

# MULTI-SPEED BLOWERS



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# Intelli-Sensen Multi-Speed Blowers

- Energy savings
- Up to three speed operation
- One size fits most fume hood applications simple to size, adjustable over time

Intelli-Sense Multi-Speed Blowers are weatherized, direct drive, non-explosion-proof blowers controlled by a two or three position switch. Each blower has a reliable electronically commutated motor (ECM), which consumes one third less energy and is easier and less expensive to maintain than beltdrive motors.

The biggest operating expense for many laboratories is the expense of heating and cooling the air that is exhausted out of the fume hood. Traditional AC belt-drive blowers typically offer two operating mode options, off and on. Since many facilities require that their fume hoods operate 24 hours a day, a hood with a traditional blower is exhausting large volumes of tempered air even though it is being used a small percentage of time. Expensive energy is being wasted.

*Saves Energy.* The Intelli-Sense Blower provides an economical alternative to traditional on/off blowers. Users may close the sash and turn the Intelli-Sense Blower switch to standby mode so that the hood operates at a lower velocity yet fulfills minimum air exchange requirements. Lower velocity modes have the added benefit of quieter operation than full velocity mode.

Operating the blower at lower speed at night or while the hood is unoccupied saves money. For example, a 6' fume hood operating at 100 fpm (735 CFM at \$7/CFM/year) at the 18" sash height at constant volume can cost \$5,145 per year to operate. In contrast, a 6' Hood with an Intelli-Sense Blower used 4 hours per day with proper fume hood sash closing and blower speed reduction would cost only \$2,578 per year to operate, an annual savings of approximately 50%.



Intelli-Sense Blowers include a blower switch for operating the fume hood at two or three different speeds. Operating the hood at a lower speed while unoccupied saves energy and money. *Easy selection.* Intelli-Sense Blowers take much of the guesswork out of blower selection. Since they are adjustable over a broad airflow range, they may be used to exhaust fume hoods from 3' to 7' in width at full sash open height and 100 fpm face velocity. The blowers may also be used with hoods from 8' to 16' in width with reduced air volume modifications. As needs change, the blower settings may be adjusted to accommodate new airflow requirements. To select the right blower for your application, follow these four easy steps.

 If the equivalent resistance\* of your ductwork is equal to or less than 100 feet, refer to the Intelli-Sense Blower Quick Selection Guide below and note the nominal inlet blower diameter(s) suitable for your hood width and desired sash height opening. If the equivalent resistance of your ductwork is unknown or exceeds 100 feet, contact Labconco for blower sizing assistance.

#### **Intelli-Sense Blower Quick Selection Guide**

Protector Hood Width	Blower for Hood with Reduced Sash Opening Height (18")**	r use with Hood with Full Open Sash Opening Height (28")**	Blower, 10" Inlet, CFM Range	Blower, 12" Inlet, CFM Range
3'	10", 12"	10", 12"	175-495	200-495
4'	10", 12"	10", 12"	175-735	200-735
5'	10", 12"	10", 12"	175-955	200-955
6'	10", 12"	12"	175-1100	200-1180
7'	10", 12"	12"	175-1100	200-1410
8'	10", 12"	12"†	175-1100	200-1410
10'	12"	12"**		200-1410
12'	12"*	—		200-1410
16'	12"**	—	—	200-1410

Minimum CFMs require a damper, sold separately.

- **2)** Choose the blower type that is most compatible with the chemical fumes that will pass through it.
  - **a.** Mild to Moderate Corrosive Chemicals. Choose a Coated Steel. Go to page 3.
  - **b.** Moderate to Highly Corrosive Chemicals. Choose a Fiberglass. Go to page 4.
  - **c.** Highly Corrosive Acids or Perchloric Acid. Choose a PVC. Go to page 5.
- **3)** Refer to the Ordering Information for the blowers with the suitable inlet diameter (10" and/or 12").
- **4)** Choose the Catalog Number with the motor electrical configuration that matches your requirements.
  - a. 115 volts, 50/60 Hz
  - **b.** 230 volts, 50/60 Hz

\*Equivalent resistance of 100 feet is approximately equal to a total of one 90° elbow, one Zero Pressure Weathercap and 75 feet of 10" or 12" diameter straight duct. If the equivalent resistance of your ductwork exceeds 100 feet, contact Labconco for assistance or follow the Blower Sizing steps on page 6.

- \*\* 10" = Intelli-Sense Blowers with nominal 10" inlets, 12" = Intelli-Sense Blowers with nominal 12" inlets
- 12" = Intelli-Sense Blowers with nominal 12" inlets
- <sup>†</sup> Restricted to 80 fpm maximum. Not for use with Perchloric Acid Hoods.
- <sup>*tt*</sup> Restricted to 60 fpm maximum. Not for use with Perchloric Acid Hoods.

# Intelli-Sense<sup>™</sup> Multi-Speed Coated Steel Blowers



# **Dimensional Data**

FRONT



Dimension Catalog# 16-090-60 & 16-090-61 Catalog# 16-090-62 & 16-090-63 А 7.2" (18.2 cm) 8.6" (21.7 cm) 7.0" (17.8 cm) В 9.0" (22.9 cm) 8.1" (20.7 cm) 10.5" (26.7 cm) С D 6.8" (17.3 cm) 9.0" (22.9 cm) Е 9.25" (23.5 cm) 12.5" (31.8 cm) Inlet 10.9" (27.6 cm) ID 12.25" (31.1 cm) OD 5.5" (14.0 cm) D x 10.0" (25.4 cm) W 7.0" (17.8 cm) D x 13.5" (34.3 cm) W Outlet Wheel 9.2" (23.3 cm) Dia. x 4.25" (10.8 cm) W 12.2" (31.0 cm) Dia. x 5.25" (13.3 cm) W

SIDE

**Recommended for low to moderately corrosive applications.** For greater corrosion protection, refer to the Fiberglass Blowers and PVC Blowers.

#### Features & Benefits

- Phenolic coating on impeller and housing is corrosion resistant.
- Powder-coated base and weather cover provide long life in extreme weather.
  Direct drive, UL\* listed, ECM motor uses one third less energy than belt drive
- motors. • Thermal override protection. RPM speeds are automatically reduced when
- motor is overloaded.
- Flow-through vent holes and louvers allow air to circulate.
- Removable weather cover allows easy access to ECM motor and impeller shaft.Forward curved impellers are balanced to ensure quiet operation and
- optimum air delivery. • Speed control box included for mounting on top of customer-supplied fume
- hood and blower switch and label<sup>†</sup> for multiple speed operation. • When blower is properly installed to ductwork, sound levels range from
- When blower is properly installed to ductwork, sound levels range from 50 to 70 dba.
- Variable exhaust orientation adjusts to eight outlet positions for installation flexibility (vertical discharge is recommended).

\*UL is a trademark of UL LLC, Northbrook, IL.

†Label is factory-prepared for Protector XStream, Premier, XL, Stainless Steel, PVC, and Pass-Through Laboratory Hoods, and Basic and Fiberglass 30 Laboratory Hoods. For other hoods, the switch may require on-site hood modifications or mounting on an adjacent wall. Switch cutout is 0.83" x 1.45" (2.1 x 3.7 cm).

# **Ordering Information**

#### Nominal Inlet Diameter: 10"

Overall Range: 175 CFM @ 0.06" H<sub>2</sub>O to 1050 CFM @ 1.9" H<sub>2</sub>O or 1200 CFM @ 1.0" H<sub>2</sub>O

Catalog Number	HP	Motor Data Electrical Requirements	F.L. Amps	Nom. Inlet Dia.	Shipping Weight
16-090-60	1	115 volts, 50/60 Hz	10	10"	80 lbs. (36 kg)
16-090-61	1	230 volts, 50/60 Hz	6	10"	80 lbs. (36 kg)

Speed (RPM)	Optimum Airflow (CFM) and Static Pressure (inches of water) Range
1800 MAX	750 CFM @ 2.2" to 1050 CFM @ 1.9"
1500	650 CFM @ 1.6" to 1250 CFM @ 0.7"
1250	550 CFM @ 1.1" to 1050 CFM @ 0.5"
1000	400 CFM @ 0.7" to 850 CFM @ 0.33"
750	275 CFM @ 0.37" to 650 CFM @ 0.2"
500	200 CFM @ 0.2" to 450 CFM @ 0.1"
300	175 CFM @ 0.06" to 350 CFM @ 0.08"**

# Ordering Information

#### Nominal Inlet Diameter: 12" Overall Range: 200 CFM @ 0.08" H<sub>2</sub>O to 1350 CFM @ 1.5" H<sub>2</sub>O

Catalog Number	HP	Motor Data Electrical Requirements	F.L. Amps	Nom. Inlet Dia.	Shipping Weight
16-090-62	1	115 volts, 50/60 Hz	10	12"	85 lbs. (39 kg)
16-090-63	1	230 volts, 50/60 Hz	6	12"	85 lbs. (39 kg)
Speed (RPN	)	Optimum Airflow (CFM) and	Static Press	sure (inches o	f water) Range
1125 MAX		1200 CFM @ 1.6" to 1350 C	CFM @ 1.5		
1000		1100 CFM @ 1.3" to 1450 CFM	CFM @ 1.2	1	
750		800 CFM @ 0.8" to 1150 C	FM @ 0.7"		
500		550 CFM @ 0.33" to 725 C	FM @ 0.3"		
300		200 CFM @ 0.08" to 450 CFM @ 0.1"**			

\*\*Minimum CFMs require a damper, not included.

#### See Blower Performance Curves on back cover.

# Intelli-Sense<sup>™</sup> Multi-Speed Fiberglass Blowers



#### **Dimensional Data**



Dimension	Catalog# 16-090-64 & 16-090-65	Catalog# 16-090-66 & 16-090-67
А	7.1" (18.1 cm)	8.0" (20.3 cm)
В	12.7" (32.2 cm)	13.2" (33.5 cm)
С	10.5" (26.7 cm)	12.0" (30.5 cm)
D	8.75" (22.2 cm)	10.0" (25.4 cm)
E	13.9" (35.3 cm)	15.9" (40.3 cm)
F	7.5" (19.1 cm)	8.5" (21.6 cm)
G	15.6" (39.7 cm)	15.6" (39.7 cm)
Н	22.9" (58.1 cm)	22.9" (58.1 cm)
K	13.75" (34.9 cm)	13.75" (34.9 cm)
L	15.1" (38.4 cm)	15.1" (38.4 cm)
М	16.7" (42.5 cm)	16.7" (42.5 cm)
N	18.0" (45.6 cm)	18.0" (108.0 cm)
Р	16.75" (42.6 cm)	16.75" (42.6 cm)
INLET	10.4" (26.4 cm) OD	12.4" (108.2 cm) OD
OUTLET	10.75" (27.3 cm) ID	12.75" (32.4 cm) ID
WHEEL	9.9" (25.2 cm) Dia. x 3.3" (8.4 cm) W	11.8" (30.0 cm) Dia. x 4.25" (10.8 cm) W

*Ideal for fume hood exhaust systems in moderate to highly corrosive conditions.* They are not recommended for use with perchloric acid. Please refer to PVC Blowers for perchloric acid use.

# Features & Benefits

- Housings are made from molded fiberglass reinforced polyester for durability and long life.
- Balanced, forward-curved impellers made of injection-molded polypropylene resist corrosive atmospheres, operate quietly and provide optimum air delivery.
- Powder-coated base and weather cover provide long life in extreme weather.
- $\bullet$  Direct drive, UL\* listed, ECM motor uses one third less energy than belt drive motors.
- Inlet and discharge diameters are sized to receive rigid PVC ducting material directly for easy installation.
- Thermal override protection. RPM speeds are automatically reduced when motor is overloaded.
- Flow-through vent holes and louvers allow air to circulate.
- Speed control box included for mounting on top of customer-supplied fume hood and blower switch and label\* for multiple speed operation.
- When blower is properly installed to ductwork, sound levels range from 50 to 70 dba.
- Variable exhaust orientation adjusts to eight outlet positions for installation flexibility (vertical discharge is recommended).

#### \*UL is a trademark of UL LLC, Northbrook, IL.

\*Label is factory-prepared for Protector XStream, Premier, XL, Stainless Steel, PVC, and Pass-Through Laboratory Hoods, and Basic and Fiberglass 30 Laboratory Hoods. For other hoods, the switch may require on-site hood modifications or mounting on an adjacent wall. Switch cutout is 0.83" x 1.45" (2.1 x 3.7 cm).

# Ordering Information

### Nominal Inlet/Outlet Diameter: 10"

Overall Range: 175 CFM @ 0.06" H<sub>2</sub>O to 1025 CFM @ 1.6" H<sub>2</sub>O

Catalog Number	HP	Motor Data Electrical Requirements	F.L. Amps	Nom. Inlet Dia.	Shipping Weight
16-090-64	1	115 volts, 50/60 Hz	10	10"	80 lbs. (36 kg)
16-090-65	1	230 volts, 50/60 Hz	6	10"	80 lbs. (36 kg)

Speed (RPM)	Optimum Airflow (CFM) and Static Pressure (inches of water) Range
1800 MAX	750 CFM @ 1.7" to 1025 CFM @ 1.55"
1500	600 CFM @ 1.2" to 1050 CFM @ 0.5"
1250	500 CFM @ 0.8" to 850 CFM @ 0.37"
1000	400 CFM @ 0.6" to 700 CFM @ 0.25"
750	300 CFM @ 0.3" to 475 CFM @ 0.12"
500	200 CFM @ 0.12" to 325 CFM @ 0.06"
300	175 CFM @ 0.06" to 275 CFM @ 0.04"**

### **Ordering Information**

Nominal Inlet/Outlet Diameter: 12"

Overall Range: 200 CFM @ 0.08" H<sub>2</sub>O to 1400 CFM @ 0.87" H<sub>2</sub>O or 1150 CFM @ 1.4" H<sub>2</sub>O

Catalog Number	HP	Motor Data Electrical Requirements	F.L. Amps	Nom. Inlet Dia.	Shipping Weight
16-090-66	1	115 volts, 50/60 Hz	10	12"	85 lbs. (39 kg)
16-090-67	1	230 volts, 50/60 Hz	6	12"	85 lbs. (39 kg)
Speed (RPN	l)	Optimum Airflow (CFM) and	Static Press	ure (inches o	f water) Range
1400 MAX		960 CFM @ 1.7" to 1100 C	CFM @ 1.7"		
1300		900 CFM @ 1.5" to 1150 C	CFM @ 1.4"		
1250		850 CFM @ 1.3" to 1400 C	CFM @ 0.87"		
1125		780 CFM @ 1.1" to 1310 C	CFM @ 0.75"		
1000		700 CFM @ 0.87" to 1180	CFM @ 0.62	2"	
750		450 CFM @ 0.4" to 860 CF	FM @ 0.34"		
500		300 CFM @ 0.2" to 575 CF	M @ 0.12"		
300		200 CFM @ 0.08" to 450 C	CFM @ 0.1"*	*	

\*\*Minimum CFMs require a damper, not included.

See Blower Performance Curves on back cover.

# Intelli-Sense<sup>™</sup> Multi-Speed PVC Blowers



## **Dimensional Data**



Dimension	Catalog# 16-090-68 & 16-090-69	Catalog# 16-090-70 & 16-090-71
А	7.1" (18.1 cm)	8.0" (20.3 cm)
В	12.7" (32.2 cm)	13.2" (33.5 cm)
С	10.5" (26.7 cm)	12.0" (30.5 cm)
D	8.75" (22.2 cm)	10.0" (25.4 cm)
E	13.9" (35.3 cm)	15.9" (40.3 cm)
F	7.5" (19.1 cm)	8.50" (21.6 cm)
INLET	10.4" (26.4 cm) OD	12.4" (31.4 cm) OD
OUTLET	10.75" (27.3 cm) ID	12.75" (32.4 cm) ID
WHEEL	9.9" (25.2 cm) Dia. x 3.3" (8.4 cm) W	11.8" (30.0 cm) Dia. x 4.25" (10.8 cm) W

Handle extremely corrosive atmospheres produced by high order oxidizers such as perchloric acid. They have a drain connection on the lower portion of the housing so that a washdown system can be utilized.

#### **Features & Benefits**

- Housings are vacuum formed from unplasticized Type I polyvinyl chloride for complete corrosion protection.
- Impellers made of injection molded PVDF resist highly corrosive atmospheres, operate quietly and provide optimum delivery.
- Powder-coated base and weather cover provide long life in extreme weather.
- $\bullet$  Direct drive, UL\* listed, ECM motor uses one third less energy than belt drive motors.
- Inlet and discharge diameters are sized to receive rigid PVC ducting material directly for easy installation. Blowers are available with 10" and 12" inlet/outlet connections.
- Thermal override protection. RPM speeds are automatically reduced when motor is overloaded.
- Flow-through vent holes and louvers allow air to circulate.
- Speed control box included for mounting on top of customer-supplied fume hood and blower switch and label\* for multiple speed operation.
- Convenient access to impeller assembly provides for easy maintenance.
- When blower is properly installed to ductwork, sound levels range from 50 to 70 dba.
- Variable exhaust orientation adjusts to eight outlet positions for installation flexibility (vertical discharge is recommended).

\*UL is a trademark of UL LLC, Northbrook, IL.

†Label is factory-prepared for Protector XStream, Premier, XL, Stainless Steel, PVC, and Pass-Through Laboratory Hoods, and Basic and Fiberglass 30 Laboratory Hoods. For other hoods, the switch may require on-site hood modifications or mounting on an adjacent wall. Switch cutout is 0.83" x 1.45" (2.1 x 3.7 cm).

# **Ordering Information**

#### Nominal Inlet/Outlet Diameter: 10"

Overall Range: 175 CFM @ 0.06" H<sub>2</sub>O to 1100 CFM @ 1.3" H<sub>2</sub>O

Catalog Number	HP	Motor Data Electrical Requirements	F.L. Amps	Nom. Inlet Dia.	Shipping Weight	
16-090-68	1	115 volts, 50/60 Hz	10	10"	80 lbs. (36 kg)	
16-090-69	1	230 volts, 50/60 Hz	б	10"	80 lbs. (36 kg)	
						1

Speed (RPM)	Optimum Airflow (CFM) and Static Pressure (inches of water) Range
1800 MAX	650 CFM @ 1.7" to 1100 CFM @ 1.3"
1500	600 CFM @ 1.2" to 1050 CFM @ 0.5"
1250	500 CFM @ 0.8" to 900 CFM @ 0.33"
1000	375 CFM @ 0.6" to 700 CFM @ 0.2"
750	300 CFM @ 0.3" to 525 CFM @ 0.12"
500	200 CFM @ 0.12" to 350 CFM @ 0.06"
300	175 CFM @ 0.06" to 275 CFM @ 0.04"**

# **Ordering Information**

#### Nominal Inlet/Outlet Diameter: 12"

Overall Range: 200 CFM @ 0.12" H<sub>2</sub>O to 1180 CFM @ 1.7" H<sub>2</sub>O

Catalog Number	HP	Motor Data Electrical Requirements	F.L. Amps	Nom. Inlet Dia.	Shipping Weight
16-090-70	1	115 volts, 50/60 Hz	10	12"	85 lbs. (39 kg)
16-090-71	1	230 volts, 50/60 Hz	6	12"	85 lbs. (39 kg)
Speed (RPM	)	Optimum Airflow (CFM) and	Static Press	sure (inches o	f water) Range
1500 MAX		900 CFM @ 1.9" to 1025 C	FM @ 1.8"		
1400		900 CFM @ 1.8" to 1180 C	FM @ 1.7"		
1250		850 CFM @ 1.37" to 1325 (	CFM @ 0.8		
1000		675 CFM @ 0.9" to 1100 C	FM @ 0.6"		
750		450 CFM @ 0.45" to 825 C	FM @ 0.33		
500		300 CFM @ 0.20" to 550 C	FM @ 0.12	I	
300		200 CFM @ 0.08" to 400 C	FM @ 0.1"*	**	

\*\*Minimum CFMs require a damper, not included.

See Blower Performance Curves on back cover.





\*Minimum of 5 to 15 feet of duct in both locations is recommended for noise reduction.

#### **Blower Sizing**

When sizing a blower, it is necessary to include the equivalent resistance factors for all the ductwork and accessories in the fume removal system. The diagram above provides details of the components found in a typical fume removal system. The "equivalent resistance in feet of straight duct" is provided for each ductwork component on the pages that follow.

#### Steps to sizing the right blower.

We can help. Let a Labconco specialist size your blower.

- 1. Obtain the CFM and static pressure loss for your fume hood (usually located in the fume hood manual or brochure).
- Add up all the equivalent resistance in feet of straight duct of the components in your system.
- Use the Static Pressure Losses for Ductwork chart at right to determine the static pressure of your ductwork based on the CFM of your fume hood.
- **4**. Add the static pressure loss of the ductwork to the static pressure loss of your fume hood to determine the total static pressure loss of your fume removal system.
- **5**. Refer to the Optimum Airflow and Static Pressure Ranges (page 3, 4 or 5 depending on the blower) and Blower Performance Curves (back cover) to confirm your blower selection.

# Static Pressure Losses for Ductwork

Nominal Diameter	/Inches 6	8	10	12	16
Airflow/CFM	Static Pressur	e Loss/Inches	H <sub>2</sub> O for Each	n 10 ft. of Du	ct Length
250	0.039	0.011	0.003	0.001	_
500	0.147	0.037	0.013	0.005	0.001
750	0.321	0.079	0.026	0.011	0.003
1000	0.557	0.140	0.043	0.018	0.005
1250	0.855	0.210	0.066	0.027	0.008
1500	_	0.300	0.095	0.039	0.012
1750		0.380	0.130	0.053	0.016
2000	_	0.485	0.155	0.067	0.020
2500		_	0.245	0.109	0.031
3000	_			0.145	0.042
4000	—	—		0.240	0.074
5000					0.120



#### **Thermoplastic Duct**

PVC exhaust duct is Type I, unplasticized, schedule 40, lightweight and corrosion-resistant. A Female Duct Coupling is required to join two sections. Connections can be made using solvent cement. PVC is rigid and may be cut without the use of special tools. Comes in 10' lengths. Flame spread <10.<sup>†</sup>

Nominal Diameter/Inches	6	8	10	12	16
Catalog Number	16-304-10	4718900**	16-307-215	16-071-10	5605000**
Actual OD/inches	6.625	8.625	10.75	12.75	16.0
Actual ID/inches	6.25	8.25	10.375	12.375	15.625
Shipping Weight lbs./kg	25/11	35/16	50/23	65/29	80/86



#### **Duct Couplings**, Female

PVC coupling makes connections between two sections of thermoplastic duct quick and easy.

Nominal Diameter/Inches	6	8	10	12	16
Catalog Number	16-304-12	4719200**	16-307-218	16-071-13	5605300**
Shipping Weight lbs./kg	4/2	5/2	5/2	6/3	7/3
Equivalent Resistance in feet of Straight Duct	0	0	0	0	0



#### Duct Couplings, Male

PVC duct in 6<sup>th</sup> lengths facilitates connections between Blowers and Elbows, Thermoplastic Duct Reducers and Weathercaps.

Nominal Diameter/Inches	6	8	10	12
Catalog Number	2144700**	4719900**	16-307-216	16-307-217
Actual OD/inches	6.625	8.625	10.75	12.75
Actual ID/inches	6.25	8.25	10.375	12.375
Shipping Weight lbs./kg	3/1	4/2	5/2	6/3

\*\*Contact Fisher Scientific for ordering information.

\*\*\*Duct made of other materials may require adapters.

<sup>†</sup> ASTM E-84-09C, modified for round material.





#### **Elbows**

PVC elbows, both 45° and 90°, are compatible with thermoplastic duct. Designed and engineered for quick installation and minimum pressure losses, they feature belled end connections to receive PVC duct directly.

Nominal Diameter/Inches	6	8	10	12	16
Catalog Number	16-304-11	16-307-200	22-021-474	16-071-11	5605100**
Approx. Height/Inches	13.625	17.3	20.375	24.2	29.0
Shipping Weight lbs./kg	8/4	10/5	12/5	14/6	17/8
Equivalent Resistance in feet of Straight Duct	12	15	20	25	36
Nominal Diameter/Inches	6	8	10	12	16
Nominal Diameter/Inches Catalog Number	<b>6</b> 4708800**	<b>8</b> 4719100**	<b>10</b> 22-021-478	12 16-071-12	16 5605200**
Nominal Diameter/Inches Catalog Number Approx. Height/Inches	6 4708800** 8.75	<b>8</b> <b>4719100**</b> 10.75	<b>10</b> <b>22-021-478</b> 12.5	<b>12</b> <b>16-071-12</b> 15	<b>16</b> <b>5605200**</b> 17.5
Nominal Diameter/Inches Catalog Number Approx. Height/Inches Shipping Weight lbs./kg	6 4708800** 8.75 8/4	<b>8</b> <b>4719100**</b> 10.75 10/5	<b>10</b> <b>22-021-478</b> 12.5 12/5	<b>12</b> <b>16-071-12</b> 15 14/6	<b>16</b> <b>5605200**</b> 17.5 17/8



feet of Straight Duct

#### **Thermoplastic Duct Reducers**

PVC coupling type reducers are designed for connecting thermoplastic duct of different diameters. Compare your blower inlet size with your duct size to see if one is necessary.

Nominal Diameter/Inches	6 x 8	8 x 10	10 x 12	12 x 16
Catalog Number	5605900**	16-071-14	16-071-15	5630700**
Shipping Weight lbs./kg	2/1	5/2	6/3	8/4
Equivalent Resistance in feet of Straight Duct	0	0	0	0



#### Zero Pressure Weathercaps

The Zero Pressure Weathercap is made of strong, corrosion-resistant PVC. The cap adds little static pressure to the exhaust system and allows for vertical discharge of the effluent air for dispersion away from the building.

Nominal Diameter/Inches	6	8	10	12	16
Catalog Number	16-304-14	16-307-201B	22-021-469	16-307-209	5622200**
Approx. Height/Inches	36	40	48	56	72
Shipping Weight lbs./kg	20/9	25/11	30/14	35/16	40/18
Equivalent Resistance in feet of Straight Duct	5	5	5	5	5



### Spiral Tube

This spiral tube simplifies temporary installations. It is corrosion-resistant, neoprene-impregnated fiberglass reinforced with steel wire. Includes rigid duct connector and two clamps. Length is ten feet.

Nominal Diameter/ Inches	7" for use with 6" fittings	13" for use with 8" fittings	13" for use with 10" fittings	13" for use with 12" fittings	
Catalog Number	1965100**	4719400**	7027700**	5622300**	
Shipping Weight lbs./kg	g 10/5	15/7	20/9	25/11	
Equivalent Resistance in feet of Straight Duct	Because this of configurations	Because this ductwork is flexible and may conform to various configurations, it is not possible to know the precise equivalent resistance.			

\*\*Contact Fisher Scientific for ordering information.



#### **Manual Duct Dampers**

This damper fitting allows you to balance airflow. It is highly recommended for use with Intelli-Sense Blowers. It may be used with exhaust and auxiliary-air ducts, and is usually placed directly into the fume hood collar.

Nominal Diameter/Inches	6	8	10	12	16
Catalog Number	10-304-80	4741300**	5983400**	5981200**	4726400**
Shipping Weight lbs./kg	10/5	12/5	15/7	20/9	25/11
Approx. Height/inches	14	19.125	19.5	19.67	24



#### **Flexible Duct Connections**

This flexible neoprene-impregnated polyester connection reduces vibration between the blower and PVC ductwork. Supplied with two clamps for easy installation. 12" length.

Nominal Diameter/ Inches	9" for use with 8" fittings	11" for use with 10" fittings	13" for use with 12" fittings
Catalog Number	4726500**	7034200**	5621400**
Shipping Weight lbs./kg	5/2	5/2	5/2



#### **Blower Transition Adapters**

This epoxy-coated steel transition adapter fits all Labconco Coated Steel Blowers. This adapter allows you to connect round thermoplastic duct to the exhaust side of the blower to create an exhaust stack. Nominal size PVC duct fits inside the adapter opening.

Nominal Diameter/ Inches	8	10	12
Catalog Number	16-307-202	16-307-53	16-307-214
Shipping Weight lbs./kg	3/1	4/2	4/2
For use with Labconco Blowers	16-090-11 - 16-090-18	16-090-11 - 16-090-18	16-090-11 - 16-090-18

#### **T and Y Connections**

PVC fittings shaped in T and Y configurations. Compatible with thermoplastic duct. End connections receive PVC pipe directly. Contact Labconco for help in sizing blowers with these accessories.







#### Wash Rings



Wash rings are suitable for use in perchloric acid duct systems. Each features a wide angle conical spray nozzle and wash water standard PVC connector nipple with 3/4" male threads, fabricated into a PVC female coupling for use with 10" or 12" nominal duct.

Nominal Diameter/Inches	10	12
Catalog Number	4746000**	16-071-1
Shipping Weight lbs./kg	5/2	6/3

Contact Labconco for ordering information on HEPA Filter Packs, Charcoal Filter Packs and Backdraft Dampers.





Intelli-Sense Coated Steel Blowers 16-090-60 & 16-090-61









#### In the United States:

For customer service, call 1-800-766-7000 To fax an order, use 1-800-926-1166 To order online: www.fishersci.com

In Canada: For customer service, call 1-800-234-7437 To fax an order, use 1-800-463-2996 To order online: www.fishersci.ca



Intelli-Sense Coated Steel Blowers 16-090-62 & 16-090-63



Intelli-Sense Fiberglass Blowers 16-090-66 & 16-090-67 & PVC Blowers 16-090-70 & 16-090-71



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