



Hart & Cooley[®]
install confidence

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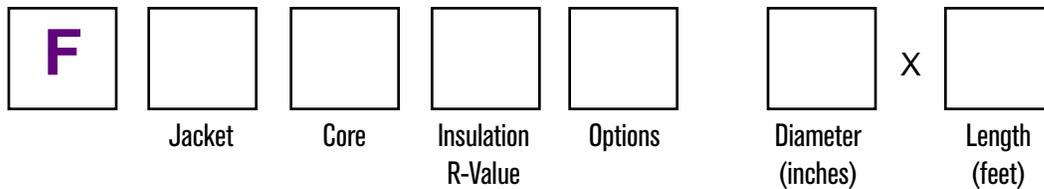
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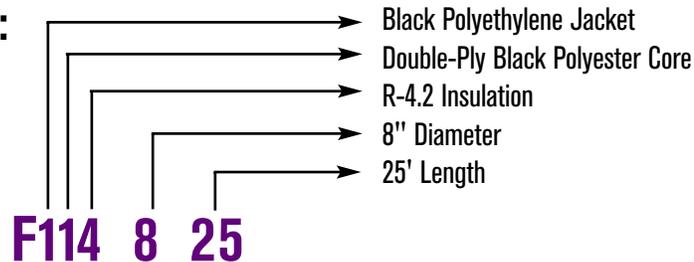
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MODEL SELECTOR



| Jacket | Core | Insulation | Options |
|--|--|---------------------|----------------------------|
| 0- No Jacket | 0- No Core | 0- No Insulation | CP- Compressed |
| 1- Black Polyethylene Jacket | 1- Double-Ply Black Polyester Core | 4- R-4.2 Insulation | UCP- Uncrimped, Compressed |
| 2- Metalized Polyester Jacket | 4- Corrugated Aluminum Core | 6- R-6.0 Insulation | |
| 3- Heavy-Duty (4 mil.) Black Polyethylene Jacket | 9- Double-Ply Metalized/Polyester Core | 8- R-8.0 Insulation | |

How to Order:



Product Information

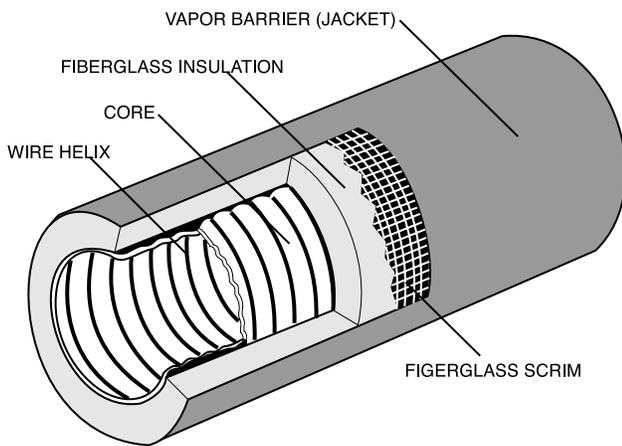
Our flexible duct products come in a variety of styles and constructions and provide the most economical solution to your air handling needs.

POLYETHYLENE JACKET AIR DUCTS. These offer a durable, scuff-resistant black polyethylene vapor barrier which provides improved protection against damaging ultra-violet light. Installation is made easy with the reinforcing fiberglass yarn scrim which acts as a rip-stop and helps prevent tearing. These air ducts feature an R-value of 4.2, 6.0 or 8.0 to fit any application and also come in special configurations especially designed for manufactured homes.

METALIZED JACKET AIR DUCTS. Providing the ultimate in strength and protection, metalized polyester vapor barriers are reinforced with fiberglass scrim to provide high durability and tear resistance. The fiberglass insulation furnishes outstanding thermal protection with R-values of 4.2, 6.0 or 8.0. The metalized jacket air duct and sleeves are available with either a two-ply black polyester core or triple-ply aluminum foil/polyester laminate cores that encapsulate a high carbon steel wire helix.

ECONOMICAL AIR DUCT CONNECTORS. Designed for high pressure applications, air duct connectors come with a double-ply construction utilizing either metalized/polyester laminate encapsulating a high carbon steel wire helix or corrugated aluminum for strength and durability.

Flex Duct Construction



UL LISTED. Hart & Cooley flexible air ducts and air connectors have been rigorously tested by Underwriters Laboratories, Inc. in accordance with UL 181, The Standard for Safety for Factory-Made Air Ducts and Air Connectors. UL is a not-for-profit laboratory with an outstanding reputation for fire safety and performance testing. Make sure that the flexible duct you buy bears this UL mark.



ADC CERTIFIED R-VALUES. All Hart & Cooley insulated flexible air ducts are certified by the Air Diffusion Council for thermal performance in accordance with the ADC Flexible Duct Performance & Installation Standards (1996). Certified R-values are essential to ensure that the product you buy meets the many regulatory energy codes. Only ADC certified products will bear this ADC thermal certification marking.



CODE APPROVALS. All Hart & Cooley flexible duct products meet or exceed the requirements of most federal, state, and local mechanical and energy codes. Hart & Cooley flexible duct complies with The Standard Mechanical Code (SBCCI), the National Mechanical Code (BOCA), the Uniform Mechanical Code (ICBO), NFPA 90A and 90B, HUD, and the Florida Energy Code, just to name a few. Be certain that the duct you are buying meets these stringent codes.

OUTSTANDING PERFORMANCE. All Hart & Cooley flexible duct products are performance tested in accordance with industry standards to ensure reliability and years of service. Our core is tested (in accordance with ADC FD 72-R1) for *actual installation* static pressure/temperature performance and meets the ratings specified in our catalog. The vapor barriers are tested for permeance in accordance with ASTM test methods. Call-backs are expensive and eat away at your profits, so use flexible duct you know has been performance-tested.

INDUSTRY INVOLVEMENT. Hart & Cooley is committed to the flexible duct industry and supports it through involvement in many industry-related associations, committees, and organizations. Participation in ADC and UL's industry advisory council for UL 181 allows Hart & Cooley to stay at the forefront of industry changes. You need a manufacturer of flexible duct who is involved in the industry to protect your interests.



TEN-YEAR WARRANTY. All Hart & Cooley Flexible Duct products are protected by the industry's strongest warranty. Our flexible ducts are warranted to be free of defects in material and workmanship for ten (10) years from the date of shipment. (Contact Hart & Cooley, Inc. for full details.)

BLACK POLYESTER CORE

- Rated pressure per UL 181: 10" W.C. positive, 1/2" W.C. negative
- Recommended maximum operating pressure: 6" W.C. positive for 12" diameter and under 4" W.C. positive for 14" diameter and over
- Rated maximum air velocity: 4000 fpm

METALIZED POLYESTER CORE

- Rated pressure per UL 181: 16" W.C. positive, 1/2" W.C. negative
- Recommended maximum operating pressure: 6" W.C. positive for 12" diameter and under 4" W.C. positive for 14" diameter and over
- Rated maximum air velocity: 6000 fpm

CORRUGATED ALUMINUM CORE

- Maximum rated pressure per UL 181: 3" W.C. maximum positive 3" W.C. maximum negative
- Rated maximum air velocity: 5000 fpm

INSULATION R-VALUES

- Certified by Underwriters Laboratories Inc. and the Air Diffusion Council in accordance with ADC Flexible Duct Performance and Installation Standards using ASTM C-518 at installed wall thickness on flat insulation only

POLYETHYLENE JACKETS

- A durable black polyethylene vapor barrier provides improved protection against ultra violet light

- High tensile scrim is used under the vapor barrier to provide additional strength and tear resistance
- Perm rating of 0.1 (ASTM E96 Method "A")

METALIZED JACKETS

- A metalized polyester vapor barrier is constructed by sandwiching fiberglass scrim between layers of polyester to provide an outstanding combination of strength and tear resistance
- Perm rating of 0.04 (ASTM E96 Method "A")

SURFACE BURNING CHARACTERISTICS (Class 1 Air Ducts)

- Maximum flame spread: 25
- Maximum smoke developed: 50

OPERATING TEMPERATURE RANGE

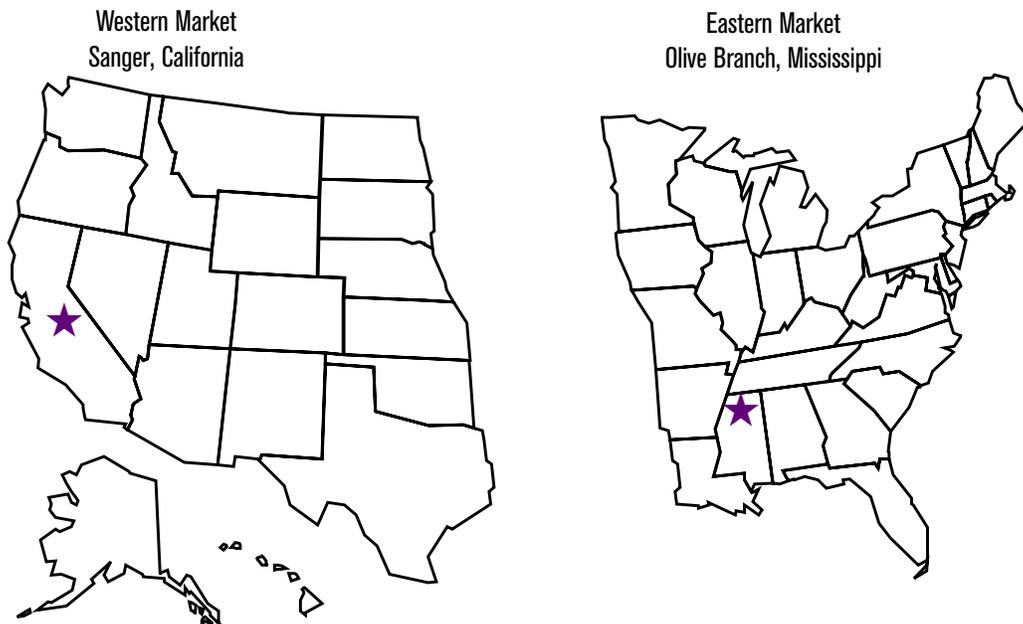
- -20°F to 140°F continuous @ max. Pos. pressure
- -20°F to 180°F intermittent @ 2" W.C. Pos. pressure
- -20°F to 250°F intermittent @ 0.5" W.C. Pos. pressure

APPROVALS

- UL 181
- NFPA 90A and 90B
- HUD
- City of Los Angeles
- California Bureau of Home Furnishings
- Most Federal, State and Local codes and standards

Distribution Centers

Some products available only in the Western Market, are identified within as "*" **For Western Markets Only.**"



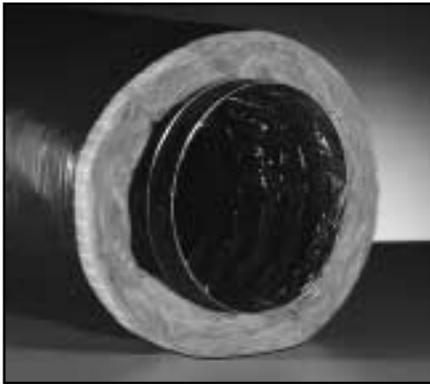
(Class 1) Polyethylene Jacket Flexible Air Ducts



F114

- Black polyethylene jacket
- Double-ply black polyester core
- R-4.2
- UL-listed
- Boxed or bagged (FB series)
- 25' and 50' lengths

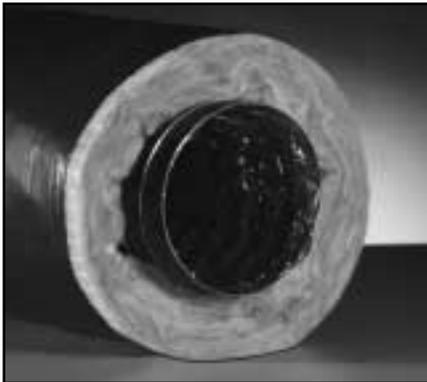
| Model | Length (ft) | Diameter (Inches) | | | | | | | | | | | | |
|-------|-------------|-------------------|---|---|---|---|---|---|----|----|----|----|----|----|
| F114 | 25 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 |
| FB114 | 25 | - | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 |
| F114 | 50 | - | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | - | - | - | - |



F116

- Black polyethylene jacket
- Double-ply black polyester core
- R-6.0
- UL-listed
- Boxed or bagged (FB series)
- 25' length

| Model | Length (ft) | Diameter (Inches) | | | | | | | | | | | | |
|-------|-------------|-------------------|---|---|---|---|---|---|----|----|----|----|----|----|
| F116 | 25 | - | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 |
| FB116 | 25 | - | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 |



F118

- Black polyethylene jacket
- Double-ply black polyester core
- R-8.0
- UL-listed
- Boxed
- 25' and 50' lengths

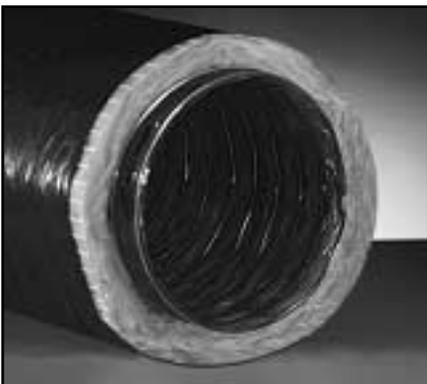
| Model | Length (ft) | Diameter (Inches) | | | | | | | | | | | | |
|-------|-------------|-------------------|---|---|---|---|---|---|----|----|----|----|----|---|
| F118 | 25 | - | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | |
| F118 | 50 | - | - | - | 6 | - | 8 | - | - | - | - | - | - | - |



F194

- Black polyethylene jacket
- High pressure core, 16" W.C. positive
- Double-ply metalized/polyester foil core
- R-4.2
- UL-listed
- Boxed
- 25' length

| Model | Length (ft) | Diameter (Inches) | | | | | | | | | | | | |
|-------|-------------|-------------------|---|---|---|---|---|---|----|----|----|----|----|----|
| F194 | 25 | - | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 |



F314/F318 (Manufactured Home) Class 1 Air Duct

- Heavy-duty 4 mil. black polyethylene jacket
- Double-ply black polyester core
- R-4.2 F314, R-8.0 F318
- UL-listed
- For indoor and outdoor applications
- 25' length
- Boxed

| Model | Length (ft) | Diameter (Inches) | | | | | | | | | | | | |
|-------|-------------|-------------------|---|---|---|---|---|---|----|----|----|---|---|---|
| F314 | 25 | - | - | 5 | 6 | - | 8 | - | 10 | 12 | 14 | - | - | - |
| F318 | 25 | - | - | - | - | - | - | - | 10 | 12 | 14 | - | - | - |



F144

- Black polyethylene jacket
- Corrugated aluminum core
- R-4.2
- UL-listed
- Boxed
- Available in 6' and 7-1/2' lengths

| Model | Length (ft) | Diameter (Inches) | | | | | | | | | | | | | | |
|-------|-------------|-------------------|----------------|---|---|---|---|---|----|----|----|----|----|----|-----------------|-----------------|
| *F144 | 6 | - | 4 [†] | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 | 22 [†] | 24 [†] |
| *F144 | 7-1/2 | - | 4 [†] | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 | 22 [†] | 24 [†] |

[†]Not UL Listed

(Class 1) Metalized Jacket Flexible Air Ducts



F214

- Metalized polyester jacket reinforced with fiberglass scrim
- Double-ply black polyester core
- R-4.2
- UL-listed
- Boxed or bagged (FB series)
- 25' and 50' lengths

| Model | Length (ft) | Diameter (Inches) | | | | | | | | | | | | |
|-------|-------------|-------------------|---|---|---|---|---|---|----|----|----|----|----|----|
| F214 | 25 | - | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 |
| FB214 | 25 | - | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 |
| F214 | 50 | - | - | 5 | 6 | 7 | 8 | 9 | 10 | 12 | - | - | - | - |



F216

- Metalized polyester jacket reinforced with fiberglass scrim
- Double-ply black polyester core
- R-6.0
- UL-listed
- Boxed or Bagged (FB Series)
- 25' length

| Model | Length (ft) | Diameter (Inches) | | | | | | | | | | | | |
|-------|-------------|-------------------|---|---|---|---|---|---|----|----|----|----|----|----|
| F216 | 25 | - | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 |
| FB216 | 25 | - | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 |



F218

- Metalized polyester jacket reinforced with fiberglass scrim
- Double-ply black polyester core
- R-8.0
- UL-listed
- Boxed
- 25' length

| Model | Length (ft) | Diameter (Inches) | | | | | | | | | | | | |
|-------|-------------|-------------------|---|---|---|---|---|---|----|----|----|----|----|----|
| F218 | 25 | - | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 18 |



F294

- Metalized polyester jacket reinforced with fiberglass scrim
- High pressure core, 16" W.C. positive
- Double-ply metalized/polyester core
- R-4.2
- UL-listed
- Boxed
- 25' length

| Model | Length (ft) | Diameter (Inches) | | | | | | | | | | | | |
|-------|-------------|-------------------|---|---|---|---|---|---|----|----|----|----|----|----|
| F294 | 25 | - | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 |



**AlumiFlex™
F040CP**

- Sturdy corrugated aluminum construction
- Bulk packaged
- Class 0 air connector
- One end crimped, compressed

| Model | Length (ft) | Diameter (Inches) | | | | | | | | | | | | | | |
|---------|-------------|-------------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----|-----------------|-----------------|
| *F040 | 6 | - | 4 [†] | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 | 22 [†] | 24 [†] |
| *F040 | 7-1/2 | - | 4 [†] | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 | 22 [†] | 24 [†] |
| F040CP | 8 | 3 [†] | 4 [†] | 5 [†] | 6 [†] | 7 [†] | 8 [†] | 9 [†] | 10 [†] | 12 [†] | 14 [†] | 16 [†] | 18 [†] | - | - | |
| F040UCP | 8 | 3 [†] | 4 [†] | 5 [†] | 6 [†] | 7 [†] | 8 [†] | 9 [†] | 10 [†] | 12 [†] | 14 [†] | 16 [†] | 18 [†] | - | - | |

Other sizes available upon request

[†]Not UL-listed



F040UCP

- Uncrimped, compressed



F040

- Male/Female collars, uncompressed
- UL-listed air duct



F090

- Double-ply metalized/polyester
- UL and CUL listed
- Bulk packaged
- 25' length
- Class 1 air connector

| Model | Length (ft) | Diameter (Inches) | | | | | | | | | | | | |
|-------|-------------|-------------------|---|---|---|---|---|---|----|----|----|----|----|----|
| F090 | 25 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 |



F104/F106/F108

- Black polyethylene jacket
- R-4.2 F104, R-6.0 F106, R-8.0 F108 (R-values valid if sleeve is used on relatively sized duct)
- UL listing not required
- 5' length
- Starter cone included in each carton

| Model | Length (ft) | Diameter (Inches) | | | | | | | | | | | | |
|-------|-------------|-------------------|---|---|---|---|---|---|----|----|----|----|---|---|
| F104 | 5 | - | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | - | - |
| F106 | 5 | - | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | - | - |
| F108 | 5 | - | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | - | - |



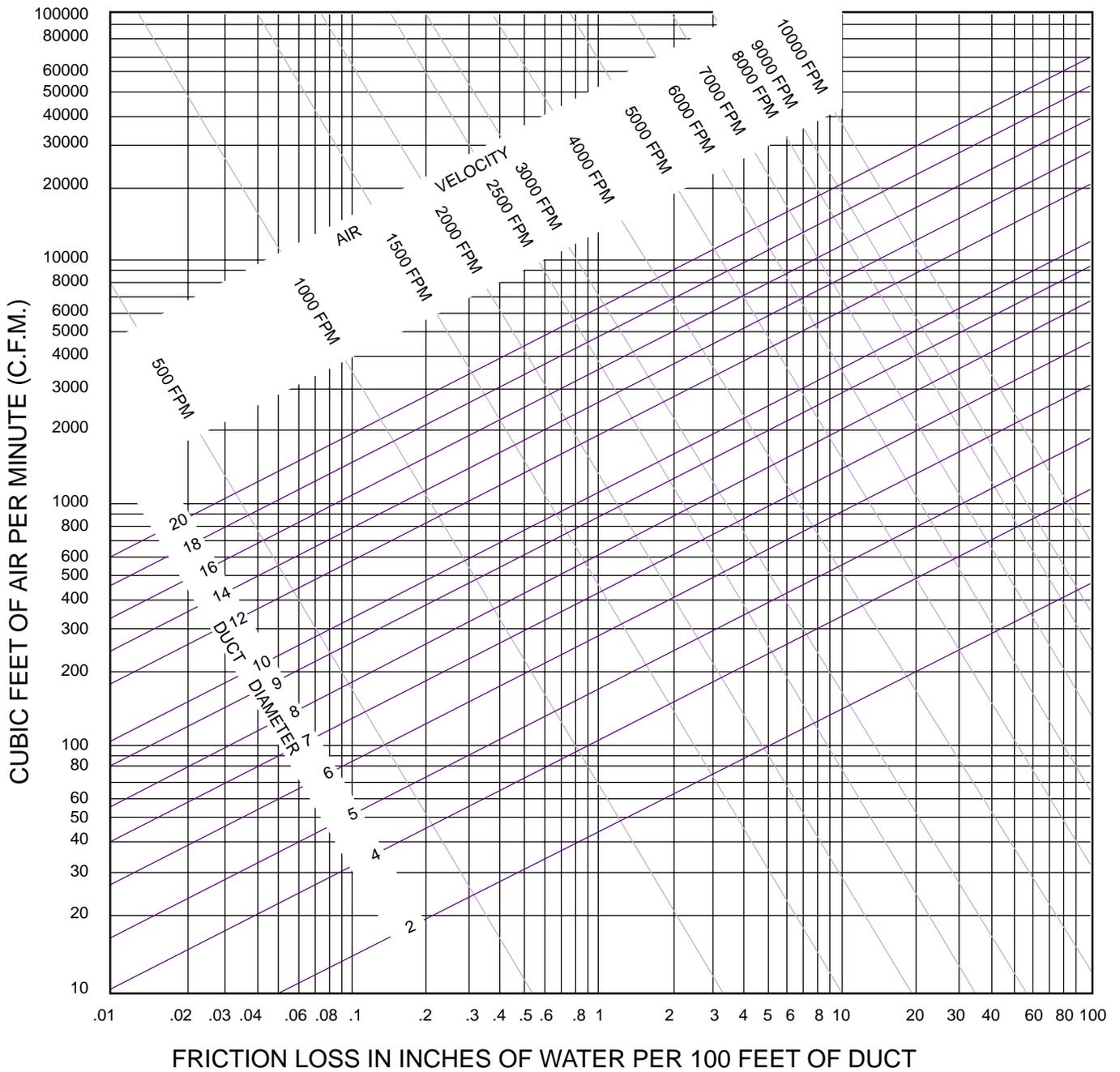
F204/F206/F208

- Metalized polyester jacket
- R-4.2 F204, R-6.0 F206, R-8.0 F208 (R-values valid if sleeve is used on relatively sized duct)
- UL listing not required
- 5' length
- Starter cone included in each carton

| Model | Length (ft) | Diameter (Inches) | | | | | | | | | | | | |
|-------|-------------|-------------------|---|---|---|---|---|---|----|----|----|----|---|---|
| F204 | 5 | - | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | - | - |
| F206 | 5 | - | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | - | - |
| F208 | 5 | - | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | - | - |

Air Friction Chart

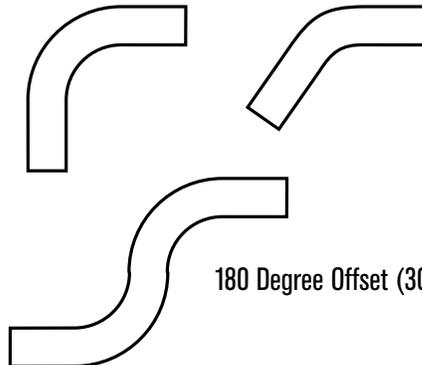
Air Friction Chart



Approximate Dynamic Loss Coefficients
 Numerals indicate Equivalent Feet of Straight Duct.

90 Degree Bend (10')

45 Degree Bend (5')



180 Degree Offset (30')