

# LT Series

# HeatShift™ System

## Planning Installation: LT1 and LT2 with HeatShift™

Instructions for use with the following **Valor Heater Models: 2500K and 2700K only**

### Application

The HeatShift™ system redistributes the warm air flow away from the fireplace opening to a more desirable location using natural convection without use of a fan.

**Plenums LKD1, LDK3, LDK4 or LDK9:** the warm air flow is relocated to a position higher up the wall, out the sidewalls, or even to an adjacent room.

**Termination Plates LDK7:** the warm air flow is discharged through a gap (min. 2-1/2" [64 mm]) between the wall above the fireplace and the ceiling.

**LDK7's discharge opening must be located in the same room as the fireplace.**

The result is much cooler wall temperatures above the fireplace opening for locating televisions, artwork, etc.

As a further option, the warm airflow may be extracted away from the duct kit plenum (**LDK1 and LDK4 ONLY**) by connecting a 1270RBK Remote Blower Kit to the duct kit plenum.

Any kit, LDK1, LDK3, LDK4, LDK7 or LDK9 may be used with compatible model fireplace LT1 or LT2. These kits are compatible with the listed fireplaces only.

Note: These instructions are to be used in conjunction with instructions regarding fireplace installation in this manual.

### Approvals

The LDK1, LDK3, LDK4, LDK7 and LDK9 duct kits are CSA approved for use only with Valor Series fireplaces listed above—DO NOT use with any other models.

This HeatShift system may also be used to reduce wall surface temperatures on approved outdoor installations.

5" [127 mm] diameter duct used with this kit must be metal and meet requirements of UL-181 Class 1 Air Duct. Flexible aluminum duct is acceptable provided it meets the UL-181 Class 1 requirements.

#### **WARNING**

**DO NOT cover or place objects in front of or on top of air outlet(s). AVOID locating outlet within 7 feet [2.2 m] above floor level as discharge temperatures are hot!**

#### **WARNING**

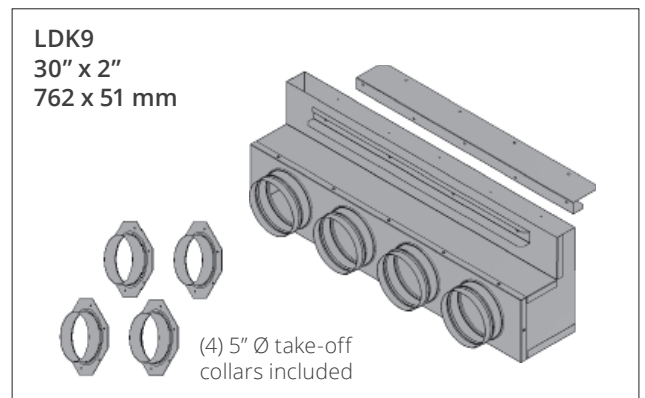
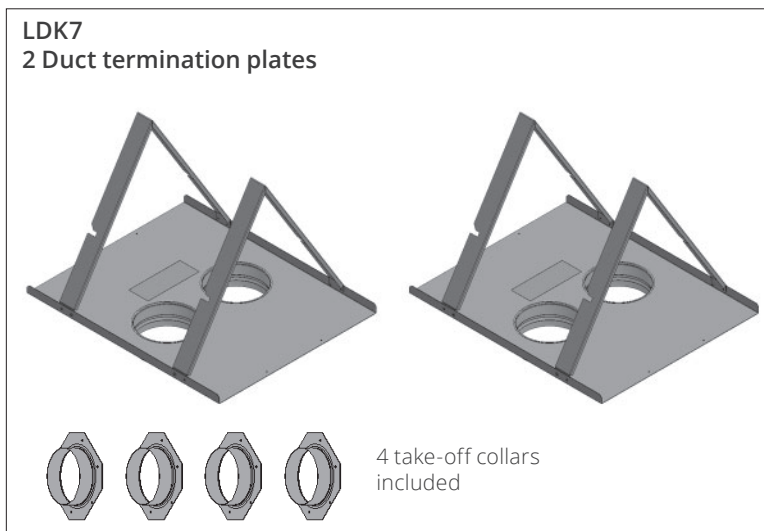
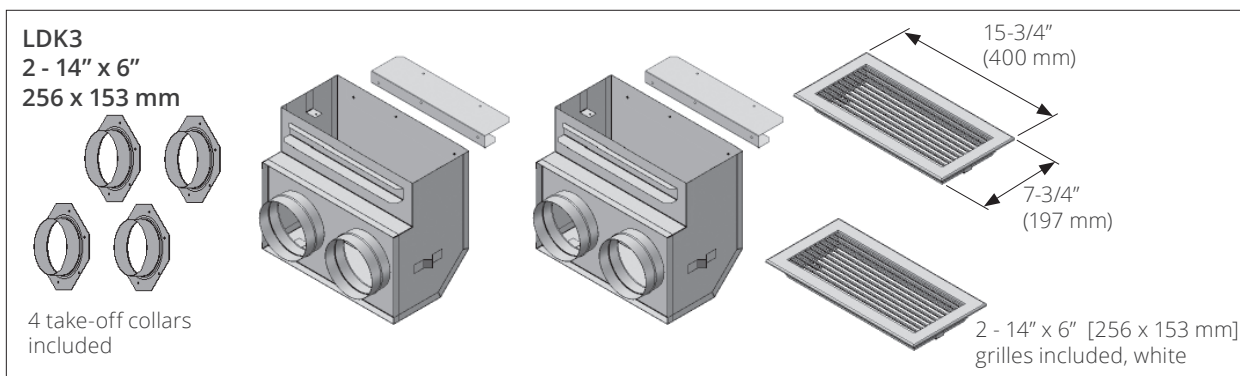
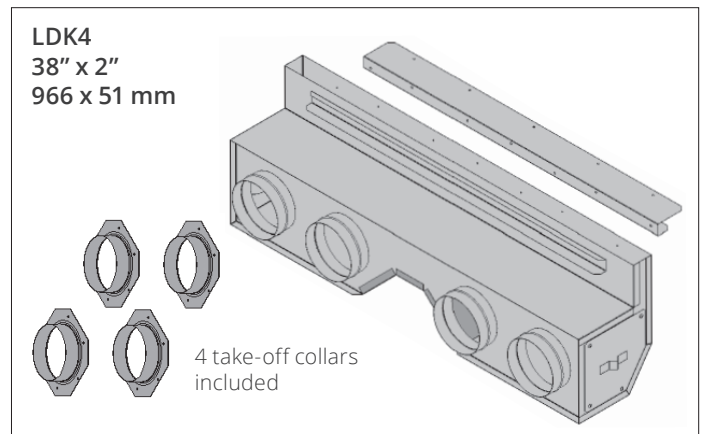
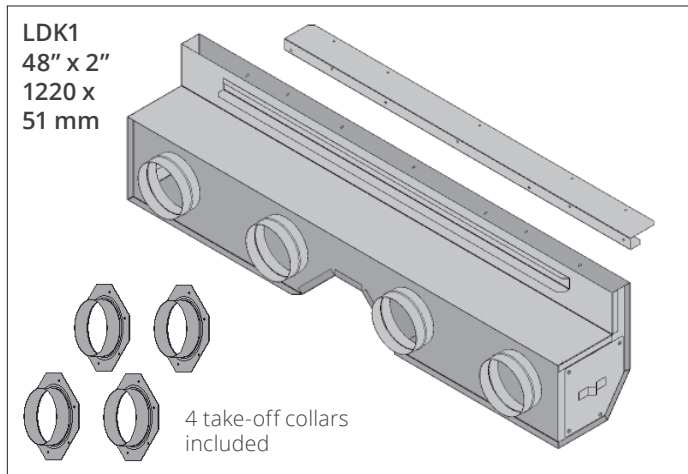
**When placing discharge close to ceilings, staining or streaking may occur on light colored ceilings due to any dust, etc. in air flow; placing plenum(s) lower on the wall will help reduce the possibility of staining or streaking.**

## Kits

There are 5 kits to choose from:

- LDK1— Plenum, 48" [1220 mm]
- LDK3— Plenums (2), includes grilles, 14" [356 mm]
- LDK4— Plenum, 38" [966 mm]
- LDK7— Duct Termination Plates (2)—for wall valance discharge ONLY
- LDK9— Plenum, 30" [762 mm]

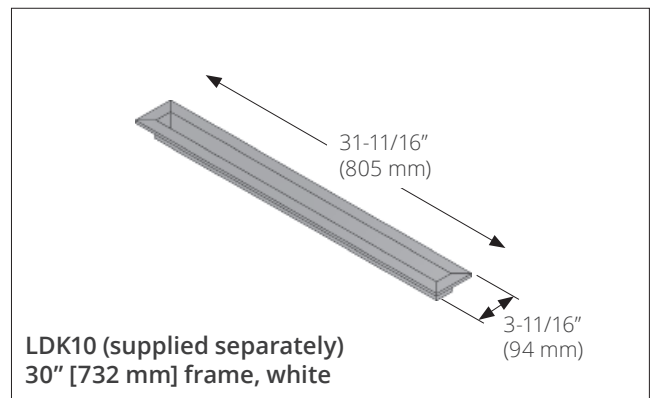
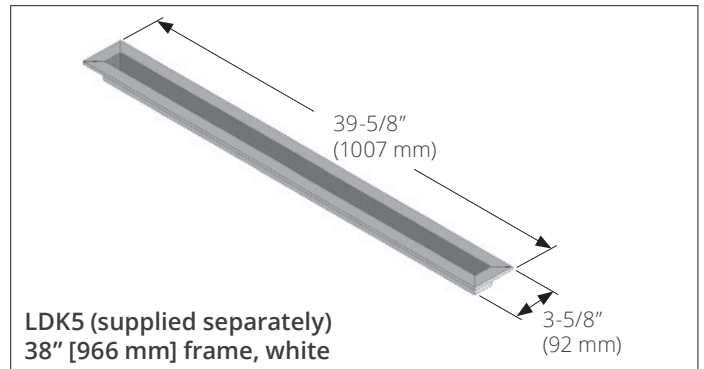
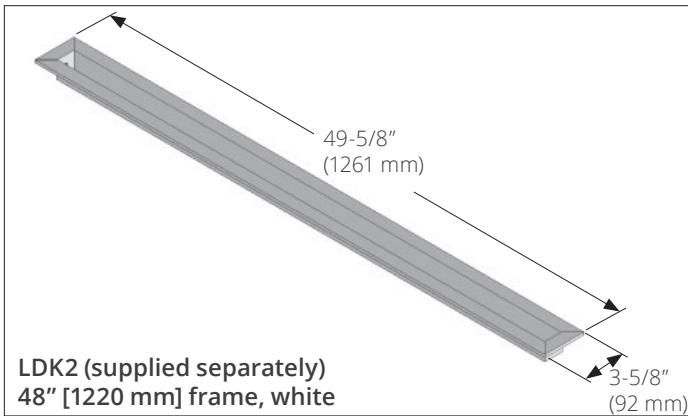
## Kits Contents



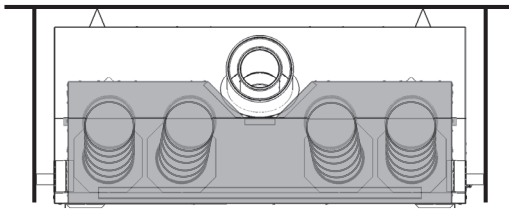
## Optional accessories

- LDK2—48" [1220 mm] Finishing Frame, to use with LDK1
- LDK5—38" [966 mm] Finishing Frame, to use with LDK4
- LDK6— 5" [127 mm] dia Aluminum 2-ply Flex Kit—  
2 x 10'-0" [3048 mm] lengths, may be cut to required length
- LDK10—30" [732 mm] Finishing Frame, to use with LDK9

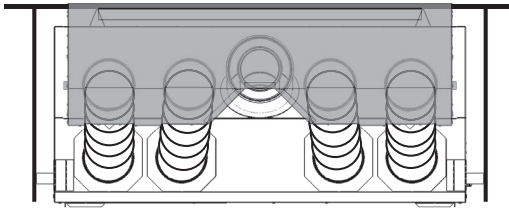
## Kits Contents



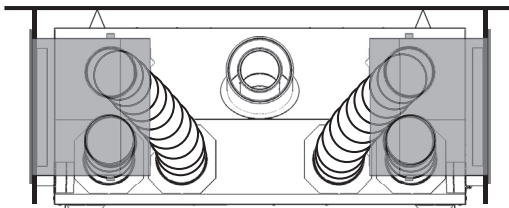
## Suggested Configurations (top view)



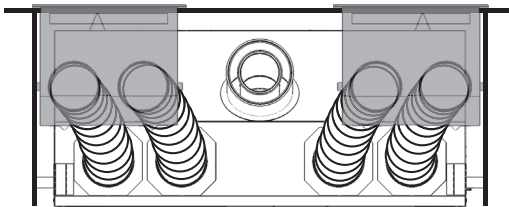
Front wall outlet using LDK1, LDK4 (shown) or LDK9



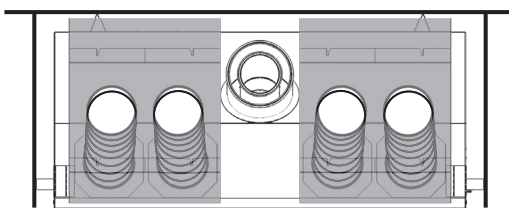
Rear wall outlet using LDK1, LDK4 (shown) or LKD9  
Note: Fireplace vent may conflict with plenum.  
Offset vent around plenum.



Side wall outlets using LDK3

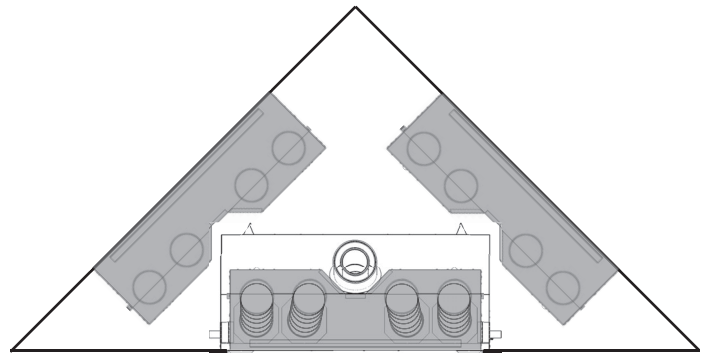


Rear wall outlets using LDK3



Top outlet using LDK7  
Note: When using LDK7, the discharge opening must be located in the same room as the fireplace.

## Corner installations



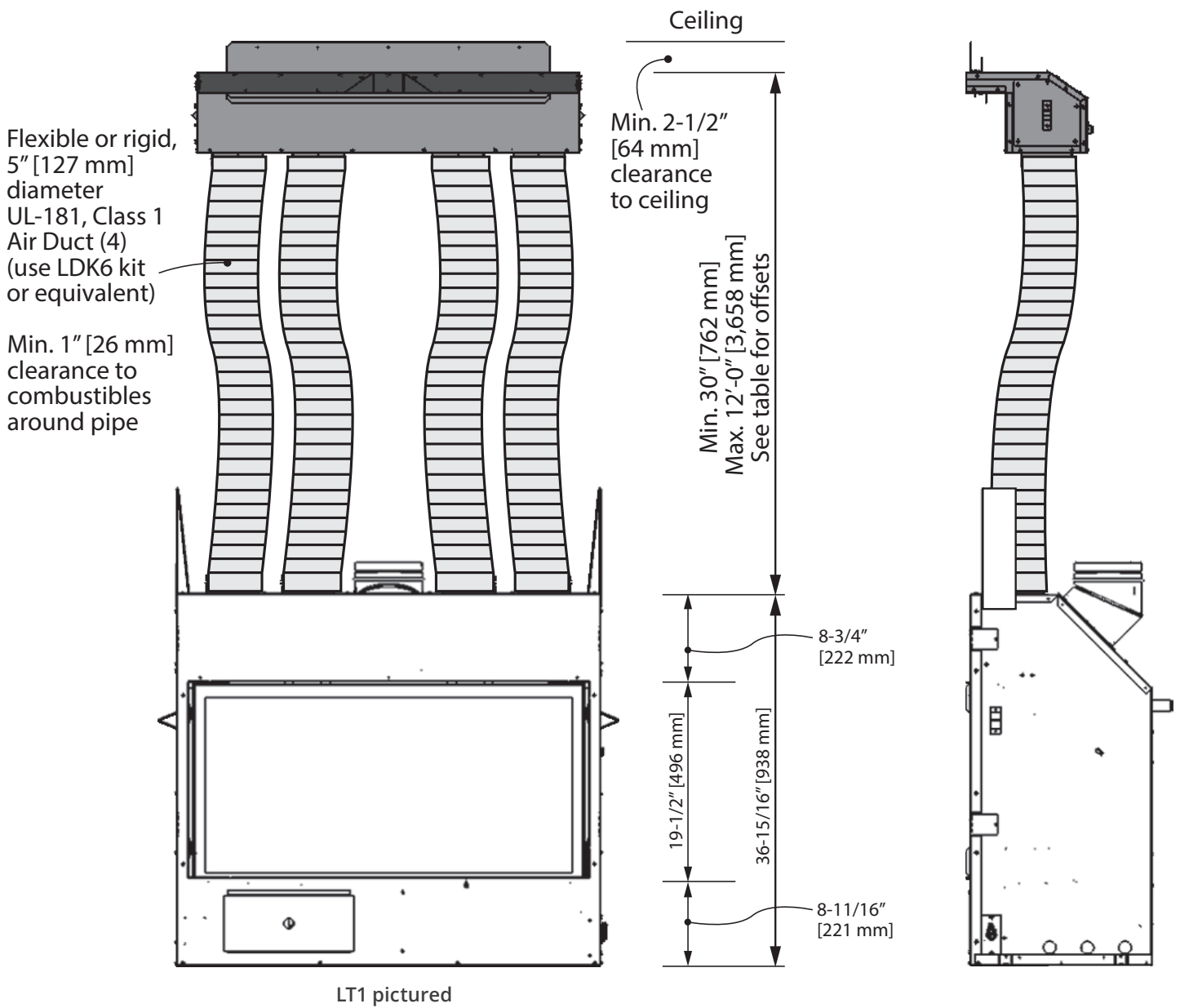
### **⚠ WARNING**

The plenum duct kits are approved for horizontal discharge ONLY. The termination duct plates (LDK7) are approved for vertical upward discharge ONLY. DO NOT install plenum or termination plates in floor or ceiling. DO NOT COVER OR PLACE objects in front of or on top of air outlet(s). AVOID locating outlet within 7 feet [2.2 m] of the floor level as discharge air temperatures are hot!

**DO NOT DISCHARGE THROUGH EXTERIOR WALLS!**

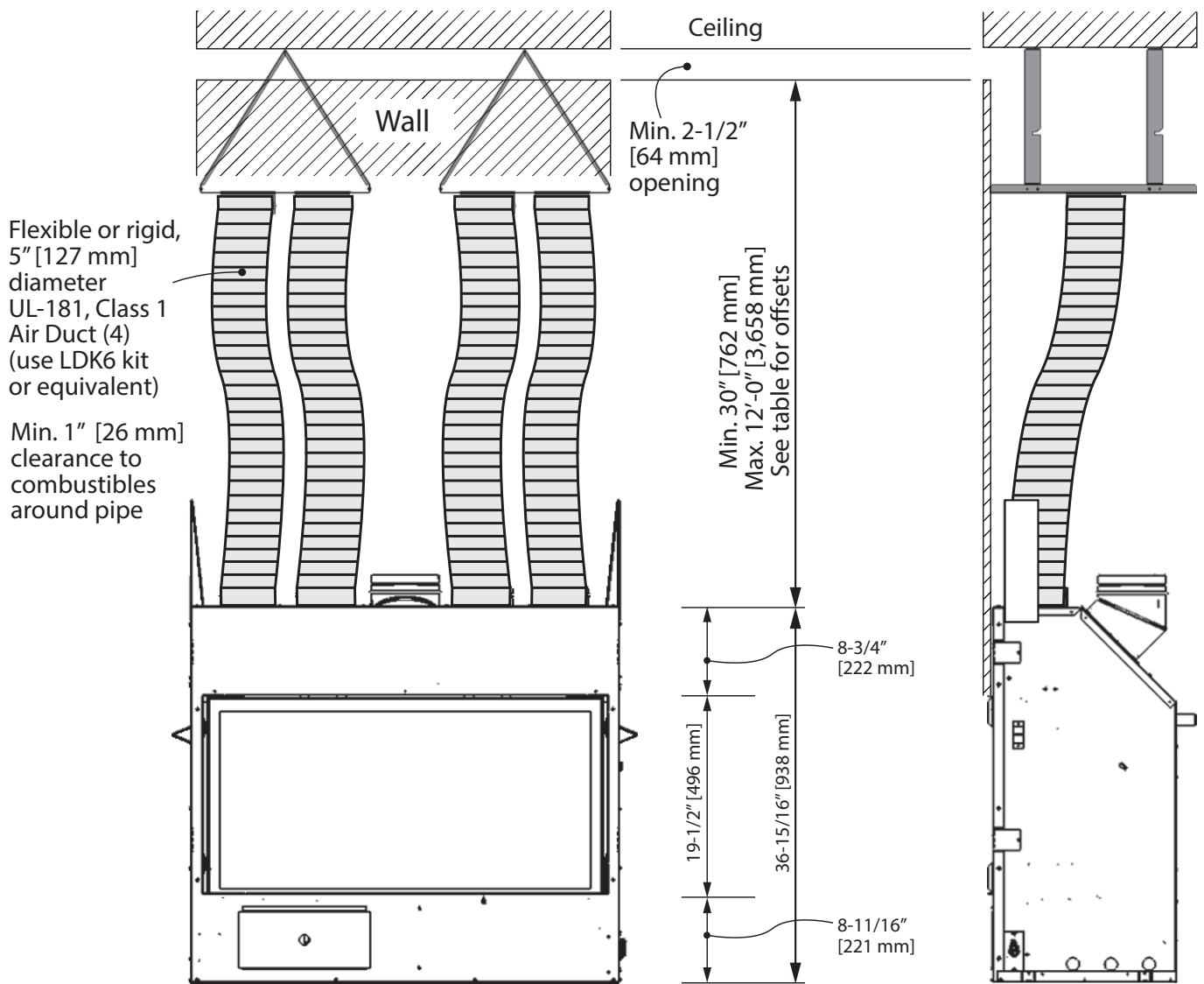
NOTE This duct kit may be used for outdoor installations to reduce wall temperatures above the unit. The discharge grilles must be located under the weatherproof enclosure described in the GV60CKO Outdoor Fireplace Conversion Kit instructions.

Overview (applies to LKD1, LDK3, LDK4 and LDK9 kits)



Overview (applies to LDK7)

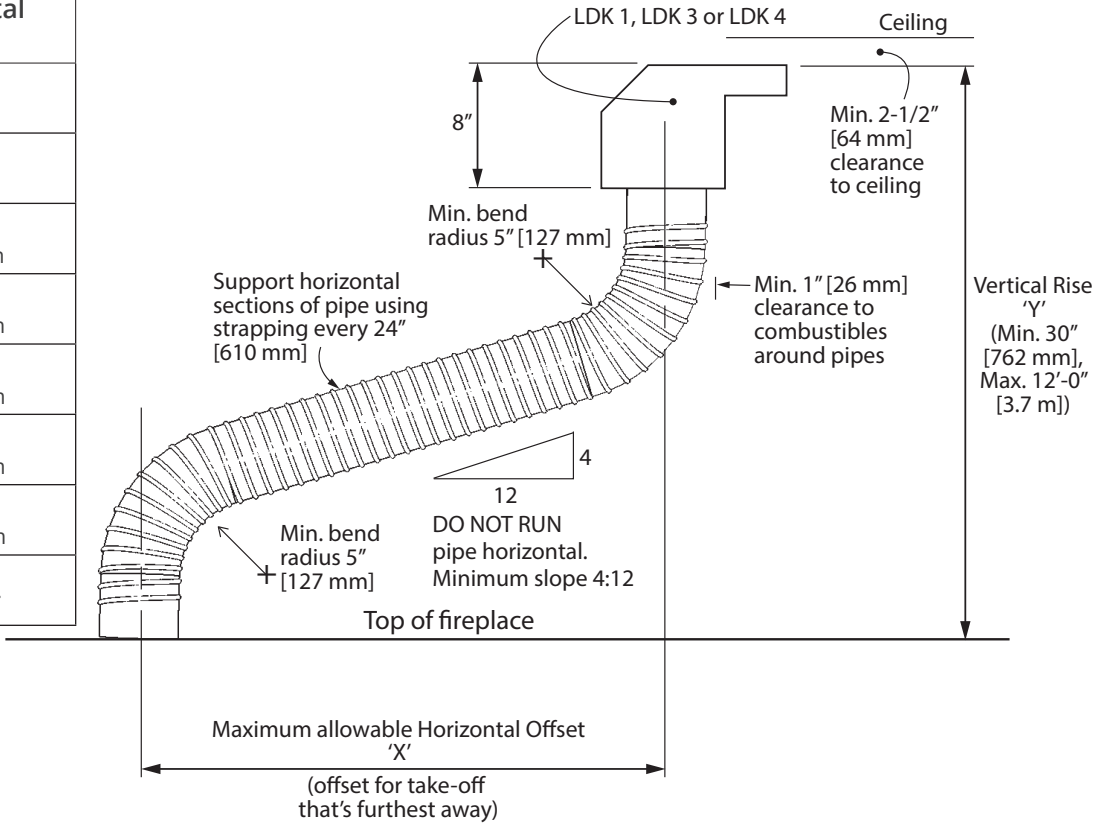
NOTE Discharge opening must be located in the same room as fireplace when using LDK7.



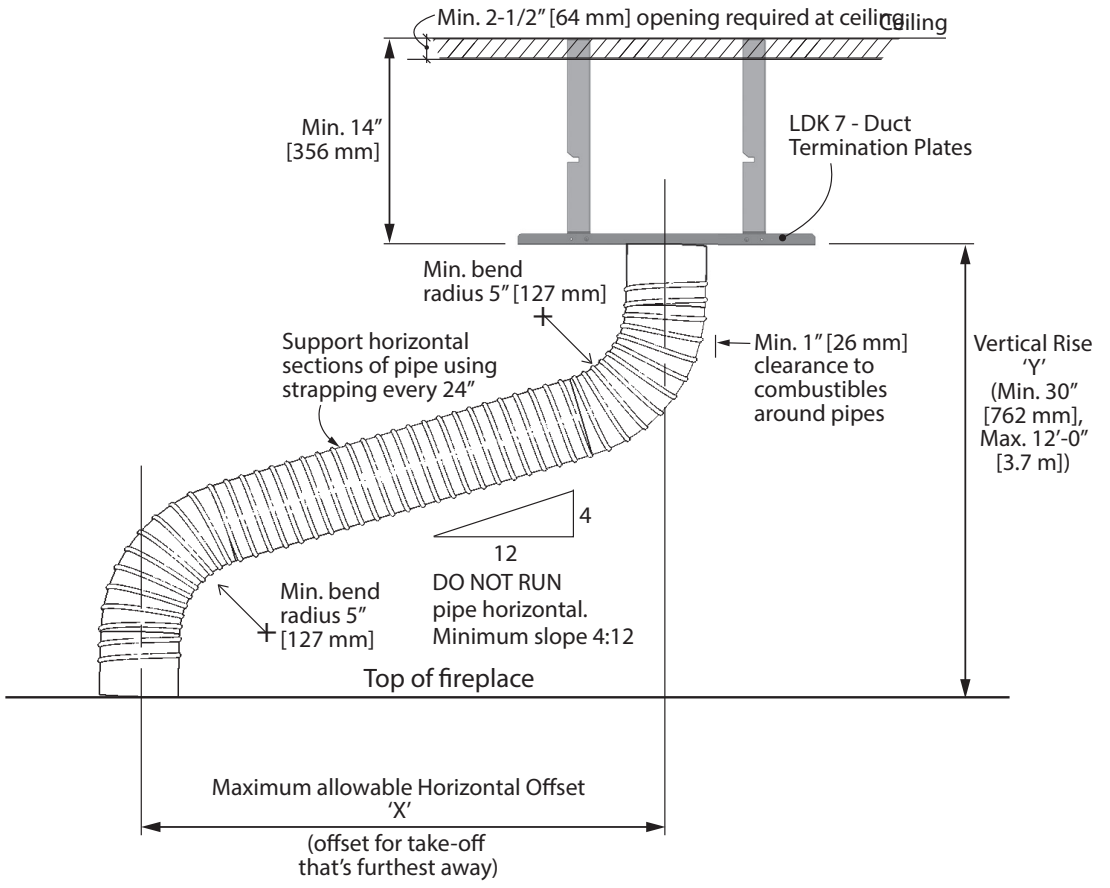
LT1 pictured

Y Vertical Rise	X Max. Allowable Horizontal Offset
30" 762 mm	24" 610 mm
36" 914 mm	36" 914 mm
42" 1067 mm	48" 1219 mm
48" 1219 mm	60" 1524 mm
54" 1372 mm	72" 1829 mm
60" 1524 mm	84" 2134 mm
66" 1676 mm	96" 2438 mm
12'-0" 3.7 m	96" Max.

### With Plenum

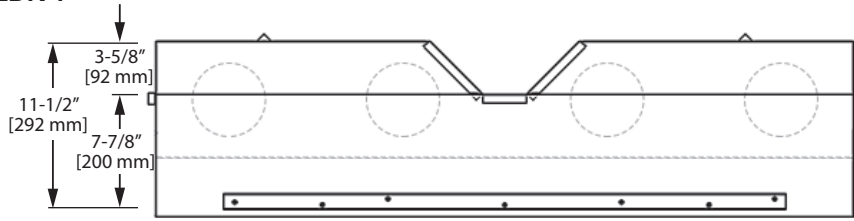


### With Plates

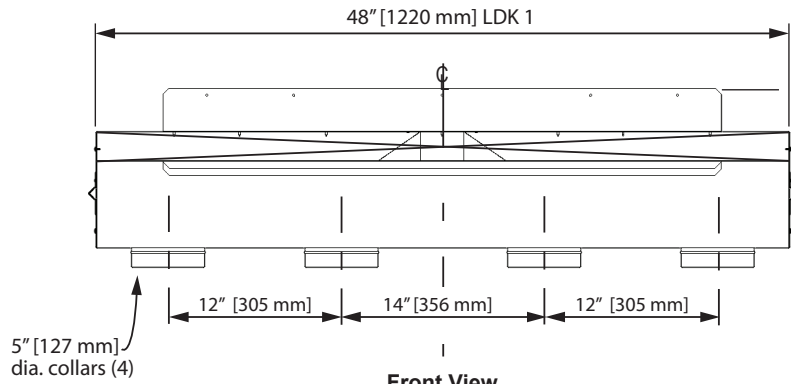


# Plenum Dimensions

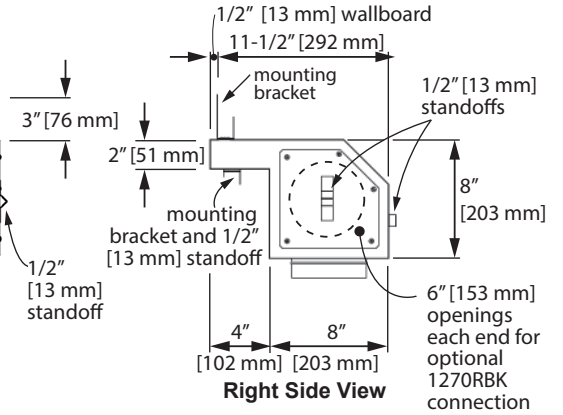
## LDK 1



Top View

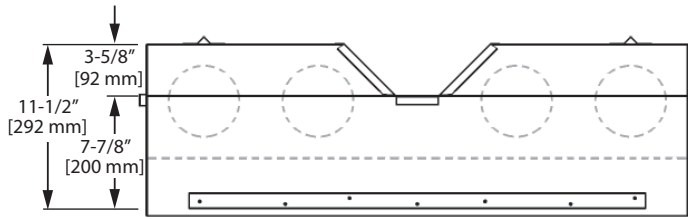


Front View

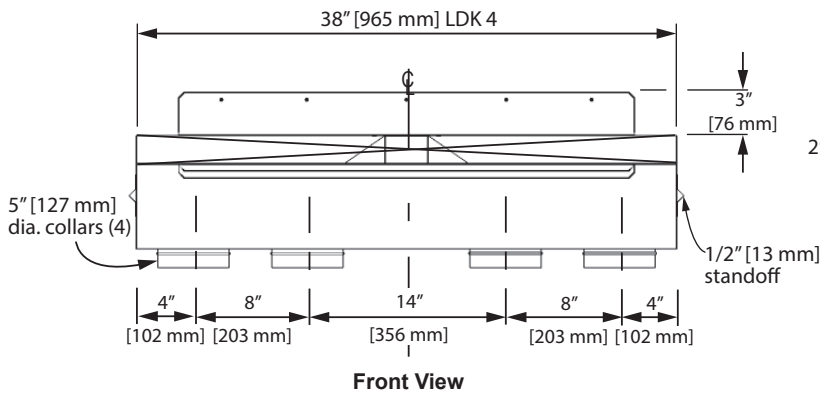


Right Side View

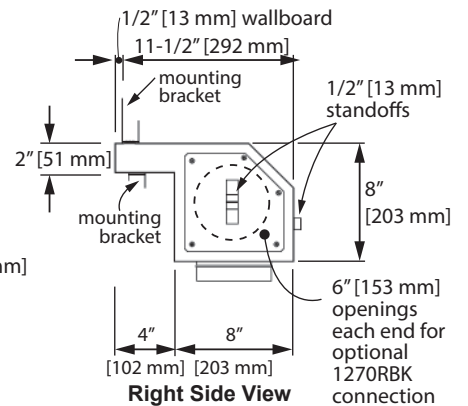
## LDK 4



Top View



Front View

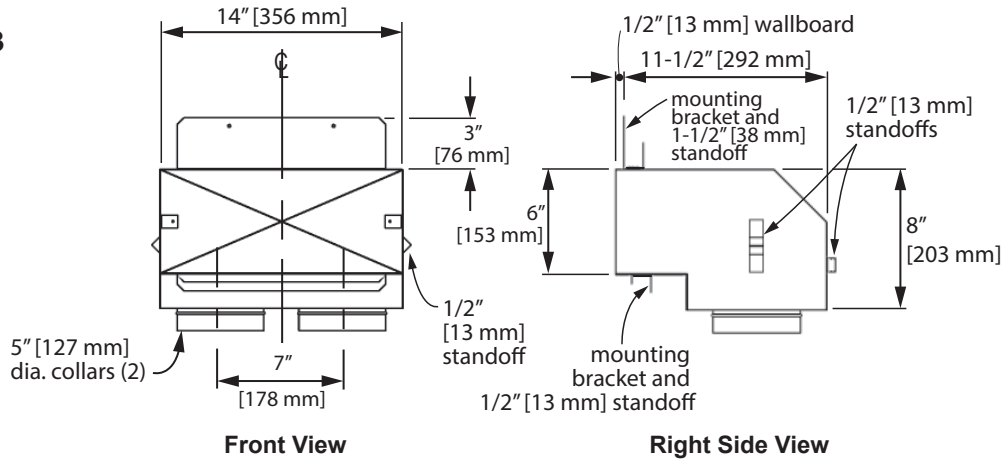


Right Side View

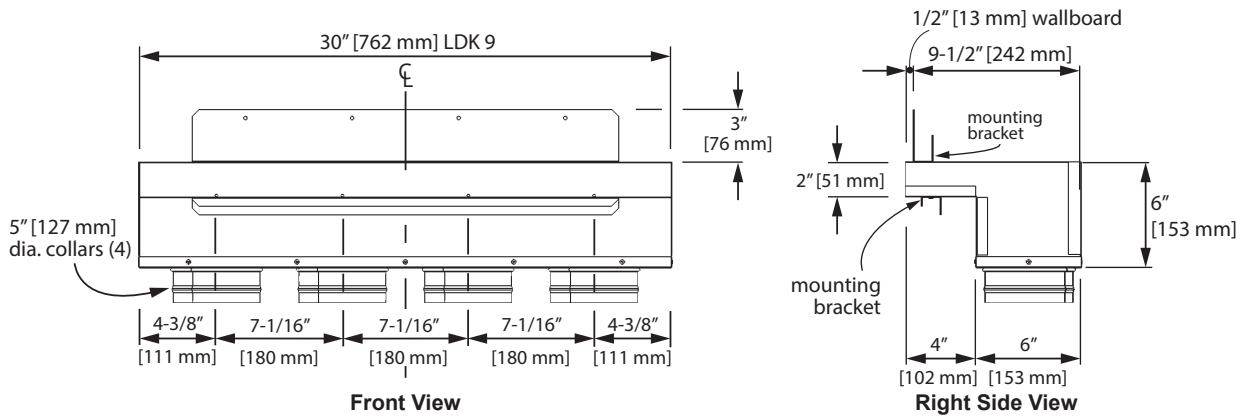
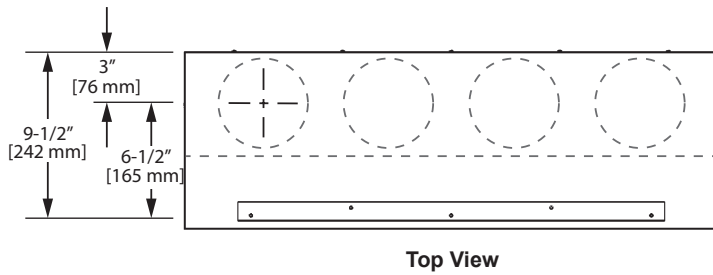


# Plenum Dimensions (cont'd)

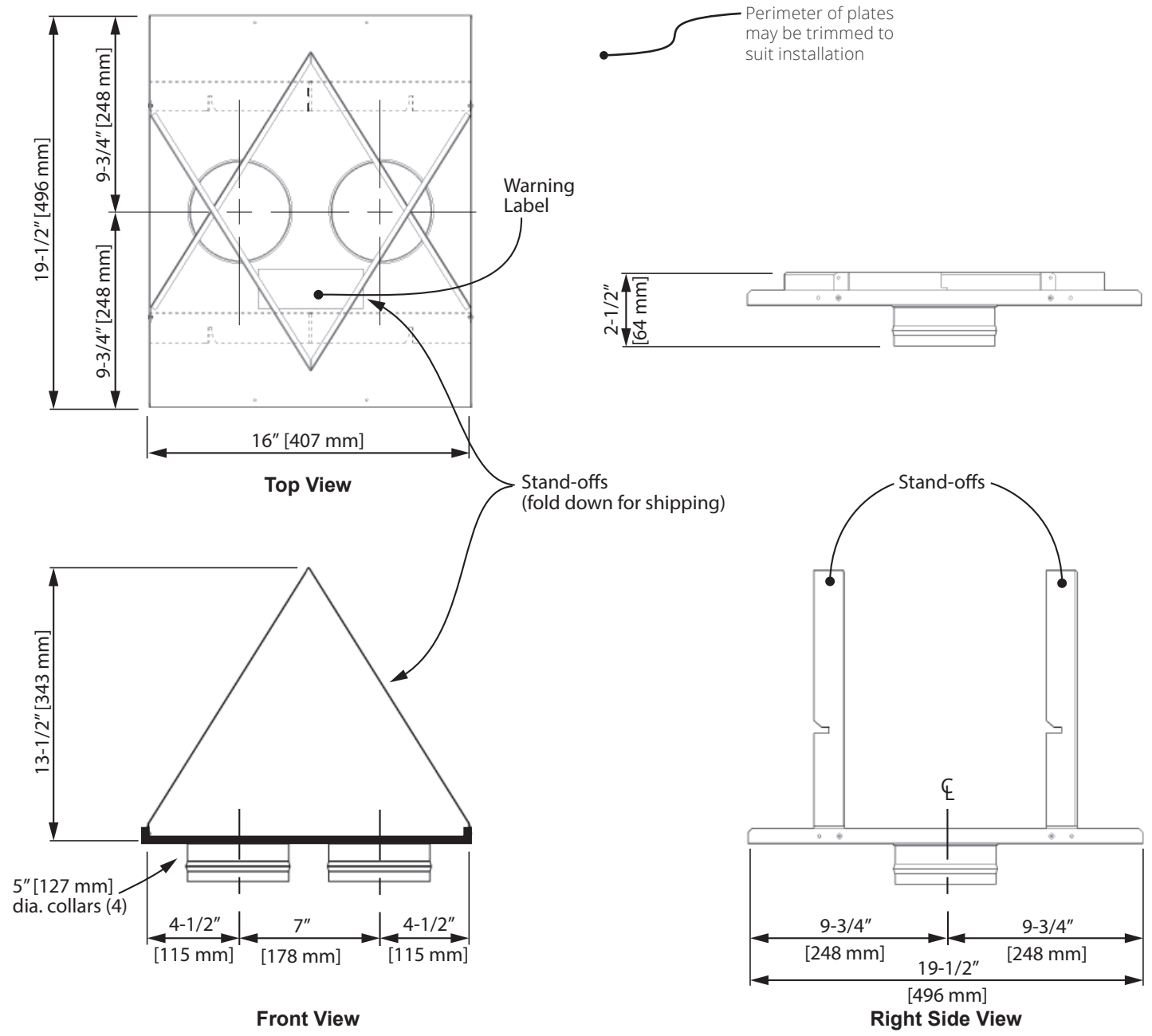
**LDK 3**



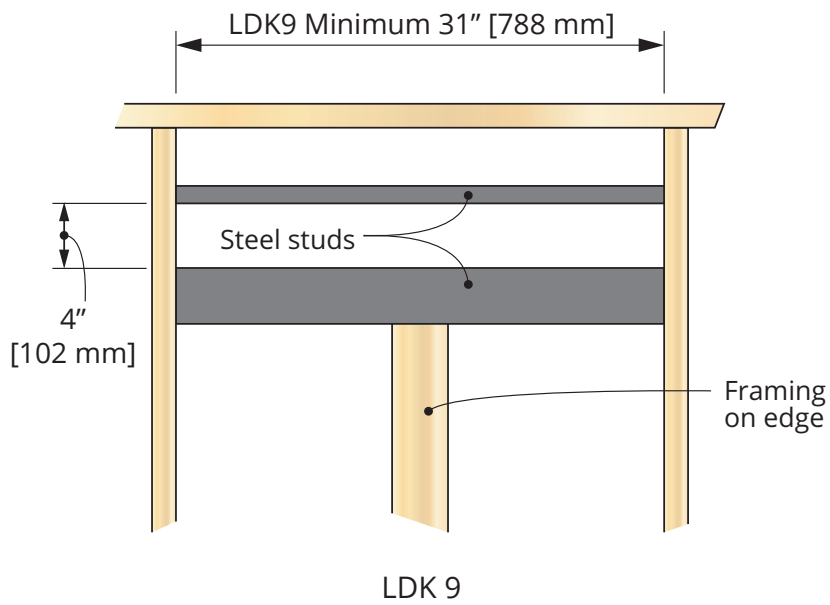
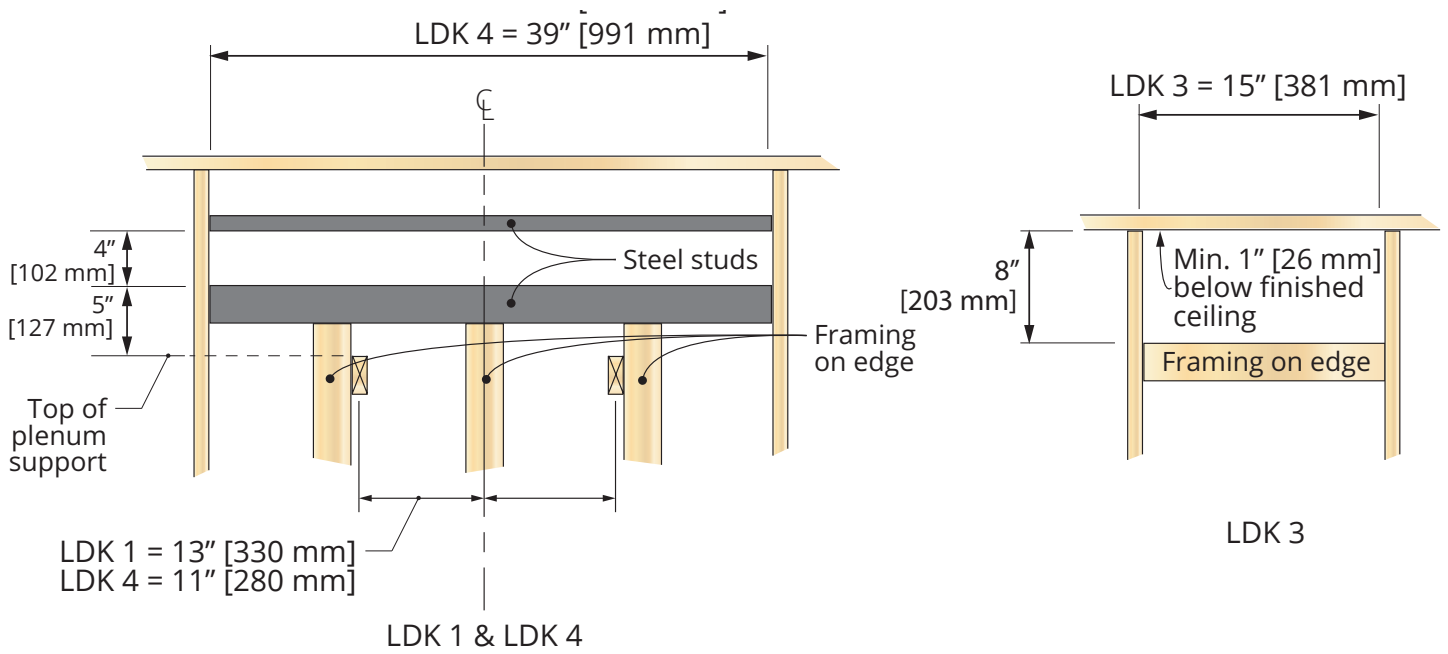
**LDK 9**



# LDK7 Plates Dimensions

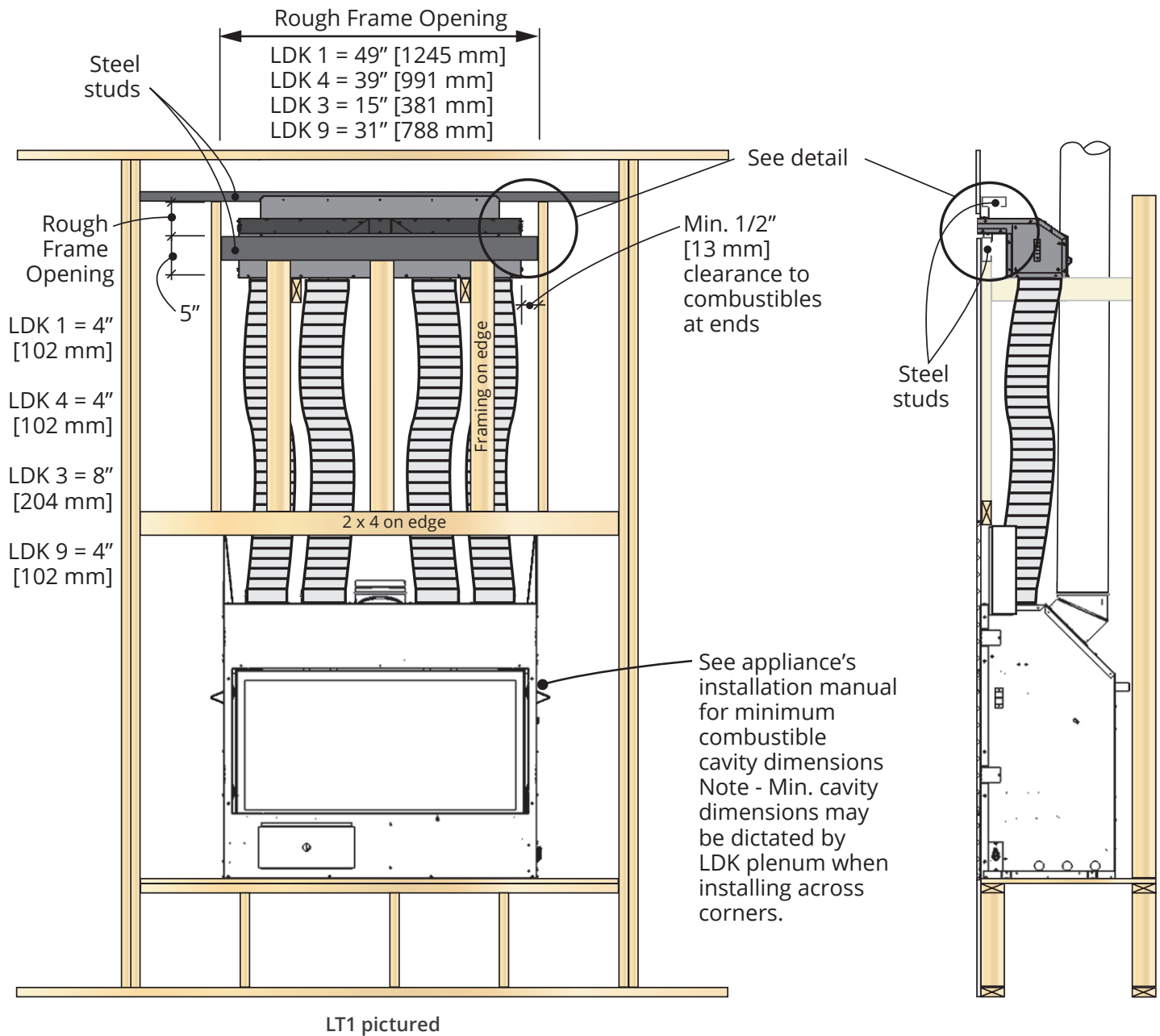


## Rough Frame Openings



**⚠ Important**  
 Framing above and below plenum opening for LDK1, LDK4, and LDK9 must be steel framing.  
 Wood framing acceptable for LDK3.

## Framing and Clearances—Plenums, front view

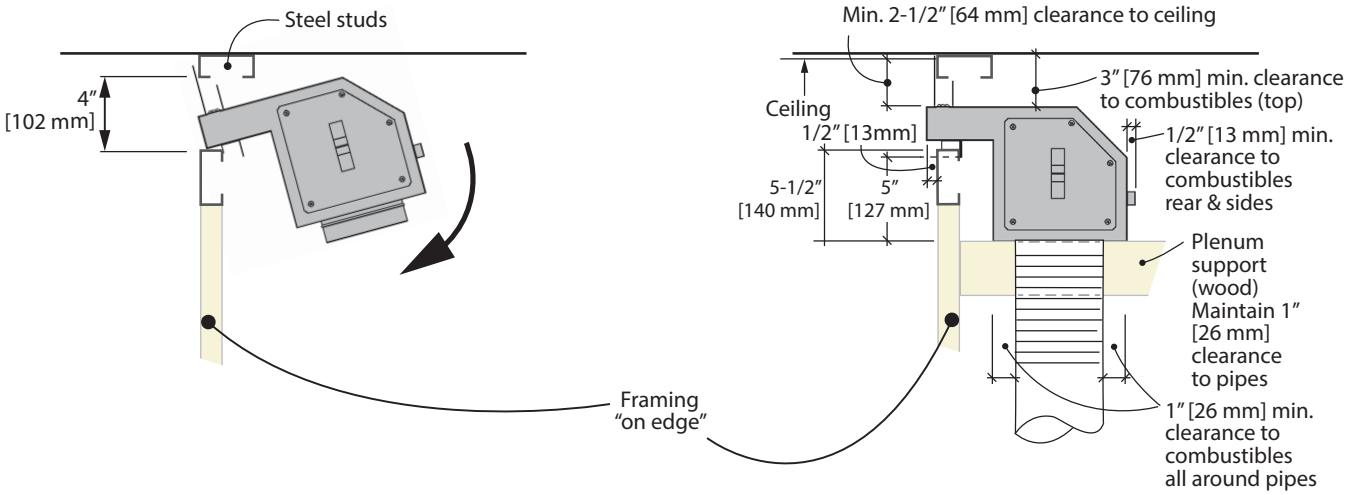


### Important

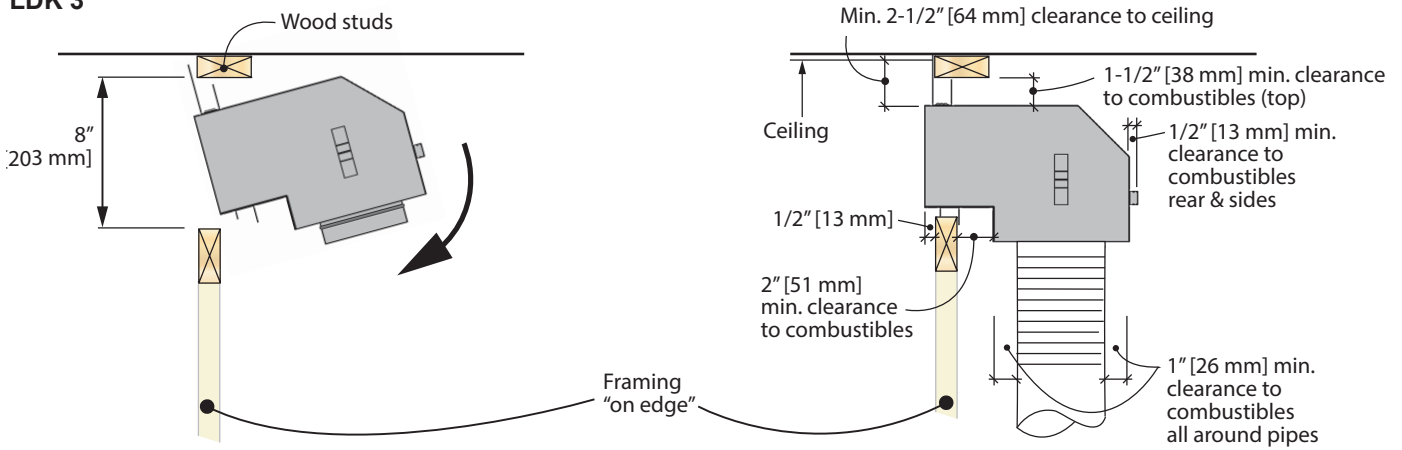
Framing above and below plenum opening for LDK1, LDK4, and LDK9 must be steel framing.  
Wood framing acceptable for LDK3.

# Framing and Clearances—Plenums, side view

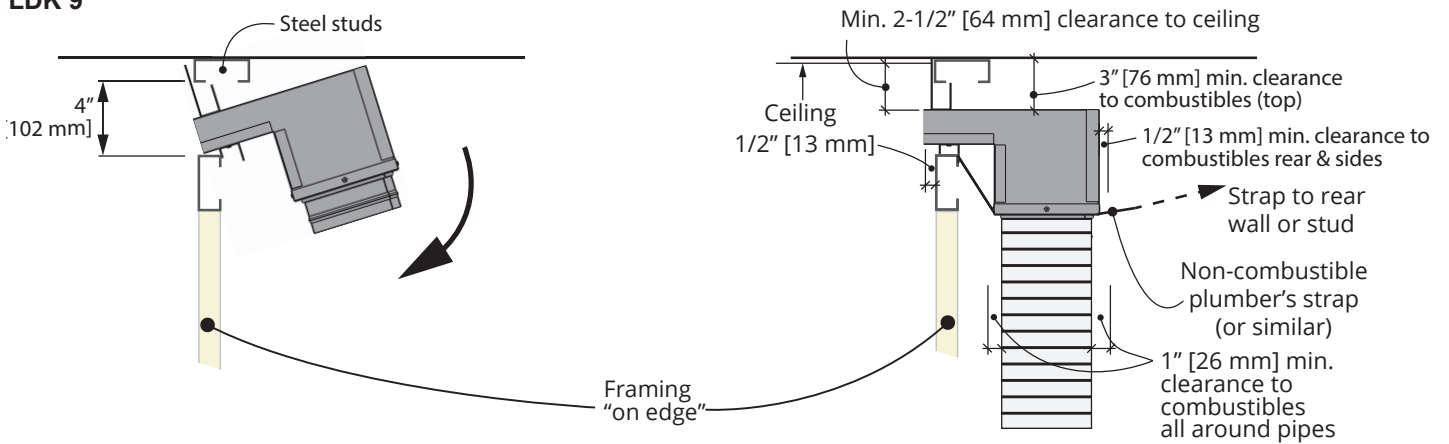
## LDK 1 & 4



## LDK 3



## LDK 9

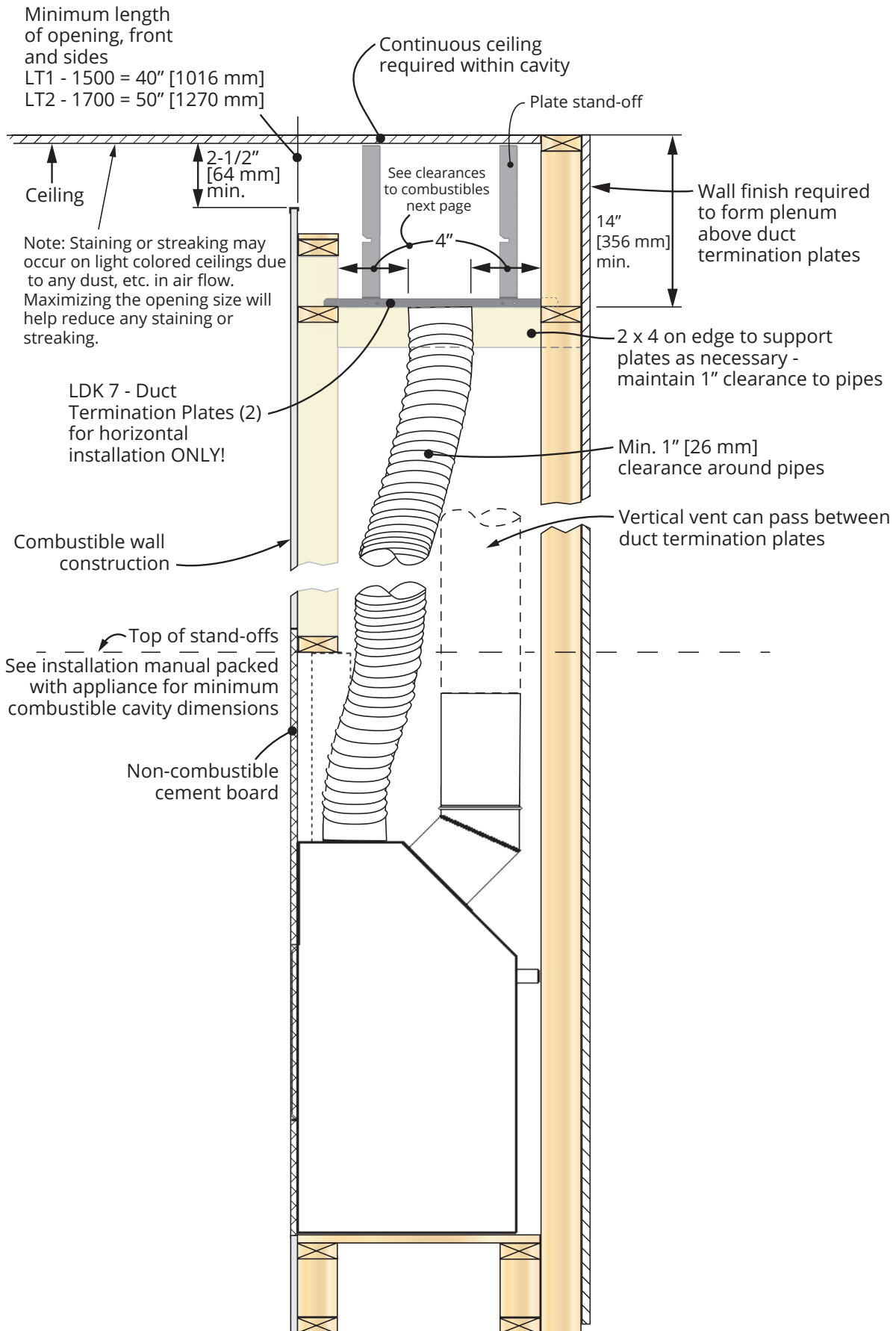


### Important

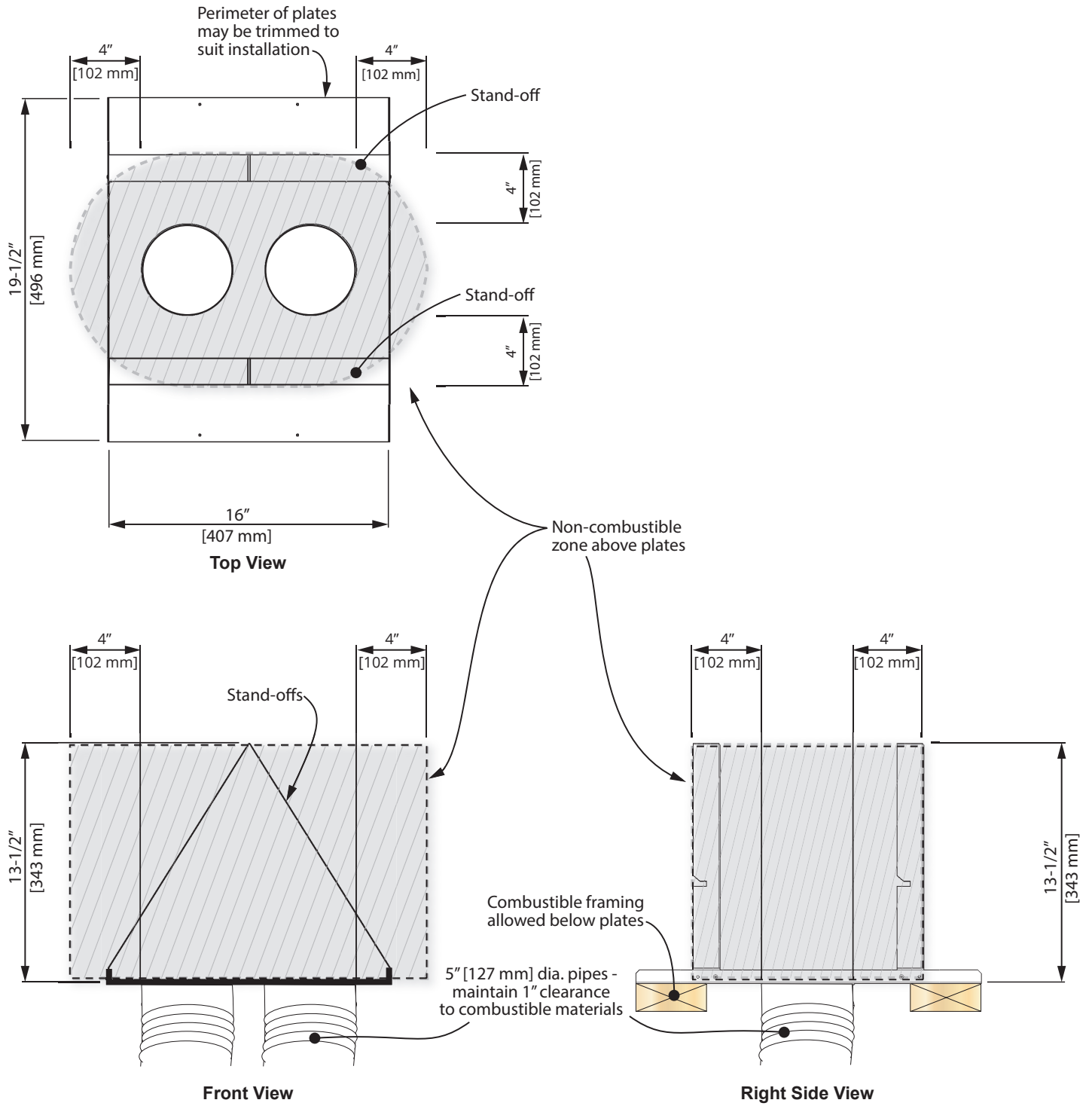
Framing above and below plenum opening for LDK1, LDK4, and LDK9 must be steel framing.

Wood framing acceptable for LDK3.

# Wall Valance Discharge Opening using LDK7—Duct Termination Plates

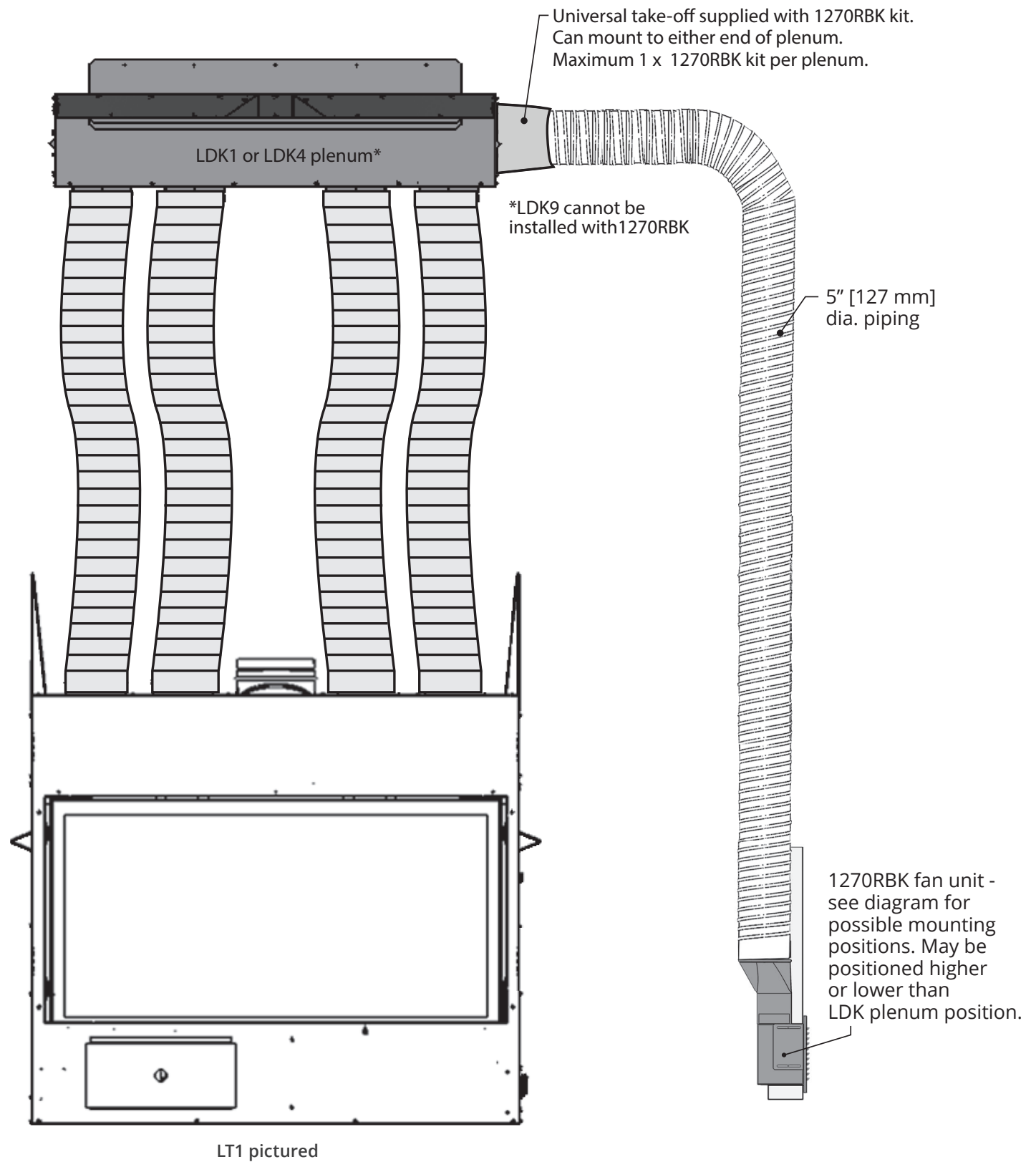


# LDK7 Clearances to Combustibles



# LDK Duct Kit LDK 1, LDK 4 with optional 1270RBK Remote Blower Kit

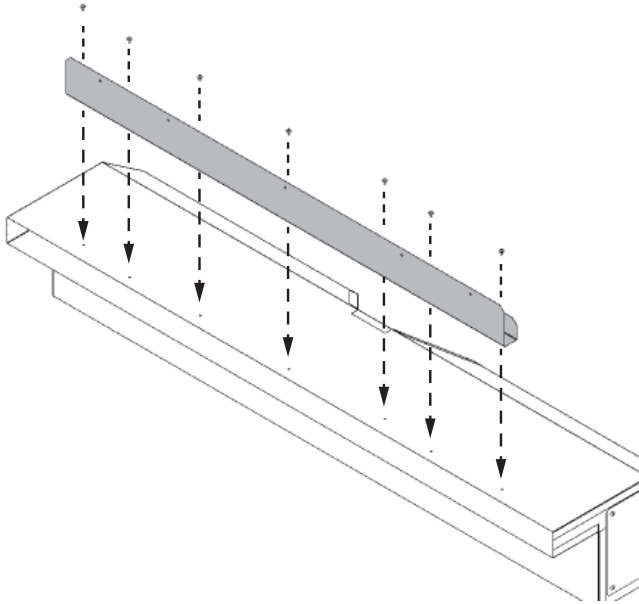
(not approved with outdoor installations)





## Install Plenum Kits (LDK1, LDK3, LDK4 & LDK9) —see next page for LDK7 Duct Termination Plates

1. Frame a rough opening at the desired location—see earlier sections of this manual for allowable plenum positions and rough frame opening sizes.
2. Install top mounting bracket(s) to the plenum using screws provided (use the short sheet metal screws provided otherwise the screw tails (ends) will interfere with the finishing frame when installed).

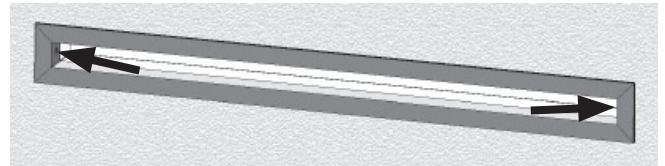


3. Install the plenum(s) into the rough frame opening maintaining minimum clearances to combustibles as listed—see Rough Frame Openings. Fix the plenum to the framing using nails or screws through the top mounting bracket. **Note that the mounting brackets are not intended to carry the weight of the plenum and pipes. Provide support to the underside of the plenum and ensure the plenum is level and its outlet is not distorted—see Framing and Clearances.** Use metal strapping (all-round, not supplied) as required to further secure the plenum to framing.
4. Attach one section of UL-181, Class 1 approved air duct to each of the collars and secure it with gear clamps provided. **DO NOT SPLICE DUCTS!**
5. Attach the top of the pipe sections to the plenum securing them with the gear clamps provided. An upward slope must be maintained in horizontal sections of pipes for proper convection. Use straps as necessary to maintain the pipes positions. Support horizontal sections every 24 inches [610 mm].

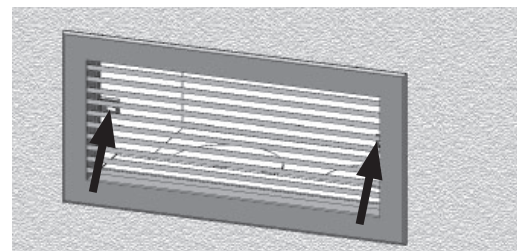
6. Paint the inside surfaces of the plenum using high-temperature flat black spray paint for installations where the inside of the plenums may be visible. **Note:** The flanges of the white finishing frame (when used) will insert approximately 1-1/4" [32 mm] into the plenum covering the shiny sheet metal.

Install the finishing frame or louver to the plenum after the wall finish is completed:

**LDK1, LDK4, LDK9:** Use the LDK2, LDK5 or LDK10 depending of the length of the plenum.



**LDK3:** Use the grilles provided with the kit.



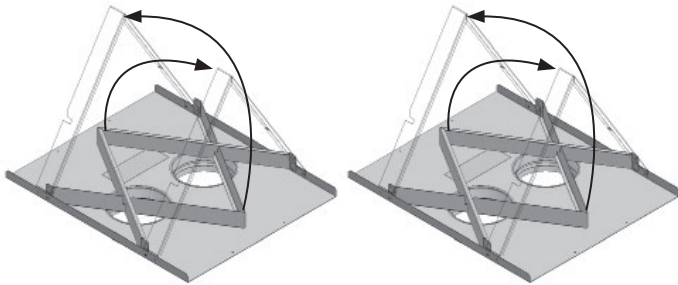
**Note:** The frame/louvers are finished white but may be painted another color if desired; use high temperature paint (250°F/120°C). You may also finish up to the perimeter of the plenum opening with your material of choice and not use the frame or louver. Do not finish over any of the opening in the plenum outlet.

7. Continue with the fireplace installation.

## Install Duct Termination Plates (LDK7) —see previous page for LDK1, LDK3, LDK4 & LDK9 Plenum kits

1. Frame a rough opening and platform at the desired location—see earlier sections of this manual for allowable duct termination plates positions and rough frame opening sizes.
2. On each duct termination plate, rotate both stand-offs to the vertical position and secure in place using screws provided.

2 stand-offs per plate



3. Install the termination plates into the framing ensuring collars/pipes on underside of plates maintain 1 inch [26 mm] clearance to combustibles and clearance to combustible above the plates are maintained as listed in Wall Valence Discharge Opening. The termination plates perimeter may be trimmed as necessary to accommodate framing. Secure the termination plate to framing using screws or nails to avoid movement.
4. Attach one section of UL-181, Class 1 approved air duct to each of the collars and secure it with gear clamps provided. **DO NOT SPLICE DUCTS!**
5. Attach the top of the pipe sections to the duct termination plates securing them with the gear clamps provided. An upward slope must be maintained in horizontal sections of pipes for proper convection. Use straps as necessary to maintain the pipes positions. Support horizontal sections every 24 inches [610 mm].
6. Continue with the fireplace installation.

## Repair Parts List

	Description	Part no.
<b>LDK1</b>	48" Quad Hot Air Plenum Kit [1220 mm]	
	48" x 2" quad plenum [1220 x 51 mm]	4005476
	5" take-off collars (4) [127 mm]	4005478
	Top mounting bracket/standoffs	4007211
	#8 slotted drive screws 1/4" (7) [6 mm]	798601
<b>LDK2</b>	48" Outlet Frame Kit for LDK1 [1220 mm]	
	Aux Frame-SPL 48" x 2" white [1220 x 51 mm]	4005612
<b>LDK3</b>	14" Double Hot Air Plenums Kit [356 mm]	
	14" x 6" double plenums (2) [356 x 153 mm]	4005464
	5" take-off collars (4) [127 mm]	4005478
	DABL-00-C-SPL 14" x 6" Grilles white (2) [356 x 153 mm]	4005614
	Top mounting bracket/standoffs (2)	4005566
	#8 slotted drive screws 1/4" (6) [6 mm]	798601
<b>LDK4</b>	38" Quad Hot Air Plenum Kit [965 mm]	
	38" x 2" quad plenum [965 x 51 mm]	4005477
	5" take-off collars (4) [127 mm]	4005478
	Top mounting bracket/standoffs	4007213
	#8 slotted drive screws 1/4" (7) [6 mm]	798601
<b>LDK5</b>	38" Outlet Frame Kit for LDK4 [965 mm]	
	Aux Frame-SPL 38" x 2" white [965 x 51 mm]	4005613
<b>LDK6</b>	5" Aluminum 2-ply Flex Kit [127 mm]	
	5" dia 10' (uncompressed) aluminum chimney liners (2) [127 mm x 3 m]	4005635
	4.5" - 6.5" ss gear clamps (8) [114 - 165 mm]	4005642
<b>LDK7</b>	Duct Termination Plates	
	Plate and collar assembly (2)	4006747
	5" take-off collars (4) [127 mm]	4005478
	Screws 8 x 3/8 tap PN HD PH (12)	100A757
<b>LDK9</b>	30" Quad Hot Air Plenum Kit [762 mm]	
	30" x 2" quad plenum [762 x 51 mm]	4007903
	5" take-off collars (4) [127 mm]	4005478
	Top mounting bracket/standoff	4007601
	#8 slotted drive screws 1/4" (5) [6 mm]	798601
<b>LDK10</b>	30" Outlet Frame Kit for LDK9 [762 mm]	
	Aux Frame-SPL 30" x 2" white [762 x 51 mm]	4007951

Each LDK kit is sold separately.