SQ. CONE & PERF. FIRE RATED DIFFUSER INSTALLATION INSTRUCTIONS

INSTALLATION INSTRUCTIONS

1. FOLLOW STEPS “A” & “B” AS SHOWN.
2. THE FLEXIBLE AIR DUCT SHALL BE CLASS "O" OR CLASS "1" UL CERTIFIED (SEE UL GAS & OIL EQUIPMENT DIRECTORY). THE MAX LENGTH SHALL NOT EXCEED 14'-0" (4267). WHERE FLEX. AIR DUCT SUPPORT IS REQUIRED, USE STEEL STRAPS AND #12 SWG STEEL HANGER WIRE.
3. THE 4'-0" CROSS TEES MUST HAVE SLOTS IN THE WEB FOR CONNECTING THE 2'-0" CROSS TEES. END TABS OF THE 2'-0" CROSS TEE MUST BE BENT BACK AGAINST THE WEB OF THE 4'-0" TEES.
4. SUSPEND CEILING TEES INDEPENDENTLY AT THE 4 CORNERS OF DIFFUSER ASSEMBLY. USE #12 SWG GALVANIZED STEEL HANGER WIRE AND SECURE TO THE FLOOR OR ROOF ABOVE.
5. MAXIMUM ROUND NECK SIZE OF THE FIRE RATED DIFFUSER ASSEMBLY IS 15" (381) DIAMETER.
6. NO DIFFUSER & CEILING RADIATION DAMPER ASSEMBLY SHALL BE LOCATED IN AN ADJACENT 24" X 48" (610 x 1219) CEILING MODULE.
7. INSTALLATION OF 12"X12" (304X304) DIFFUSER ASSEMBLY IS SIMILAR TO THE ABOVE. REWORK TEE BAR AND GRID TO PROVIDE 4- CORNER TEE SUSPENSION OF 12"X12" (304X304) ASSEMBLY.
   END TABS OF ALL CROSS TEE BARS MUST ENTER SLOTS IN CONNECTING TEES AND MUST BE BENT BACK AGAINST THE WEB OF THE CONNECTING TEES.
8. INSTALLATION OF THERMAL BLANKET ON THE DIFFUSER ASSEMBLY IS DONE AT THE FACTORY. HOWEVER IF IT NEEDS TO BE REMOVED AND REINSTALLED, FIT THE BLANKET OVER THE DIFFUSER NECK BEFORE DUCT IS FASTENED. THERMAL BLANKET MUST TOTALLY COVER THE BACKPAK.

NOTE: SECURE FLEXIBLE DUCT WITH APPROVED STEEL CLAMP OR WIRE. DO NOT USE BOLTS, SCREWS OR RIVETS AS THEY COULD INTERFERE WITH DAMPER BLADE OPERATION.

NOTE: THERMAL BLANKET BEFORE DUCT.

STEP "B" FLEXIBLE DUCT CONNECTION
(CROSS SECTIONAL DETAIL OF DIFFUSER INSTALLATION)

IMPORTANT COMPONENTS

BY PRICE INDUSTRIES:
1. SQUARE CONE DIFFUSER C/W CEILING RADIATION DAMPER
2. THERMAL BLANKET CK-2000-B

BY OTHERS:
3. STEEL (NECK) CLAMP - OR WIRE.
4. AIR DUCT (FLEXIBLE OR RIGID)
5. MAIN TEE RUNNER
6. CROSS TEE BAR 4'-0" OR 1200mm
7. CROSS TEE BAR 2'-0" OR 600mm
8. SUSPENSION HANGER WIRE.
9. CEILING TILE OR PANEL

PROJECT:

ENGINEER:

CUSTOMER:

SUBMITTAL DATE SPEC. SYMBOL:

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**SQ. MODULE & CONE, PANEL, FIRE RATED ASSEMBLY INSTALLATION INSTRUCTIONS**

**INSTALLATION INSTRUCTIONS**

1. FOLLOW STEPS "A" & "B" AS SHOWN.
2. THE FLEXIBLE AIR DUCT SHALL BE CLASS "O" OR CLASS "1" UL CERTIFIED (SEE UL GAS & OIL EQUIPMENT DIRECTORY). THE MAX LENGTH SHALL NOT EXCEED 14' - 0" (4267). WHERE FLEX. AIR DUCT SUPPORT IS REQUIRED, USE STEEL STRAPS AND #12 SWG STEEL HANGER WIRE.
3. THE 4'-0" CROSS TEES MUST HAVE SLOTS IN THE WEB FOR CONNECTING THE 2'-0" CROSS TEES. END TABS OF THE 2'-0" CROSS TEE MUST BE BENT BACK AGAINST THE WEB OF THE 4'-0" TEES.
4. SUSPEND CEILING TEES INDEPENDENTLY AT THE 4 CORNERS OF DIFFUSER ASSEMBLY. USE #12 SWG GALVANIZED STEEL HANGER WIRE AND SECURE TO THE FLOOR OR ROOF ABOVE.
5. ROUND NECKS ARE AVAILABLE AS AN OPTION AND ARE AVAILABLE UP TO 15" (381) DIAMETER. MAXIMUM SQUARE NECK SIZE OF THE FIRE RATED DIFFUSER ASSEMBLY IS 18" X 18" (457X457).
6. NO DIFFUSER & CEILING RADIATION DAMPER ASSEMBLY SHALL BE LOCATED IN AN ADJACENT 24" X 48" (610 X 1219) CEILING MODULE.
7. INSTALLATION OF 12" (304) & 20" (508) SQUARE DIFFUSER ASSEMBLY IS SIMILAR TO THE ABOVE. REWORK TEE BAR AND GRID TO PROVIDE 4- CORNER TEE SUSPENSION OF 12" (304) OR 20" (508) SQUARE ASSEMBLY. END TABS OF ALL CROSS TEE BARS MUST ENTER SLOTS IN CONNECTING TEES AND MUST BE BENT BACK AGAINST THE WEB OF THE CONNECTING TEES.
8. INSTALLATION OF THERMAL BLANKET ON THE DIFFUSER ASSEMBLY IS DONE AT THE FACTORY. HOWEVER IF IT NEEDS TO BE REMOVED AND REINSTALLED, FIT THE BLANKET OVER THE DIFFUSER NECK WITH CREASES UP BEFORE DUCT IS FASTENED AND TUCK EDGES TO TEE BARS. THE THERMAL BLANKET MUST TOTALLY COVER THE BACKPAN.

**TYPICAL COMPONENTS**

BY PRICE INDUSTRIES:
1. SQUARE PANEL DIFFUSER C/W CEILING RADIATION DAMPER
2. THERMAL BLANKET CK-2000-B

BY OTHERS:
3. STEEL (NECK) CLAMP - OR WIRE.
4. AIR DUCT (FLEXIBLE OR RIGID)
5. MAIN TEE RUNNER
6. CROSS TEE BAR 4'-0" OR 1200mm
7. CROSS TEE BAR 2'-0" OR 600mm
8. SUSPENSION HANGER WIRE.
9. CEILING TILE OR CEILING PANEL

**PROJECT:**

**ENGINEER:**

**CUSTOMER:**

**SUBMITTAL DATE**

**SPEC. SYMBOL:**

**SQ.MODULE & CONE PANEL OPTION FIRE RATED ASSEMBLY INSTALLATION INSTRUCTIONS**

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CREATION DATE: 239667

INSTALLATION INSTRUCTIONS: 2020/12/18

REV 8
SQ. MODULAR FIRE RATED ASSEMBLY INSTALLATION INSTRUCTIONS

INSTALLATION INSTRUCTIONS

1. FOLLOW STEPS "A" & "B" AS SHOWN.
2. THE FLEXIBLE AIR DUCT SHALL BE CLASS "0" OR CLASS "1" UL CERTIFIED (SEE UL GAS & OIL EQUIPMENT DIRECTORY). THE MAX LENGTH SHALL NOT EXCEED 14'-0" (4267). WHERE FLEX. AIR DUCT SUPPORT IS REQUIRED, USE STEEL STRAPS AND #12 SWG STEEL HANGER WIRE.
3. THE 4'-0" CROSS TEES MUST HAVE SLOTS IN THE WEB FOR CONNECTING THE 2'-0" CROSS TEES. END TABS OF THE 2'-0" CROSS TEE MUST BE BENT BACK AGAINST THE WEB OF THE 4'-0" TEES.
4. SUSPEND CEILING TEES INDEPENDENTLY AT THE 4 CORNERS OF DIFFUSER ASSEMBLY. USE #12 SWG GALVANIZED STEEL HANGER WIRE AND SECURE TO THE FLOOR OR ROOF ABOVE.
5. ROUND NECKS ARE AVAILABLE AS AN OPTION AND ARE AVAILABLE UP TO 15" (381) DIAMETER. MAXIMUM SQUARE NECK SIZE OF THE FIRE RATED DIFFUSER ASSEMBLY IS 18"X18" (457X457).
6. NO DIFFUSER & CEILING RADIATION DAMPER ASSEMBLY SHALL BE LOCATED IN AN ADJACENT 24" X 48" (610 X 1219) CEILING MODULE.
7. INSTALLATION OF 12" (304) & 20" (508) SQUARE DIFFUSER ASSEMBLY IS SIMILAR TO THE ABOVE. REWORK TEE BAR AND GRID TO PROVIDE 4'-0" CORNER TEE SUSPENSION OF 12" (304) OR 20" (508) SQUARE ASSEMBLY. END TABS OF ALL CROSS TEE BARS MUST ENTER SLOTS IN CONNECTING TEES AND MUST BE BENT BACK AGAINST THE WEB OF THE CONNECTING TEES.
8. INSTALLATION OF THERMAL BLANKET ON THE DIFFUSER ASSEMBLY IS DONE AT THE FACTORY. HOWEVER IF IT NEEDS TO REMOVED AND REINSTALLED, FIT THE BLANKET OVER THE DIFFUSER NECK WITH CREASES UP BEFORE DUCT IS FASTENED AND TUCK EDGES TO TEE BARS. THE THERMAL BLANKET MUST TOTALY COVER THE BACKPAN.

NOTE: SECURE FLEXIBLE DUCT WITH APPROVED STEEL CLAMP OR WIRE. DO NOT USE BOLTS, SCREWS OR RIVETS AS THEY COULD INTERFERE WITH DAMPER BLADE OPERATION.

STEP "A" CEILING GRID LAYOUT

TYPICAL COMPONENTS

BY PRICE INDUSTRIES:
1. SQUARE MODULAR DIFFUSER C/W CEILING RADIATION DAMPER
2. THERMAL BLANKET CK-2000-B

BY OTHERS:
3. STEEL (NECK) CLAMP - OR WIRE.
4. AIR DUCT (FLEXIBLE OR RIGID)
5. MAIN TEE RUNNER
6. CROSS TEE BAR 4'-0" OR 1200mm
7. CROSS TEE BAR 2'-0" OR 600mm
8. SUSPENSION HANGER WIRE.
9. CEILING TILE OR PANEL

INSTALLATION OF 12" X 12" OR 300mm x 300mm

ALL METRIC DIMENSIONS ( ) ARE SOFT CONVERTEO, IMPERIAL DIMENSIONS ARE CONVERTED TO METRIC AND ROUNDED TO THE NEAREST MILLIMETER.

PROJECT:

ENGINEER:

CUSTOMER:

SUBMITTAL DATE SPEC. SYMBOL:

228792

2020/12/18

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500-FR SERIES INSTALLATION INSTRUCTIONS

1. FOLLOW STEPS "A" & "B" AS SHOWN.

2. IF REQUIRED THE FLEXIBLE DUCT SHALL BE CLASS "0" OR CLASS "1" UL/ULC CERTIFIED (SEE UL GAS & OIL EQUIPMENT DIRECTORY) THE MAX. LENGTH SHALL NOT EXCEED 14'-0" (4267). WHERE FLEX AIR DUCT SUPPORT IS REQUIRED, USE STEEL STRAPS AND #12 SUPPORT IS SWG STEEL HANGER WIRE.

3. THE 4'-0" CROSS TEE MUST HAVE SLOTS IN THE WEB FOR CONNECTING THE 2'-0" CROSS TEE. END TABS OF THE 2'-0" CROSS TEE MUST BE BENT BACK AGAINST THE WEB OF THE 4'-0" TEEES.

4. SUSPEND CEILING TEEES INDEPENDENTLY AT THE 4 CORNERS OF RETURN AIR GRILLE. USE #12 SWG GALVANIZED STEEL HANGER WIRE AND SECURE TO THE FLOOR OR ROOF ABOVE.

5. MAXIMUM SIZE OF THE 530-FR OR 535-FR RETURN AIR GRILLE ASSEMBLY IS NOMINAL 24" x 24" (610 x 610).

6. NO RETURN AIR GRILLE ASSEMBLY SHALL BE LOCATED IN AN ADJACENT 24" x 48" (610 x 1219) CEILING MODULE.

7. INSTALLATION OF A 12" x 12" (305 x 305), 12" x 24" (305 x 610) OR 300 x 300mm & 300 x 600mm 530-FR OR 535-FR RETURN GRILLE ASSEMBLY IS SIMILAR TO ABOVE. Rework THE TEE BAR GRID AND PROVIDE 4-CORNER SUSPENSION OF RETURN AIR GRILLE AND CD-RD ASSEMBLY. END TABS OF ALL CROSS TEE BARS MUST ENTER SLOTS IN CONNECTING TEEES AND MUST BE BENT BACK AGAINST THE WEB OF THE CONNECTING TEEES.

8. THERMAL BLANKET MUST TOTALLY COVER THE FRAME AND NECK UP TO THE DAMPER BLADES. THERMAL BLANKET IS SECURED WITH THE DAMPER MOUNTING SCREWS.

9. INSTALLATION METHOD IS TYPICAL FOR MODEL 530-FR AND MODEL 535-FR, RETURN AIR GRILLE FIRE RATED ASSEMBLIES.

TYPICAL COMPONENTS

BY E.H. PRICE:

1. ◦ 530-FR LOUVERED RETURN AIR GRILLE ASSEMBLY
   ◦ OR
   ◦ 535-FR LOUVERED RETURN AIR GRILLE ASSEMBLY

BY OTHERS:

2. ◦ MAIN TEE RUNNER
3. ◦ CROSS TEE BAR 4'-0" OR 1200mm
4. ◦ CROSS TEE BAR 2'-0" OR 600mm
5. ◦ SUSPENSION HANGER WIRE.
6. ◦ CEILING TILE OR PANEL

ALL METRIC DIMENSIONS ( ) ARE SOFT CONVERTED. IMPERIAL DIMENSIONS ARE CONVERTED TO METRIC AND ROUNDED TO THE NEAREST MILLIMETER.

PROJECT:

ENGINEER:

CUSTOMER:

SUBMITTAL DATE SPEC. SYMBOL:

228793 2020/12/18

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80FR, 10FR INSTALLATION INSTRUCTIONS

1. FOLLOW STEPS "A" & "B" AS SHOWN.
2. IF REQUIRED THE FLEXIBLE DUCT SHALL BE CLASS "O" OR CLASS "1" UL/ULC CERTIFIED (SEE UL GAS & OIL EQUIPMENT DIRECTORY) THE MAX. LENGTH SHALL NOT EXCEED 14'-0" (4267). WHERE FLEX AIR DUCT SUPPORT IS REQUIRED, USE STEEL STRAPS AND #12 SWG STEEL HANGER WIRE.
3. THE 4'-0" CROSS TEE MUST HAVE SLOTS IN THE WEB FOR CONNECTING THE 2'-0" CROSS TEE. END TABS OF THE 2'-0" CROSS TEE MUST BE BENT BACK AGAINST THE WEB OF THE 4'-0" TEE.
4. SUSPEND CEILING TEE INDEPENDENTLY AT THE 4 CORNERS OF RETURN AIR GRILLE. USE #12 SWG GALVANIZED STEEL HANGER WIRE AND SECURE TO THE FLOOR OR ROOF ABOVE.
5. MAXIMUM SIZE OF THE 80FR OR 10FR RETURN AIR GRILLE ASSEMBLY IS NOMINAL 24"x24" (610x610).
6. NO RETURN AIR GRILLE ASSEMBLY SHALL BE LOCATED IN AN ADJACENT 24"x48" (610x1219) CEILING MODULE.
7. INSTALLATION OF A 12"x12" (305 x 305), 12"x 24" (305 x 610) OR 300 x 300mm & 300 x 600mm 80FR OR 10FR RETURN GRILLE ASSEMBLY IS SIMILAR TO ABOVE. REWORK THE TEE BAR GRID AND PROVIDE 4 CORNER SUSPENSION OF RETURN AIR GRILLE AND GFS ASSEMBLY. END TABS OF ALL CROSS TEE BARS MUST ENTER SLOTS IN CONNECTING TEE AND MUST BE BENT BACK AGAINST THE WEB OF THE CONNECTING TEE.
8. INSTALLATION METHOD IS TYPICAL FOR MODEL 80FR AND MODEL 10FR, RETURN AIR GRILLE FIRE RATED ASSEMBLIES.

STEP "A" CEILING GRID LAYOUT
- CAN BE DUCTED OR NON-DUCTED, DUCTED SHOWN-
NOTE: SECURE DUCT CAREFULLY SO THAT THE FASTENERS DO NOT INTERFERE WITH CURTAIN DAMPER OPERATION.

STEP "B" INSTALLATION OF 80FR OR 10FR
(80 FR SHOWN)

INSTALLATION OF 12" x 12" OR
300mm x 300mm 80FR OR 10FR

INSTALLATION OF 12" x 24" OR
300mm x 600mm 80FR OR 10FR

BY E.H. PRICE:
1. ☐ 80FR RETURN AIR GRILLE ASSEMBLY
   - OR -
   ☐ 10FR PERFORATED RETURN AIR GRILLE ASSEMBLY

BY OTHERS:
2. - MAIN TEE RUNNER
3. - CROSS TEE BAR 4'-0" OR 1200mm
4. - CROSS TEE BAR 2'-0" OR 600mm
5. - SUSPENSION HANGER WIRE.
6. - CEILING TILE OR PANEL

ALL METRIC DIMENSIONS ( ) ARE SOFT CONVERTED, IMPERIAL DIMENSIONS ARE CONVERTED TO METRIC AND ROUNDED TO THE NEAREST MILLIMETER.

PROJECT:

ENGINEER:

CUSTOMER:

SUBMITTAL DATE SPEC. SYMBOL:

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80FR, 10FR
RETURN GRILLE
FIRE RATED ASSEMBLY INSTALLATION INSTRUCTIONS

2020/12/18
REV D
TBD-FR SERIES, SUPPLY & RETURN INSTALLATION

1) Verify that the grid module in which the diffuser is to be installed is suspended according to the recommendations of the fire-rated tee bar manufacturer.

2) If the standard ceiling segmentation does not match the dimensions of the diffuser, an extra cross tee must be securely mounted using the brackets shown in detail A & B. Under these conditions, the following mounting bracket, backing plate, and tee bar combinations must be used.

   * If the diffusers are to be installed end for end then the end tabs must be trimmed off and each cross tee joint requires the use of two mounting brackets and backing plates as shown in detail A.
   * If the diffusers are to be mounted side by side in series then the cross tee mounted between them requires the use of two mounting brackets and backing plates at each cross tee joint as shown in detail A.
   * If the diffusers are to be installed independently, then one mounting bracket and two backing plates are required for each tee bar joint as shown in detail B.

   To install the brackets, drill holes (#30 drill, 1/2" dia.) in the tee bar using the bracket as a guide and fasten the brackets and backing plates in place using 1/8" dia x 1/4" long steel pop rivets (SD42B5) or #8 sheet metal screws.

3) Ensure that all four corners of the grid module, that the diffuser is to be installed into, are supported by 12 ga. galvanized steel wire.

4) Place the diffuser into the grid and ensure that all the remaining safety cups have hooked over top of the tee bar.

5) Without lifting the diffuser off the grid module, the full weight of the unit must be supported using 12 ga. galvanized steel wire which is looped through the mounting holes in the top of the diffuser and attached to an approved ceiling support. Care must be taken to ensure that no wires are kinked or slack.

6) The two side tee bars must be screw mounted to the diffuser at their midpoint. Drill a 1/2" dia. hole (#30 drill) through the tee bar and diffuser side cup using the midpoint of the safety clip as a guide. Fasten the tee bar and clip by using #8 x 3/4" sheet metal screws.

7) The diffuser can be connected to the supply duct by using a solid or flexible duct connection. If a flexible connection is used, make sure that it bears the ULC/ULC classification, Class 1 or Class 2.

All metric dimensions ( ) are soft converted, imperial dimensions are converted to metric and rounded to the nearest millimeter.

NOTE: Reversible air pattern. The air pattern can be changed on the job site by removing the self-piercing screws, separating the plenum and diffuser sections, rotating the plenum 180° and reinstalling the self-piercing screws after plenum and diffuser sections have been rejoined. As shown in detail above.

PROJECT:

ENGINEER:

CUSTOMER:

SUBMITTAL DATE: 2020/12/18

SPEC. SYMBOL:

TBD-FR SERIES, SUPPLY & RETURN INSTALLATION INSTRUCTIONS

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REV G
FILTER FRAME SERIES INSTALLATION INSTRUCTIONS

INSTALLATION INSTRUCTIONS

1. FOLLOW STEPS "A" & "B" AS SHOWN.
2. IF REQUIRED THE FLEXIBLE DUCT SHALL BE CLASS "0" OR CLASS "1" UL/ULC CERTIFIED (SEE UL GAS & OIL EQUIPMENT DIRECTORY) THE MAX. LENGTH SHALL NOT EXCEED 14'-0" (4267). WHERE FLEX AIR DUCT SUPPORT IS REQUIRED, USE STEEL STRAPS AND #12 SUPPORT IS SWG STEEL HANGER WIRE.
3. THE 4'-0" CROSS TEES MUST HAVE SLOTS IN THE WEB FOR CONNECTING THE 2'-0" CROSS TEES. END TABS OF THE 2'-0" CROSS TEE MUST BE BENT BACK AGAINST THE WEB OF THE 4'-0" TEES.
4. SUSPEND CEILING TEES INDEPENDENTLY AT THE 4 CORNERS OF RETURN AIR GRILLE. USE #12 SWG GALVANIZED STEEL HANGER WIRE AND SECURE TO THE FLOOR OR ROOF ABOVE.
5. MAXIMUM SIZE OF THE UNIT IS NOMINAL 24" x 24" (610 x 610).
6. NO UNIT SHALL BE LOCATED IN AN ADJACENT 24"x48" (610 x 1219) CEILING MODULE.
7. INSTALLATION OF A 12" x 12" (305 x 305), 12" x 24" (305 x 610) OR 300 x 300mm & 300 x 600mm UNIT IS SIMILAR TO ABOVE. REWORK THE TEE BAR GRID AND PROVIDE 4-CORNER SUSPENSION OF UNIT AND CD-ROD ASSEMBLY. END TABS OF ALL CROSS TEE BARS MUST ENTER SLOTS IN CONNECTING TEES AND MUST BE BENT BACK AGAINST THE WEB OF THE CONNECTING TEES.
8. THERMAL BLANKET MUST TOTALY COVER THE FRAME AND NECK UP TO THE DAMPER BLADES.
9. INSTALLATION METHOD IS TYPICAL FOR ALL FIRE RATED UNITS THAT INCORPORATE FILTER FRAMES.

TYPICAL COMPONENTS

BY E.H PRICE:
1. □ 530FF–FR, 535FF–FR LOUVERED RETURN AIR GRILLE ASSEMBLY
   − OR −
   □ 10FF–FR, 80FF–FR RETURN AIR GRILLE ASSEMBLY

BY OTHERS:
2. − MAIN TEE RUNNER
3. − CROSS TEE BAR 4’-0” OR 1200mm
4. − CROSS TEE BAR 2’-0” OR 600mm
5. − SUSPENSION HANGER WIRE.
6. − CEILING TILE OR PANEL

ALL METRIC DIMENSIONS ( ) ARE SOFT CONVERTED. IMPERIAL DIMENSIONS ARE CONVERTED TO METRIC AND ROUNDED TO THE NEAREST MILLIMETER.

PROJECT: FF-FR SERIES

ENGINEER:

CUSTOMER: 235679

SUBMITTAL DATE SPEC. SYMBOL:

2020/12/18

REV B