

AIRSTREAM GRAIN CONDITIONING SYSTEMS

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# HEAT RECLAIMER

## ASSEMBLY INSTRUCTIONS



PNEG-362  
2000 SERIES  
TWO MODULE  
DRYER MODELS

**AIRSTREAM**  
a division of  
THE GSI GROUP





# HEAT RECLAIMER ASSEMBLY INSTRUCTIONS

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# HEAT RECLAIMER ASSEMBLY INSTRUCTIONS

## General

The *HEAT RECLAIMER PACKAGE* has been designed to reduce the amount of heat loss to the atmosphere and to recycle this heat in order to help reduce fuel consumption.

## Hardware Notes

All *HEAT RECLAIMER COMPONENTS* should be bolted together using the *5/16" WHIZ BOLTS* and *NUTS* included in the *HEAT RECLAIMER HARDWARE PACKAGE* unless noted otherwise.

## Platform Preparations

**\* SOME OF THIS SECTION DOES NOT APPLY TO NEW INSTALLATIONS (HEAT RECLAIMER INSTALLED BEFORE STACKING.) BUT SHOULD BE READ TO SEE WHICH PARTS SHOULD BE ASSEMBLED WITH THE PLATFORM.**

In order to install the *HEAT RECLAIMER INLET BOX* some components of the *SERVICE PLATFORM* must be removed.

Remove both *UPPER SIDE GUARD RAILS*, 79.125" (D61-0029).

Remove the *UPPER FRONT GUARD RAIL*, 105" (D61-0030) and the *LOWER FRONT GUARD RAILS*, 53.063" (D61-0032).

Remove the three *OUTER GUARD RAIL SUPPORT CHANNEL* (D61-0037) and the *OUTER FRONT TOE BOARDS*, 104.938" (D61-0043).

Remove the *RH OUTER TOE BOARDS*, 82.125" (D61-0042) and the *LH FRONT TOE BOARD*, 35.563" (D61-0044).

Remove the *INNER FRONT TOE BOARD*, 44.062" (D61-0049).

Remove the three *102.25" FLOOR PANELS* (D61-0069).

## Heat Reclaimer Platform Installation

Install the replacement *45.063" UPPER SIDE GUARD RAIL* (D01-0643) and the *TOP and BOTTOM OUTER TOE BOARDS* (D01-0644 & D01-0645).

Install the *PLATFORM SUPPORT BEAM* (D01-0591, Figure 1) to the *SERVICE PLATFORM FRAMEWORK*.

Install the *INLET BOX DECK PLATE* (D01-0571, Figure 1) to the *SERVICE PLATFORM FRAMEWORK* using the existing corner bolts. Drill a 3/8" diameter hole for every hole around the outer edge of the *INLET BOX DECK PLATE*. Place a *5/16" WHIZ BOLT AND NUT* into each of these holes to secure the *DECK PLATES* into position.

Install the *INLET BOX DECK SPLICE PLATE* (D01-0570, Figure 1) to the *INLET BOX DECK PLATE*. Two *SPLICE PLATES* bolt to the top and two to the bottom of the *DECK PLATES*.

Install the *LONG WALL ANGLE* (D01-0587, Figure 1), *SHORT WALL ANGLE* (D01-0588, Figure 1), and *DUCT SIDE ANCHOR ANGLE* (D01-0590, Figure 1) onto the *INLET BOX DECK PLATE*. Keep the bolts loose until the *INLET BOX ASSEMBLY* can be completed.

## Bracing of Assemblies

Cross bracing should be used on the *INLET BOX*, *SIDE DUCT CORNER*, *SIDE TRANSITION DUCT*, and *TRANSITION COLUMN ASSEMBLIES*. This bracing should form a "W" when installed. The flanges on these angles should point in the direction of the airflow (toward the fans). Two angles are included in the package. The *INNER SUPPORT ANGLE* (D01-0632) is used on the narrow ducts of the *SIDE DUCT CORNER*, *SIDE TRANSITION DUCT*, and *TRANSITION COLUMN ASSEMBLIES*. The *LONG INNER SUPPORT ANGLE* (D01-0633) is used on the wide ducts of the *INLET BOX* and the *SIDE DUCT CORNER*.

The bracing should be installed as the major components are assembled.

# HEAT RECLAIMER ASSEMBLY INSTRUCTIONS

## Inlet Box Assembly

Mark a line 4.5625" (4 9/16") down from the top of the *DRYER FAN SUPPORT*. This line will mark the top side of the *INLET BOX BACK PANELS* for proper alignment. The *INLET BOX BACK PANELS* meet on the centerline of the fan cans.

Mount the *INLET BOX BACK PANELS* (D01-0566 & D01-0567, *Figure 1*) using the 5/16" *SELF TAPPING SCREWS* included in the hardware package.

Mount the *INLET BOX SUPPORT ANGLE* (D01-0586, *Figure 2*) to each of the *INLET ENTRY PANELS* (D01-0572 LH & D01-0573 RH, *Figure 1*).

Mount the *INLET ENTRY PANELS* to the *INLET BOX BACK PANELS* with the flanges pointing to the rear of the dryer and the door close to the inside of the platform. Mount the *INLET BOX FRONT PANELS* (D01-0657 & D01-0858, *Figure 1*) to the *LONG WALL ANGLE* on the *SERVICE PLATFORM*.

Attach the *INLET BOX CORNER PLATE* (D01-0658, *Figure 1*) to the *INLET BOX FRONT PANELS* with the offset pointing away from the dryer.

Mount the *INLET BOX TOP* (D01-0568 LH & D01-0569 RH, *Figure 1*) to the rest of the *INLET BOX ASSEMBLY*. The *INLET BOX TOP* should fit over the whole assembly. Screw the *INLET BOX C CHANNEL SUPPORT* (D01-0859) to the *INLET BOX FRONT PANELS*. There are (2) *C-CHANNELS* per *FRONT PANEL*. Attach the *INLET BOX WINDOW SILL C CHANNELS* (D01-0782 & D01-0783) around the square holes on the *INLET BOX FRONT PANELS* along with the *AIR ACCESS DOOR FRAME ANGLES* (D01-0395 & D01-0396) and *OPERATOR'S DOOR HINGE BRACKET* (D31-0161).

Screw the *PERFORATED AIR ACCESS DOOR PANEL* (D01-0781) & the *PERFORATED SIDE DUCT PANEL* (D01-0780) to the inside of the *FRONT PANELS*.

Place the *INLET BOX FLASHING* (D01-0860, *Figure 1*) over the dryer hitch and bolt it to the *INLET BOX DECK PLATES*.

## Walkway Door Assembly

The *WALKWAY DOOR ASSEMBLY* is the same for both doors except that one door mounts upside down from the other. The hinge holes show the difference in mounting. Mount the *INLET WALKWAY DOOR TOP/BOTTOM*

*FRAME ANGLE* (D01-0575, *Figure 2*) to the top and bottom of the large hole in the *INLET ENTRY PANEL*. There are two angles on each door.

Mount the *INLET WALKWAY DOOR SIDE FRAME ANGLE* (D01-0576, *Figure 2*) to each side of the large hole in the *INLET ENTRY PANEL*. There are two angles on each door.

Mount the *WALKWAY DOOR HINGE—HR SEGMENT* (D01-0595, *Figure 2*) to the *INLET ENTRY PANEL*.

Mount the *WALKWAY DOOR CATCH ANGLE* (D01-0597, *Figure 2*) to the *INLET ENTRY PANEL* with the angle pointing to the center of the door hole.

Mount the *WALKWAY DOOR HINGE—DOOR SEGMENT* (D01-0596, *Figure 2*), *STANDOFF BRACKET* (D01-0548, *Figure 2*), 2 *MOUNTING BRACKETS* (D01-0549, *Figure 2*), and the *POWER BOX DOOR LATCH MECHANISM* (D01-0547) to each of the *WALKWAY DOORS* (D01-0574, *Figure 2*).

Mount the *WALKWAY DOORS* to the *INLET ENTRY PANELS*.

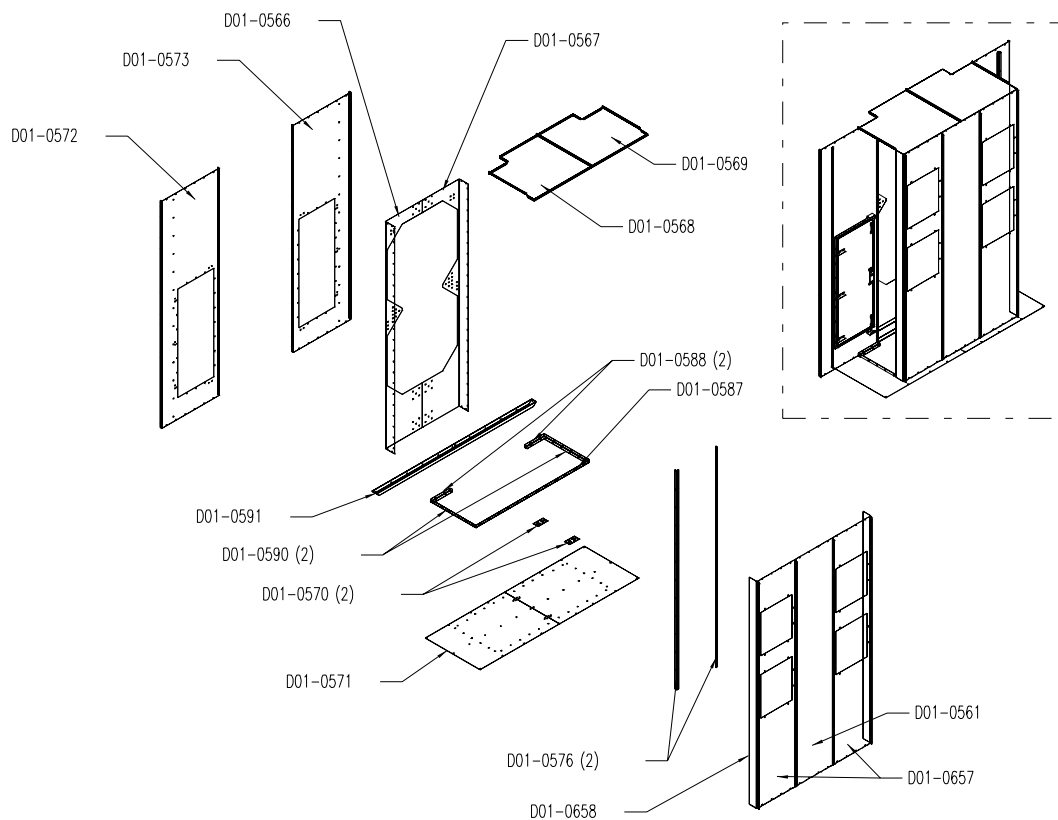
## Side Duct Assembly

The *SIDE DUCT ASSEMBLY* can be completed on the ground or in place on the dryer. Assemble the *SIDE DUCT CORNER* by bolting the *SIDE DUCT FRONT CORNER* (D01-0562, *Figure 4*), *SIDE DUCT BACK CORNER* (D01-0563, *Figure 3*), *SIDE DUCT CORNER TOP* (D51-0219 RH, D51-0220 LH, *Figure 4*), *SIDE DUCT CORNER BOTTOM* (D51-0217 RH, D51-0218 LH, *Figure 3*), and three *SIDE DUCT PANELS* (D01-0561, *Figure 3*) together with the flanges out and (4) *INNER SUPPORT ANGLES* (D01-0632). at each vertical seam on the heat reclaimer. Assemble the *TRANSITION DUCT* by bolting the *SIDE DUCT TOP* (D51-0213, *Figure 4*), *SIDE DUCT BOTTOM* (D01-0564, *Figure 3*), and four *SIDE DUCT PANELS* (D01-0561, *Figure 4*) together with the flanges out. Keep the bolts on this assembly loose, so that it can be pulled into place later on. In this assembly the tops fit over the side panels, and the side panels fit over the bottom panels.

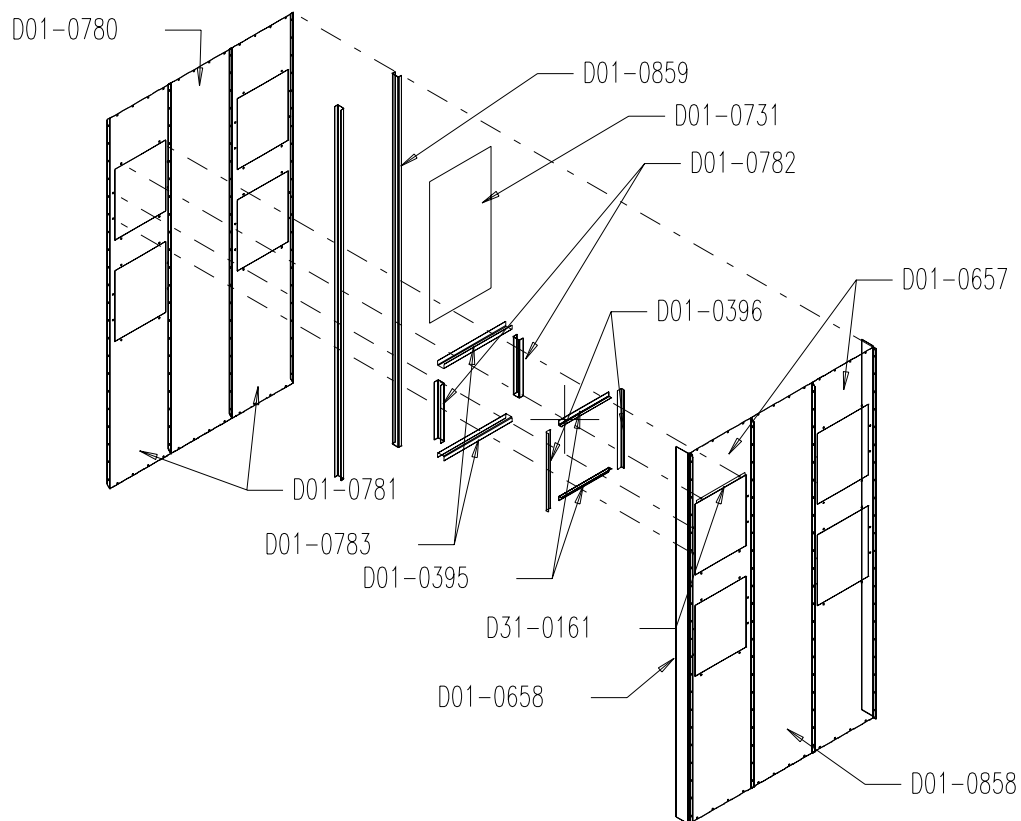
## Transition Column Assembly

The *TRANSITION COLUMN ASSEMBLY* is attached to the left and right

# HEAT RECLAIMER ASSEMBLY INSTRUCTIONS



**Figure 1a: Inlet Box Assembly**



**Figure 1b: Inlet Box Assembly Noise Suppressor Panel Installation**

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side of the fan end of the dryer on the first three columns for the 2012 & 2014 Series dryers, the first four columns for the 2018 & 2020 Series dryers, and the first six columns for the 2022 & 2026 Series dryers.

Mount the *SIDE DUCT MOUNTING SHEET* (D01-0565, *Figure 3*) to the *DRYER COLUMN* with the 3/8" holes and with the slot side out. The holes on both sides of the *SIDE DUCT MOUNTING SHEET* should line up closer to the bottom of the sheet as mounted on the dryer. The *SIDE DUCT MOUNTING SHEET* mounts to the top holes on the *DRYER COLUMN SIDE SCREEN SHEET* on both sides of the first *DRYER COLUMN*. Use two *SIDE DUCT MOUNTING SHEETS* per column joint where possible.

**One left and right hand panel is used on each side of the dryer in this assembly.**

Mount the *LH SMALL, MEDIUM, AND LARGE TRANSITION COLUMN PANELS* (D01-0621, D01-0623, D01-0625, *Figure 3*), the *TRANSITION COLUMN VENT PANELS* (D01-0627, *Figure 3*), and the *TRANSITION COLUMN BUTTRESS VENT PANEL* (D01-0628, *Figure 3*) to the *SIDE DUCT MOUNTING SHEETS* with the flanges pointing to the dryer. The top bolt hole on the joint where the two *TRANSITION COLUMN PANELS* bolt together should go into the top slot on the *SIDE DUCT MOUNTING SHEET* toward the rear of the first dryer column.

Bolt the *TRANSITION COLUMN* and *BUTTRESS VENT PANELS* to the bottom of each *TRANSITION COLUMN PANEL*.

Mount the *TRANSITION REAREND COVER* (D01-0629, *Figure 3*) to the rear of the *SMALL TRANSITION COLUMN PANEL*.

Anchor the *TRANSITION COLUMN AND BUTTRESS VENT PANELS* to the bottom module using the *COLUMN PANEL BRACKET* (D51-0171, *Figure 3*). This bracket bolts to the top three holes on the vertical joint of the dryer column.

Bolt one *TRANSITION FRONTEND COVER* (D01-0630, *Figure 3*) to the bottom of the *TRANSITION REAREND COVER*, *TRANSITION VENT PANEL*, and the corresponding vertical joint of the dryer column. Bolt one *TRANSITION FRONTEND COVER* to the *SIDE DUCT BOTTOM*, first *COLUMN BUTTRESS VENT PANEL*, and to the first column joint. Bolt the *TRANSITION COLUMN ROOF PANEL* (D01-0631, *Figure 3*) to the top of the *TRANSITION COLUMN PANELS*.

Mount the *RH SMALL, MEDIUM, AND LARGE TRANSITION COLUMN PANELS* (D01-0622, D01-0624, D01-0626, *Figure 4*) to the outer portion of the *TRANSITION COLUMN ASSEMBLY*.

Mount the *LOWER OUTSIDE TRANSITION PANELS* (D01-0560, *Figure 4*) to the lower outer portion of the *TRANSITION COLUMN ASSEMBLY*.

Mount the *LOWER REAREND PANEL* (D61-0245, *Figure 4*) to the *LOWER OUTSIDE TRANSITION PANEL* and the first dryer column. Mount the *LOWER INNER PANEL* (D61-0248, *Figure 4*) to fill in the area over the dryer leg.

Brace the *LOWER OUTSIDE TRANSITION PANELS* with the *COLUMN BRACE* (D61-0249, *Figure 5*).

**NOTE:** If the assembly does not seem to line up, loosen the bolts to allow the *SIDE DUCT ASSEMBLIES* to flex into place.

### Column Assembly

Mount two *COLUMN BRACES* (D61-0249, *Figure 5*) to the bottom hole of the vertical dryer column joint along the length of the dryer.

Mount the *COLUMN PANEL LOWER BRACKET* (D61-0247, *Figure 5*) to the lower *COLUMN BRACE* along the length of the dryer.

Mount the *COLUMN PANEL BRACKET* (D51-0171, *Figure 5*) to each dryer joint using the top three bolts on the vertical dryer column joint along the length of the dryer.

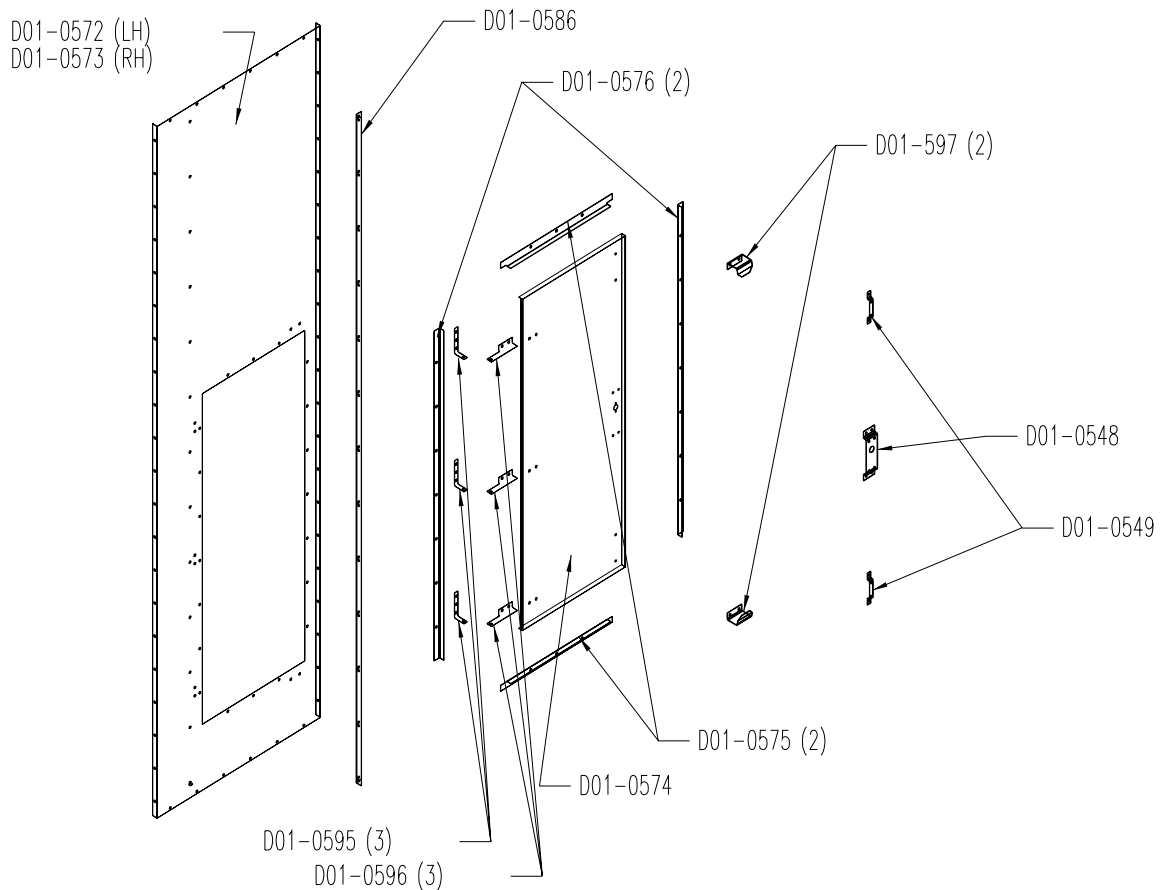
Mount the *COLUMN PANELS* (D61-0246, *Figure 5*) to each *COLUMN PANEL BRACKET* and to the *COLUMN PANEL BRACES* along the dryer side.

Bolt each panel together.

Mount the *LOWER INNER PANEL* and the *LOWER REAREND PANEL* (D61-0245, *Figure 5*) at the rearend of the dryer to fill in the back of the *COLUMN PANEL ASSEMBLY*.

When mounting the *BUTTRESS COLUMN PANELS* attach these to the buttresses using the *BUTTRESS COLUMN PANELS HANGER* (D01-0792) to make the panels sit level near the buttresses.

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**Figure 2: Walkway Door Assembly**

## Air Access Door Assembly

Mount the *OPERATOR'S DOOR HINGES* (D31-0296, D31-0297) to the *SQUARE REAR ACCESS DOOR* (D01-0394) using the 0.25" *NUTS* and *BOLTS* (S-1101 & S-1102).

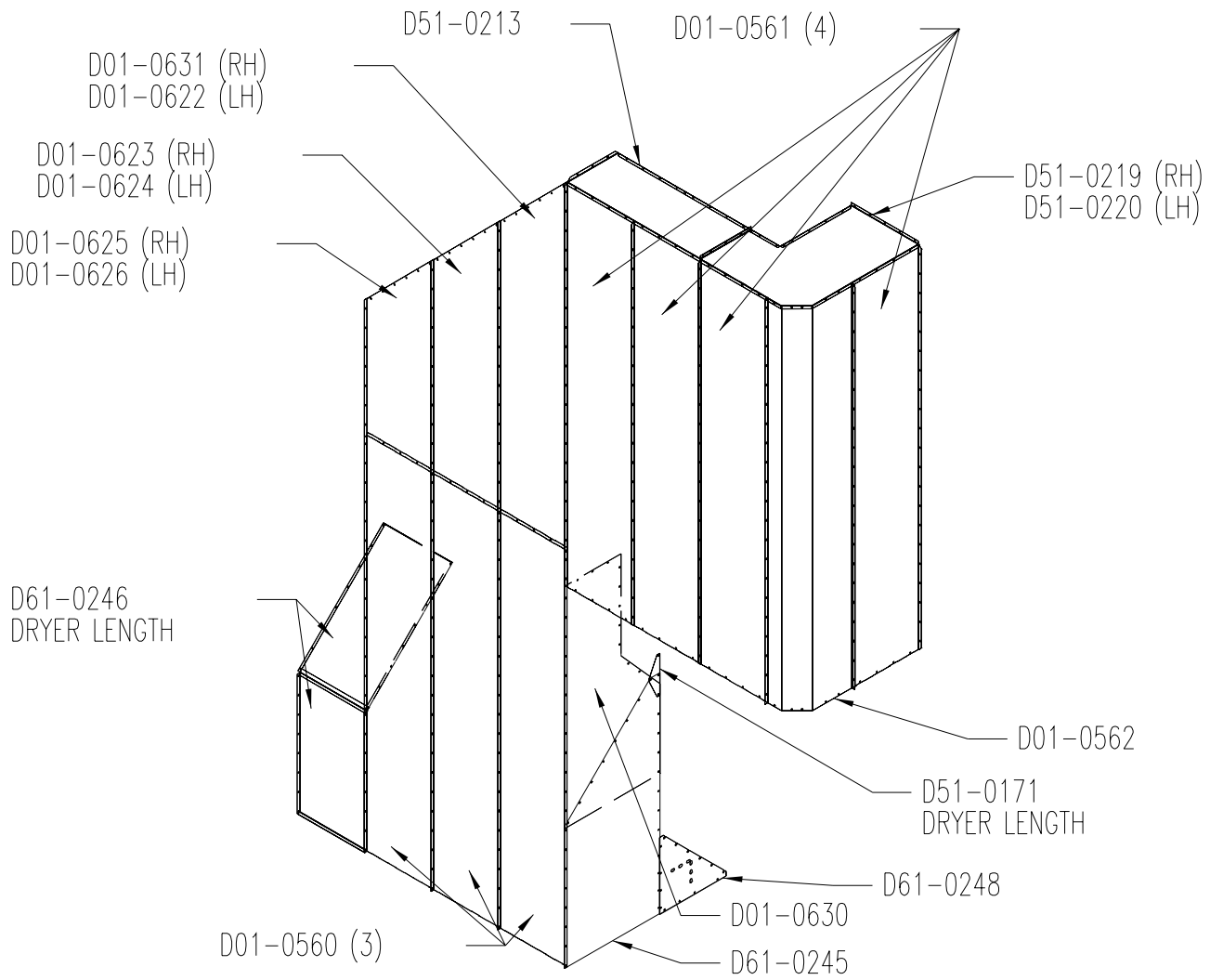
Mount the door to the hinge bracket using the 5/16" *BOLTS* and *LOCKNUTS* (S-4276 & S-5220).

Assemble the *LINKAGE MECHANISM* (BLK-10049, D15-0156, D51-0157, D51-0158, D51-0159, D51-0165, & S-4318) according to the drawings number Figure 6. Drill a 0.75" hole in the *INLET BOX DECK PLATE* to allow the chain to pass and be located for easy access and away from the lower fan inlets.

## Decals

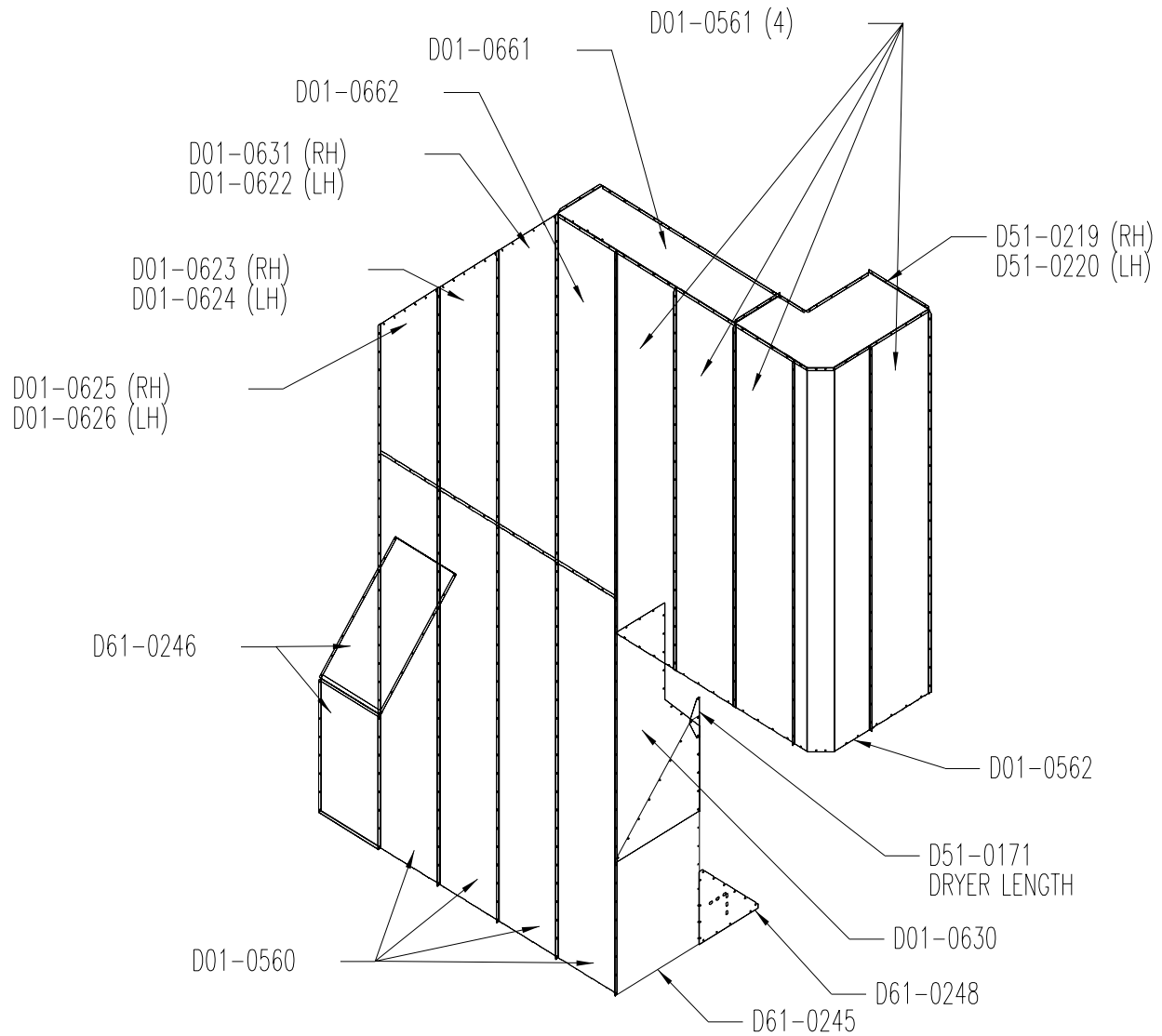
The *DECALS* (D01-0614) should be mounted on the front of the *TRANSITION REAREND PANEL* on the fan end of the dryer. Place one decal on each side.

# HEAT RECLAIMER ASSEMBLY INSTRUCTIONS



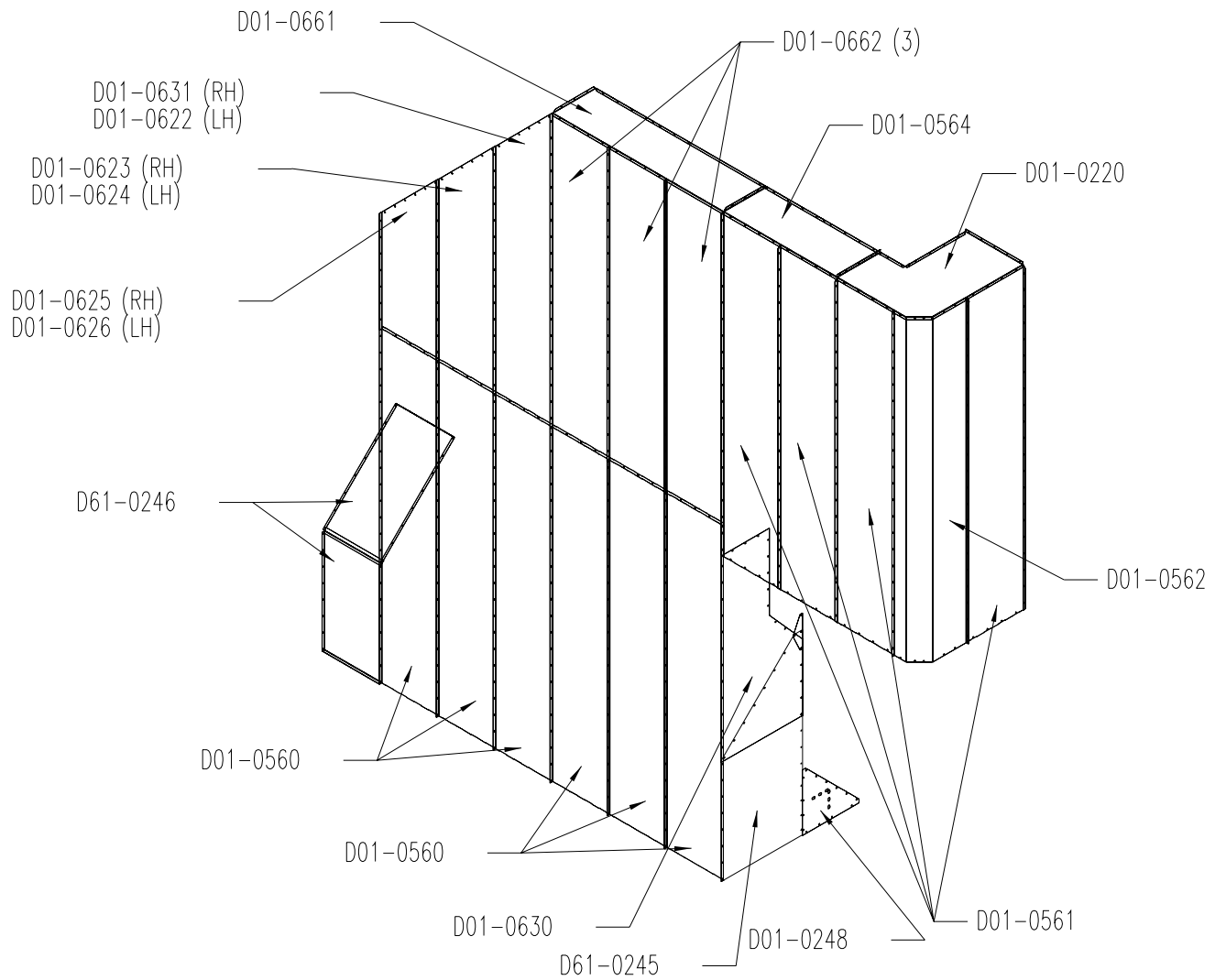
**Figure 3a: 2012 and 2014 Outside Side Duct Assembly**

# HEAT RECLAIMER ASSEMBLY INSTRUCTIONS



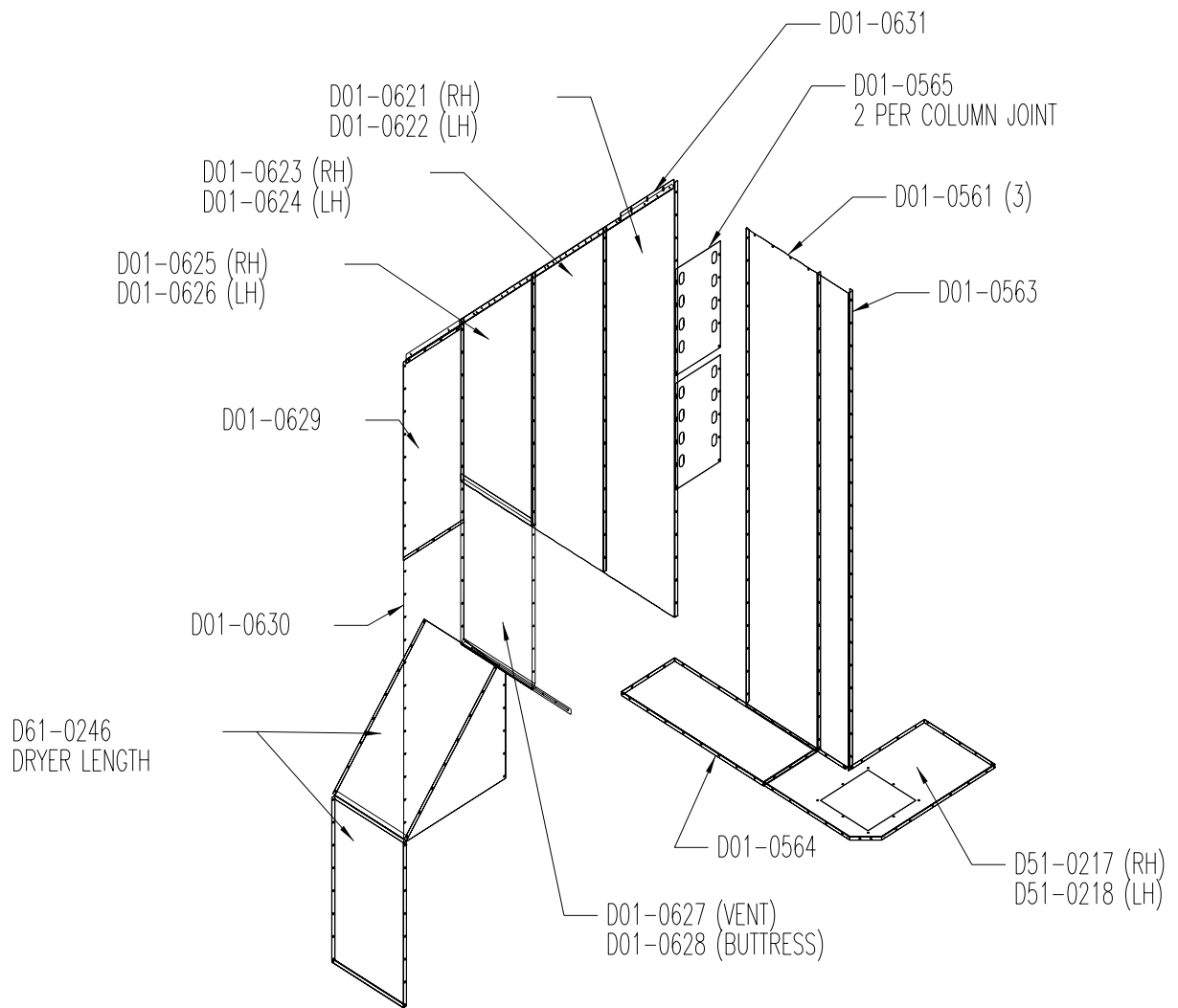
**Figure 3b: 2018 and 2020 Outside Side Duct Assembly**

# HEAT RECLAIMER ASSEMBLY INSTRUCTIONS



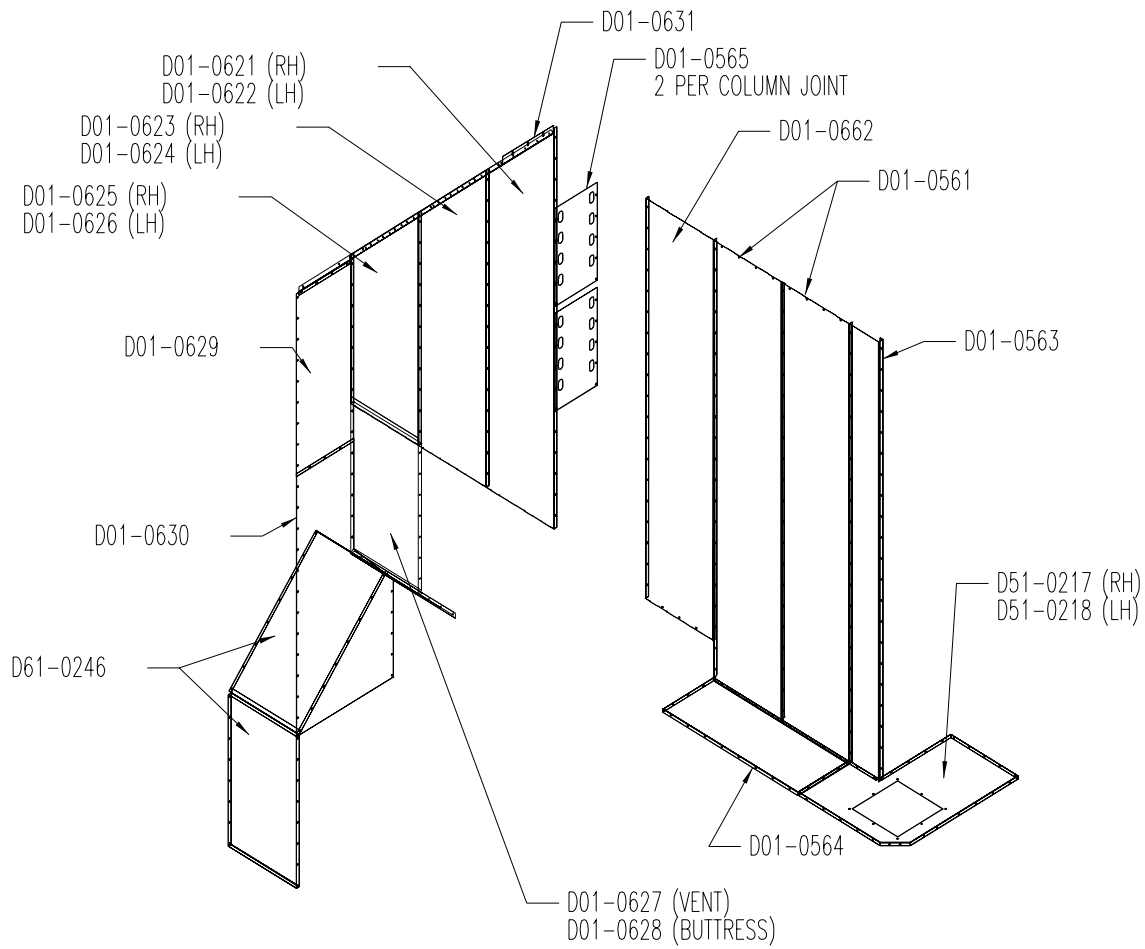
**Figure 3c: 2022 and 2026 Outside Side Duct Assembly**

# HEAT RECLAIMER ASSEMBLY INSTRUCTIONS



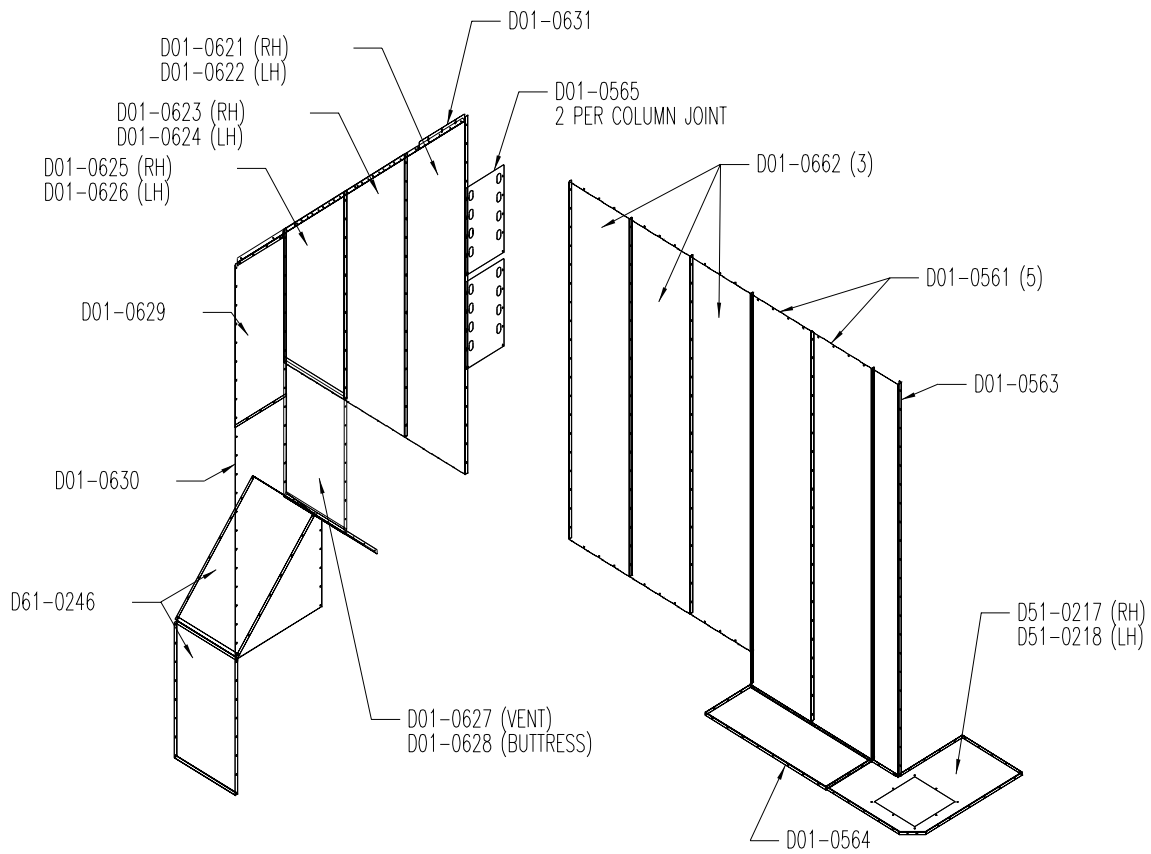
**Figure 4a: 2012 and 2014 Inside Side Duct Assembly**

# HEAT RECLAIMER ASSEMBLY INSTRUCTIONS



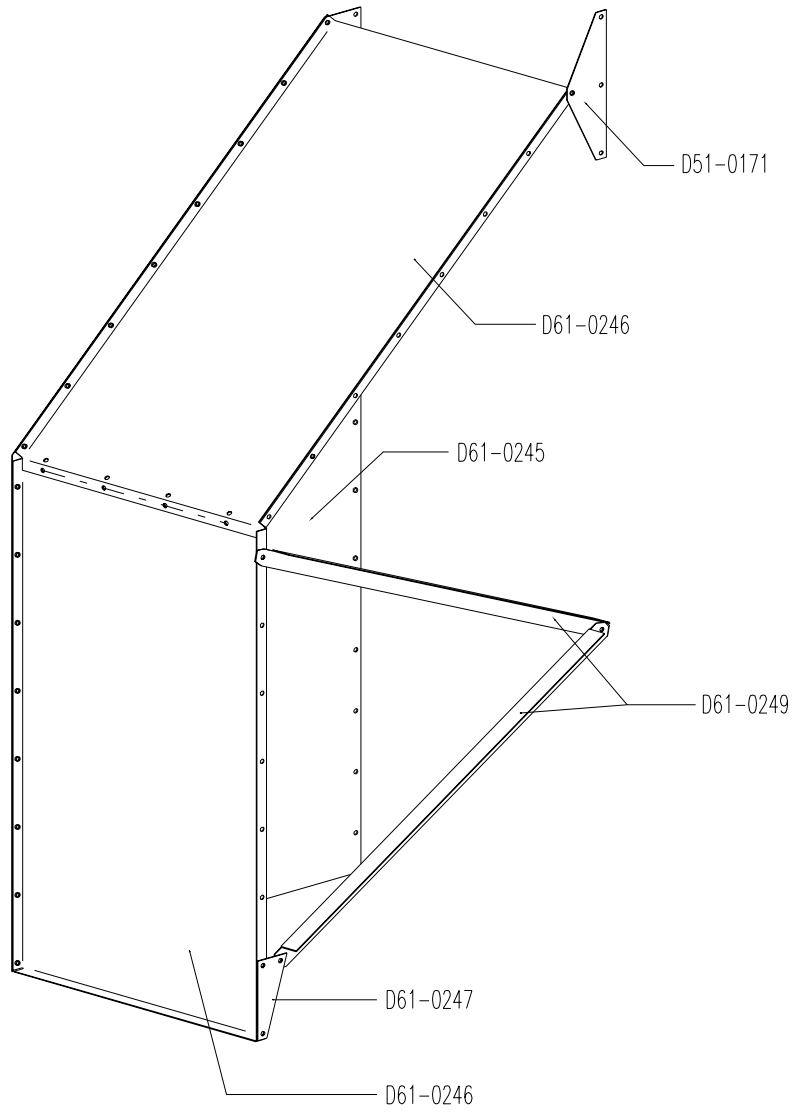
**Figure 4b: 2018 and 2020 Inside Side Duct Assembly**

# HEAT RECLAIMER ASSEMBLY INSTRUCTIONS



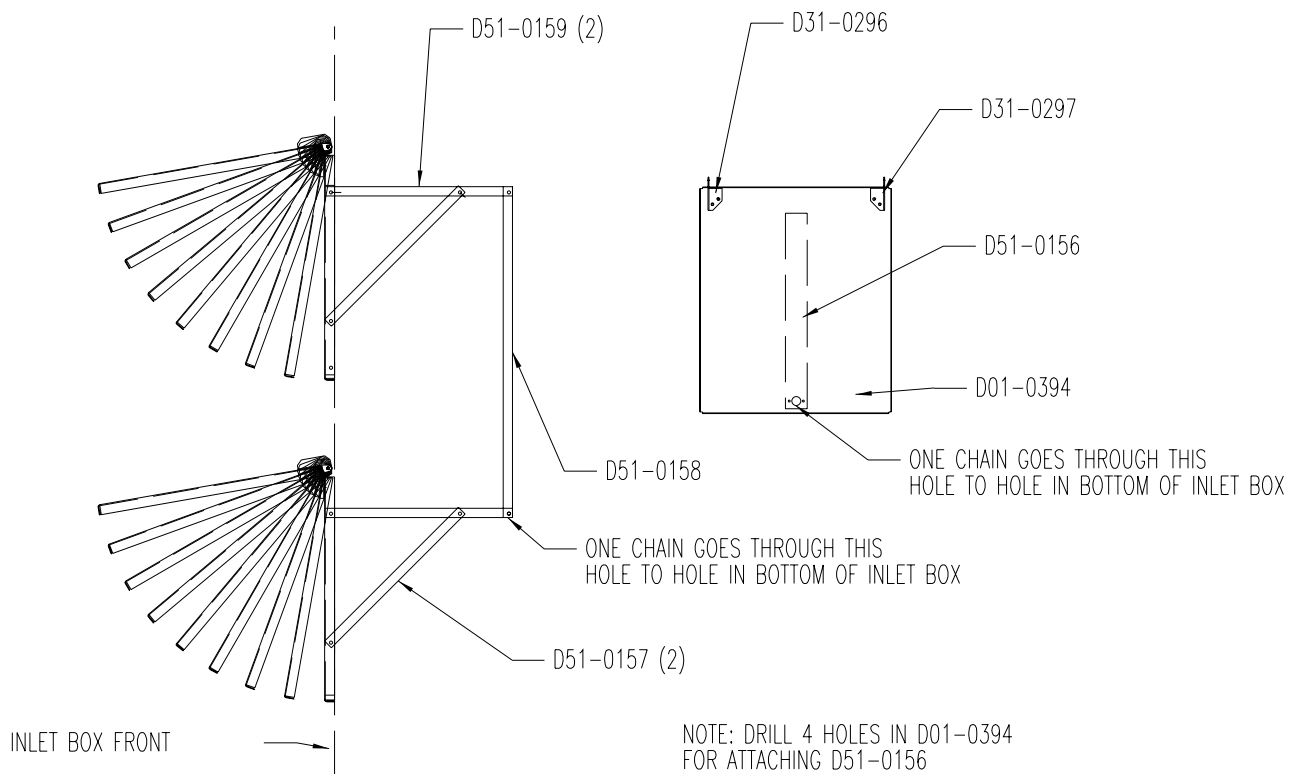
**Figure 4c: 2022 and 2026 Inside Side Duct Assembly**

## HEAT RECLAIMER ASSEMBLY INSTRUCTIONS



**Figure 5: Column Panel Assembly**

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**Figure 6: Air Access Door Assembly**

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