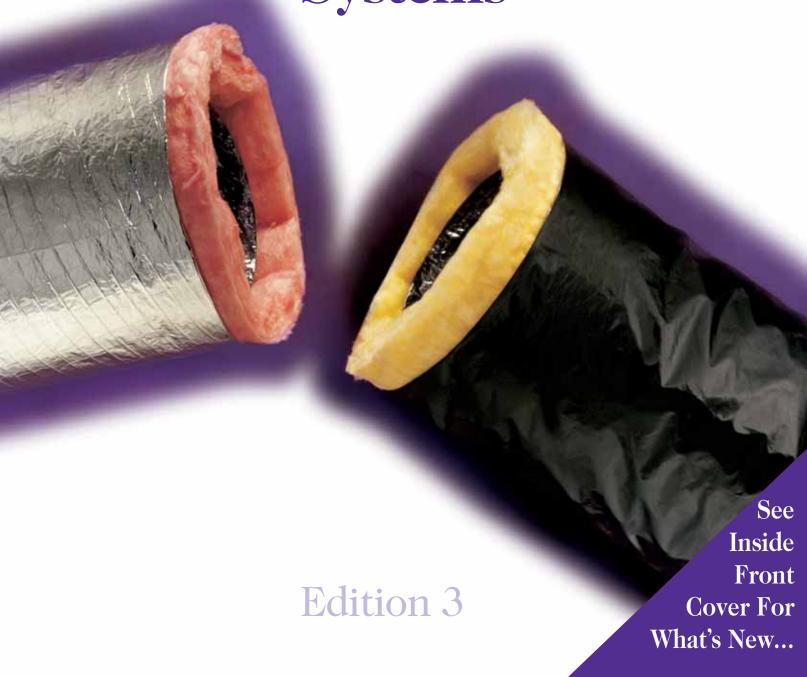


Flexible Duct Systems





Hart & Cooley, Inc. 5030 Corporate Exchange Blvd. SE 616.656.8200 p Grand Rapids, MI 49512 800.223.8461 f info@harteool.com www.hartandcooley.com

800.433.6341 p 616.656.6399 f

Order information:

To order Hart & Cooley products, please contact any authorized Hart & Cooley distributor or call 800.433.6341.

When you purchase Hart & Cooley products, you also receive the full support of Hart & Cooley technical and customer service.

Technical and customer service:

800.433.6341 toll-free 616.656.8200 phone 800.223.8461 toll-free fax 616.656.6399 fax

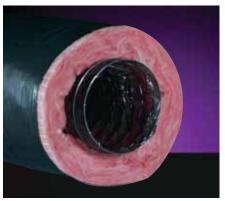
Internet address:

http://www.hartandcooley.com

Install confidence with these other quality Hart & Cooley products available:

- · Registers, Grilles & Diffusers
- Type B Gas Vent Systems
- Special Gas Vent
- · Model TLC All-Fuel Chimney
- Duct System Components

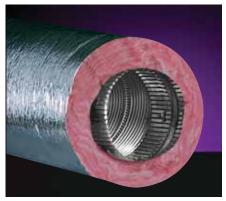
What's New...



FB118 page 4



FB218 page 6

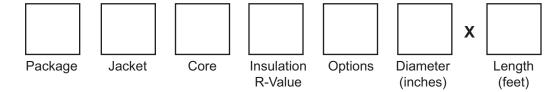


F246 page 6



FLEXIBLE DUCT SYSTEMS	Page
MODEL SELECTOR	1
PRODUCT INFORMATION	2
PERFORMANCE DATA	3
DISTRIBUTION CENTERS	3
AIR DUCTS, POLYETHYLENE JACKET	4-5
AIR DUCTS, METALIZED JACKET	6
AIR CONNECTORS AND SLEEVES	7
ACCESSORIES	8
AIR FRICTION CHART	8

MODEL SELECTOR



Package

F-Boxed

FB - Bagged

Jacket

- 0 No Jacket
- 1 Black Polyethylene Jacket
- 2 Metalized Polyester Jacket
- 3 Heavy-Duty (4 mil.) Black Polyethylene Jacket

Core

- 0 No Core
- 1 Double-Ply Black Polyester Core
- 4 Corrugated Aluminum Core
- 9 Double-Ply Metalized/ Polyester Core

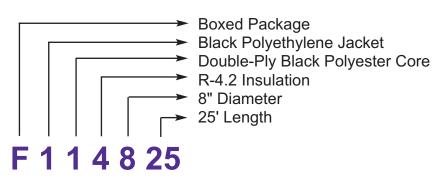
Insulation

- 0 No Insulation
- 4 R-4.2 Insulation
- 6 R-6.0 Insulation
- 8 R-8.0 Insulation

Options

- CP Compressed
- UCP Uncrimped, Compressed

How to Order:



Disclaimer: We reserve the right to make changes in the products, product specifications, packaging and to discontinue product without notice.

Product Information



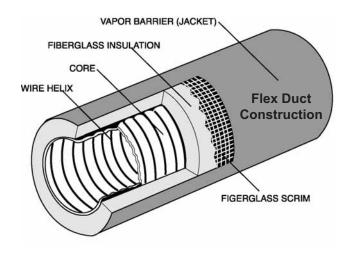
Our flexible duct products come in a variety of styles and constructions, and provide the most economical solution to your air-handling needs.

POLYETHYLENE JACKET AIR DUCTS. These offer a durable, scuff-resistant black polyethylene vapor barrier that provides improved protection against damaging ultraviolet 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.



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



Thermal Performanc

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 International Mechanical Code (IMC), the Uniform Mechanical Code (UMC), 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 permeation in accordance with ASTM test methods. Callbacks 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 warranteed 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.)

MEMBER

Performance Data



BLACK POLYESTER CORE

- Rated pressure per UL 181: 10" W.C. positive, ½" 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, ½" 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:
 12" W.C. positive for 10" diameter and under
 8" W.C. positive for 12" diameter and over
 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
- 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 California, are identified within as For California Only.



Polyethylene Jacket Flexible Air Ducts

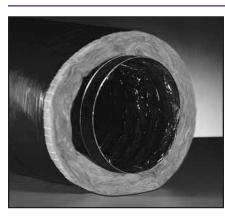




F114 / FB114

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

Model	Length (feet)					Dia	met	ter (inch	nes)				
F114	25	3	4	5	6	7	8	9	10	12	14	16	18	20
FB114	25	ı	4	5	6	7	8	9	10	12	14	16	18	20
F114	50	_	4	5	6	7	8	9	10	12	_	_	_	_



F116 / FB116

- Black polyethylene jacket
- Double-ply black polyester core
- R-6.0
- UL-listed
- Boxed or bagged (FB series)
- 25' and 50' lengths

Model	Length (feet)					Dia	met	ter (inch	nes)				
F116	25	ı	4	5	6	7	8	9	10	12	14	16	18	20
FB116	25	ı	4	5	6	7	8	9	10	12	14	16	18	20
F116	50	_	_	5	6	7	8	9	10	_	_	_	_	_



F118 / FB118

- Black polyethylene jacket
- Double-ply black polyester core
- R-8.0
- UL-listed
- Boxed or bagged (FB series)
- 25' and 50' lengths

Model	Length (feet)					Dia	met	ter (inch	nes)				
F118	25	١	4	5	6	7	8	9	10	12	14	16	18	20
FB118	25	_	4	5	6	7	8	9	10	12	14	16	18	_
F118	50	_	_	_	6	7	8	_	_	_	_	_	_	_



F194

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

Model	Length (feet)					Dia	met	ter (inch	nes)				
F194	25	ı	4	5	6	7	8	9	10	12	14	16	18	20

Polyethylene Jacket Flexible Air Ducts





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
- 25' length
- Boxed

ı	Model	Length (feet)					Dia	me	ter (inch	nes)				
	F314	25	ı	4	5	6	_	8	_	10	12	14	_	_	_
	F318	25	_	_	_	_	_	_	_	10	12	14	_	_	_



F144

- Black polyethylene jacket
- Corrugated aluminum core
- R-4.2
- UL-listed
- Available in 6' and 7½' lengths

Model	Length (feet)					D	iam	etei	r (in	che	s)				
F144*	6	4 [†]	5	6	7	8	9	10	12	14	16	18	20	22 [†]	24 [†]
F144*	7½	4 [†]	5	6	7	8	9	10	12	14	16	18	20	22 [†]	24^{\dagger}

*For California Only

[†]Not UL-listed



F146

- Black polyethylene jacket
- Corrugated aluminum core
- R-6.0
- UL-listed
- Available in 6' and 71/2' lengths

Model	Length (feet)					D	iam	ete	r (in	che	s)				
F146*	6	4†	5	6	7	8	9	10	12	14	16	18	20	22 [†]	24 [†]
F146*	7½	4^{\dagger}	5	6	7	8	9	10	12	14	16	18	20	22 [†]	24 [†]

*For California Only

[†]Not UL-listed

Metalized Jacket Flexible Air Ducts





F214 / FB214

- Metalized polyester jacket reinforced with fiberglass scrim
- Double-ply black polyester core
- R-4.2

	 liste	

- Boxed or bagged (FB series)
- 25' and 50' lengths

Model	Length (feet)					Dia	met	er (inch	nes)				
F214	25	3	4	5	6	7	8	9	10	12	14	16	18	20
FB214	25	ı	4	5	6	7	8	9	10	12	14	16	18	20
F214	50	-	4	5	6	7	8	9	10	12	_	_	_	_



F216 / FB216

- Metalized polyester jacket reinforced with fiberglass scrim
- Double-ply black polyester core
- R-6.0

- UL-listed
- Boxed or bagged (FB Series)
- 25' and 50' lengths

Model	Length (feet)					Dia	met	ter (inch	nes)				
F216	25	ı	4	5	6	7	8	9	10	12	14	16	18	20
FB216	25	ı	4	5	6	7	8	9	10	12	14	16	18	20
F216	50	ı	4	5	6	7	8	9	10	_	_	_	_	_



F218 / FB218

- Metalized polyester jacket reinforced with fiberglass scrim
- Double-ply black polyester core
- R-8.0
- UL-listed
- Boxed or bagged (FB series)
- 25' length

Model	Length (feet)					Dia	met	er (inch	nes)				
F218	25	3	4	5	6	7	8	9	10	12	14	16	18	20
FB218	25	3	4	5	6	7	8	9	10	12	14	16	18	_



F246

- Metalized polyester jacket
- Corrugated aluminum core
- R-6.0

•	UL	lis	te	ed	

- Available in 6' and 7½' lengths
- Model Length (feet) Diameter (inches) 18 20 22[†] 24[†] F246* 6 5 6 10 12 14 16 71/2 4† 5 6 10 F246* 12 14 16 18 20 22[†] 24[†]

†Not UL-listed



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 (feet)
 Diameter (inches)

 F294
 25
 4
 5
 6
 7
 8
 9
 10
 12
 14
 16
 18
 20

^{*}For California Only

Air Connectors and Sleeves





AlumiFlex™ F040CP

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



F040UCP• Uncrimped, compressed



F040

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

Model	Length (feet)		Diameter (inches)													
F040*	6	_	4⁺	5	6	7	8	9	10	12	14	16	18	20	22 [†]	24 [†]
F040*	7½	_	4⁺	5	6	7	8	9	10	12	14	16	18	20	22 [†]	24^{\dagger}
F040CP	8	3^{\dagger}	4^{\dagger}	5^{\dagger}	6^{\dagger}	7^{\dagger}	8†	9⁺	10 [†]	12 [†]	14^{\dagger}	16 [†]	18 [†]	_	_	_
F040UCP	8	3^{\dagger}	4⁺	5^{\dagger}	6^{\dagger}	7 †	8†	9	10 [†]	12 [†]	14^{\dagger}	16 [†]	18 [†]	_	_	1
F040CP	10	3⁺	4⁺	5 [†]	6 [†]	_	8†	_	_	_	_	_	_	_	_	
F040UCP	20	3^{\dagger}	4^{\dagger}	5⁺	6 [†]	7 [†]	8†	_	_	_	_	_	_	_	_	_

Other sizes available upon request

†Not UL-listed





F090

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

Model	Length (feet)	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-classified
- 5' length
- Starter cone included in each carton

Model	Length (feet)		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-classified
- 5' length
- Starter cone included in each carton

Model	Length (feet)		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	





Duct Tape

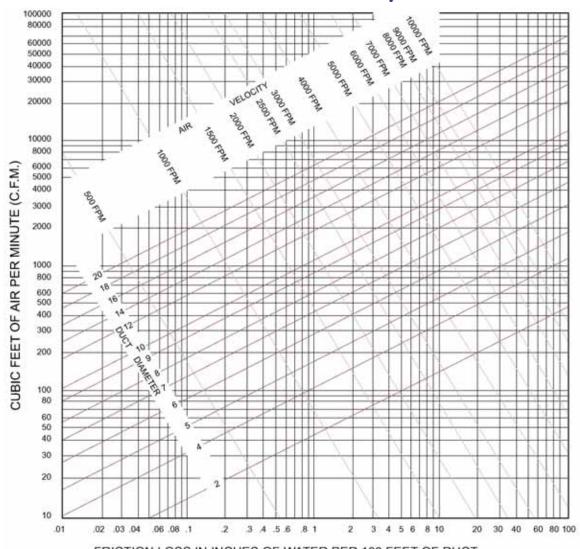
- Acrylic adhesive won't dry out
- Single-ply polypropylene backing
- Tears easily by hand
- UL-listed and marked UL-181B-FX



Silver

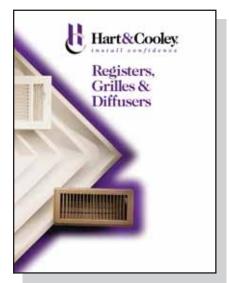
Part No.	Description	Size
011371	Black	2" x 120 yards
011372	Silver	2" x 120 yards

Air Friction Chart for Flexible Duct only

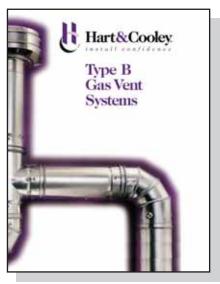


FRICTION LOSS IN INCHES OF WATER PER 100 FEET OF DUCT

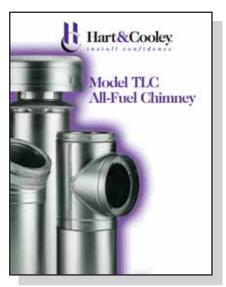
Check out other quality Hart & Cooley products...



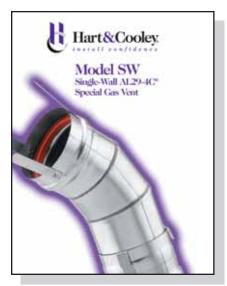
Form No. 010050



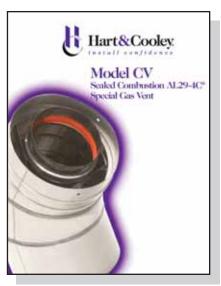
Form No. 010051



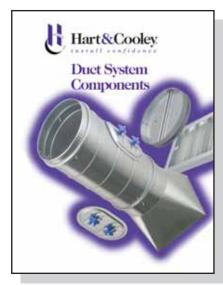
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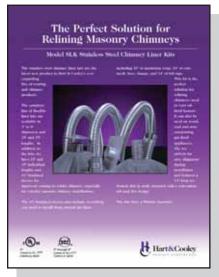
Form No. 851369



Form No. 851367



Form No. 851095



Form No. 851431

To order product literature, please contact Customer Service toll-free at 800.433.6341.



www.hartandeooley.com



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For submittal information and other literature visit our Website.