

**GREASE DUCT SPECIFICATION**

Furnish single-wall, factory built, grease duct for use with Type I kitchen hoods, which conforms to the requirements of NFPA-96; \_\_\_\_\_ or approved equal. Products shall be ETL listed to the UL-1978 standard for venting air and grease vapors from commercial cooking operations as described in NFPA-96.

The duct wall shall be constructed of .036" thick type 430 stainless steel and be available in diameters of 8" to 24". The grease duct termination at the fan shall be fully welded to a fan adapter plate (where applicable) and the adapter plate shall be fastened to the curb using a suitably sized fastener provided by others. See Detail A

The duct shall be listed with 18" clearance to combustible materials, 3" clearance to limited combustible materials and 0" clearance to non-combustible materials. Combustible materials are to be defined by the authority having jurisdiction. In cases where the duct distance to combustible materials is less than specified above, insulating products must be installed providing a reduced listing clearance. Approved insulating products include Thermal Ceramics FIREMASTER duct wrap XL or equal when installed in accordance with the manufacturer's instructions. See Details B & C

Grease duct joints shall be held together by means of formed vee clamps and sealed with 3M Fire Barrier 2000+. Screws used to secure the vee clamps shall be of the hex-head type with flanged stops and tapered "lead in" threads for easy starting. Nuts shall be retained by means of a free-floating cage to allow easy alignment. A continuous bead of sealant is to be applied to the duct flange to flange connection, as well as to the "V" groove of the vee clamp. See Detail D

Single-Wall Grease Duct shall be installed in accordance with the manufacturer's "Installation, Operation and Maintenance Manual", ETL listing and state and local codes. Grease duct installed outside of the building shall be protected against accidental damage or vandalism. Support vertically installed grease duct from the building structure using rigid structural supports. Anchor supports to the structure by welding or bolting steel expansion anchors or concrete inserts. Support horizontally installed grease duct from the building structure using above method or use Duct Mate, Wire Rope & Clutchers, part numbers WR20 & CL20. 1/2" Threaded rod and saddles may also be used for the support of horizontal grease duct. Fans shall be supported independently from the grease duct sections. Protect grease duct from twisting or movement caused by fan torque or vibration.

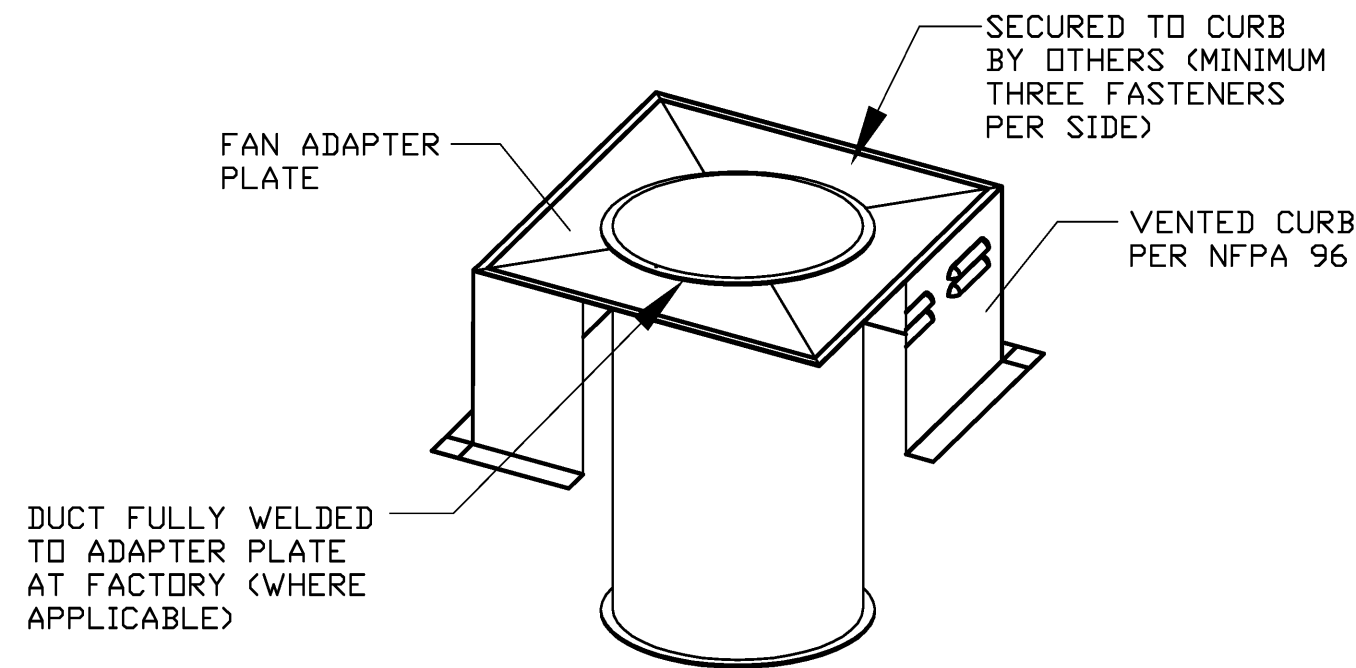
Grease duct installations require provisions for cleaning the interior of the duct. NFPA cleanup requirements are as follows:  
 1. A cleanup must be provided at each change of direction except where the entire length of duct can be inspected and cleaned from either the hood or the discharge end.  
 2. On horizontal duct runs, at least one 20" diameter opening must be provided. Where the opening is smaller than 20" diameter, openings large enough to permit cleaning must be provided at intervals of no more than 12".  
 3. Openings must be at the side or the top, whichever is more accessible. When the opening is on the side of the duct, the lower edge of the opening must be at least 1 1/2" above the bottom of the duct. For listed grease duct, this is accomplished by the use of the grease manifold tee and cleanout cap. See Detail E  
 4. On vertical duct runs where personnel entry is possible, access must be from the top of the riser. Where entry is not possible, access must be provided at each floor.

3M FIRE BARRIER 2000 PLUS USAGE			
DUCT DIAMETER	DUCT JOINT PERIMETER FT.	AVERAGE FT. PER TUBE	JOINTS PER TUBE
8"	2.16	30	7
10"	2.68	30	6
12"	3.21	30	5
14"	3.73	30	4
16"	4.25	30	3.5
18"	4.78	30	3
20"	5.30	30	3
24"	6.35	30	2.5

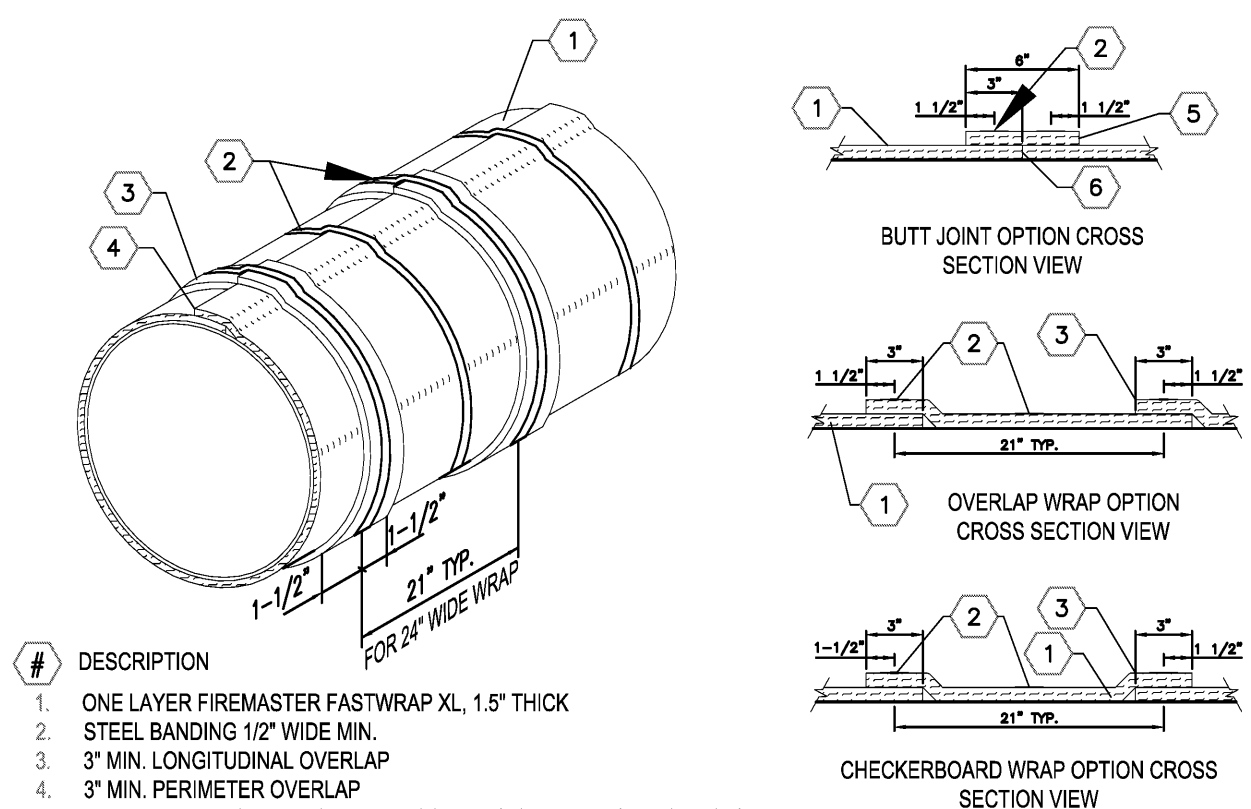
ADJUSTABLE DUCT OVERLAP - MINIMUM	
DUCT DIAMETER	OVERLAP
8"	4"
10"	5"
12"	6"
14"	6"
16"	6"
18"	6"
20"	6"
24"	6"

MINIMUM CLEARANCE TO COMBUSTIBLES			
DUCT DIAMETER	COMBUSTIBLES	LIMITED COMBUSTIBLES	NON COMBUSTIBLES
8"	18"	3"	0"
10"	18"	3"	0"
12"	18"	3"	0"
14"	18"	3"	0"
16"	18"	3"	0"
18"	18"	3"	0"
20"	18"	3"	0"
24"	18"	3"	0"

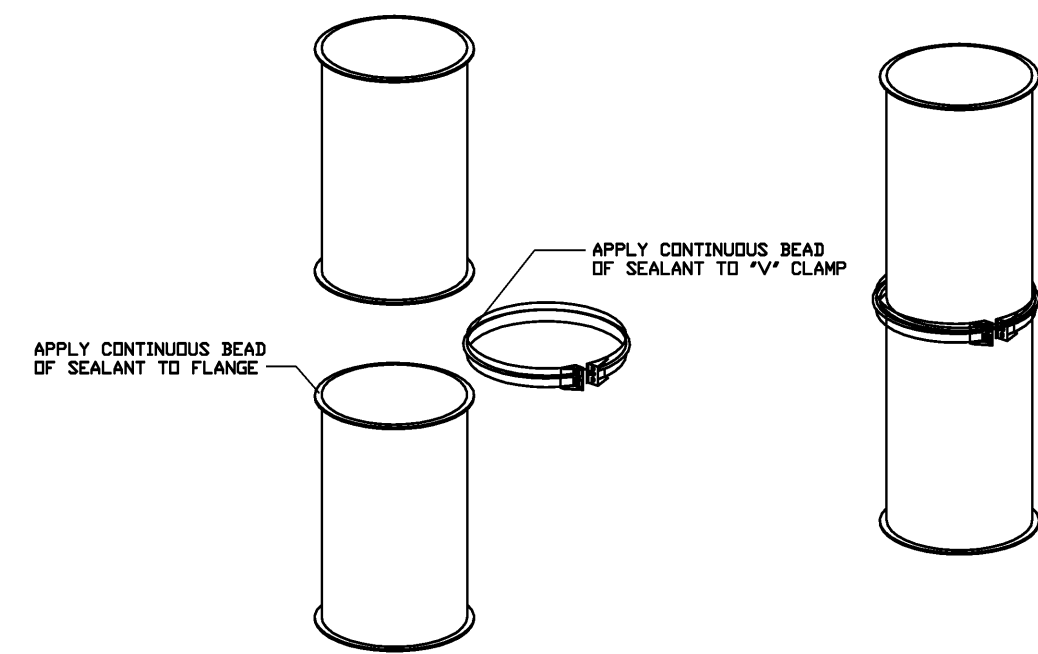
VERTICAL SUPPORT MAXIMUM SPACING (FT)	
DUCT DIAMETER	MAXIMUM SPACING (FT)
8"	10'
10"	10'
12"	10'
14"	10'
16"	10'
18"	10'
20"	10'
24"	10'



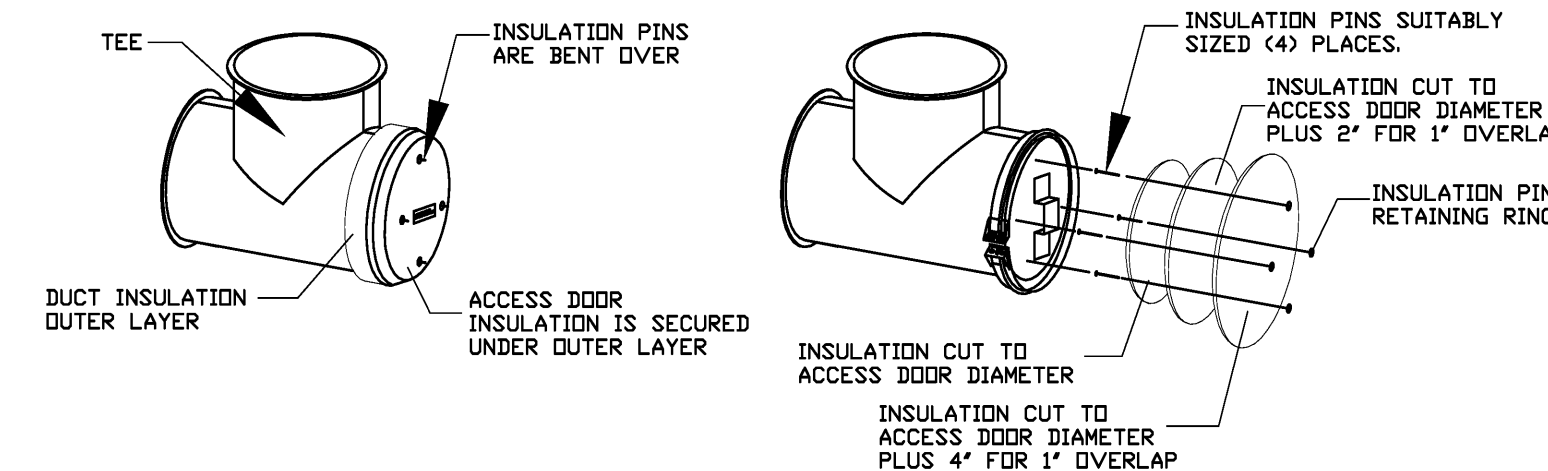
**A FAN ADAPTER PLATE**



**C DUCT WRAP INSTALLATION II**

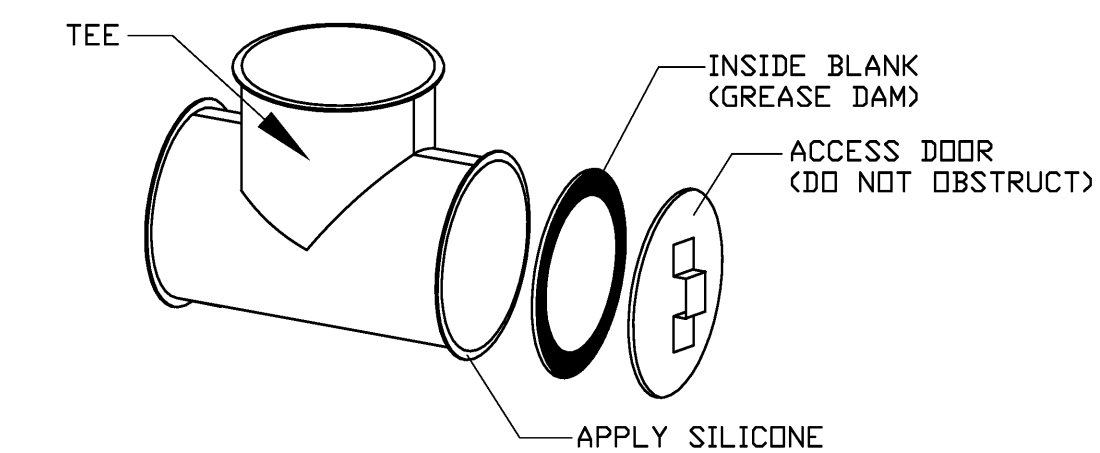


**D APPLICATION OF SEALANT**

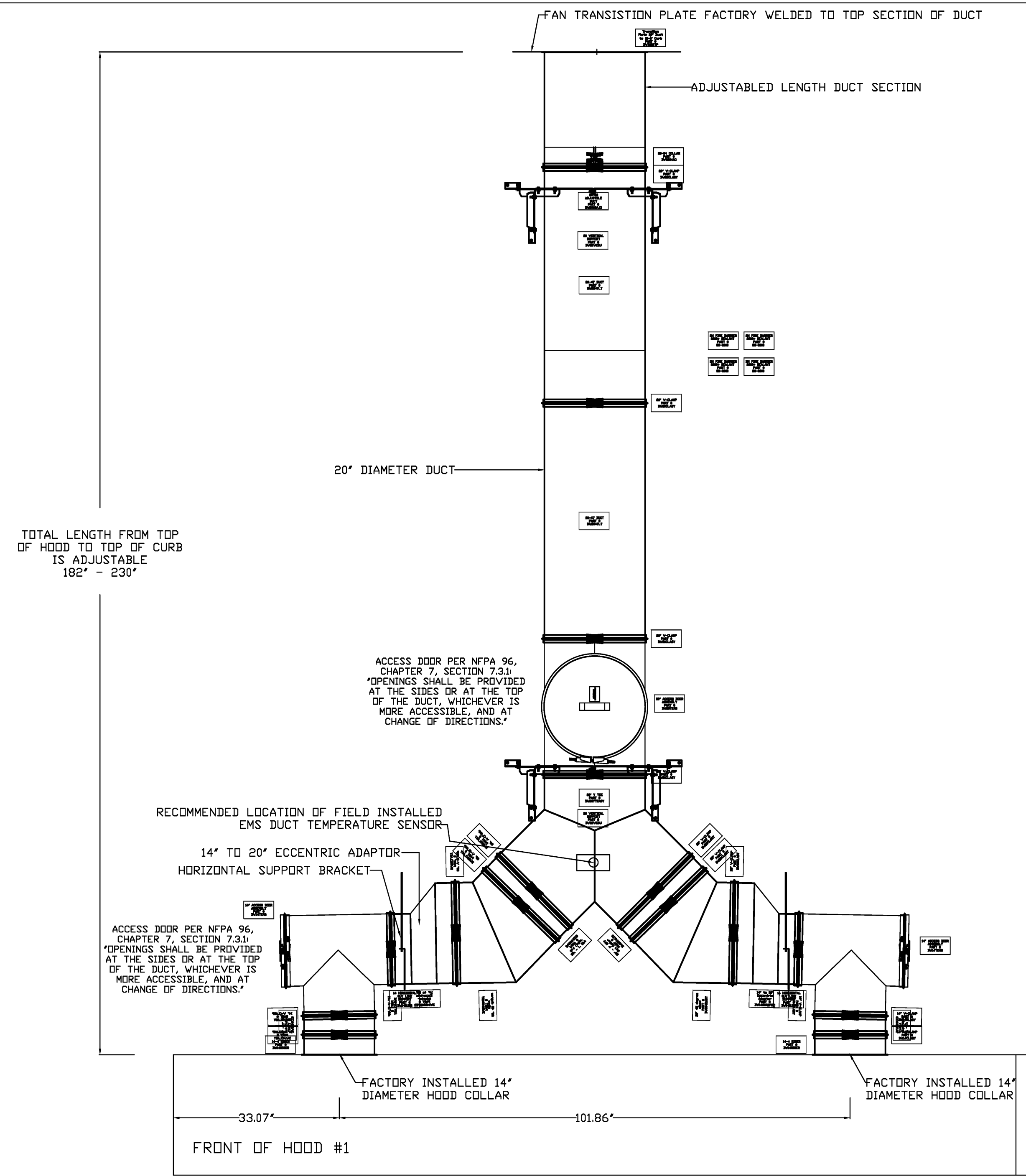


**INSULATION INSTRUCTION FOR GREASE DUCT ACCESS DOOR**  
 1. (4) SUITABLY SIZED INSULATION PINS ARE WELDED TO THE ACCESS DOOR FOR INSTALLATION OF DUCT WRAP.  
 2. CUT EDGES OF THE INSULATION ARE SEALED USING ALUMINUM FOIL TAPE.  
 3. FIRST LAYER OF DUCT WRAP IS CUT TO THE SAME SIZE OF THE ACCESS DOOR AND IMPALED OVER THE INSULATION PINS.  
 4. SECOND LAYER OF DUCT WRAP IS CUT SO IT OVERLAPS THE FIRST PIECE BY A MINIMUM OF 1". IMPALE THE SECOND LAYER.  
 5. THIRD LAYER OF DUCT WRAP IS CUT SO IT OVERLAPS THE SECOND PIECE BY A MINIMUM OF 1". IMPALE THE THIRD LAYER OVER THE SECOND LAYER.  
 6. IT'S ESSENTIAL THAT THE LAYERS OF INSULATION ARE TIGHT BEFORE SECURING WITH THE INSULATION RETAINING SPEED CLIPS.  
 7. PINS THAT EXTEND BEYOND THE OUTER LAYER OF INSULATION ARE TURNED DOWN TO AVOID SHARP POINTS ON THE ACCESS DOOR.  
 8. OVERLAPPED INSULATION IS SECURED UNDER THE DUCT OUTER LAYER.  
 9. AN ACCESS LABEL IS ATTACHED TO THE OUTER LAYER OF DUCT WRAP. ACCESS DOOR DO NOT OBSTRUCT.

**B DUCT WRAP INSTALLATION**



**E APPLICATION OF SEALANT II**



REVISIONS	
DESCRIPTION	DATE



Bowl Portland  
Yarmouth, ME

DATE: 11/9/2009

DWG.#:  
Duct-11-1054233

DRAWN BY:

SCALE:  
Not To Scale

DUCT

SHEET NO.  
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