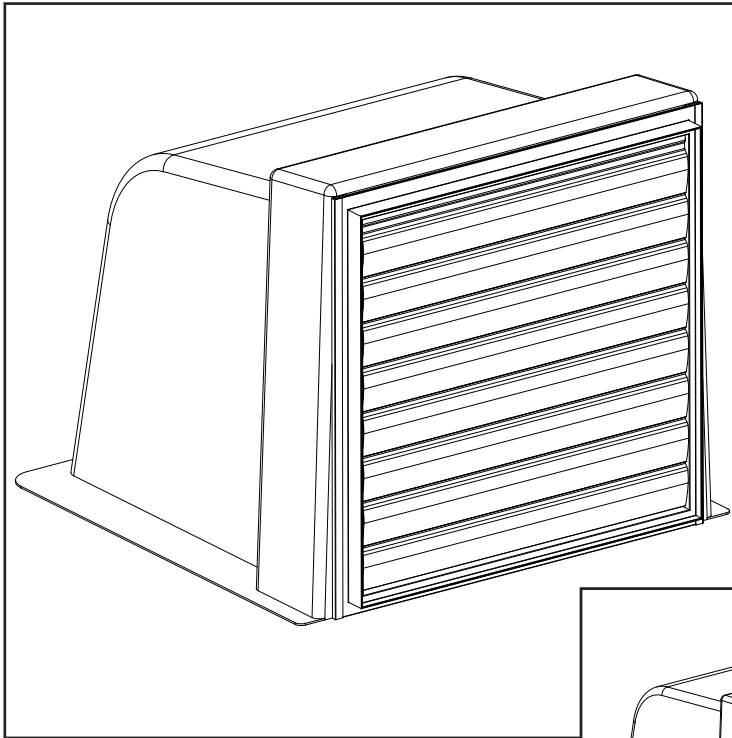
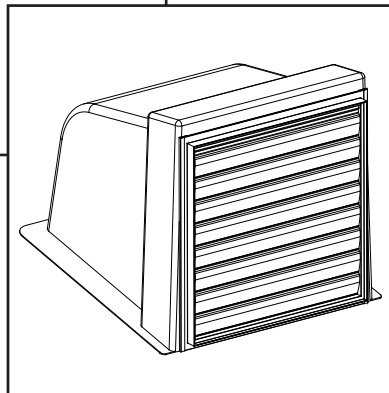


Instruction Manual

Fiberglass Pit Transition Fan



ATxxFPT



ATxxFPT-12

Fiberglass Pit Transition Fan

Models: AT16FPT • AT16FPT-12 • AT18FPT • AT18FPT-12 •
AT24FPT • AT24FPT-12 • AT24F3PT

Fiberglass Pit Transition Fan

Instructions for Use and Maintenance

Thank You:

Thank you for purchasing a Munters Fiberglass Pit Transition 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.

Before beginning installation, check the overall condition of the equipment. Remove packing materials, and examine all components for signs of shipping damage. Any shipping damage is the customer's responsibility and should be reported immediately to your freight carrier. Fan is shipped complete with all accessories.

1.1 Parts List

Each Pit Transition ATxxFPT includes:

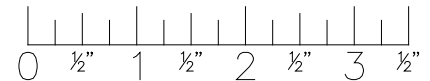
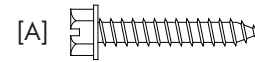
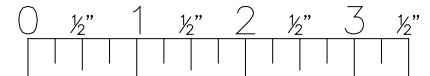
- 1 - Fiberglass Pit Transition Fan Assembly
- 1 - Hardware Package As Follows:

HP1201 - Hardware Package for ATxxFPT Pit Transition Fan

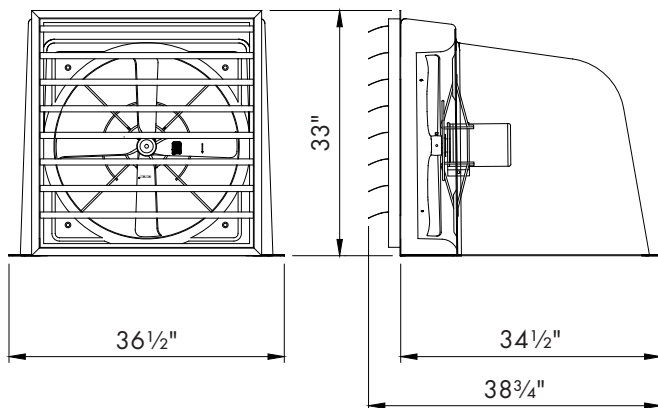
ID	Qty.	Cat. No.	Description
[A]	8	KS2105	#14 x 1.5" Lag Screw, SS

Note:

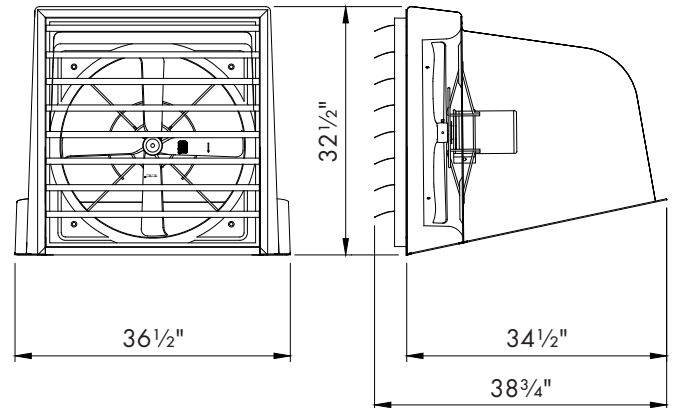
When wiring the fan, allow extra cord for fan removal and maintenance.



1.2 Dimensions



ATxxFPT



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Installation Instructions

2.

2.1 Installation

Step 1

Construct a framed opening of 24" x 32" in the pump-out lid, horizontal opening or opening in 12° sloped top. See Figure 1A. If pump-out lid is concrete, it is recommended to frame a double treated 2 x 4 sill around the 24" x 32" opening, with an extra frame piece across the front of the opening.

See Figure 1B and 1C.

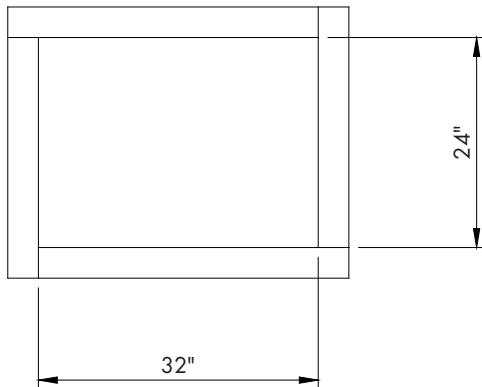


Figure 1A

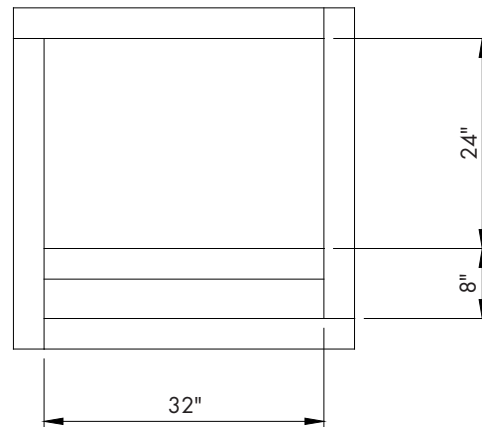
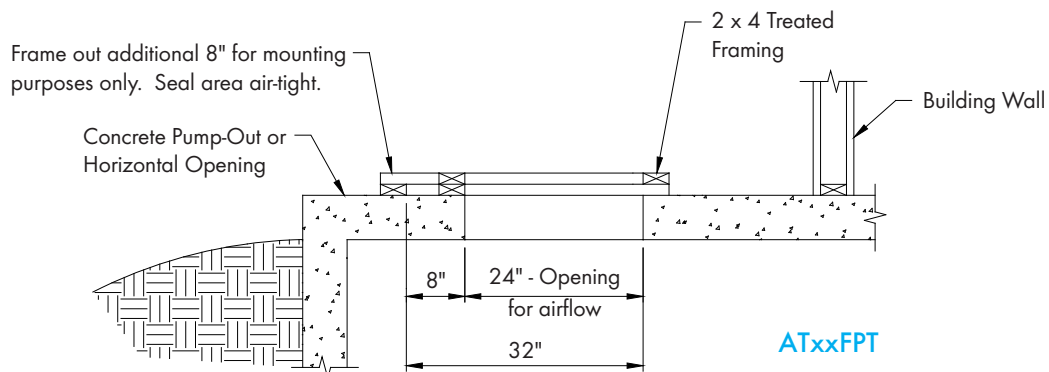
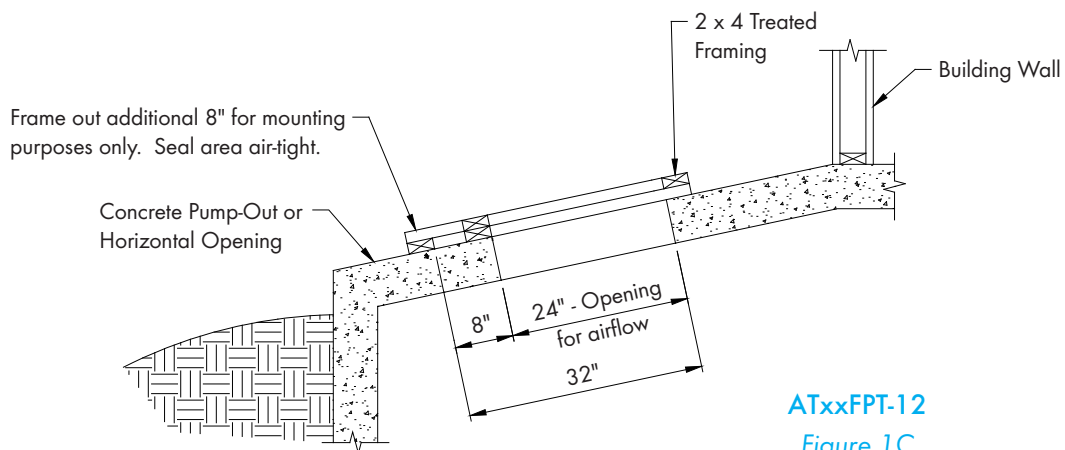


Figure 1B



ATxxFPT
Figure 1C



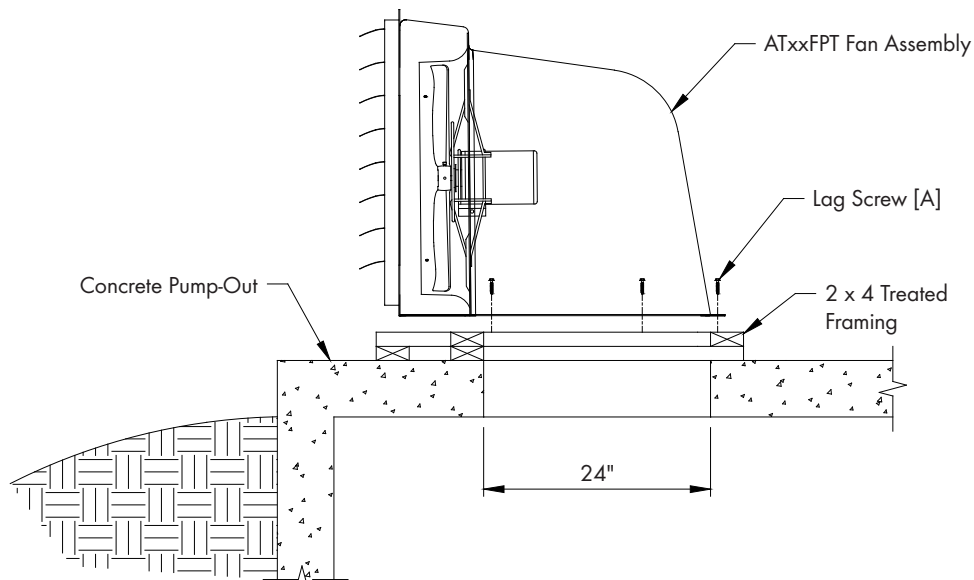
ATxxFPT-12
Figure 1C

Step 2

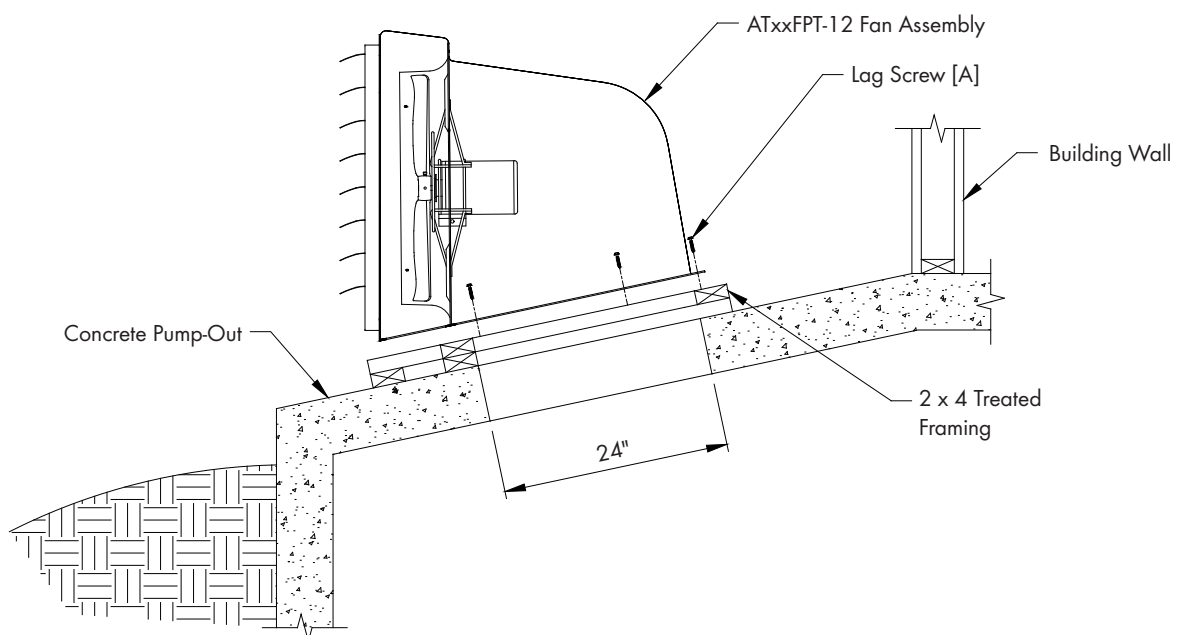
Apply caulk around base of pit transition flange and secure to framing using (8) Lag Screws [A].. See Figure 2.

Step 2

Installation is now complete. Proceed to next chapter for electrical wiring.



ATxxFPT
Figure 2



ATxxFPT-12
Figure 2

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. After wiring check for proper motor rotation.

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 3A. 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 3B.*

If a frequency drive (inverter) is used, confirm that motors are rated for inverter duty at the voltage used. Shielded power cable between frequency drive and each motor is highly recommended. 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.

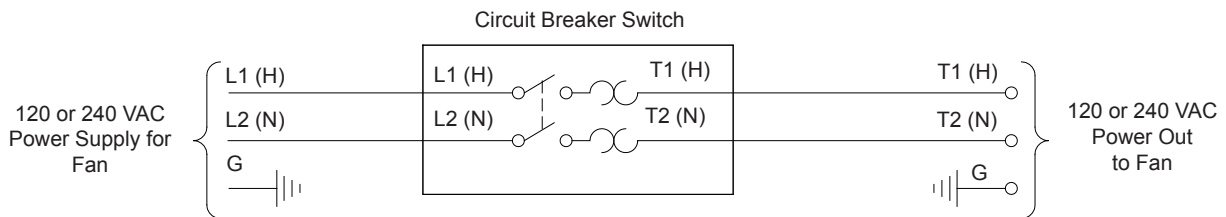


Figure 3A

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

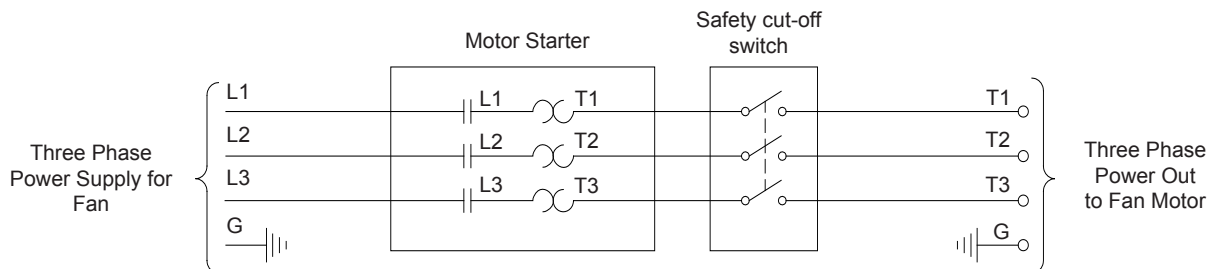


Figure 3B

Three Phase - Motor Overload Protection with Disconnect

KEY:

- L1=Line 1
- L2=Line 2
- L3=Line 3
- H=Hot
- N=Neutral
- G=Ground

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 down along leg of motor mount and "Zip" tie the cable to leg to prevent cable from getting tangled. See Figure 4. Then run the cable out the side of FPT housing to the circuit breaker or control panel. The hole where the power cable exits the FPT, should be sealed tightly, either with caulk or a water tight fitting.

(Continued on next page).

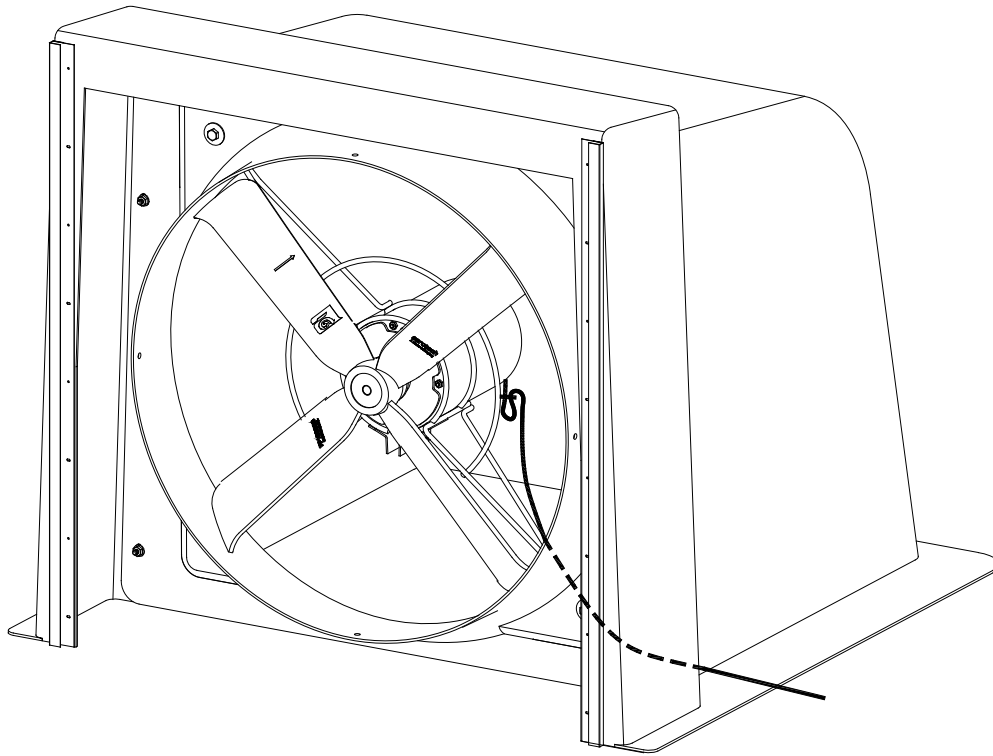


Figure 4

Three Phase Fans:

- 1) The use of a quality frequency drive and the installation of line reactors is recommended to reduce voltage spikes and harmonic distortion.
- 2) Minimum operating frequency of 30 Hz.
- 3) Will require three pole contractors with overload protection (by others).

Operation

4.

4.1 Operation

INITIAL START-UP: With electrical power off, verify that the fan propeller turns freely and that all fasteners are secure. Turn on electrical power and confirm that the fan operates smoothly.

ADJUSTMENTS: Set the fan control to the temperature shown on your ventilations system drawing, or to a value which will provide the desired environmental conditions.

Single Phase Fans: When variable speed controls are used, the fan's idle speed will need to be set to the recommended minimum airflow rate. Refer to the procedures included with each control. The table below provides airflow rates at various propeller speeds for fans wired for 240 VAC.



0.05" Static Pressure											
16" Fans	CFM	RPM	VOLTS	18" Fans	CFM	RPM	VOLTS	24" Fans	CFM	RPM	VOLTS
	150	740	108		300	650	134		850	500	144
	200	775	110		500	700	137		1000	520	146
	300	845	114		800	770	140		1250	550	149
	400	915	118		1000	815	143		1500	575	152
	500	975	123		1250	875	146		1750	605	154
	600	1000	125		1500	930	149		2000	635	157
	800	1070	131		1750	990	152		2250	670	160
	1000	1115	135		2000	1050	155		2500	700	163
	1250	1165	140		2500	1190	162		2750	735	166
	1500	1215	144		3000	1380	173		3000	770	170
1750	1275	149	3500	1590	196	3500	845	178			
2000	1360	159	3750	1670	230	4000	935	190			
2500	1550	200				4500	1040	221			
2700	1625	230				4600	1060	230			

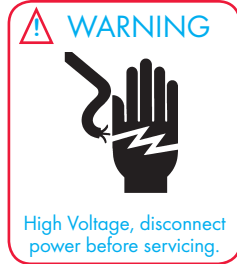
5.1 Maintenance

The following inspection and cleaning procedures should be performed monthly:

- 1) **INSPECT PROPELLER:** Check that propeller is secure on motor shaft 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:** Clean any dust accumulations from shutter blades and frame so that shutter opens and closes freely. A brush or cloth should be used.
- 3) **CHECK FASTENERS:** For safety, all fasteners should be inspected 1 month after initial operation and yearly thereafter. 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!**



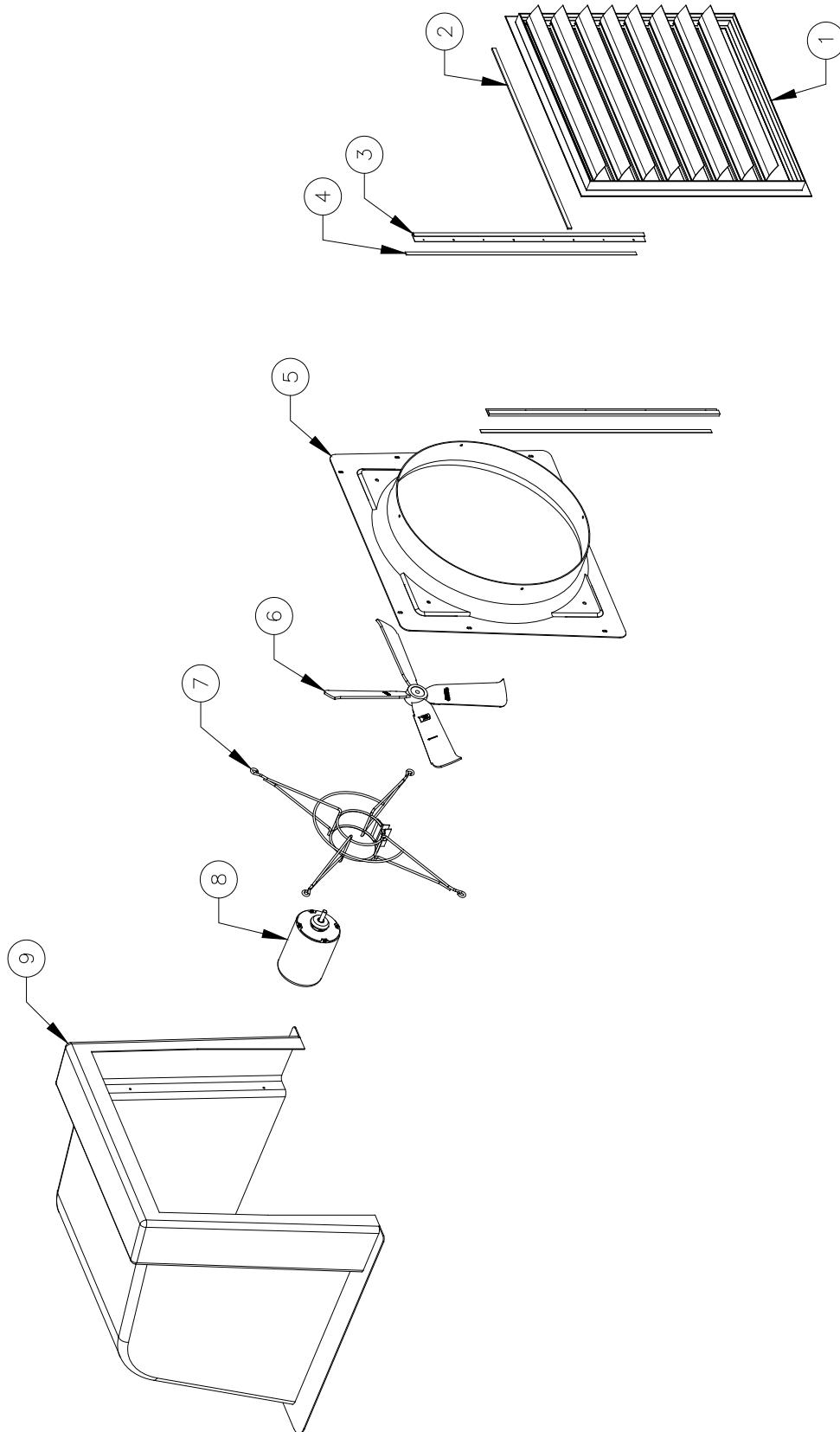
6.1 Troubleshooting



SYMPTOM	POSSIBLE CAUSES	CORRECTIVE ACTION
Fan Not Operating	<ol style="list-style-type: none"> 1. Fan control set above room temperature 2. Blown fuse or open circuit breaker 3. Propeller blade contacting fan housing 4. Fan control defective 	<ol style="list-style-type: none"> 1. Set to a lower temperature 2. Replace fuse or reset breaker 3. Realign motor in fan housing 4. Repair or replace control 5. Repair or replace motor
Fan Operating-Insufficient Airflow	<ol style="list-style-type: none"> 1. Variable speed control improperly adjusted 2. Shutter jammed or dirty 3. Guard dirty 	<ol style="list-style-type: none"> 1. See Operation, Step 2 for adjustment guidelines 2. Unjam and clean shutter 3. Clean guard
Excessive Noise	<ol style="list-style-type: none"> 1. Propeller blade contacting fan housing 2. Motor bearing or shaft bearing defective 3. Frequency drive improperly adjusted 	<ol style="list-style-type: none"> 1. Sand fan housing to remove high spot 2. Repair or replace motor or shaft bearings 3. See operation, Step 2 for adjustments guidelines
Excessive Vibration	<ol style="list-style-type: none"> 1. Motor loose on mount 2. Propeller damaged 3. Motor shaft bent 	<ol style="list-style-type: none"> 1. Tighten fasteners 2. Replace propeller 3. Repair or replace motor
Fan never turns off	<ol style="list-style-type: none"> 1. Override thermostat set incorrectly 2. Control set for continuous operation 	<ol style="list-style-type: none"> 1. Set to the correct temperature 2. Set speed control correctly

Exploded View

7.



Item	Catalog No. ATxxFPT	Catalog No. ATxxFPT-12	Description	Qty.
1	PX29	PX29	Shutter, 28 ³ / ₄ " SQ., White Plastic	1
2	KA2145	KA2145	Adhesive Back Foam Seal, ³ / ₁₆ " x ¹ / ₂ ", Black	2.5
3	FH1395	FH1395	Shutter Retainer Bracket, 30.75"L., AL	2
4	KA2143	KA2143	Double-Sided Foam Tape, ¹ / ₂ " Wide	5
5	FH4016	FH4016	Orifice Panel, 16" FPT Fan with Labels, FG	1
	FH4018	FH4018	Orifice Panel, 18" FPT Fan with Labels, FG	1
	FH4024	FH4024	Orifice Panel, 24" FPT Fan with Labels, FG	1
6	FP1038SS	FP1038SS	Propeller, 16"DD, 4-Blade, Set Screws, AL	1
	FP1008SS	FP1008SS	Propeller, 18"DD, 5-Blade, Set Screws, AL	1
	FP1033SS	FP1033SS	Propeller, 24"DD, 4-Blade, Set Screws, AL	1
7	FH1009	FH1009	16"/18" Fan, Motor Mount, PVC Coated	1
	FH1010	FH1010	24" Fan, Motor Mount, PVC Coated	1
8	FM1043	FM1043	16" DD, Motor, ¹ / ₄ HP, 1625 RPM, 48 Fr., 1 ph., 115/230V	1
	FM1009	FM1009	18" DD, Motor, ¹ / ₃ HP, 1625 RPM, 48 Fr., 1 ph., 115/230V	1
	FM1108	FM1108	24" DD, Motor, ¹ / ₃ HP, 1075 RPM, 48 Fr., 1 ph., 115/230V	1
	FM1074	FM1074	24" DD, Motor, ¹ / ₃ HP, 1140 RPM, 48 Fr., 3 ph., 230/460V	1
9	FA1655	-	Pit Transition, 32" x 32", FG	1
	-	FA1657	Pit Transition, 32" x 32", 12 Degree Slope, FG	1

Fiberglass Pit Transition Fans are developed and produced by Munters Corporation, Lansing, Michigan U.S.A. 1-800-227-2376



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