	kW (4 Steps)
208	37.8	13.6

** Electric Post Heater requires separate power connection.

Design Conditions

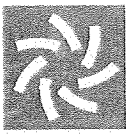
	Outdoor		Indoor	
	Dry Bulb (°F)	Wet Bulb (°F)	Dry Bulb (°F)	Relative Humidity
Summer	94.0	80.0	75.0	48.0%
Winter	-10.0	-10.2	70.0	30.0%

Supply Conditions

	Flow (CFM)	Dry Bulb (°F)	Wet Bulb (°F)	Relative Humidity	Humidity Ratio (gr/lb)	Humidity Ratio (lb/lb)	Dew Point (°F)	Enthalpy (Btu/lb)
Summer	2955	78.3	66.1	52.5%	76.1	0.01087	59.6	30.73
Winter		72.0	52.2	23.0%	26.6	0.00380	32.1	21.45

Accessories:

- Premium Efficiency Motor (Min. 86.5%) - Supply
- Premium Efficiency Motor (Min. 86.5%) - Exhaust
- DRIVES (1.5 SF) @ 1078 RPM (SUPL.)
- DRIVES (1.5 SF) @ 1180 RPM (EXH.)
- ELEC HTR 208V ~~13.6KW~~ 24 KW
- COIL ADAPTOR KIT
- BD MOTORIZED INTAKE CTR PIVOT L-24V (OUT. A)
- BD MOTORIZED INTAKE CTR PIVOT L-VC-24V (REI BD (EXH. AIR DISCH)
- ROOF CURB RCGH 63 X 102-13.5H
- LORENIZED FINISH
- INTAKE HOOD
- EXHAUST HOOD
- HINGE ACC DOOR W/QTL
- PURGE SECTION
- DOUBLE WALL CONSTRTN
- ECON MODE-TEMP SENSR
- ECON AUTO OVERRIDE
- FROST CTRL-TIMED EXH
- 6 INCH E/R WHEEL
- 24 KW HEATER - SPECIAL
- 2" METAL MESH INTAKE HOOD FILTERS STD
- 90 DEGREE INTAKE HOOD



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ERV

Energy Recovery Ventilator Belt Drive With Heating/Cooling Coils Arrangement V

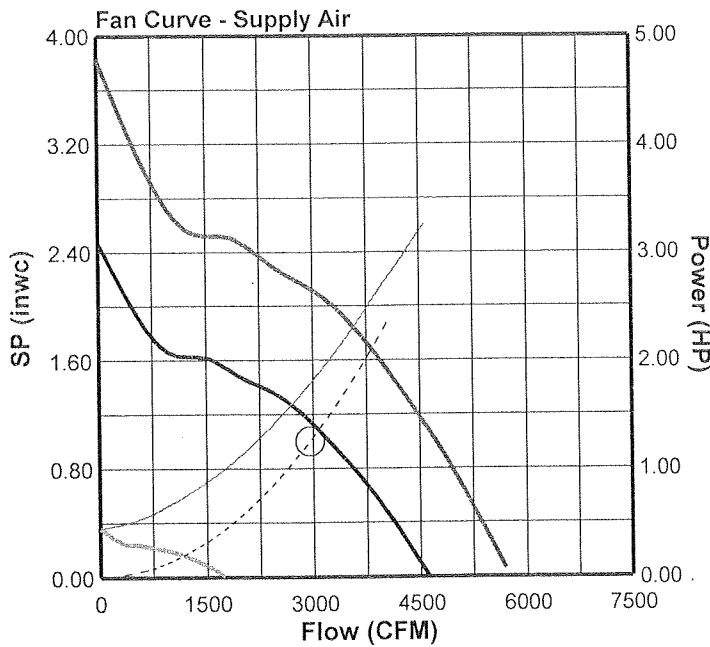
Performance *Bhp includes drive loss: 8%(S),7%(E)

Qty	Catalog Number	Airstream	Flow (CFM)	Ext. SP** (inwc)	Fan RPM	Power* (HP)	FEG
1	ERV-4500	Supply	2955	1.00	1078	1.55	60
		Exhaust	2955	1.00	1180	1.84	60

Altitude (ft): 0 **Static Pressure external to unit.

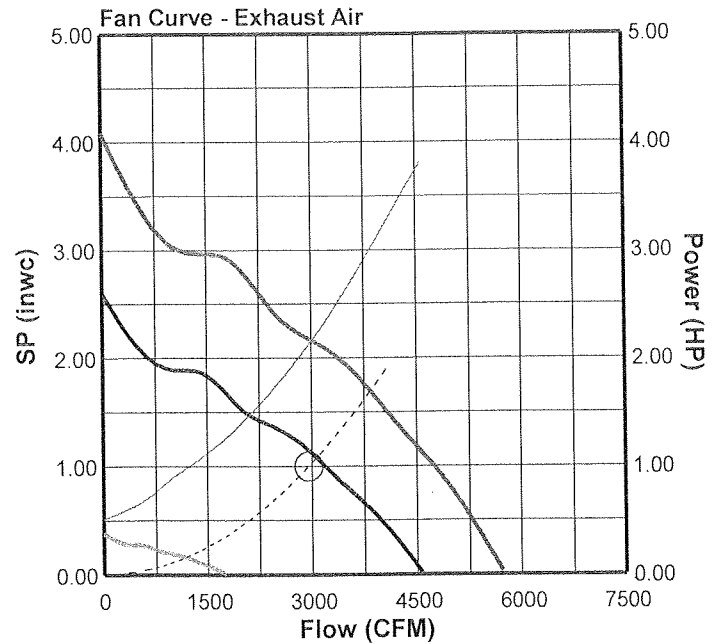
Sound Data 8 Octave Bands dB (10⁻¹² Watts)

Airstream	1	2	3	4	5	6	7	8	LwA
Supply	97	93	84	80	77	74	71	65	84
Exhaust	100	97	88	84	82	78	75	70	88



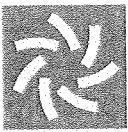
Fan Curve Legend

CFM vs SP (1078)	—————
MaxRPM(1341)	—————
MinRPM(413)	—————
CFM vs HP	—————
Point of Operation	○
System Curve	-----



Fan Curve Legend

CFM vs SP (1180)	—————
MaxRPM(1478)	—————
MinRPM(454)	—————
CFM vs HP	—————
Point of Operation	○
System Curve	-----



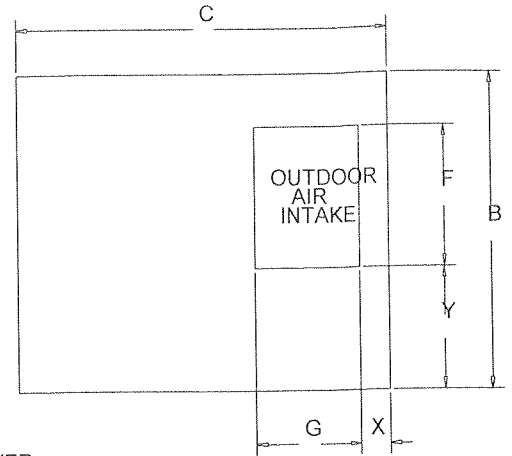
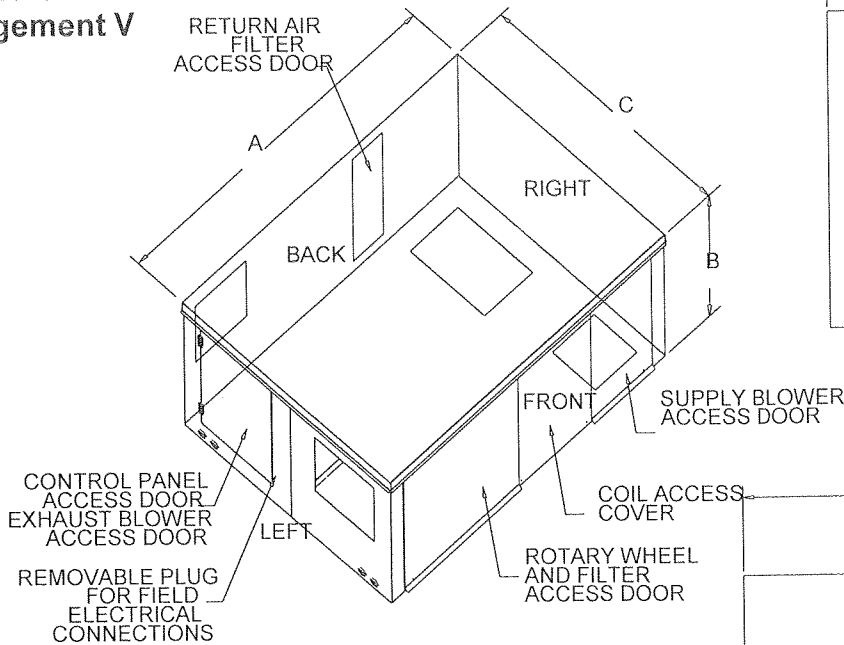
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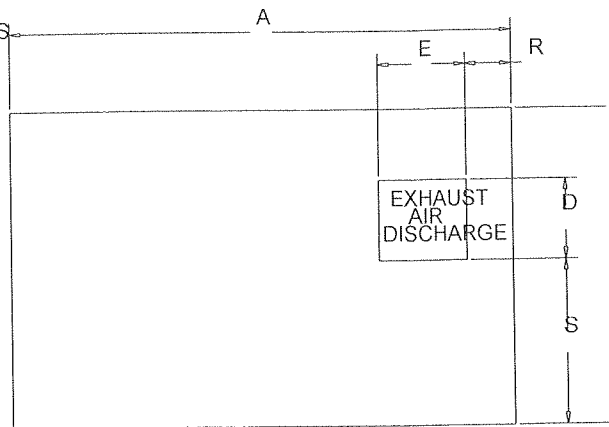
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ERV

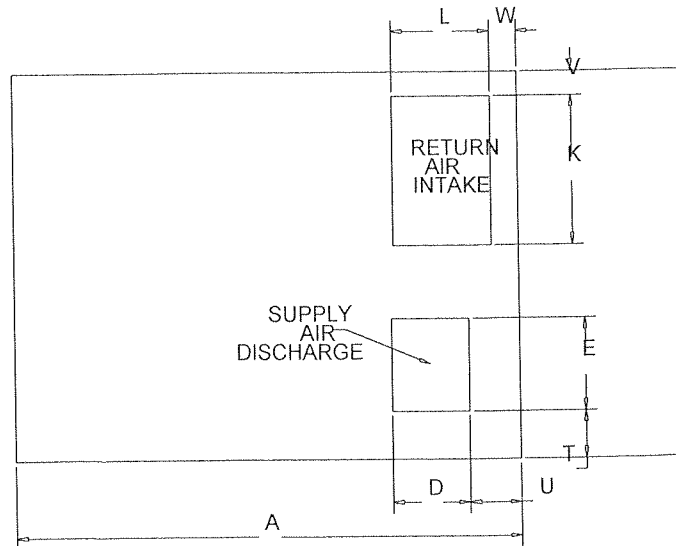
Energy Recovery Ventilator
With Heating/Cooling Coils
Belt Drive
Arrangement V



LEFT VIEW



BACK VIEW



BOTTOM VIEW

Dimensions (inches)

Size	4500
A	105-1/2
B	64-1/2
C	66-1/2
D	13-7/16
E	15-5/8
F	34
G	24
K	26
L	18-3/4
R	7-5/16
S	38-5/8
T	10
U	8-1/8
V	4-3/4
W	4-1/8
X	5-1/4
Y	23-7/8

Coordinating Curbs and making them adjustable to make down flow per Architect Revisions



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PROJECT: GRANITE - 117 PREBLE 3

DATE: 5/18/2016

ERV

ERV 6" Wheel Performance Report

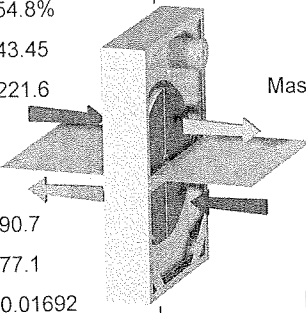
Performance

Catalog Number	Flow (CFM)		Wheel Effectiveness	
	Supply	Exhaust	Sensible	Latent
ERV-4500	2955	2955	82.4%	80.1%

Performance shown is based on 6" deep Energy Recovery Wheel

Summer

Outdoor Intake		Room Supply	
Dry Bulb(°F):	94.0	Dry Bulb(°F):	78.3
Wet Bulb(°F):	80.0	Wet Bulb(°F):	66.1
Humidity Ratio (lb/lb):	0.01892	Humidity Ratio (lb/lb):	0.01087
Humidity Ratio (gr/lb):	132.4	Humidity Ratio (gr/lb):	76.1
Relative Humidity:	54.8%	Relative Humidity:	52.5%
Enthalpy (Btu/lb):	43.45	Enthalpy (Btu/lb):	30.73
Mass Flow Rate (lb/min):	221.6	Mass Flow Rate (lb/min):	221.6
Outdoor Exhaust		Room Exhaust	
Dry Bulb(°F):	90.7	Dry Bulb(°F):	75.0
Wet Bulb(°F):	77.1	Wet Bulb(°F):	62.0
Humidity Ratio (lb/lb):	0.01692	Humidity Ratio (lb/lb):	0.00886
Humidity Ratio (gr/lb):	118.4	Humidity Ratio (gr/lb):	62.0
Relative Humidity:	54.5%	Relative Humidity:	48.0%
Enthalpy (Btu/lb):	40.41	Enthalpy (Btu/lb):	27.72
Mass Flow Rate (lb/min):	221.6	Mass Flow Rate (lb/min):	221.6

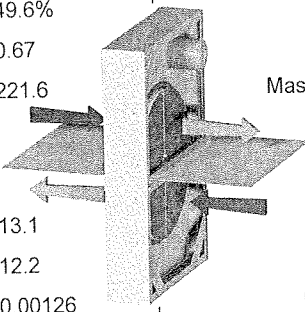


Outdoor Air Cooling Load Reduction

Cooling Load w/o ERV (tons)	17.43
Cooling Load w/ERV (tons)	3.34
Energy Savings (tons)	14.09

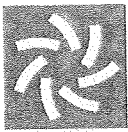
Winter

Outdoor Intake		Room Supply	
Dry Bulb(°F):	1.0*	Dry Bulb(°F):	57.9
Wet Bulb(°F):	-0.6*	Wet Bulb(°F):	45.9
Humidity Ratio (lb/lb):	0.00041	Humidity Ratio (lb/lb):	0.00380
Humidity Ratio (gr/lb):	2.9	Humidity Ratio (gr/lb):	26.6
Relative Humidity:	49.6%	Relative Humidity:	37.6%
Enthalpy (Btu/lb):	0.67	Enthalpy (Btu/lb):	18.03
Mass Flow Rate (lb/min):	221.6	Mass Flow Rate (lb/min):	221.6
Outdoor Exhaust		Room Exhaust	
Dry Bulb(°F):	13.1	Dry Bulb(°F):	70.0
Wet Bulb(°F):	12.2	Wet Bulb(°F):	53.0
Humidity Ratio (lb/lb):	0.00126	Humidity Ratio (lb/lb):	0.00465
Humidity Ratio (gr/lb):	8.8	Humidity Ratio (gr/lb):	32.5
Relative Humidity:	81.9%	Relative Humidity:	30.0%
Enthalpy (Btu/lb):	4.50	Enthalpy (Btu/lb):	21.89
Mass Flow Rate (lb/min):	221.6	Mass Flow Rate (lb/min):	221.6



Outdoor Air Heating Load Reduction

Heating Load w/o ERV (Btu/hr)	255,312
Heating Load w/ERV (Btu/hr)	44,918
Energy Savings (Btu/hr)	210,394



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MARK: HRV1

PROJECT: GRANITE - 117 PREBLE 3

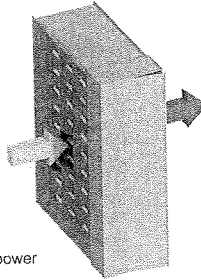
DATE: 5/18/2016

ERV

Coil Performance

Electric Heating Coil

Ent Air Dry Bulb (°F)	57.9
Ent Air Wet Bulb (°F)	45.9
Humidity Ratio (lb/lb)	0.0038
Humidity Ratio (gr/lb)	26.6
Relative Humidity	37.6%
Enthalpy (Btu/lb)	18.03

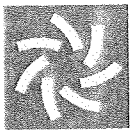


Lvg Air Dry Bulb (°F)	72
Lvg Air Wet Bulb (°F)	52.2
Humidity Ratio (lb/lb)	0.0038
Humidity Ratio (gr/lb)	26.6
Relative Humidity	22.9%
Enthalpy (Btu/lb)	21.43

Coil kW 13.6 *24*

*Coil SP (inwc) is shown for information only. ERV unit performance data is adjusted for value shown.

Electric Electric Post-heat requires a separate power connection from the ERV control panel



COOK



MARK: HRV2

PROJECT: GRANITE - 117 PREBLE 3

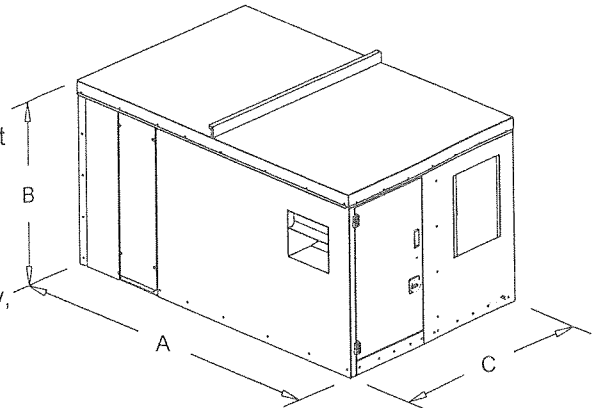
DATE: 5/18/2016

ERV

Energy Recovery Ventilator Belt Drive With Heating/Cooling Coils Arrangement V

STANDARD CONSTRUCTION FEATURES:

Energy recovery wheel constructed of fluted synthetic media containing water selective molecular sieve desiccant - Cassette assembly slides out for easy access and consists of energy recovery wheel, drive motor, and drive components - Removable access doors provide access to all internal components - Ventilator cabinet consisting of a minimum 18 gauge galvanized steel housing mounted to a minimum 16 gauge galvanized steel base - Cabinet internally lined with 1" thick, 3 lb. density, FSK insulation - Two DWDI forward curved steel blowers mounted on vibration isolators - Blower wheel bearings rated at 200,000 hours average life - Blower wheels are factory adjusted to specified RPM - Standard size 2" thick, MERV 8 filters in supply and exhaust air streams - All electrical components pre-wired for single point power connection - Interlock disconnect on hinged control panel door.



Dimensions (inches)

A	90-1/4
B	40-1/2
C	49-1/4

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	1676	Unit	1351
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***Includes fan, motor & accessories.

Performance *Bhp includes drive loss: 10%(S),9%(E)

Qty	Catalog Number	Airstream	Flow (CFM)	Ext. SP** (inwc)	Fan RPM	Power* (HP)	FEG
1	ERV-1500	Supply	1425	1.00	1481	.865	n/a(<1HP)
		Exhaust	1425	1.00	1622	1.21	<50

Altitude (ft): 0 **Static Pressure external to unit.

Motor Information

Airstream	HP	RPM	Volts/Ph/Hz	Enclosure	Mounted
Supply	1-1/2	1725	200/3/60	ODP	YES
Exhaust	1-1/2				

Electrical

ERV Full Load Amps	Minimum Circuit Amps	MOCP*
15.38	19.23	25

* Maximum Overload Circuit Protection

Electric Post Heater**

Heater Voltage	Amps	kW (4 Steps)
208	25.0	9

** Electric Post Heater requires separate power connection.

Design Conditions

	Outdoor		Indoor	
	Dry Bulb (°F)	Wet Bulb (°F)	Dry Bulb (°F)	Relative Humidity
Summer	94.0	80.0	75.0	48.0%
Winter	-10.0	-10.2	70.0	30.0%

Supply Conditions

	Flow (CFM)	Dry Bulb (°F)	Wet Bulb (°F)	Relative Humidity	Humidity Ratio (gr/lb)	Humidity Ratio (lb/lb)	Dew Point (°F)	Enthalpy (Btu/lb)
Summer	1425	79.4	67.2	53.6%	80.4	0.01149	61.2	31.67
Winter		72.0	51.7	21.4%	24.8	0.00354	30.0	21.17

Accessories:

- Premium Efficiency Motor (Min. 86.5%) - Supply
- Premium Efficiency Motor (Min. 86.5%) - Exhaust
- DRIVES (1.5 SF) @ 1481 RPM (SUPL.)
- DRIVES (1.5 SF) @ 1622 RPM (EXH.)
- ELEC HTR 208V ~~9.0KW~~ 11 KW
- COIL ADAPTOR KIT
- BD MOTORIZED INTAKE CTR PIVOT L-24V (OUT. A
- BD MOTORIZED INTAKE CTR PIVOT L-VC-24V (REI
- BD (EXH. AIR DISCH)
- ROOF CURB RCGH 45.75 X 86.75-13.5H
- LORENIZED FINISH
- INTAKE HOOD
- EXHAUST HOOD
- HINGE ACC DOOR W/QTL
- PURGE SECTION
- DOUBLE WALL CONSTRTN
- ECON MODE-TEMP SENSR
- ECON AUTO OVERRIDE
- FROST CTRL-TIMED EXH
- 6 INCH E/R WHEEL
- 11 KW HEATER - SPECIAL
- 2" METAL MESH INTAKE HOOD FILTERS STD
- 90 DEGREE INTAKE HOOD



COOK



MARK: HRV2

PROJECT: GRANITE - 117 PREBLE 3

DATE: 5/18/2016

ERV

Energy Recovery Ventilator Belt Drive With Heating/Cooling Coils Arrangement V

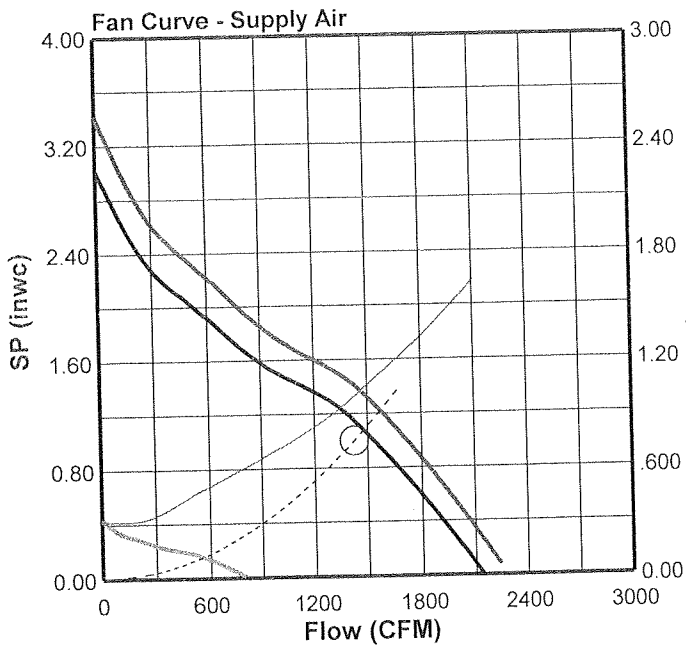
Performance *Bhp includes drive loss: 10%(S),9%(E)

Qty	Catalog Number	Airstream	Flow (CFM)	Ext. SP** (inwc)	Fan RPM	Power* (HP)	FEG
1	ERV-1500	Supply	1425	1.00	1481	.865	n/a(<1HP)
		Exhaust	1425	1.00	1622	1.21	<50

Altitude (ft): 0 **Static Pressure external to unit.

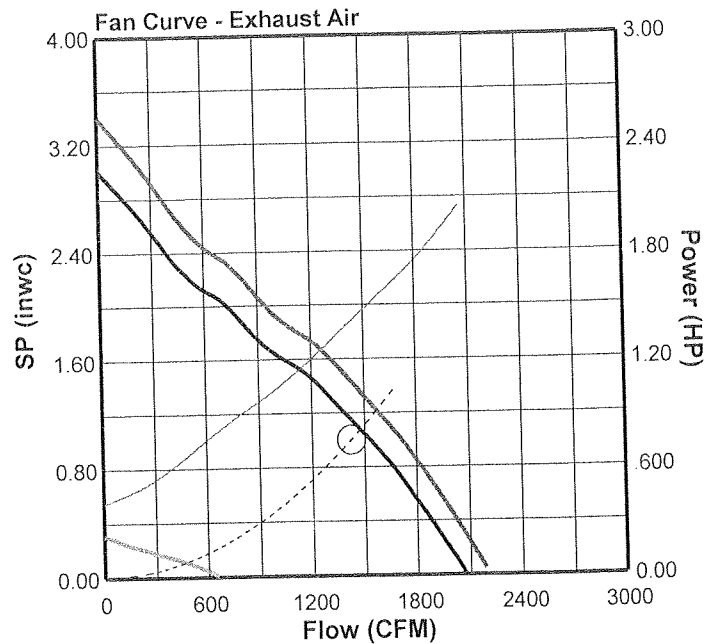
Sound Data 8 Octave Bands dB (10⁻¹² Watts)

Airstream	1	2	3	4	5	6	7	8	LwA
Supply	99	98	89	82	77	76	73	70	87
Exhaust	101	101	93	85	80	79	77	73	91



Fan Curve Legend

CFM vs SP (1481)	—
MaxRPM(1576)	—
MinRPM(562)	—
CFM vs HP	—
Point of Operation	○
System Curve	---



Fan Curve Legend

CFM vs SP (1622)	—
MaxRPM(1725)	—
MinRPM(520)	—
CFM vs HP	—
Point of Operation	○
System Curve	---



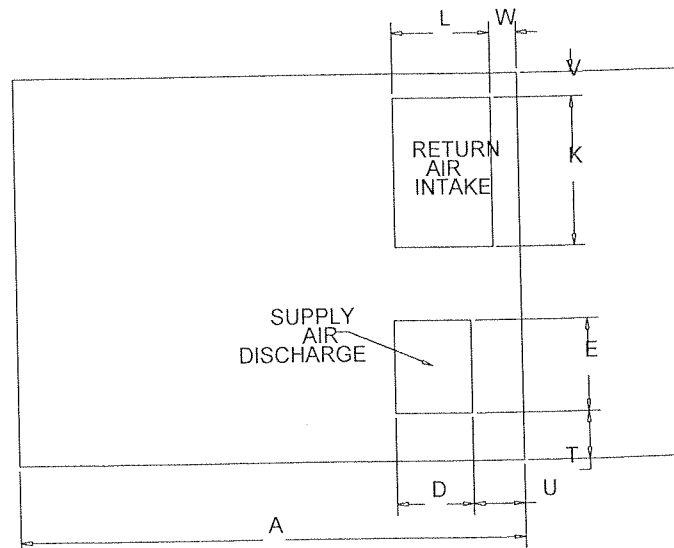
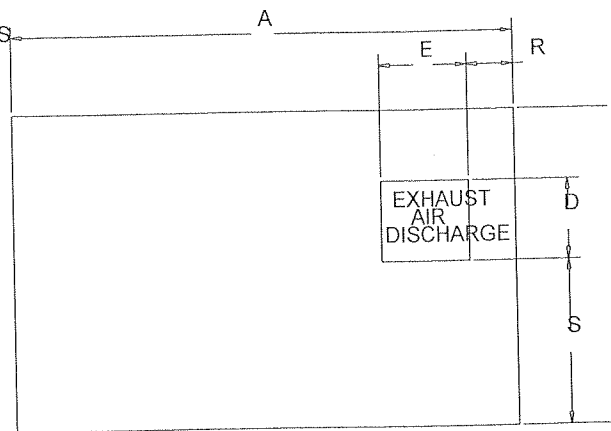
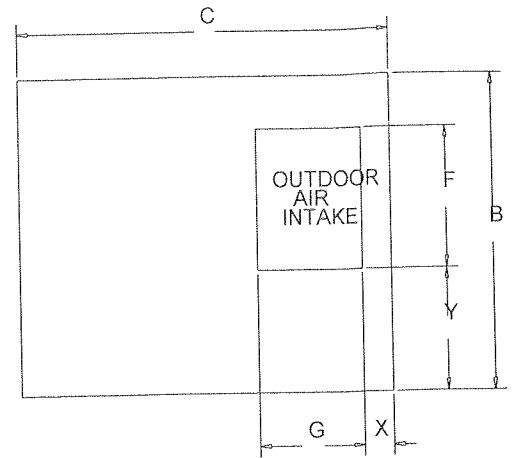
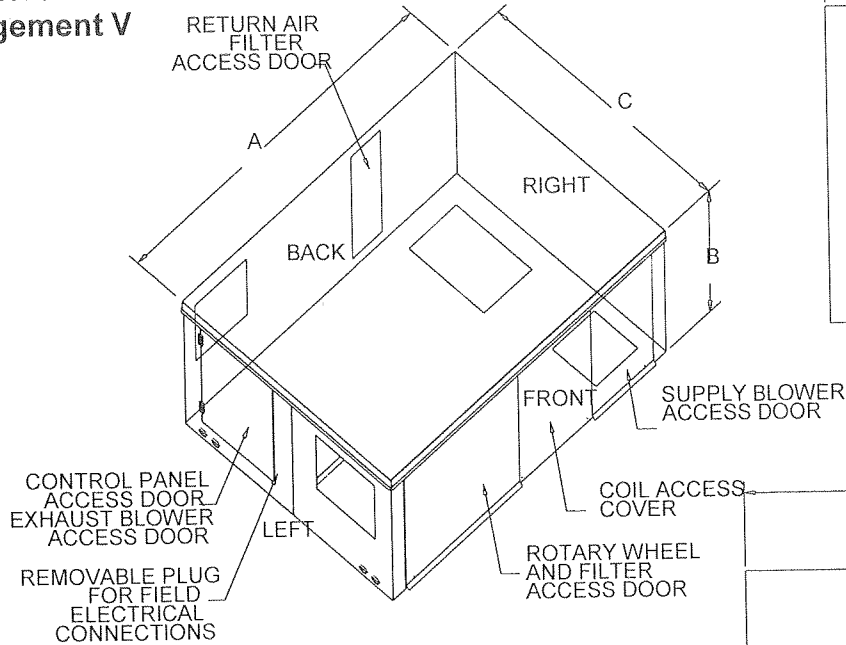
COOK



MARK: HRV2
 PROJECT: GRANITE - 117 PREBLE 3
 DATE: 5/18/2016

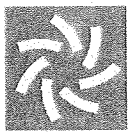
ERV

**Energy Recovery Ventilator
 With Heating/Cooling Coils
 Belt Drive
 Arrangement V**



Dimensions (inches)

Size	1500
A	90-3/16
B	40-13/32
C	49-9/32
D	10-1/4
E	11-13/16
F	18
G	14
K	19
L	13
R	6-1/8
S	21-1/8
T	6-1/16
U	6-11/16
V	3-5/8
W	3-1/4
X	4-1/16
Y	15-5/8



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MARK: HRV2

PROJECT: GRANITE - 117 PREBLE 3

DATE: 5/18/2016

ERV

ERV 6" Wheel Performance Report

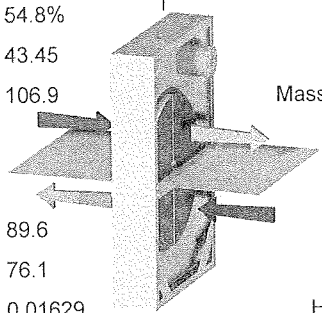
Performance

Catalog Number	Flow (CFM)		Wheel Effectiveness	
	Supply	Exhaust	Sensible	Latent
ERV-1500	1425	1425	77.0%	73.9%

Performance shown is based on 6" deep Energy Recovery Wheel

Summer

Outdoor Intake		Room Supply	
Dry Bulb(°F):	94.0	Dry Bulb(°F):	79.4
Wet Bulb(°F):	80.0	Wet Bulb(°F):	67.2
Humidity Ratio (lb/lb):	0.01892	Humidity Ratio (lb/lb):	0.01149
Humidity Ratio (gr/lb):	132.4	Humidity Ratio (gr/lb):	80.4
Relative Humidity:	54.8%	Relative Humidity:	53.6%
Enthalpy (Btu/lb):	43.45	Enthalpy (Btu/lb):	31.67
Mass Flow Rate (lb/min):	106.9	Mass Flow Rate (lb/min):	106.9
Outdoor Exhaust		Room Exhaust	
Dry Bulb(°F):	89.6	Dry Bulb(°F):	75.0
Wet Bulb(°F):	76.1	Wet Bulb(°F):	62.0
Humidity Ratio (lb/lb):	0.01629	Humidity Ratio (lb/lb):	0.00886
Humidity Ratio (gr/lb):	114.0	Humidity Ratio (gr/lb):	62.0
Relative Humidity:	54.3%	Relative Humidity:	48.0%
Enthalpy (Btu/lb):	39.47	Enthalpy (Btu/lb):	27.72
Mass Flow Rate (lb/min):	106.9	Mass Flow Rate (lb/min):	106.9

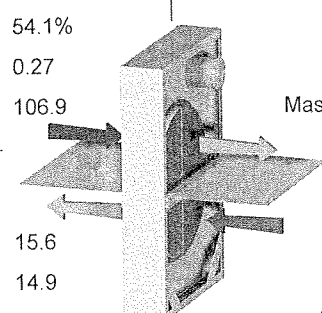


Outdoor Air Cooling Load Reduction

Cooling Load w/o ERV (tons)	8.41
Cooling Load w/ERV (tons)	2.11
Energy Savings (tons)	6.29

Winter

Outdoor Intake		Room Supply	
Dry Bulb(°F):	-0.7*	Dry Bulb(°F):	53.7
Wet Bulb(°F):	-2.0*	Wet Bulb(°F):	43.3
Humidity Ratio (lb/lb):	0.00041	Humidity Ratio (lb/lb):	0.00354
Humidity Ratio (gr/lb):	2.9	Humidity Ratio (gr/lb):	24.8
Relative Humidity:	54.1%	Relative Humidity:	40.7%
Enthalpy (Btu/lb):	0.27	Enthalpy (Btu/lb):	16.74
Mass Flow Rate (lb/min):	106.9	Mass Flow Rate (lb/min):	106.9
Outdoor Exhaust		Room Exhaust	
Dry Bulb(°F):	15.6	Dry Bulb(°F):	70.0
Wet Bulb(°F):	14.9	Wet Bulb(°F):	53.0
Humidity Ratio (lb/lb):	0.00152	Humidity Ratio (lb/lb):	0.00465
Humidity Ratio (gr/lb):	10.6	Humidity Ratio (gr/lb):	32.5
Relative Humidity:	87.7%	Relative Humidity:	30.0%
Enthalpy (Btu/lb):	5.37	Enthalpy (Btu/lb):	21.89
Mass Flow Rate (lb/min):	106.9	Mass Flow Rate (lb/min):	106.9



Outdoor Air Heating Load Reduction

Heating Load w/o ERV (Btu/hr)	123,120
Heating Load w/ERV (Btu/hr)	28,373
Energy Savings (Btu/hr)	94,747

*Adjusted to the energy wheel frost formation threshold temperature
v6.6.95.13147



COOK



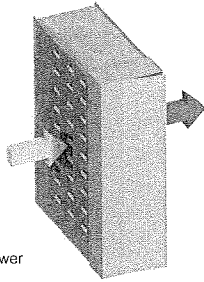
MARK: HRV2
PROJECT: GRANITE - 117 PREBLE 3
DATE: 5/18/2016

ERV

Coil Performance

Electric Heating Coil

Ent Air Dry Bulb (°F)	53.7
Ent Air Wet Bulb (°F)	43.3
Humidity Ratio (lb/lb)	0.00354
Humidity Ratio (gr/lb)	24.8
Relative Humidity	40.7%
Enthalpy (Btu/lb)	16.74



Lvg Air Dry Bulb (°F)	72
Lvg Air Wet Bulb (°F)	51.7
Humidity Ratio (lb/lb)	0.00354
Humidity Ratio (gr/lb)	24.8
Relative Humidity	21.3%
Enthalpy (Btu/lb)	21.15

Coil kW 9.11

*Coil SP (inwc) is shown for information only. ERV unit performance data is adjusted for value shown.

Electric Electric Post-heat requires a separate power connection from the ERV control panel



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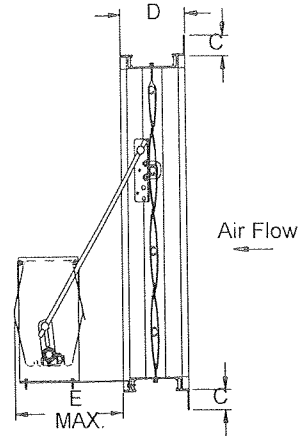
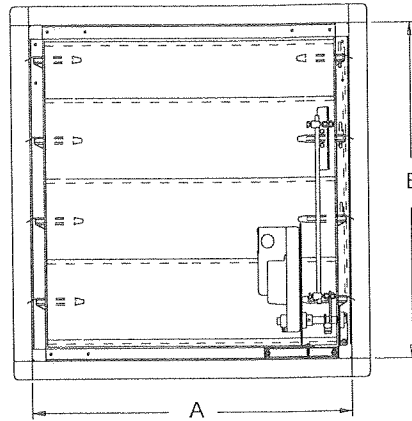
BDMICL

Backdraft Motorized Center Pivot Low Leakage Damper

STANDARD CONSTRUCTION FEATURES:

- 14 ga galvanized steel blades -
- 16 ga galvanized steel frame -
- 1/2" plated steel hex hinge pins -
- Stainless steel sleeve bearings -
- 24 VAC Non-overloading motor.

Notes: Max operating temperature -
130 Deg F (50 Deg C).



Dimensions (inches)

Mark	Qty	Description	A	B	C	D	E
HRV1	1	BDMICL-24V (OUT. AIR)	23-3/4	33-3/4	1-1/2	5	8-1/4
HRV2	1	BDMICL-24V (OUT. AIR)	13-3/4	17-3/4	1-1/2	5	8-1/4



COOK

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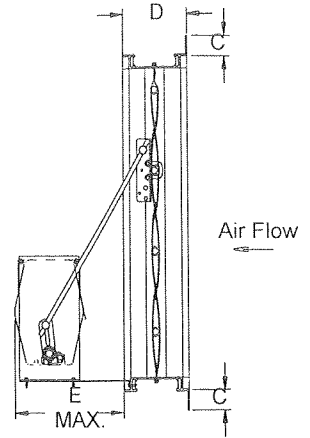
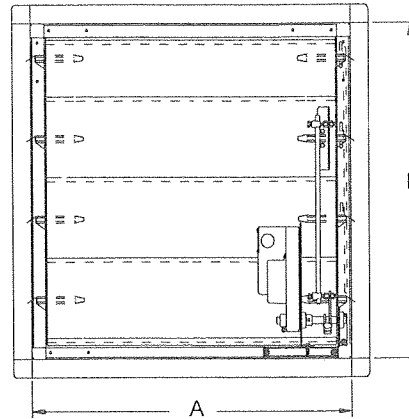
BDMICL-VC

Backdraft Motorized Center Pivot Low Leakage Damper

STANDARD CONSTRUCTION FEATURES:

- 14 ga galvanized steel blades -
- 16 ga galvanized steel frame -
- 1/2" plated steel hex hinge pin -
- Stainless steel sleeve bearing -
- 24VAC Non-overloading motor.

Notes: Max operating temperature -
130 Deg F (50 Deg C).



Dimensions (inches)

Mark	Qty	Description	A	B	C	D	E
HRV1	1	BDMICL-VC-24V (RET. A)	25-3/4	18-1/2	1-1/2	5	8-1/4
HRV2	1	BDMICL-VC-24V (RET. A)	18-3/4	12-3/4	1-1/2	5	8-1/4



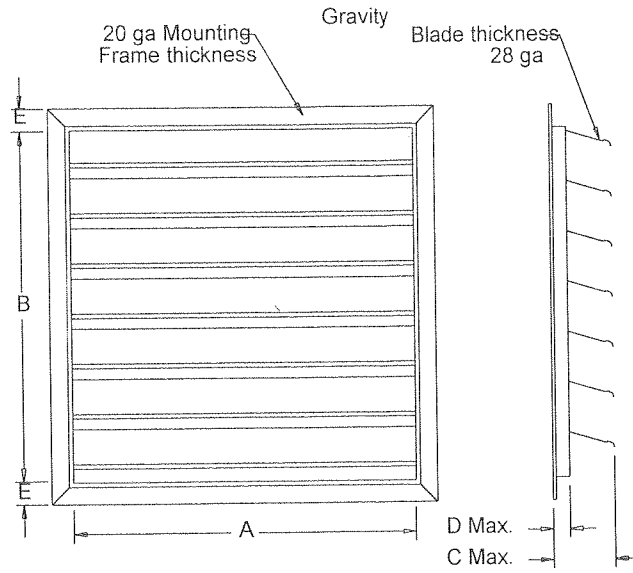
COOK

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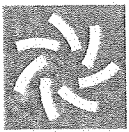
BD

Automatic Backdraft Damper



Dimensions (inches)

Mark	Qty	Description	A	B	C	D	E
HRV1	1	BD (EXH. AIR DISCH)	15-1/8	12-15/16	6-3/4	1-3/4	1-1/2
HRV2	1	BD (EXH. AIR DISCH)	11-5/16	9-3/4	6-3/4	1-3/4	1-1/2



COOK

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RCGH

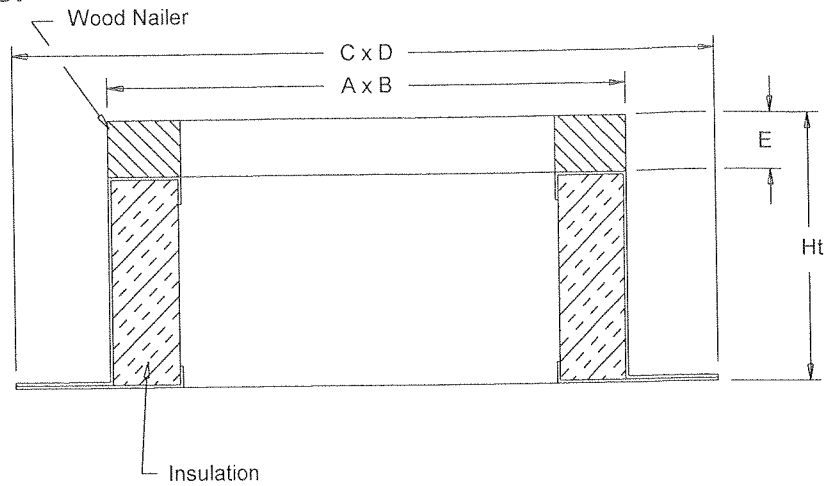
Galvanized Steel Heavy Duty Roof Curb

STANDARD CONSTRUCTION FEATURES:

1-1/2", 3 lbs. density thermal and acoustical insulation - Continuously welded corners - wood nailer.

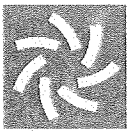
Options:(As noted below*)

- 1) No wood nailer (deduct 1-1/2" for actual height)



Dimensions (inches)

Mark	Qty	Description	Ht	Options*	A	B	C	D	E	Steel Ga.
HRV1	1	RCGH 63 X 102	13.5	-	102	63	106	67	1-1/2	14
HRV2	1	RCGH 45.75 X 86.75	13.5	-	86-3/4	45-3/4	90-3/4	49-3/4	1-1/2	16



COOK

PROJECT: GRANITE - 117 PREBLE 3

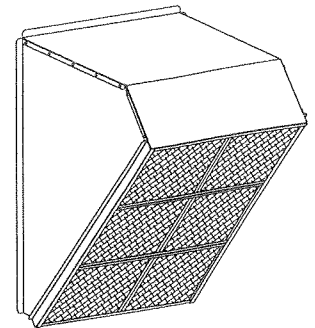
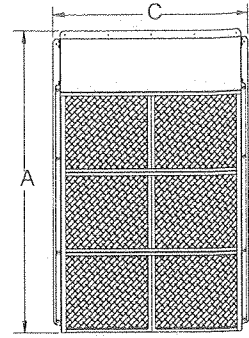
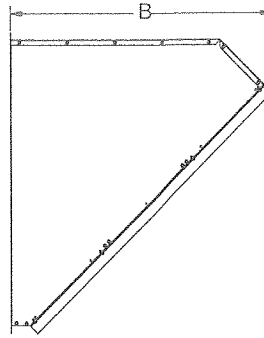
DATE: 5/18/2016

INTAKE HOOD

Galvanized Steel

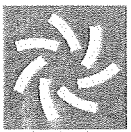
STANDARD CONSTRUCTION FEATURES:

Minimum 18 Ga galv steel panels - 2" thick washable, removable aluminum filters



Dimensions (inches)

Mark	Qty	Description	A	B	C
HRV1	1	INTAKE HOOD	43-3/16	41-7/16	33
HRV2	1	INTAKE HOOD	24-13/16	24-1/4	23



COOK

PROJECT: GRANITE - 117 PREBLE 3

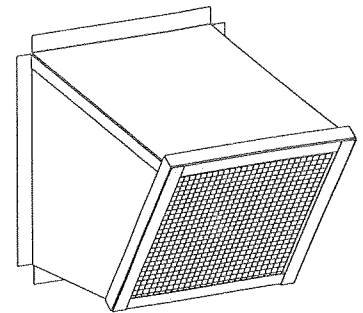
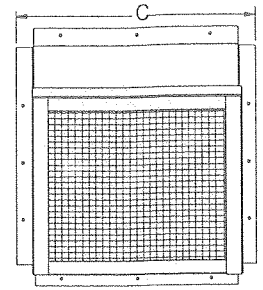
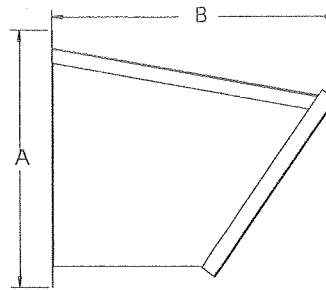
DATE: 5/18/2016

EXHAUST HOOD

Galvanized Steel

STANDARD CONSTRUCTION FEATURES:

Minimum 18 Ga Galv Steel - Birdscreen covering exhaust - integral damper mounting flange



Dimensions (inches)

Mark	Qty	Description	A	B	C
HRV1	1	EXHAUST HOOD	21-3/4	22-7/8	21-9/16
HRV2	1	EXHAUST HOOD	18-3/16	20-5/8	17-3/4