

# **Assembly and Installation Manual**

Please read and save these instructions for future reference. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with these instructions will result in voiding of the product warranty and may result in personal injury and/or property damage.

Weatherhoods shield wall openings and dampers from rain and snow. Constructed of galvanized steel with wire mesh birdscreen. Mounting flanges have prepunched mounting holes. 45° turndown is for exhaust and 90° turndown is for exhaust and supply. Options include aluminum construction, insect screen and painted finish. Shipped unassembled in kit form for field assembly. Cannot be used with the damper guard option.



Exhaust 45° Weatherhood



Supply 90° Weatherhood

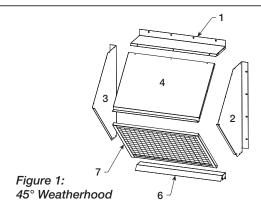
### **General Information**

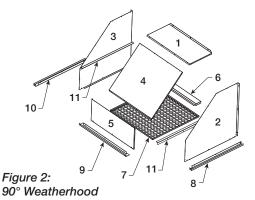
#### **Weatherhood Parts List**

	Parts	45°	90°
1	Top Panel	✓	✓
2	Right Side Panel	✓	✓
3	Left Side Panel	✓	✓
4	Front Diagonal Panel	✓	✓
5	Front Panel		✓
6	Bottom (Brace or Panel)	✓	✓
7	Birdscreen	✓	✓
8	Right Rain Trough		✓
9	Front Rain Trough		✓
10	Left Rain Trough		✓
11	Reinforcing Braces (sizes 54-72 only)		<b>✓</b>
12	Fasteners	✓	✓

Upon receiving unit, check for any damage that may have occurred during transit and report it immediately to the shipper.

Verify that all required parts and the correct quantity of each item have been received. If any items are missing, report shortages to your local representative to arrange for obtaining missing parts.





# **Dimensions**

Model	А	В	С	D	Е	F	G	Gauge	Flang 45°	Flange 90°
WTHD-8	12.125	11.250	13.375	12.000	17.375	12.250	12.875	18	0.875	0.875
WTHD-10	14.250	13.375	15.125	14.000	19.500	14.375	14.875	18	0.875	0.875
WTHD-12	17.000	15.750	16.500	16.375	21.000	17.125	17.625	18	1.250	1.250
WTHD-14	19.000	17.750	17.750	18.375	23.500	19.125	19.625	18	1.250	1.250
WTHD-16	21.000	19.750	19.625	20.375	26.125	21.125	21.625	18	1.250	1.250
WTHD-18	23.000	21.750	22.250	22.375	28.500	23.125	23.625	18	1.250	1.250
WTHD-20	25.000	23.625	25.000	24.375	30.875	25.125	25.625	18	1.250	1.250
WTHD-24	32.000	30.500	27.250	31.125	36.750	31.875	32.500	18	1.375	1.375
WTHD-30	37.875	36.500	29.375	37.375	41.000	37.875	38.750	18	1.375	1.375
WTHD-36	43.875	42.500	33.375	43.375	46.375	43.875	44.625	18	1.375	1.375
WTHD-42	49.875	48.500	36.000	49.250	50.250	49.875	50.625	18	1.375	1.375
WTHD-48	56.125	54.750	40.750	55.500	56.750	56.000	57.000	18	1.375	1.375
WTHD-54	62.250	61.000	44.875	62.000	62.625	62.250	63.375	16	1.375	1.375
WTHD-60	68.375	67.000	48.000	68.500	68.000	68.375	69.875	16	1.375	1.375
WTHD-72	80.750	80.750 79.500 53.375	80.500	73.625	90.750	01 075	16	1.250 тор	1.375	
			00.010	73.623	13.023	80.750	81.875	10	1.375 SIDES	1.373

All dimensions in inches.

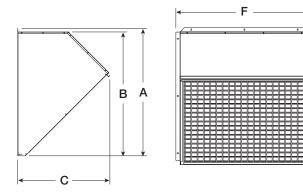


Figure 3: 45° Weatherhood

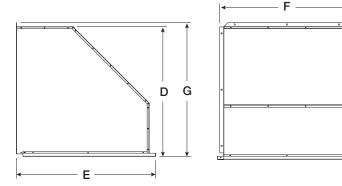


Figure 4: 90° Weatherhood

# **Assembly**

#### 45° Weatherhood

- 1. Refer to Figure 1 to identify parts for assembly.
- 2. Assemble front diagonal panel (4) to right side panel (2) with 5/8 inch length sheet metal screws. Overlap the flange on the front diagonal panel (4), over the right side panel (2).
- 3. Repeat step 2 for left side panel (3).
- As shown in Figure 5, assemble the top panel (1) to the front diagonal panel (4) and side panels (2 and 3) overlapping with the flanges. Use 5/8 inch length supplied sheet metal screws.

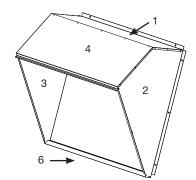
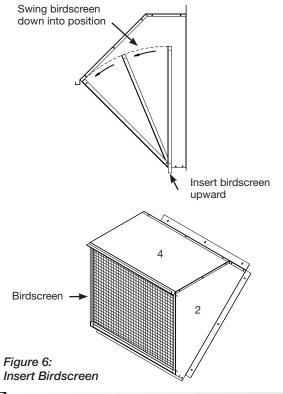


Figure 5: Assembly

- 5. Install the bottom panel (6) to the sides using the 5/8 inch length sheet metal screws. Place the bottom panel (6) inside each flanged side.
- 6. Refer to Figure 6 and slide the birdscreen into the bottom of the assembled weatherhood through the openings on the underside. Place birdscreen in the frame and rest on the flanges on each side. Fasten screen to each side using the 5/8 inch length sheet metal screws.



#### 90° Weatherhood

- 1. Refer to Figure 2 to identify parts for assembly.
- 2. Using #12 x 5/8 inch screws, attach side panels (2 and 3) to front panel (5). Overlap the sides with the flange of the front panel.

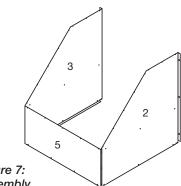
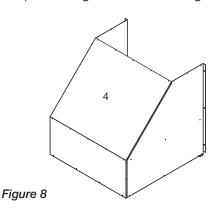


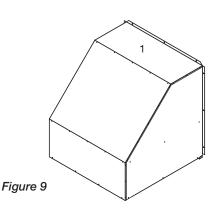
Figure 7: Assembly

3. Secure the front diagonal panel (4) using #12 x 5/8 inch screws to the front panel (5) and side panels (2 and 3). Overlap the front panel (5) and side panels (2 and 3) with flanges of the front diagonal panel (4).

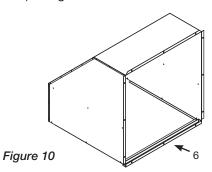


4. Attach top panel (1) to the front diagonal panel (4) and side panels (2 and 3) using #12 x 5/8 inch screws.

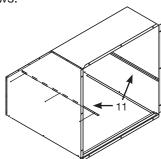
Overlap the front diagonal (4) and side panels (2 and 3) with the flanges of the top panel (1).



5. Install bottom brace (6) to the inside of side panels (2 and 3) using #12 x 5/8 inch screws.



5a. For sizes 54-72 only: Install reinforcing braces (11) to the inside of side panels (2 and 3) using #12 x 5/8 inch screws.



6. Mount assembled weatherhood to the unit. For direct to wall, refer to page 5.

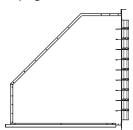


Figure 12: Wall Housing or Wall Collar

Figure 11

7. Slide birdscreen into the assembled weatherhood through the notches on the underside of the side panels (2 and 3). Work the screen in so the frame of the screen rests on the flanges of the front panel (5) and side panels (2 and 3), and bottom brace (6).

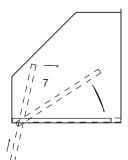


Figure 13: Insert Birdscreen

8. Fasten front and side rain troughs (8-10) to the front (5) and side panels (2 and 3) and birdscreen with #12 x 3/4 inch tek screws.

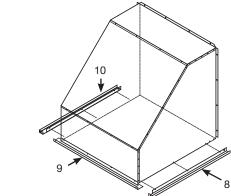


Figure 14

# **Typical Installation**

#### **DANGER**

Always disconnect, lock and tag power source before installing or servicing. Failure to disconnect power source can result in fire, shock or serious injury.

- 1. Move weatherhood to desired location.
- 2. Weatherhood may be mounted directly to the wall or to the fan wall housing or wall collar.

NOTE: Units mounted directly to the wall require a different wall opening (W.O.) size than those mounted in wall housings or wall collars.

### 45° and 90° Weatherhood Mount **Direct To Wall**

- 1. Cut an appropriate sized hole in the wall using the recommended wall opening (W.O.).
- 2. For a weathertight seal, add silicone to the flange prior to mounting.
- 3. Mount weatherhood directly to the wall using corrosion-resistant fasteners.

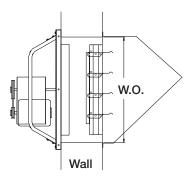


Figure 15: Direct To Wall

Recommended Wall Opening (W.O.) Direct To Wall, see Figure 15			
Model	45° and 90° Weatherhood (Square)		
WTHD-8	10.500		
WTHD-10	12.500		
WTHD-12	14.500		
WTHD-14	16.500		
WTHD-16	18.500		
WTHD-18	20.500		
WTHD-20	23.250		
WTHD-24	26.125		
WTHD-30	32.125		
WTHD-36	38.125		
WTHD-42	47.125		
WTHD-48	50.125		
WTHD-54	56.000		
WTHD-60	62.000		
WTHD-72	74.500		

All dimensions in inches.

### 45° and 90° Weatherhood Mount To Wall Housing Or Wall Collar

- 1. Cut an appropriate sized hole in the wall using the recommended wall opening (W.O.).
- 2. For a weathertight seal, add silicone to the flange prior to mounting.
- 3. Mount weatherhood to the wall housing or wall collar using corrosion-resistant fasteners.

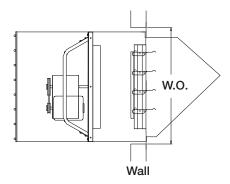


Figure 16: With Wall Housing

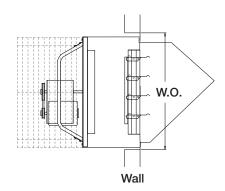


Figure 17: With Wall Collar

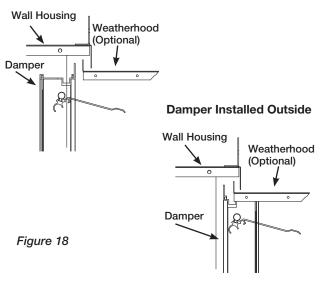
Recommended Wall Opening (W.O.) Wall Housing or Wall Collar, see Figures 16 and 17		
Model	45° and 90° Weatherhood (Square)	
WTHD-8	14.250	
WTHD-10	16.250	
WTHD-12	19.250	
WTHD-14	21.250	
WTHD-16	23.250	
WTHD-18	25.250	
WTHD-20	27.375	
WTHD-24	33.500	
WTHD-30	39.500	
WTHD-36	45.500	
WTHD-42	51.500	
WTHD-48	57.500	
WTHD-54	63.375	
WTHD-60	69.375	
WTHD-72	74.500	

All dimensions in inches.

#### **Damper Installation**

To install an optional damper, refer to Figure 18. Using a pneumatic or electric drill, run the self-drilling screws through the holes provided in the side and bottom damper flanges into the wall housing. Check damper for freedom of movement. If an optional damper guard or weatherhood is to be installed, refer to the next section.

#### **Damper Installed Inside**



### **Damper Guard or Weatherhood** Installation

To install the damper guard, center guard over damper and fasten to wall housing using the selfdrilling screws. Refer to Figure 19.

To install the weatherhood, slide the top flange of weatherhood under the flange of wall housing, see Figure 18, and fasten with self-drilling screws.

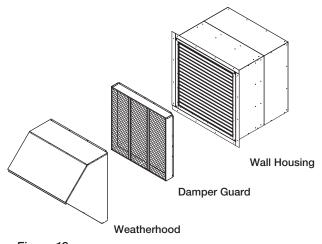
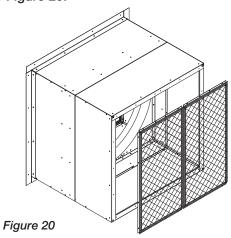


Figure 19

### **Wall Housing Guard Installation**

Attach wall housing guard to wall housing using the 1/4-20 x 3/4 thread cutting screw with washer. Refer to Figure 20.



### Fit for Sidewall Propeller Fan Accessories

Figure 21 reveals the correct fit for sidewall propeller fans after all optional accessories have been assembled and installed.

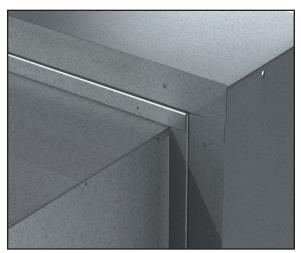


Figure 21: Sidewall Propeller Fan Accessories

# **Maintenance**

# **DANGER**

Always disconnect, lock and tag power source before installing or servicing. Failure to disconnect power source can result in fire, shock or serious injury.

#### **DANGER**

Pour écarter les risques d'incendie, de choc électrique ou de blessure grave, veiller à toujours débrancher, verrouiller et étiqueter la source de courant avant l'installation ou l'entretien.

Disconnect and lockout power source before cleaning. Clean weatherhood of any accumulated dirt which would restrict airflow.

### **Our Commitment**

As a result of our commitment to continuous improvement, Greenheck reserves the right to change specifications without notice.

Product warranties can be found online at Greenheck.com, either on the specific product page or in the literature section of the website at Greenheck.com/Resources/Library/Literature.



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