

Installation and Operation Manual

FRD Series

Inline Centrifugal Fans

PARTS IN THE BOX

Inline Fan FRD, 1 pc
Mounting Brackets, 4 pcs
Operation and Installation Manual, 1 pc



Systemair Inc. certifies that the FRD Series shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

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Note	Warning / Important note	Information	Technical information	Practical tip



WARNINGS

1. The compactness and adaptability of the FRD Series fans permit easy installation. The fans are shipped fully assembled and can be mounted at any angle. For various mounting, see figures on the following page.
2. Because this unit has rotating parts, safety precautions should be exercised during all phases of installation, operation and maintenance.
3. **CAUTION:** "For General Ventilation Use Only. Do Not Use To Exhaust Hazardous Or Explosive Material and Vapors."
4. Remove unit from package and inspect within 15 days after receipt. If damaged, report damage to carrier. Do Not operate this unit with visible damage to the blower or impeller assembly.
5. **CAUTION:** "This unit has an unguarded impeller. Do not use in locations readily accessible to people or animals".

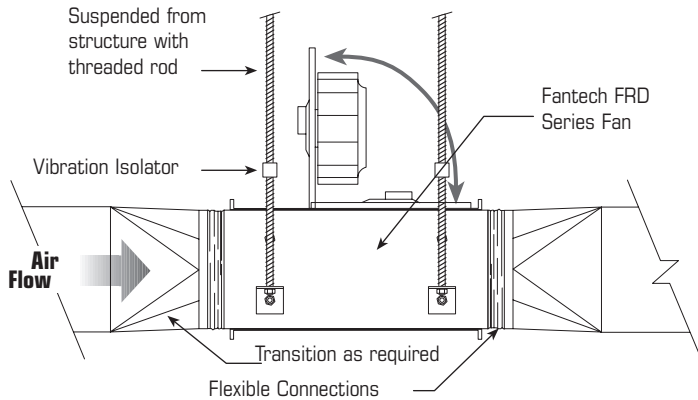
WEAR HAND PROTECTION AND STAY CLEAR OF SHARP EDGES!

6. Screen guards must be installed within reach of personnel, within (7) feet of the working area, or when advisable for safety.
7. **PLEASE** read the entire manual before installing.

DO NOT CONNECT POWER SUPPLY until fan is completely installed. Make sure electrical service to the fan is in the locked "OFF" position.

1. All fans are suitable for use with solid-state speed control. Three phase units must be wired through a motor contactor.
2. **WARNING! TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS - OBSERVE THE FOLLOWING:**
 - a. Use this unit in the manner intended by the manufacturer. If you have any questions, contact your manufacturer's representative or contact us directly.
 - b. **CAUTION:** Before installation, servicing or cleaning unit, switch power off at service panel and lock the service disconnection means to prevent power from being switched on accidentally. When the service disconnection means cannot be locked, securely fasten a prominent warning device, such as tag, to the panel.
 - c. Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.
 - d. Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent back drafting. Follow the heating equipment manufacturer's guideline and safety standards such as those published by the National Fire Association (NFPA), and the American Society for Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE), and the local code authorities.
 - e. When cutting or drilling into wall and ceiling, do not damage electrical wiring and other hidden utilities.
 - f. Ducted fans must always be vented to the outdoors.
 - g. If this unit is to be installed over a tub or shower, it must be marked as appropriate for the application and be connected to a GFCI (Ground Fault Circuit Interrupter) - protected branch circuit.
 - h. NEVER place a switch where it can be reached from a tub or shower.
3. **WARNING!** Check voltage at the fan to see if it corresponds to the motor name plate.

MOUNTING ILLUSTRATION 1

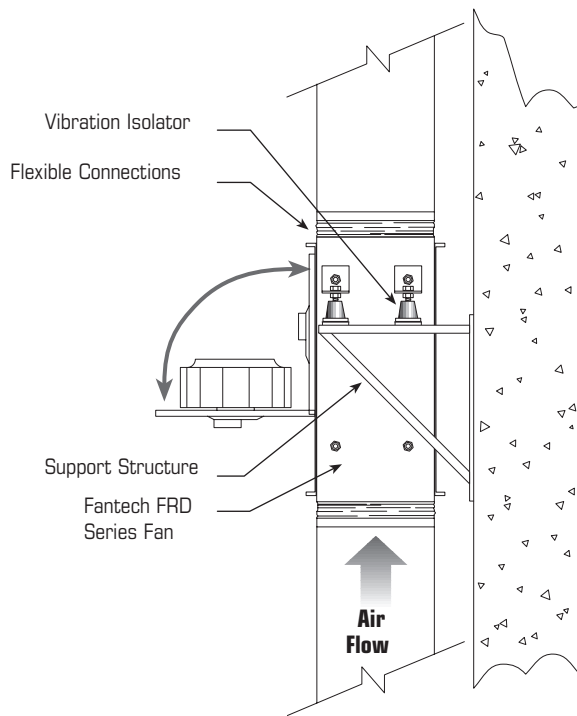


Please follow all applicable codes when installing this unit

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1. Determine the fan location and preferred mounting method.
2. If needed, install the included mounting bracket on fan. Be sure to use all four brackets and plug any unused holes.
3. Place fan in position and support with temporary fixture.
4. Connect fan to support structure. Vibration isolation mounts (supplied by others) are recommended.
5. Once fan is secure, temporary fixture can be removed.
6. Make duct connections. Flexible connectors (supplied by others) are recommended.
7. Make electrical connections according to the appropriate diagram on the next page.

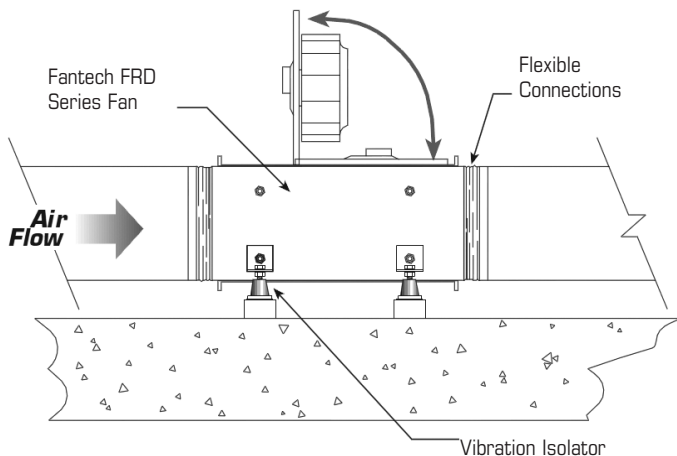
MOUNTING ILLUSTRATION 2



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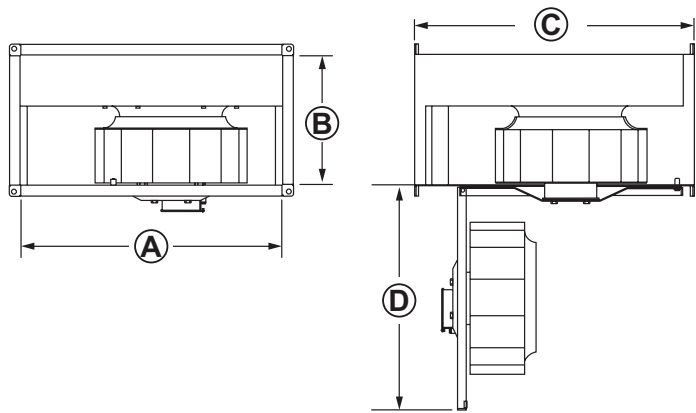
MOUNTING ILLUSTRATION 3



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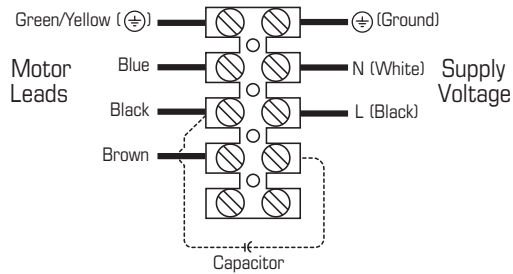
DIMENSIONS AND WIRING



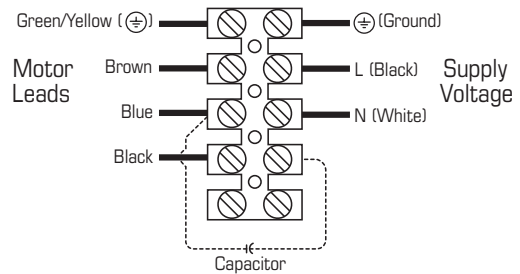
Model	A		B		C		D		Flange	
	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.
FRD 12-6	11 3/4	298	5 7/8	149	16 1/8	410	11 1/2	292	1	25
FRD 16-8	15 5/8	397	7 7/8	200	19 3/4	502	14 1/4	362	1	25
FRD 16-8XL	15 5/8	397	7 7/8	200	19 3/4	502	14 1/4	362	1	25
FRD 20-10	19 5/8	498	9 7/8	251	20 3/8	518	17 1/8	435	7/8	22
FRD 24-14	23 5/8	600	13 3/4	349	28 1/8	714	20 3/4	527	7/8	22

120V

FRD 12-6, FRD 16-8, FRD 16-8XL & FRD 20-10

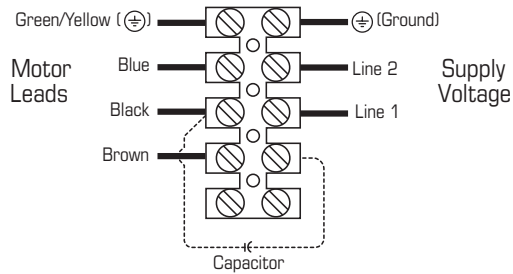


FRD 24-14

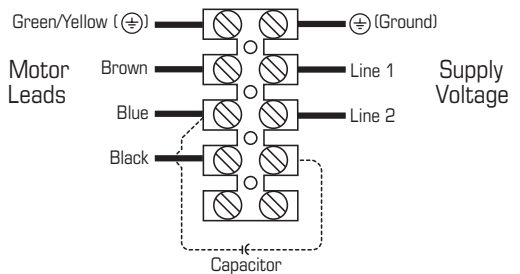


230V

FRD 12-6, FRD 16-8, FRD 16-8XL & FRD 20-10

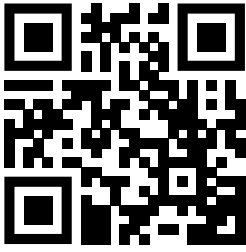


FRD 24-14



1. All leads are color coded.
2. Capacitor leads may be reversed. Fan operation will not be affected.

WARRANTY



Make a scan of the QR code above to access Fantech's warranty in English, French, or Spanish. Includes a 5y warranty.

If additional support is needed to retrieve the warranty, visit fantech.net; call (800) 747-1762 (US), (800) 565-3548 (Canada), or +52 55 1328-7328 (Latin America); email support@fantech.net; or mail us at 10048 Industrial Blvd, Lenexa, KS 66215 United States or at 50 Kanalläkt Way, Bouctouche, NB E4S 3M5 Canada.

NOTES

NOTES

Fantech reserves the right to make technical changes.
For updated documentation please refer to www.fantech.net

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