Inline Centrifugal Fans for Round Duct

the ultimate in quality, quiet performance and cost efficiency





Fantech FR Series

Versatility and Value

Fantech's versatile FR Series fans feature a plastic housing constructed of UL-recognized, UV-protected thermoplastic resin. This tough protective shell allows the fan to be mounted in outdoor and wet locations.* Ideal for multiple point exhaust, dual bathroom exhaust, or new room additions, Fantech's FR Series fans are caulked at the motor screws, the wiring cables and along the seams of the fan to prevent moisture from entering the housing. Fantech's FR Series fans have long been the choice of residential builders and remodelers but now can be used for commercial projects with our recent UL commercial applications rating.

Easy to install Loaded with features

- Prewired and supplied with a mounting bracket for easy installation
- Available singularly with bracket or in a variety of kits for specific applications. Each kit includes the appropriate fan and accessories
- UL Listed; CSA Certified
- Approved for residential and commercial applications and for wet locations
- Suitable for airstream temperatures up to 140° F
- Easy connection using external wiring box with waterproof gasket
- •122-649 CFM
- •4" to 10" duct diameters
- 100% speed controllable
- Five-year factory warranty

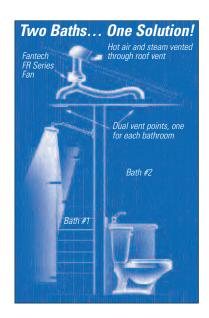
Kits are available for the following applications:

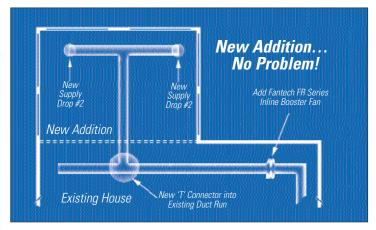
- Regular Kits (REG 100 and REG 140) for single point exhaust applications
- Deluxe Kits (DLX 110, DLX 150, and DLX 200) designed for dual point exhaust applications





Typical attic installation





* The FR Series is not manufactured to operate with water running through the motor compartment, or to be used in applications where the fan would be buried underground. A UL-recognized waterproof conduit should be used for all outdoor applications to prevent moisture entry via knockout in wiring box.

FR Kits

Pictured from left to right: DLX150 — Dual Point Ventilation Kit; REG100L — Single Vent Light Kit. Additional kits (not pictured) are available.





DLX150

REG100L

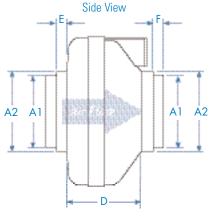
Top View

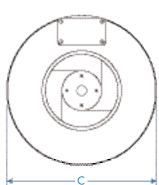
Specifications

FR Series Dimensional Data

| model | †A1 | A2 | С | D | Е | F |
|--------|-----|------|-------|-------|------|------|
| FR 100 | 4 | 5 | 91/2 | 61//8 | 7/8 | 7/8 |
| FR 110 | 4 | 5 | 9½ | 61/8 | 7/8 | 7/8 |
| FR 125 | _ | 5 | 91/2 | 61/8 | 7/8 | _ |
| FR 140 | 6 | 61/4 | 11¾ | 57/8 | 1 | 7/8 |
| FR 150 | 6 | 61/4 | 11¾ | 57/8 | 1 | 7/8 |
| FR 160 | 6 | 61/4 | 11¾ | 63/8 | 1 | 7/8 |
| FR 200 | 8 | 10 | 131⁄4 | 61/4 | 11/2 | 11/2 |
| FR 225 | 8 | 10 | 131⁄4 | 61/4 | 11/2 | 11/2 |
| FR 250 | _ | 10 | 131/4 | 61/4 | 1½ | _ |

All dimensions in inches. † Duct connections are 1/8" smaller than duct size.





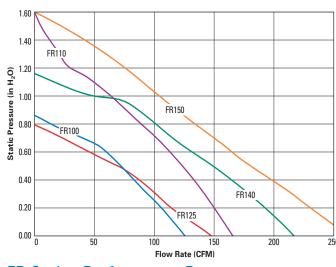


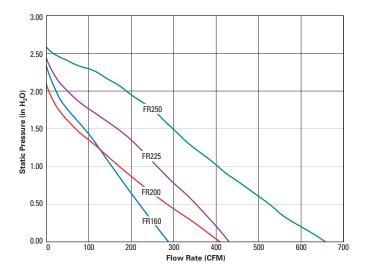






FR Series Air Performance Graphs





FR Series Performance Data

| Fan | Energy | DDAA | M. h | Rated | Wattage | Max. | | Sto | atic Pressi | ure in Inc | thes W.G | ; | | Max. | Duct |
|--------|----------|------|-------|------------|-----------|------|-----|-----|-------------|------------|----------|------|------|-------|------|
| Model | Star | RPM | Volts | Watts | Range | Amps | 0" | .2" | .4" | .6" | .8″ | 1.0" | 1.5" | Ps | Dia. |
| FR 100 | √ | 2900 | 115 | 19 | 13 – 19 | 0.18 | 122 | 100 | <i>7</i> 8 | 55 | 15 | _ | _ | 0.87" | 4" |
| FR 110 | _ | 2900 | 115 | 80 | 62 – 80 | 0.72 | 167 | 150 | 133 | 113 | 88 | 63 | 4 | 1.60" | 4" |
| FR 125 | √ | 2950 | 115 | 18 | 15 – 18 | 0.18 | 148 | 120 | 88 | 47 | _ | _ | _ | 0.79" | 5″ |
| FR 140 | √ | 2850 | 115 | 61 | 47 – 62 | 0.53 | 214 | 190 | 162 | 132 | 99 | 46 | _ | 1.15" | 6" |
| FR 150 | √ | 2750 | 120 | <i>7</i> 1 | 54 – 72 | 0.67 | 263 | 230 | 198 | 167 | 136 | 106 | 17 | 1.58" | 6" |
| FR 160 | _ | 2750 | 115 | 129 | 103 – 130 | 1.14 | 289 | 260 | 233 | 206 | 179 | 154 | 89 | 2.32" | 6" |
| FR 200 | √ | 2750 | 115 | 122 | 106 – 128 | 1.11 | 408 | 360 | 308 | 259 | 213 | 173 | 72 | 2.14" | 8″ |
| FR 225 | √ | 3100 | 115 | 137 | 111 – 152 | 1.35 | 429 | 400 | 366 | 332 | 297 | 260 | 168 | 2.48" | 8″ |
| FR 250 | _ | 2850 | 115 | 241 | 146 – 248 | 2.40 | 649 | 600 | 553 | 506 | 454 | 403 | 294 | 2.58" | 10" |

FR Series performance is shown with ducted outlet. Per HVI's Certified Ratings Program, charted air flow performance has been derated by a factor based on actual test results and the certified rate at .2 inches WG.



Hard working. Long lasting. Here's why:

- Galvanized steel housing features baked powdercoat finish, perfect for commercial code applications
- Powered by external rotor motorized impeller for excellent heat dissipation, even at low RPM
- UL Listed; CSA Certified
- Suitable for airstream temperatures up to 140° F
- 4" to 12" circular duct diameters
- Airflow from 117-801 CFM
- External rotor motor, Class B insulation for long and maintenance-free operation
- Automatic reset thermal overload protection
- Permanently lubricated sealed ball bearings
- True airfoil backward curved impeller
- External wiring box for ease of connection
- 100% speed controllable
- Five-year factory warranty



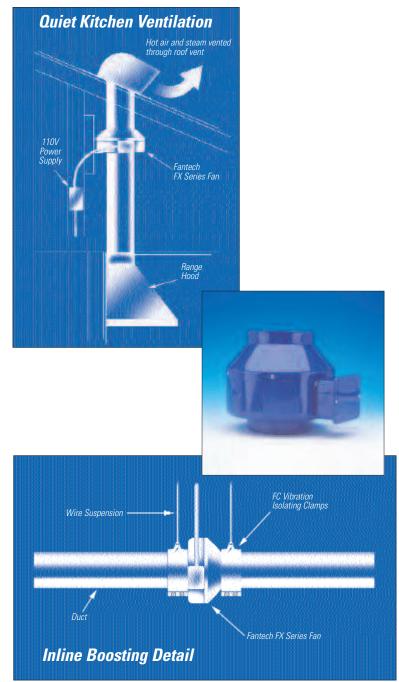
Fantech external rotor motor

Fantech FX Series

From Residential to Commercial

The Fantech FX Series' galvanized steel housing makes these fans ideal for various commercial code and residential applications. Home uses include range hood exhaust, duct boosting and bathroom exhaust. Office applications include intake, exhaust, filtration, return or makeup air systems that require mounting versatility, high efficiency, low sound levels, and ease of service.

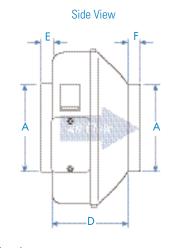
Fantech FX Series fans are a snap to install. Prewired and supplied with a mounting bracket, they can be mounted at any angle in any point along the ductwork. Straight-through airflow design also helps simplify installation. FX Series fans are designed to work with standard dimensions of spiral duct, eliminating the need for transition pieces.

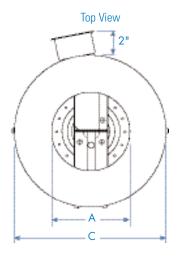


Specifications

FX Series Dimensional Data

| model | † _A | С | D | Е | F |
|---------|----------------|-------|------|-----|------|
| FX 4 | 4 | 8 | 5½ | 7/8 | 7/8 |
| FX 4xL | 4 | 9½ | 5½ | 7/8 | 3/4 |
| FX 5 | 5 | 8 | 51/4 | 7/8 | 7/8 |
| FX 5xL | 5 | 9½ | 5 | 7/8 | 1 |
| FX 6 | 6 | 11½ | 6 | 3/4 | 7/8 |
| FX 6xL | 6 | 131⁄4 | 61/2 | 1 | 3/4 |
| FX 8 | 8 | 131/4 | 61/4 | 1 | 7/8 |
| FX 8xL | 8 | 131⁄4 | 61/4 | 1 | 7/8 |
| FX 10 | 10 | 131/4 | 61/4 | 1 | 11/4 |
| FX 10xL | 10 | 131⁄4 | 61/4 | 1 | 11/4 |
| FX 12 | 12 | 16 | 81/4 | 1 | 11/4 |
| FX 12xL | 12 | 16 | 81/4 | 1 | 11/4 |

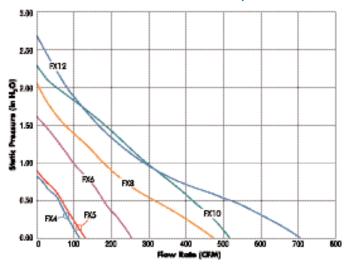


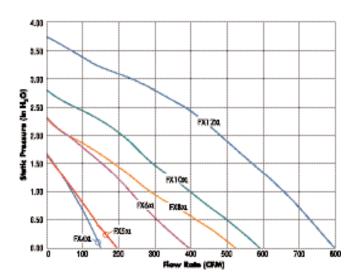




All dimensions in inches. † Duct connections are 1/8" smaller than duct size.

FX Series Air Performance Graphs





FX Series Performance Data (For sound performance data refer to publication #FX-0799)

| Fan | 5514 | v. l. | Max. | Max. | | Static Pressure in Inches W.G. | | | | | | | | Max. | Duct |
|---------|------|-------|-------|------|-------------|--------------------------------|------|-------|--------------|------|------|-------|--------------|-------|------|
| Model | RPM | Volts | Watts | Amps | 0" | .125" | .25" | .375" | .5" | .75" | 1.0" | 1.25" | 1.5" | Ps | Dia. |
| FX 4 | 2950 | 115 | 19 | 0.17 | 117 | 101 | 86 | 72 | 58 | _ | _ | | _ | 0.81" | 4" |
| FX 4xL | 2800 | 115 | 83 | 0.73 | 148 | 139 | 130 | 120 | 111 | 90 | 68 | 42 | _ | 1.65" | 4" |
| FX 5 | 2950 | 115 | 19 | 0.17 | 132 | 115 | 98 | 81 | 65 | _ | _ | _ | _ | 0.89" | 5" |
| FX 5xl | 2650 | 115 | 87 | 0.76 | 191 | 175 | 161 | 146 | 131 | 102 | 75 | 45 | _ | 1.61" | 5" |
| FX 6 | 2700 | 115 | 84 | 0.74 | 257 | 241 | 221 | 197 | 1 <i>7</i> 8 | 143 | 99 | 59 | _ | 1.60" | 6" |
| FX 6xL | 2950 | 115 | 147 | 1.26 | 392 | 368 | 346 | 326 | 305 | 263 | 228 | 191 | 150 | 2.27" | 6" |
| FX 8 | 2600 | 115 | 116 | 1.02 | 481 | 444 | 403 | 361 | 319 | 237 | 177 | 130 | 76 | 2.04" | 8″ |
| FX 8xL | 2950 | 115 | 152 | 1.31 | 521 | 496 | 469 | 440 | 411 | 345 | 282 | 231 | 180 | 2.29" | 8″ |
| FX 10 | 3000 | 115 | 147 | 1.27 | 521 | 499 | 475 | 448 | 418 | 357 | 293 | 234 | 1 <i>7</i> 6 | 2.28" | 10" |
| FX 10xl | 3000 | 115 | 242 | 2.11 | 590 | 565 | 541 | 519 | 496 | 442 | 394 | 339 | 290 | 2.79" | 10" |
| FX 12 | 2450 | 115 | 196 | 1.70 | <i>7</i> 11 | 675 | 627 | 576 | 521 | 382 | 284 | 220 | 166 | 2.65" | 12" |
| FX 12xL | 3250 | 115 | 373 | 3.21 | 801 | 783 | 765 | 747 | 729 | 692 | 655 | 611 | 566 | 3.69" | 12" |

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Fanten, Inc. certifies that the FX 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 311 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Performance shown is for installation type D - Ducted 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 in the airstream.



FYI: FKD's performance features:

- Galvanized steel housing features baked powdercoat finish
- External rotor motor with built-in thermal overload protection and automatic reset
- UL Listed
- Suitable for airstream temperatures up to 140° F
- Permanently lubricated sealed ball bearings
- 100% speed controllable for highly efficient and economical airflow
- Airflow up to 6291 CFM
- Terminal box with prewired electrical strip
- Mixed flow impeller
- Excellent heat dissipation to ensure long motor life
- Three-year warranty



Fantech's FKD external rotor motor — built to last.

Fantech FKD Series

Inline Mixed Flow Duct Fans

With Fantech's FKD Series fans, "going with the flow" has never been easier. These fans are specifically designed to bridge the transition between centrifugal and axial by combining the high flow of axial designs with the higher pressure, non-overloading characteristics of backward curved impellers. Fantech's "The Straight Way" inline designs minimize system losses while being extremely compact.

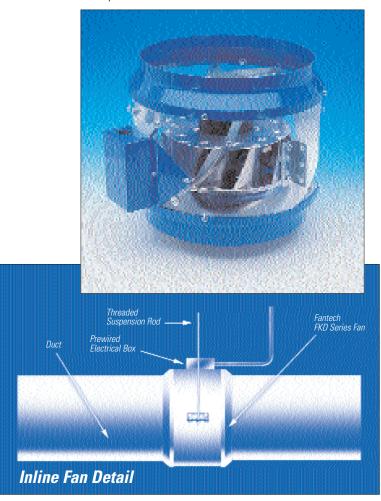
The round inline design keeps air moving in ductwork sized from 8" to 20". 100% speed controllability gives extreme flexibility where there is need for varying airflow.

The lightweight, compact design FKD Series fans mount at any angle, at any point along the ductwork.

A balancing act that's easy to perform

With FKD Series fans, system balancing is achieved by measuring the system flow or pressure and adjusting the fan performance by "dialing in" or setting the fan speed using inexpensive solid state speed controls, transformers or VFDs. Direct drive eliminates the need for continuous belt alignment, tension adjustment and ongoing maintenance.

Transparent view of a FKD 10



Specifications

FKD Series Dimensional Data

Side View – FKD12xL E A C A2 A1 E D

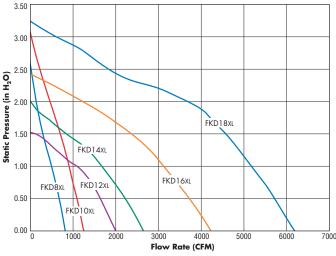
| model | Α | С | D | E |
|----------|----|-----|-----|---|
| FKD 8xL | 8 | 12½ | 15½ | 7 |
| FKD 10 | 10 | 12½ | 12½ | 7 |
| FKD 10xL | 10 | 14 | 15 | 8 |
| FKD 12s | 12 | 12½ | 10 | 7 |
| FKD 12 | 12 | 14 | 12½ | 8 |
| FKD 14s | 14 | 14 | † | 8 |

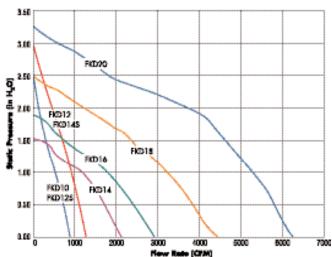
All dimensions in inches. † FKD 14s overall length is 8".

| model | Α | A1 | A2 | С | D | Е | F |
|----------|----|----|----|-------|-------|------|------|
| FKD 12xL | 12 | 12 | 14 | 171/8 | 187/8 | 7/8 | 15/8 |
| FKD 14 | 14 | 12 | 14 | 171/8 | 171/4 | 1 | 15/8 |
| FKD 14xL | 14 | 14 | 16 | 19¾ | 201/4 | 11/2 | 11/8 |
| FKD 16 | 16 | 14 | 16 | 19¾ | 18¾ | 11/2 | 15/8 |
| FKD 16xL | 16 | 16 | 18 | 221/8 | 231/4 | 11/4 | 15/8 |
| FKD 18 | 18 | 16 | 18 | 221/8 | 21¾ | 11/4 | 15/8 |
| FKD 18xL | 18 | 18 | 20 | 281/4 | 291/4 | 2 | 13/4 |
| FKD 20 | 20 | 18 | 20 | 281/4 | 271/4 | 2 | 13/4 |

All dimensions in inches

FKD Air Performance Graphs





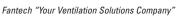
FKD Series Performance Data (For sound performance data refer to publication #FKD-0803 and FKD-1100/2)

| Fan | | | Max. | Max. | | Static Pressure in Inches W.G. | | | | | | | | Max. | Duct | | |
|----------|------|-------|-------|--------------------|------|--------------------------------|-------------|-------|-------------|------|------|-------|-------------|------|-------|------|--------------|
| Model | RPM | Volts | Watts | Amps | 0" | .125" | .25" | .375" | .5" | .75" | 1.0" | 1.25" | 1.5" | 2.0" | Ps. | Dia. | †Sones |
| FKD 8xl | 2700 | 115 | 327 | 2.991 | 836 | 799 | <i>7</i> 61 | 720 | 680 | 595 | 499 | 393 | 286 | _ | 2.59" | 8″ | 14.1 |
| FKD 10 | 2700 | 115 | 329 | 3.011 | 910 | 873 | 836 | 795 | 752 | 653 | 547 | 432 | 342 | _ | 2.60" | 10" | 15.3 |
| FKD 10xL | 2850 | 115 | 529 | 4.842 | 1266 | 1226 | 1187 | 1147 | 1100 | 1006 | 911 | 810 | 696 | 460 | 3.08" | 10" | 21 |
| FKD 12s | 2700 | 115 | 323 | 2.951 | 930 | 889 | 848 | 804 | <i>75</i> 8 | 657 | 550 | 443 | 343 | _ | 2.54" | 12" | 15.2 |
| FKD 12 | 2900 | 115 | 531 | 4.862 | 1305 | 1266 | 1228 | 1189 | 1145 | 1054 | 948 | 833 | <i>7</i> 12 | 479 | 3.08" | 12" | 23 |
| FKD 12xL | 1700 | 115 | 500 | 4.802 | 2016 | 1920 | 1832 | 1746 | 1649 | 1423 | 1066 | 606 | _ | _ | 1.52" | 12" | 18. <i>7</i> |
| FKD 14s | 2900 | 115 | 525 | 4.812 | 1305 | 1261 | 1218 | 1174 | 1125 | 1025 | 923 | 814 | <i>7</i> 03 | 469 | 3.12" | 14" | 23 |
| FKD 14 | 1700 | 115 | 495 | 4.76 ² | 2156 | 2061 | 1965 | 1868 | 1764 | 1520 | 1193 | 623 | _ | _ | 1.52" | 14" | 18.4 |
| FKD 14xL | 1550 | 115 | 738 | 7.12 ² | 2619 | 2517 | 2416 | 2303 | 2180 | 1936 | 1662 | 1294 | 843 | _ | 1.94" | 14" | 19.0 |
| FKD 16 | 1600 | 115 | 742 | 6.392 | 2952 | 2831 | 2707 | 2580 | 2445 | 2144 | 1804 | 1306 | 774 | _ | 1.90" | 16" | 18.5 |
| FKD 16xL | 1600 | 115 | 1421 | 12.40 ³ | 4274 | 4144 | 4014 | 3880 | 3743 | 3452 | 3137 | 2794 | 2379 | 1242 | 2.42" | 16" | 25 |
| FKD 18 | 1600 | 115 | 1411 | 12.04 ³ | 4448 | 4992 | 4130 | 3991 | 3871 | 3583 | 3239 | 2843 | 2380 | 1231 | 2.51" | 18" | 24 |
| FKD 18xL | 1700 | 460/3 | 2208 | 3.75 | 6236 | 6115 | 5995 | 5874 | 5754 | 5500 | 5199 | 4909 | 4602 | 3703 | 3.24" | 18" | 32 |
| FKD 20 | 1750 | 460/3 | 2218 | 3.73 | 6291 | 6174 | 6054 | 5933 | 5829 | 5617 | 5307 | 4987 | 4667 | 3757 | 3.27" | 20" | 33 |

Performance shown is for installation type D - Ducted 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 in the airstream. † The sound ratings shown are loudness values in fan sones at 5ft. (1.5m) in hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type D: ducted inlet fan sone levels. Ratings do not include the effect of duct end correction. All sone values shown are calculated at 0.5" (static pressure in inches W.G.).

Note: Three phase motors are wound for 230/460 volt. Motors are prewired for 460 volts but may be delivered as 230 volt or may be rewired in the field.

Recommended speed control rating 5A. Recommended speed control rating 10A. Recommended speed control rating 15A.



SOUND

Fantech, Inc. certifies that the FKD Series

that the KRD Serio 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 211 and comply with the requirements of the AMCA Contribution of the AMCA Contribution of the AMCA Contribution of the AMCA Contribution of the AMCA Certified Ratings Program.

Inlet and Exhaust Accessories Adjustable Metal Grills–MGE Adjustable Plastic Grills–PGE Designer Grills-DG Soffit Vent-UEV Adjustable Supply Grills—PGS Roof Caps-RC Vent Light Combination Grill-VLC ▲ Intake Guards—IG Louvered Shutters-VK & HS