

HeatShift™ System

Planning Installation: LX2 with HeatShift®

Planning for use with the following **Valor Heater Models ONLY: 2200J, 2200K**

Application

The HeatShift® convection duct kit 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 or LDK4: 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") 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.

Any kit, LDK1, LDK3, LDK4 or LDK7 may be used on LX2.

5-inch 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.

Kits

There are 4 kits to choose from:

- LDK1—48" Plenum
- LDK3—14" Plenums (2), includes grilles
- LDK4—38" Plenum
- LDK7—Duct Termination Plates (2)—for wall valance discharge ONLY

Optional accessories

- LDK2—48" Finishing Frame, to use with LDK1
- LDK5—38" Finishing Frame, to use with LDK4
- LDK6— 5" dia Aluminum 2-ply Flex Kit—
2 x 10'-0" lengths, may be cut to required length



WARNING

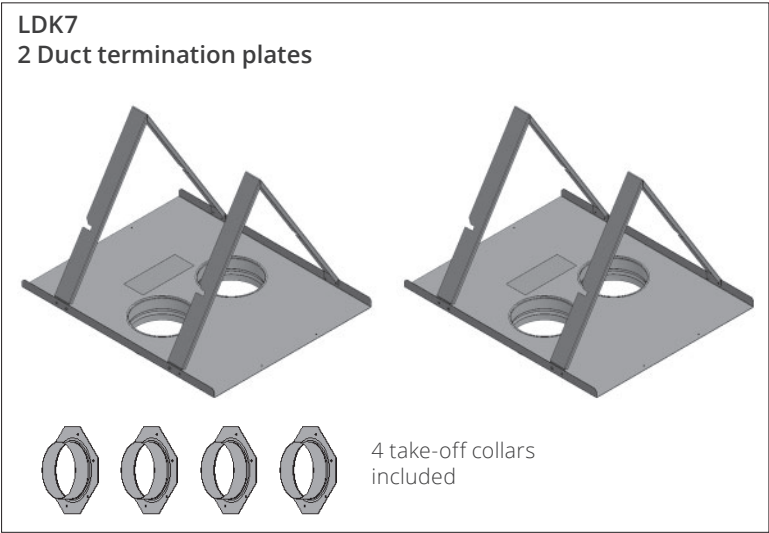
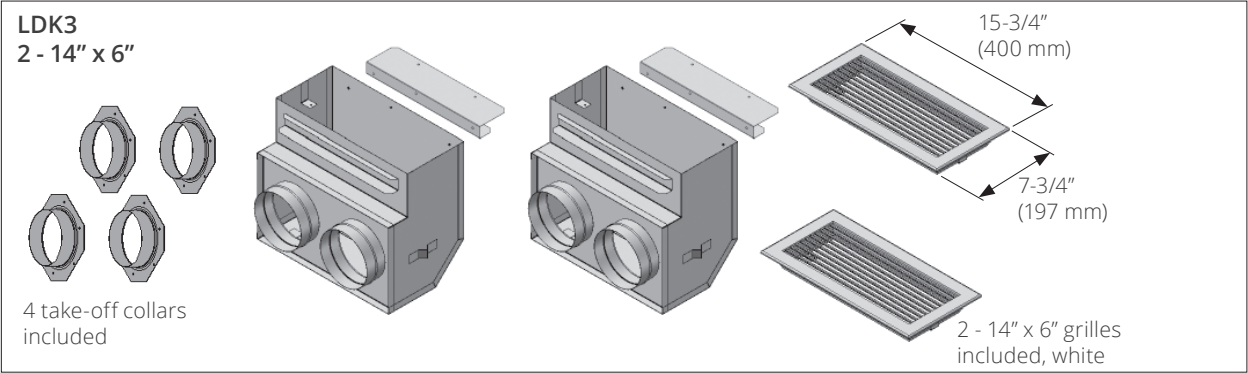
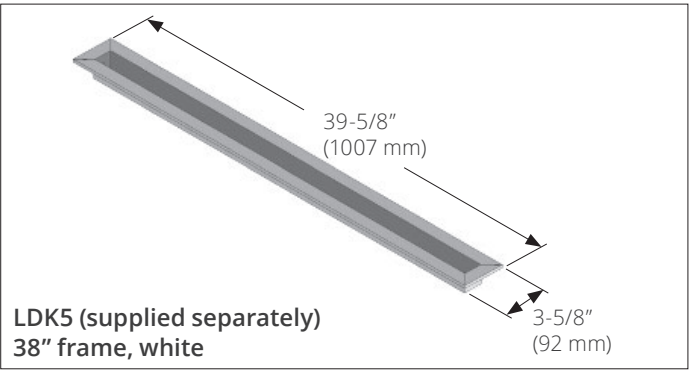
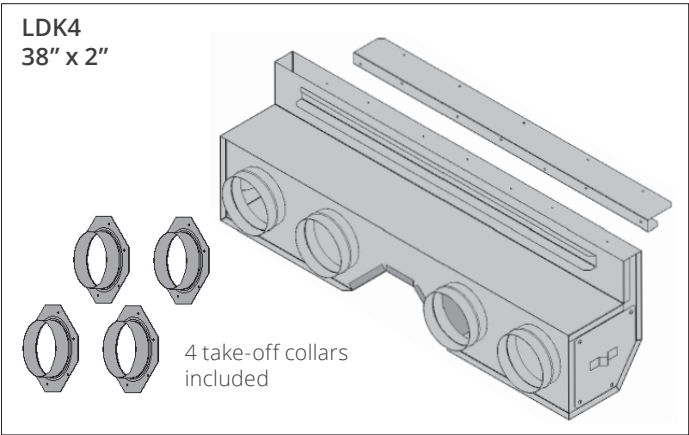
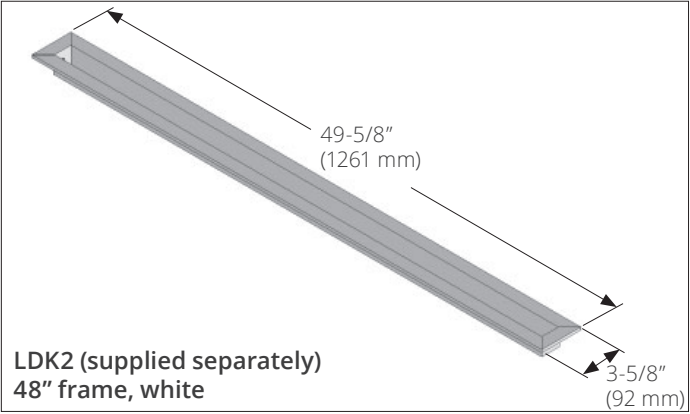
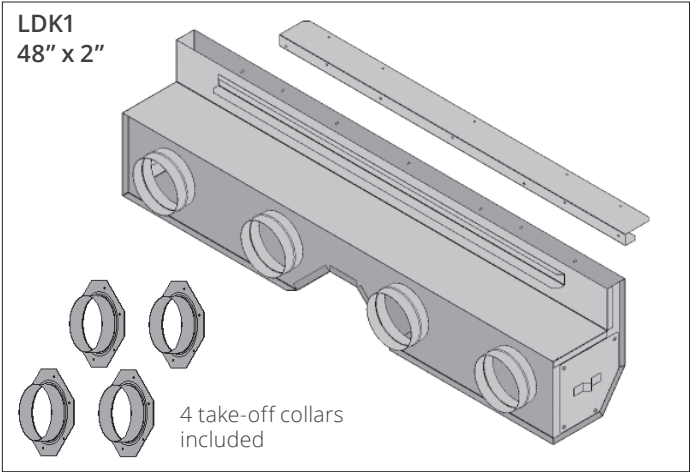
DO NOT cover or place objects in front of or on top of air outlet(s). AVOID locating outlet within 7 feet above floor level as discharge temperatures are hot!



WARNING

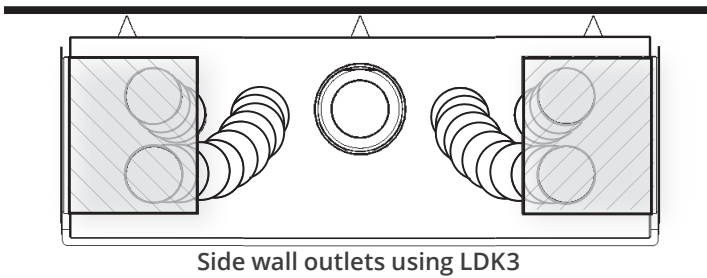
When placing discharge close to ceilings, staining or streaking may occur on light colored ceilings due to any dust, etc. in air flow; placing plenum(s) lower on the wall will help reduce the possibility of staining or streaking.

Kits Contents



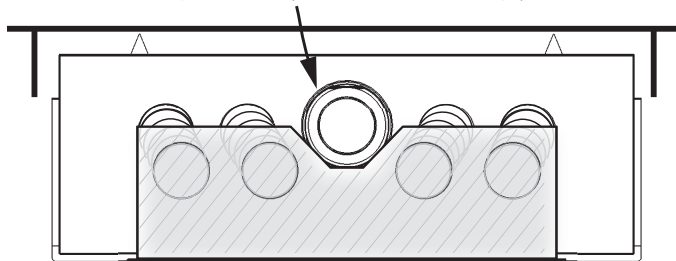
Suggested Configurations Not to scale

LX2 Series



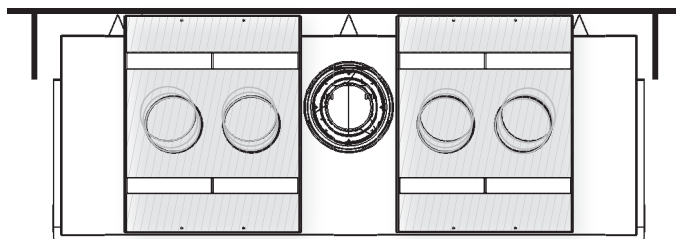
Side wall outlets using LDK3

Note - Vertical 6-5/8" venting straight off the 2200 will pass by notched plenum without offsetting the vent. If using 8" vertical venting, a 20" deep cavity may not accommodate the plenum. Adjust cavity depth accordingly.



Front wall outlet using LDK1 or LDK4

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



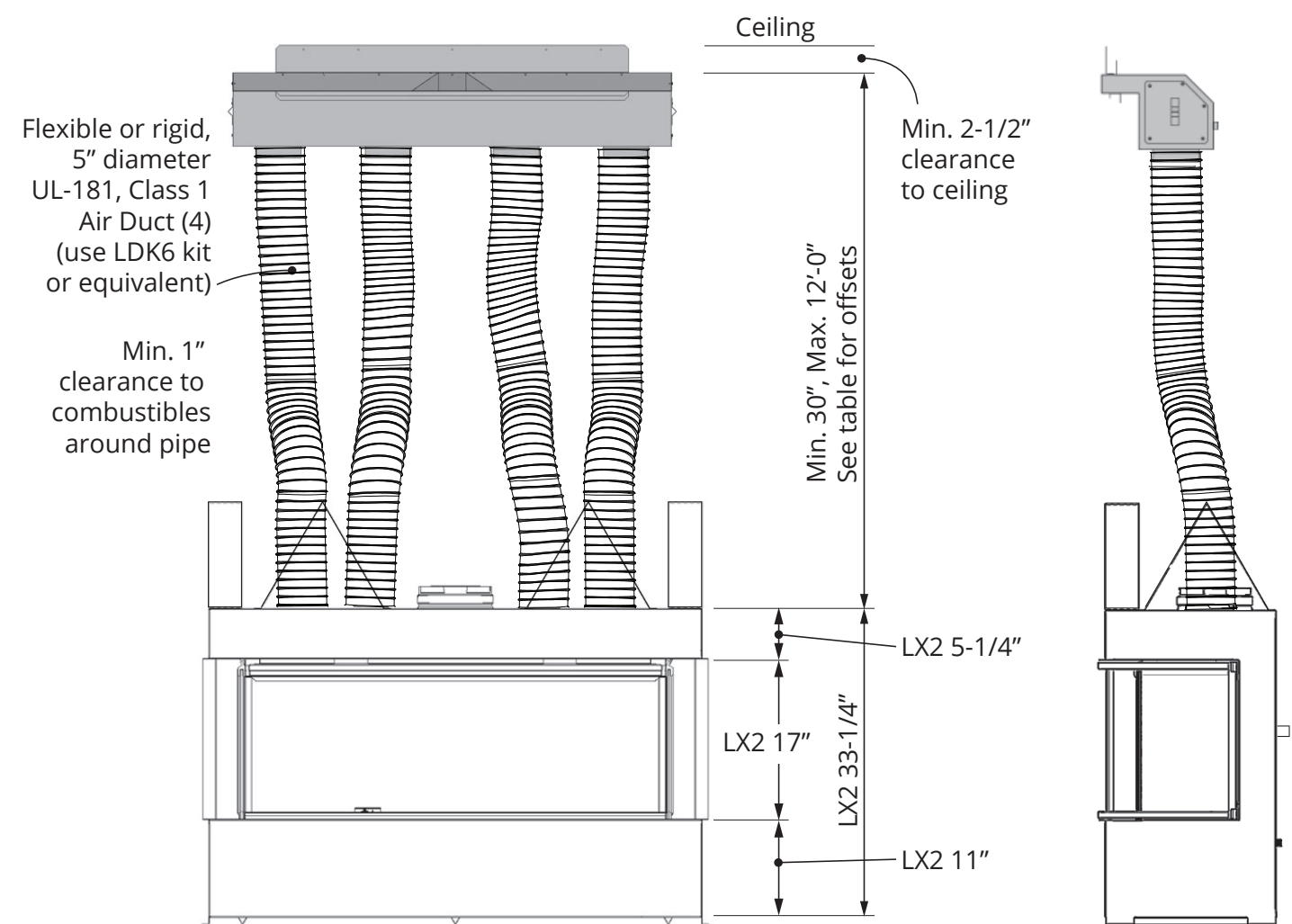
With LDK7

WARNING

The plenum duct kits are approved for horizontal discharge **ONLY**. The termination duct plates 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 of the floor level as discharge air temperatures are hot!

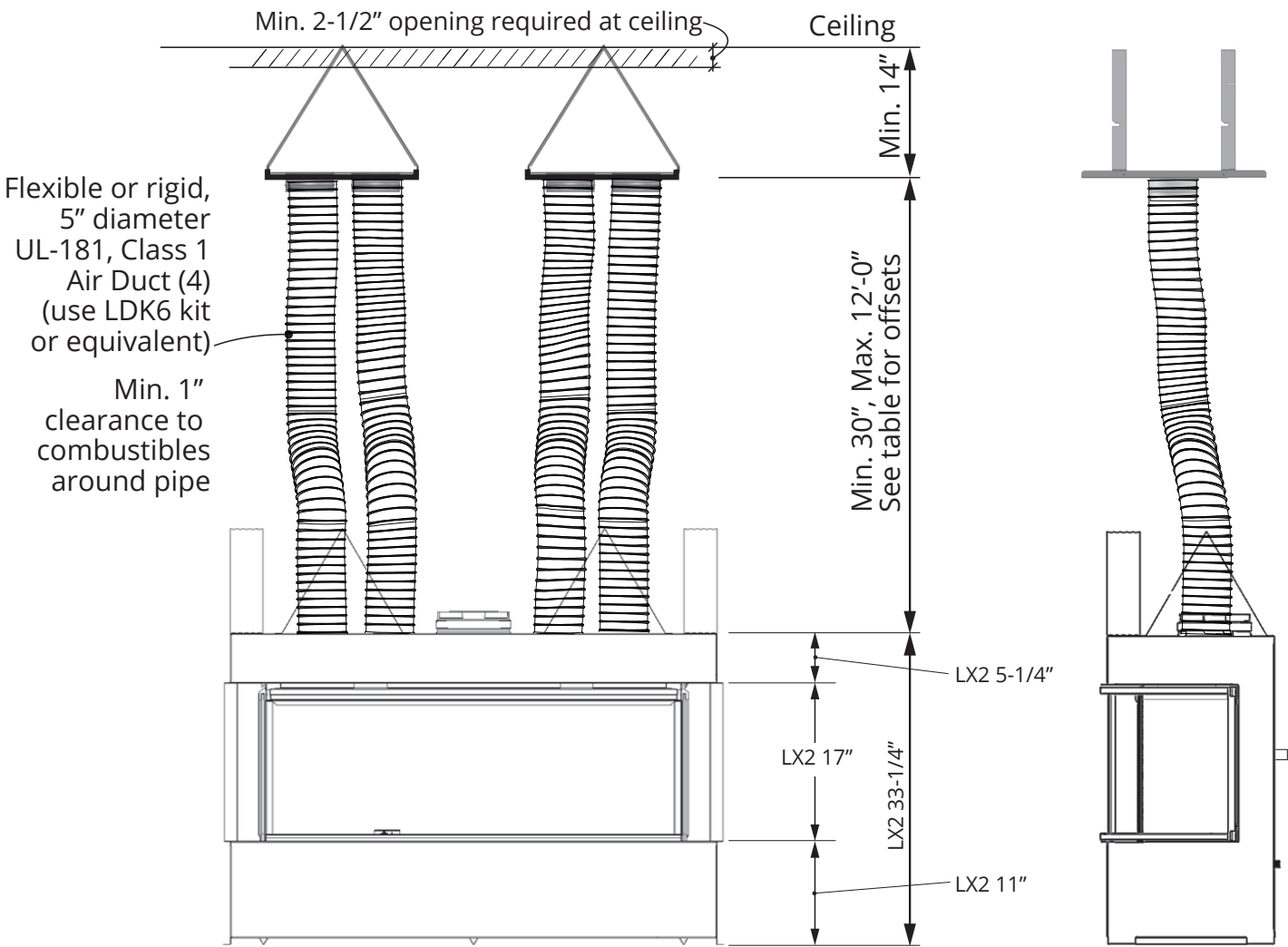
DO NOT DISCHARGE THROUGH EXTERIOR WALLS!

Overview (applies to LKD1, LDK3 and LDK4 kits)

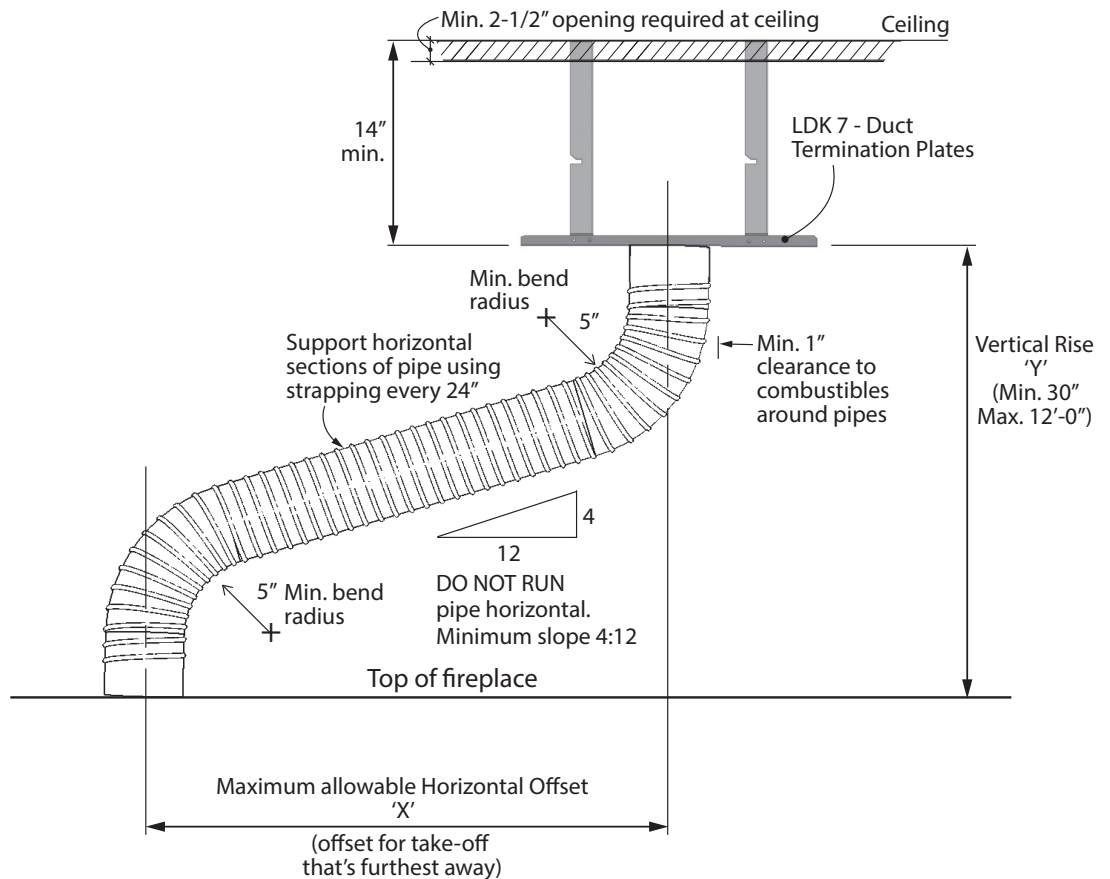
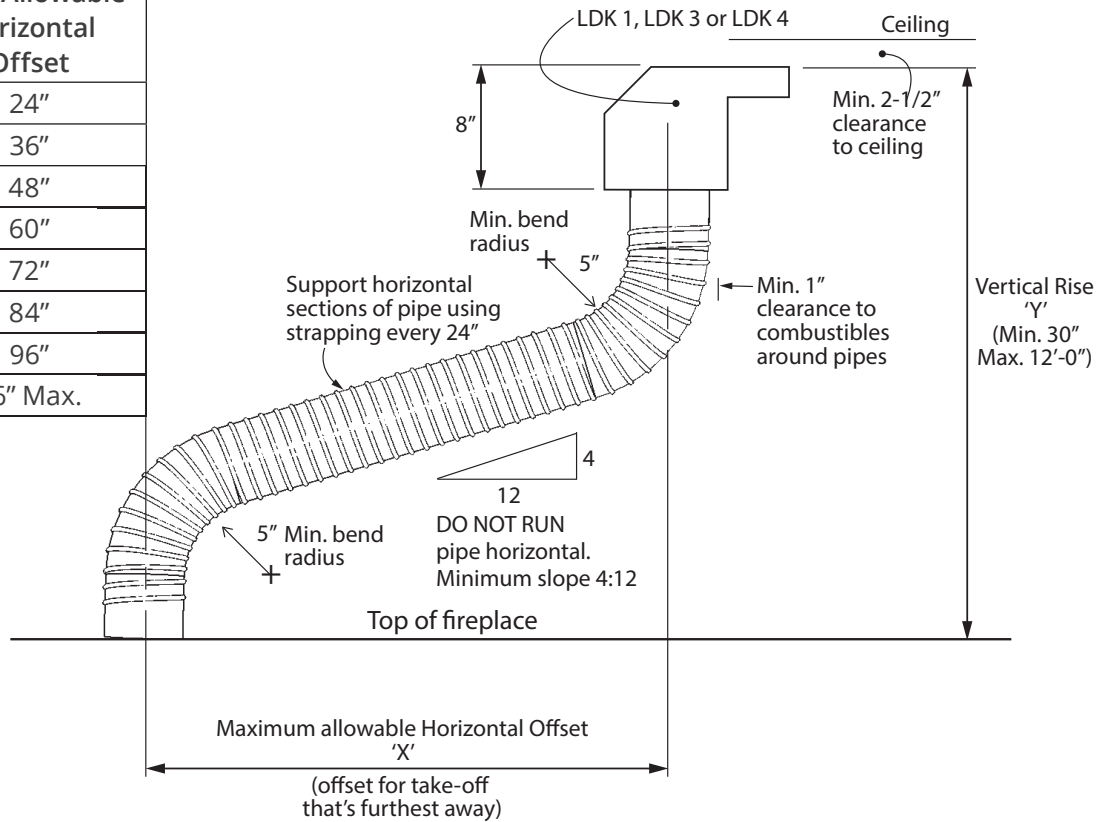


Overview (applies to LDK7 kit)

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

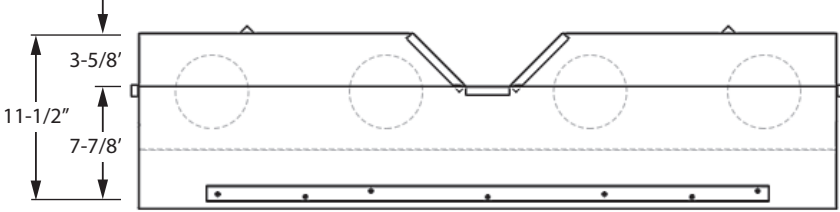


Y Vertical Rise	X Max. Allowable Horizontal Offset
30"	24"
36"	36"
42"	48"
48"	60"
54"	72"
60"	84"
66"	96"
12'-0"	96" Max.

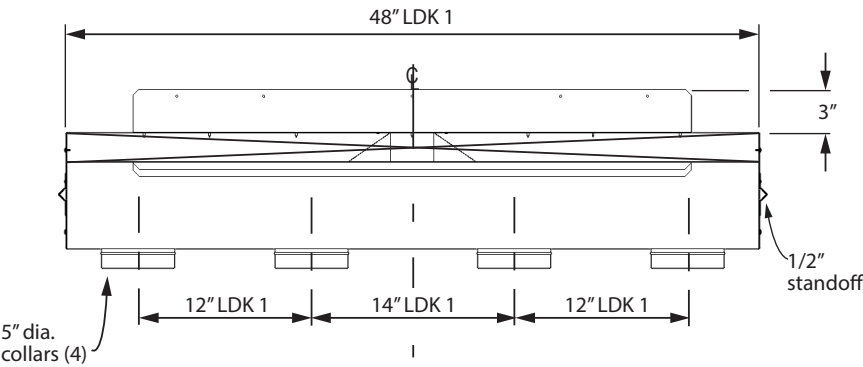


Plenum Dimensions

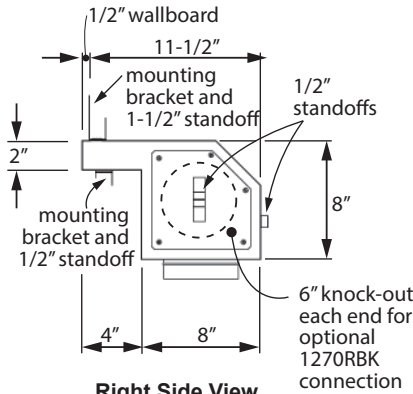
LDK 1



Top View

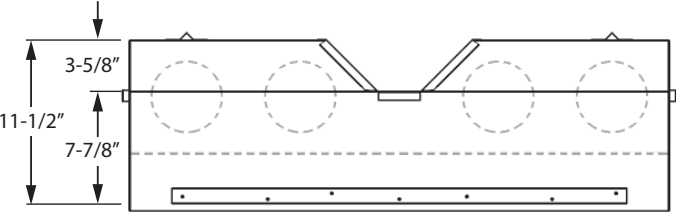


Front View

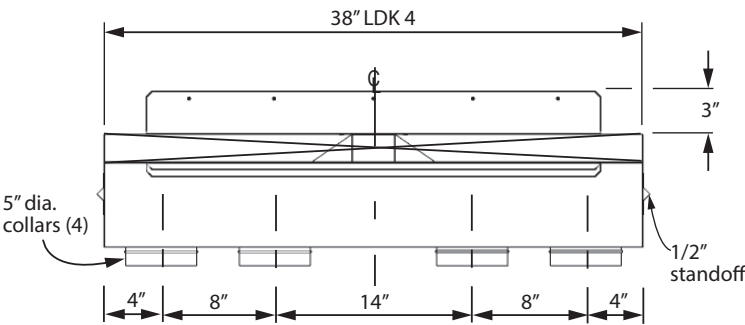


Right Side View

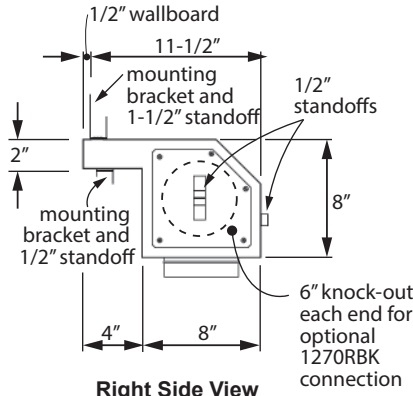
LDK 4



Top View



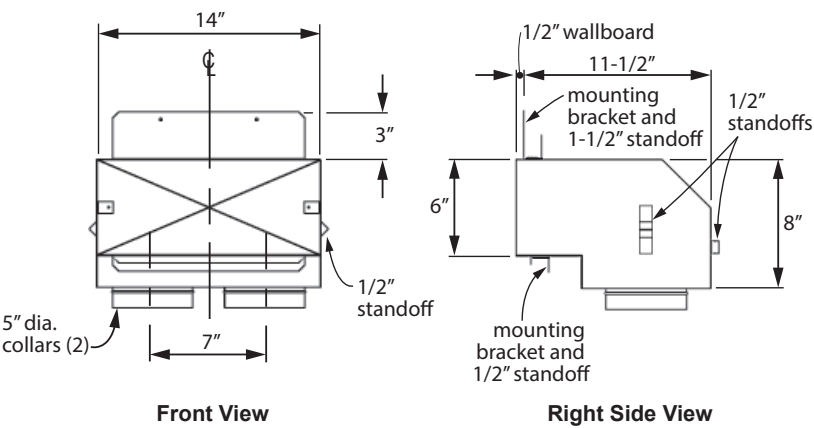
Front View



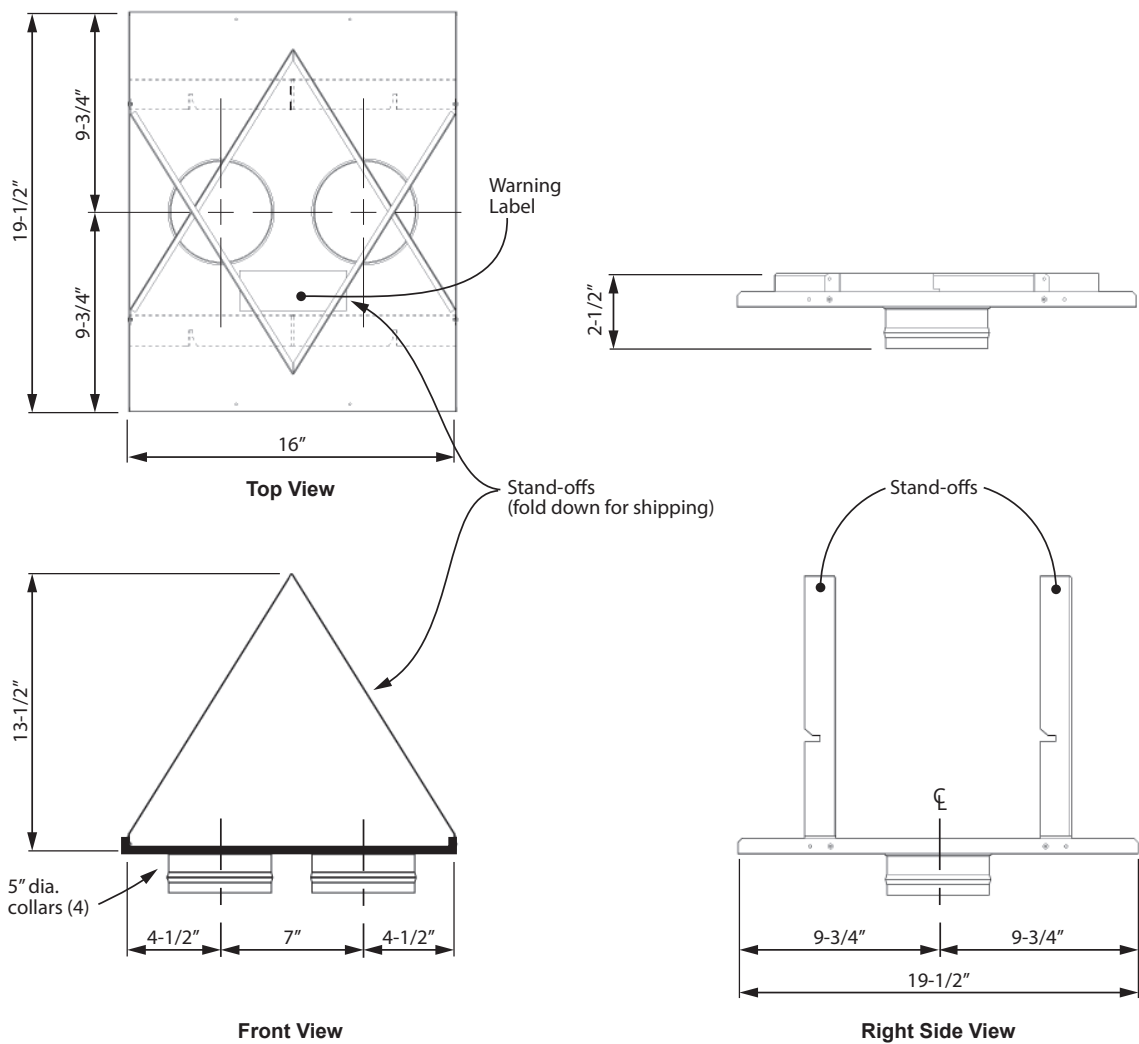
Right Side View

Plenum Dimensions (cont'd)

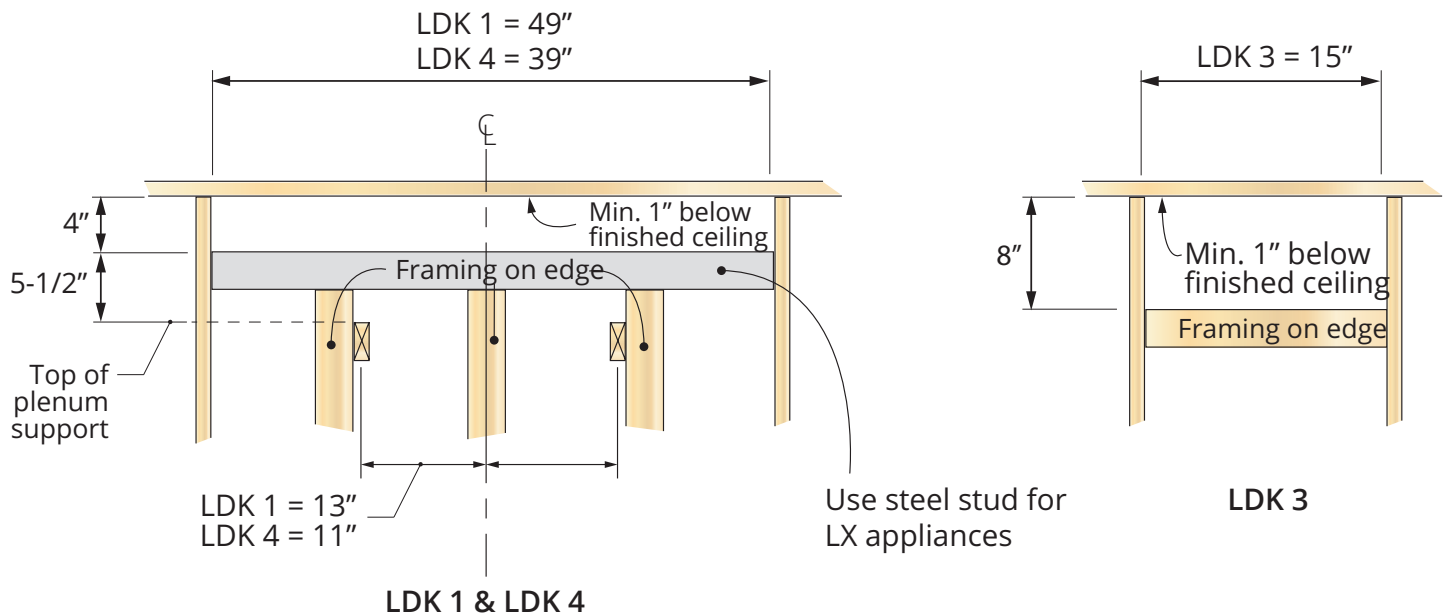
LDK 3



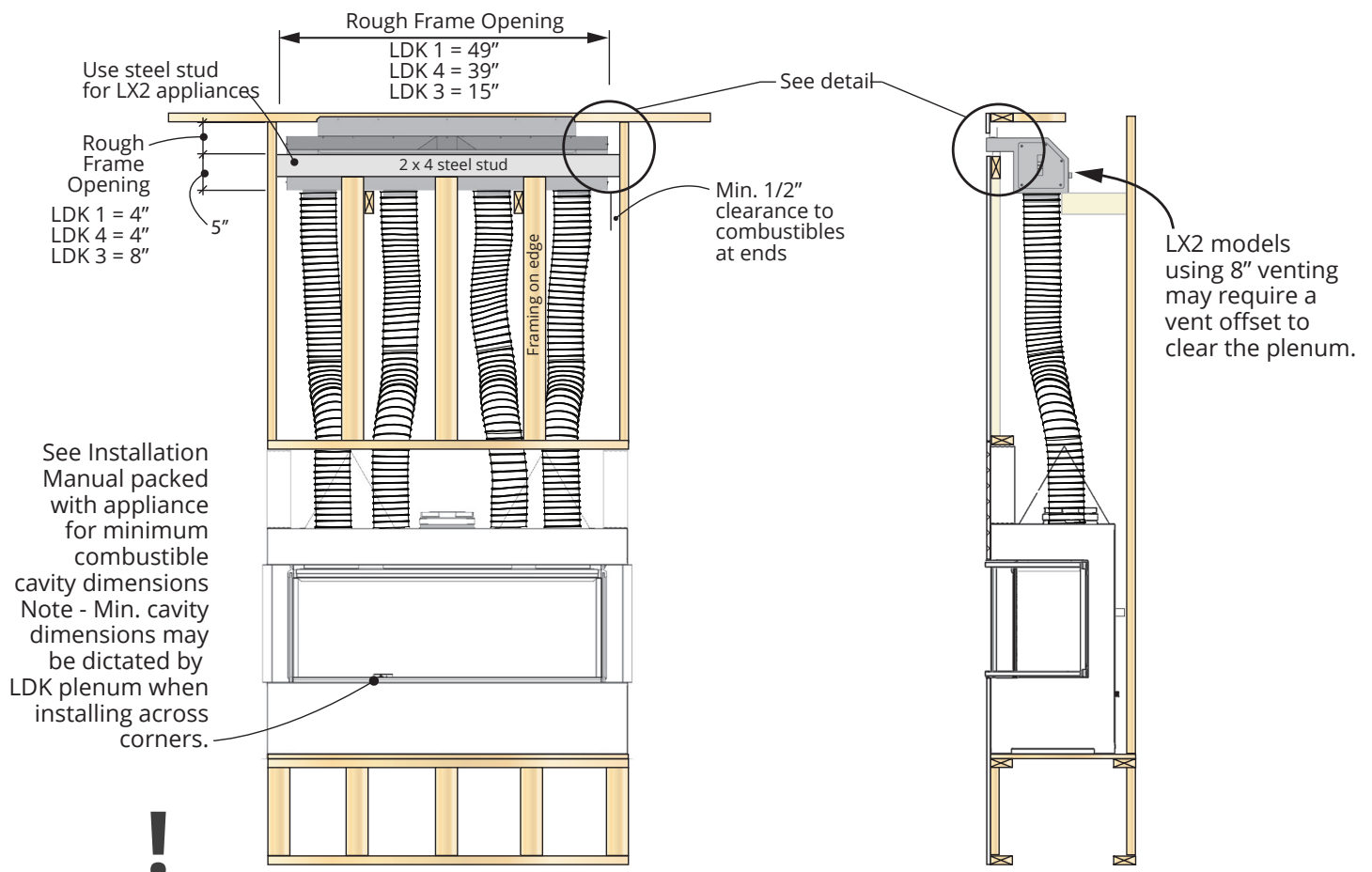
LDK7 Plates Dimensions



Rough Frame Openings

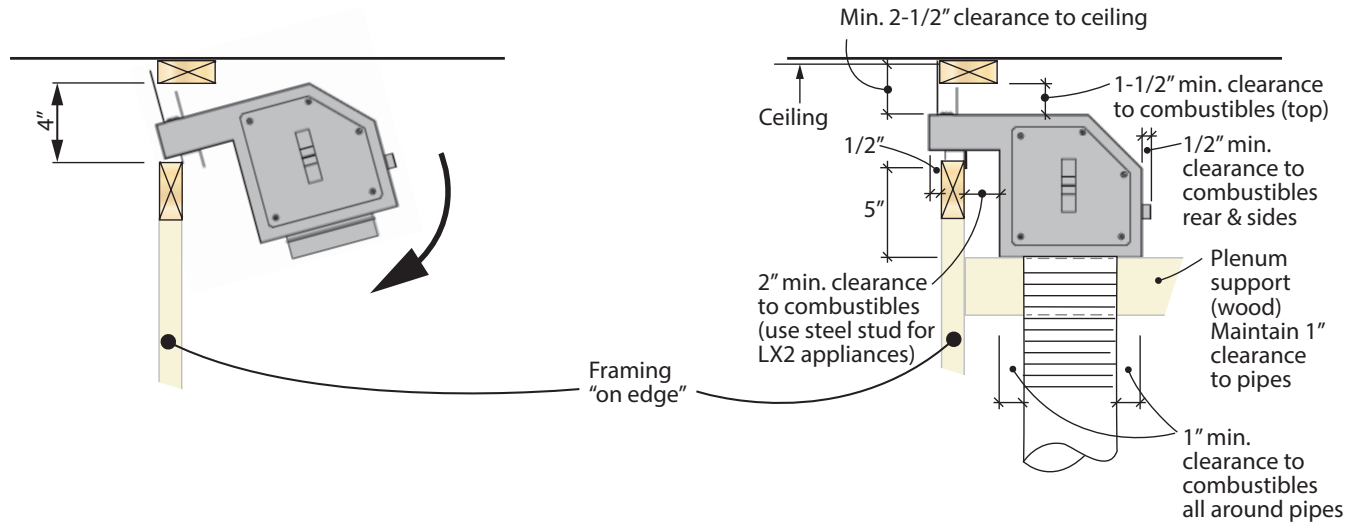


Framing and Clearances

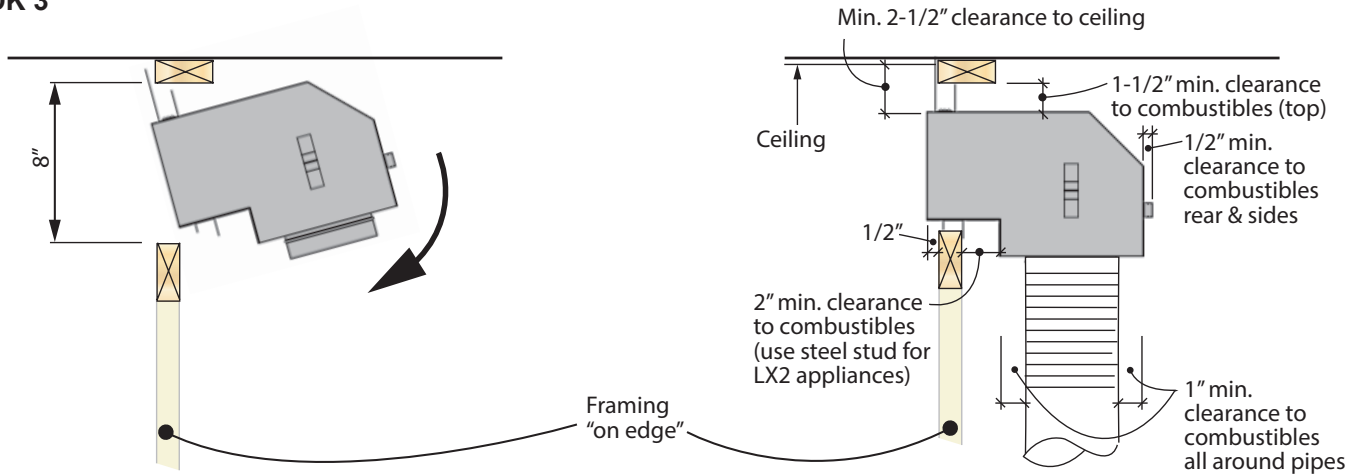


Framing and Clearances

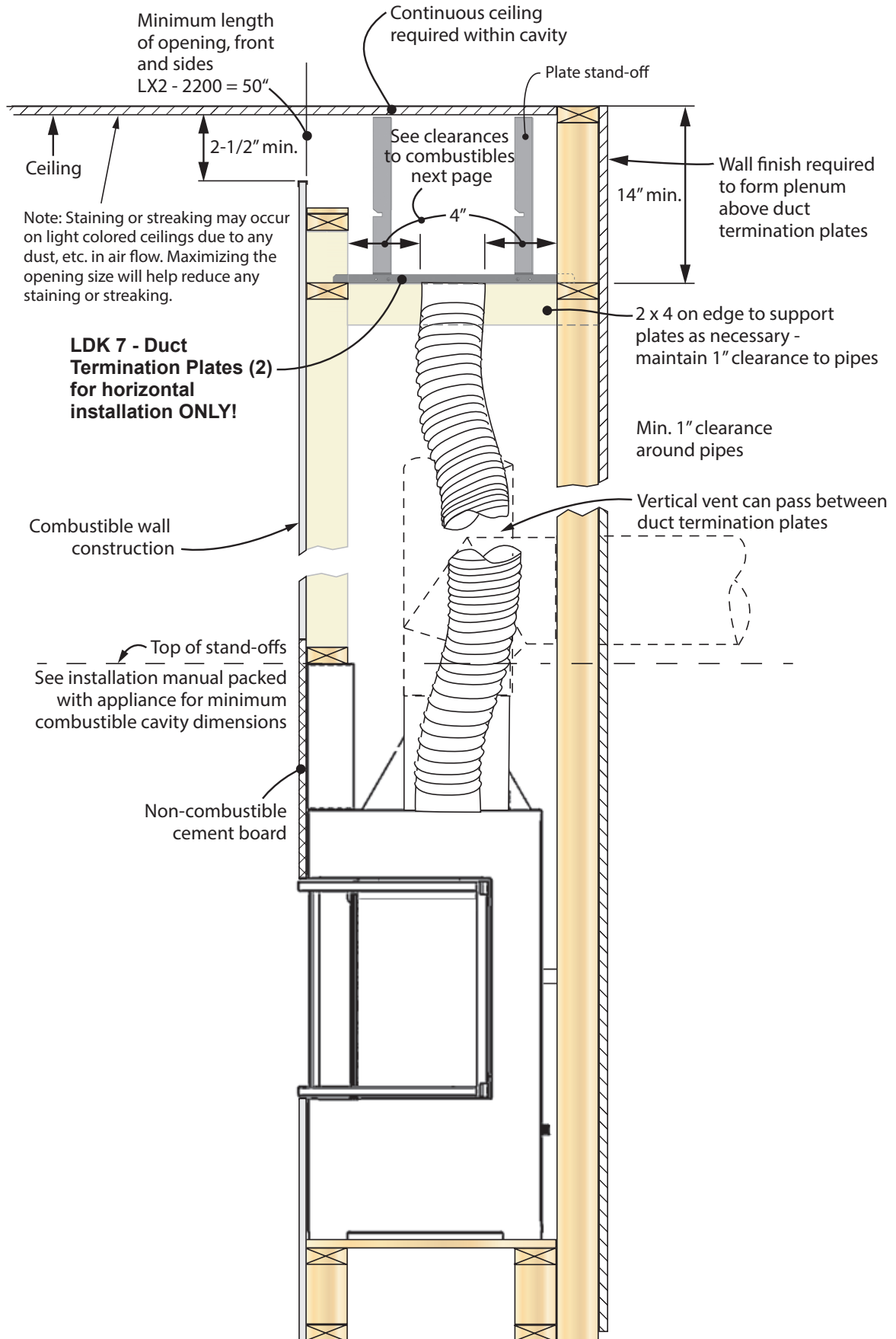
LDK 1 & 4



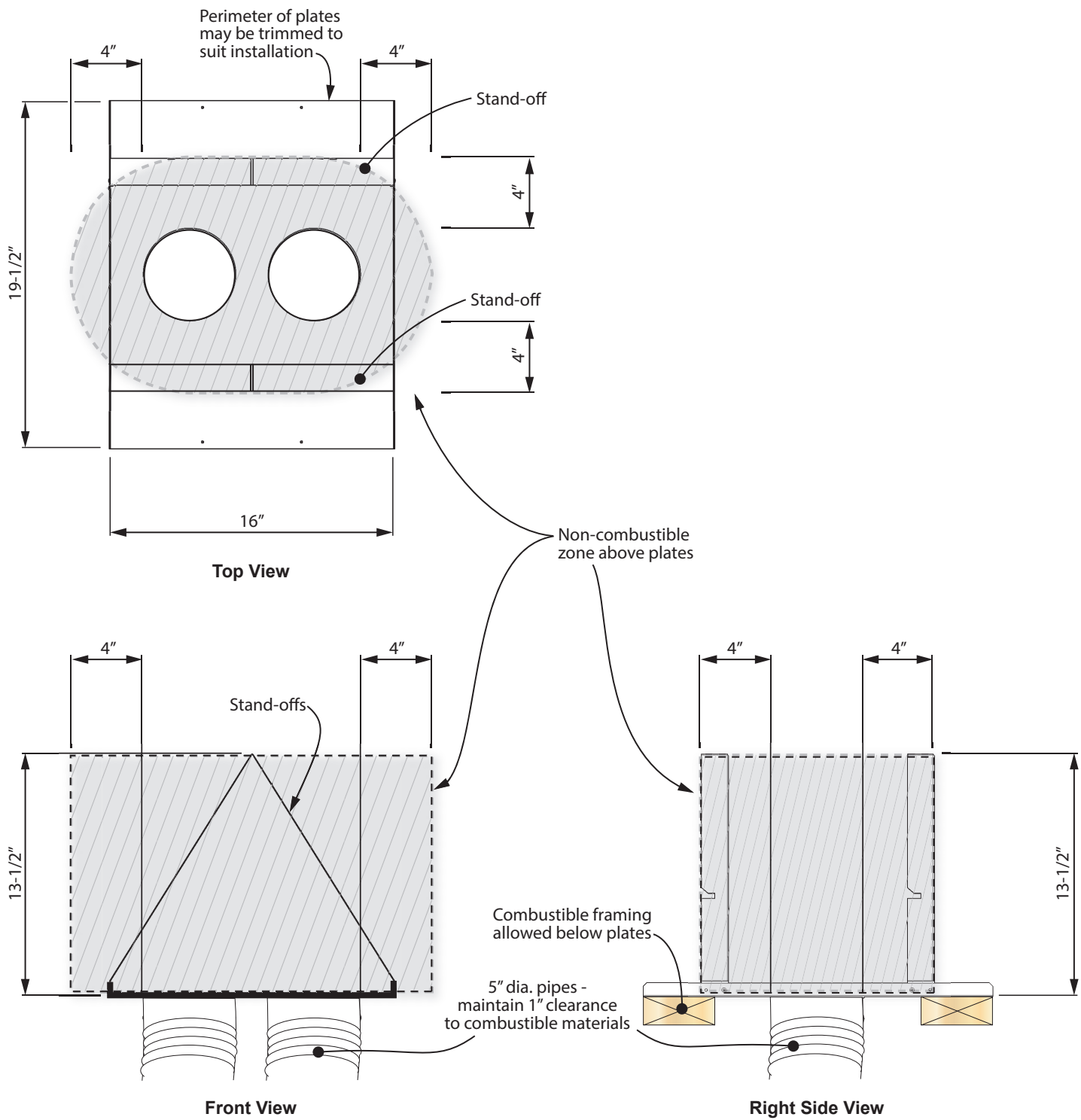
LDK 3

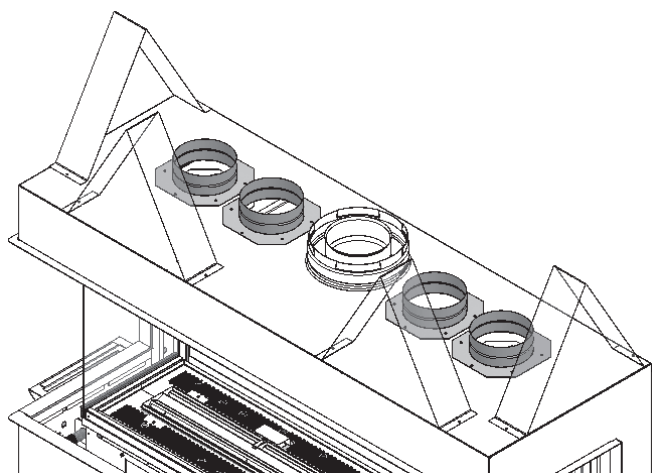


Wall Valance Discharge Opening using LDK7—Duct Termination Plates



LDK7 Clearances to Combustibles



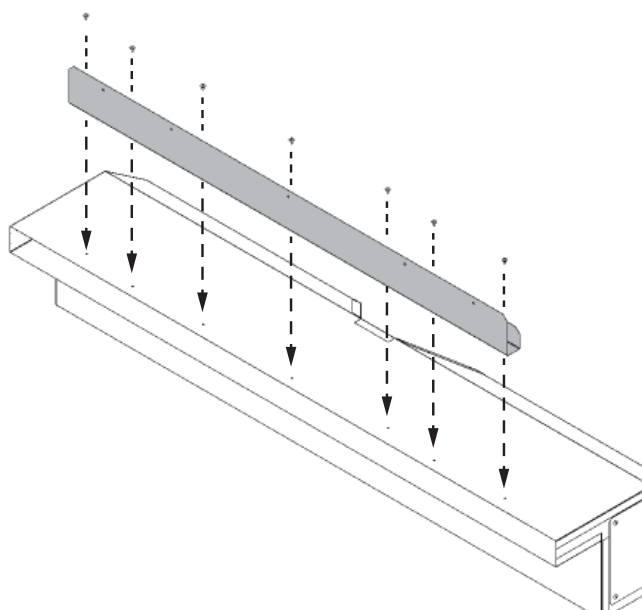


WARNING

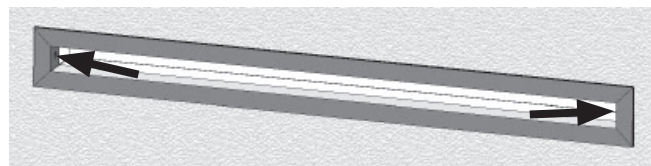
All FOUR (4) takeoffs MUST BE CONNECTED TO PLENUM(S).

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

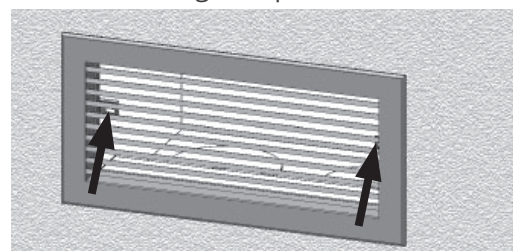
1. Frame a rough opening at the desired location—see earlier sections of this manual for allowable plenum positions and rough frame opening sizes.
2. Install top mounting bracket(s) to the plenum using screws provided (use the short sheet metal screws provided otherwise the screw tails (ends) will interfere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



3. Install the plenum(s) into the rough frame opening maintaining minimum clearances to combustibles as listed—see page 10. 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 detail on page 11).** 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.
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" into the plenum covering the shiny sheet metal.
7. Install the finishing frame or louver to the plenum after the wall finish is completed:
LDK1, LDK4: Use the LDK2 or LDK5 depending of the length of the plenum.

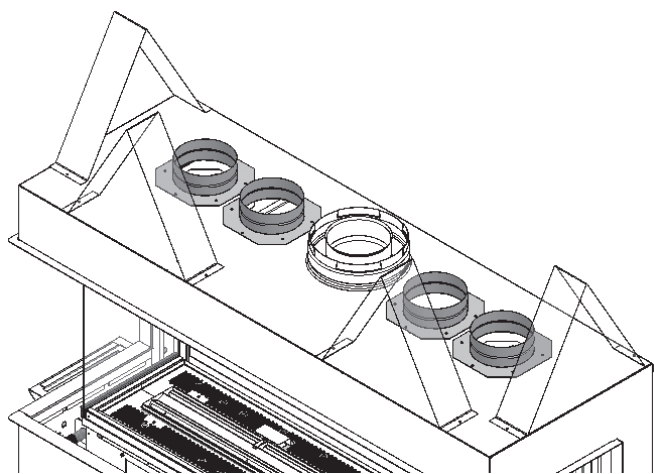


LDK3: Use the grilles provided with the kit.



Note: The frame/louver are finished white but may be painted another color if desired; use high temperature paint (250°F). 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.

8. Continue with the fireplace installation.



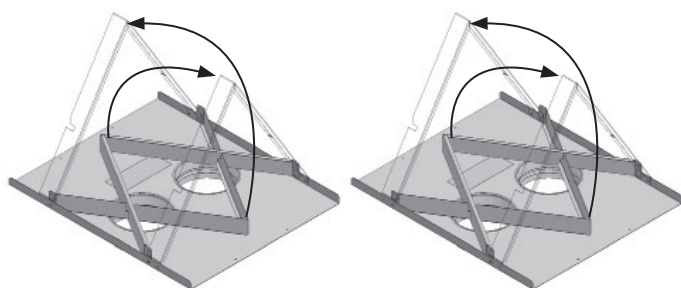
WARNING

All FOUR (4) takeoffs MUST BE CONNECTED TO PLENUM(S).

Install Duct Termination Plates (LDK7) —see previous page for LDK1, LDK3 & LDK4 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 clearance to combustibles and clearance to combustible above the plates are maintained as listed in preceeding pages. 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.

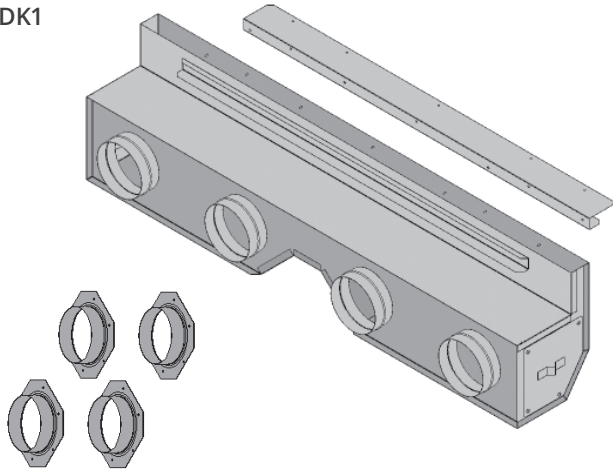
4. Attach one section of UL-181, Class 1 approved air duct to each of the collars and secure it with gear clamps provided. **DO NOT SPLICE DUCTS!**
5. Attach the top of the pipe sections to the duct termination plates securing them with the gear clamps provided. An upward slope must be maintained in horizontal sections of pipes for proper convection. Use straps as necessary to maintain the pipes positions. Support horizontal sections every 24 inches.
6. Continue with the fireplace installation.

Repair Parts List

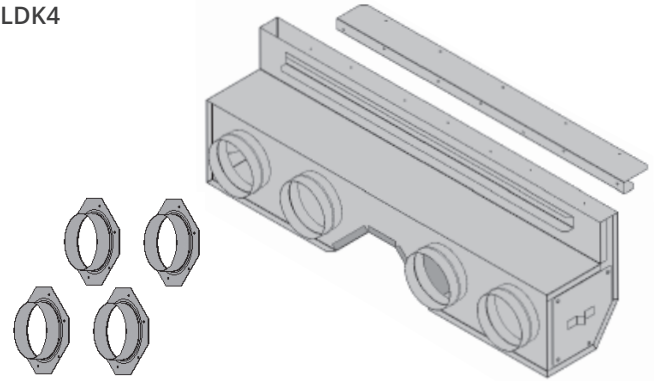
	Description	Part no.
LDK1	48" Quad Hot Air Plenum Kit	
	48" x 2" quad plenum	4005476
	5" take-off collars (4)	4005478
	Top mounting bracket/standoffs	4007211
	#8 slotted drive screws 1/4" (7)	798601
LDK2	48" Outlet Frame Kit for LDK1	
	Aux Frame-SPL 48" x 2" white	4005612
LDK3	14" Double Hot Air Plenums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

Each LDK kit is sold separately.

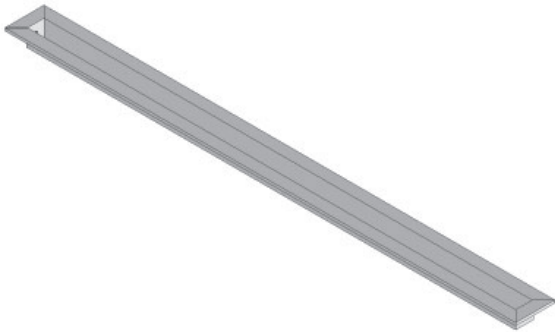
LDK1



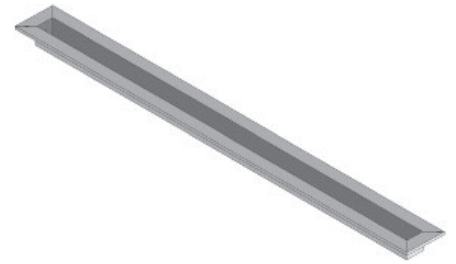
LDK4



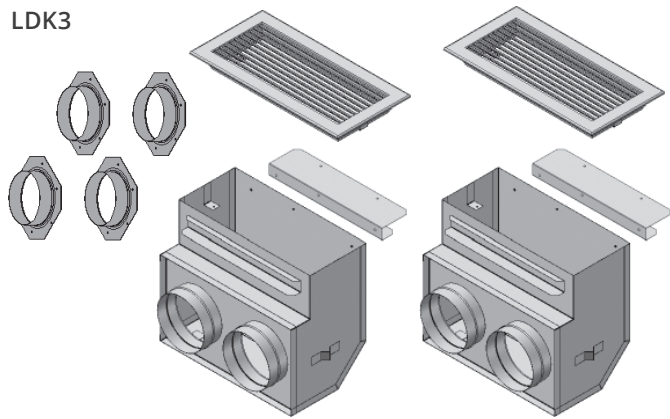
LDK2



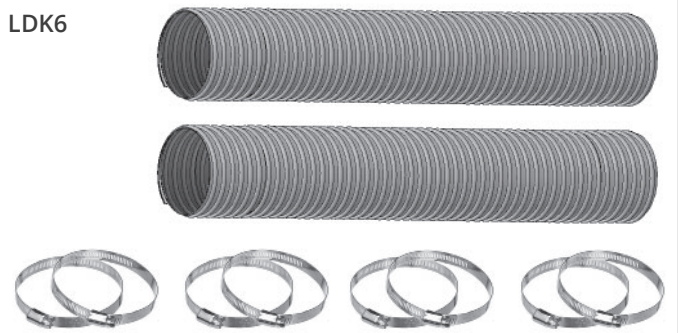
LDK5



LDK3



LDK6



LDK7

