

# FRD Series

## Inline Mixed Flow Rectangular Fans

Limited space? No problem. Fantech's FRD Series centrifugal type exhaust/supply fans are specifically designed for large ventilation needs where space is at a premium, such as hospitals, schools, or office buildings. System balancing is easy. A simple speed adjustment equalizes all vents to compensate for hot or cold spots.

### Direct-to-Duct Installation

The compact housing design of the FRD Series allows for installation directly within rectangular ductwork (ranging from 12" x 6" (305 x 152 mm) ducts to 24" x 14" (610 x 356 mm) ducts), without the need for large elbows or transitional sections.

FRD Series fans are simple to install; no extra materials are required. Simply mount the fan at any angle in any point in the ductwork. The motor is mounted on a hinged door – just swing the door out for easy access to the motor and wiring connections.

### External Rotor Motors

All FRD Series fans utilize our unique external rotor motors. The motor's enclosed design allows the fan to operate in high moisture, lint and dust laden air. The motors are a permanent split capacitor type, with automatic reset thermal overload protection and sealed ball bearings. These features ensure long life and maintenance free operation. All motors and impellers are designed as one integral unit, allowing for excellent motor heat dissipation, even at a low RPM.

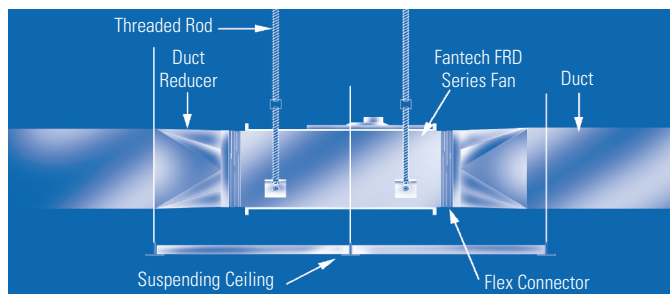


Fantech Inc. certifies that the FRD Series shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

### Features and Benefits

- Airflow up to 2318 CFM
- Rectangular ductwork connections
- Airtight galvanized steel housing
- External rotor motor for excellent heat dissipation even at low RPM, and built-in thermal overload protection with automatic reset
- Suitable for airstream temperatures up to 140° F (60° C)
- Permanently lubricated sealed ball bearings
- 100% speed controllable through voltage reduction allowing for on-demand ventilation or precision balancing of systems
- Terminal box with prewired electrical strip
- True backward curved impeller
- Excellent heat dissipation, ensuring long motor life
- UL Listed
- 3 year warranty

### Applications



## Specification Data

Model	Rated power	Voltage / phase	Max amps	RPM	0.0" P <sub>s</sub>	0.25" P <sub>s</sub>	0.5" P <sub>s</sub>	0.75" P <sub>s</sub>	1.0" P <sub>s</sub>	1.5" P <sub>s</sub>	2.0" P <sub>s</sub>	Max P <sub>s</sub>	Sones <sup>†</sup>	Shipping weight	
	W	V / ~	A	min <sup>-1</sup>	cfm							in.wg		lbs	kg
FRD 12-6	84	120/1	0.74 <sup>1</sup>	2550	309	262	214	171	133	75	-	2.01	8.0	17	8
FRD 16-8	150	120/1	1.30 <sup>1</sup>	2950	560	499	434	368	300	191	119	2.57	13.0	30	14
FRD 16-8XL	264	120/1	2.32 <sup>1</sup>	2800	658	599	535	471	406	290	196	3.44	13.1 <sup>1</sup>	30	14
FRD 20-10	191	120/1	1.68 <sup>1</sup>	1650	1013	915	814	724	617	225	-	1.84	16.7	43	20
FRD 24-14	597	120/1	5.18 <sup>2</sup>	1650	2318	2149	1939	1752	1527	1090	377	2.16	18.2 <sup>2</sup>	86	39

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	W	V / ~	A	min <sup>-1</sup>	cfm							in.wg		lbs	kg
FRD 12-6-230	81	230/1	0.35 <sup>1</sup>	2700	275	240	210	180	143	83	-	1.6	10.9	17	8
FRD 16-8-230	225	230/1	0.61 <sup>1</sup>	3050	585	535	475	410	345	222	135	2.3	14.7	30	14
FRD 16-8XL-230	176	230/1	0.91 <sup>1</sup>	2880	553	518	478	438	416	336	261	2.5	15.6	30	14
FRD 20-10-230	198	230/1	0.86 <sup>1</sup>	1680	964	851	730	617	485	166	-	1.5	16.0	43	20
FRD 24-14-230	810	230/1	3.60 <sup>1</sup>	1600	2122	1985	1864	1679	1512	1109	588	2	20.6	86	39

Performance shown is for installation type D - Duct inlet, Ducted outlet. Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance ratings do not include the effects of appurtenances (accessories).

<sup>†</sup>The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in hemispherical free field calculated per AMCA Standard 301. Values shown are for installation type A: free inlet hemispherical fan sone levels. All sones are calculated at 0.5" (static pressure in inches W.G.)

<sup>1</sup> Sone Value at 0.75" (static pressure in inches W.G.)

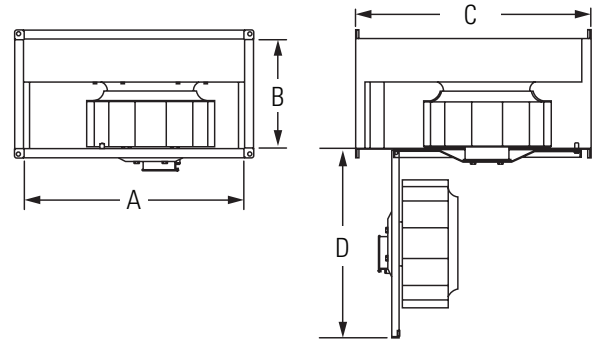
<sup>1</sup> Recommended speed control rating 5A. <sup>2</sup> Recommended speed control rating 10A

## Dimensions

Model	A	B	C	D
FRD 12-6	11 <sup>7</sup> / <sub>8</sub> (302)	5 <sup>7</sup> / <sub>8</sub> (149)	15 <sup>3</sup> / <sub>4</sub> (400)	11 (279)
FRD 16-8	15 <sup>3</sup> / <sub>4</sub> (400)	7 <sup>3</sup> / <sub>4</sub> (197)	19 <sup>3</sup> / <sub>4</sub> (502)	15 (382)
FRD 16-8XL	15 <sup>3</sup> / <sub>4</sub> (400)	7 <sup>3</sup> / <sub>4</sub> (197)	19 <sup>3</sup> / <sub>4</sub> (502)	15 (382)
FRD 20-10	19 <sup>5</sup> / <sub>8</sub> (498)	9 <sup>3</sup> / <sub>4</sub> (248)	20 <sup>3</sup> / <sub>8</sub> (518)	18 (457)
FRD 24-14	23 <sup>5</sup> / <sub>8</sub> (600)	13 <sup>3</sup> / <sub>4</sub> (349)	28 <sup>1</sup> / <sub>2</sub> (724)	20 (508)

All dimensions in inches (mm).

Note: Flanges extend <sup>7</sup>/<sub>8</sub> " beyond the A dimension.



## Accessories



**FTD 7**  
7 Day Timer



**RPE**  
Speed Control



**SCD**  
Speed Control



**WC 15**  
Speed Control



**FH 20**  
Dehumidist

**Customer Support:** 🇨🇦 🇩🇪

Canada 800.565.3548 • support@fantech.net • www.fantech.net

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