

EASY INSTALLATION INSTRUCTIONS

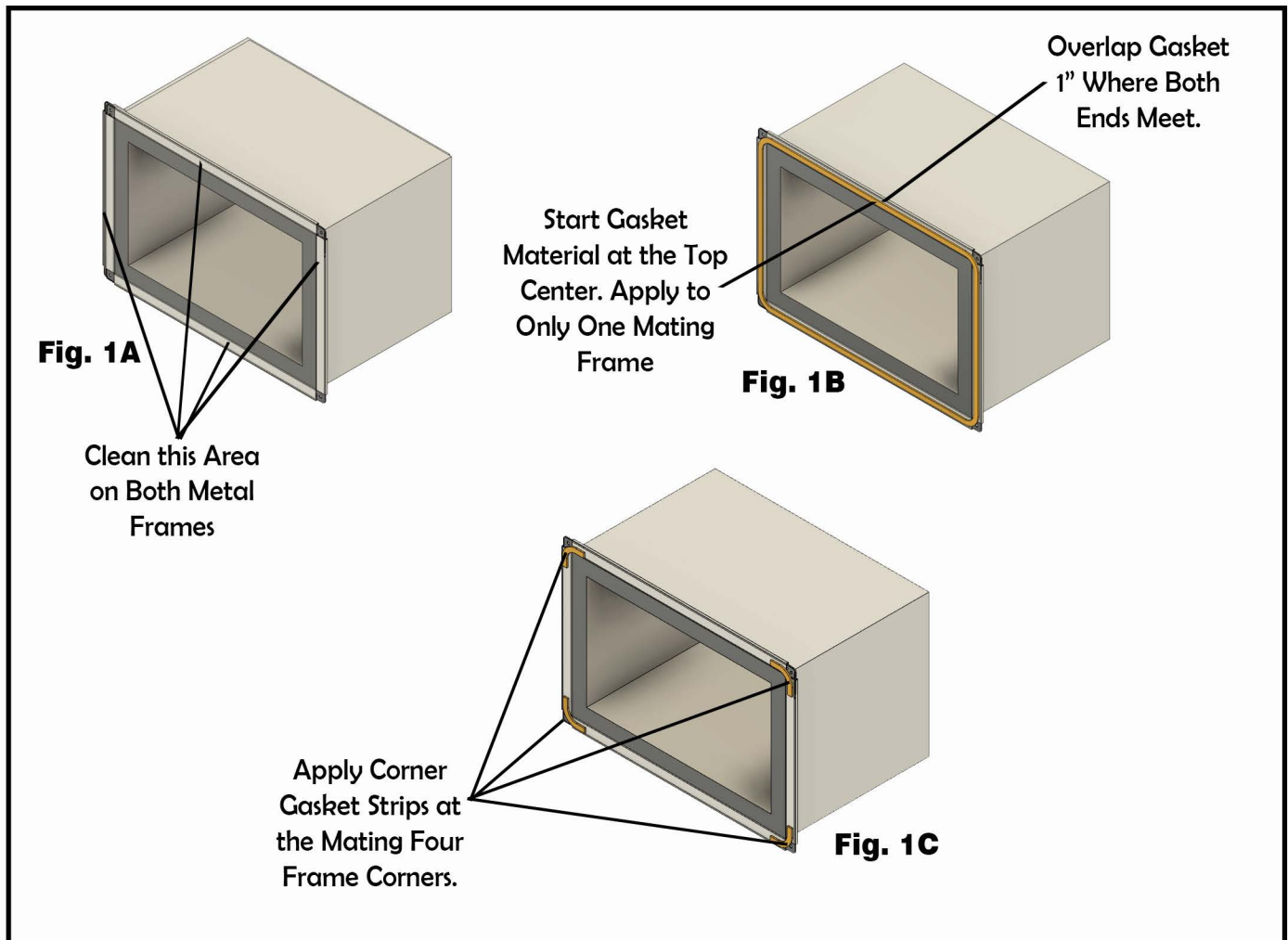
Access Door Install Instructions - Last 2 Pages

TUFF DUCT EASY INSTALLATION INSTRUCTIONS

TDC AND DURODYNE (DYNAMATE) FRAME CONNECTION INSTRUCTIONS

1. TDC / Durodyne Frame Prep = Wipe the face of both frames that you are about to connect making sure it is free of dirt, oil, and all debris. Leaving 2 clean surfaces to connect. (Fig. 1A)
2. Gasket = Apply the gasket to metal frame by starting at the center of the straight piece at the top of frame. Apply a single layer of gasket completely around the inside edge of the frame. (Fig. 1B)
3. Gasket = At the corners the gasket must cover the small space between the duct wall and the corner.
4. Gasket = Where the gasket meets, overlap 1". (Fig. 1B)
5. Gasket = Apply a 2" to 3" strip of gasket on the mating frames corners. That is the small space between the corner and the duct wall. When rounding the corners with your gasket it is essential to cover the small space around the corner. (Fig. 1C)

-----Refer To Below Illustration -----

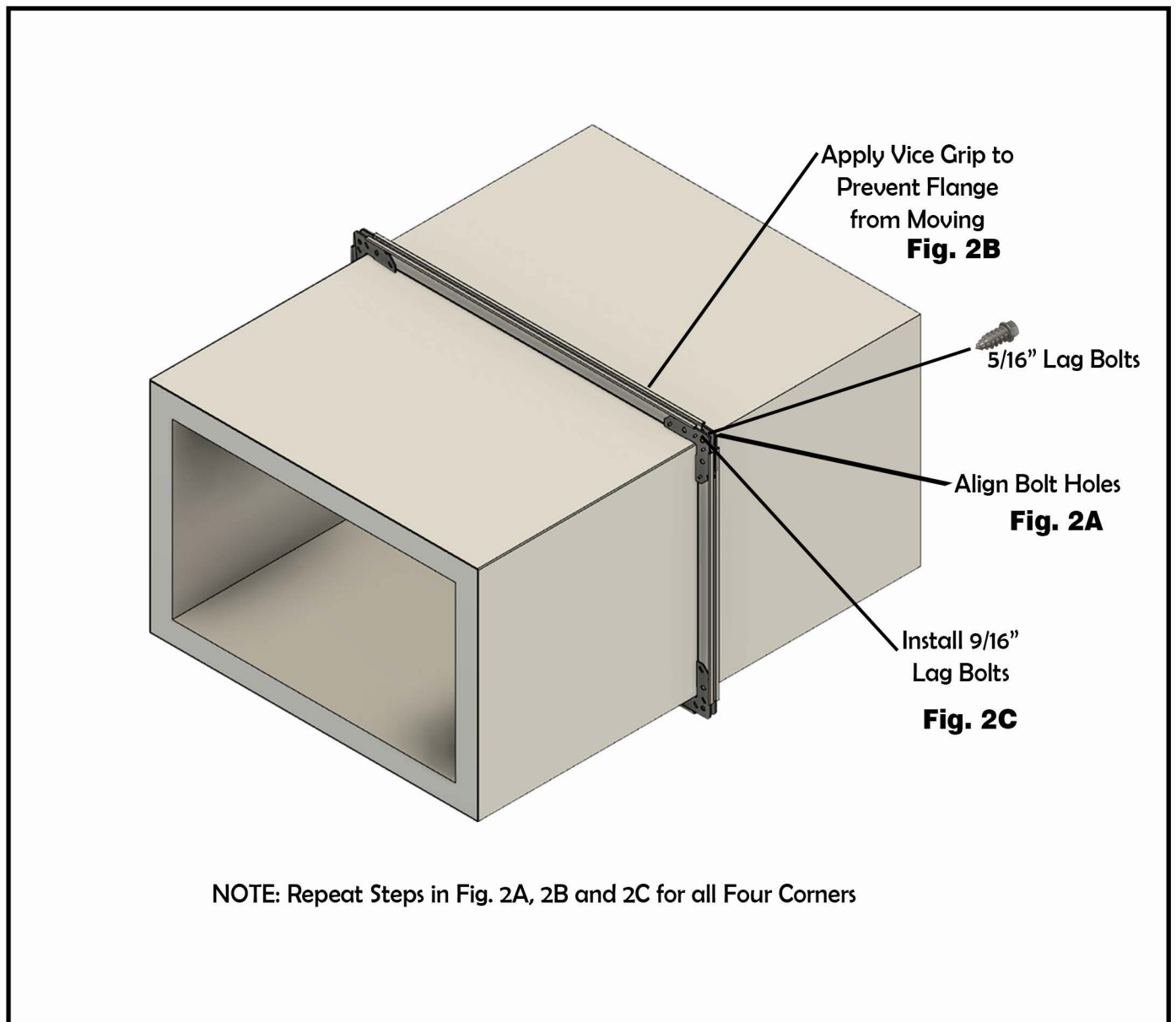


TUFF DUCT EASY INSTALLATION INSTRUCTIONS

BOLTING THE CONNECTION

- 1. BOLTING UP = TUFF DUCT COMES WITH 4 LAG BOLTS FOR MATING YOUR CONNECTION. TUFF DUCT DOES NOT USE THE STANDARD 3/8" CARRIAGE NUTS AND BOLTS. THE 5/16" HEAD LAG BOLTS WILL SAVE THE INSTALLING CREW TIME.**
- 2. BOLTING UP = ALIGN THE CONNECTING FLANGES. THE BOLT HOLES IN THE FOUR CORNERS OF BOTH FLANGES SHOULD LINE UP. (FIG. 2A)**
- 3. BOLTING UP = ONCE THE BOLT HOLES ARE CLOSE TO BEING ALIGNED APPLY A VICE GRIP TO PREVENT THE FLANGES FROM MOVING. (FIG. 2B)**
- 4. BOLTING UP = THEN INSTALL THE 5/16" HEAD LAG BOLT IN ALL FOUR CORNERS. SNUGGING THE LAG BOLTS TO A TIGHT POSITION. (FIG. 2C)**

-----Refer To Below Illustration -----

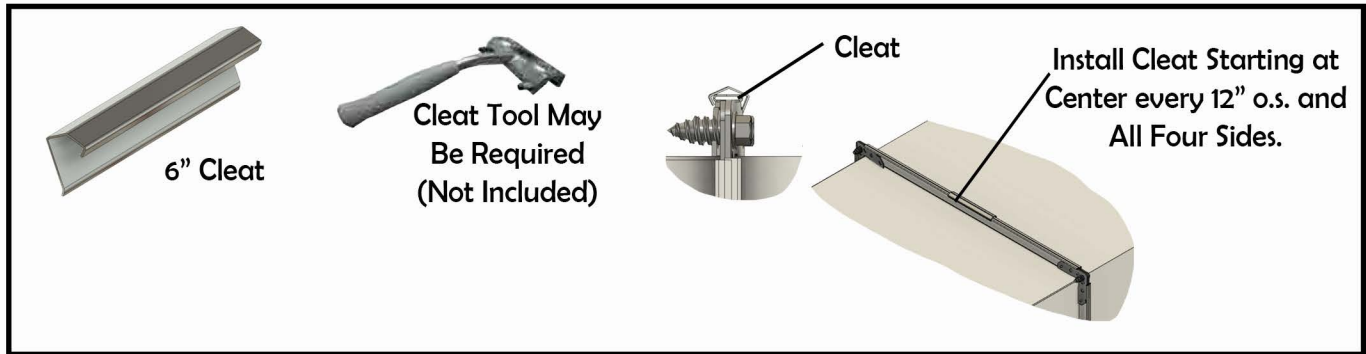


TUFF DUCT EASY INSTALLATION INSTRUCTIONS

CLEAT INSTALLATION

1. **CLEAT INSTALLATION = STARTING AT THE CENTER OF EACH OF THE 4 SIDES OF THE CONNECTION INSTALL A 6" LONG CLEAT THAT IS PROVIDED WITH YOUR ORDER.**
2. **CLEAT INSTALLATION = CONTINUE TO INSTALL A 6" LONG CLEAT EVERY 12" ON CENTER ALONG ALL 4 SIDES OF THE CONNECTION.**

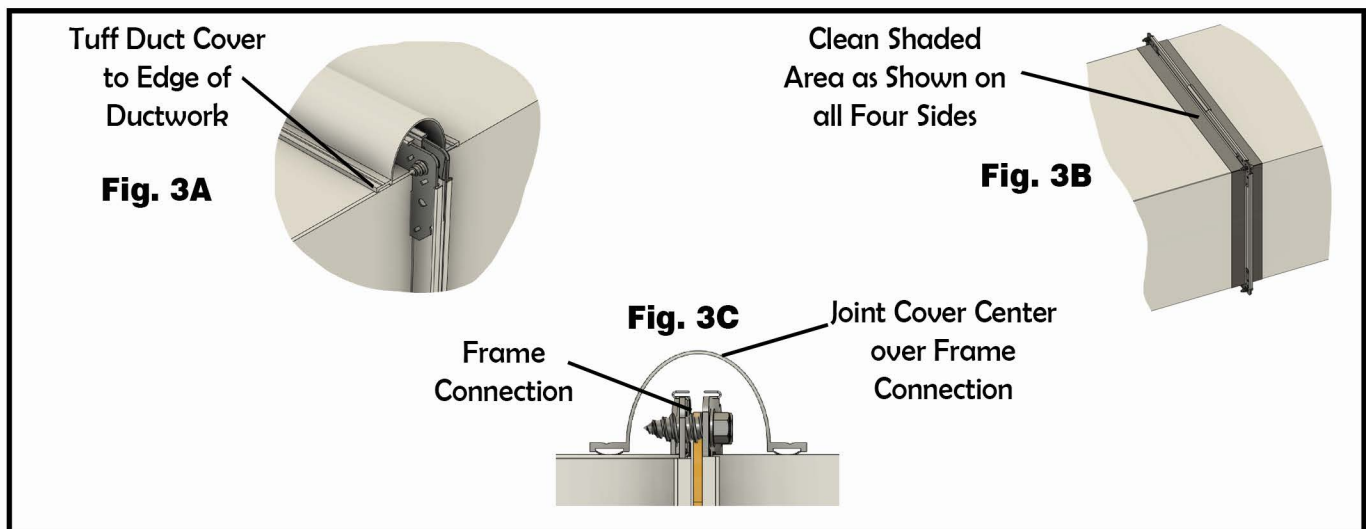
-----Refer To Below Illustration -----



TUFF CAP CONNECTION COVER

1. **TUFF CAP = MEASURE YOUR DUCT SIZE AND CUT A PIECE OF YOUR PROVIDED TUFF CAP STRAIGHT SECTION TO THE DUCT DIMENSIONS. THIS ALLOWS FOR THE CORNERS TO FIT PROPERLY. THERE WILL BE FOUR TUFF CAP STRAIGHT SECTIONS NEEDED TO BE CUT FOR EACH CONNECTION. (FIG. 3A)**
2. **TUFF CAP = TO BEGIN INSTALLATION OF THE TUFF CAP WIPE DOWN THE AREA ON BOTH SIDES OF THE CONNECTION APPROXIMATELY 2" THAT YOU ARE ABOUT TO COVER WITH THE TUFF CAP. (FIG. 3B)**
3. **TUFF CAP = PLACE ONE STRAIGHT SECTION OF JOINT COVER OVER THE FRAME CONNECTION CENTERING THE JOINT COVER OVER THE CONNECTION. (ALL CONNECTION JOINT COVER STRAIGHT SECTIONS SHOULD BE CENTERED OVER TOP OF THE CONNECTION THAT YOU ARE COVERING) (FIG. 3C)**

-----Refer To Below Illustration -----



TUFF DUCT EASY INSTALLATION INSTRUCTIONS

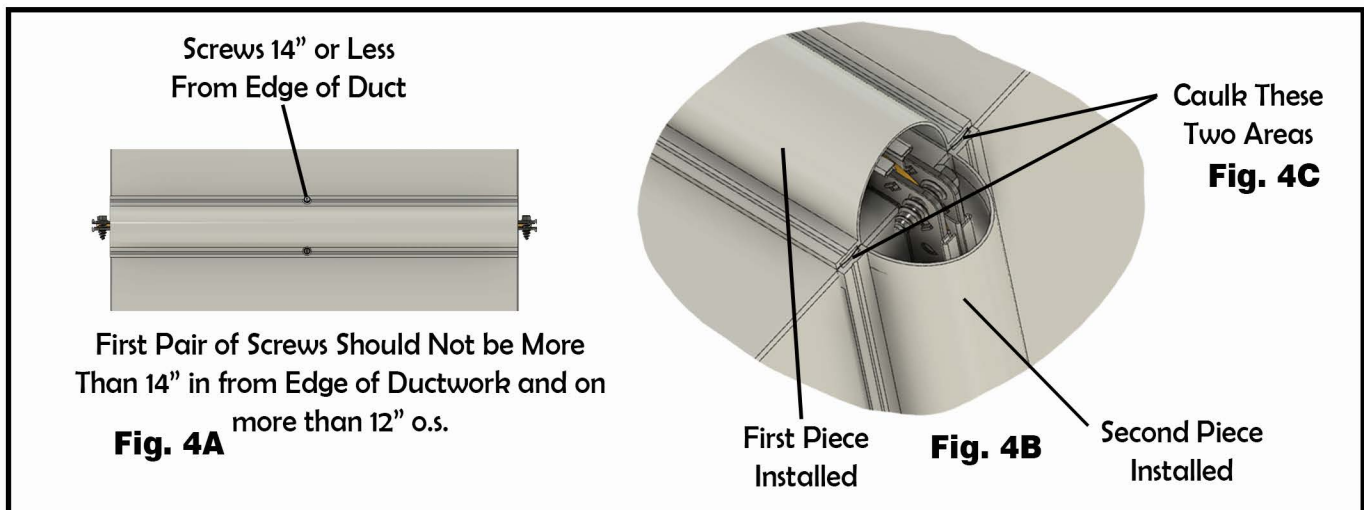
TUFF CAP CONNECTION COVER (CONTINUED)

4. TUFF CAP = WITH THE FIRST CONNECTION COVER PIECE IN PLACE COVERING THE TDC / DURODYNE CONNECTION YOU ARE READY TO START SCREWING IT DOWN. STARTING AT EITHER END INSTALL TWO GASKETED SCREWS (PROVIDED WITH EACH ORDER) IN THE SCREW LINE APPROXIMATELY 14" FROM THAT EDGE. THEN GO TO THE OPPOSITE SIDE OF THAT CONNECTION COVER AND INSTALL TWO SCREWS IN THE SCREW LINE OF THE CONNECTION COVER 14" IN FROM THAT SIDE. NOW YOU WILL CONTINUE TO INSTALL GASKETED SCREW IN THE SCREW LINE EVERY 12" ALONG BOTH SIDES OF THE STRAIGHT SECTION OF CONNECTION COVER. (SCREWS SHOULD BE NO GRATER THAN 12" APART). (FIG. 4A)

5. TUFF CAP = INSTALL THE NEXT PIECE OF CONNECTION COVER STRAIGHT BY FOLLOWING THE STEPS IN #4 ABOVE. THIS SECTION SHOULD BE TO THE ADJACENT SIDE OF THE PIECE THAT WAS PREVIOUSLY INSTALLED. (FIG. 4B)

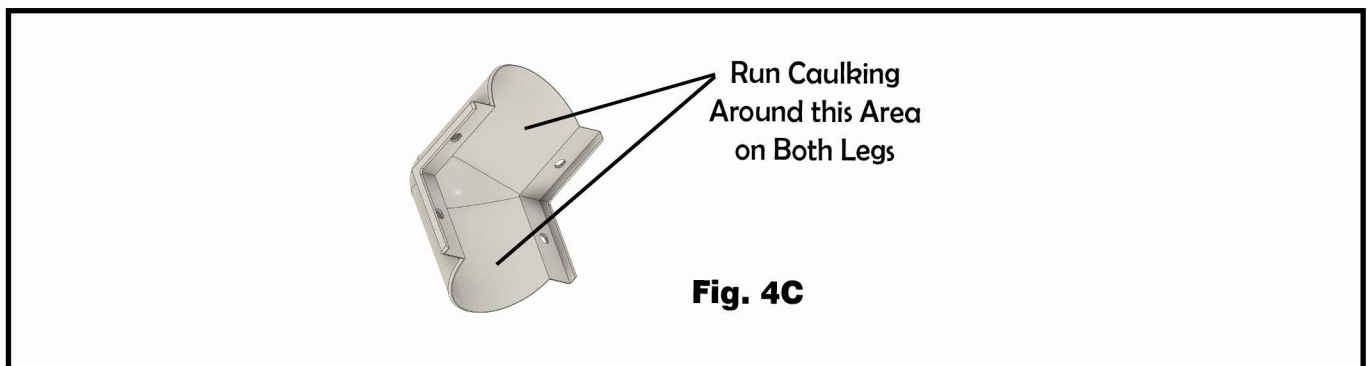
6. TUFF CAP = WHERE THE FLANGES OF THE ADJACENT PIECES OF STRAIGHT SECTIONS TOUCH, RUN A BEAD OF CAULKING ACROSS BOTH 1" FLANGES. (FIG. 4C)

-----Refer To Below Illustration -----



7. TUFF CAP = RUN A BEAD OF CAULKING COMPLETELY INSIDE OF THE RADIUS OF BOTH SIDES OF THE CORNER APPROXIMATELY 1" IN FROM THE ENDS . (FIG. 4C)

-----Refer To Below Illustration -----

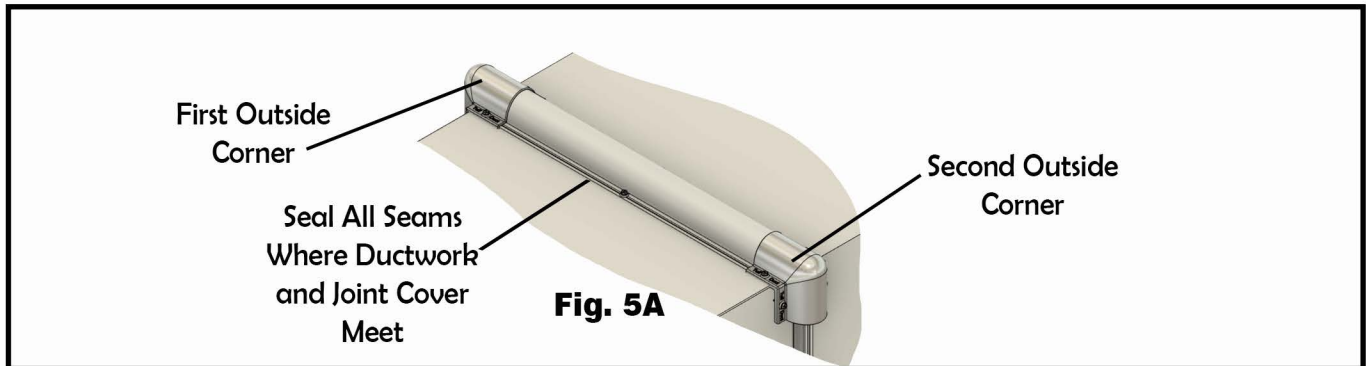


TUFF DUCT EASY INSTALLATION INSTRUCTIONS

TUFF CAP CONNECTION (CONTINUED)

8. TUFF CAP OUTSIDE CORNER = PLACE THE CORNERS OVER TOP OF THE ADJACENT PIECE OF STRAIGHT SECTION AND INSTALL GASKETED SCREWS IN ALL 4 SCREW HOLES. (FIG. 5A)

-----Refer To Below Illustration -----

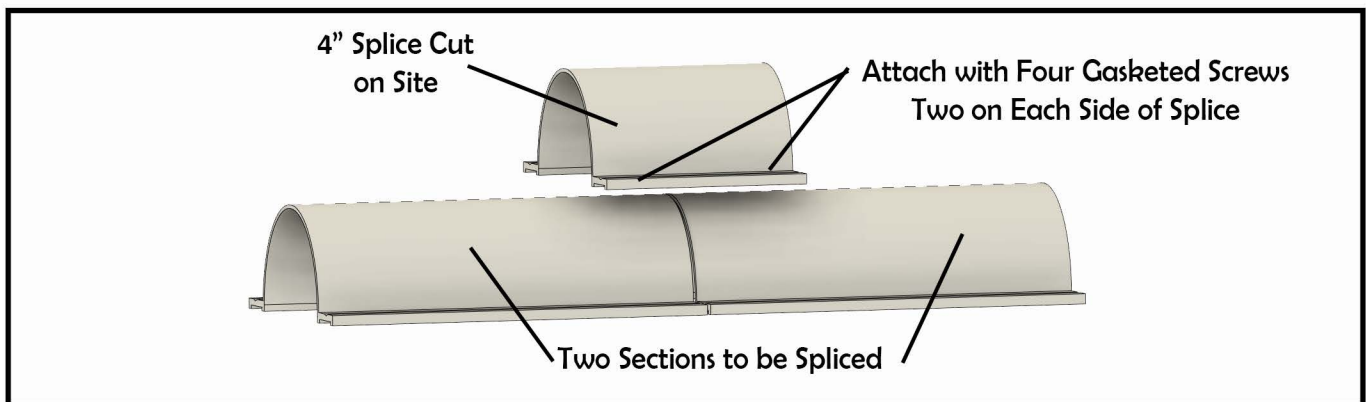


9 TUFF CAP = REPEAT STEPS 5, 6, 7, & 8 UNTIL THE DUCT CONNECTIONS ARE COMPLETE COVERED

SPlicing STRAIGHT SECTION WHERE NEEDED

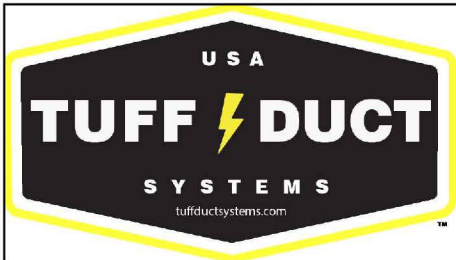
WHERE DUCT DIMENSIONS ARE GREATER THAN THE STANDARD PROVIDED LENGTH OF CONNECTION COVER STRAIGHT SECTION OR IF TRYING TO UTILIZE SHORTER LENGTHS OF CONNECTION COVER STRAIGHT SECTION YOU CAN CUT A 4" PIECE OF STRAIGHT SECTION TO COVER WHERE THE TWO SECTIONS OF STRAIGHT SECTION BUTT UP TO EACH OTHER AND SECURE USING FOUR GASKETED SCREWS (TWO ON EACH SIDE OF THE SPLICE) THAT WERE PROVIDED. BE SURE TO SEAL THE ENTIRE SPICE SECTION

-----Refer To Below Illustration -----



DAMAGED COATING TOUCH UP PAINT

EVEN THOUGH WE ARE USING THE TUFFEST COATING ON THE MARKET WE HAVE SEEN WHERE DAMAGE TO THE COATING CAN OCCUR DUE TO ABUSE TO THE COATING DURING THE INSTALLATION PROCESS. IF DAMAGE TO THE COATING OCCURS DURING INSTALLATION WE PROVIDE A CAN OF TOUCH UP PAINT WITH EVERY DELIVERY.



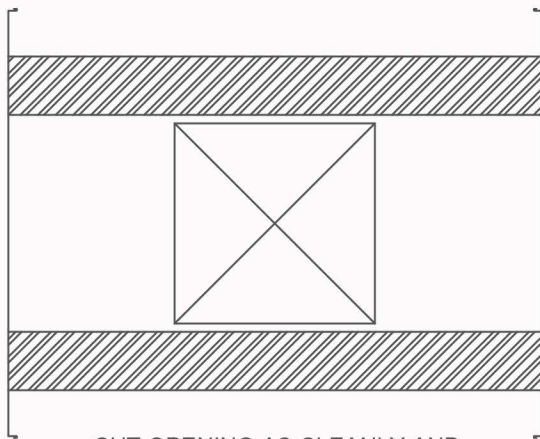
TUFF DUCT ACCESS DOOR INSTALLATION INSTRUCTIONS

PACKAGE CONTENTS

- QTY 1- INSULATION FLASHING FRAME WITH LOOSE LAP SEAM
- QTY 1- HOLE TEMPLATE
- QTY 1- METAL ACCESS PANEL WITH PHENOLIC INSULATION
- QTY 1- INSULATION TAPE
- QTY 4- RETAINAGE KNOBS
- QTY 1- PAN HEAD SCREW

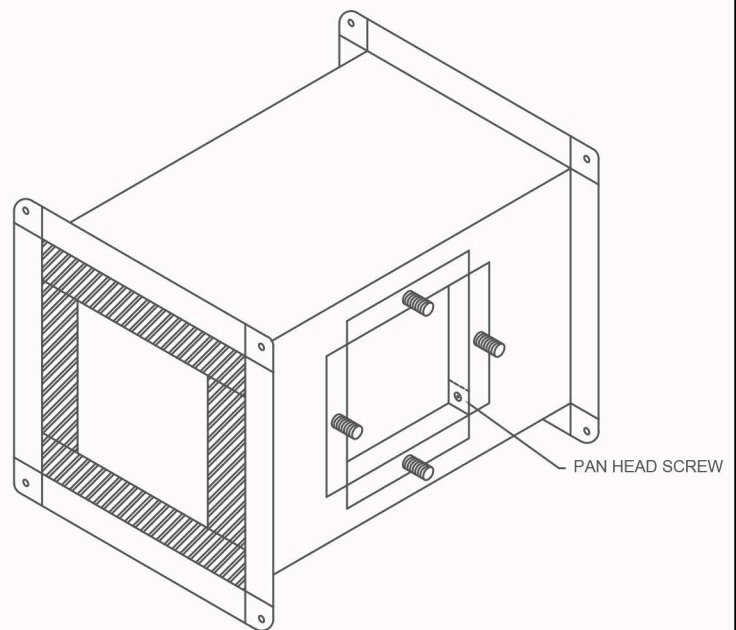
1. LOCATE PLACEMENT OF ACCESS DOOR, USE FACTORY PROVIDED TEMPLATE TO LAYOUT OPENING. TRY TO KEEP OPENING AS CLOSE TO CENTER OF DUCT AS POSSIBLE
2. CUT THE METAL DUCT WALL AND REMOVE METAL PANEL
3. CUT INSULATION OUT OF OPENING, FLUSH WITH METAL WALL, AND REMOVE
4. INSTALL YOUR INSULATION FLASHING FRAME BY SLIDING THE FRAME INTO THE OPENING. HOLD FRAME TIGHT TO ALL FOUR SIDES. INSTALL A PAN HEAD SCREW INTO $\frac{3}{4}$ " TAB IN THE UNFASTENED CORNER.
5. BEND THE DOVETAIL CLAW DOWNWARD SECURING TO THE PHENOLIC INSULATION.

HOLE CUT DETAIL



CUT OPENING AS CLEANLY AND
AS ACCURATELY AS POSSIBLE TO
ENSURE PROPER INSTALLATION

INSULATION FRAME DETAIL





TUFF DUCT ACCESS DOOR INSTALLATION INSTRUCTIONS

6. ONCE YOUR INSULATION FLASHING FRAME IS INSTALLED YOU MUST TAPE OVER THE DOVETAIL CLAW SECURING TO THE INSULATION FOIL FACE AND THE INSULATION FRAME.
7. INSTALL ACCESS PANEL BY LINING UP THE STUD HOLES WITH INSULATION FLASHING FRAME STUDS. SLIDE PANEL ONTO STUDS. INSTALL RETAINAGE KNOBS

DO NOT OVER TIGHTEN KNOBS

TAPING AND PANEL INSTALLATION DETAIL

