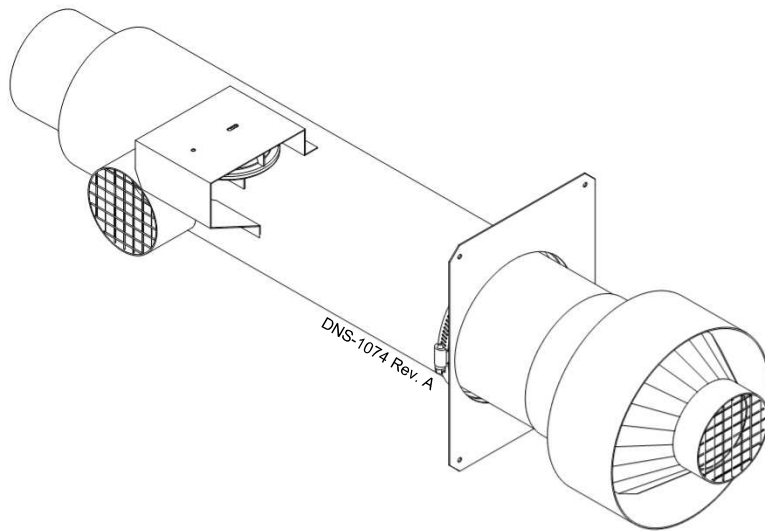


Installation Instructions and Homeowner's Manual

SEALED COMBUSTION SYSTEM (DIRECT VENT)



INSTALLER / SERVICE TECHNICIAN:

USE THE INFORMATION IN THIS MANUAL FOR THE INSTALLATION AND SERVICING OF THE FURNACE AND KEEP THE DOCUMENT NEAR THE UNIT FOR FUTURE REFERENCE.

HOMEOWNER:

PLEASE KEEP THIS MANUAL NEAR THE FURNACE FOR FUTURE REFERENCE.

Models:

VTK1

VTK2

VTK098

VTK3

KLAVT0101DET

KLAVT0201DET

VTK-53A

VTK-54A

VTK-64A

VTK-65A

Caution: Do not tamper with the unit or its controls. Call a qualified service technician.

Manufactured by:

Industries Dettson inc.
3400 Industrial Boulevard
Sherbrooke, Quebec - Canada
J1L 1V8

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1.0 SAFETY REGULATIONS

1.1 SAFETY LABELING AND WARNING SIGNS

The words **DANGER**, **WARNING** and **CAUTION** are used to identify the levels of seriousness of certain hazards. It is important that you understand their meaning. You will notice these words in the manual as follows:

 **DANGER**

Immediate hazards that WILL result in death, serious bodily injury and/or property damage.


 **WARNING**

Hazards or unsafe practices that CAN result in death, bodily injury and/or property damage.


 **CAUTION**

Hazards or unsafe practices which CAN result in minor bodily and /or material damage.

1.2 IMPORTANT NOTICE

 **WARNING**

If the advice given in this manual is not heeded, it will lead to consequences resulting in death, serious bodily injury and/or property damage.

 **WARNING**

Installations or repairs performed by unqualified persons can result in hazards to them and to others. Installations must conform to local codes or, in the absence of same, to codes of the country having jurisdiction.

The information contained in this manual is intended for use by a qualified technician, familiar with safety procedures and equipped with the proper tools and test instruments.

Failure to carefully read and follow all instructions in this manual can result in death, bodily injury and/or property damage.

- a. It is the homeowner's responsibility to engage a qualified technician for the installation and subsequent servicing of this venting system.
- b. Do not start the heating system if any part of it is immersed in water. Call a qualified service technician immediately, to assess the damage and to replace all critical parts that are in contact with water.
- c. Do not store gasoline or any other flammable substances, such as paper, carton, etc. near the furnace.

IMPORTANT: All local and national code requirements governing the installation of oil burning equipment, wiring and flue connection **MUST** be followed. Some of the codes that may apply are:


- CSA B139:** Installation Code for oil burning equipment.
- ANSI/NFPA 31:** Installation of oil burning equipment.
- ANSI/NFPA 90B:** Warm air heating and air conditioning systems.
- ANSI/NFPA 211:** Chimneys, Fireplaces, Vents and solid fuel burning Appliances.
- ANSI/NFPA 70:** National Electrical Code
- CSA C22.1:** Canadian Electrical Code
or CSA C22.10

Only the latest issues of the above codes should be used, and are available from either:

The National Fire Protection Agency
Batterymarch Park
Quincy, MA 02269

or

The Canadian Standards Association
178 Rexdale Blvd.
Rexdale, Ontario M9W 1R3

 **CAUTION**

ENVIRONMENTAL HAZARD

Failure to follow this caution may result in environmental pollution.

Remove and recycle all components or materials (i.e. oil, electrical and electronic components, insulation, etc.) before unit final disposal.

2.0 INSTALLATION

2.1 GENERAL

 **WARNING**

Do not enclose the vent pipe in a ceiling or combustible structure.

This sealed combustion system, must be installed in strict accordance with this manual. **A 3" (7.62 cm) diameter outdoor combustion air pipe must be connected directly to the oil burner and the coaxial vent terminal to ensure the proper functioning to the unit.**

Only Beckett AFII and NX burners, as well as Riello BF type burners may be used with this sealed combustion system (VTK / KLAVT).

A Sealed Combustion System is by definition a leak-free system. **DO NOT PERFORATE THE VENT OR OUTDOOR COMBUSTION AIR PIPE!** Use the test port in the breech plate supplied with this kit to take smoke and CO₂ readings.

Refer to Table 2 for the minimum and maximum dimensions of the vent pipe.

2.2 POSITIONING

WARNING

Poisonous carbon monoxide gas hazard.

Even though the flexible venting is insulated, it must not be run through an unheated space.

To do so can cause residual condensation inside the stainless steel liner. This may eventually perforate the liner and allow vent gasses to enter the dwelling, potentially resulting in death, personal injury and/or, property damage.

Important : The minimum clearance of the vent pipe in relation to combustible material is specified in Table 1 below. This clearance must be maintained all along the pipe.

Table 1 : Minimum clearance around a vent system

PORTION OF VENT	CANADA AND UNITED STATES
Vent pipe, up to vent terminal*	3" (7,62 cm)
Vent terminal	Zero

* Do not enclose venting.

WARNING

Do not enclose the vent pipe in a ceiling or combustible structure.

Table 2 : Maximum and minimum vent pipe length

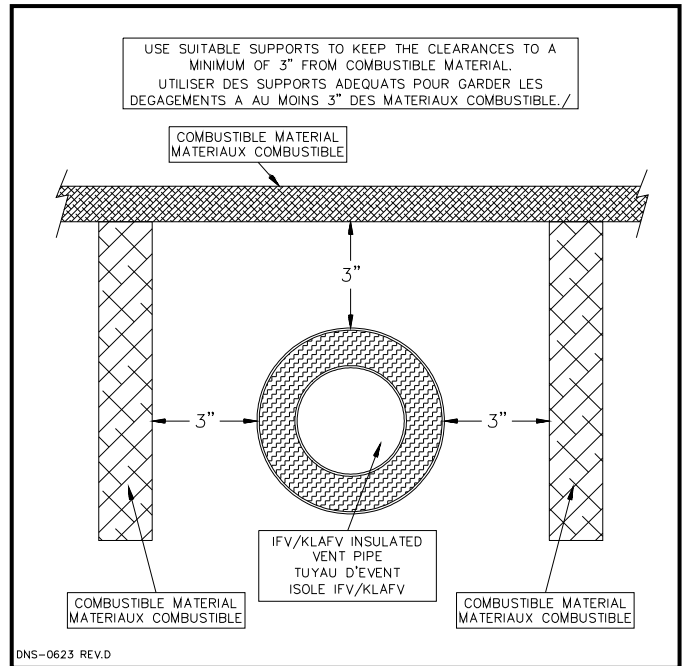
MODEL	VENT PIPE INSIDE. DIA.	MAX. LENGTH VENT PIPE	MIN. LENGTH VENT PIPE
VTK-53A & VTK1	7,62 cm (3")	6,10 m (20')	,91 m (3')
VTK-64A & VTK2	10,16 cm (4")	6,10 m (20')	,91 m (3')
VTK-65A, VTK3 & KLAVT0201DET	12,70 cm (5")	6,10 m (20')	,91 m (3')
VTK-54A, VTK098 & KLAVT0101DET	10,16 cm (4")	6,10 m (20')	,91 m (3')

The interior portion of the vent terminal must be installed in an area where the temperature of the ambient and return air is higher than 60°F (15°C). In addition, the furnace should be located as closely as possible to the vent terminal, so that the ducts are as short and direct as possible.

2.2.1 Installation considerations

The vent may be installed through a wall with a minimum thickness of 2" (5,08 cm) and a maximum thickness of 15" (38,10 cm). Select a location for the vent terminal in accordance with all local and national codes. The following requirements shall be considered to be minimum requirements that can be overridden by stricter local and national codes.

Figure 1 : Minimum clearance



CAUTION

Ensure that the area around the side wall venter is always free of snow, ice and debris, since these will hamper the proper functioning of the furnace.

The vent shall not terminate:

- Directly above a paved sidewalk or paved driveway that is located between two buildings, and that serves both buildings;
- Less than 7' (2.13 m) above any paved driveway;
- Within 6' (1.82 m) (in Canada) of a window or door, or mechanical air supply inlet to any building;*
- Within 6' (1.82 m) (in Canada) from the soffit of the roof of the structure;*
- Above a gas meter/regulator assembly within 3' (0.91 m) of a vertical centreline of the regulator;
- Within 6' (1.82 m) of any gas service regulator vent outlet, or within 3' (0.91 m) of an oil tank vent, or an oil fill inlet;
- Within less than 1' (0.30 m) above ground level;

Note : The vent must be located at least 1' higher than the highest anticipated accumulation of snow.

- Within 6' (1.82 m) of any other combustion air inlet;

Note : It is possible that, when the system is not in operation, combustion products may reach the interior of the building.

- Within 6' (1.82 m) of a property line;
- Underneath a veranda, porch or deck;
- So that the flue gasses are directed at combustible material or any openings of surrounding buildings that are within 6' (1.82 m);

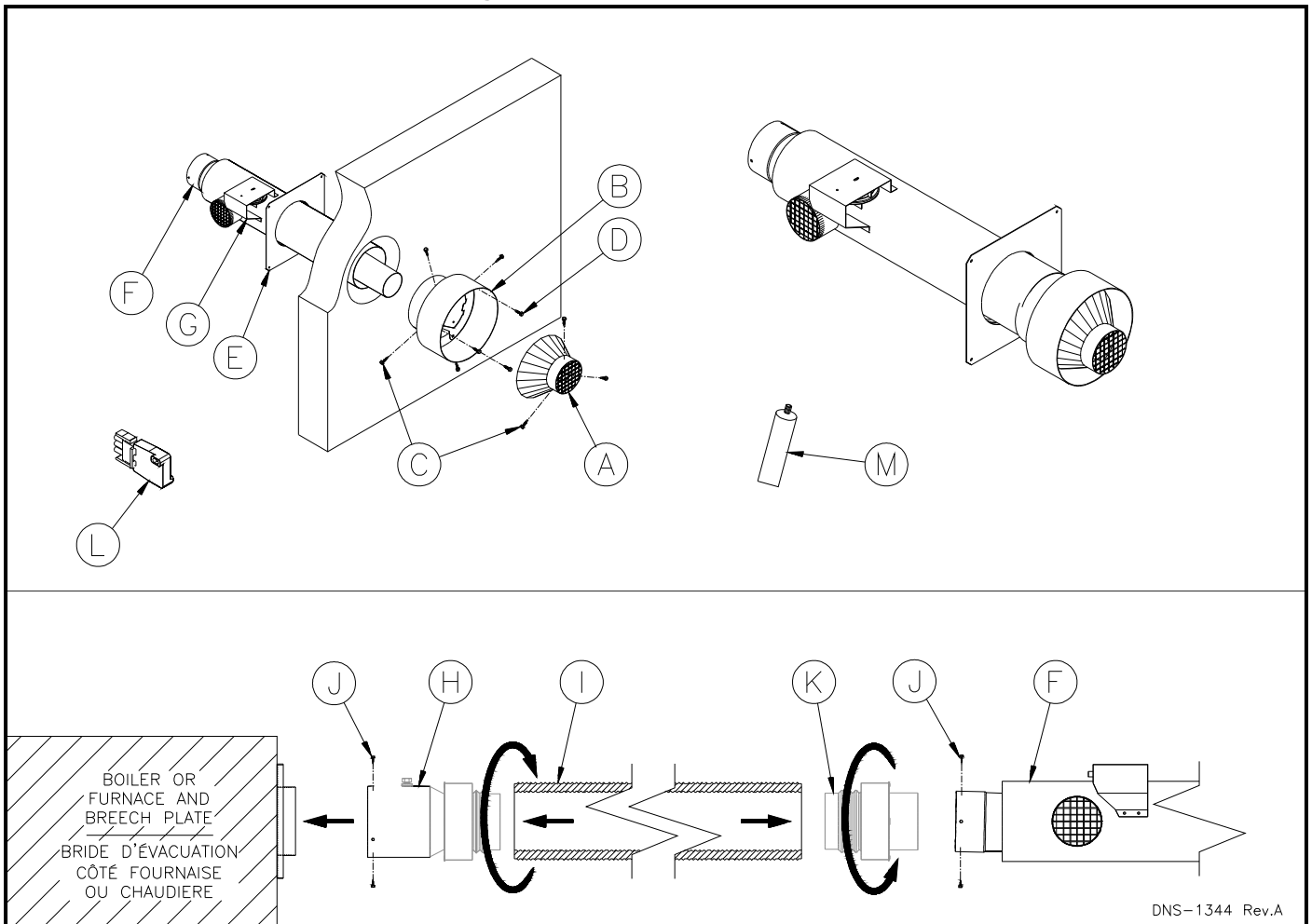
- l. Less than 3' (0.91 m) from an inside corner of an "L"-shaped structure;
- m. So that the bottom of the vent termination opening is less than 1' (0.30 m) above any surface that may support ice, snow, or debris;
- n. So that the flue gasses are directed toward brickwork, siding or other construction, in such a manner that they will be damaged from heat or condensation from flue gasses.

CAUTION

Most codes have a notwithstanding clause which states that products of combustion shall not enter the dwelling under any circumstances, even if all other code requirements as to construction and location have been complied with. The installer is ultimately responsible to do whatever is necessary to ensure that flue gasses do not enter the dwelling.

*** For installations in the U.S.A. refer to Section 6.7.3.4 of the NFPA 31.**

Figure 2 : Components identification



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2.3 INSTALLATION OF THE COMPONENTS

Refer to Figure 2 for additional details on components identification.

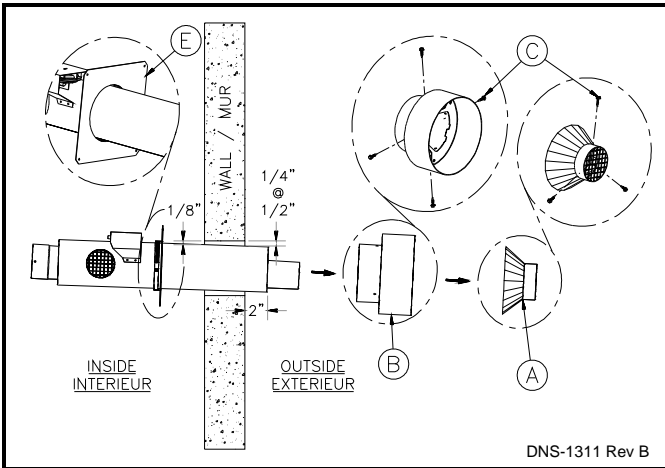
2.3.1 Installing the terminal in the wall

1. Open up a 6" (15,24 cm) hole for the VTK-53A / VTK1, VTK-54A / VTK098 / KLAVT0101DET and VTK-64A / VTK2 terminals and a 6¼" (15,88 cm) hole for the VTK-65A / VTK3 / KLAVT0201DET terminal in the wall in accordance with the location considerations outlined in the previous section (2.2);
2. Fasten the wall plate to the inside-wall using 4 field-supplied fasteners, appropriate for the wall material.

Note that the pressure control bracket (item **G**) must be removed to access the top right wall plate screw hole (item **E**). Install the wall plate so that the top of the hole in the wall plate is positioned 1/8" (3.2 mm) higher than the top of the 6" (15,24 cm) hole in the wall, see Figure 3. This will ensure the proper slope of the terminal for the proper evacuation from the inside to the outside;

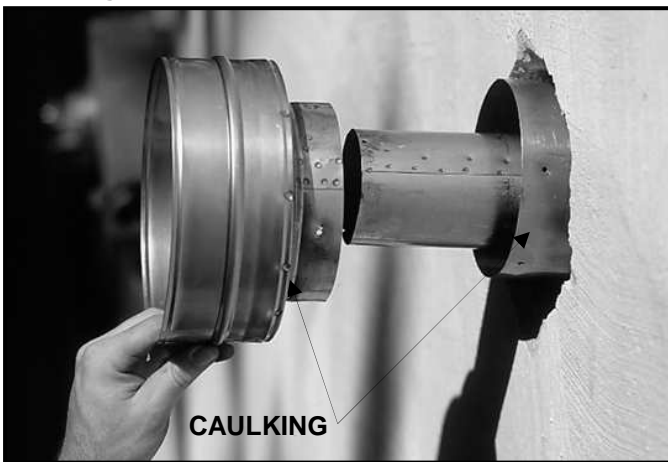
3. Remove the 3 screws (item **C**) holding the end cone (item **A**) in place and remove the cone;
4. Remove the 4 screws (item **C**) holding the stabiliser shroud (item **B**) in place and remove the stabiliser shroud;
5. Insert the main body of the terminal through the wall plate so that the end of the terminal extends about 2" (5.08 cm) past the outside wall, see Figure 3;

Figure 3 : Installation of the terminal in the wall



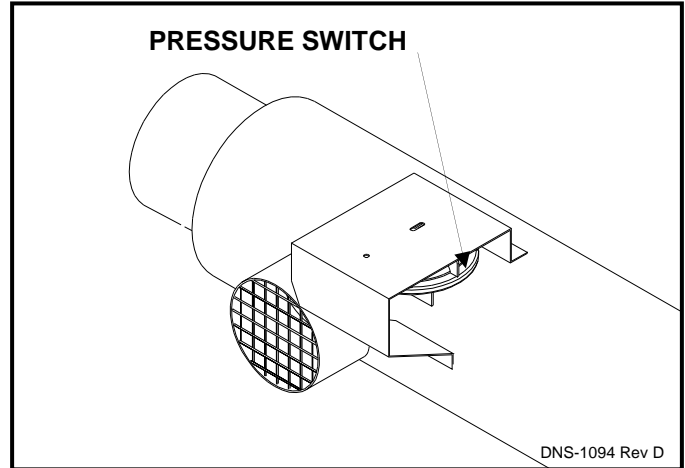
6. Install the stabiliser shroud (item **B**), as shown in Figure 4 and replace the 4 mounting screws;
7. On concrete and block wall installations in particular, if it appears that the flange on the back of the stabiliser shroud is not large enough to cover the irregularities in the hole, a field fabricated wall plate can be constructed out of 304, 316, or 316L stainless steel;

Figure 4 : Installation of the stabiliser shroud



8. Silicone seal the circumference of the joint where the stabiliser shroud connects to the main body of the terminal, see Figure 4;
9. Apply caulking to the back plate of the stabiliser shroud and push the terminal firmly back against the wall, **making sure the pressure switch (item G) is located at the top, in a horizontal position as shown in Figure 5;**
10. Tighten the clamp on the wall plate (item **E**) to secure the terminal in place;
11. While pushing down gently on the top of the stabiliser shroud, install the 3-2" (5,08 cm) stainless steel screws provided with the kit (item **D**) to secure the back of the shroud to the wall. Do not over tighten the screws or it will distort the stabiliser shroud. The screws will not be necessary on a concrete or block wall as the mortar can provide positive positioning;
12. Apply more caulking all around the seam where the stabiliser shroud meets the wall to ensure an airtight seal as shown in Figure 6;

Figure 5 : Pressure switch location



13. Reinstall the end cone (item **A**) and replace the three mounting screws;

Figure 6 : Caulking around the stabiliser shroud



14. Support the vent and intake air piping so that a 1/4" to 1/2" (6 to 12 mm) slope from the inside out results in proper drainage of the vent, see Figure 3.

2.3.2 Insulated flexible venting

! WARNING

Cuts and abrasion hazard.
Always wear protective gloves and eye protection when handling the vent material.
The process of cutting and fitting the flexible venting material exposes the installer to sharp edges that could cause severe cuts to the skin.

The flexible venting material (item **I**) comes in 3 lengths: 10' (3,05 m), 15' (4,58 m) or 20' (6,10 m). The vent construction is coaxial and comprises a 3" (7,62 cm), 4" (10,16 cm), or 5" (12,70 cm) stainless steel corrugated flexible inner tube,

surrounded by insulation and covered with an outer tube of 4" (10,16 cm), 5" (12,70 cm), or 6" (15,24 cm) flexible corrugated aluminium sleeve to protect the insulation. **Splicing vent lengths together is prohibited.** Minimum/maximum continuous vent lengths permitted for installation are 3' (0,91 m) minimum and 20' (6,10 m) maximum respectively.

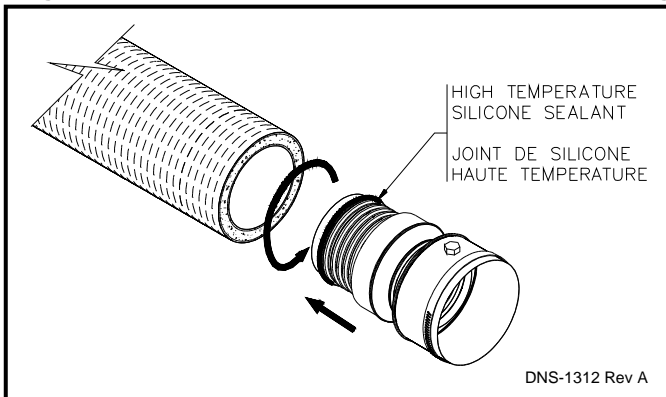
2.3.3 Connection to the furnace breach

1. Determine the length of the flexible vent (item I) and cut it as required;
2. Install the flexible vent in its ultimate position;
3. Proceed with the installation of the transition (item H) on the flexible vent (item I). Apply some high-temperature sealant (item M) on the threads of the transition piece to ensure air tightness then screw the transition piece right up to the end of the vent as shown in Figure 7. Make sure that the seam on the corrugated stainless steel flexible vent (item I) is well aligned with the seam of the transition (item H), otherwise you will not be able to screw it properly (see Figure 8). The corrugated aluminium jacket fits inside of the transition outside ring (item H);

WARNING

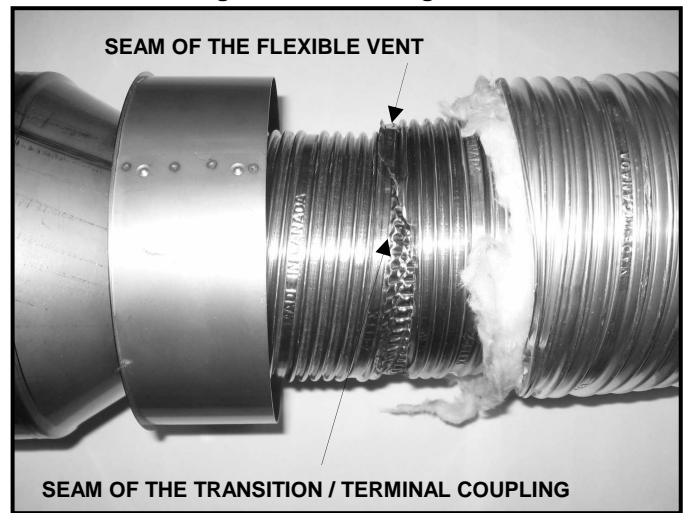
Make sure that the flexible vent (item I) is well secured by the threads of the transition (item H) by pulling it. If you can remove the transition (item H) without unscrewing it, your installation will not be air tight. Then, you must replace the defective part.

Figure 7 : Installation of the transition / terminal coupling



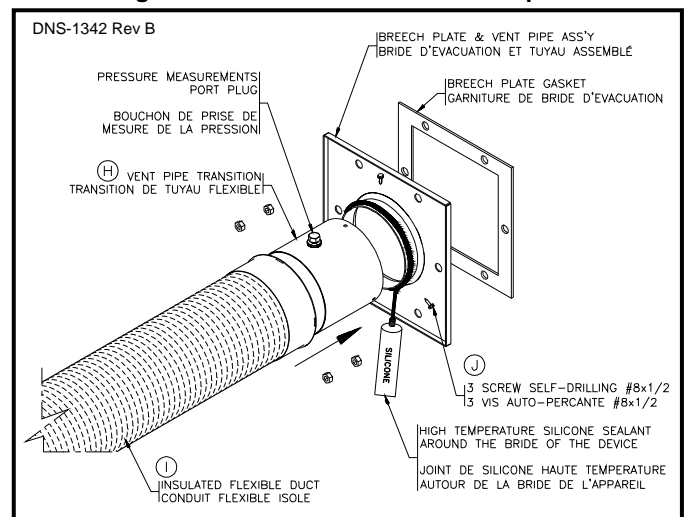
4. Apply a high temperature silicone bead (item M) around the outside ring of the breach plate. Install the transition (item H) piece on the furnace breach plate;
5. The installation of the transition must be such that the port for pressure measurements is at the top and accessible once the installation is completed. Do not install the transition with the test port pointing downward. For details, see Figure 9;
6. Complete the assembly by using 3 #8 x 1/2" self-drilling screws (item J) as shown in Figure 9. The seal is permanent and should never need to be disconnected as the breach plate can be removed by unscrewing the nuts;
7. Apply sealant (item M) to cover completely the self-drilling screw heads (item J);

Figure 8 : Seams alignment



8. In order not to damage the sealant, only the breach plate on the furnace should be removed if and as required.

Figure 9 : Connection to the breach plate



2.3.4 Connection to the vent terminal

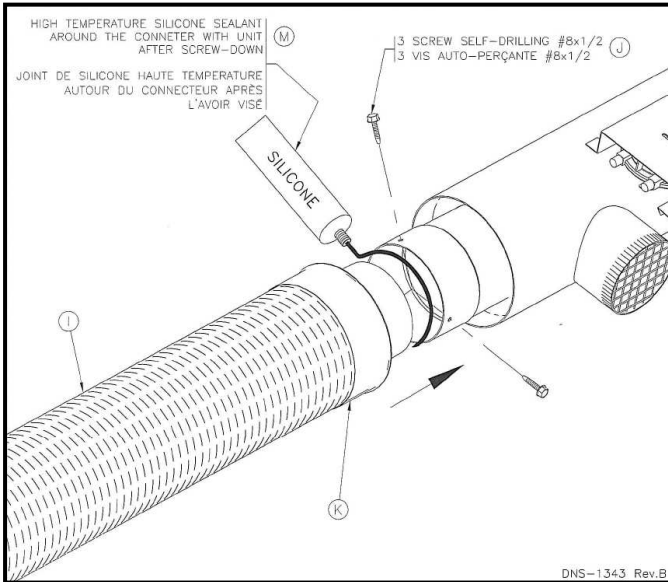
1. Install the terminal coupling (item K) on the flexible vent (item I). Apply some high-temperature sealant (item M) on the threads of the terminal coupling to ensure air tightness then screw the transition piece right up to the end of the vent as shown in Figure 7. Make sure that the seam on the corrugated stainless steel flexible vent (item I) is well aligned with the seam of the terminal coupling (item K), otherwise you will not be able to screw it properly (see Figure 8). The corrugated aluminium jacket fits inside of the terminal coupling outside ring (item K);

WARNING

Make sure that the flexible vent (item I) is well secured by the threads of the transition (item H) by pulling it. If you can remove the transition (item H) without unscrewing it, your installation will not be air tight. Then, you must replace the defective part.

2. Apply a high temperature silicone bead (item **M**) around the outside of the terminal coupling (item **K**). Install the assembly consisting of the flexible vent (item **I**) and the terminal coupling (item **K**) on the vent terminal (item **F**). For details, see Figure 10;
3. Complete the assembly by using 3 #8 x 1/2" self-drilling screws (item **J**) as shown in Figure 10;
4. Apply sealant (item **M**) to cover completely the self-drilling screw heads (item **J**);

Figure 10 : Connection to the vent terminal



2.4 CONNECTION OF THE AIR INTAKE PIPE

The vent system requires additional parts, which are not included with the kit. These additional parts must be constructed of 3" (7.6 cm) Schedule 40 PVC, PVC-SWV, SDR-26, SDR-21, Septic Sewer Pipe, or ABS plastic pipe. Solvent cement suitable for the pipe material selected must be used. Also, installation procedures, piping and fittings must conform to the following ANSI /ASTM standards:

PVC	ASTM D-1785
SDR26, SDR21	ASTM D-2241
Septic sewer pipe	ASTM D-2729
PVC-DWV	ASTM D-2665
PVC primer and solvent cement	ASTM D-2564
ABS pipe and fittings	ASTM D-2235
Procedure for cementing joints	ASTM D-2855



CAUTION

The use of ducted outside combustion air is mandatory for the venting system. This system operates on a balanced flue principle and will not function properly if the combustion air piping is not attached and sealed at all connections between the vent terminal and burner inlet. Make sure the piping is not obstructed or cut off.

2.4.1 Additional parts required (not included in VTK kit)

- a. 3" (7.6 cm) diameter elbows;
- b. 3" (7.6 cm) diameter plastic pipe;

- c. 3" (7.6 cm) 90° elbow, female-female (for terminal);
- d. 3" (7.6 cm) female to 2" female reducer (Riello 40-BF burner only);
- e. 2" (5,08 cm) 90° elbow, street type, female-male (Riello 40-BF burner only);
- f. 3" (7.6 cm) female-female PVC or ABS coupling (not sewer pipe) (Beckett AFII burner only);
- g. Transition bushings to go from PVC or ABS to ASTM D-2729 Septic Sewer Pipe (if applicable).

If PVC fittings are mixed with ABS fittings, use solvent cement that is approved for bonding the two plastics.

2.4.2 Intake pipe length

The vent system has been certified for 37 equivalent meters (120') of 7.6 cm (3") intake pipe. Count a 90° elbow

as 3.0 equivalent meters (10') and a 45° elbow as 1.5 equivalent meters (5') in the calculation.

For example:

2 lengths of 1.5 m (5')	= 3.0 equivalent m (10')
1 lengths of 3.0 m (10')	= 3.0 equivalent m (10')
3 elbows de 90°	= 9.0 equivalent m (30')
2 elbows de 45°	= 3.0 equivalent m (10')
1 elbows de 90°	= 3.0 equivalent m (10')
1 elbows de 45°	= 1.5 equivalent m (5')

Total = 22.5 equivalent m (73.8'), which is acceptable.

2.4.3 Beckett AFII Burner

Remove the air inlet cover by removing the three screws. Apply silicone sealant to the 3" (7.6 cm) adapter and insert the end with the sealant in the burner opening. Secure in place with three self-tapping sheet metal screws.

2.4.4 Beckett NX Burner

Remove the cover from the burner, then remove the air inlet plate on top of the cover. Apply silicone sealant to the 3" (7.6 cm) adapter and insert the end with the sealant in the burner opening. Replace the burner's cover.

2.4.5 Riello 40-BF burner

Fully insert the female end of the 2" (5,08 cm) 90° street elbow into the combustion air fitting on top of the burner. Fasten securely with 3 self-tapping sheet metal screws. Cement the 2" (5,08 cm) end of the 3" (7.6 cm) female to the 2" (5,08 cm) female reducer onto the male end of the 2" (5,08 cm) - 90° elbow. If these parts are not easily obtained, use a 3" (7.6 cm) - 90° elbow with the male end fitted over the combustion air fitting. The fitting will have to be silicone sealed as the fit will not be tight. Fasten securely with 3 self-tapping sheet metal screws.

2.4.6 Terminal connection

Insert the 3" (7.6 cm) - 90° female-female elbow into the stainless steel air intake fitting located on the right side of the vent terminal (viewed from the rear). Fasten securely with 3 self-tapping sheet metal screws.

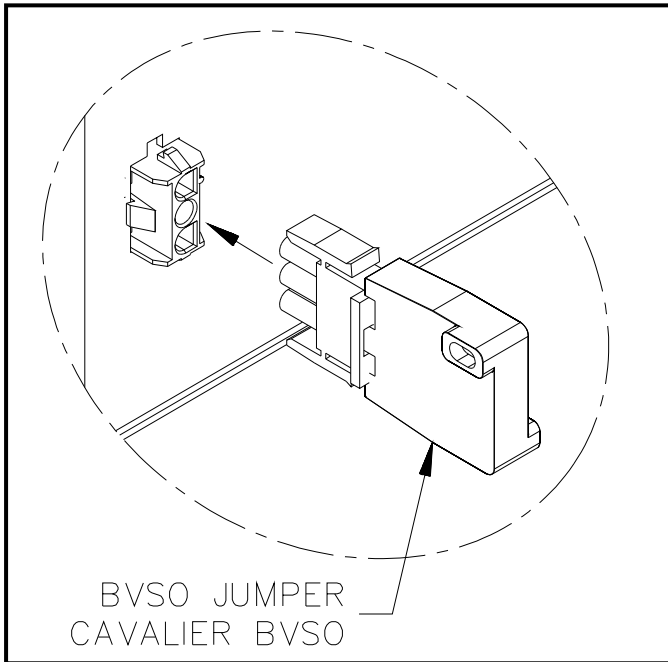
2.4.7 Intermediate piping

Pipe as required between the terminal and the burner. Ensure that the 3" (7.6 cm) piping is routed and supported in accordance with local and national codes. Obey minimum furnace clearances to combustibles when routing any sections of 3" (7.6 cm) piping in the vicinity of the furnace.

2.5 INSTALLATION OF THE BVSO JUMPER

On units equipped with a BVSO connector, the jumper provided and also included in kit #B03396 must be installed. Refer to the instructions included with the kit and Figure 11 of this manual.

Figure 11 : BVSO jumper



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3.0 OPERATION

The system is a sealed combustion system which means that the furnace is isolated in relation to the interior of the building. Therefore, the burner is not affected by pressure fluctuations, making it ideal in buildings of air tight construction.

A sealed combustion system can only be installed on approved furnaces. Refer to the nameplate on the furnace and Table 3 of this manual.

3.1 COMBUSTION GAS TEMPERATURE VERIFICATION

After adjustments are made, based on the installation instructions contained in the oil furnace manual, it is recommended that a combustion gas temperature check be made at the exit of the direct vent system. The reading should be 93°C (200°F). In case it is impossible to obtain this temperature after 5 minutes of operation, it is recommended to relocate the furnace in order to shorten the length of the vent pipe.

After the modification, let the system cool down for about 30 minutes and recheck by taking another reading, again after a minimum of 5 minutes of operation. The temperature must be at least 93°C (200°F).

3.2 BURNER POST PURGE DELAY ADJUSTMENT

The post purge delay on the oil-fired burners is factory set to zero second. This delay is applicable for all installations with chimney venting. For heating units installed with side wall venting, the post purge delay must be set to 15 seconds when installed with a Beckett burner. Post purge delay is not necessary with a Riello Burner. Refer to the burner control instruction manual and marking for proper adjustment of the post purge delay.

4.0 MAINTENANCE



CAUTION

Before doing any servicing, be sure to shut off the fuel supply and electrical power to the furnace. The 115 volt circuit is dangerous and can potentially electrocute.

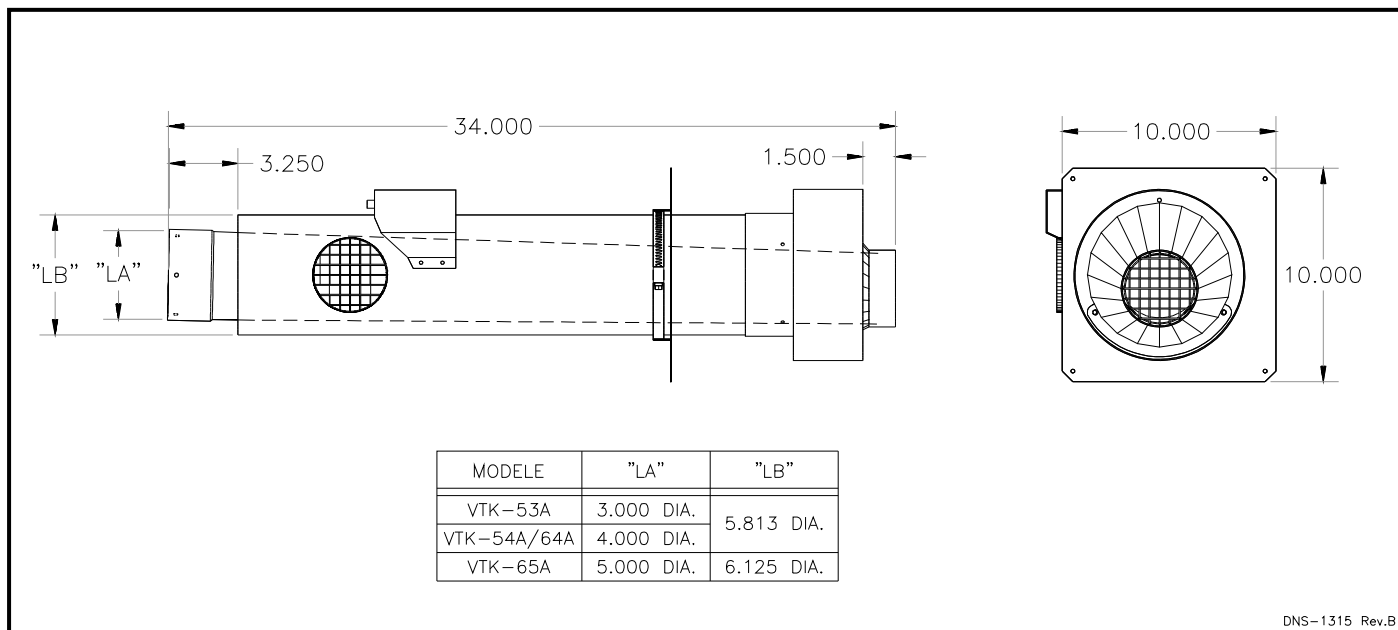
Refer to the installation manual for servicing the furnace. Maintaining a sealed combustion system is the same as maintaining a chimney with the following particularity:

Note: To perform maintenance service, remove the breech plate by removing the brass nuts (see Figure 9). The transition (item H) must not be removed from the flexible vent pipe assemblies.

Table 3 : Approved furnaces for used with VTK / IFV

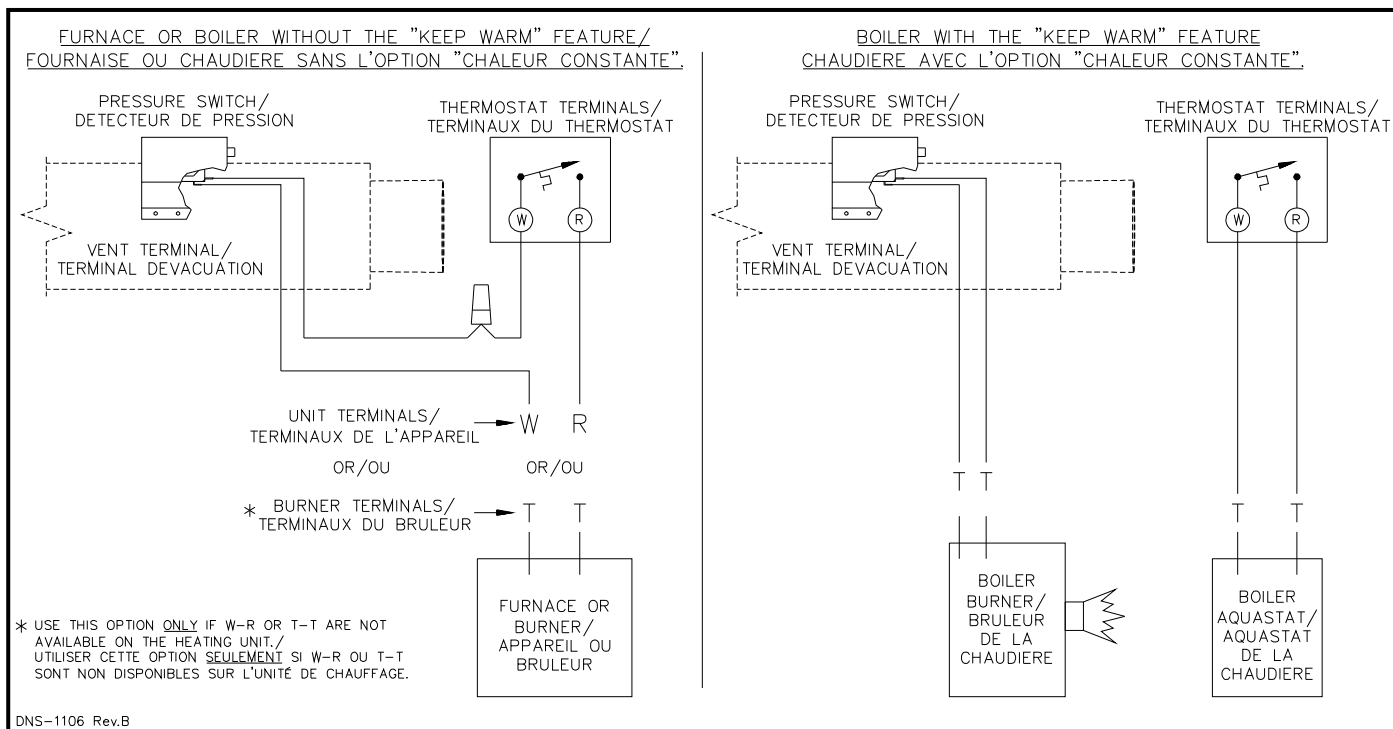
	Burner		Vent Terminal	
	Beckett	Riello	Terminal	Insulated Flex Vent
AMP098	NX-56LQ	R40-BF3	VTK-54A	IFV-410A / IFV-415A / IFV-420A
AMP112	NX-56LQ	R40-BF5	VTK-54A	IFV-410A / IFV-415A / IFV-420A
AMP154	NX-50LC	R40-BF5	VTK-65A	IFV-510A / IFV-515A / IFV-520A
AMT098	NX-56LQ	R40-BF3	VTK-54A	IFV-410A / IFV-415A / IFV-420A
AMT112	NX-56LQ	R40-BF5	VTK-54A	IFV-410A / IFV-415A / IFV-420A
AMT154	NX-50LC	R40-BF5	VTK-65A	IFV-510A / IFV-515A / IFV-520A
HMT (Dettson)		R40-BF5	VTK-65A	IFV-510A / IFV-515A / IFV-520A
HMT (ICP)		R40-BF5	VTK3	IFV508 / IFV520
NOLF105 (Dettson)	AFII-85	R40-BF3	VTK-53A	IFV-310A / IFV-315A / IFV-320A
NOLF105 (ICP)	AFII-85	R40-BF3	VTK1	IFV315 / IFV323
NOUF105 (Dettson)	AFII-85	R40-BF3	VTK-53A	IFV-310A / IFV-315A / IFV-320A
NOUF105 (ICP)	AFII-85	R40-BF3	VTK1	IFV315 / IFV323
OBLAAB036098AABE	NX-56LQ	R40-BF3	KLAVT0101DET	KLAFV0101DET / KLAFV0201DET
OBLAAB048112AABF	NX-56LQ	R40-BF5	KLAVT0101DET	KLAFV0101DET / KLAFV0201DET
OBLAAB060154AABG	NX-50LC	R40-BF5	KLAVT0201DET	KLAFV0301DET / KLAFV0401DET
OBMAAB036098AABE	NX-56LQ	R40-BF3	KLAVT0101DET	KLAFV0101DET / KLAFV0201DET
OBMAAB042112AABF	NX-56LQ	R40-BF5	KLAVT0101DET	KLAFV0101DET / KLAFV0201DET
OBMAAB060154AABG	NX-50LC	R40-BF5	KLAVT0201DET	KLAFV0301DET / KLAFV0401DET
OCF105	AFII-85	R40-BF3	VTK1	IFV315 / IFV323
ODH53F	AFII-85	R40-BF3	VTK-53A	IFV-310A / IFV-315A / IFV-320A
OHB53F	AFII-85	R40-BF3	VTK-53A	IFV-310A / IFV-315A / IFV-320A
OHB64F	AFII-150	R40-BF5	VTK-64A	IFV-410A / IFV-415A / IFV-420A
OLB53F	AFII-85	R40-BF3	VTK-53A	IFV-310A / IFV-315A / IFV-320A
OLB53R	AFII-85	R40-BF3	VTK-53A	IFV-310A / IFV-315A / IFV-320A
OLB64R	AFII-150	R40-BF5	VTK-64A	IFV-410A / IFV-415A / IFV-420A
OLF105	AFII-85	R40-BF3	VTK1	IFV315 / IFV323
OLR098 / OLV098	NX-56LQ	R40-BF3	VTK098	IFV09810 / IFV09820
OLR105	AFII-85	R40-BF3	VTK1	IFV315 / IFV323
OLR112 / OLV112	NX-56LQ	R40-BF5	VTK098	IFV09810 / IFV09820
OLR154 / OLV154	NX-50LC	R40-BF5	VTK3	IFV508 / IFV520
OLR160	AFII-150	R40-BF5	VTK2	IFV415 / IFV423
OMF098 / OMV098	NX-56LQ	R40-BF3	VTK098	IFV09810 / IFV09820
OMF112 / OMV112	NX-56LQ	R40-BF5	VTK098	IFV09810 / IFV09820
OMF154 / OMV154	NX-50LC	R40-BF5	VTK3	IFV508 / IFV520
OUF105	AFII-85	R40-BF3	VTK1	IFV315 / IFV323
OUF160	AFII-150	R40-BF5	VTK2	IFV415 / IFV423
OVLAAB036098AABF	NX-56LQ	R40-BF3	KLAVT0101DET	KLAFV0101DET / KLAFV0201DET
OVLAAB048112AABG	NX-56LQ	R40-BF5	KLAVT0101DET	KLAFV0101DET / KLAFV0201DET
OVLAAB060154AABG	NX-50LC	R40-BF5	KLAVT0201DET	KLAFV0301DET / KLAFV0401DET
OVMAAB036098AABF	NX-56LQ	R40-BF3	KLAVT0101DET	KLAFV0101DET / KLAFV0201DET
OVMAAB042112AABF	NX-56LQ	R40-BF5	KLAVT0101DET	KLAFV0101DET / KLAFV0201DET
OVMAAB060154AABG	NX-50LC	R40-BF5	KLAVT0201DET	KLAFV0301DET / KLAFV0401DET
SCH-105	AFII-85	R40-BF3	VTK-53A	IFV-310A / IFV-315A / IFV-320A
SCH-160	AFII-150	R40-BF5	VTK-64A	IFV-410A / IFV-415A / IFV-420A
SCL-105	AFII-85	R40-BF3	VTK-53A	IFV-310A / IFV-315A / IFV-320A
SCL-160	AFII-150	R40-BF5	VTK-64A	IFV-410A / IFV-415A / IFV-420A
TMP-105	AFII-85	R40-BF3	VTK-53A	IFV-310A / IFV-315A / IFV-320A

Figure 12 : Dimensions



DNS-1315 Rev.B

Figure 13 : Wiring Diagram



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Figure 14 : Parts List

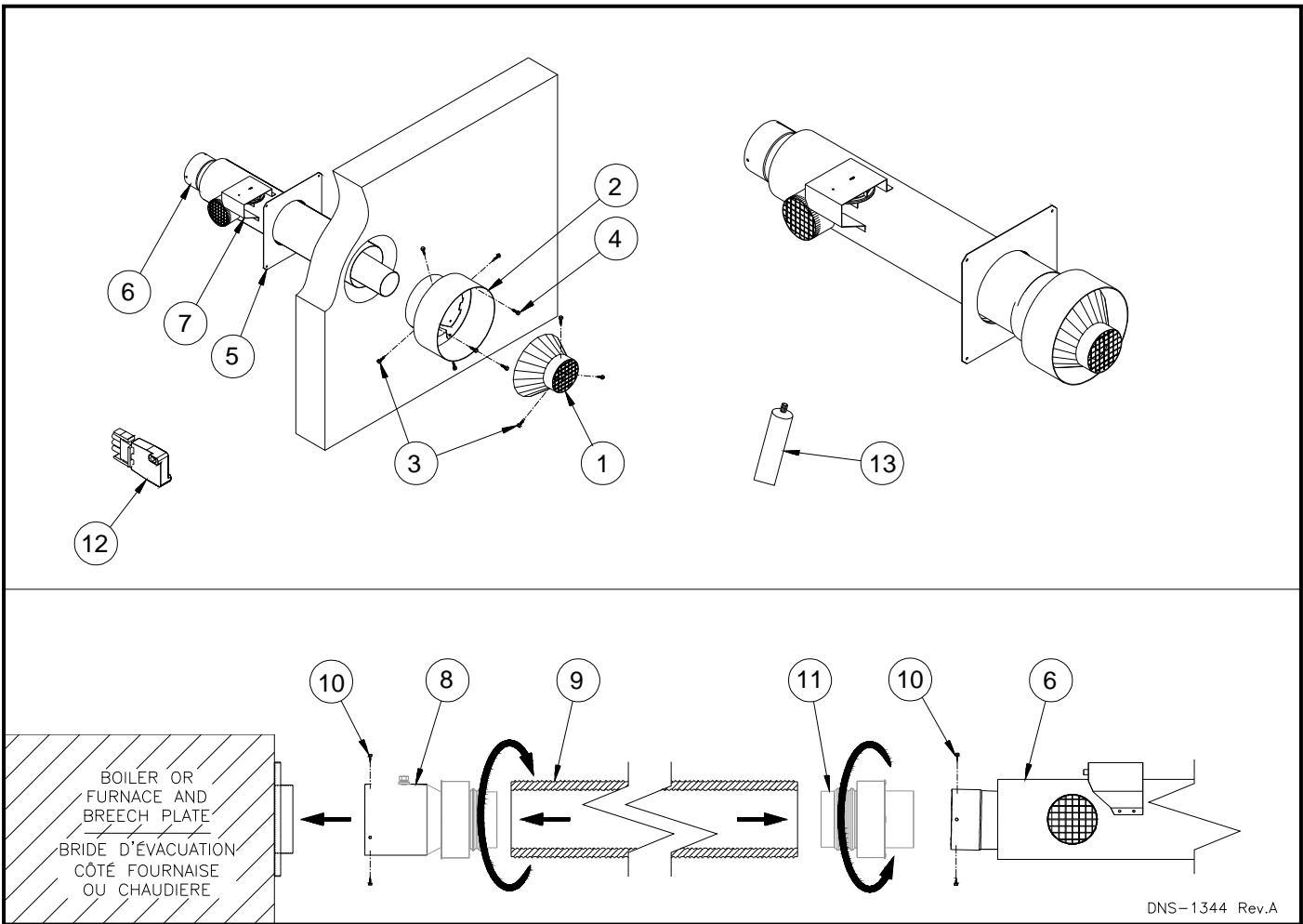


Table 4 : Parts List

ITEM	DESCRIPTION	Part No			
		VTK-53A VTK1	VTK-54A VTK098 KLAVT0101DET	VTK-64A VTK2	VTK-65A VTK3 KLAVT0201DET
1	End Cone	4DETECK1	4DETECK1	4DETECK1	4DETECK1
2	Stabiliser Shroud	4DETTEK1	4DETTEK2	4DETTEK2	4DETTEK3
3	Screw Philips 8-32 x 1/2" SS	N / D	N / D	N / D	N / D
4	Screw Philips #10 x 2" SS	N / D	N / D	N / D	N / D
5	Interior Mounting Plate	N / D	N / D	N / D	N / D
6	Vent Terminal	B03906-01	B03906-02	B03906-02	B03906-03
7	Pressure Gauge	R99F033	R99F032	R99F032	R99F034
8	Connector with Port	B03907-01	B03907-02	B03907-03	B03907-04
9A	Insulated Flex Vent 10' long	IFV-310A	IFV-410A	IFV-410A	IFV-510A
9A	Insulated Flex Vent 15' long	IFV-315A	IFV-415A	IFV-415A	IFV-515A
9A	Insulated Flex Vent 20' long	IFV-320A	IFV-420A	IFV-420A	IFV-520A
10	Teks Screw #8 x 1/2" SS	F03G009	F03G009	F03G009	F03G009
11	Connector without Port	B03908-01	B03908-02	B03908-02	B03908-03
12	BVSO Jumper	B03337	B03337	B03337	B03337
13	Hi Temp Silicone	F10G005	F10G005	F10G005	F10G005