### Instruction Manual

# WS55 Exhaust Fan

Fiberglass w/ Plastic Cone - 1-Pack Quick Kit Models: WS55xKxCP • WS55xKxGP • WS55xPxCP-PE • WS55xPxCT-PE



WS55

**Exhaust Fan** 

Fiberglass w/

**Plastic Cone** 

1-Pack Quick Kit

# WS55 Exhaust Fan; Fiberglass w/ Plastic Cone Instructions for Use and Maintenance

#### Thank You:

Thank you for purchasing a Munters WS55 Exhaust Fan. Munters equipment is designed to be the highest performing, highest quality equipment you can buy. With the proper installation and maintenance it will provide many years of service.

#### Please Note:

To achieve maximum performance and insure long life from your Munters product it is essential that it be installed and maintained properly. Please read all instructions carefully before beginning installation.

#### Warranty:

For Warranty claims information see the "Warranty Claims and Return Policy" form QM1021 available from the Munters Corporation office at 1-800-227-2376 or by e-mail at aghort.info@munters.com.

#### **Conditions and Limitations:**

- Products and Systems involved in a warranty claim under the "Warranty Claims and Return Policy" shall have been properly installed, maintained and operated under competent supervision, according to the instructions provided by Munters Corporation.
- Malfunction or failure resulting from misuse, abuse, negligence, alteration, accident or lack of proper installation or maintenance shall not be considered a defect under the Warranty.

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# **Unpacking the Equipment**

1.

#### 1.1 Parts List

#### Broiler Fan (WS55xK)

#### Each Crate Includes

- 1 55" Fiberglass Fan, Sub-Assembly
- 1 Plastic Shutter
- 1 Motor
- 4 Cone Sections, PL
- 4 Cone Support Brackets, PC Type, Galvanized
- 1 Cone Guard (Round)
- 1 Bulk Parts Package (BK1170)

#### BK1170 - Bulk Parts Package for WS55xK

- 1 Motor Plate, Powder Coated
- 1 Motor Bracket Brace, Powder Coated
- 1 Belt Tensioner Bracket, Powder Coated
- 1 V-Belt, A-Section
- 1 Motor Sheave
- 1 3" Idler Pulley, A-Section C.I., Blue
- 1 Rotary Tensioner Arm, AL
- 1 Hardware Package (HP1440)
- 1 Hardware Package (HP1441)

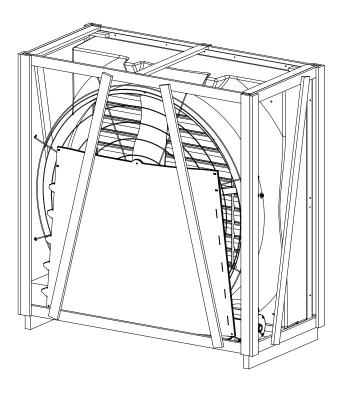
#### Swine Fan (WS55xP)

#### Each Crate Includes

- 1 55" Fiberglass Fan, Sub-Assembly
- 1 Plastic Shutter
- 1 Motor
- 4 Cone Sections, PL
- 4 Cone Support Brackets, PC Type, Powder Coated
- 1 Cone Guard
- 1 Bulk Parts Package (BK1172)

#### BK1072 - Bulk Parts Package for WS55xP

- 1 Motor Plate, Powder Coated
- 1 Motor Bracket Brace, Powder Coated
- 1 Belt Tensioner Bracket, Powder Coated
- 1 V-Belt, A-Section
- 1 Motor Sheave
- 1 3" Idler Pulley, A-Section C.I., Blue
- 1 Rotary Tensioner Arm, AL
- 1 Hardware Package (HP1440)
- 1 Hardware Package (HP1442)



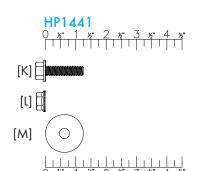
#### HP1440 - Hardware Package for 1 - WS55xK/P Fan Assembly

| ID  | Qty. | Cat. No. | Description                                     |
|-----|------|----------|-------------------------------------------------|
| [A] | 12   | KS2105   | #14 x 1.5" Hex Washer Tap Screw, SS             |
| [B] | 2    | KW3011   | 5/16" x 11/4" O.D. Flat Washer, SS              |
| [C] | 3    | KS1075   | <sup>5</sup> /16"-18 x 2.75" Hex Head Bolts, SS |
| [D] | 5    | KS1007   | 5/16"-18 x 1.25" Hex Head Bolts, SS             |
| [E] | 8    | KN0704   | 5/16"-18 SRTD Flange Nuts, SS                   |
| [F] | 1    | KS1931   | M10-1.5 x 25mm Hex Bolt, ZP                     |
| [G] | 1    | KW3509   | 10mm Splitlock Washer, ZP                       |
| [H] | 1    | KS1046   | M10-1.5 x 50mm Hex bolt, ZP                     |
| []] | 3    | KX1158   | Hole Plua, 0.73"-0.76" Dia., BLK PL             |

# 

# HP1441 - Hardware Package for 1 - WS55xK Cone Assembly

| ID  | Qty. | Cat. No. | Description                                 |
|-----|------|----------|---------------------------------------------|
| [K] | 20   | KS1167   | 5/16"-18 x 1.25" SRTD Flange Head Bolts, ZP |
| [L] | 24   | KN0706   | 5/16"-18 SRTD Flange Nuts, ZP               |
| [M] | 4    | KW4908   | M8 x 32mm Flat Washer, ZP                   |



#### HP1442 - Hardware Package for 1 - WS55xP Cone Assembly

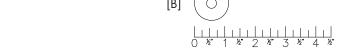
| ID  | Qty. | Cat. No. | Description                         |
|-----|------|----------|-------------------------------------|
| [D] | 20   | KS1007   | 5/16"-18 x 1.25" Hex Head Bolts, SS |
| [E] | 24   | KN0704   | 5/16"-18 SRTD Flange Nuts, SS       |
| [B] | 4    | KW3011   | 5/16" x 11/4" O.D. Flat Washer, SS  |





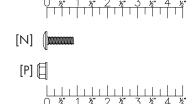
[H]





HP1210 - Hardware Package for 1 - WS55xKxGP Guard Attachment

|   | ID  | Qty. | Cat. No. | Description                        |  |
|---|-----|------|----------|------------------------------------|--|
| ı | [N] | 8    | KS0650   | 1/4"-20 x 7/8" Truss Head Bolt, SS |  |
|   | [P] | 8    | KN1717   | 1/4"-20 Hex Flange, Nylock Nut, SS |  |

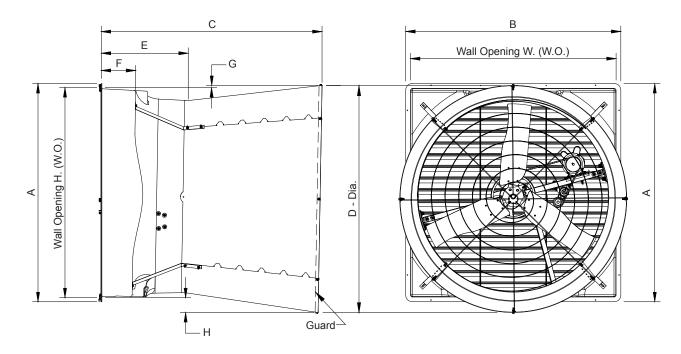


#### 1.2 Fan Dimensions

Fan Specifications: 60Hz shown (50Hz available)
Power: 115/230 VAC\* or 208-230/460 VAC

Phase: 1 or 3

<sup>\*</sup>Available voltages vary depending on HP



| Dir | <u>Dimensions:</u> |      |      |                 |          |         |        |                 |                 |                      |
|-----|--------------------|------|------|-----------------|----------|---------|--------|-----------------|-----------------|----------------------|
| Siz | æ                  | Α    | В    | С               | D - Dia. | Е       | F      | G<br>Above W.O. | H<br>Below W.O. | Wall Openings (W.O.) |
|     |                    |      |      |                 |          |         |        |                 |                 |                      |
| 55  | i" 6               | 53%" | 62¾" | <b>64</b> 7/16" | 661/4"   | 255/16" | 113/4" | 5/8″            | 43/8"           | 60"W. x 611/4"H.     |

#### 1.3 Tools Required For Installation

10mm [3/8"] Socket

13mm [1/2"] Socket

17mm [11/16"] Socket or Wrench

27mm [1-1/16"] Wrench

3/8" Socket

Phillips Screwdriver, #3 Size

5/32" Hex Wrench

#### 2.1 Wall Framing

Step 1

Construct framed opening to correct size according to the Wall Opening listed in Chart A below. See Figure 1A and 1B. When installing exterior sheet metal before fan, leave 2" of the framing exposed on all sides so the orifice can mount flush to the frame.

#### Chart A

|          | Wall Opening       | Minimum Spacing             | Center To Center |
|----------|--------------------|-----------------------------|------------------|
| Fan Dia. | (W. x H.)          | 'Z'                         | Dimension        |
| 55"      | 60" W. x 611/4" H. | 12" recommended; 8" minimum | 68" Minimum      |

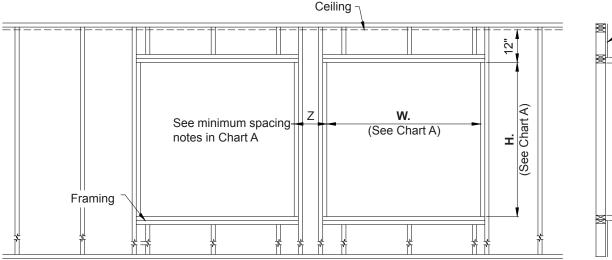
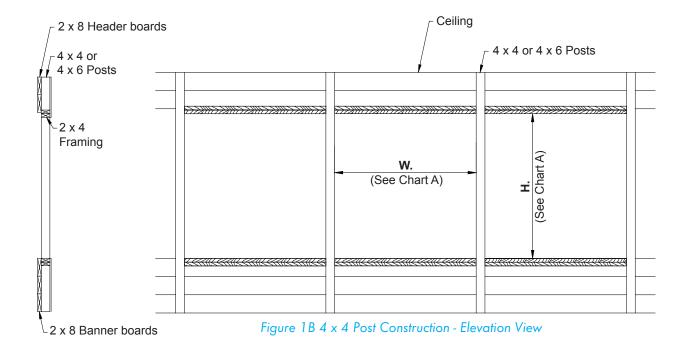




Figure 1A Frame Construction



#### 2.2 Fan Assembly

Step 2A

Remove the Cone Pieces, Guard, BK1170/BK1172 Box and Motor from the front of the crate. See Figure 2A.

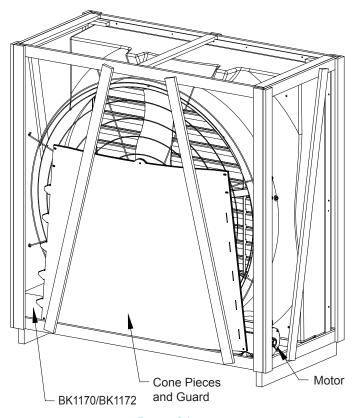


Figure 2A

Step 2B

Remove the Shutter from the back of the crate. See Figure 2B.

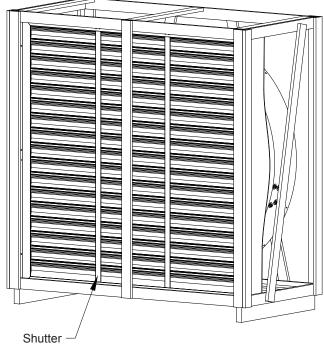
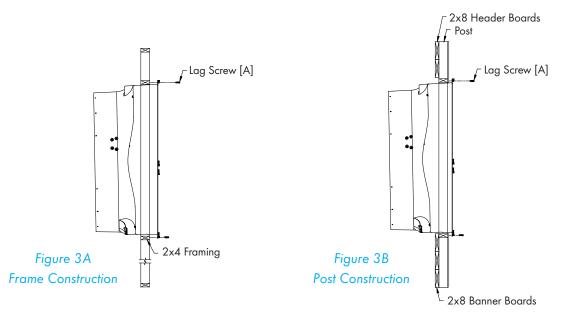


Figure 2B

#### Step 3

Insert fan into framed opening from the inside. While lifting the fan up tight to framing, fasten top of fan with (3) Lag Screws [A]. See Figure 3A and 3B. Next fasten bottom of fan, then both sides with remaining (9) Lag Screws [A]. Install flashing around opening tight to fan and caulk around fan to seal.



Step 4

Attach the Motor Plate and the Belt Tensioner Bracket to the Tube Strut using (3) Long Bolts [C], (2)

Washers [B] and (3) Nuts [E]. See Figure 4.

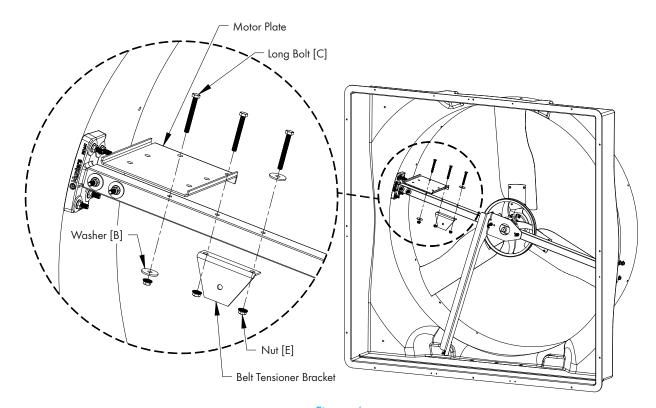
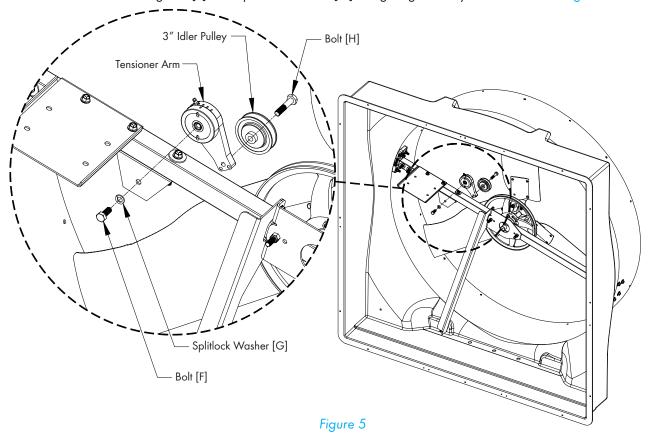


Figure 4

Step 5

Attach the 3" Idler Pulley to the Tensioner Arm using Bolt [H]. Then attach the Tensioner/Pulley Assembly to the Tensioner Bracket using Bolt [F] and Splitlock Washer [G]. Finger tighten only at this time. See Figure 5.



#### 2.3 Motor Mounting

#### Step 6

Find the Key provided with the Motor and place it in the Keyway on the motor shaft. Place the Motor Sheave on the Motor shaft with the hub facing towards the motor. See Figure 6. ONLY tighten the set screw enough to hold the Sheave in place at this time. See Figure 6.

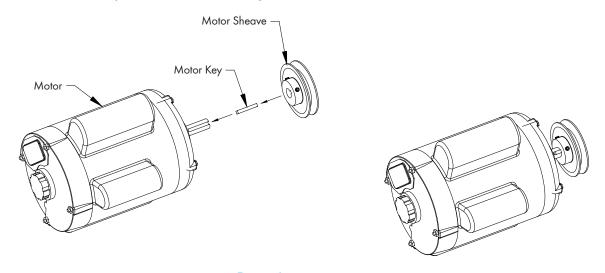


Figure 6

#### Step 7

Set Motor on Motor Plate so Motor base rests against lower Motor Plate flange. Align middle and front slots in Motor base with holes in Motor Bracket. See Figure 7.

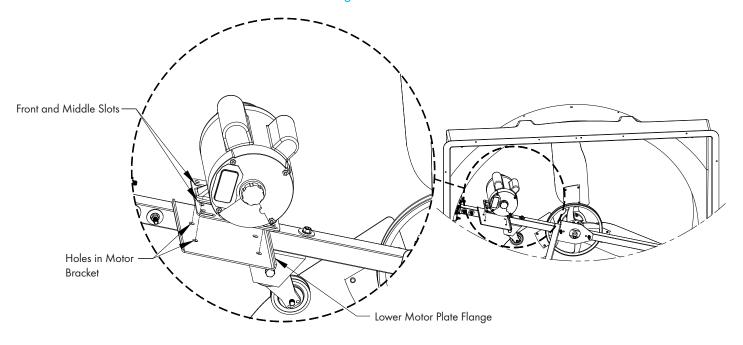


Figure 7

#### Step 8

Secure Motor to Motor Plate and Motor Bracket Brace using (4) Short Bolts [D] and Nuts [E]. The rear lower bolt is where the Motor Bracket Brace is attached. See Figure 8. Then attach the Motor Bracket Brace to Strut Brace using (1) Short Bolt [D] and Nut [E]. See Figure 8.

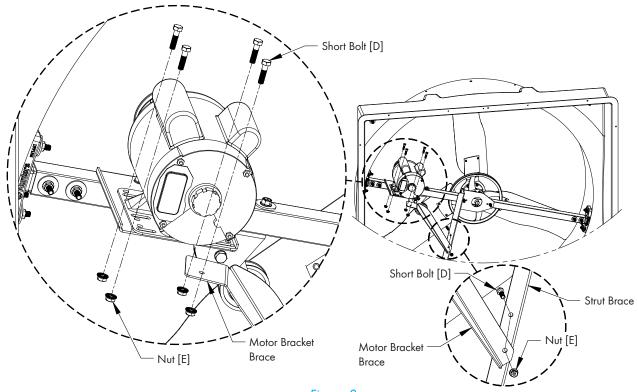


Figure 8

#### Step 9

Use a straight edge or level to check alignment of the Propeller Sheave, Tensioner Pulley and the Motor Sheave. If needed, adjust position of Motor Sheave so the 3 pulleys line up. Once Motor Sheave is aligned tighten set screw to 75 IN-LBS [9 N-m] torque. See Figure 9.

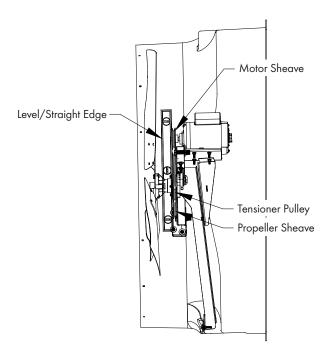


Figure 9

#### Step 10A

Slide V-belt over Propeller and install by wrapping it around 2 smaller pulleys and starting it over larger Sheave. Continue rolling it onto the larger Sheave until it fits into groove. See Figure 10A.

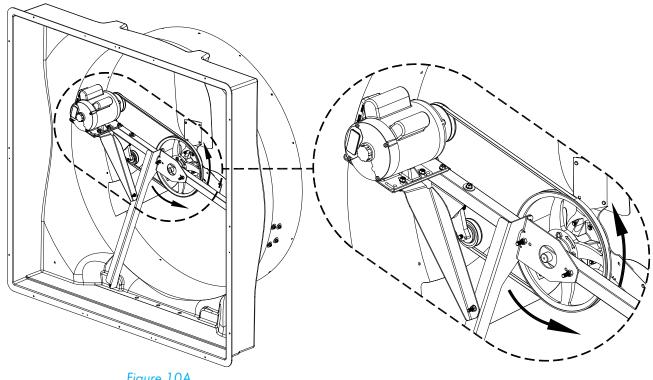


Figure 10A

#### Step 10B

To adjust belt tensioner to proper setting, loosen 10mm bolt (using 17mm end wrench) to allow tensioner arm to rotate. Working from inlet/motor side of fan, place a 27mm (11/16") wrench onto the hex on the tensioner. Turn wrench clockwise until the single mark on base of belt tensioner is aligned with Mark 2 on the tensioner arm. Hold at this setting and tighten the 10mm bolt to 40 ft.lbs. [54 N-m] torque. See Figure 10B.

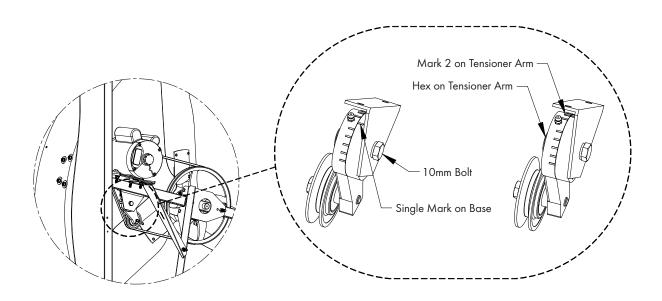


Figure 10B

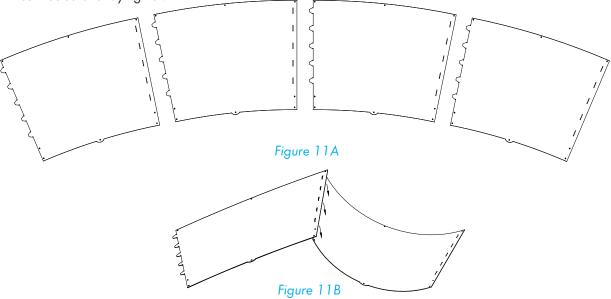
#### Note:

If the fan package came with a Discharge Cone then proceed to Step 11 for cone installation. If the fan package came with an Outlet Guard then proceed to Step 15.

#### 2.4 Cone Installation

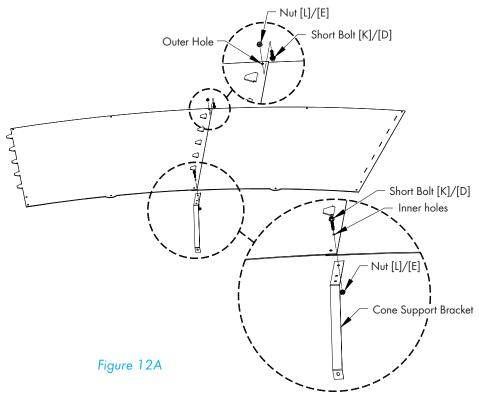
#### Step 11

Place all 4 cone sections on a flat surface with tabs from one facing slots of the next. See Figure 11A. Curl up tab end of first cone section and insert tabs up into slots in the next cone section. A mallet may be needed to seat slots over tabs completely. See Figure 11B. Repeat this until all 4 cone sections are connected and laying flat.



#### Step 12A

For WS55xK Fan fasten each of the joints in the single outer hole using (1) Short Bolt [K] and Nut [L], with the nut on the side with the tabs. At the inner pair of holes of each joint attach (1) Cone Support Bracket to the inner hole using (1) Short Bolt [K] and Nut [L] with the bolt head on the side with the tabs. For WS55xP Fan fasten each of the joints in the single outer hole using (1) Short Bolt [D] and Nut [E], with the nut on the side with the tabs. At the inner pair of holes of each joint attach (1) Cone Support Bracket to the inner hole using (1) Short Bolt [D] and Nut [E] with the bolt head on the side with the tabs. See Figure 12A.



#### Step 12B

Stand cone sections on end and curl ends around to form cone with Cone Support Bracket on outside and tabs on inside. Insert remaining tabs into slots so tabs are inside cone. For WS55xK Fan fasten final joint using (1) Short Bolt [K] and Nut [L], with nut on inside of cone. At the inner pair of holes attach (1) Cone Support Bracket to the inner hole using (1) Short Bolt [K] and Nut [L] with bolt head on inside of cone. For WS55xP Fan fasten final joint using (1) Short Bolt [D] and Nut [E], with nut on inside of cone. At the inner pair of holes attach (1) Cone Support Bracket to the inner hole using (1) Short Bolt [D] and Nut [E] with bolt head on inside of cone. See Figure 12B.

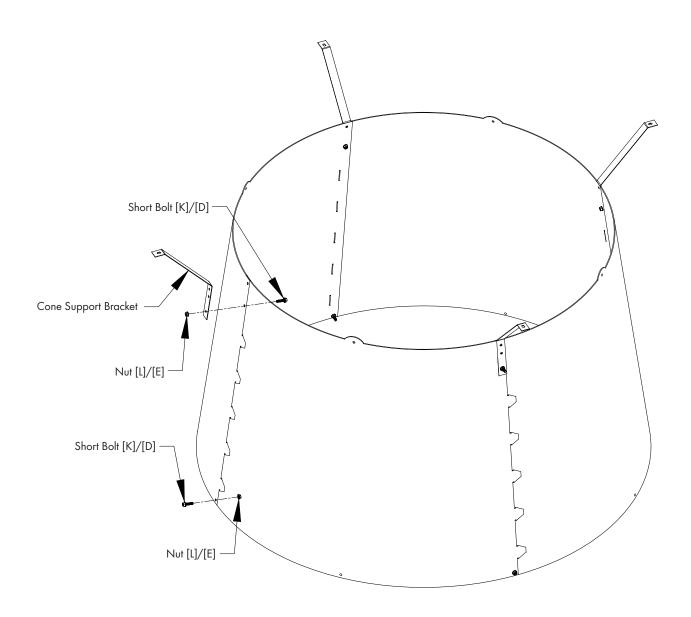


Figure 12B

#### Step 13A

Install cone onto fan by putting top of cone over top of fan outlet and allow remainder of cone to slide over outlet making sure Cone Support Brackets remain on outside of fan. Cone Support Brackets should line up with holes in housing. See Figure 13A.

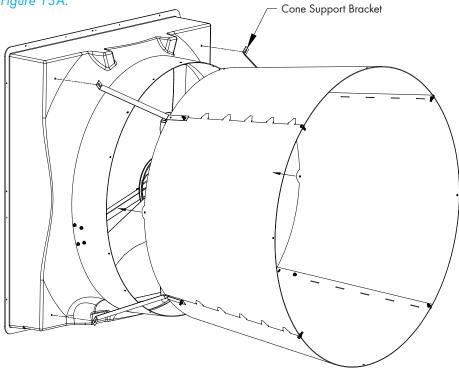


Figure 13A Step 13B

For WS55xK Fan fasten end of Cone Support Bracket with slot to fan housing using Short Bolt [K], Flat Washer [M] and Nut [L]. For WS55xP Fan fasten end of Cone Support Bracket with slot to fan housing using Short Bolt [D], Flat Washer [B] and Nut [E]. Repeat for each corner. See Figure 13B.

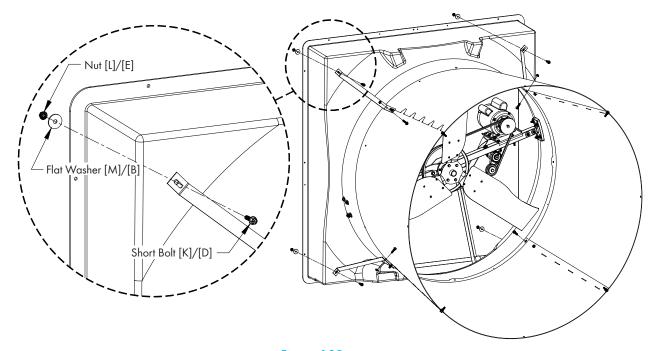
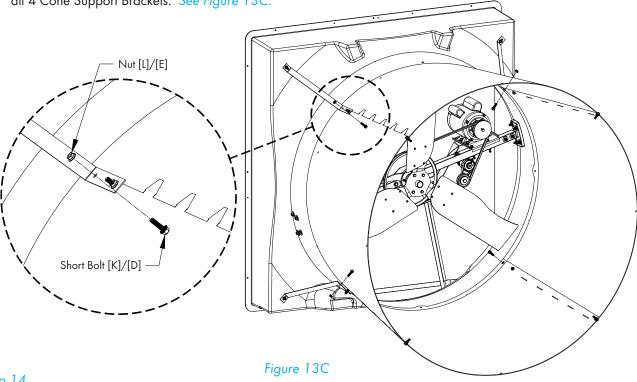


Figure 13B

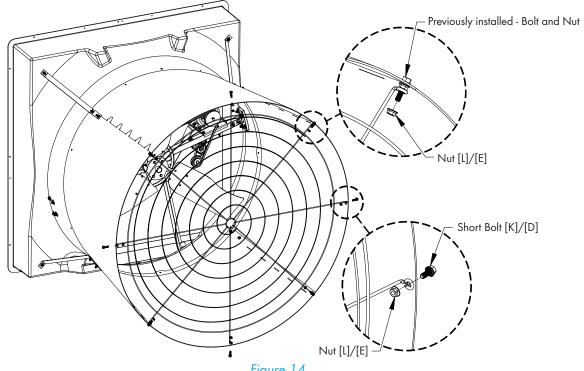
#### Step 13C

For WS55xK Fan secure the Cone and Cone Support Bracket to fan housing by inserting Short Bolt [K] into hole from the inside out and secure with Nut [L]. For WS55xP Fan secure the Cone and Cone Support Bracket to fan housing by inserting Short Bolt [D] into hole from the inside out and secure with Nut [E]. Repeat process for all 4 Cone Support Brackets. See Figure 13C.



Step 14

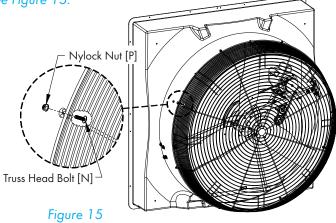
For WS55xK Fan insert guard into cone with the eyelets facing you. Install eyelets over bolts already installed in cone and fasten with Nut [L]. Secure remaining eyelets using Short Bolt [K] and Nut [L]. For WS55xP Fan insert guard into cone with the eyelets facing you. Install eyelets over bolts already installed in cone and fasten with Nut [E]. Secure remaining eyelets using Short Bolt [D] and Nut [E]. See Figure 14.



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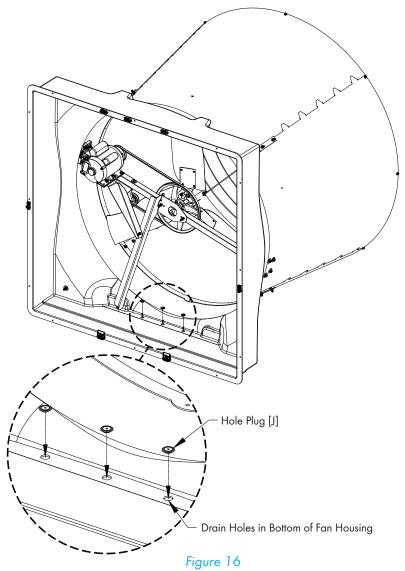
#### Step 15

If the fan came with an outlet guard instead of a cone, slide the guard over fan orifice and secure to fan using (8) Truss Head Bolts [N] and Nylock Nuts [P] with the head of the bolt on the inside of the orifice and the nut on the outside. See Figure 15.



Step 16

The Drain Holes in bottom of Fan Housing can be plugged if preferred, using provided Hole Plugs [J]. See Figure 16.



#### Step 17

Insert shutter into fan by sliding the bottom flange of shutter into bottom shutter clips and pressing shutter inward, See Figure 17A. Fasten shutter in place by rotating the side and top shutter clips over the shutter flanges, See Figure 17B.

Installation is now complete, proceed to electrical wiring section.

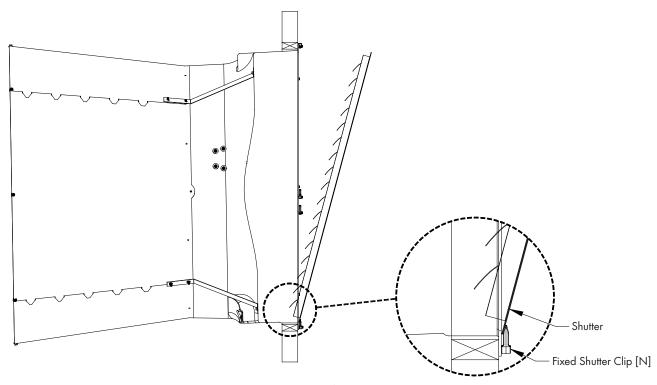


Figure 17A

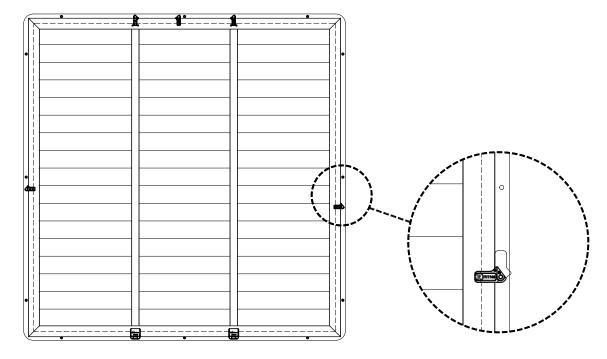


Figure 17B

# **Electrical Wiring**

3.

All wiring should be installed in accordance with National, State, and Local electrical codes. Fans used to ventilate livestock buildings or other rooms where continuous air movement is essential should be connected to individual electrical circuits, with a minimum of two circuits per room. For electrical connection requirements, refer to diagram on motor nameplate and to information enclosed with the Munters environmental control to be used.

Single Phase Fans: motor overload protection should be provided for each fan. A Circuit Breaker Switch or slow blow motor type fuses must be used, See Figure 18A. See form QM1400 for proper size.

Three Phase Fans: motor overload protection should be provided for each fan. A three-pole motor starter or slow blow motor fuses must be used. See Figure 18B.

If a frequency drive (inverter) is used, confirm that motors are rated for inverter duty at the voltage used. The installation of line reactors is recommended to reduce voltage spikes and harmonic distortion. Supplemental motor overload protection is also recommended.

NOTE: A safety cut-off switch should be located adjacent to each fan.

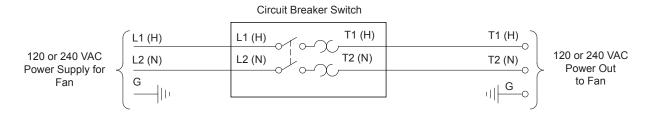
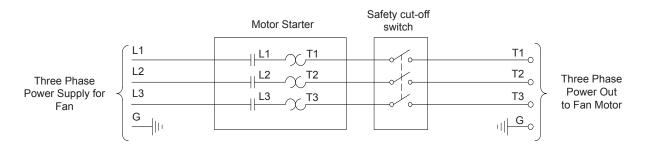


Figure 18A
Single Phase - Motor Overload Protection with Disconnect
(SY2000 or Equivalent)



#### KEY:

L1=Line 1

L2=Line 2

L3=Line 3

H=Hot

N=Neutral

G=Ground

#### Figure 18B

Three Phase - Motor Overload Protection with Disconnect

NOTE: Information in parenthesis refers to 120 VAC control.

#### 3.1 Recommended Wire Routing:

As the power cable exits the back of motor form a drip loop and then run power cable along strut and "Zip" tie the cable to strut to prevent cable from getting tangled in the pulley or belt. See Figure 19. Then run the cable out of the fan to the circuit breaker or control panel. (Continued on next page).

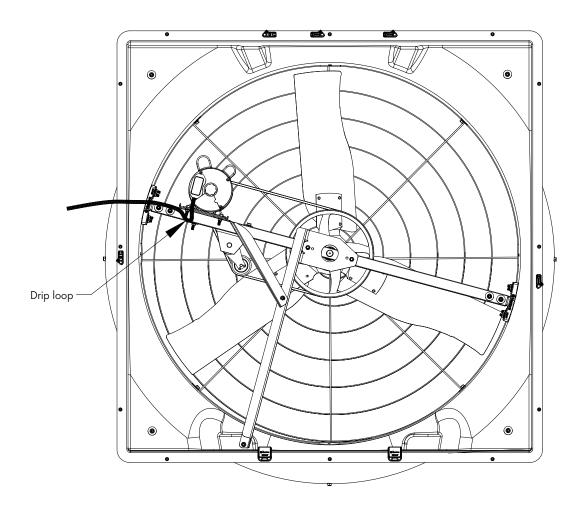


Figure 19

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# **Operation**

4.

#### 4.1 OPERATION

- INITIAL START-UP: With electrical power off, verify that fan propeller turns freely and that all fasteners are secure. Turn on electrical power and confirm that fan operates smoothly.
- ADJUSTMENTS: Set fan control to temperature shown on your Aerotech ventilation system drawing, or to a value which will provide the desired environmental conditions.

Single Phase Fans: Single phase fans are designed for single speed operation only.

Three Phase Fans: If a frequency drive is used, the minimum operating frequency is 30 Hz.









#### **5.1 MAINTENANCE**

The following inspection and cleaning procedures should be performed monthly:

#### Tools Needed for Maintenance:

wrenches: 10mm, 13mm, 16mm, 17mm, 27mm, ½", 6mm Hex

- INSPECT PROPELLER: Check that propeller is secure on drive hub and that there are no signs of damage. The blades are of a self-cleaning design and should not require maintenance.
- 2) CLEAN regularly for best results:
  - FAN MOTOR: Remove any dust accumulation from motor using a brush or cloth. (DO NOT use a pressure washer). A clean motor will run cooler and last longer. At the same time, verify that the motor is secure in its mount.
  - SHUTTER: Carefully clean dust from shutter blades and frame so that shutter opens and closes freely. A brush or cloth should be used.
  - GUARD: Clean any dust or feathers from fan guards using a brush. Dirty guards can reduce airflow.
- 3) CHECK FASTENERS: For safety, all fasteners should be inspected. Tighten any loose connections.
- 4) INSPECT FAN CONTROL: With power disconnected, inspect all electrical connections. Wiring should be secure and in good condition. Remove any dust build-up from control case and sensor using a soft brush or cloth. NEVER CLEAN ELECTRICAL EQUIPMENT WITH A PRESSURE WASHER!

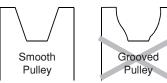






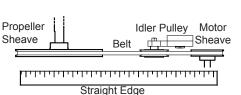


5) CHECKING PULLEYS: Roll the belt off and look at all pulleys. If a pulley has grooves in it or is no longer smooth, it needs replacement. A loose or slipping belt will reduce fan performance up to 60% and cause premature belt failure.





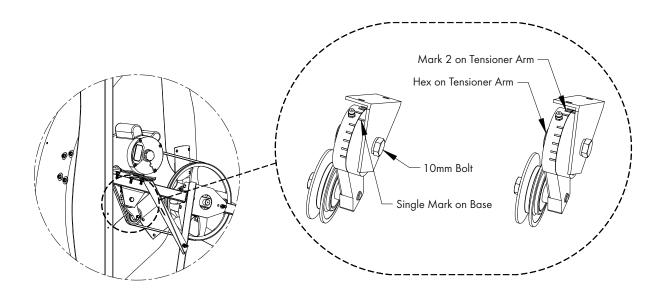
6) CHECK DRIVE ALIGNMENT: Check alignment of belt on idler pulley, it should be centered on the idler pulley. The belt tensioner idler pulley and propeller sheave are fixed in position, therefore, alignment must be obtained by adjusting the motor sheave. If an adjustment is needed, remove the belt, then loosen the set screws in the sheave and move as necessary to achieve



proper alignment. Remember to tighten the sheave set screws after making an adjustment. Drive alignment is very important for long belt life and proper operation.



7) BELT TIGHTENING: To adjust belt tensioner to proper setting, loosen 10 mm bolt (using 17mm end wrench) to allow tensioner arm to rotate. Working from inlet/motor side of fan, place a 27 mm (1½/s") wrench onto the hex on the tensioner. Turn wrench clockwise until the single mark on base of belt tensioner is aligned with Mark 2 on the tensioner arm. Hold at this setting and tighten the 10mm bolt to 40 ft.lbs. [54 N-m] torque



## Winterizing

6.

#### 6.1 Winterizing

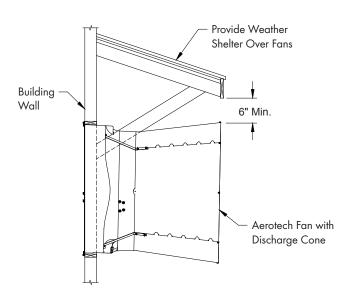
In most climates, it is probable that the ventilation system will never need to operate at a total capacity during the colder winter months. Consequently, it is advisable to "winterize" those fans which will not be used in cold weather to avoid unnecessary heat loss and condensation.

To winterize, turn fan control "off". Install the insulated closure panel over the fan intake. If you don't have an insulated closure panel, a piece of rigid insulation material can be used. Remember the insulation panel must be removed before warmer weather returns.

NOTE: At least one single speed fan should be left uncovered and with power available to provide air movement in the event of variable speed control difficulties.

#### 6.2 Winter Weather Protection

To prevent cone or fan damage from snow or ice sliding off building roof, weather protection must be provided. A weather shelter may be constructed to cover the entire fan, See Figure 20, or snow guards may be placed on the roof, See Figure 21.



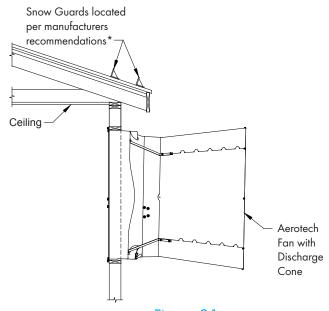


Figure 20

Figure 21

#### \*Snow Guard Suppliers

| Company Name       | Phone No.    | Fax No.      | Web Site                 |
|--------------------|--------------|--------------|--------------------------|
| Snojax, Inc.       | 800-766-5291 | 717-697-2452 | www.snojax.com           |
| Polar Blox         | 800-298-4328 | 814 629-9090 | www.polarblox.com        |
| LM Curbs           | 800-284-1412 | 903 759-3598 | www.lmcurbs.com          |
| Alpine Snow Guards | 888-766-4273 | 888-766-9994 | www.alpinesnowguards.cor |

#### **▲ IMPORTANT**

Munters Product and System
Warranties do not cover cone or fan
damage from external sources.

Note: Snow guards are designed to prevent sudden, dangerous snow and ice slides when attached to the building roof according to manufacturers recommendations. The supplier listing above is given as a reference only. Munters does not endorse any specific snow guard product and no performance warranty is implied.

### 7.1 Troubleshooting





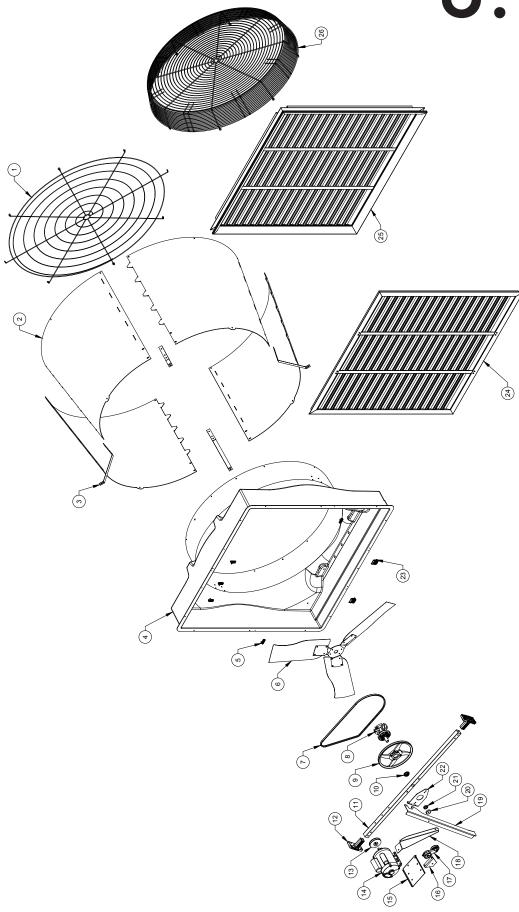


| SYMPTOM                                | POSSIBLE CAUSES                                                                                                                                                                                                    | CORRECTIVE ACTION                                                                                                                                                                                   |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fan Not Operating                      | <ol> <li>Fan control set above room<br/>temperature</li> <li>Blown fuse or open circuit breaker</li> <li>Propeller blade contacting fan housing</li> <li>Fan control defective</li> <li>Motor defective</li> </ol> | <ol> <li>Set to a lower temperature</li> <li>Replace fuse or reset breaker</li> <li>Realign propeller in fan housing</li> <li>Repair or replace control</li> <li>Repair or replace motor</li> </ol> |
| Fan Operating-<br>Insufficient Airflow | <ol> <li>Damper door jammed</li> <li>Guard dirty</li> </ol>                                                                                                                                                        | <ol> <li>Clean damper door &amp; fan housing</li> <li>Clean guard</li> </ol>                                                                                                                        |
| Excessive Noise                        | 1. Propeller blade contacting fan housing                                                                                                                                                                          | 1. Sand fan housing to remove high spot                                                                                                                                                             |
| Excessive<br>Vibration                 | <ol> <li>Motor loose on mount</li> <li>Propeller damaged</li> <li>Motor or propeller shaft bent</li> </ol>                                                                                                         | <ol> <li>Tighten fasteners</li> <li>Replace propeller</li> <li>Repair or replace motor or propeller shaft</li> </ol>                                                                                |
| Fan Never Turns Off                    | <ol> <li>Override thermostat set incorrectly</li> <li>Control set for continuous operation</li> </ol>                                                                                                              | <ol> <li>Set to the correct temperature</li> <li>Set control correctly</li> </ol>                                                                                                                   |
|                                        |                                                                                                                                                                                                                    |                                                                                                                                                                                                     |

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**Exploded View** 

8.



| Catalog No.                                                                                                                |         |           |                                              |      |  |
|----------------------------------------------------------------------------------------------------------------------------|---------|-----------|----------------------------------------------|------|--|
| Item                                                                                                                       | WS55xK  | WS55xP    | Part Name/Description                        | Qty. |  |
| 1                                                                                                                          | FH1454  | FH1454    | Outlet Guard, Round, CTD BLK                 | 1    |  |
| 2                                                                                                                          | FH4655  | FH4655    | Discharge Cone Section, PL                   | 4    |  |
| 3                                                                                                                          | FH2434  | FH2435    | Cone Support Bracket, PC type (GZ/PWDCTD)    | 4    |  |
| 4                                                                                                                          | FH2956  | FH2956    | Fan Housing, WS55, White, FG                 | 1    |  |
| 5                                                                                                                          | FH1968  | FH1968    | 1-Hole Pivoting Shutter Clip, BLK PL         | 5    |  |
| 6                                                                                                                          | FP1456  | FP1556    | Prop Assembly, 3-Blade (GZ/PWDCTD)           | 1    |  |
| 7                                                                                                                          | FH1516* | FH1516*   | V-belt, A-section, POLYSTR                   | 1    |  |
| 8                                                                                                                          | FP2060  | FP2060    | Hub with Bearing and Shaft                   | 1    |  |
| 9                                                                                                                          | FH2137  | FH2137    | Propeller Sheave, AL                         | 1    |  |
| 10                                                                                                                         | KX1130  | KX1130    | Shaft Shield, AL                             | 1    |  |
| 11                                                                                                                         | FH1677  | FH1677    | Tube Strut, Center, PWDCTD                   | 1    |  |
| 12                                                                                                                         | FH1661  | FH1661    | Strut Mount Support, PLASTIC DK GRAY         | 2    |  |
| 13                                                                                                                         | FH1998* | FH1998*   | Motor Sheave 5/8" Bore with Keyseat, Cl      | 1    |  |
| 14                                                                                                                         | FM1046* | FM1046PE* | Motor, 56 Frame                              | 1    |  |
| 15                                                                                                                         | FH2831  | FH2831    | Mounting Plate for NEMA 56 Motor, PWDCTD     | 1    |  |
| 16                                                                                                                         | FH2505  | FH2505    | Mounting Bracket for Belt Tensioner, PWDCTD  | 1    |  |
| 17                                                                                                                         | FH2402K | FH2402K   | Belt Tensioner Assembly with 3" Idler Pulley | 1    |  |
|                                                                                                                            | FH2406  | FH2406    | 3" Idler Pulley only, with Bolt              | 1    |  |
|                                                                                                                            | FH2439  | FH2439    | Tensioner Arm only, AL                       | 1    |  |
| 18                                                                                                                         | FH1994  | FH1994    | Motor Bracket Brace, PWDCTD                  | 1    |  |
| 19                                                                                                                         | FH1991  | FH1991    | Center Strut Brace, PWDCTD                   | 1    |  |
| 20                                                                                                                         | KX1208  | KX1208    | Shaft/Nut Cover, BLK PL                      | 1    |  |
| 21                                                                                                                         | KN1860  | KN1860    | Hex Nut, M25x10mm, ZP                        | 1    |  |
| 22                                                                                                                         | FH1992  | FH1992    | Strut to Strut Brace Bracket, PWDCTD         | 1    |  |
| 23                                                                                                                         | FH1967  | FH1967    | 2-Hole Fixed Shutter Clip, BLK PL            | 2    |  |
| 24                                                                                                                         | PV553   | PV553     | Plastic Shutter, 3 Panel, PL                 | 1    |  |
| 25                                                                                                                         | _       | PT553     | Plastic Shutter, 3 Panel, Belled Inlet, PL   | 1    |  |
| 26                                                                                                                         | 55WG    | _         | 55" Fan Outlet Guard, OSHA, CTD BLK          | 1    |  |
| * Parts listed are for specific fan configuration. Contact office for replacement part numbers for your fan configuration. |         |           |                                              |      |  |

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WS55 is developed and produced by Munters Corporation, Lansing, Michigan U.S.A. 1-800-227-2376



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