



# PATTERSON

**THE AUTHORITY IN AIR MOVEMENT**

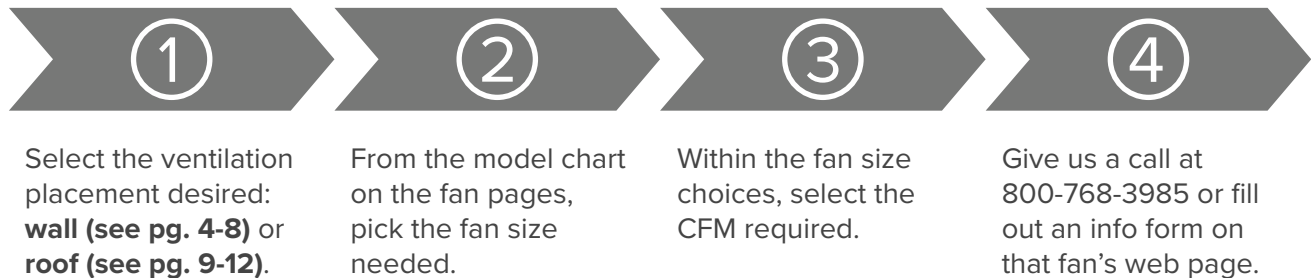
## **VENTILATION**PRODUCTS

Remove smoke, condensation, fumes and more  
with our total ventilation solutions.

# VENTILATION

UNDESIRE AIR OUT, FRESH AIR IN

## Ordering Ventilation Products in **4 EASY STEPS**



If you know what you want, a quote will be generated right away.  
Having trouble figuring out what you need? Call an air movement expert at 800-768-3985!

## **YOUR FACILITY WITH** OUR TOTAL PACKAGE

**With over 30 years experience** in fan manufacturing and applications, Patterson will solve any problem you are having with air movement.

A coordinated approach to all your air movement needs will cost you less than the disorganization of fans so often seen in most facilities. With the **RIGHT** fans and the **CORRECT** positioning of those fans, we can provide air movement in areas of your building where there are no fans.

Patterson Fan wants to be **YOUR FAN COMPANY**, meeting all your needs and solving any problems in an expedited manner. More and more, people are saying, "Just call Patterson."

I thank you for your interest in Patterson, where we proudly manufacture in South Carolina.

Sincerely,  
**Vance Patterson**  
President & CEO  
Patterson Fan Company

## THE AUTHORITY IN AIR MOVEMENT



# TABLE OF CONTENTS

## QUICK SELECTION GUIDE

| Model     | Mounting Location |      | Airflow |        | Application       |                  |                 | Motor/Drives |        | Pages |
|-----------|-------------------|------|---------|--------|-------------------|------------------|-----------------|--------------|--------|-------|
|           | Roof Curb         | Wall | Exhaust | Supply | General/Clean Air | Contaminated Air | Spark Resistant | Belt         | Direct |       |
| Wall Fans |                   |      |         |        |                   |                  |                 |              |        |       |
| LC/L2/L3  |                   | X    | X       | X      | X                 |                  | X               | X            |        | 4-6   |
| HVSU      |                   | X    |         | X      | X                 |                  |                 |              | X      | 8     |
| Roof Fans |                   |      |         |        |                   |                  |                 |              |        |       |
| SDB       | X                 |      | X       |        | X                 |                  | X               | X            |        | 9     |
| UBX       | X                 |      | X       |        | X                 | X                |                 |              | X      | 10    |
| UBS       | X                 |      | X       |        | X                 | X                |                 | X            |        | 11    |
| UBB       | X                 |      | X       |        | X                 | X                |                 | X            |        | 12    |

### WALL FANS

Supply/Exhaust

### ROOF FANS

Exhaust

page

4



#### MODEL LCE/LCS STANDARD DUTY

Sizes 20-60  
3,000 - 40,000 CFM  
Static pressure to 5/8"  
cULus Listed



#### MODEL SDB BELT DRIVE

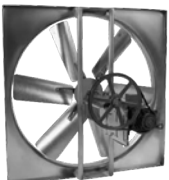
Sizes 6-30  
41 - 15,583 CFM  
Static pressure to 1-3/4"  
cULus Listed

page

9

page

5



#### MODEL L2E/L2S MEDIUM DUTY

Sizes 24-60  
5,000 - 47,000 CFM  
Static pressure to 1"  
cULus Listed



#### MODEL UBX DIRECT DRIVE

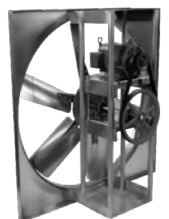
Sizes 24-72  
5,200 - 65,500 CFM  
Static pressure to 1/2"  
cULus Listed

page

10

page

6



#### MODEL L3E/L3S HEAVY DUTY

Sizes 47-72  
35,000 - 85,000 CFM  
Static pressure to 1"  
cULus Listed



#### MODEL UBS BELT DRIVE MEDIUM CAPACITY

Sizes 24-60  
5,295 - 51,000 CFM  
Static pressure to 1/2"  
cULus Listed

page

11

page

7

### ACCESSORIES & MOUNTING OPTIONS



#### HVSU HIGH VELOCITY SUPPLY UNIT

Sizes 22 & 30  
5,570 - 12,000 CFM



#### MODEL UBB BELT DRIVE HIGH CAPACITY

Sizes 24-72  
4,800 - 78,200 CFM  
Static pressure to 1/2"  
cULus Listed

page

8

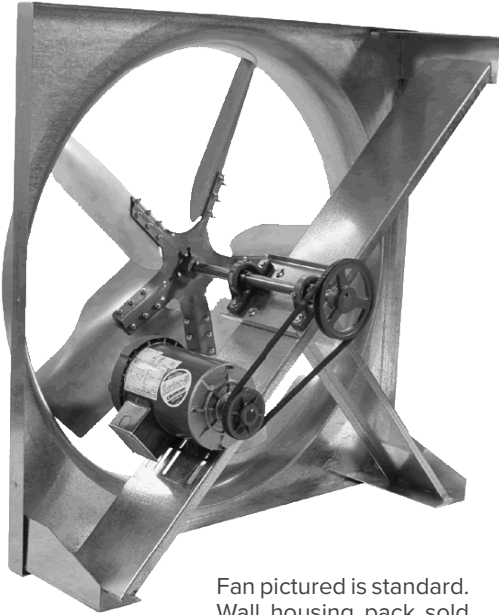
page

12

# LCE/LCS

## BELT DRIVE SIDEWALL PROPELLER FANS

## SUPPLY & EXHAUST FANS



Fan pictured is standard. Wall housing pack sold separately.

LCE (exhaust) and LCS (supply) are **standard duty** belt driven propeller fans rated from 3,000 to 40,000 CFM to .625" w.g. static pressure. Their primary application is the exhaust or supply of large volumes of air at relatively low static pressures from commercial, light industrial and agricultural buildings such as manufacturing and assembly plants, warehouses, parking garages, gymnasiums, equipment rooms, distribution centers, poultry and greenhouses.

## FEATURES

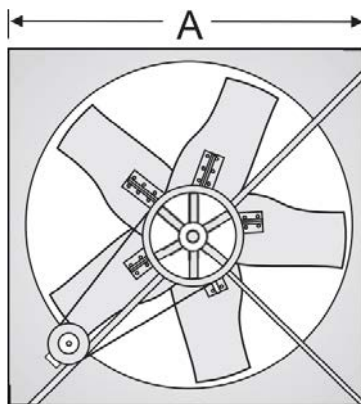
| CONSTRUCTION LEVEL  | MODEL      | SIZE RANGE | PERFORMANCE                       | WARRANTY                      |
|---|------------|------------|-----------------------------------|-------------------------------|
| G90 galvanized steel blades bolted to an epoxy coated hub | LCE<br>LCS | 20-60"     | 3,000-40,000 CFM up to .625" w.g. | Fan: 2 years<br>Motor: 1 year |

## MOTOR

| VOLTAGE       | PHASE |
|---------------|-------|
| 208-230V/460V | 3Ø    |

## DIMENSIONS

| SIZE | A (SQ.) O.D. PANEL |
|------|--------------------|
| 20"  | 24"                |
| 24"  | 30"                |
| 30"  | 36"                |
| 36"  | 42"                |
| 42"  | 48"                |
| 48"  | 54"                |
| 54"  | 60"                |
| 60"  | 66"                |



## QUICK SHIP

Models LCE & LCS are available in our Quickship program. Most sizes are available for next day or 10-day shipping from stock.

## Most popular MODELS

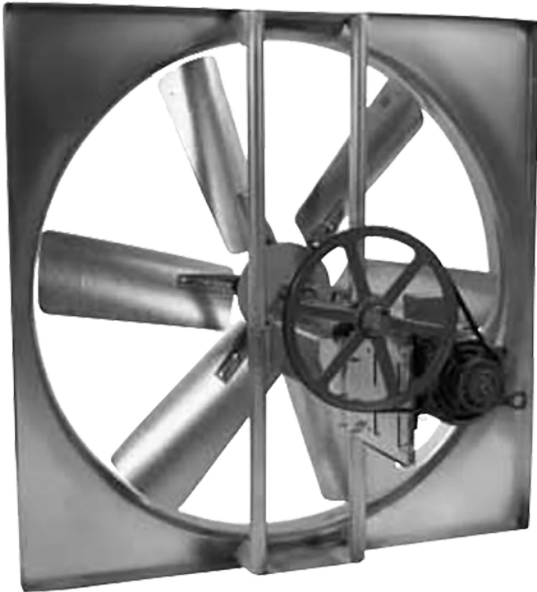
| BLADE DIAMETER | HP    | RPM | CFM   | MODEL       |
|----------------|-------|-----|-------|-------------|
| 36"            | 3/4   | 505 | 13926 | P-LCE36RH3S |
| 36"            | 1     | 555 | 15305 | P-LCE36SH3S |
| 36"            | 1-1/2 | 635 | 17511 | P-LCE36TH3S |
| 36"            | 2     | 695 | 19165 | P-LCE36VH3S |
| 42"            | 3/4   | 395 | 17060 | P-LCE42RH3S |
| 42"            | 1     | 435 | 18788 | P-LCE42SH3S |
| 42"            | 1-1/2 | 500 | 21596 | P-LCE42TH3S |
| 42"            | 2     | 550 | 23755 | P-LCE42VH3S |
| 48"            | 3/4   | 330 | 20459 | P-LCE48RH3S |
| 48"            | 1     | 365 | 22629 | P-LCE48SH3S |
| 48"            | 1-1/2 | 415 | 25729 | P-LCE48TH3S |
| 48"            | 2     | 455 | 28209 | P-LCE48VH3S |
| 54"            | 1     | 295 | 25550 | P-LCE54SH3S |
| 54"            | 1-1/2 | 340 | 29447 | P-LCE54TH3S |
| 54"            | 2     | 370 | 32045 | P-LCE54VH3S |
| 54"            | 3     | 425 | 36809 | P-LCE54WH3S |
| 60"            | 1     | 265 | 28491 | P-LCE60SH3S |
| 60"            | 1-1/2 | 300 | 32254 | P-LCE60TH3S |
| 60"            | 2     | 355 | 36017 | P-LCE60VH3S |
| 60"            | 3     | 380 | 40855 | P-LCE60WH3S |

Please call for more models/sizes.

# L2E/L2S

## BELT DRIVE SIDEWALL PROPELLER FANS

### SUPPLY & EXHAUST FANS



Fan pictured above is standard. Wall housing pack sold separately.

L2E (exhaust) and L2S (supply) are **medium duty** wall mounted belt driven propeller fans rated from 5,000 to 47,000 CFM, with static pressure capability up to .75" w.g. Their primary application is the exhaust of large volumes of ventilation air from commercial and light industrial buildings such as manufacturing and assembly plants, warehouses, parking garages, gymnasiums, equipment rooms, distribution centers and OEM applications.

## FEATURES

| CONSTRUCTION LEVEL   | MODEL      | SIZE RANGE | PERFORMANCE                      | WARRANTY                      |
|--|------------|------------|----------------------------------|-------------------------------|
| G90 galvanized steel blades bolted to a welded, structural steel hub plate | L2E<br>L2S | 24-60"     | 5,000-47,000 CFM up to .75" w.g. | Fan: 2 years<br>Motor: 1 year |

## MOTOR

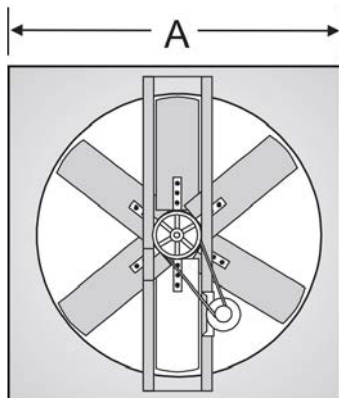
| VOLTAGE       | PHASE |
|---------------|-------|
| 208-230V/460V | 3Ø    |

## Most popular MODELS

| BLADE DIAMETER | HP    | RPM | CFM   | MODEL           |
|----------------|-------|-----|-------|-----------------|
| 36"            | 1-1/2 | 630 | 15982 | P-L2E361.5HP3PH |
| 36"            | 2     | 690 | 15305 | P-L2E362HP3PH   |
| 36"            | 3     | 795 | 17511 | P-L2E363HP3PH   |
| 36"            | 5     | 940 | 19165 | P-L2E365HP3PH   |
| 42"            | 1-1/2 | 495 | 18253 | P-L2E421.5HP3PH |
| 42"            | 2     | 550 | 20281 | P-L2E422HP3PH   |
| 42"            | 3     | 625 | 23047 | P-L2E423HP3PH   |
| 42"            | 5     | 745 | 27472 | P-L2E425HP3PH   |
| 48"            | 1-1/2 | 405 | 22676 | P-L2E481.5HP3PH |
| 48"            | 2     | 445 | 25016 | P-L2E482HP3PH   |
| 48"            | 3     | 510 | 28670 | P-L2E483HP3PH   |
| 48"            | 5     | 605 | 34010 | P-L2E485HP3PH   |
| 54"            | 1-1/2 | 345 | 27945 | P-L2E541.5HP3PH |
| 54"            | 2     | 380 | 30780 | P-L2E542HP3PH   |
| 54"            | 3     | 435 | 35235 | P-L2E543HP3PH   |
| 54"            | 5     | 515 | 41715 | P-L2E545HP3PH   |
| 60"            | 1-1/2 | 310 | 31782 | P-L2E601.5HP3PH |
| 60"            | 2     | 330 | 33833 | P-L2E602HP3PH   |
| 60"            | 3     | 390 | 39984 | P-L2E603HP3PH   |
| 60"            | 5     | 460 | 47161 | P-L2E605HP3PH   |

## DIMENSIONS

| SIZE | A (SQ.) O.D. PANEL |
|------|--------------------|
| 24"  | 30"                |
| 30"  | 36"                |
| 36"  | 42"                |
| 42"  | 48"                |
| 48"  | 54"                |
| 54"  | 60"                |
| 60"  | 66"                |

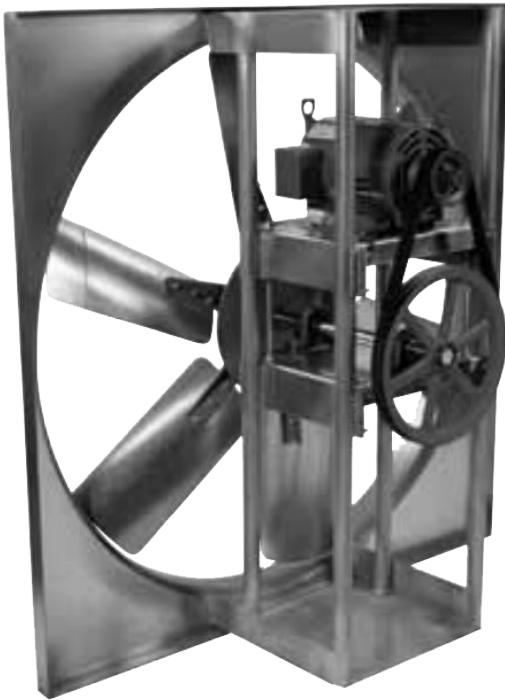


Please call for more models/sizes.

# L3E/L3S

## BELT DRIVE SIDEWALL PROPELLER FANS

### SUPPLY & EXHAUST FANS



Fan pictured above is standard. Wall housing pack sold separately.

L3E (exhaust) and L3S (supply) are **heavy duty** wall mounted belt driven propeller fans rated from 35,000 to 85,000, with static pressure capability up to 1" w.g. Their primary application is the exhaust of large volumes of air at a relatively moderate static pressure from commercial, industrial and agricultural buildings such as manufacturing and assembly plants, warehouses, foundries, mills, boiler rooms and equipment rooms.

## FEATURES

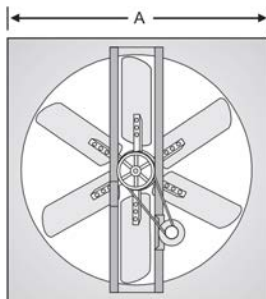
| CONSTRUCTION LEVEL   | MODEL      | SIZE RANGE | PERFORMANCE                       | WARRANTY                      |
|--|------------|------------|-----------------------------------|-------------------------------|
| G90 galvanized steel with double 16 gauge laminations bolted to a welded, structural steel hub plate | L3E<br>L3S | 42-72"     | 35,000-85,000 CFM up to .75" w.g. | Fan: 2 years<br>Motor: 1 year |

## MOTOR

| VOLTAGE       | PHASE |
|---------------|-------|
| 208-230V/460V | 3Ø    |

## DIMENSIONS

| SIZE | A (SQ.) O.D. PANEL |
|------|--------------------|
| 42"  | 48"                |
| 48"  | 54"                |
| 54"  | 60"                |
| 60"  | 66"                |
| 72"  | 80"                |



## Most popular MODELS

| BLADE DIAMETER | HP    | RPM | CFM   | MODEL           |
|----------------|-------|-----|-------|-----------------|
| 42"            | 7-1/2 | 850 | 31344 | P-L3E427.5HP3PH |
| 48"            | 7-1/2 | 695 | 39070 | P-L3E487.5HP3PH |
| 48"            | 10    | 765 | 43005 | P-L3E4810HP3PH  |
| 54"            | 7-1/2 | 580 | 46980 | P-L3E547.5HP3PH |
| 54"            | 10    | 650 | 52650 | P-L3E5410HP3PH  |
| 54"            | 15    | 740 | 59940 | P-L3E5415HP3PH  |
| 60"            | 7-1/2 | 530 | 54338 | P-L3E607.5HP3PH |
| 60"            | 10    | 580 | 59464 | P-L3E6010HP3PH  |
| 60"            | 15    | 665 | 68178 | P-L3E6015HP3PH  |
| 72"            | 5     | 375 | 58548 | P-L3E725HP3PH   |
| 72"            | 7     | 425 | 66354 | P-L3E727HP3PH   |
| 72"            | 10    | 475 | 74160 | P-L3E7210HP3PH  |
| 72"            | 15    | 545 | 85089 | P-L3E47215HP3PH |

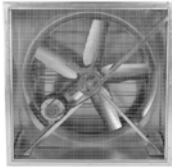
Please call for more models/sizes.

**Direct Drive Models and a full line of accessories are available to meet any need or specification.**



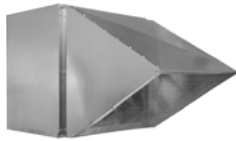
# ACCESSORIES & MOUNTS

## ACCESSORIES



### SAFETY GUARDS

Safety Guards (Standard or Heavy-Duty Flat Guards) are strongly recommended to protect personnel from accidental injury and to prevent debris from entering the fan. OSHA approved guards are required in many installations including when the fans are within 7 feet of the floor or work/access area.



### RAINHOODS OR WEATHERHOODS

Designed to provide additional weather protection by partially shielding the wall opening and should be used for all supply applications and whenever additional weather resistance is desired. The galvanized (aluminum optional) hood attaches to the wall housing or wall collar flanges. Field flashing and caulking will reduce moisture penetration. Shown with optional birdscreen.



### DAMPERS

Used alone or in conjunction with the wall housing or wall collar, a complete line of dampers are available for exhaust or supply configurations.

## MOUNTING ARRANGEMENTS

### WALL HOUSING



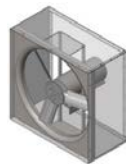
Heavy-gauge, all galvanized G-90 steel housing provides a simple solution to installing a fan and all required accessories in a rough wall opening. It can be used in exhaust or supply applications and in fan sizes 20 through 72 inch.

### FILTERED WALL HOUSING



For installations where filtering is required. Heavy-gauge, all galvanized G-90 steel filtered wall housings are available in both supply and exhaust configurations. They are available in eight (8) sizes for fans ranging from size 20 to 60 inches. They are designed with the draw-thru concept to achieve the highest filter and fan efficiencies.

### WALL COLLAR

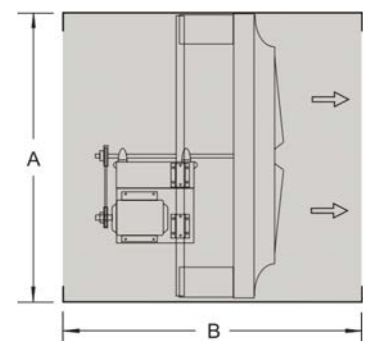


Heavy-gauge, all G-90 galvanized mounting collar provides a simple solution to installing a fan in a rough wall opening when a rear safety guard is NOT required.

## MINIMUM WALL OPENING

| FAN SIZE | WALL HOUSING |                  | MINIMUM WALL OPENING (SQ) |
|----------|--------------|------------------|---------------------------|
|          | A (SQ.) O.D. | B LENGTH EXH/SUP |                           |
| 36"      | 43"          | 44"              | 43.5"                     |
| 42"      | 49"          | 44"              | 49.5"                     |
| 48"      | 55"          | 44"              | 55.5"                     |
| 54"      | 61"          | 44"              | 61.5"                     |
| 60"      | 67"          | 44"              | 67.5"                     |
| 72"      | 81"          | 44"              | 81.5"                     |

## WALL HOUSING

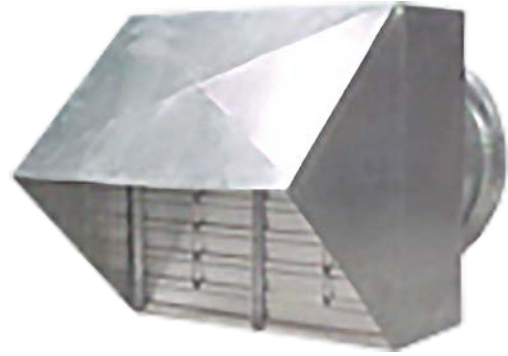


# HVSU

HIGH VELOCITY SUPPLY SIDEWALL UNIT



Inside View



Outside View

Patterson's HVSU (High Velocity Supply Unit) is the only ventilation product on the market that can bring outside air in and then throw it 120-200 feet in the direction you need it. Not only are you ventilating your building, you can actually *feel* the fresh air coming in.

Typical applications are for industrial and agricultural buildings such as manufacturing and assembly plants, factories, warehouses, parking garages, equipment rooms, distribution centers, foundries, boiler rooms, and greenhouses.

## MOTOR

| VOLTAGE       | MOTOR AMPS  | RUNNING AMPS |
|---------------|-------------|--------------|
| 208-230V/460V | 2.3-2.4/1.2 | 2.0-2.1/1.1  |
| 277V          | 3.6         | 3.2          |

## MODELS

| SIZE | CFM    | HP  | AIR THROW DISTANCE | FAN DIMENSIONS |     |         | BOX DIMENSIONS |     |       | MODEL  |
|------|--------|-----|--------------------|----------------|-----|---------|----------------|-----|-------|--------|
|      |        |     |                    | W              | D   | ID      | W              | D   | ID    |        |
| 22"  | 5570   | 1   | 100'               | 29"            | 16" | 22.5"   | 35.5"          | 12" | 35.5" | HVSU22 |
| 30"  | 12,000 | 1.5 | 200'               | 37"            | 22" | 30.875" | 43.5"          | 18" | 43.5" | HVSU30 |

Combine it with a Patterson Power Tube fabric air duct to efficiently direct and control airflow distribution over large areas.





# SDB

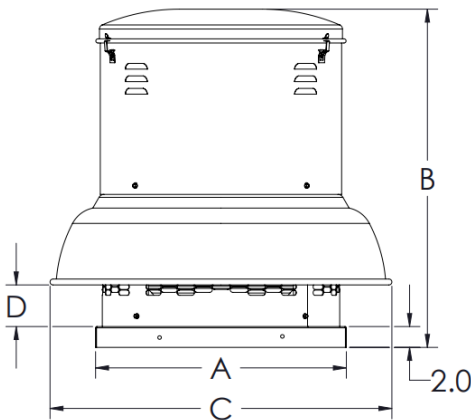
## BELT DRIVE CENTRIFUGAL DOWNBLAST ROOF EXHAUSTER



The SDB belt drive fans are designed to exhaust air up to 31,563 CFM in high static pressure applications up to 1-3/4". The aluminum exterior provides an attractive appearance. Belt drive results in lower operating RPM and sound levels, making the Model SDB well suited to applications where quiet operation is important. Belt drive also permits easy performance adjustments when needed to balance the total ventilation system. The non-overloading backward inclined wheel with its higher static pressure capability makes this unit suitable for either ducted or non-ducted applications. Its roof mounting permits location near the area to be ventilated, allowing short duct runs and more efficient operation.

SDBs are primarily used for the exhaust of relatively clean air from a wide range of commercial, industrial and institutional environments such as manufacturing and assembly plants, office buildings, schools, hospitals, restaurants, athletic facilities and many others.

## DIMENSIONS



| SIZE | A      | B       | C       | D       | ROOF OPENING | CURB O.D. |
|------|--------|---------|---------|---------|--------------|-----------|
| 6"   | 18.13" | 30.1"   | 25"     | 3.4"    | 13.5"        | 16.5"     |
| 8"   | 18.13" | 30.1"   | 25"     | 3.4"    | 13.5"        | 16.5"     |
| 12"  | 20.13" | 31.7"   | 27.5"   | 3.9"    | 15.5"        | 18.5"     |
| 16"  | 24.13" | 32.5"   | 32.9"   | 4"      | 19.5"        | 22.5"     |
| 18"  | 30.16" | 36.4"   | 39.2"   | 4.6"    | 25.2"        | 28.5"     |
| 20"  | 30.16" | 38.3"   | 45"     | 6.1"    | 25.2"        | 28.5"     |
| 24"  | 36"    | 46.625" | 49.375" | 6.0625" | 31.5"        | 34.5"     |
| 30"  | 42"    | 50.25"  | 56"     | 7.375"  | 37.5"        | 40.5"     |

More sizes available.

## Most popular MODELS

| BLADE DIAMETER | HP    | RPM  | CFM   | MODEL       |
|----------------|-------|------|-------|-------------|
| 20"            | 3/4   | 850  | 4256  | P-SDB20RH3S |
| 20"            | 1     | 900  | 4506  | P-SDB20SH3S |
| 20"            | 1-1/2 | 1000 | 5007  | P-SDB20TH3S |
| 20"            | 2     | 1150 | 5758  | P-SDB20VH3S |
| 24"            | 3/4   | 600  | 6191  | P-SDB24RH3S |
| 24"            | 1     | 650  | 6707  | P-SDB24SH3S |
| 24"            | 1-1/2 | 750  | 7739  | P-SDB24TH3S |
| 24"            | 2     | 850  | 8771  | P-SDB24VH3S |
| 30"            | 3/4   | 450  | 8355  | P-SDB30RH3S |
| 30"            | 1     | 500  | 9284  | P-SDB30SH3S |
| 30"            | 1-1/2 | 550  | 10212 | P-SDB30TH3S |
| 30"            | 2     | 600  | 11140 | P-SDB30VH3S |

Please call for more models/sizes.

## FEATURES

| SIZE RANGE | PERFORMANCE                    | WARRANTY                      |
|------------|--------------------------------|-------------------------------|
| 6-48"      | 41-31,563 CFM up to 1.75" w.g. | Fan: 5 years<br>Motor: 1 year |

## QUICK SHIP

Model SDB is available in our Quickship program. Sizes 6-24 are available for next day, 3-day or 10-day shipping from stock.

# UBX

## DIRECT DRIVE PROPELLER UPBLAST ROOF EXHAUSTER

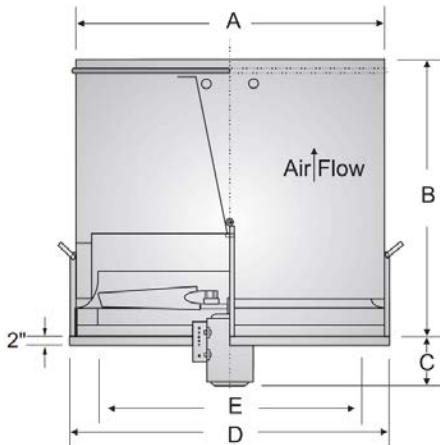


The UBX is a **high capacity, direct drive** roof mounted exhauster rated from 5,200 to 65,500 CFM designed to economically remove large volumes of air, fumes and vapors from commercial and industrial buildings such as warehouses, manufacturing and assembly plants, distribution centers, chemical plants, foundries and paper mills.

Straight-through air flow design results in maximum exhaust efficiency. During operation, high air flow velocity opens butterfly dampers and prevents rain or snow from entering. Dampers close and cover the venturi opening when unit is not in use.

The roof mounted location eliminates interference with processes and equipment inside the building. It also permits locating the exhauster over a source of heated or contaminated air, allowing direct upward venting to the outside, unlike wall mounted exhausters which may move contaminated air through adjacent work spaces.

## DIMENSIONS



| SIZE | A   | B   | C   | D (SQ) | E (SQ) | F (SQ) | G (SQ) |
|------|-----|-----|-----|--------|--------|--------|--------|
| 24"  | 30" | 33" | 16" | 32"    | 24"    | 31"    | 28"    |
| 30"  | 36" | 36" | 17" | 38"    | 30"    | 37"    | 34"    |
| 36"  | 42" | 38" | 17" | 44"    | 36"    | 43"    | 40"    |
| 42"  | 48" | 41" | 18" | 50"    | 42"    | 49"    | 46"    |
| 48"  | 54" | 44" | 22" | 56"    | 48"    | 55"    | 52"    |
| 54"  | 60" | 47" | 22" | 62"    | 54"    | 61"    | 58"    |
| 60"  | 66" | 50" | 22" | 68"    | 60"    | 67"    | 64"    |
| 72"  | 80" | 56" | 31" | 82"    | 72"    | 81"    | 78"    |

## Most popular MODELS

| BLADE DIAMETER | HP    | RPM  | CFM   | MODEL        |
|----------------|-------|------|-------|--------------|
| 36"            | 1     | 870  | 14200 | P-UBX361HP   |
| 36"            | 2     | 1160 | 17600 | P-UBX362HP   |
| 36"            | 3     | 1750 | 17900 | P-UBX363HP   |
| 36"            | 5     | 1750 | 23700 | P-UBX365HP   |
| 42"            | 2     | 1160 | 20800 | P-UBX242HP   |
| 42"            | 3     | 1160 | 25200 | P-UBX423HP   |
| 42"            | 5     | 1160 | 30800 | P-UBX4255HP  |
| 42"            | 7-1/2 | 1750 | 32800 | P-UBX427.5HP |
| 54"            | 3     | 870  | 35700 | P-UBX543HP   |
| 54"            | 5     | 1160 | 38500 | P-UBX545HP   |
| 54"            | 7-1/2 | 1160 | 49200 | P-UBX547.5HP |
| 60"            | 7-1/2 | 870  | 57200 | P-UBX607.5HP |

Please call for more models/sizes.

- A. Outside dimension of windband.
- B. Height of unit above curb cap.
- C. Maximum depth of unit below top of curb, actual depth varies with motor size.
- D. Inside dimension of square curb cap.
- E. Minimum inside dimension of curb opening required for adequate clearance of fan frame.
- F. Outside dimension of factory built pre-fab curb.
- G. Recommended roof opening (inside dimension of factory built prefabricated curb).

## FEATURES

| SIZE RANGE | PERFORMANCE                          | WARRANTY                      |
|------------|--------------------------------------|-------------------------------|
| 24-72"     | 5,200 - 65,500 CFM<br>up to .5" w.g. | Fan: 2 years<br>Motor: 1 year |

**NOTE:** Belt drive units usually operate more quietly and afford easier performance adjustments, while direct drive models require less maintenance.

# UBS

## BELT DRIVE PROPELLER UPBLAST ROOF EXHAUSTER

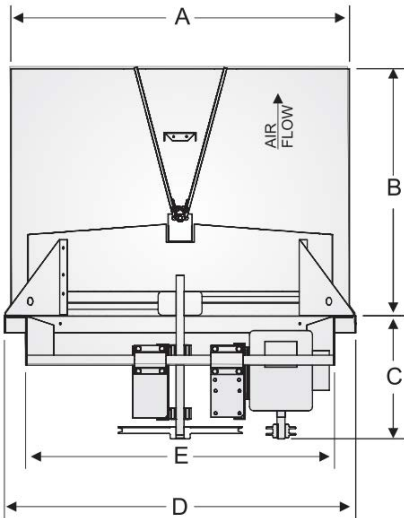


The UBS is a **medium capacity, belt drive** roof mounted exhauster rated from 5,295 to 51,000 CFM. It is a general ventilation unit designed to economically remove large volumes of air, fumes and vapors from commercial and industrial buildings such as warehouses, manufacturing and assembly plants, chemical plants, foundries and paper mills.

Straight-through air flow design results in maximum exhaust efficiency. During operation, high air flow velocity opens butterfly dampers and prevents rain or snow from entering. Dampers close and cover the venturi opening when unit is not in use.

The roof mounted location eliminates interference with processes and equipment inside the building. It also permits locating the exhauster over a source of heated or contaminated air, allowing direct upward venting to the outside, unlike wall mounted exhausters which may move contaminated air through adjacent work spaces.

## DIMENSIONS



| SIZE | A   | B   | C   | D   | E   | F   | METAL GAUGES |           |
|------|-----|-----|-----|-----|-----|-----|--------------|-----------|
|      |     |     |     |     |     |     | WIND SHROUD  | FAN PANEL |
| 24"  | 30" | 26" | 20" | 32" | 28" | 31" | 18"          | 16"       |
| 30"  | 36" | 29" | 21" | 38" | 34" | 37" | 18"          | 16"       |
| 36"  | 42" | 31" | 21" | 44" | 40" | 43" | 18"          | 16"       |
| 42"  | 48" | 34" | 22" | 50" | 46" | 49" | 18"          | 16"       |
| 48"  | 54" | 37" | 26" | 56" | 52" | 55" | 18"          | 16"       |
| 54"  | 60" | 40" | 26" | 62" | 58" | 61" | 18"          | 14"       |
| 60"  | 66" | 43" | 26" | 68" | 64" | 67" | 18"          | 14"       |

## Most popular MODELS

| BLADE DIAMETER | HP    | RPM | CFM   | MODEL        |
|----------------|-------|-----|-------|--------------|
| 36"            | 1     | 575 | 11872 | P-UBS361HP   |
| 36"            | 1-1/2 | 705 | 14557 | P-UBS361.5HP |
| 36"            | 2     | 795 | 16415 | P-UBS362HP   |
| 36"            | 3     | 950 | 19087 | P-UBS363HP   |
| 42"            | 1-1/2 | 510 | 16307 | P-UBS361.5HP |
| 42"            | 2     | 600 | 19184 | P-UBS362HP   |
| 42"            | 3     | 700 | 22382 | P-UBS363HP   |
| 42"            | 5     | 790 | 25259 | P-UBS365HP   |
| 54"            | 3     | 485 | 29460 | P-UBS365HP   |
| 54"            | 5     | 600 | 36456 | P-UBS367.5HP |

Please call for more models/sizes.

- A. Outside dimension of windband.
- B. Height of unit above curb cap.
- C. Maximum depth of unit below top of curb, actual depth varies with motor size.
- D. Inside dimension of square curb cap.
- E. Minimum inside dimension of curb opening required for adequate clearance of fan frame.
- F. Outside dimension of factory built pre-fab curb.

## FEATURES

| SIZE RANGE | PERFORMANCE                          | WARRANTY                      |
|------------|--------------------------------------|-------------------------------|
| 24-60"     | 5,295 - 51,000 CFM<br>up to .5" w.g. | Fan: 2 years<br>Motor: 1 year |

**NOTE:** Belt drive units usually operate more quietly and afford easier performance adjustments, while direct drive models require less maintenance.

# UBB

## BELT DRIVE PROPELLER UPBLAST ROOF EXHAUSTER

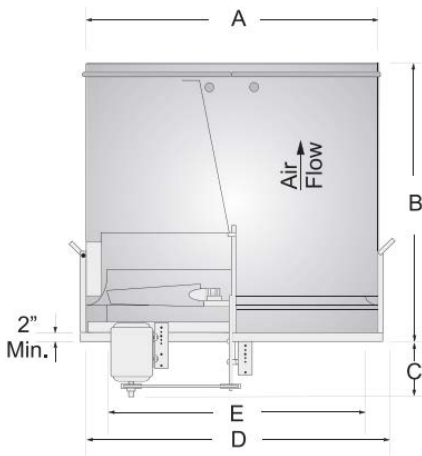


The UBB is a **high capacity, belt drive** roof mounted exhauster rated from 4,800 to 78,200 CFM designed to economically remove large volumes of air, fumes and vapors.

Straight-through air flow design results in maximum exhaust efficiency. During operation, high air flow velocity opens butterfly dampers and prevents rain or snow from entering. Dampers close and cover the venturi opening when unit is not in use.

The roof mounted location eliminates interference with processes and equipment inside the building. It also permits locating the exhauster over a source of heated or contaminated air, allowing direct upward venting to the outside, unlike wall mounted exhausters which may move contaminated air through adjacent work spaces.

## DIMENSIONS



| SIZE | A   | B   | C   | D (SQ) | E (SQ) | F (SQ) | G (SQ) |
|------|-----|-----|-----|--------|--------|--------|--------|
| 24"  | 30" | 33" | 16" | 32"    | 24"    | 31"    | 28"    |
| 30"  | 36" | 36" | 17" | 38"    | 30"    | 37"    | 34"    |
| 36"  | 42" | 38" | 17" | 44"    | 36"    | 43"    | 40"    |
| 42"  | 48" | 41" | 18" | 50"    | 42"    | 49"    | 46"    |
| 48"  | 54" | 44" | 22" | 56"    | 48"    | 55"    | 52"    |
| 54"  | 60" | 47" | 22" | 62"    | 54"    | 61"    | 58"    |
| 60"  | 66" | 50" | 22" | 68"    | 60"    | 67"    | 64"    |
| 72"  | 80" | 56" | 31" | 82"    | 72"    | 81"    | 78"    |

## Most popular MODELS

| BLADE DIAMETER | HP    | RPM  | CFM   | MODEL         |
|----------------|-------|------|-------|---------------|
| 36"            | 1     | 700  | 13279 | P-UBBB361HP   |
| 36"            | 1-1/2 | 795  | 15081 | P-UBBB361.5HP |
| 36"            | 2     | 895  | 16978 | P-UBBB362HP   |
| 36"            | 3     | 1020 | 19349 | P-UBBB363HP   |
| 42"            | 1-1/2 | 640  | 19800 | P-UBB421.5HP  |
| 42"            | 2     | 710  | 22100 | P-UBB422HP    |
| 42"            | 3     | 805  | 25000 | P-UBB423HP    |
| 42"            | 5     | 950  | 29700 | P-UBB425HP    |
| 54"            | 3     | 545  | 35000 | P-UBB543HP    |
| 54"            | 5     | 640  | 41200 | P-UBB545HP    |
| 54"            | 7-1/2 | 735  | 47200 | P-UBB547.5HP  |
| 54"            | 10    | 805  | 51800 | P-UBB5410HP   |
| 60"            | 5     | 550  | 48200 | P-UBB605HP    |
| 60"            | 7-1/2 | 630  | 55200 | P-UBB607.5HP  |
| 60"            | 10    | 695  | 61000 | P-UBB6010HP   |

Please call for more models/sizes.

- A. Outside dimension of windband.
- B. Height of unit above curb cap.
- C. Maximum depth of unit below top of curb, actual depth varies with motor size.
- D. Inside dimension of square curb cap.
- E. Minimum inside dimension of curb opening required for adequate clearance of fan frame.
- F. Outside dimension of factory built pre-fab curb.
- G. Recommended roof opening (inside dimension of factory built prefab curb).

## FEATURES

| SIZE RANGE | PERFORMANCE                          | WARRANTY                      |
|------------|--------------------------------------|-------------------------------|
| 24-72"     | 4,800 - 78,200 CFM<br>up to .5" w.g. | Fan: 2 years<br>Motor: 1 year |

**NOTE:** Belt drive units usually operate more quietly and afford easier performance adjustments, while direct drive models require less maintenance.

# VENTILATION

## AIR CHANGES

Every ventilation problem contains factors that need to be studied. Patterson's dedicated sales staff has done just that! We focus on air movement to remove smoke, fumes, condensation and other specific air quality problems.

### RECOMMENDED AIR CHANGES

(air changes/hour)

|                         | ADEQUATE | BEST |
|-------------------------|----------|------|
| Auditoriums             | 8        | 15   |
| Bakeries                | 20       | 30   |
| Boiler Rooms            | 15       | 20   |
| Engine Rooms            | 4        | 6    |
| Factories               | 2        | 4    |
| Foundries               | 15       | 20   |
| Galvanizing Plants      | 20       | 30   |
| Garages                 | 20       | 30   |
| Machine Shops           | 6        | 12   |
| Poultry Houses          | 6        | 10   |
| Precision Manufacturing | 10       | 50   |
| Warehouses              | 6        | 30   |

**NOTE:** Consider local code requirements when determining number of air changes.



### CFM/SQ FT

*example*

**Auditorium:** 70' x 150' x 20' High,  
Local Code: 4 CFM per Square Foot

$$\text{CFM} = 70 \times 150 \times 4 = 42,000$$

This simply states that for every square foot of floor space in a building an amount of air change should be present.

### HEAT REMOVAL

*example*

**Factory:** 200,000 BTU/Hour  
Outside Temp. 85°F, Inside Temp. 80°F

$$\text{CFM} = \frac{200,000}{(85 - 80) \times 1.08} = 37,037$$

The rate of ventilation required increases rapidly as the difference in outside and inside temperature increases. Excessive heat should therefore be exhausted at the source using a separate ventilation system.

### AIR CHANGE

*example*

**Warehouse:** 100' x 100' x 25' High,  
12 Air Changes per Hour Desired

$$\text{CFM} = \frac{100 \times 100 \times 25}{60/12} = 50,000$$

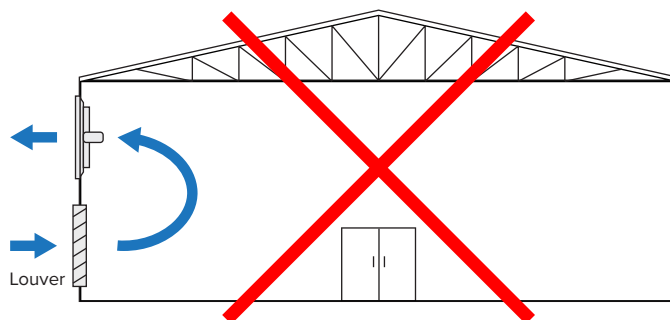
**NOTE:** Consider local code requirements when determining number of air changes.



# COMMON VENTILATION SYSTEMS

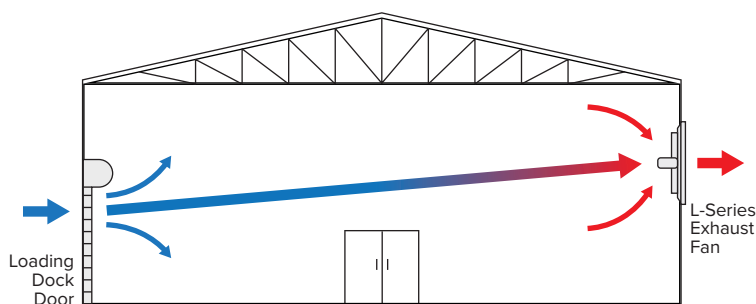
Proper fan placement insures sufficient air turnover, adequate air velocity and even air distribution.

## INCORRECT SETUP

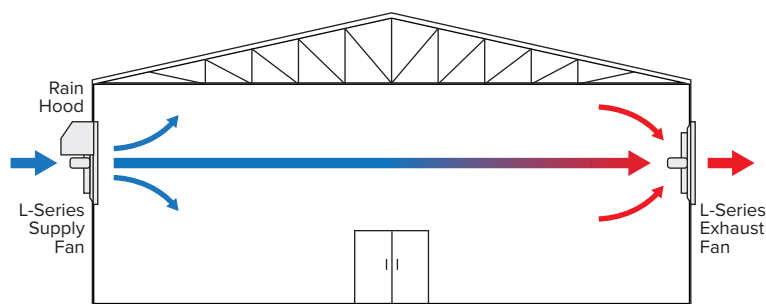


An example of a *poorly* setup system. Air flows in and out of the same area, resulting in no air flow for the rest of the building.

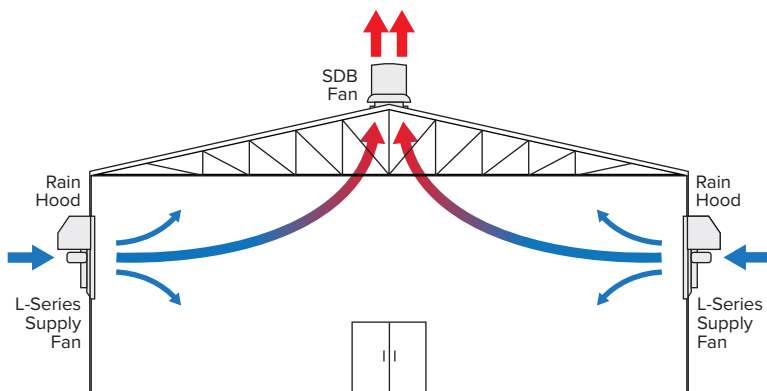
## CORRECT SETUPS



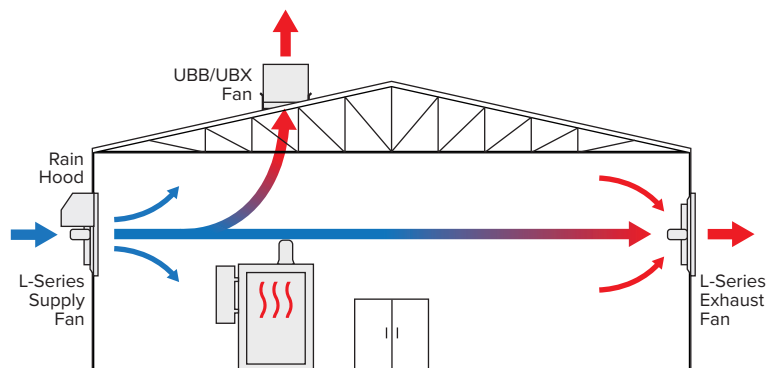
Place exhaust fan on opposite wall of a loading dock door. Only run exhaust when dock door is open.



If no dock door is present, position supply fans on opposite wall of exhaust fans. Supply fans should be on the north side of the building so as not to bring in heat from the sun.



Use roof exhausters in conjunction with supply fans to remove warmer air, fumes, and vapor.



If using a heat producing machine, place a roof exhauster directly above the machine to dispell heat, while also ventilating the whole building through supply and exhaust fans.



# OTHER PATTERSON PRODUCTS

THE TOTAL PACKAGE FOR YOUR FACILITY



HIGH VELOCITY FANS



HVLS CEILING FANS



LOADING DOCK FANS



QUIET, LOW-PROFILE FANS



FABRIC AIR DUCT FANS



DRUM FANS



PEDESTAL FANS



WORKSTATION FANS



FOOD PROCESSING FANS



EVAPORATIVE TRUCK COOLING



EVAPORATIVE ROOF COOLING



DOCK LIGHTS



# PATTERSON

**THE AUTHORITY IN AIR MOVEMENT**

OFFERED BY:

**RAYMOND**

**CAROLINA HANDLING**

**800.688.8141** toll free

**CAROLINAHANDLING.COM**

3101 PIPER LN, CHARLOTTE, NC 28208