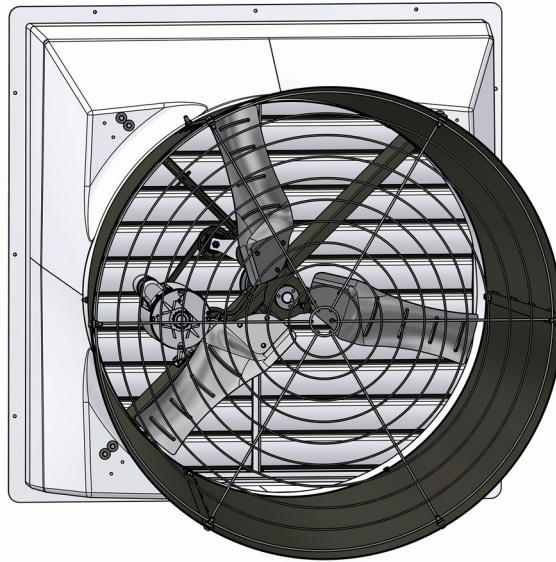




36" Belt Drive Turbo[®] Flex Cone Fan



Fan Part Numbers and Specifications

Fan Part No.	Bess Lab Test No.	Voltage	Phase	Hz	Nominal RPM	Amps	Starting Amps	Static Pressure at .10" w.c. [25 Pa]		Static Pressure at .15" w.c. [37.5 Pa]	
								CFM [cmh]	CFM/W [cmh/W]	CFM [cmh]	CFM/W [cmh/W]
58818-2		115/230	1	60	542						
58818-4		230/460	3	60	543						

Operating static pressure should be less than 0.15 inches water column [37 Pa].
The Fan Inlet and exhaust must be kept clear of obstructions. Failure to keep the Fan airflow path clear of obstructions could cause loss of Fan performance and Fan damage.

For additional parts and information, contact your nearest Chore-Time distributor or representative.
Find your nearest distributor at: www.choretime.com/contacts

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Introduction

Safety

Warning



This product has inherent dangers, which can cause damage or loss to persons or equipment if the warnings in this manual are not adhered to. Please read and follow all instructions.

Personnel Requirements



This product must only be used by persons adequately trained in the hazards, dangers, and risks of the equipment.

All users of this product must be trained in the following areas:

- Health and safety hazards relating to use of this machine throughout its entire life cycle
- Devices provided for safety of the operator
- Instructions for safe shutdown in case of emergency

The employer must assume the following responsibilities:

- To provide necessary personal protective equipment required
- To ensure normal maintenance operations are carried out
- To provide necessary repair parts in a timely manner

General Requirements



Safety devices must remain in good working condition and may not be bypassed or rendered ineffective. The fan must not be operated with guards removed. All maintenance work must be done with electrical power isolated from the machine via proper device in accordance with local and national laws. The user must ensure that the environmental and electrical supply conditions in which the fan operates are within the limits specified in this manual or on product labels. Modification to this machine in any way are prohibited unless given written consent by CTB, Inc. Unauthorized modifications will render the warranty void and can lead to hazardous situations.

Safety Devices



This machine has been designed to operate with fixed guards in order to protect users from physical hazards on both inlet and outlet sides of this fan. They were designed in accordance with national standards. They must not be altered. They must remain in their fixings at all times of operation. If damage or destruction should occur, exact replacements should be fitted immediately. **Reference the technical documentation section at the back of this manual** for more information.

At the time of installation, a proper device should be fitted in the direct vicinity of the fan to act as an emergency stop device. This device must be supplied by the installer. The device must be of a type to satisfy the emergency stop device requirements below.

EN-IEC 60204-1 Section 10.7.2:

- a push-button operated switch with a palm or mushroom head type

Section 10.7.3:

- actuators of emergency stop devices shall be colored RED.

Residual Risks

Despite the level of caution taken and the incorporation of safeguards, some risks will remain. This product has the following hazards:

Hazard	Safeguard	Operator Requirement
Cutting or trapping	Fixed guards	Maintain all fixed guards in proper location and good condition
Ejection of parts		
Stability	Design	Maintain product in good operating condition according to manual
	Installation Instructions	
Electrical shock	Warning Labels	Maintain hazard decals in good readable condition
	Installation Instructions	Install and operate in accordance with instruction in manual
Noise	Design	Wear hearing protection if in vicinity of product for extended time periods
Transport and Handling	Instructions	Reference manual for precautions to take during transport or handling of this product

Follow Safety Instructions

Carefully read all safety messages in this manual and on your equipment safety signs. Follow recommended precautions and safe operating practices.

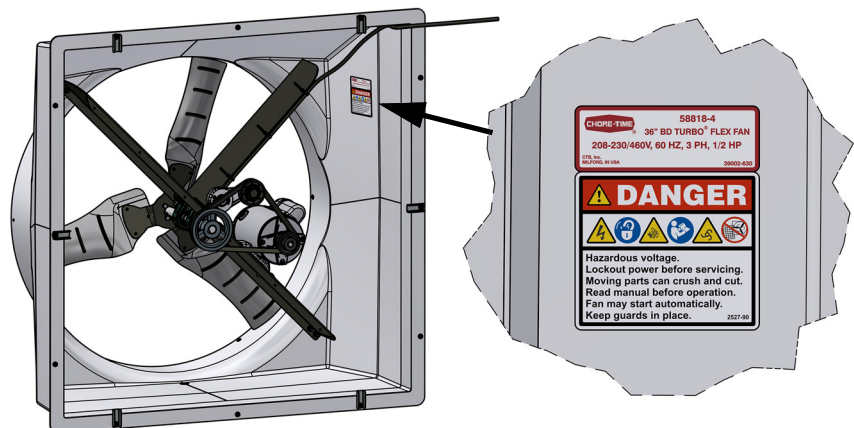
Keep safety signs in good condition. Replace missing or damaged safety signs.



Decal Location

This diagram shows the proper location of the Safety Decal and a Identification Decal (the identification decal will be different depending on the type of Fan purchased) as shipped from the factory.

Replace damaged or missing decals. Make sure the decals can be easily seen at all times.



Limited Warranty

LIMITED WARRANTY

CTB, Inc. ("Chore-Time") warrants each new CHORE-TIME 36" Turbo® Flex Fan manufactured by Chore-Time to be free from defects in material or workmanship under normal usage and conditions, for One (1) year from the date of installation by the original purchaser ("Warranty"). Chore-Time provides for an extension of the aforementioned Warranty period ("Extended Warranty Period") with respect to certain Product parts. If such a defect is determined by Chore-Time to exist within the applicable period, Chore-Time will, at its option, (a) repair the Product or Component Part free of charge, F.O.B. the factory of manufacture or (b) replace the Product or Component Part free of charge, F.O.B. the factory of manufacture. This Warranty is not transferable, and applies only to the original purchaser of the Product.

Component Part	Extended Warranty Period
TURBO® FLEX Fan fiberglass housings	For as long as the original purchaser owns the product.
TURBO® FLEX Fan motors and bearings	Two years from date of installation.
TURBO® FLEX Fan components and polyethylene cones	Three years from date of installation.

CONDITIONS AND LIMITATIONS

THIS WARRANTY CONSTITUTES CHORE-TIME'S ENTIRE AND SOLE WARRANTY AND CHORE-TIME EXPRESSLY DISCLAIMS ANY AND ALL OTHER WARRANTIES, INCLUDING, BUT NOT LIMITED TO, EXPRESS AND IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES AS TO MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSES. CHORE-TIME shall not be liable for any direct, indirect, incidental, consequential or special damages which any purchaser may suffer or claim to suffer as a result of any defect in the Product. Consequential or Special Damages as used herein include, but are not limited to, lost or damaged products or goods, costs of transportation, lost sales, lost orders, lost income, increased overhead, labor and incidental costs, and operational inefficiencies. *Some jurisdictions prohibit limitations on implied warranties and/or the exclusion or limitation of such damages, so these limitations and exclusions may not apply to you. This warranty gives the original purchaser specific legal rights. You may also have other rights based upon your specific jurisdiction.*

Compliance with federal, state and local rules which apply to the location, installation and use of the Product are the responsibility of the original purchaser, and CHORE-TIME shall not be liable for any damages which may result from non-compliance with such rules.

The following circumstances shall render this Warranty void:

- Modifications made to the Product not specifically delineated in the Product manual.
- Product not installed and/or operated in accordance with the instructions published by the CHORE-TIME.
- All components of the Product are not original equipment supplied by CHORE-TIME.
- Product was not purchased from and/or installed by a CHORE-TIME authorized distributor or certified representative.
- Product experienced malfunction or failure resulting from misuse, abuse, mismanagement, negligence, alteration, accident, or lack of proper maintenance, or from lightning strikes, electrical power surges or interruption of electricity.
- Product experienced corrosion, material deterioration and/or equipment malfunction caused by or consistent with the application of chemicals, minerals, sediments or other foreign elements.
- Product was used for any purpose other than for the care of poultry and livestock.
-

The Warranty and Extended Warranty may only be modified in writing by an officer of CHORE-TIME. CHORE-TIME shall have no obligation or responsibility for any representations or warranties made by or on behalf of any distributor, dealer, agent or certified representative.

Effective: **April 2014**

Planning

Carefully Plan the Installation.

Dimensions for the Fan are shown below in **Figure 1** Be sure to allow enough space to install Fans without interfering with other Fans or equipment that may be installed at a later date.

Important: Cones are wider than the actual opening cut into wall. See **Figure below**.

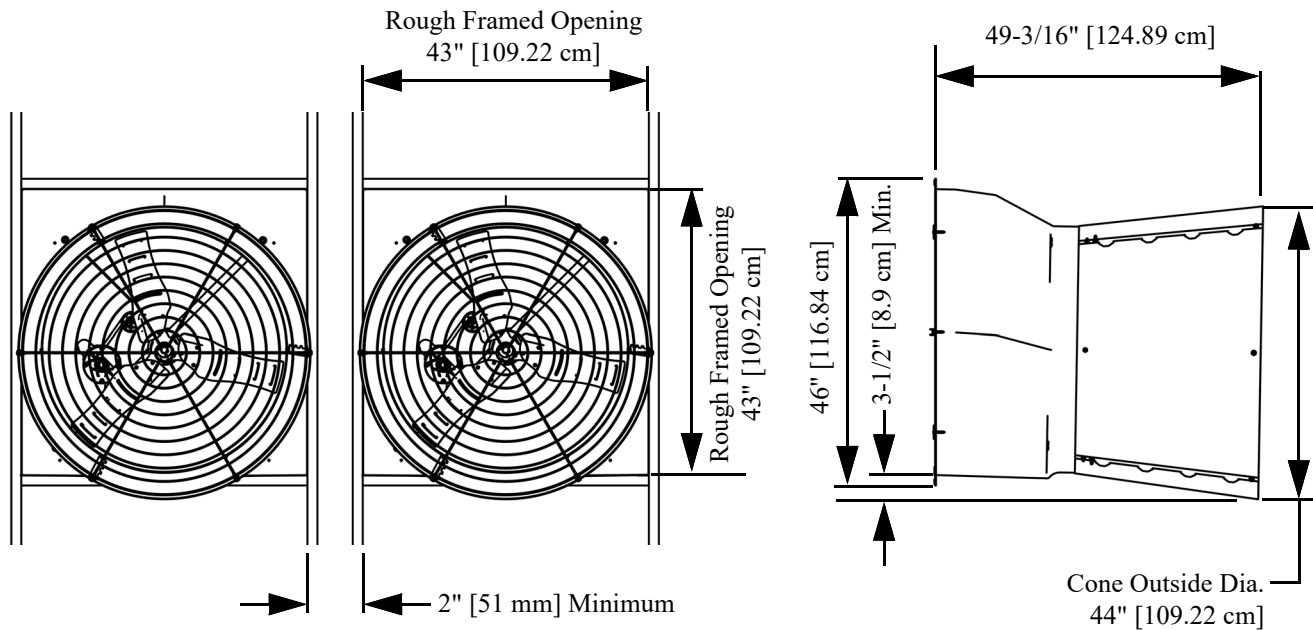


Figure 1.Planning and Layout

Installation

Installing the Fan in the Framed Opening

1. Cut an opening in the wall to house the fan. The required Framed Opening is **shown in** .
2. Construct a frame in the opening of the wall for the fan using 2" x 6" (50 x 152 mm) lumber not supplied.

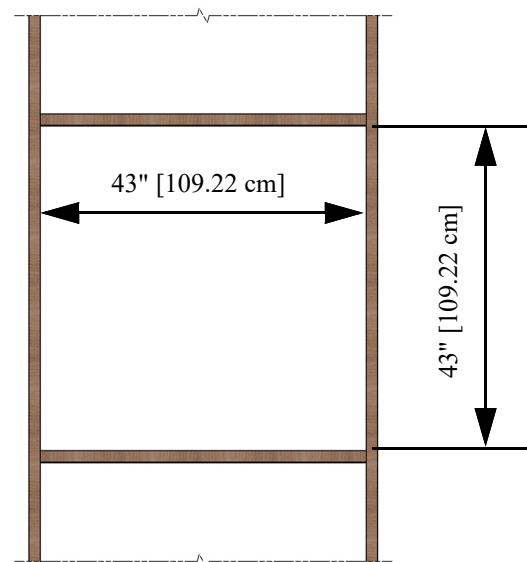


Figure 2.Framing Diagram

3. Remove the four Lag Screws (**Item 1**), holding the Shutter to the Crate as shown. Keep the four Lag Screws For installing the Fan in the next Step. Discard the four Shutter Retainers (**Item 2**).

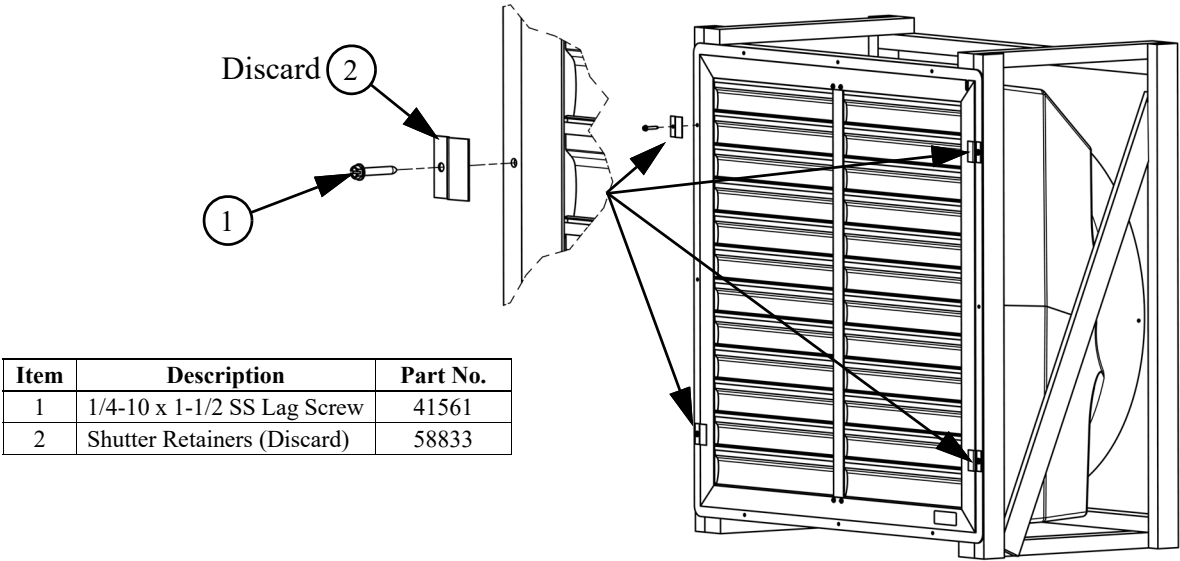


Figure 3.Removing Fan from Crate

4. Insert the Fan Assembly in the wall opening and using the existing holes in the Shroud secure with Six 1/4-10 x 1-1/2 SS Lag Screws (**Item 1**), Shutter Clips (**Item 2**), and Nylon Washers (**Item 3**) as shown. Use Six 1/4-10 Lag Screws (**Item 1**) to secure the Fan using the remaining holes in the Shroud. Installing the hardware exactly as shown allows for the rotation of the Shutter Clips for installing and removing the Shutter.

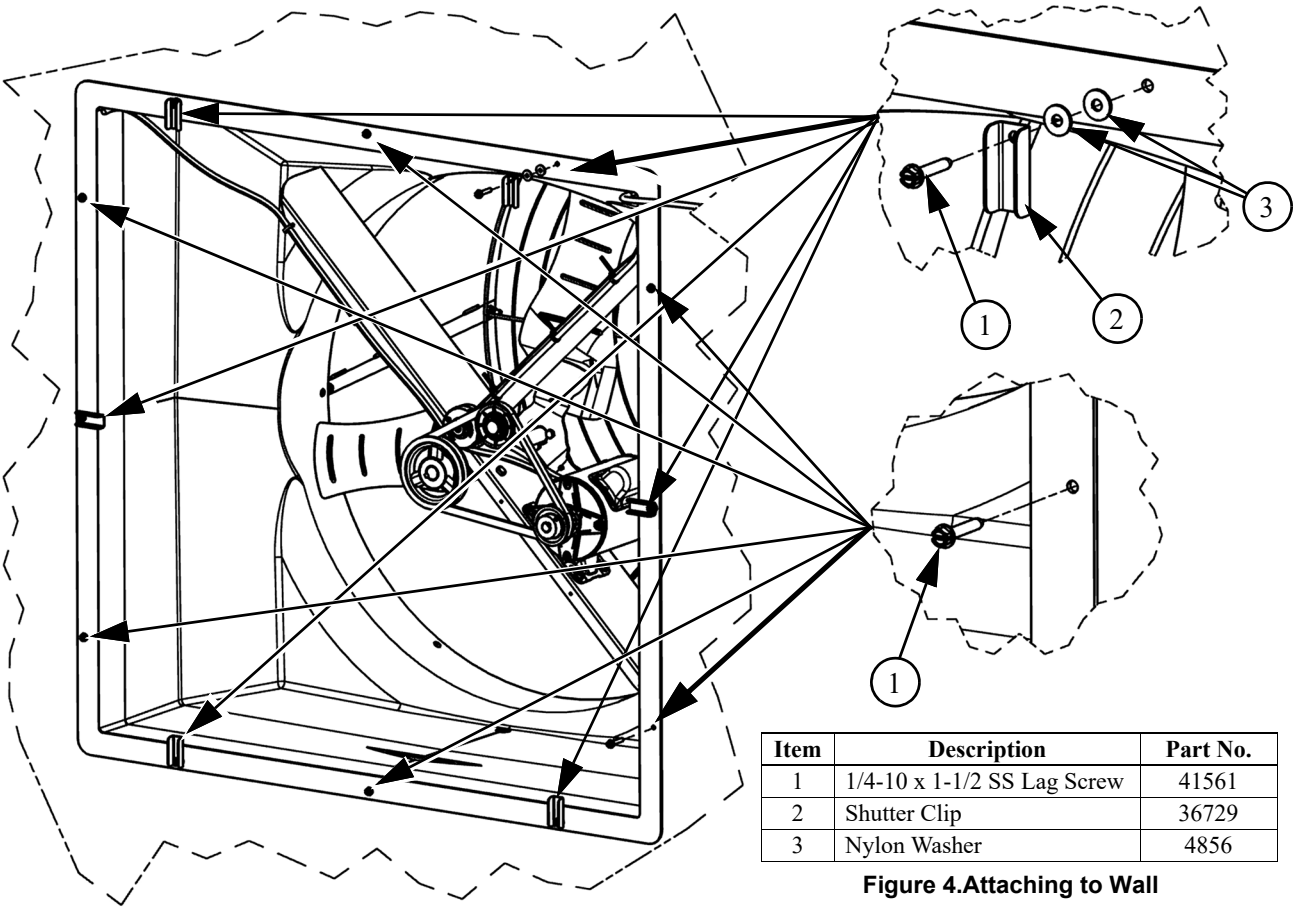


Figure 4.Attaching to Wall

Cone Assembly/Installation

1. It is recommended to Prop the Cone Panels up off the ground while assembling them **as shown**.
2. Match up the holes in the Cone Panels **as shown** and insert the Cone Tabs into the Cone Slots.
3. Make sure Tabs are inserted fully and let each Cone Panel down flat while keeping Tabs snapped positively in place.
4. Once all Cone Panels are assembled, prop them up as shown, line up the Tabs and snap the last two Panels together.

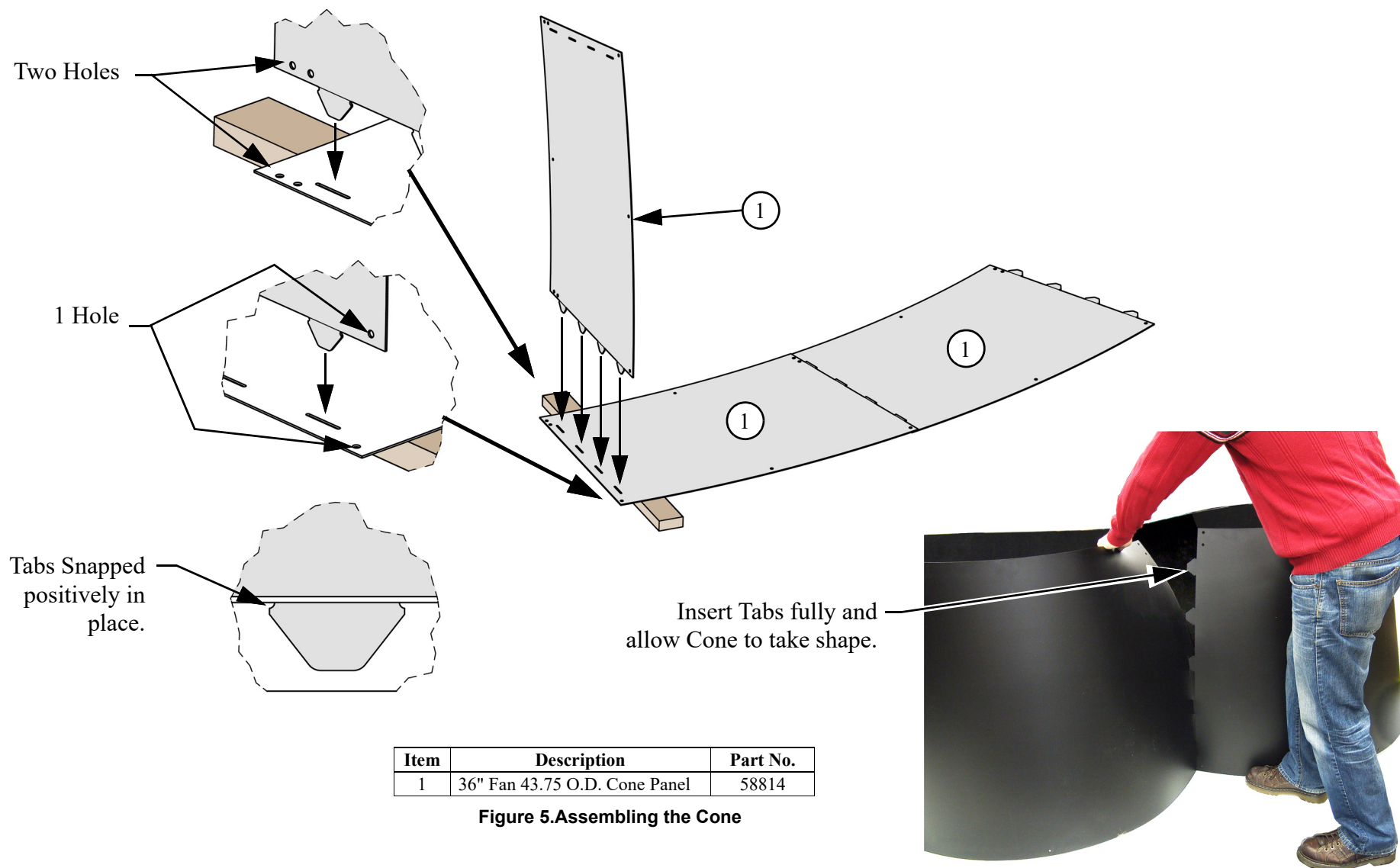


Figure 5. Assembling the Cone

5. Install a 5/16-18 x 1.00 Bolt (Item 1) and 5/16 Flange Nut (Item 2) at each Cone Seam as shown.

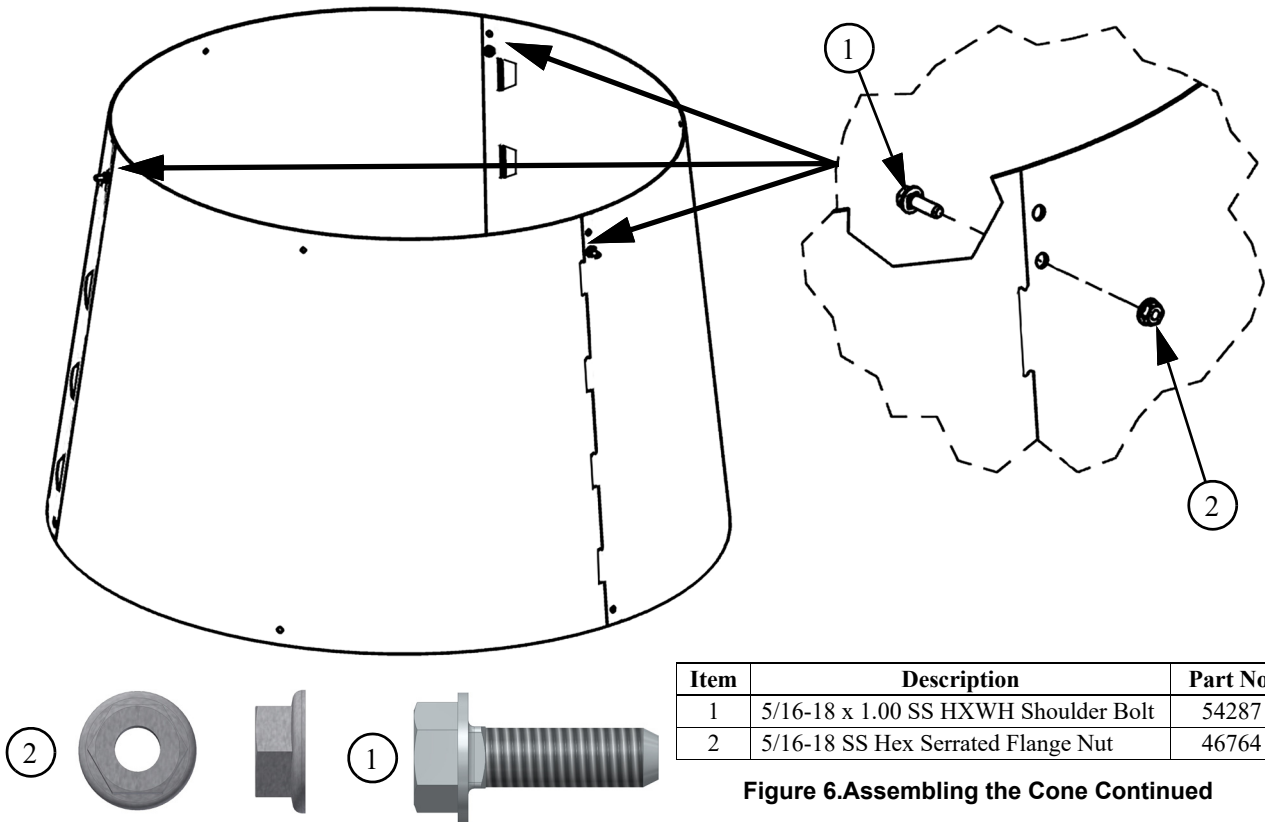


Figure 6.Assembling the Cone Continued

6. Slide the Cone onto the Shroud and fasten with 1/4-20 Wafer Head Bolts (Item 1) and 1/4-20 Flange Nuts (Item 2) as shown.

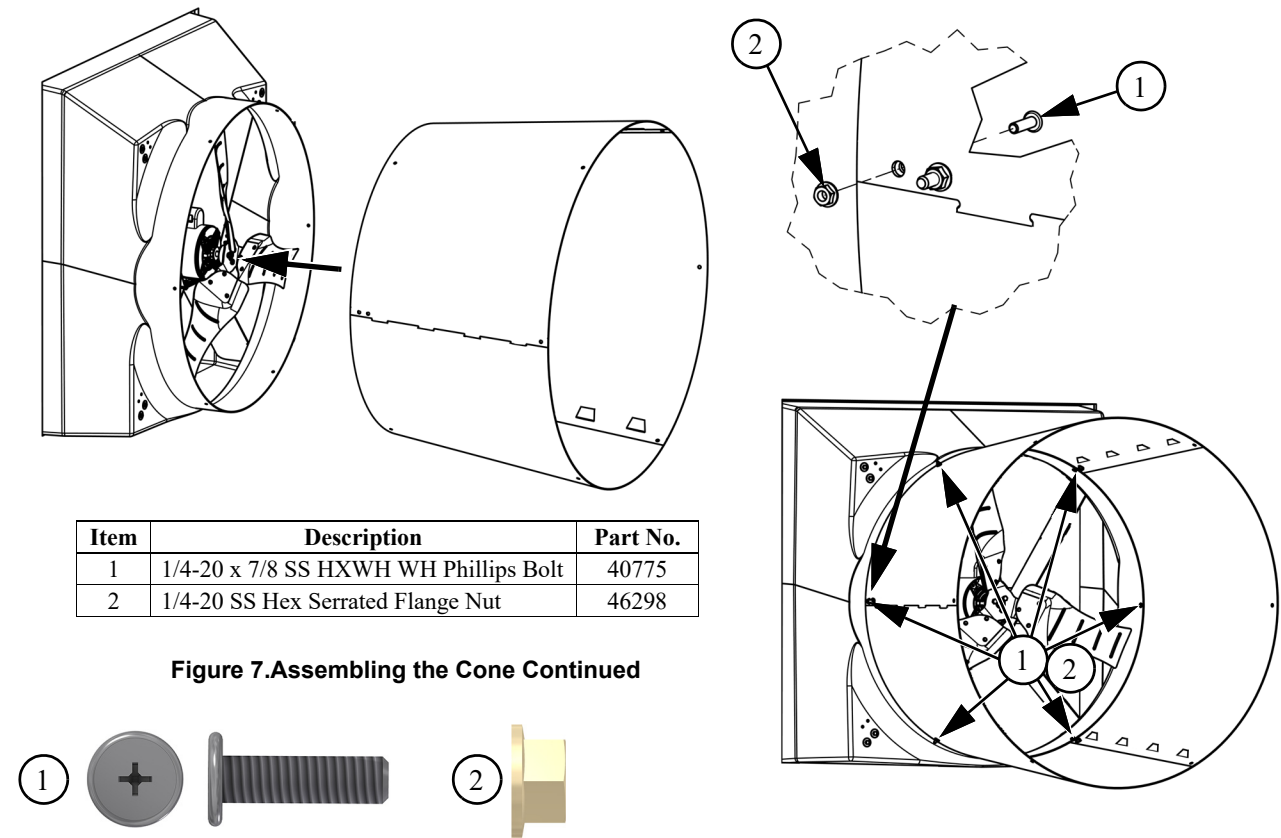


Figure 7.Assembling the Cone Continued

Belt Installation

1. Install the Belt **as shown**. The Alignment Mark on the Tensioner Base should be between the 3rd and 4th Lines of the Tensioner arm when the Belt is installed **as shown**.

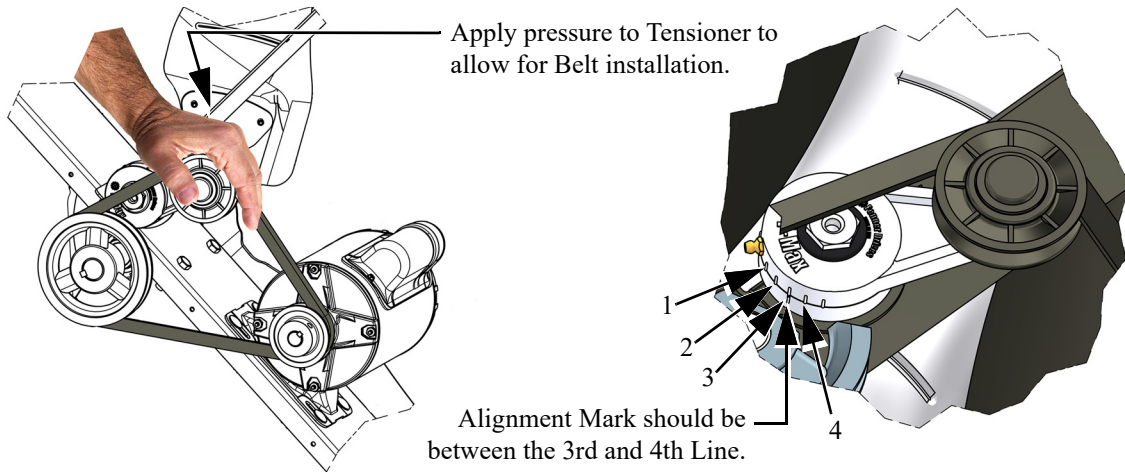


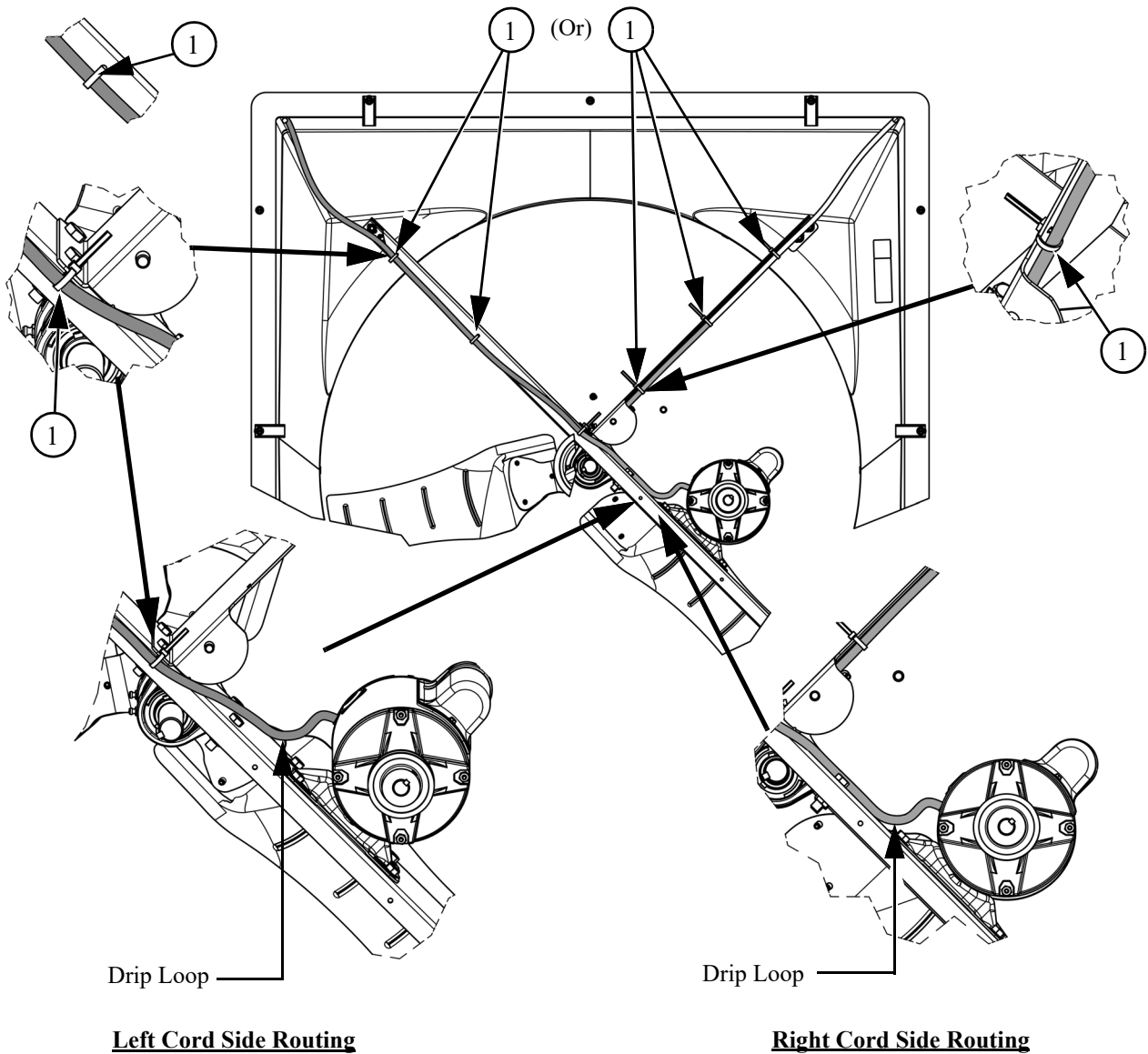
Figure 8. Installing the Belt

Cord Installation

- 1. See Wiring diagram on Motor for Motor electrical connections. Follow local, state, and national electrical codes for wiring.
- 2. Install an electrical disconnect within reach of each Fan.

Important! Form a Drip Loop in the Cord just before it enters the Motor to prevent water from entering. (See Figure 9.)

- 3. Form a Drip Loop and then Route the Motor Cord (not supplied) toward an upper corner of the Fan and attach to the Fan Brace or Support using Cable Ties included in the hardware package **as shown**.



Item	Description	Part No.
1	5.75 Cable Tie	6635

Figure 9.Cord Routing

Grill Installation

Note: See figure for Grill orientation.

1. Install the Grill using 5/16-18 x 1.00 Shoulder Bolts (**Item 1**) and 5/16-18 Flange Nuts (**Item 2**) as shown.

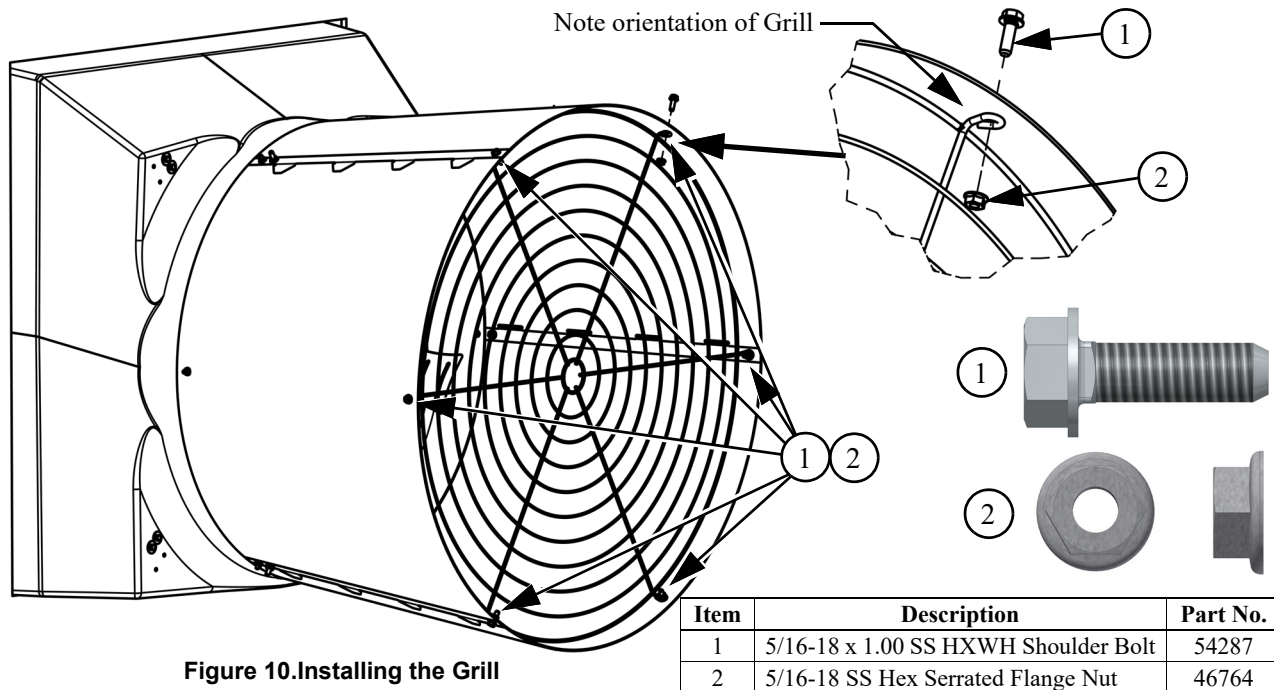


Figure 10. Installing the Grill

Shutter Installation

1. Cut a 3/8" [9.53 mm] wide by 1" [2.54 cm] slot in the upper left or right flange of the Shutter Frame in order to route the Electrical Cord out the back **as shown**.
2. Position the Shutter, centered in the Fan Shroud, and rotate the Shutter Clips to lock the Shutter into place. Check the Shutter for proper operation. The Shutter must be able to open and close freely without obstructions.

Note: Some installations may require an exit hole for the Motor Cord to be drilled in the side of the Shroud. These installations must have electrical wires routed through conduit.

Important: Make sure the electrical conduit and wire does not interfere with the Fan Blades or Shutter operation.

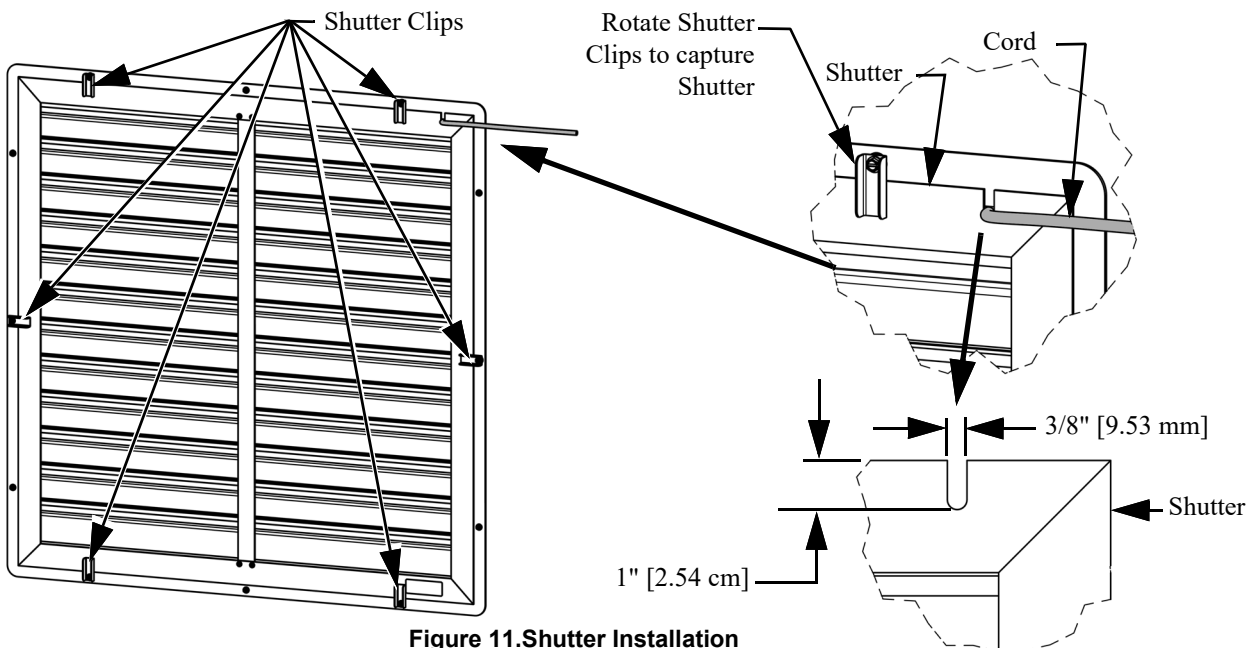


Figure 11. Shutter Installation

Maintenance



Service and maintenance of Fans should be done only by a qualified technician.

Disconnect Power prior to maintaining or cleaning the Fan! The Fan may start automatically causing injury or death.

1. Keep the Fan clean for maximum life and performance.
2. Clean Shutter, Cone and Shroud for maximum life and performance.
3. The Turbo Flex Fans are shipped with the Danger Decal fastened to the Fan Shroud. Always keep the Decal clean and readable. If the Decal becomes damaged or unreadable, order replacement Decals immediately. Clean the Shroud at the approximate location where the Decal will be placed. Peel the backing off the Decal and affix it to the Shroud.
4. Periodically check the V-Belt. If necessary, adjust the spring tension to prevent Belt from slipping.

Fan Bearing Lubrication



- Grease zerks are provided for lubrication on the Fan Shaft Bearings and the Belt Tensioner.
- Lubricate the Fan every 2-6 months or whenever these components get wet.
- Disconnect power to the Fan before lubricating.
- Clean the Zerk before lubricating to prevent contamination from entering the Bearing.
- Use a high quality lithium based, NLGI #2, grease such as Shell Gadus S2 V100 2. Do not use incompatible greases containing aluminum, barium, calcium, bentonite clay or polyurea thickeners.
- Slowly rotate the Fan Shaft by hand while slowly applying the grease. Rapidly applying grease to a stationary bearing can damage the bearing seals.
- Apply about .10 oz (2.8 g, 3.1 cc) of grease at a time or until a slight amount of grease can be seen purging from the Seal.

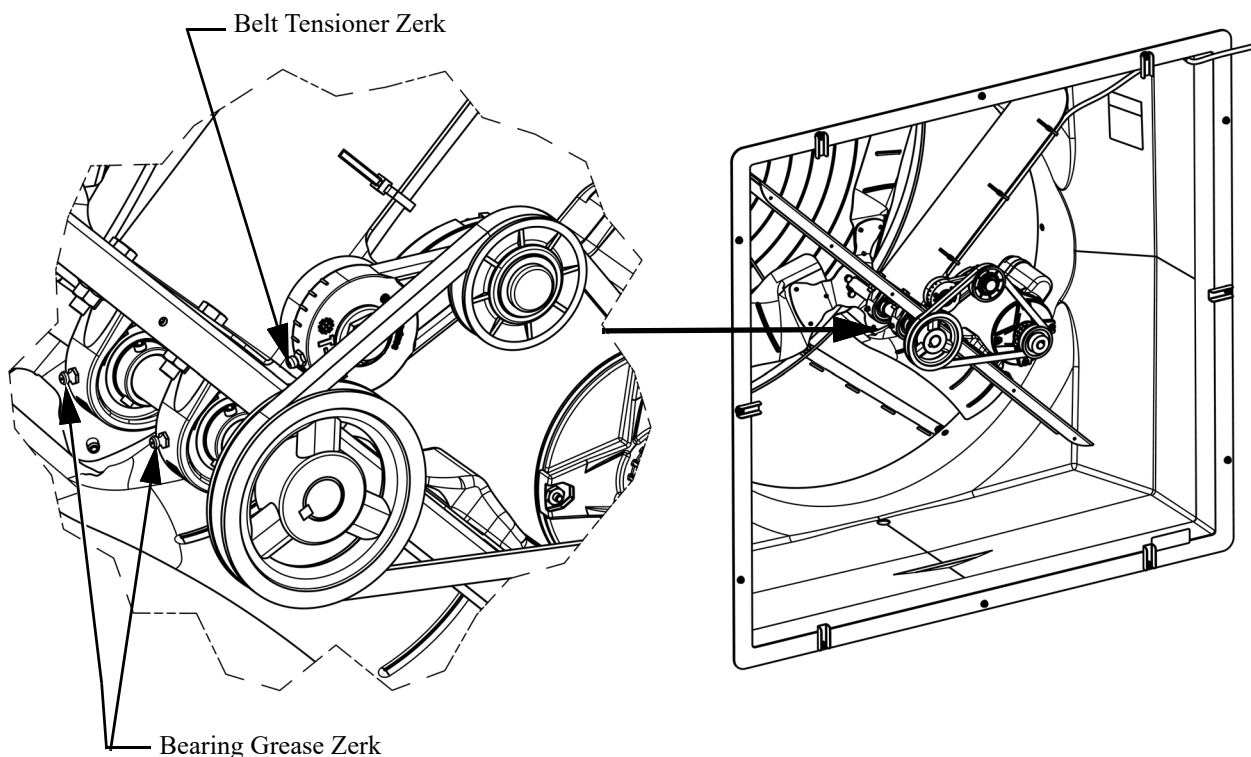
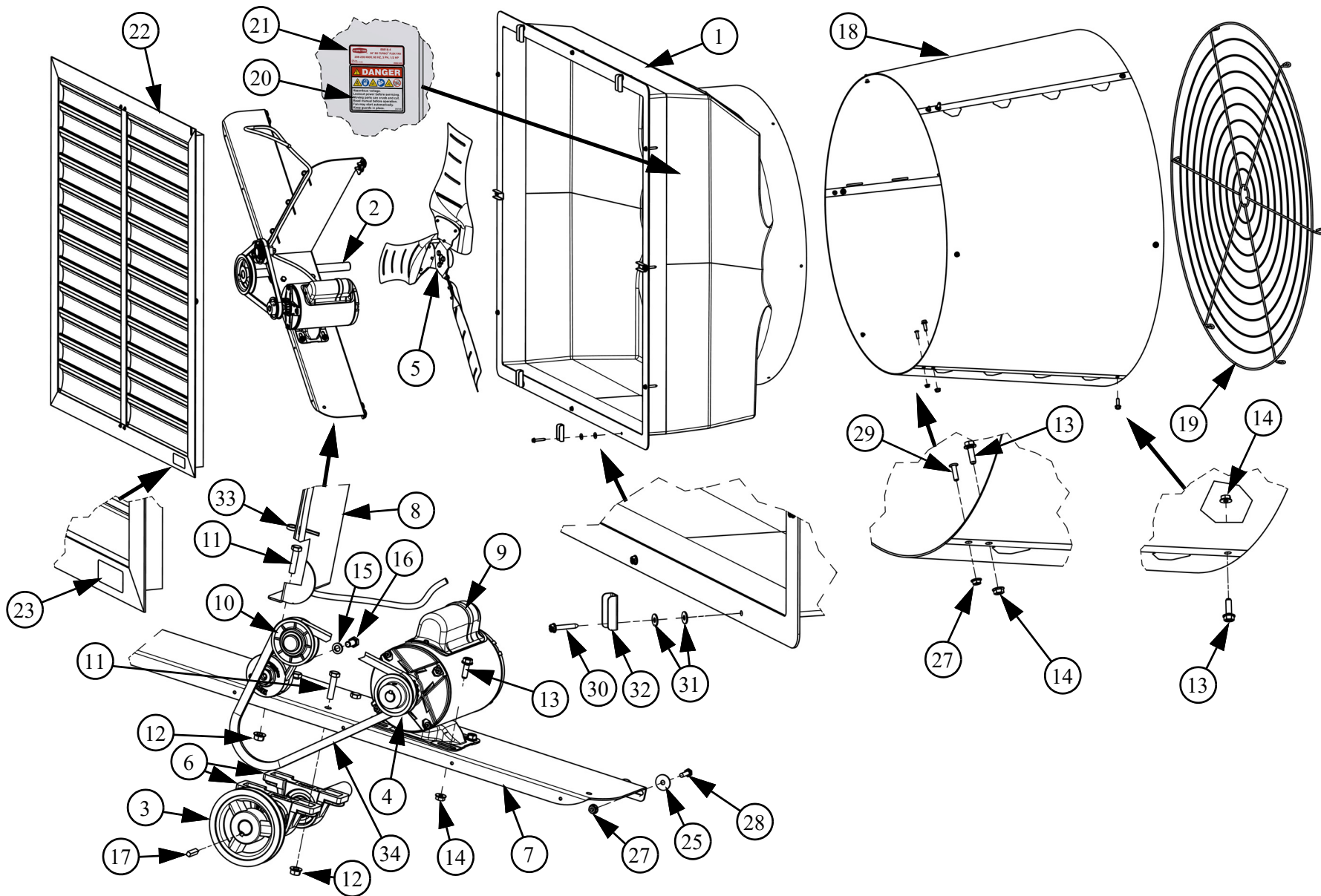


Figure 12. Grease Zerk Locations

Part Numbers

Fan Assembly 58818-X



Item	Description	58818-2 Single Phase		58818-4 3 Phase	
		Part No.	Qty.	Part No.	Qty.
1	36" Fiberglass Fan Shroud	46970	1	46970	1
2	Fan 1" Dia SS Shaft	39688	1	39688	1
3	AK51 4.95" O.D. x 1.00 Bore Sheave	42338	1	42338	1
4	AK27 2.7" O.D. X 5/8 Bore Sheave	1381	1	1381	1
5	36" Fan (1" Bore) Blade	58863	1	58863	1
6	1" Cast Pillow Block Bearing	50553	2	50553	2
7	36in BD Turbo Flex Fan Support	58817	1	58817	1
8	36in BD Turbo Flex Fan Brace	58816	1	58816	1
9	1/2hp 1ph, 60hz, 115/230v 1725rpm Motor	40158	1	--	--
	1/2hp 3ph 60hz 230/460v Motor	--	--	4714	1
10	Assembly 3.5" Arm 3" Dia. Tensioner	48429	1	48429	
11	HH SS 3/8-16 x 1.50 Bolt	4413-10	4	4413-10	4
12	Hex Serrated Flange SS 3/8-16 Nut	50191	4	50191	4
13	Bolt, Shoulder 5/16-18 x 1.00 SS	54287	4	54287	4
14	Hex Serrated Flange SS 5/16-18 Nut	46764	4	46764	4
15	Lock 3/8 SS Washer	ST99780	1	ST99780	1
16	HH SS 3/8-16X.75 Bolt	ST99277	1	ST99277	1
17	1/4 SQ x 1.13 Key	2419-2	2	2419-2	2
18	36" Fan, 43.75" OD Cone Panel	58814	3	58814	3
19	36" Fan Cone Grill	58815	1	58815	1
20	Fan Danger Decal	2527-90	1	2527-90	1
21	36 BD Turbo Flex 58818-2 Fan Decal	39002-629	1	--	--
	36 BD Turbo Flex 58818-4 Fan Decal	--	--	39002-630	1
22	41.82 x 41.82 Plastic Shutter	38027N	1	38027N	1
23	41.82X41.82 Plastic Shutter Decal	40165-3	1	40165-3	1
25	.275 x 1.00 x .075 SS Washer	2955-52	6	2955-52	6
27	Hex Flange Serrated SS 1/4-20 Nut	46298	6	46298	6
28	Hex Hd. 316SS 1/4-20 x .88 Bolt	4404-17	6	4404-17	6

Quantity of Parts below Included in 58810 Hardware Package (Some Part Numbers are also used in the Fan Assembly above)					
Item	Description	Part No.	Qty.	Part No.	Qty.
29	1/4-20 x 7/8 Wafer Headed Bolt	40775	6	40775	6
27	Hex Flange Serrated SS 1/4-20 Nut	46298	6	46298	6
13	5/16-18 X 1.00 SS Shoulder Bolt	54287	9	54287	9
14	Hex Serrated Flange SS 5/16-18 Nut	46764	9	46764	9
30	1/4-10 x 1-1/2 Lag SS HXWH Screw	41561	8	41561	8
31	.260 x .69 x .060 Nylon Washer	4856	12	4856	12
32	2.0 x .75 Shutter Clip	36729	6	36729	6
33	Cable Tie	6635	3	6635	3
34	AX32 V Belt	39783	1	39783	1

Shutter Assembly 38027

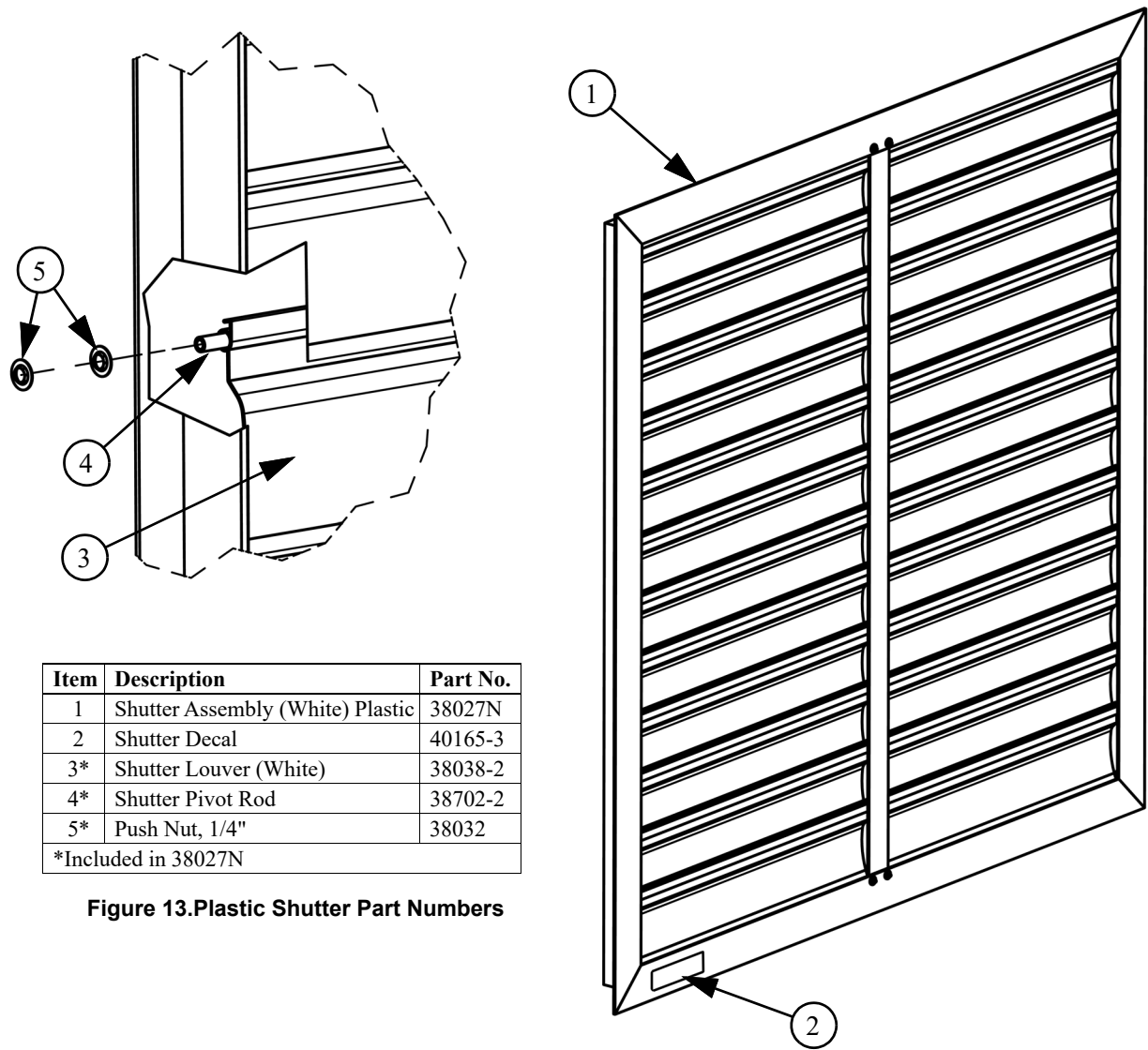
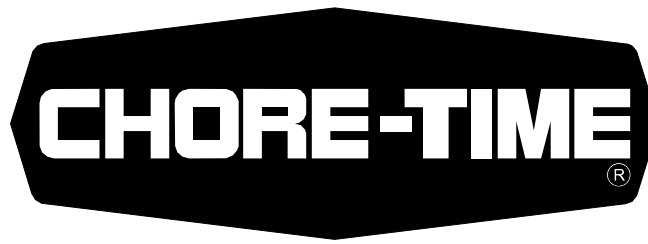


Figure 13.Plastic Shutter Part Numbers

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**MADE TO WORK.
BUILT TO LAST.®**

Revisions to this Manual

Page No.	Description of Change	ECO
	New Manual	41071

**For additional parts and information, contact your nearest Chore-Time distributor or representative.
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