

Part 1 ADDENDUM NO.1

1.1 General

- .1 This Addendum is issued prior to tender closing and shall become an integral part of the Tender, Specifications, Drawings and Contract Documents for this project.
- .2 In the event of conflicts between the various Contract Documents, the order of precedence shall be as stipulated in the General Conditions of the Contract, except that this Addendum shall take overall precedence.

Part 2 Equals

2.1 See attached requests for equals

END OF SECTION



1948 Main Street, Winnipeg, MB R2V 2B4
PHONE: (204)943-7222 FAX: (204)947-5717

PROJECT NAME: RCMP House Repair Lundar, Manitoba MB – 18-072-01-30

SUBMITTED BY: Midwest Engineering

DATE: January 7 2019 PHONE: 204-989-3636

REVIEWED BY: Reid Sitar

The following products have been reviewed in accordance with the General Requirements of the contract documents. It shall be conclusively assumed that the individual or firm, requesting the acceptance of the substitute product, certifies that the substitute will adequately perform the functions called for by the general design drawings and associated specifications, be similar and of equivalent substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the Schedule of Work and Completion Date(s). Furthermore, in the event that the substitute product is accepted, any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the requested substitute, as well as any cost or time impacts that may be associated with the use of the substitute, shall be the responsibility of the individual or firm requesting approval of the substitute product.

Schedule Reference: Fire Dampers

Equal Granted

Schedule Reference: HRV

Equal Granted



REQUEST FOR EQUALS

To: Can-Tec Services Ltd.

Date: February 28, 2019

Attention: Janet Losel Sitar, P. Eng.

Re: RCMP Detachment Renovations

From: Rob McLean, EIT

SPEC. SECTION	ITEM	PRODUCT SPECIFIED	REQUESTED EQUAL	EQUAL GRANTED
	Fire Dampers	Controlled Air	Nailor - To meet or exceed specified performance and specifications	
	Heat Recovery Ventilator	Venmar	Nu-Air - To meet or exceed specified performance and specifications	



STATIC CURTAIN TYPE FIRE DAMPER
 1 1/2 HR. LABEL • VERT. OR HORIZ.
 FOR USE IN STATIC SYSTEMS
MODELS: 0120V AND 0120H (TYPE B)



QUALIFICATIONS:

- UL 555 & CAN/ULC-S112 CLASSIFIED FIRE DAMPER. 1 1/2 hr. label (File # R9492).
- Meets all the requirements of UL and NFPA 80, 90A and 101 for fire dampers in static HVAC systems, as well as IBC and NBC (Canada) Building Code requirements.
- City of New York Board of Standards and Appeals. Cal. No. 460-88-SA.
- California State Fire Marshal: Fire Damper Listing No. 3225-0935:0100.

Model 0120 curtain fire damper is UL approved for use where local building codes require the protection of HVAC ductwork penetrations in walls, partitions or floors that have a fire resistance rating of up to 2 hours. The 0120 is classified for use only in static "fans off" systems where the HVAC system is automatically shut down in the event of a fire alarm.

Type B fire dampers place the curtain blade pack out of the airstream for higher free area and reduced pressure drop.

STANDARD CONSTRUCTION:

- Frame:** 4 1/4" (108) wide, 22 ga. (0.85) roll-formed G60 galvanized steel.
- Blades:** Curtain type interlocking blades, 22 ga. (0.85) roll-formed G60 galvanized steel.
- Enclosure:** 22 ga. (0.85) galvanized steel.
- Fusible Link:** 165°F (74°C) standard. UL Listed. 212°F (100°C) available.
- Blade Closure:** Vertical mount model; gravity. Horizontal mount models are equipped with stainless steel closure springs and galvanized steel locking ramps.

Sizes (Duct W x H):

Minimum		Maximum		
Single Section		Single Section	Multiple Section	
Vertical	Horizontal	Vertical/Horizontal	Vertical	Horizontal
4" x 3" (102 x 76)	4" x 4" (102 x 102)	60" x 54" (1524 x 1372)	120" x 114" (3048 x 2896)	① 102" x 54" (2591 x 1372)

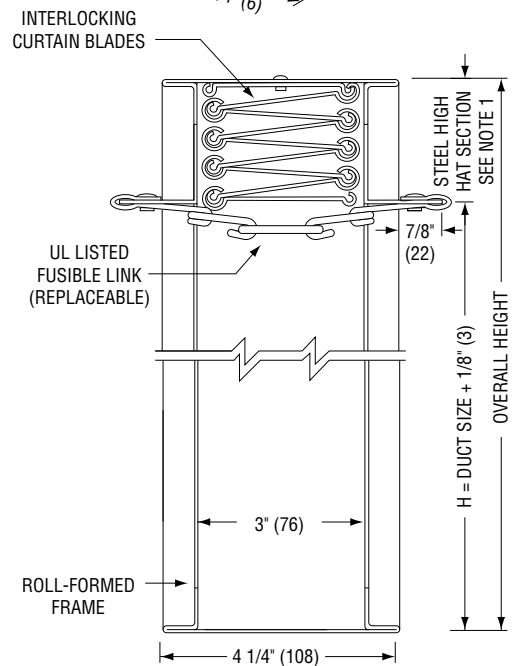
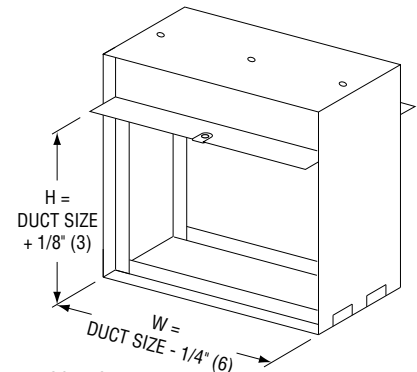
① Maximum individual sections not to exceed 34" x 60" (684 x 1524).

OPTIONS:

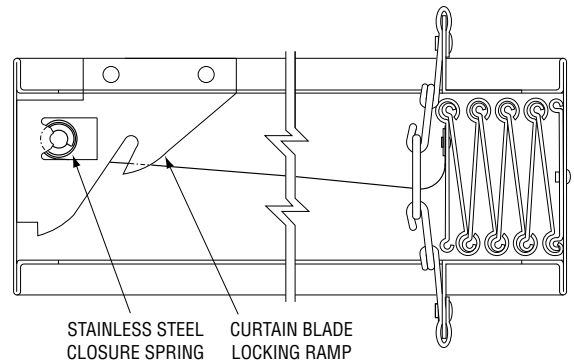
- Non-standard temperature fusible link. Specify _____.
- PT Pull Tab Release. Permits simple reset of horizontal damper when access door is located below damper. (See dwg. ACC-PTR for details).
- Factory Sleeve. Available in 10 (3.5) through 22 ga. (0.85) galvanized steel and in lengths required for application. Specify: _____ length. _____ ga.

NOTES:

1. See sizing chart for relationship of duct size and damper size. Refer to drawings 0100-MSSC.



MODEL 0120V – VERTICAL MOUNT



MODEL 0120H – HORIZONTAL MOUNT

For installation instructions, see IOM-FDINST.

Dimensions are in inches (mm).

SCHEDULE TYPE:			
PROJECT:			
ENGINEER:			
CONTRACTOR:			
DATE	B SERIES	SUPERSEDES	DRAWING NO.
4-28-14	FD	10-6-06	0100-2

NU0103 HRV PRODUCT INFORMATION SHEET

APPROVALS:

Conforms to UL Std 1812 Certified to CSA Std C22.2 No. 113

CABINET: The case is constructed of .050 prepainted white aluminum. The cabinet is fully insulated with 1” foil faced fiberglass insulation.

HEAT EXCHANGER CORE: The core is polypropylene.

BLOWERS: Two forward curve, dual inlet impellers using permanently sealed bearings.

DEFROST OPTIONS

Circulation Defrost: When outdoor temperature is below -5° C (23° F), a defrost cycle is initiated for a fixed duration. The fresh air motor will run and the exhaust air motor will shut down. A damper will shut off the cold supply port, directing ambient air through the core for defrosting. The unit will resume normal operation for a fixed duration, then the processor will read outdoor temperature and initiate defrost as necessary. Defrost times and intervals will vary according to temperature below -5° C (23° F). **NOTE:** *In circulation defrost mode, this unit will not induce indoor negative pressure nor recycle exhaust air; rather it will redistribute ambient room air.*

Timed fan shut down defrost - The outside air before the core is monitored. When below freezing, a defrost cycle is activated. The supply fan shuts down while the exhaust fan continues to move warm air through the core. After a predefined temperature based time cycle, the HRV reverts to exchange mode.

AIR FLOW	289 cfm @ 0.4 in. w.c. 136 l/s @ 100 Pa
DUCT SIZE	8 in. dia 203 mm
CORE SIZE (L x W x D)	14 x 14 x 14 in. 356 x 356 x 356 mm
CABINET SIZE (L x H x D)	36 x 23 x 17 in. 914 x 584 x 432 mm
WATTS	170
VOLTS	115
WEIGHT	50lb/23 kg

ADDITIONAL FEATURES:

Fan interlock options: interlocks in Hi and Lo speeds or Hi speed only.

Intelligent defrost adjusts to outdoor conditions below -5° C (23° F)

Independent speed adjustment of either supply or exhaust motor in BOTH high and low speed

24V circuit protection with self-resetting fuse

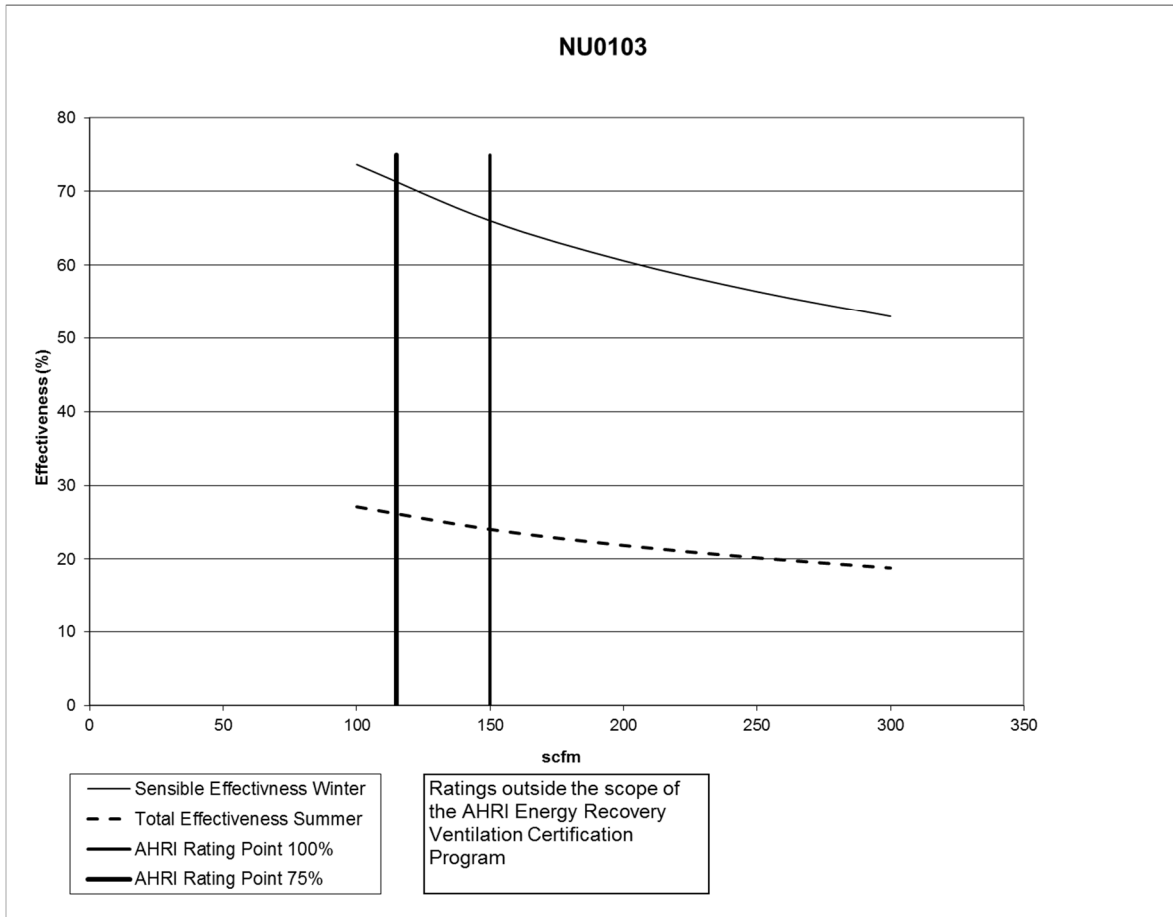
Drain, hanger kit, polyester air filters included 13.5”x14”x0.5”

12 VDC **AND/OR** 24 V connection for remote control with mechanical switch or the following Nu-Air controls:

12 VDC controls available	24 V controls available
Lumina digital control with dehumidistat, timer functions and filter change indicator ES-M1: Off/ Stand-by / Lo/ Hi ES-M2: Off/ Stand-by / Lo/ 20 Lo-40 Standby ES-M3: Off/ Stand-by / Lo/ 20 Lo-40 Recirculation ES-M4: Off/Stand-by/Recirculation ES-T1: 20-40-60-minute timer	Any Dry Contact Switch DSTAT-1: Humidity control Win-1: Humidity control/ OFF/ STBY/ Continuous/ Intermittent/ Full-time high speed WIN-20: 20-minute timer (up to 6)

WARRANTY: Subject to applicable consumer protection legislation Nu-Air Ventilation Systems Inc. warrants that the unit will be free from defective materials and workmanship for a period of two (2) years provided installation is in accordance with the instructions, 15 year warranty on plastic cores.

NU0103 HRV EFFICIENCY



Model no.	PC 14		
Type	Plate		
Nominal Air Flow (scfm)	150		
Pressure drop (inches)	0.19		
Leakage Ratings	Diff. Pressure	EATR %	OACF
Test 1	-0.5	0.50	0.95
Test 2	0	0.00	1.00
Test 3	0.5	0.20	1.08
Thermal Effectiveness Ratings at 0" Pressure Differential			
	Sensible	Latent	Total
100% air Flow Heating	66	0	43
75% air Flow Heating	71	0	47
100% air Flow cooling	64	0	24
75% air Flow Cooling	69	0	26
	Net Sensible	Net Latent	Net Total
100% air Flow Heating	66	0	43
75% air Flow Heating	71	0	47
100% air Flow cooling	64	0	24
75% air Flow Cooling	69	0	26



Energy recovery component is certified by AHRI to AHRI Standard 1060. Actual performance in packaged equipment may vary.

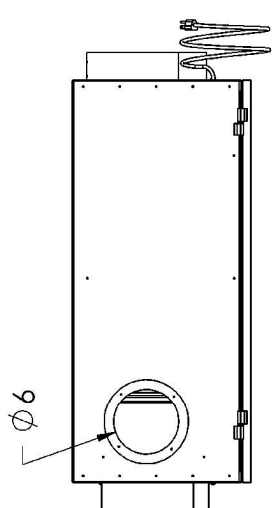
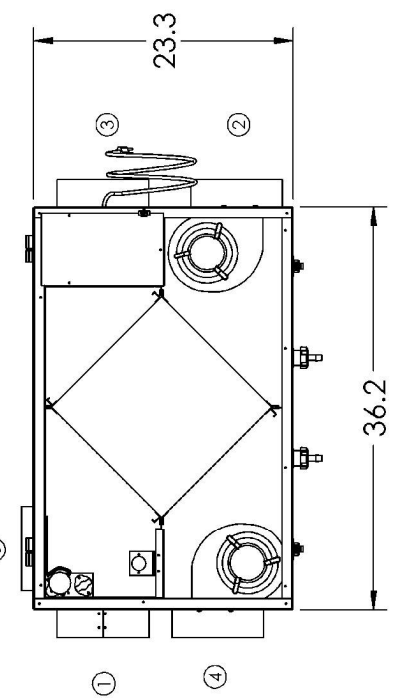
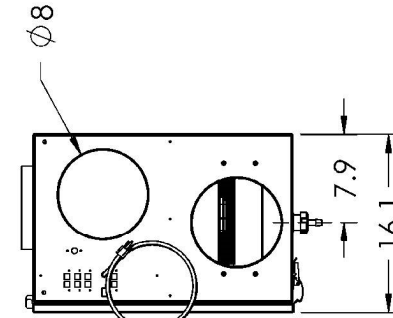
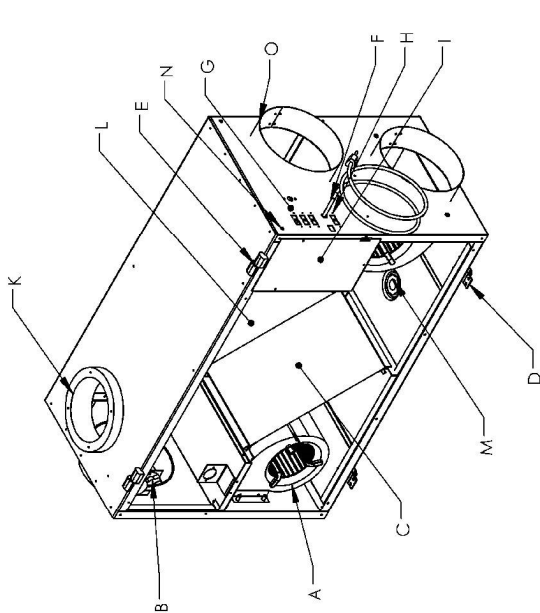
A	FORWARD CURVE, DUAL INLET IMPELLER (2)
B	DEFROST SWITCH
C	HEAT EXCHANGER CORE - SENSIBLE OR TOTAL
D	LATCH (2)
E	HINGE (2)
F	ELECTRICAL CONNECTION - CORD
G	CONTROL TERMINALS
H	FURNACE INTERLOCK
I	ELECTRICAL BOX
J	DEFROST AIR DAMPER AND COLLAR (6") - OPTIONAL
L	FILTERS (2)
M	5/8" DRAINS (2)
N	HANGER MOUNTS (4)
O	DUCT COLLARS 8"

DEFROST OPTIONS:

F - FAN SHUT DOWN, EXHAUST ONLY, TEMPERATURE ACTIVATED, TIMED CYCLE. FOR MODERATE WINTER TEMPERATURES WHERE SOME NEGATIVE BUILDING PRESSURE IS ACCEPTABLE.

D - CIRCULATION DEFROST, NO EXHAUST, CIRCULATION OF ROOM AIR. TEMPERATURE ACTIVATED, TIMED CYCLE. FOR COLD WINTER TEMPERATURES AND/OR WHERE BUILDING PRESSURE MUST REMAIN NEUTRAL.

IN BOTH CASES THE TIME CYCLE IS PROPORTIONAL TO OUTSIDE AIR TEMPERATURE



TITLE:		
NU0103 SHOP DWG		
SIZE	DWG. NO.	REV
A	71500	AE
SCALE: 1:12	WEIGHT:	SHEET 1 OF 1

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES	DRAWN	NAME	DATE
TOLERANCES:			16/03/2012
ANGULAR: BEND ±1°			
TWO PLACE DECIMAL ±0.01			
THREE PLACE DECIMAL ±0.001			
MATERIAL	MODEL INFORMATION:		
	Model Name:		
	NU 305 Damper		
	Model Revision Level:		
	AE		
	Drawing Revision Level:		
	AA		
PROJECT:	NU305		
DO NOT SCALE DRAWING			

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF NU-AIR VENTILATION SYSTEMS INCORPORATED. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF NU-AIR VENTILATION SYSTEMS INCORPORATED IS PROHIBITED.

1	OUTSIDE AIR / FRESH AIR FROM OUTSIDE
2	SUPPLY AIR / FRESH AIR TO SPACE
3	RETURN AIR / EXHAUST AIR FROM SPACE
4	EXHAUST AIR / EXHAUST AIR TO OUTSIDE
5	DEFROST AIR