



PRICE[®]

ROUND FLOOR DIFFUSERS SERVICE & INSTALLATION MANUAL

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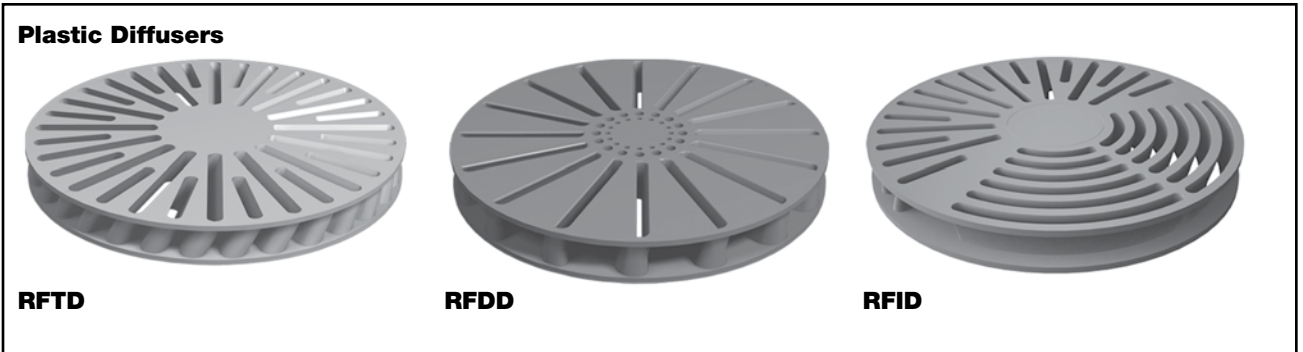
Round Floor Diffusers – Installation Instructions

The components for round floor diffuser assembly are shipped unassembled and typically in separate boxes. These components are to be assembled onsite, with the following as a recommended installation guide.

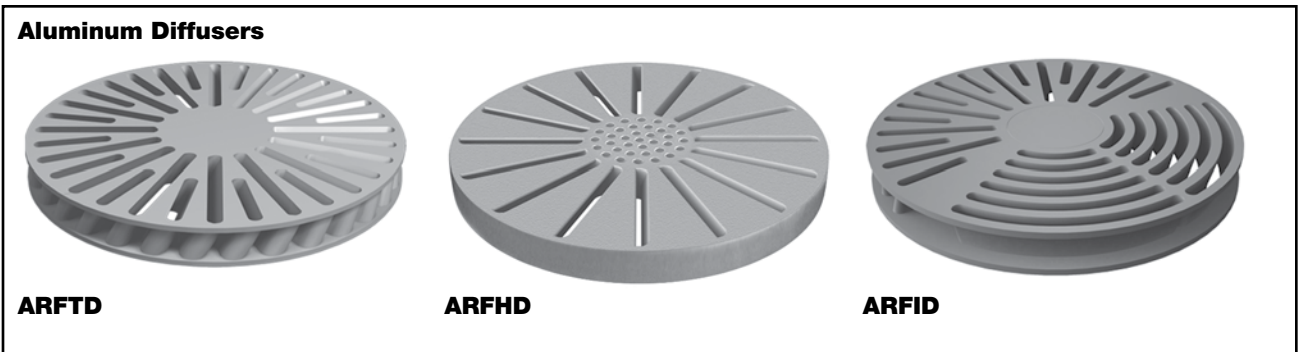
1. Determine the Round Floor Diffuser assembly that has been ordered.

A. Diffuser Face

- i. **RFTD/RFDD/RFID:** Plastic diffusers and can be mounted in either RPF or ZC configurations.

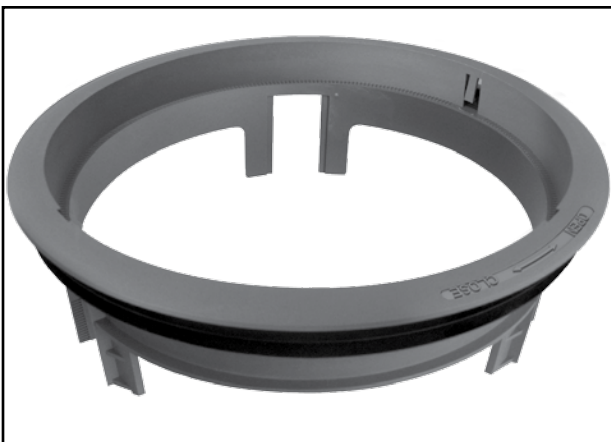


- ii. **ARFTD/ARFHD/ARFID:** Aluminum diffusers and can be mounted in either RPF or RC configurations.

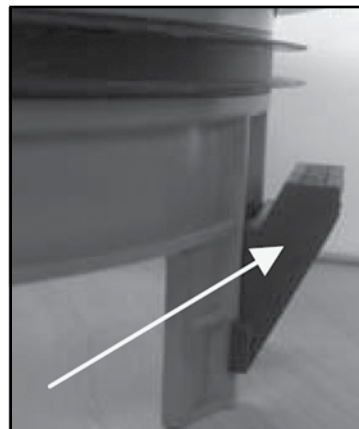


B. Mounting Ring:

- i. **RPF:** Press fit mounting ring which uses a soft rubberized seal to hold the mounting ring in the bore

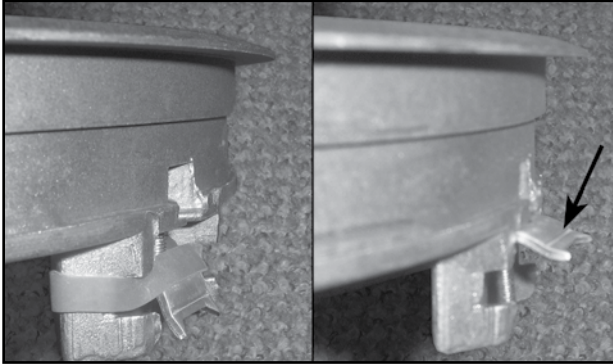


- ii. **ZC:** Zip Clip mounting ring which uses both a soft rubberized seal to center the ring in the bore and three (3) clips which ratchet in place to secure the mounting ring



to the floor. If the floor tile has a contoured bottom, care must be taken to insure all three zip clips can tighten against the tile.

- iii. **RC:** Ring Claw mounting ring which uses four (4) metal claws that dig into the side of the bore when tightened with a screwdriver.



- iv. **Stepped Bore:** No mounting ring is required; the floor is cut to size to fit only the diffuser face.



C. Basket Assembly:

- i. **B:** Standard plastic basket, 5" tall basket, no damper, provides even flow distribution, protects plenum from direct sight, catches 6 oz. of debris.



- ii. **DB:** Plastic basket with damper, 5" tall basket and damper assembly, one time balancing / adjustment by installer, same benefits as B basket.



- iii. **DBA:** Plastic basket with face-adjustable damper, 5" tall basket and damper assembly, variable volume adjustment via diffuser face, minimum flow limiter, same benefits as B basket. Damper attaches to diffuser.



- iv. **BS:** Short plastic basket, 2" tall basket, no damper, provides even flow distribution, protects plenum from direct sight, holes in bottom allow for bottom ducting.



- v. **DBS:** Short plastic basket with damper, 2" tall basket and damper assembly, one time balancing / adjustment by installer, same benefits as BS basket



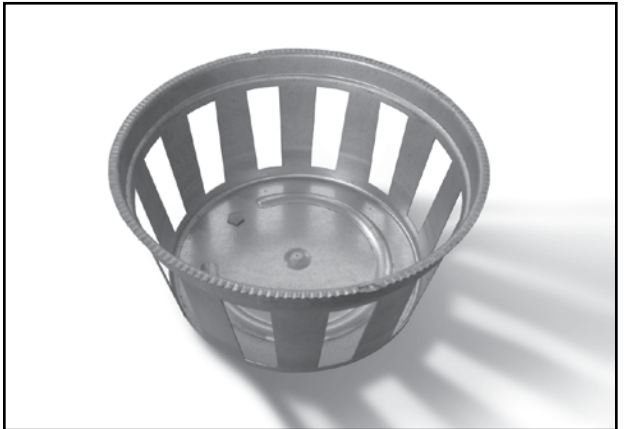
- vi. **DBAS:** Short plastic basket with face-adjustable damper, 2" tall basket and damper assembly, variable volume adjustment via diffuser face, minimum flow limiter, same benefits as BS basket



- vii. **DBV:** 6.5" tall basket with variable volume damper – controlled w/ Price UMCB and UMC3. Same benefits as B basket, protects plenum from direct sight, catches 6 oz. of debris detail on RJ45.



- viii. **MB:** Metal basket, 5" metal basket, no damper, provides even flow distribution, protects plenum from direct sight, catches 6 oz. of debris.



- ix. **MDB:** Metal basket with damper, 5" metal basket and damper assembly, one time balancing / adjustment by installer, same benefits as MB basket.



- x. **MDBA:** Metal basket with face-adjustable damper, 5" metal basket and damper assembly, variable volume adjustment via diffuser face, same benefits as MB basket.

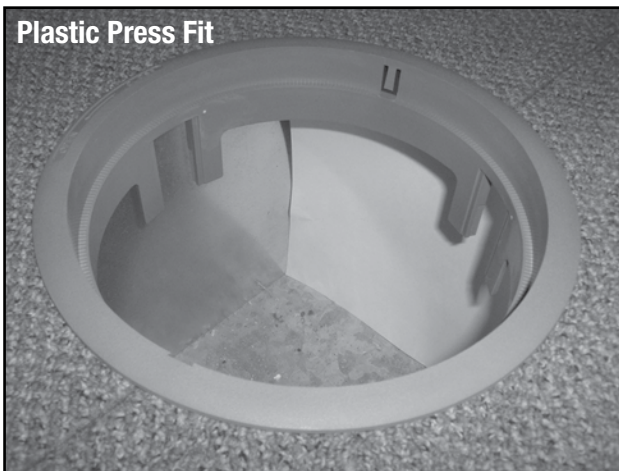


2. Cut the hole in the floor/tile according to the following table:

FACE	RPF	ZC	RC	STEP BORE
RFTD	8.4375 +/- .040 (214)	8.4375 +/- .040 (214)	N/A	7.875 +/- .010 (200)
RFDD	8.4375 +/- .040 (214)	8.4375 +/- .040 (214)	N/A	7.875 +/- .010 (200)
RFID	8.4375 +/- .040 (214)	8.4375 +/- .040 (214)	N/A	7.875 +/- .010 (200)
ARFTD	8.464 +/- .040 (214)	N/A	8.307 +/- .040 (211)	7.875 +/- .010 (200)
ARFHD	8.464 +/- .040 (214)	N/A	8.307 +/- .040 (211)	7.875 +/- .010 (200)
ARFID	8.464 +/- .040 (214)	N/A	8.307 +/- .040 (211)	7.875 +/- .010 (200)

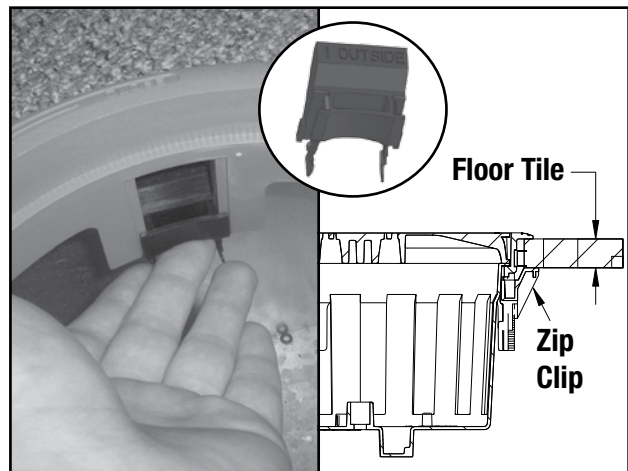
3. Secure the mounting ring into the floor cutout:

A. RPF rings do not require additional hardware; the rubberized seal prevents the unit from accidentally being dislodged during normal foot traffic. Do not use glue!



Plastic Press Fit

B. Zip Clip mounting uses three (3) clips that lock the ring in place. The clips can be inserted onto the legs of the mounting ring from inside the opening and locked into place, see pictures below.

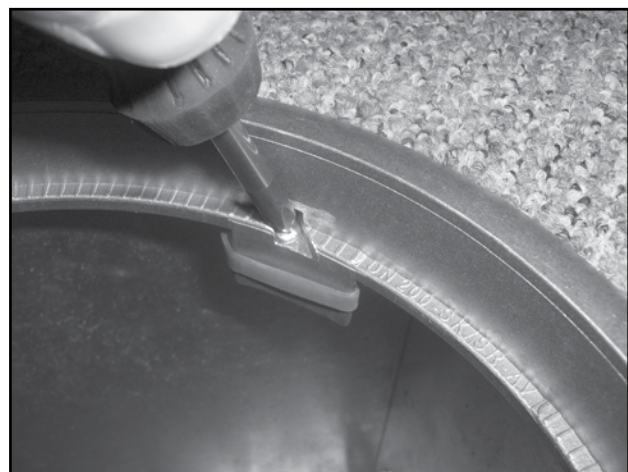


C. Ring Claw mounting uses four (4) claws that secure the ring in place. The claws come attached to the legs of the aluminum ring. A phillips head screwdriver is used to tighten the claws against the inside face of the floor cutout. The claws should be tightened in a staged sequence to keep the ring centered in the bore.



Aluminum Ring Claw

Phillips Head



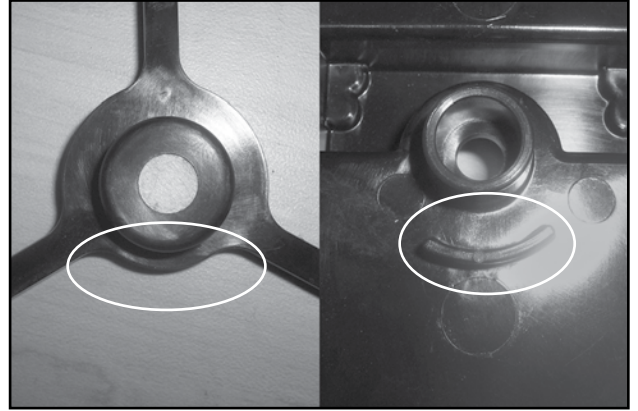
4. The basket and damper assembly can then be placed into the mounting ring:

A. For Plastic Baskets

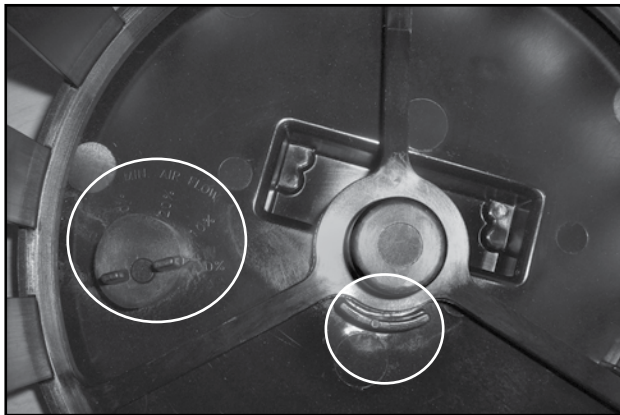
- i. The basket should be aligned such that the tabs on the basket flange aligns with the notch in the mounting ring. The tabs are 170° and can only be installed in one orientation.



- ii. The damper must be installed such that the thinner web portion on the damper legs aligns with the raised tab on the basket.



- iii. The minimum air flow knob is then installed onto the post on the bottom of the basket and rotated until the indicator points to the desired min airflow. Press down on the damper to ensure it does not slip above the min airflow knobs.



- iv. For DBA installation, the damper can be placed into basket and rotated until it drops into place, in the correct orientation. **Note:** the air flow arrow will point to the "open - closed" text on the mounting rings.



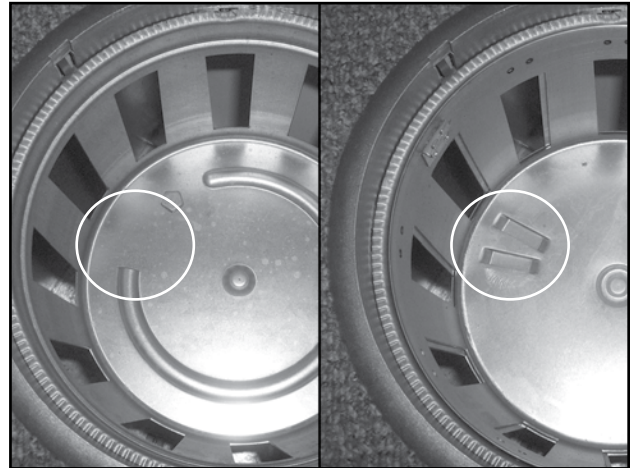
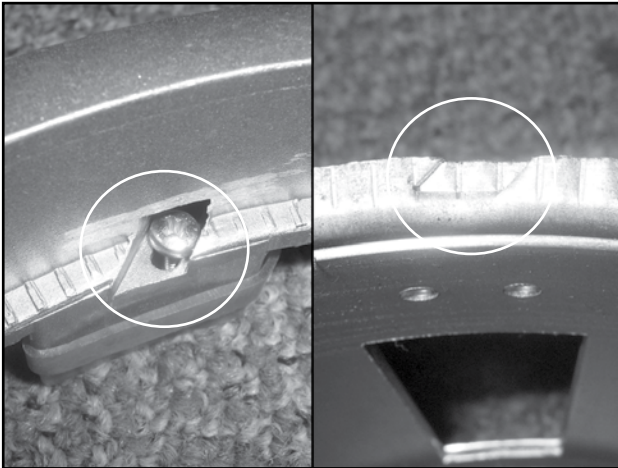
- v. RPN and RBC are installed into the mounting ring, following the same procedure as other baskets. Two protrusions prevent the diffuser from rotating.

- vi. 1/4" pressure hose is connected to the top or bottom fitting on RPN to measure the pressurized underfloor plenum or occupied zone, respectively.



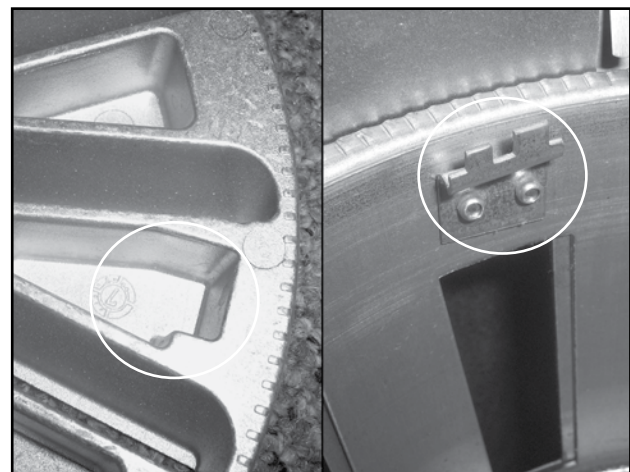
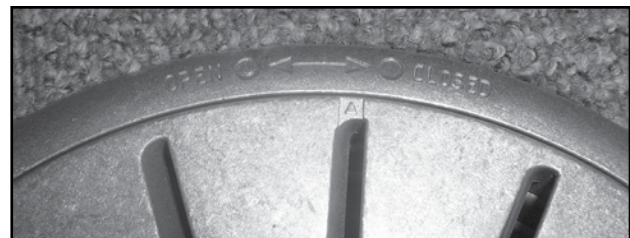
B. For Metal Baskets:

- i. The basket and damper need to align in a specific orientation to sit in the correct vertical position. The mounting has 4 notches where the ring claws are located. The direction of the notch should match the direction of the crimped tabs on the basket.
- ii. Place the damper into the basket such that the two prongs of the damper are in the open section of the bottom of the basket. This ensures the damper is aligned properly to allow smooth travel between opened and closed positions.



5. The diffuser face can now be installed into the mounting ring:







- A. If the assembly is not face adjustable (DB, DBS, MDB), then the face can be dropped in place and the unit is complete.
- B. **Aluminum diffusers only:** If the assembly is face adjustable, the tabs on the damper must align and lock into the bottom of the diffuser face. The arrow on the diffuser face should also point in between the open and close labels on the mounting ring.



6. Final Inspection:

The diffuser should sit flush in the mounting ring and if face adjustable, should allow rotation of the damper quite easily between open and close positions. When a downward force is applied to the face, the diffuser locks in place. This is to reduce the chance of inadvertent rotation when walking across the diffuser. Therefore, excessive downward force on the face will prevent rotation of the diffuser.



Name	Description	Mounting Ring	Basket	Finish
RFTD 	Twist diffuser High induction mixing Polymer construction	Ring Press Fit Zip Clip	B, BS DB, DBS DBA, DBAS DBV	Black Dusty Grey Custom Colors - Injection Moulded Color Matching - Injection Moulded
RFDD 	Horizontal throw diffuser Displacement non-mixing Polymer construction	Ring Press Fit Zip Clip	B, BS DB, DBS DBA, DBAS DBV	Black Dusty Grey Custom Colors - Injection Moulded Color Matching - Injection Moulded
RFID 	Inclined twist diffuser High induction mixing Controllable airflow pattern Polymer construction	Ring Press Fit Zip Clip	B, BS DB, DBS DBV	Black Dusty Grey Custom Colors - Injection Moulded Color Matching - Injection Moulded
ARFTD 	Twist diffuser High induction mixing Aluminum construction	Ring Press Fit Ring Claw	B, BS DB, DBS DBA, DBAS MBD	Mill Finish Custom Colors - Painted Color Matching - Painted
ARFHD 	Horizontal throw diffuser Displacement non-mixing Aluminum construction	Ring Press Fit Ring Claw	B, BS DB, DBS DBA, DBAS MBD DBV	Mill Finish Custom Colors - Painted Color Matching - Painted
ARFID 	Inclined twist diffuser High induction mixing Controllable airflow pattern Aluminum construction	Ring Press Fit Ring Claw	B, BS DB, DBS MBD DBV	Mill Finish Custom Colors - Painted Color Matching - Painted



2975 Shawnee Ridge Court
 Suwanee, Georgia USA 30024
 Ph: 770.623.8050 Fax: 770.623.6404

- U.S. Head Office
- Price Technical Center
- Atlanta Manufacturing Facility



1290 Barrow Industrial Parkway
 Winder, Georgia USA 30680-5704

- Atlanta Manufacturing Facility



999 North Thornton Road
 Casa Grande, Arizona USA 85222-3809

- Price Technical Center West
- Phoenix Manufacturing Facility



638 Raleigh Street
 Winnipeg, Manitoba Canada R2K 3Z9
 Ph: 204.669.4220 Fax: 204.663.2715

- Canadian Head Office
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130B Pippin Road
 Vaughan, Ontario Canada L4K 4X9

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