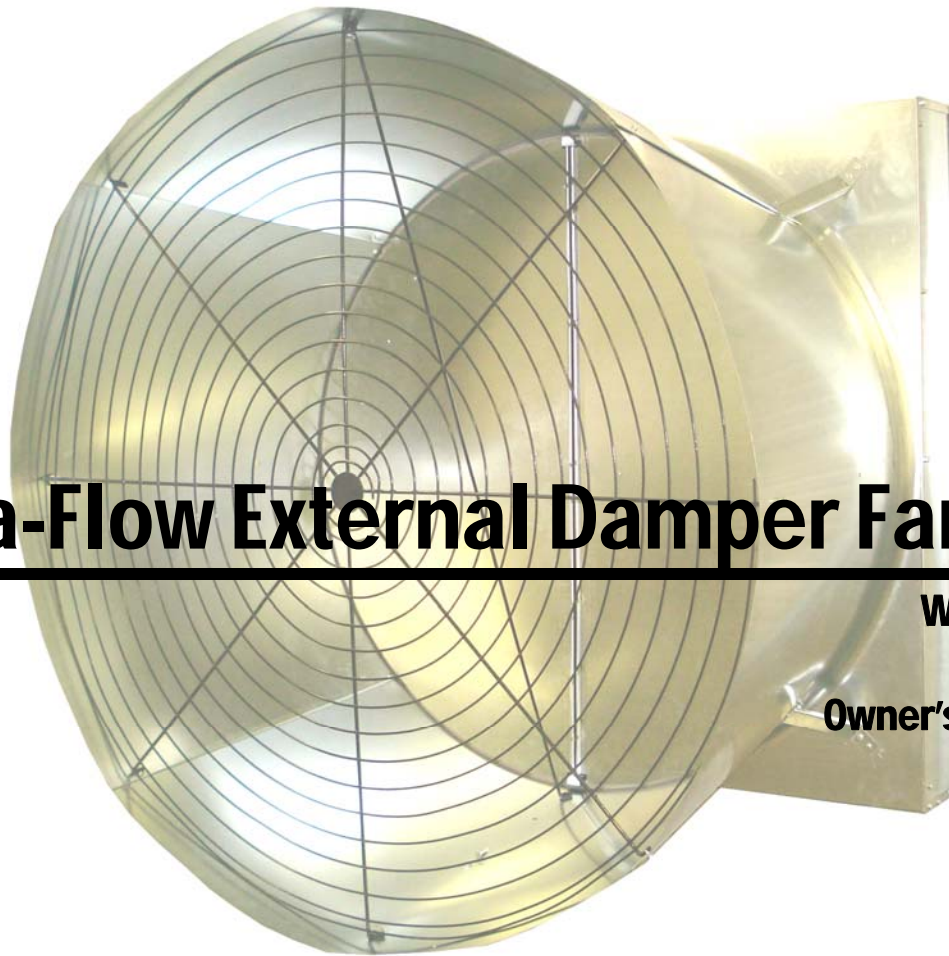




HIRED-HAND®



Mega-Flow External Damper Fans

With Cone

Owner's Manual

**Hired-Hand, Mfg., Inc.
PO Box 140
1733 County Road 68
Bremen, Alabama 35033**

1. Warnings

Warning!

Disconnect All Power Sources Before Installing This Equipment. Failure To Disconnect Power Source Can Result In Property Damage, Serious Injury Or Death!

Warning!

Dangerous Rotating Machinery! Keep Hands, Clothing, Etc. Clear When Operating!
Do Not Operate Without All Guards And Covers In Place!

Warning!

All Wiring Should Be In Accordance with National Electrical Codes Or Other Local Codes.

Warning!

The Installer Is Responsible For Complying With All Relevant Regulations, Such As National Wiring Regulations And Accident Prevention Regulations. Particular Attention Must Be Given To The Cross-sectional Areas Of Conductors, The Selection Of Fuses Or Other Protection, And Protective Earth/Ground Connections!

Warning!

The Voltages In The Power Cables And Certain Parts Of The Drive Can Result In Death. Whenever The Drive Has Been Used It Must Be Isolated And Disconnected For 5 Minutes Before Any Work Commences

Danger!

Only Qualified Electrical Personnel Familiar With The Construction And Operation Of This Equipment And The Hazards Involved Should Install, Adjust, And/Or Service This Equipment. Read And Understand This Manual In Its Entirety Before Proceeding. Failure To Observe This Precaution Could Result In Severe Bodily Injury Or Death!

2. Limited Warranty

All products are warranted to be free from defects in material and workmanship for a period of one (1) year from the date of purchase if installed and used in strict accordance with the installation instructions. Liability is limited to the sale price of any products proved to be defective or, at manufacturer's option, to the replacement of such products upon their return. No products are to be returned to the manufacturer, until there is an inspection and/or a return-goods authorization (RGA) number is issued.

All complaints should be directed first to the authorized distributor who sold the product. If satisfaction is not obtained or the name of the distributor is not known, write the manufacturer that appears below, directed to the attention of Customer Service Manager.

This limited warranty is expressly in lieu of any and all representations and warranties expressed or implied, including any implied warranty of merchantability or fitness for a particular purpose. The remedy set forth in this limited warranty shall be the exclusive remedy available to any person. No person has authority to bind the manufacturer to any representation or warranty other than this limited warranty. The manufacturer shall not be liable for any consequential damages resulting from the use of our products or caused by any defect, failure or malfunction of our products. (Some areas do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you).

This warranty gives you specific legal rights and you may also have other rights that vary from area to area.

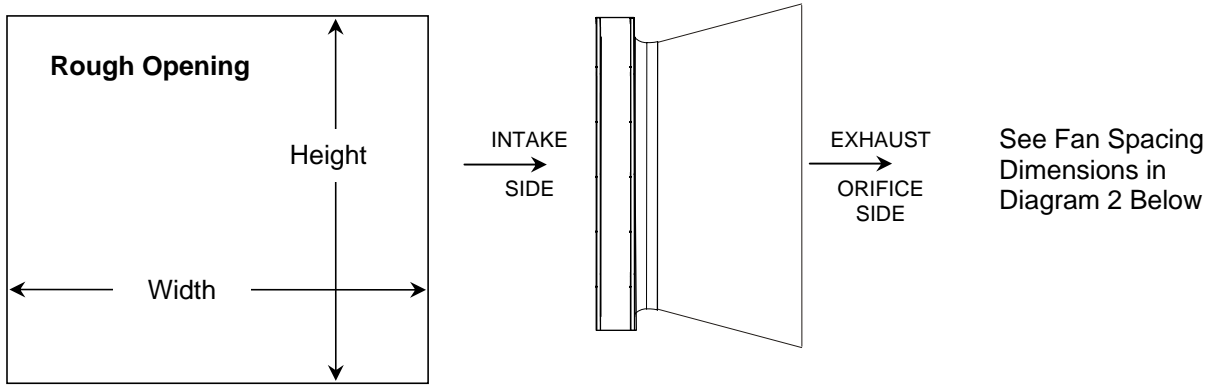
Warrantor:

Hired-Hand Mfg., Inc.
PO Box 140
1751 County Road 68
Bremen, Alabama 35033
Phone 256-287-7000

3. Table of Contents

Section	Description	Page
1.	Warnings	2
2.	Limited Warranty	3
3.	Table of Contents	4
4.	External Damper Fan Mounting Instructions.....	4
5.	Assemble Fan	4
6.	Assemble Cone	6

4. External Damper Fan Mounting Instructions



Fan Size	Fan Model	Width	Height
36"	Mega Flow External Damper	42.50" (107.95 cm)	42.50" (107.95 cm)
48"	Mega Flow External Damper	54.75" (139.07 cm)	54.75" (139.07 cm)
52"	Mega Flow External Damper	56.50" (143.51 cm)	56.50" (143.51 cm)

Diagram 1 – Framing Diagram

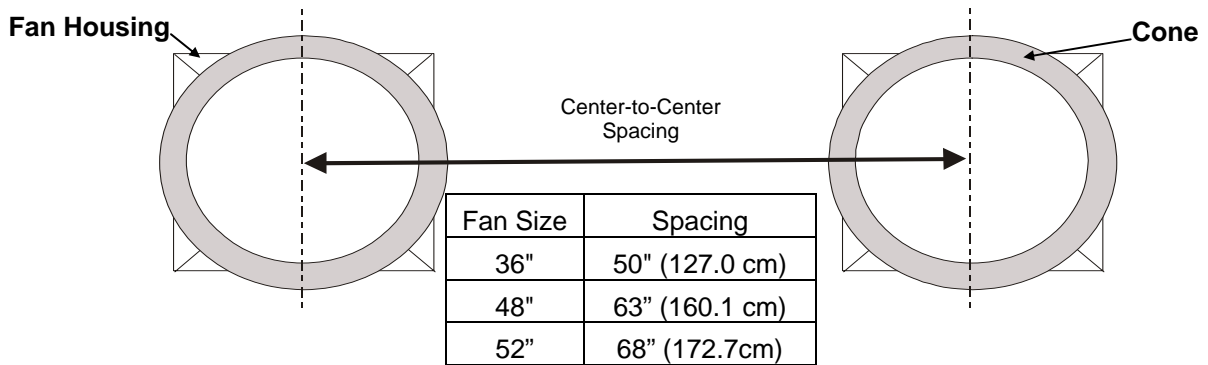


Diagram 2 – Fan Spacing with Cone

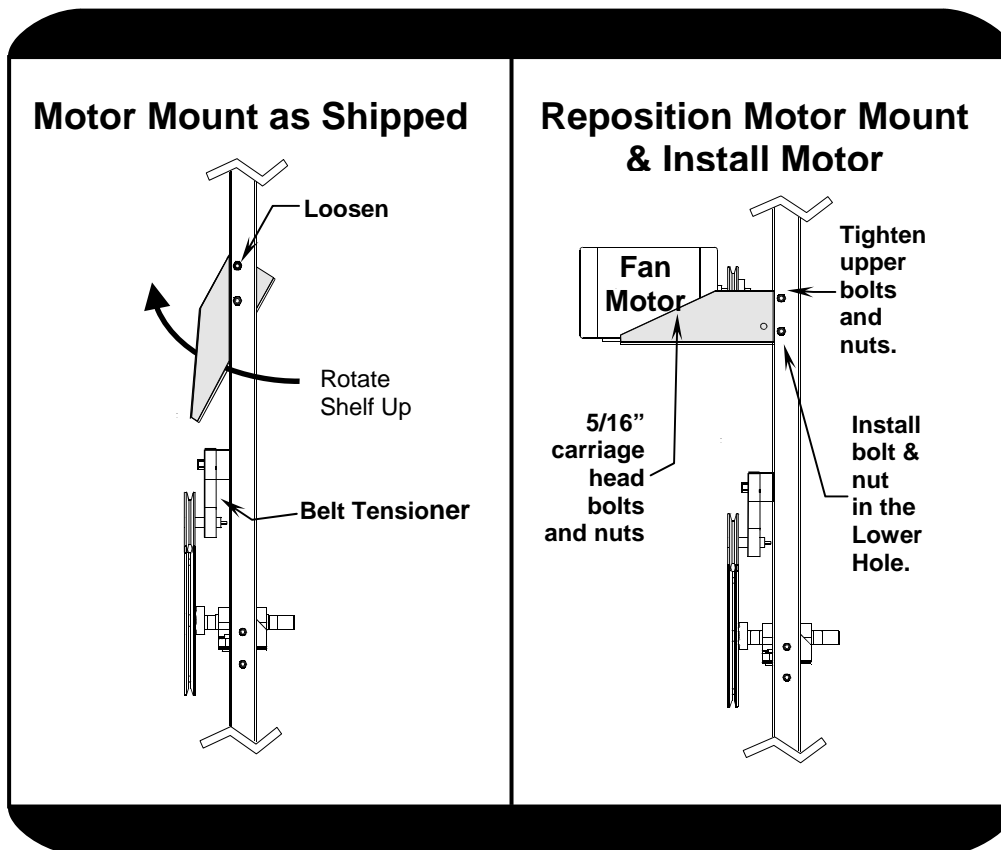
5. Assemble Fan

TOOLS REQUIRED		
Ratchet	Torque wrench	Flat head screwdriver
6" (152 mm) Ratchet extension	5/32" (4 mm) Allen head socket	Pop rivet gun
9/16" (14 mm) socket	1/8" (3 mm) Allen head socket	9/16" (14 mm) open end box end wrench
7/16" (11 mm) socket	Rubber mallet	7/16" (11 mm) open end box end wrench
1/2" (13 mm) socket	2' (61 cm) scale or carpenter's square	Needle nose pliers
Electric or cordless drill	3/8" (10 mm) Socket -12pt. star	Thread Locking Compound (LOCKTITE®)
3/8" (10 mm) Socket head bit		

Warning!

Do Not Connect Electrical Power Until Assembly Is Complete
Always Double Check Power Sources!

- Carefully lift fan into wall.
- Securely attach fan to wall with screws.
- Loosen the upper bolts and nuts shown in Figure 1 from both sides of the bracket.
- For the 36" Fan, skip to Step 7.



5. Tilt the fan motor mount bracket upward and install the other two bolts and nuts (provided) in the second bolt hole as shown in Figure 2. Tighten all four upper and lower bolts and nuts securely.
6. Install the Motor using four 5/16" carriage bolts (1002-2373) and four lock nuts (1001-1735). See Figure 2. Tighten bolts securely.
7. For Direct Drive Fans, skip to Step 8. Install the Belt. Refer to Figure 3. Use a straight edge to align the pulleys as shown. Securely tighten set screw of motor pulley and prop pulley. Recommended torque is 110 in. lbs. minimum.
After the pulleys are aligned, install belt (1022-3107) onto motor pulley, tension pulley, and prop pulley. See belt installation sheet.
8. Apply power to fan at this point to check motor/prop for proper operation. **WARNING: Incorrect motor rotation can damage fan internals and possibly cause injury!**
Remove all electrical power after testing motor before proceeding with Fan installation.

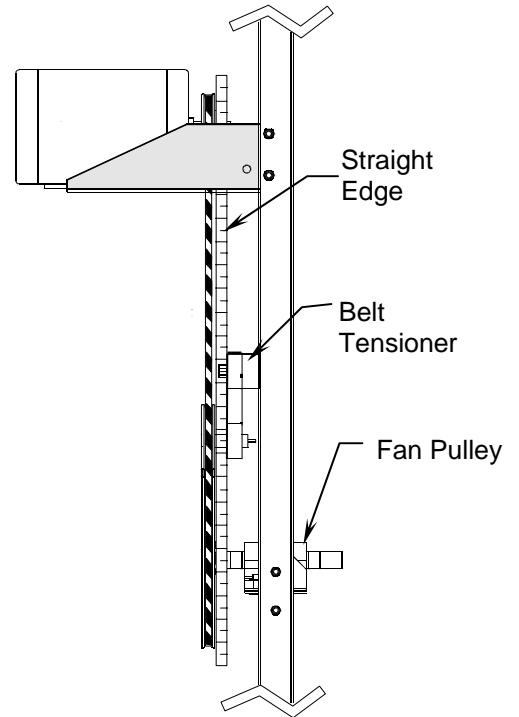


Figure 3 Install Belt

6. Assemble Cone

Packing List for One(1) Cone/Inlet Kit				
52" Cone	48" Cone	36" Cone	Description	Quantity
0404-8253	0404-10332	0404-10048	Cone Sections	4
6403-3150	6403-2703	6403-3165	Damper Ring Assy.	1
0404-1424	0404-1424	0404-1424	3/8"-16 x 1-1/4" Cap Screws	7
1001-1457	1001-1457	1001-1457	3/8"-16 Nuts	7
1003-6027	1003-6027	1003-6027	3/8" Washers	10
6403-0147	6403-0156	6403-0135	PVC Coated Cone Guard	1
6403-3162	6403-0096	6403-3167	Inlet Assembly	1
6403-7606	6403-7605	0404-10290	Damper Bumper Rod	1
1001-1446	1001-1446	1001-1446	1/4" x20 Nuts	4
1004-9045	1004-9045	1004-9045	#14 x 1/2 screws	12
1004-2533	1004-2533	1004-2533	1/4"-20 x 1" Screws	4
0404-8252	0404-10516	0404-10291	Cone Bracket	4

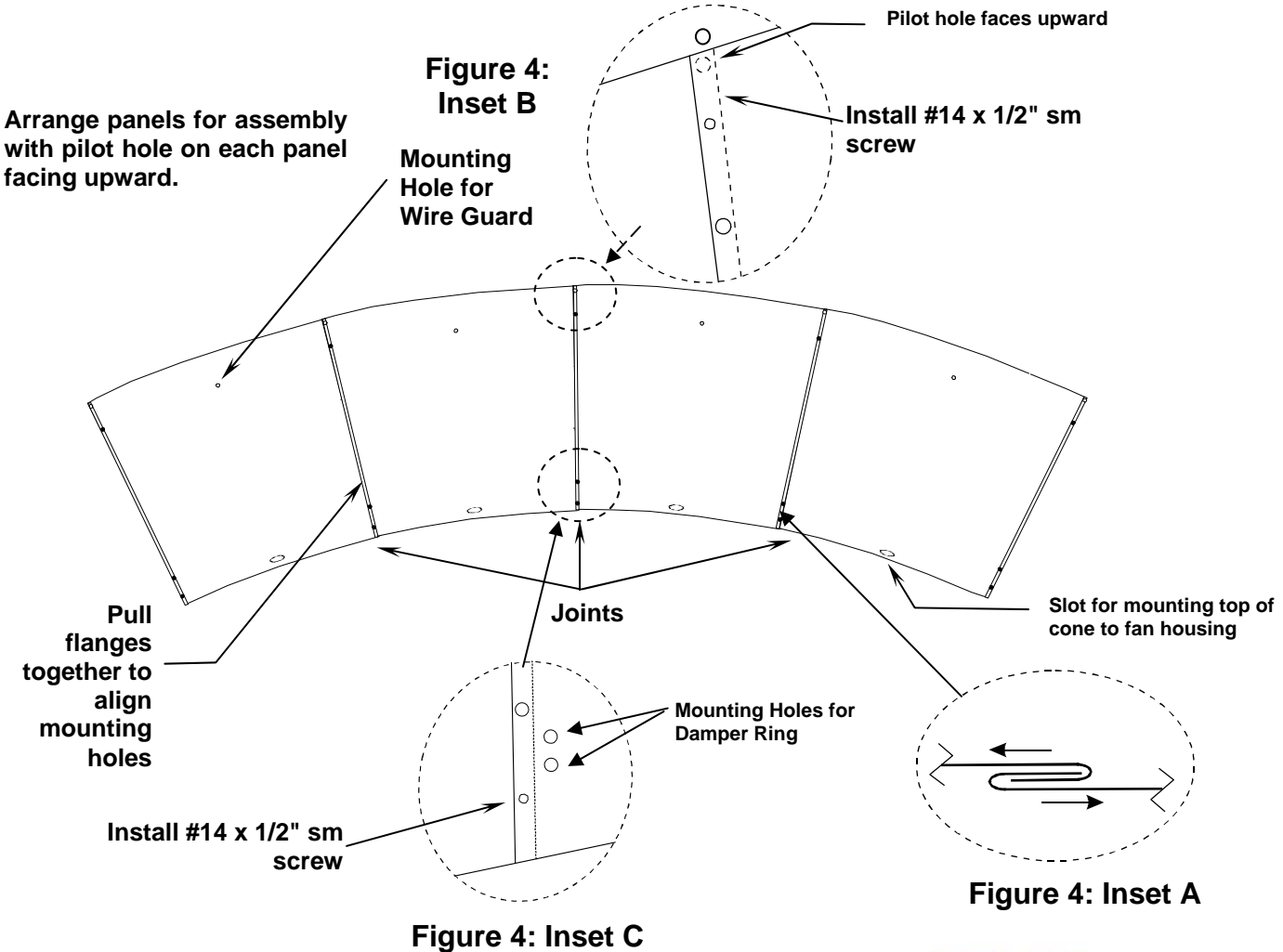
Tools Required
Cordless drill
Rubber Mallet
Ratchet
7/16 in. (11 mm) Wrench
9/16 in. (14 mm) Wrench
Marker or Scribe
9/16 in. (14 mm) Socket
3/8", 5/16", 7/16" Nut Driver
1/2" socket
7/16 in. (11 mm) Socket

▲ WARNING!

During Cone Installation Be Sure That Fan Motor Is Not Plugged Into Any Power Source. Always Double Check Power Sources.

9. Arrange panels contacting as shown in Figure 4. NOTE: The pilot hole pointing upward. Refer to Figure 4 Inset B.
10. For each panel, slide panels together. See Figure 4 Inset A.
11. Align holes of flanges. See Figure 4 Inset A. Install sheet metal screws as shown in Insets B and C.

Figure 4: Assembly & Installation of Cone



12. To complete the last flange connection, roll the cone panels so the small end is on the floor. See Figure 5. **IMPORTANT! The four pilot holes should be at the top end on the outside of the cone.**

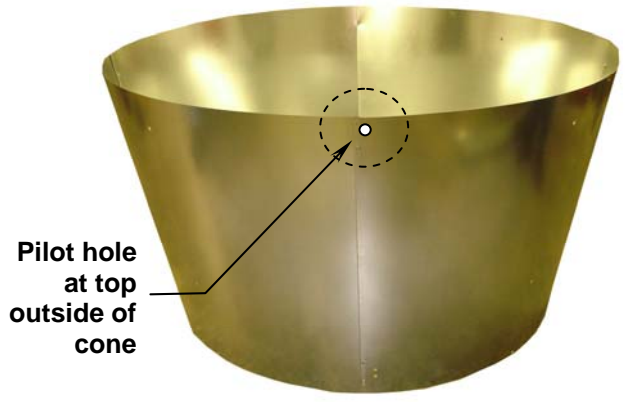


Figure 5: Assembled Cone

- 13. Install the cone Mounting Brackets to the fan housing using two 5/16"-18x5/8" carriage bolts in each mounting bracket.
- 14. Mount cone to fan. Bend the mounting brackets back slightly to help clear the area of the cone edges. Hang the centered slot in the small end of the cone over the Pim screw mounted on the Fan housing. See Figure 6. Screw can be fastened with 1/4"x20 lock nut, if necessary (not included).

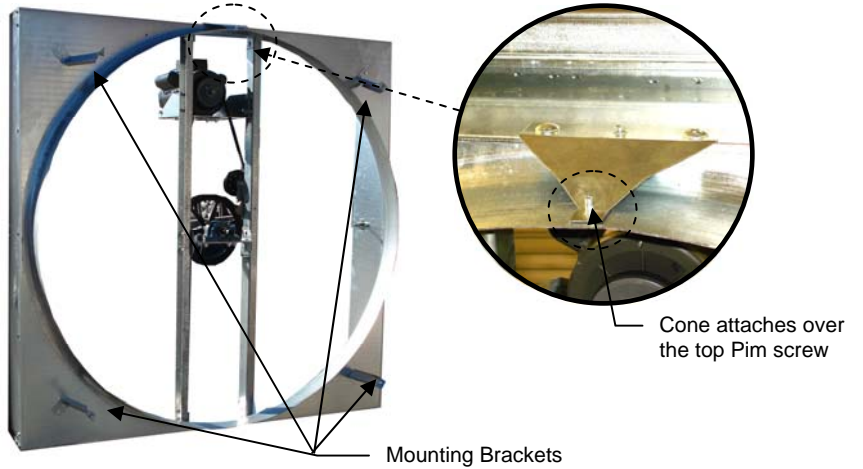


Figure 6: Install Cone Mounting Brackets

- 15. Align the cone over the remainder of the fan housing. Using four 1/4"x20 bolts and lock nuts, insert the bolts from the inside of the cone. See Figure 7.
- 16. Mount the Damper Ring. The ring is mounted in the holes closest to the orifice on the top and farthest away from the orifice in the bottom. Use 1/4"-20x1" bolts, nuts and washers (provided) to attach ring to cone. Washers go on outside of cone. See Figures 8 and 9.

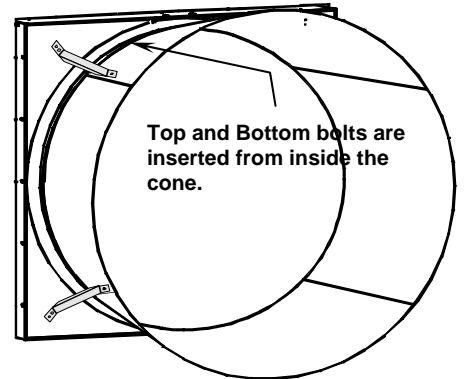


Figure 7: Mount Cone onto Fan

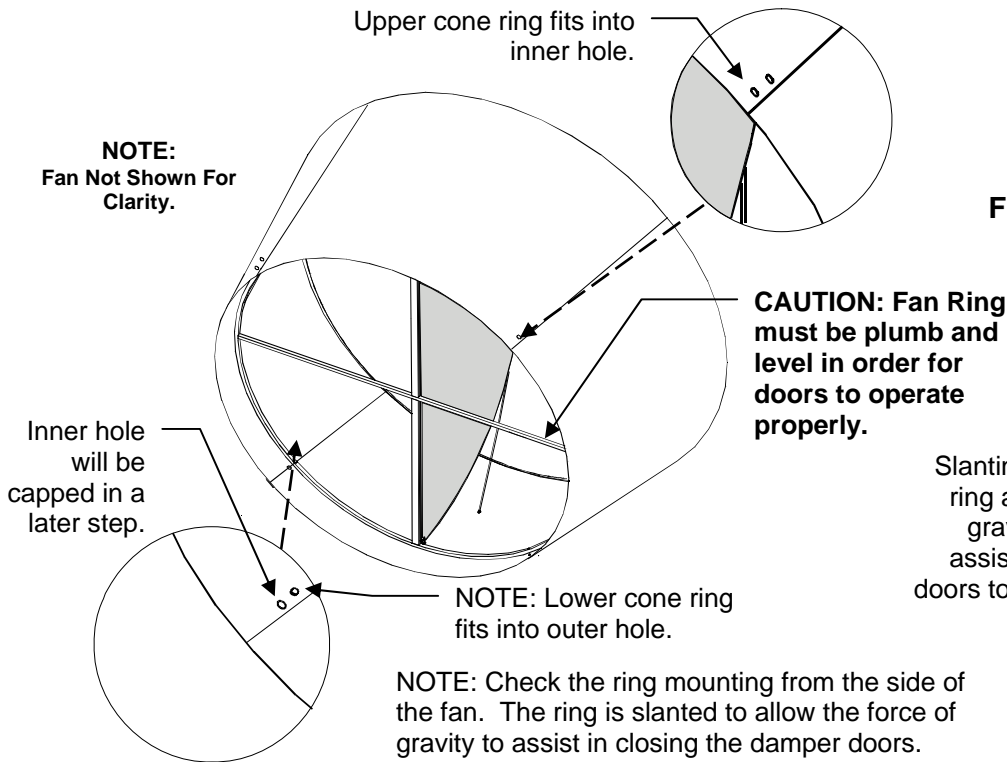


Figure 8: Mount the Ring Assembly

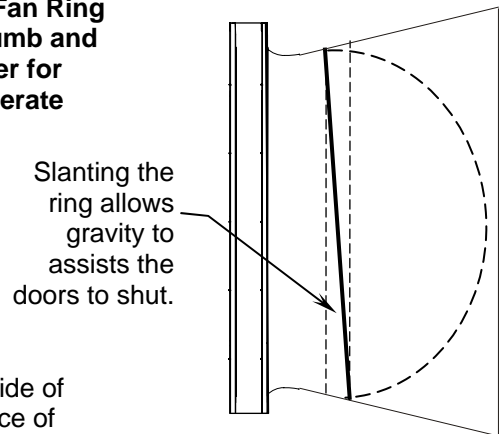


Figure 9: Side View of Cone

- 17. For the 36" Fan, Skip to Step 20. For the 52" Fan, install the Bumper Rod as shown by attaching with 3/8" hardware as shown in Figure 10.
- 18. For the 52" Fan, install the Outside Fan Guard using four 3/8x1x20 bolts and nuts. See the note below for the 48" Fan Guard. See Figures 10 and 11. Skip to Step 21.

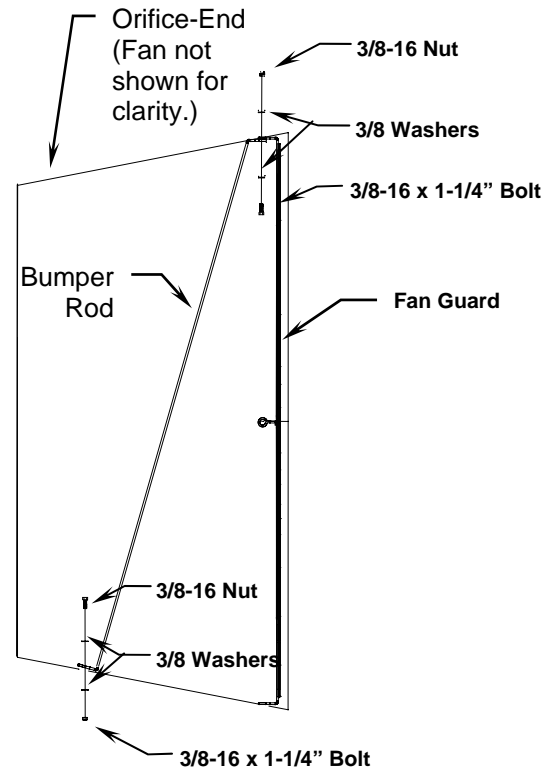


Figure 10 – Door Stop for 52" Fan

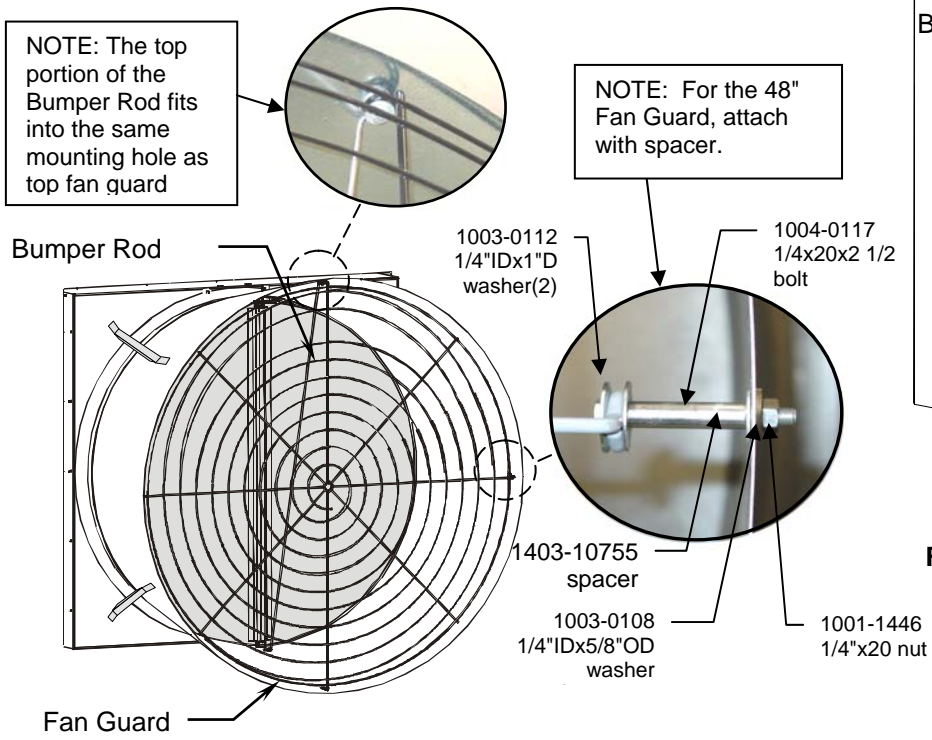


Figure 11 Fan Guard and Door Stop for 52" Fan

- 19. For the 36" Fan, install the Outside Fan Guard using four 3/8x1x20 bolts and nuts. See Figure 12.

- 20. For the 36" Fan, install the Bumper Rod as shown by attaching the hooped end of the Bumper Rod into the tab at the bottom of the Fan.. Attach the Bumper Rod Spring to the Bumper Rod and fasten the spring to the top ring of the Fan Guard. See Figure 12.

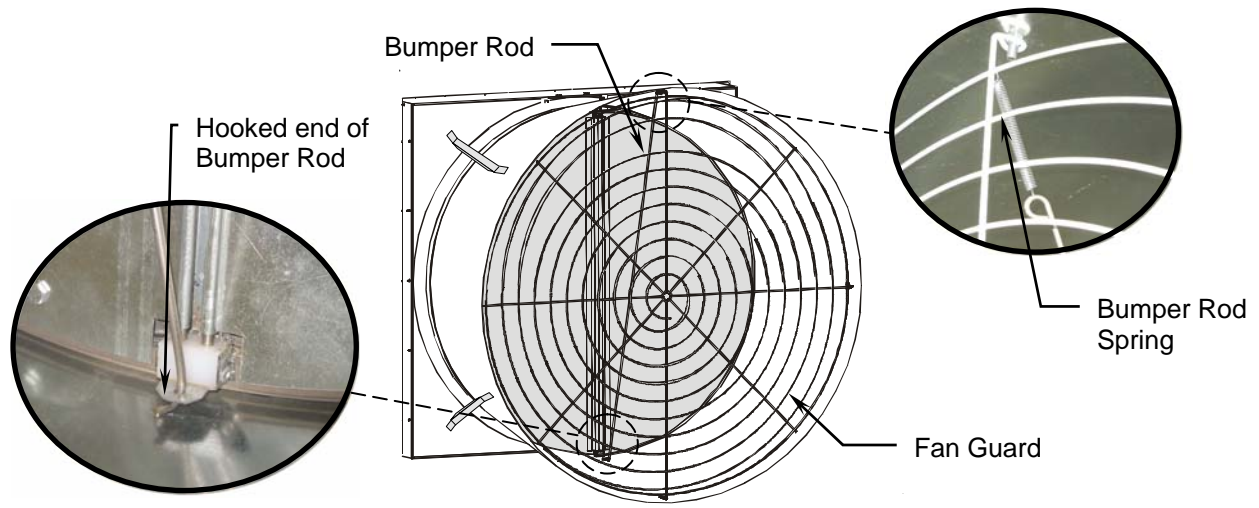


Figure 12 Fan Guard and Bumper Rod for 36" Fan

21. This Step is only for the 52" Fan. Verify the power rating of the drive motor in the Fan. The wire guard is shipped with a cut-out for a 1.0 Hp 3Ph motor. The cut-outs for this motor is shown in Figure 13A. If you are using a 1.5 Hp 1Ph Motor, cut the hole as shown in Figure 13B. If you are using a 1.0 Hp 1Ph Motor, cut the hole as shown in Figure 13C.

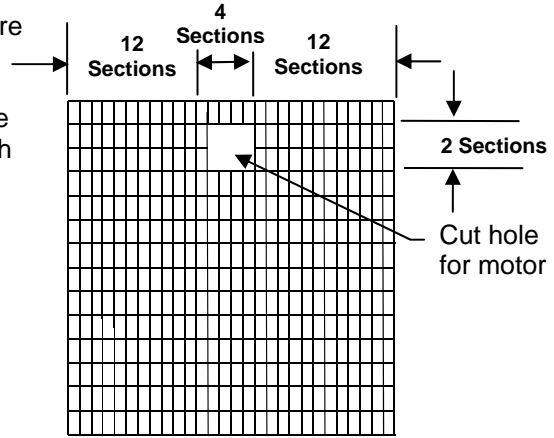


Figure 13A
Hole in Guard for 1.0Hp 3Ph Motor

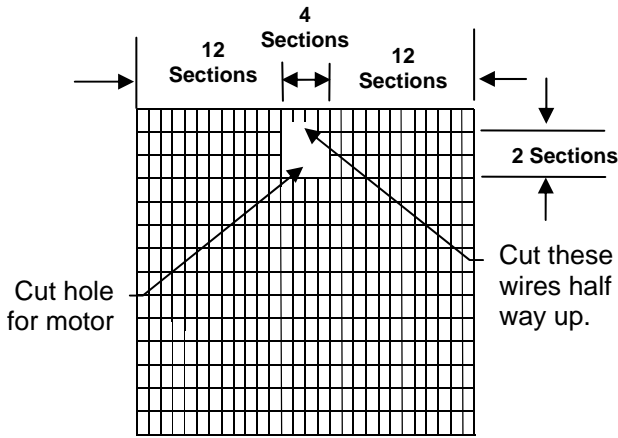


Figure 13B
Hole in Guard for 1.5Hp 1Ph Motor

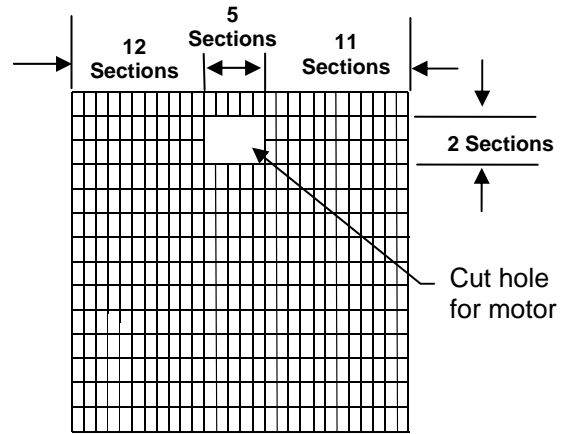


Figure 13C
Hole in Guard for 1Hp 1Ph Motor



Figure 14: Install Fan Inlet Frame

22. Install the Fan Inlet Frame with Wire Guard by lifting the bottom into the slot at the bottom of the fan housing. For the 52" Fan, the Wire Guard has an opening hole for the motor. Use two spring latches on either side of the fan housing to secure the Inlet Frame. See Figure 14.

23. There are two unused holes in the bottom of the cone. For reference refer back to Figure 8. Place a 3/8" bolt and nut in these holes to prevent light from passing through. See Figure 15.
24. There are two pre cut drain holes in the bottom of the fan housing in either corner and one in the bottom center of the cone. These may be opened if necessary. See Figure 15.
25. Connect power to fan and verify proper operation.
26. Fan and Cone installation complete.

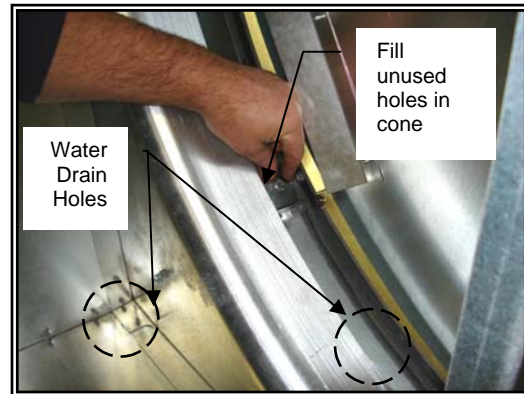


Figure 15 – Fill Unused Holes in Cone



Mega-Flow External Damper Fans & Cones

Installation

HIRED-HAND®