

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

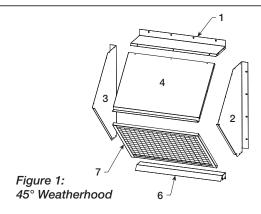
General Information

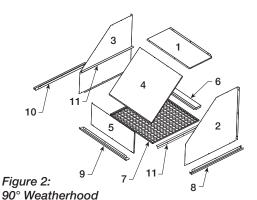
Weatherhood Parts List

| | 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) | | ✓ |
| 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 | 79.500 53.375 | 80.500 | 73.625 | 00.750 | 01 075 | 16 | 1.250 тор | 1.375 | |
| VV I П D-12 | | | 00.010 | 80.300 | 73.023 | 80.750 | 81.875 | 10 | 1.375 SIDES | 1.373 |

All dimensions in inches.

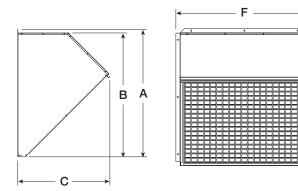


Figure 3: 45° Weatherhood

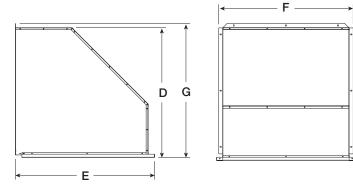


Figure 4: 90° Weatherhood

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.

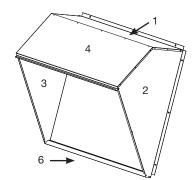
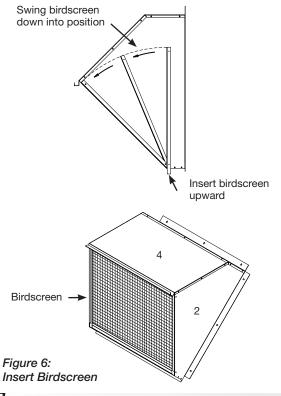


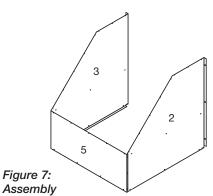
Figure 5: Assembly

- 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.

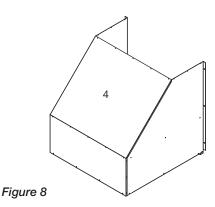


90° Weatherhood

- 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.

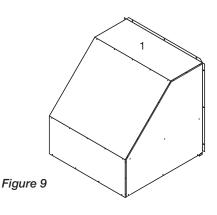


3. Secure the front diagonal panel (4) using #12 x 5/8 inch screws to the front panel (5) and side panels (2 and 3). Overlap the front panel (5) and side panels (2 and 3) with flanges of the front diagonal panel (4).

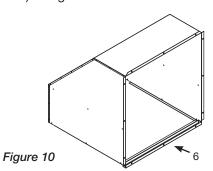


4. Attach top panel (1) to the front diagonal panel (4) and side panels (2 and 3) using #12 x 5/8 inch screws.

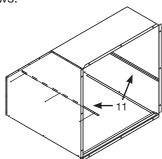
Overlap the front diagonal (4) and side panels (2 and 3) with the flanges of the top panel (1).



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.

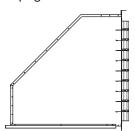


Figure 12: Wall Housing or Wall Collar

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).

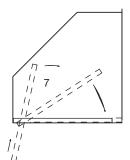


Figure 13: Insert Birdscreen

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.

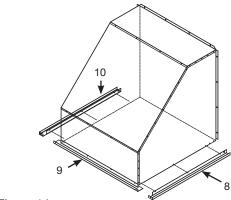


Figure 14

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.

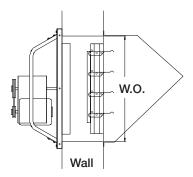


Figure 15: Direct To Wall

| 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.

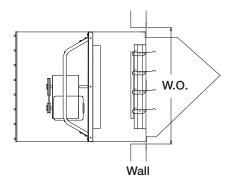


Figure 16: With Wall Housing

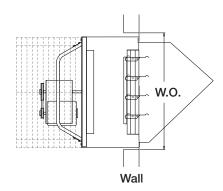


Figure 17: With Wall Collar

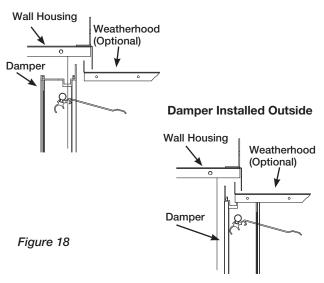
| Recommended Wall Opening (W.O.) Wall Housing or Wall Collar, see Figures 16 and 17 | | |
|--|-------------------------------------|--|
| Model | 45° and 90° Weatherhood (Square) | |
| WTHD-8 | 14.250 | |
| WTHD-10 | 16.250 | |
| WTHD-12 | 19.250 | |
| WTHD-14 | 21.250 | |
| WTHD-16 | 23.250 | |
| WTHD-18 | 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.

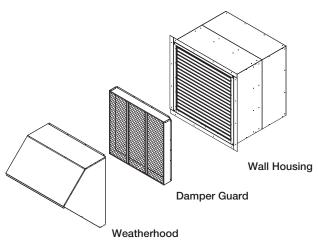
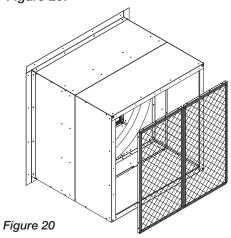


Figure 19

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.

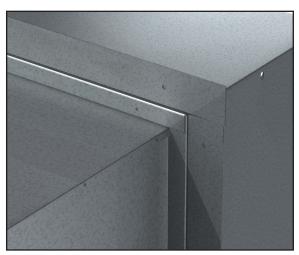


Figure 21: Sidewall Propeller Fan Accessories

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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