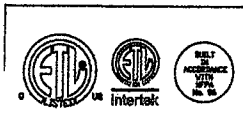


**SECTION VIEW - MODEL 4812ESX-2
HOOD - #1**

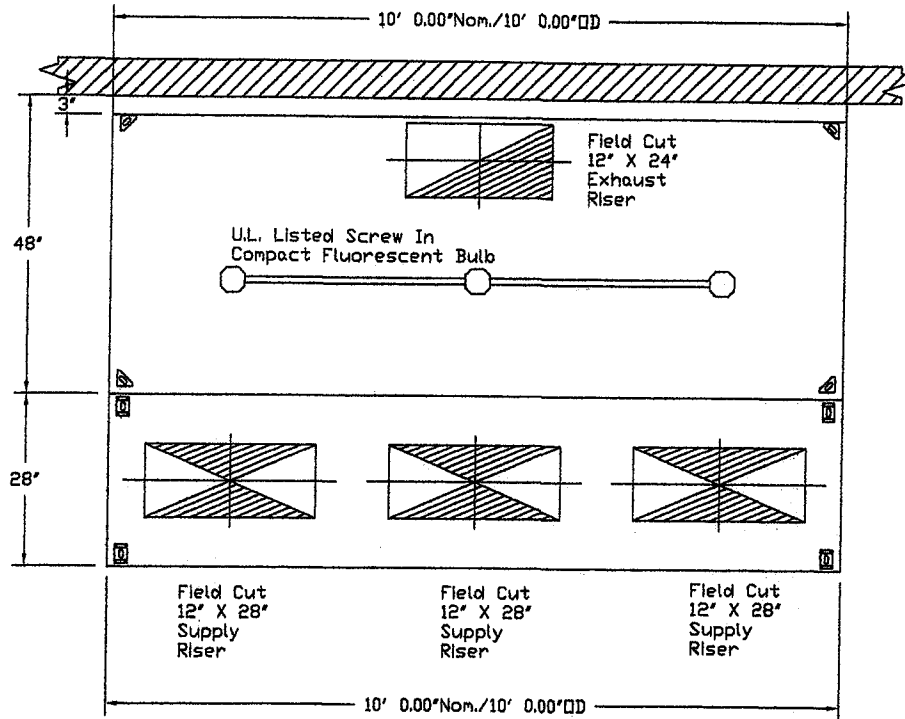
CUSTOMER APPROVAL TO MANUFACTURE:

Approved as Noted	<input type="checkbox"/>
Approved with ND Exception Taken	<input type="checkbox"/>
Revise and Resubmit	<input type="checkbox"/>
SIGNATURE _____	
Your Title _____	



JOB: <i>izakayo Minato r.1</i>	
LOCATION: <i>Biddeford, ME</i>	
DATE: <i>10/13/21</i>	DB #: <i>2801168</i>
DWG #:	RAWN BY: <i>KCD-21</i>

PLAN VIEW - Hood #1
 10' 0.00" LONG 4812ESX-2



PLAN VIEW - Hood #2 (28"W Supply Plenum)
 10' 0.00" LONG 286MISC-PSP

CUSTOMER APPROVAL TO MANUFACTURE:

Approved as Noted

Approved with NO Exception Taken

Revise and Resubmit

SIGNATURE _____

Your Title _____



JOB Izakayo Minato r.1	
LOCATION Bladeford, ME,	
DATE 10/11/2016	JOB # 2801168
DWG # 2	DRAWN BY KCD-21

HOOD INFORMATION - Job#2801168

HOOD NO.	TAG	MODEL	LENGTH	MAX. COOKING TEMP.	EXHAUST RISER(S)						TOTAL SUPPLY CFM	HOOD CONSTRUCTION	END TO END		
					TOTAL EXH. CFM	WIDTH	LENG.	HEIGHT	DIA.	CFM			S.P.	END TO END	R.
1		4812 ESX-2	10' 0.00'	600 Deg.	2750	12'	24'	4'		2750	-0.791'	0	430 SS 100%	ALONE	ALONE
2	28"V Supply Plenum	286 MISC-PSP	10' 0.00'	300 Deg.	0							2200	430 SS 100%	ALONE	ALONE

HOOD INFORMATION

HOOD NO.	TAG	FILTER(S)					LIGHT(S)			UTILITY CABINET(S)				FIRE SYSTEM PIPING	HOOD HANGING WGT	
		TYPE	QTY.	HEIGHT	LENGTH	EFFICIENCY @ 9 MICRONS	QTY.	TYPE	WIRE GUARD	LOCATION	SIZE	FIRE SYSTEM TYPE	ELECTRICAL MODEL #			SWITCHES QUANTITY
1		Captrate Solo Filter	7	20"	16'	93% See Filter Spec.	3	Screw In Compact	NO						NO	369 LBS
2	28"V Supply Plenum						0								NO	162 LBS

HOOD OPTIONS

HOOD NO.	TAG	OPTION
1		LEFT QUARTER END PANEL 23' Top Width, 0' Bottom Width, 23' High 430 SS RIGHT QUARTER END PANEL 23' Top Width, 0' Bottom Width, 23' High 430 SS

PERFORATED SUPPLY PLENUM(S)

HOOD NO.	TAG	POS.	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S)			
							WIDTH	LENG.	DIA.	S.P.
2	28"V Supply Plenum	Front	120'	28'	6'	MUA	12'	28'	733	0.202'
						MUA	12'	28'	733	0.202'
						MUA	12'	28'	733	0.202'

SPECIFICATION: CAPTRATE® GREASE-STOP® SOLID FILTER

THE CAPTRATE GREASE-STOP SOLID FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

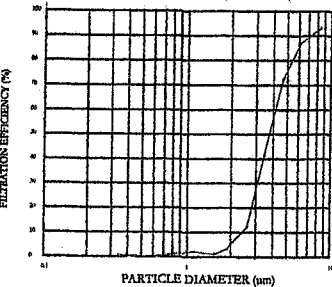
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

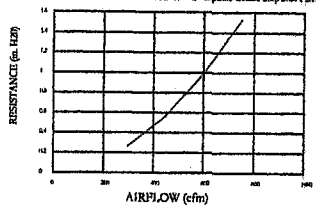
GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 90% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

THE CAPTRATE GREASE-STOP SOLID WAS TESTED TO ASTM STANDARD ASTM F2519-05.

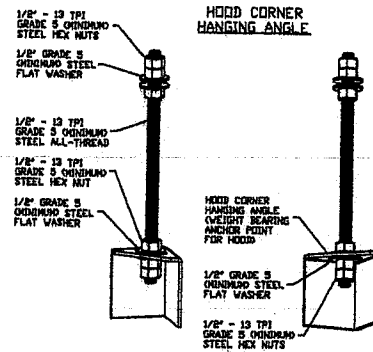
FILTER COLLECTION EFFICIENCY 2" Captrate Grease-Stop Solid Filter



RESISTANCE VS. AIRFLOW - 2" Captrate Grease-Stop Solid Filter

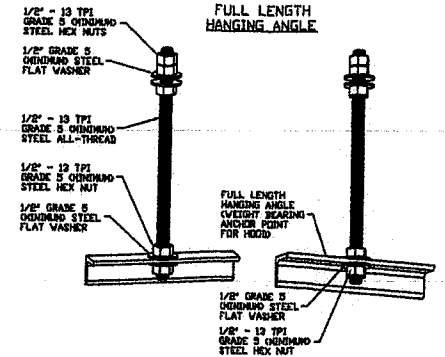


CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:
 NFPA #96
 NSF STANDARD #2
 UL STANDARD #1046
 INT. MECH. CODE (IMC)
 ULC-S649



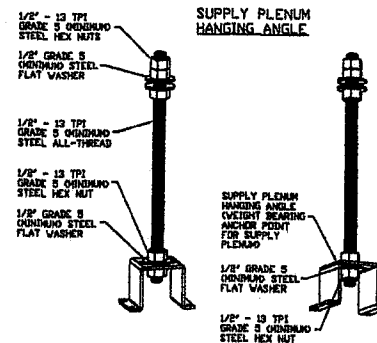
ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD, SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD, SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR FULL LENGTH HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD, SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR PSP HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

CUSTOMER APPROVAL TO MANUFACTURE!

Approved as Noted

Approved with NO Exception Taken

Revise and Resubmit

DATE _____

BY _____



JOB Izakayo Minato r.1	
LOCATION Bladeford, ME,	
DATE 10/11/2016	JOB # 2801168
DWG # 1	DRAWN BY KCD-21

EXHAUST FAN INFORMATION - Job#2801168

FAN UNIT NO.	TAG	FAN UNIT MODEL #	CFM	ESP.	RPM	H.P.	B.H.P.	Ø	VOLT	FLA	WEIGHT (LBS.)	SONES
1		EABDU18	2750	1.200	1116	1.500	1.0620	1	230	6.8	208	13.5

MUA FAN INFORMATION - Job#2801168

FAN UNIT NO.	TAG	FAN UNIT MODEL #	BLOWER	HOUSING	CFM	ESP.	RPM	H.P.	B.H.P.	Ø	VOLT	FLA	WEIGHT (LBS.)	SONES
2		EA-A1-G10	G10D	A1	1900	0.350	858	1.000	0.5010	1	230	6.1	262	18.1

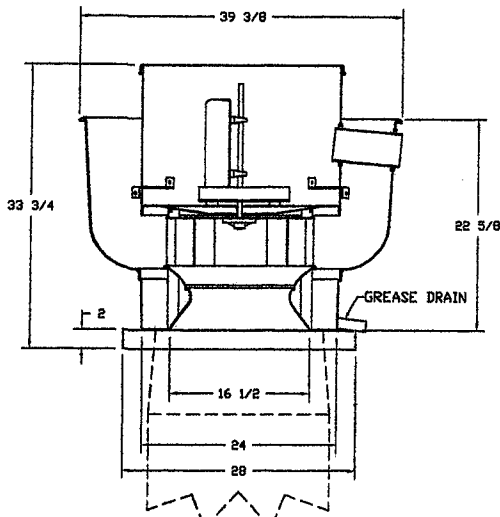
FAN OPTIONS

FAN UNIT NO.	TAG	OPTION (Qty. - Descr.)
1		1 - Grease Box
		1 - Full Crating For Exhaust Fans
		1 - 3 Year Extended Motor Warranty
		1 - Extra Set of Belts
		1 - Fan Base Ceramic Seal - For Grease Ducts
		1 - Hinge Kit - Ships Loose for Curb Supplied by Others
2		1 - Full Crating For Untempered Fans
		1 - Wall Mount Option for Size 1 Untempered Fan
		1 - 3 Year Extended Motor Warranty
		1 - Gravity Backdraft Damper for Size 1 Housing
	1 - ECM Wiring Package-Supply Fans Untempered- Manual Speed Control.	

FAN ACCESSORIES

FAN UNIT NO.	TAG	EXHAUST				SUPPLY		
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1		YES						
2					YES	YES		YES

FAN #1 EABDU18 - EXHAUST FAN



FEATURES:

- ROOF MOUNTED FANS
- RESTAURANT MODEL
- UL705 AND UL762
- AMCA SOUND AND AIR CERTIFIED
- WIRING FROM MOTOR TO DISCONNECT SWITCH
- WEATHERPROOF DISCONNECT
- HIGH HEAT OPERATION 300°F (149°C)
- GREASE CLASSIFICATION TESTING

NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS

- GREASE BOX
- FULL CRATING FOR EXHAUST FANS
- 3 YEAR EXTENDED MOTOR WARRANTY
- EXTRA SET OF BELTS
- FAN BASE CERAMIC SEAL - FOR GREASE DUCTS
- HINGE KIT - SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS

CUSTOMER APPROVAL TO MANUFACTURE EXHAUST RISER ON HOOD AND FAN (BY OTHERS)

Approved as Noted

Approved with NO Exception Taken

Revise and Resubmit

SIGNATURE _____

Your Title _____



JOB Izakayo Minato n.i

LOCATI'N Biddeford, ME

DATE 1/11/15

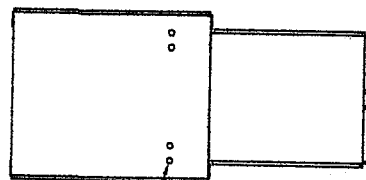
DWG #

2801168

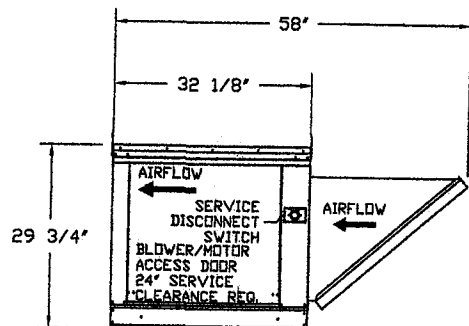
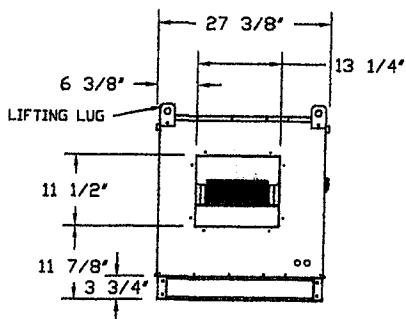
RAWN BYKCD-21

FAN #2 EA-A1-G10

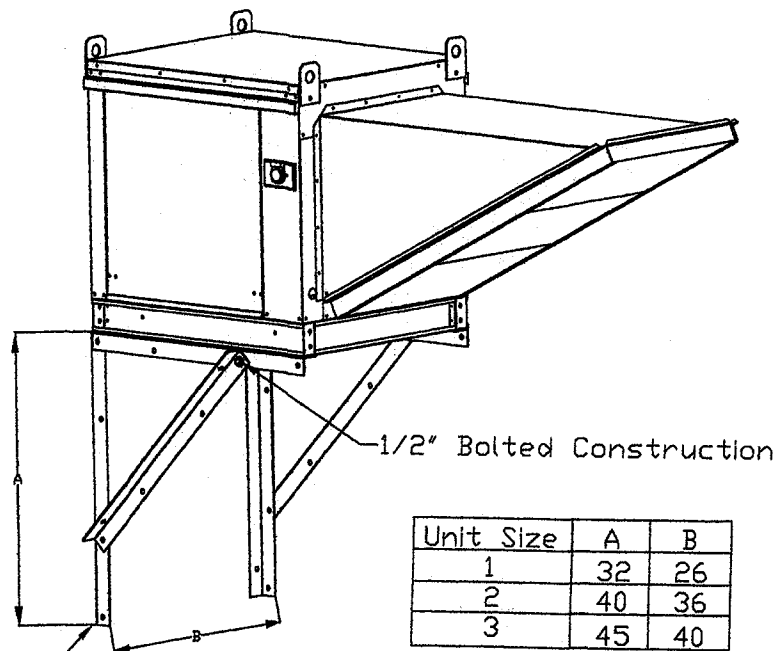
1. DIRECT DRIVE 1 PHASE DRIVE UNTEMPERED SUPPLY UNIT WITH 1 BLOWER IN SIZE #1 HOUSING WITH SPEED CONTROL, DISCONNECT SWITCH.
2. INTAKE HOOD WITH EZ FILTERS-LOW CFM
3. SIDE DISCHARGE - AIR FLOW RIGHT -> LEFT
4. FULL CRATING FOR UNTEMPERED FANS FOR SHIPPING.
5. WALL MOUNT OPTION FOR SIZE 1 UN-TEMPERED MAKE-UP AIR FAN. 32" LONG ANGLE IRON FRAME.
6. 3 YEAR EXTENDED WARRANTY FOR FAN MOTOR. PARTS ONLY; DOES NOT INCLUDE LABOR.
7. GRAVITY BACK DRAFT DAMPER, 16" WIDE X 18" HIGH, STANDARD GALVANIZED CONSTRUCTION, 1 1/4" REAR FLANGE, FOR SIZE 1 UNTEMPERED FAN HOUSING (S181)
8. ECM WIRING PACKAGE AND MANUAL CONTROL FOR ECM MOTORS ON SUPPLY PRVS.



FLEX CONDUIT FOR FIELD WIRING



Untempered Supply Fan Wall Mount Bracket Detail



Unit Size	A	B
1	32	26
2	40	36
3	45	40

2" x 2" 10 GA Galv Angle

CUSTOMER APPROVAL TO MANUFACTURE:

Approved as Noted

Approved with ND Exception Taken

Revise and Resubmit

SIGNATURE _____

Your Title _____



JOB Izakaya Minato r.1
 LOCATION Biddeford, ME
 DATE 10/11/2016
 DWG # 5
 DRAWN BY KCD-21

Fire Barrier Duct Wrap 615+

Duct Wrap Fire Protection System for Commercial Kitchen Grease and Ventilation Air Ducts

Product Data



BATT AND BLANKETS
FOR USE IN FIRE RESISTIVE DUCT ASSEMBLIES
SEE UL FIRE RESISTANCE DIRECTORY
0039

LISTED



DUCT INSULATION
0039

LISTED



FIRESTOP SYSTEMS
SEE INTERTEK DIRECTORY

LISTED



FIRESTOP SYSTEMS
SEE INTERTEK DIRECTORY

1. Product Description

3M™ Fire Barrier Duct Wrap 615+ is a fire resistant wrap consisting of an inorganic fiber blanket encapsulated with a scrim-reinforced foil. The product is 1-1/2 in. thick, 6pcf density.¹ It is used to fire rate commercial kitchen grease ducts as well as ventilation ducts, and is a proven alternative to 1 or 2 hour fire resistant rated shaft enclosures. With its excellent insulating capabilities, low weight and thin profile, it is an ideal choice for a duct enclosure system. This non-asbestos wrap installs easily because of its high flexibility and strength.

Features

- Two-layer wrap for grease ducts rated as a shaft alternative per ASTM E 2336
- Zero clearance to combustible throughout the entire enclosure system for congested spaces
- One-layer wrap for fire-resistive ventilation ducts per ISO 6944
- High flexibility for installation ease
- Foil encapsulated for blanket protection, less dust, and high wrap strength
- Widest range of penetration seal systems

2. Applications

Two-layer applications of 3M™ Fire Barrier Duct Wrap 615+ meet the criteria of ASTM E 2336 'Standard Test Methods for Fire Resistive Grease Duct Enclosure Systems'.

3M™ Fire Barrier Duct Wrap 615+ as single-layer fire resistant wrap application has passed the ISO 6944 'Fire Resistance Tests - Ventilation Ducts'.

3M™ Fire Barrier Duct Wrap 615+ is an ideal fire resistive enclosure for commercial kitchen grease ducts and ventilation air ducts. It is a proven performance alternative to a 1 or 2 hour fire resistant rated shaft enclosures and provides zero clearance to combustible construction throughout the entire enclosure system. 3M™ Fire Barrier Water Tight Sealant 1000 NS, 3M™ Fire Barrier Water Tight Sealant 1003 SL or 3M™ Fire Barrier Water Tight Sealant 2000+ Silicone Sealants is used in combination with 3M™ Fire Barrier Duct Wrap 615+ to firestop the duct when the duct penetrates fire rated floors and walls.

3. Availability

Unit	Size	Quantity	Weight
Roll	24 in. x 25 ft. (60,9 mm x 635 cm)	1	45 lbs (20,4 kg)
Roll	48 in. x 25 ft. (121 cm x 635 cm)	1	90 lbs (40,8 kg)

4. Typical Physical Properties

Blanket Color	Weight
White	0.9 lbs./ft. ² (4.38 kg/m ²)

¹ In accordance with the tolerances in ASTM C 892 Standard Specification for High-Temperature Fiber Blanket Thermal Insulation.

ROXUL

The Better Insulation

(Wall and top of floor)

Technical Product Information
BOARD INSULATION 07210
RHT 80
Architectural/OEM

General Product Information:

ROXUL products are mineral wool fibre insulations made from basalt rock and steel slag. This combination results in a non-combustible product with a melting point of approximately 2150°F (1177°C), which gives it excellent fire resistance properties. ROXUL mineral wool is a water repellent yet vapour permeable material. It absorbs water only when water is pressed or forced into the material and once the pressure is relieved, the water will evaporate without any loss of integrity to the material's shape or insulating properties.

Description & Common Applications:

The RHT 80 product is a non-combustible, rigid mineral wool insulation board that is water repellent and delivers exceptional life cycle performance and value in a diversity of thermal, acoustic and fire protection applications. RHT 80's excellent moisture resistance, non-combustibility and dimensional stability make it the ideal choice for curtain wall applications. The product can be specified with confidence in a variety of building envelope designs, parking garages, acoustic and OEM applications.

All ROXUL products are certified to carry the Environmental Choice logo.



Compliance and Performance

ASTM C 612 CAN/CGSB 51.10-92 FA Approval	Mineral Fiber Block and Board Thermal Insulation Mineral Fibre Board Thermal Insulation New York City Approval	Type IV, Complies Type 1, Class 4 332-97-M
Fire Performance ASTM E 136 CAN4 S114 UL 723 (ASTM E 84) CAN/ULC S102	Behaviour of Materials at 50°C (1382°F) Test for Non-Combustibility Surface Burning Characteristics Surface Burning Characteristics	Non-Combustible Non-Combustible Flame Spread = 0 Smoke Developed = 0 Flame Spread = 0 Smoke Developed = 0
Maximum Service Temperature ASTM C 411	Hot Surface Performance	No Reaction @ 1200°F (650°C)
Dimensional Stability ASTM C 356	Linear Shrinkage	1.24% @ 1200°F (650°C)
Moisture Resistance ASTM C 1104	Moisture Sorption	0.04%
Corrosion Resistance ASTM C 665 ASTM C 795 ASTM C 871	Corrosiveness to Steel For use with Austenitic Stainless Steel Chemical Analysis	Passed No Reaction Passed
Thermal Resistance ASTM C 518 (C 177)	R-value @ 75°F (24°C) k-value @ 75°F (24°C)	4.2/inch 0.24 Btu.in/ft ² .hr.°F

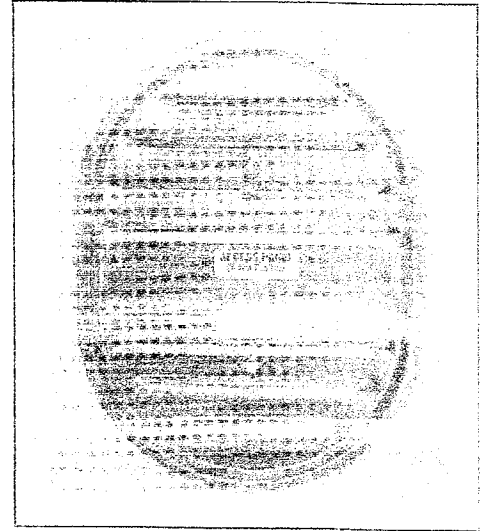
Supersedes: 11 January 1999
Revised: 23 April 1999

Access Doors— High Temp

Access Doors For Round and Flat Duct Work

Specifications

- Tested to 20" w.g., with no leakage noted.
- Available in 10x6 and 16x12.
- Metal Thickness: 10x06 16 ga. Black iron
- 16x12 16 ga. Black iron
- Ceramic fiber rope (1,000° max) or ceramic fiber gasket (2,300°, Meets NFPA 96) ensures an air tight seal
- Zinc coated wing nuts are easily turned by hand
- Self adhesive template is provided for easy installation.
- Zinc coated conical springs installed between the inner and outer door.

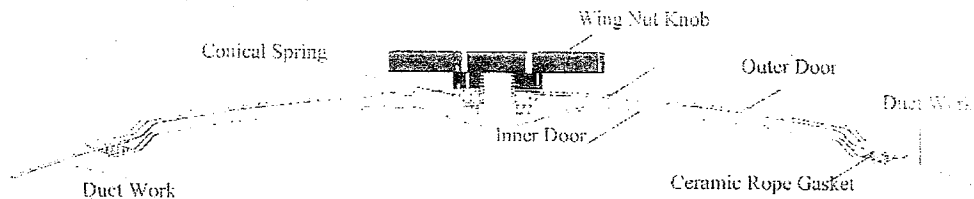


Packaging

- Access Doors are sold as single units.

Profile

- Available sizes: 10x06 Flat
- 16x12 Flat
- 10x06x 6" through 30"
- 16x12x 18" through 60"



Installation Instructions

1. Adhere self adhesive template to ductwork.
2. Using a pair of sheet metal snips, cut out the template.
3. Unscrew knobs of door and insert into the opening
4. Tighten knobs.

C.L. WARD
& FAMILY INC.



888.973.7600
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