



# AEROEX International Inc.

## Oil Mist Eliminator

### Model REX- Series



## Installation & Service Manual

[www.aeroex.ca](http://www.aeroex.ca)

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## Model REX Series Specifications

### AEROEX – Mist Eliminator

For highly effective separation of oils, emulsion, water. Designed to exhaust air from metalworking machinery and oil reservoirs. Filtration efficiency 99.9% at particle fraction greater than 0.3 microns. Aerosol measurements less than 0.020 mg/m<sup>3</sup> at 0.3 microns.

**Consisting of:**

- Powdered coated mild steel housing.
- Fan with motor.
- First stage mechanical separator elements.
- Second stage filtration by droplet agglomerator. (Depth Fiber Filter)
- Oil outlet connection.
- 3<sup>rd</sup> stage polishing filter 95% @ 0.3 microns or HEPA 99.99%.
- Optional Clean In Place (CIP) System.

**Material:**

Housing	mild steel, epoxy powder coated
Fan impeller	aluminum , optional steel, SS304
Mechanical Separator elements	mild steel
Agglomerator Media	Polypropylene

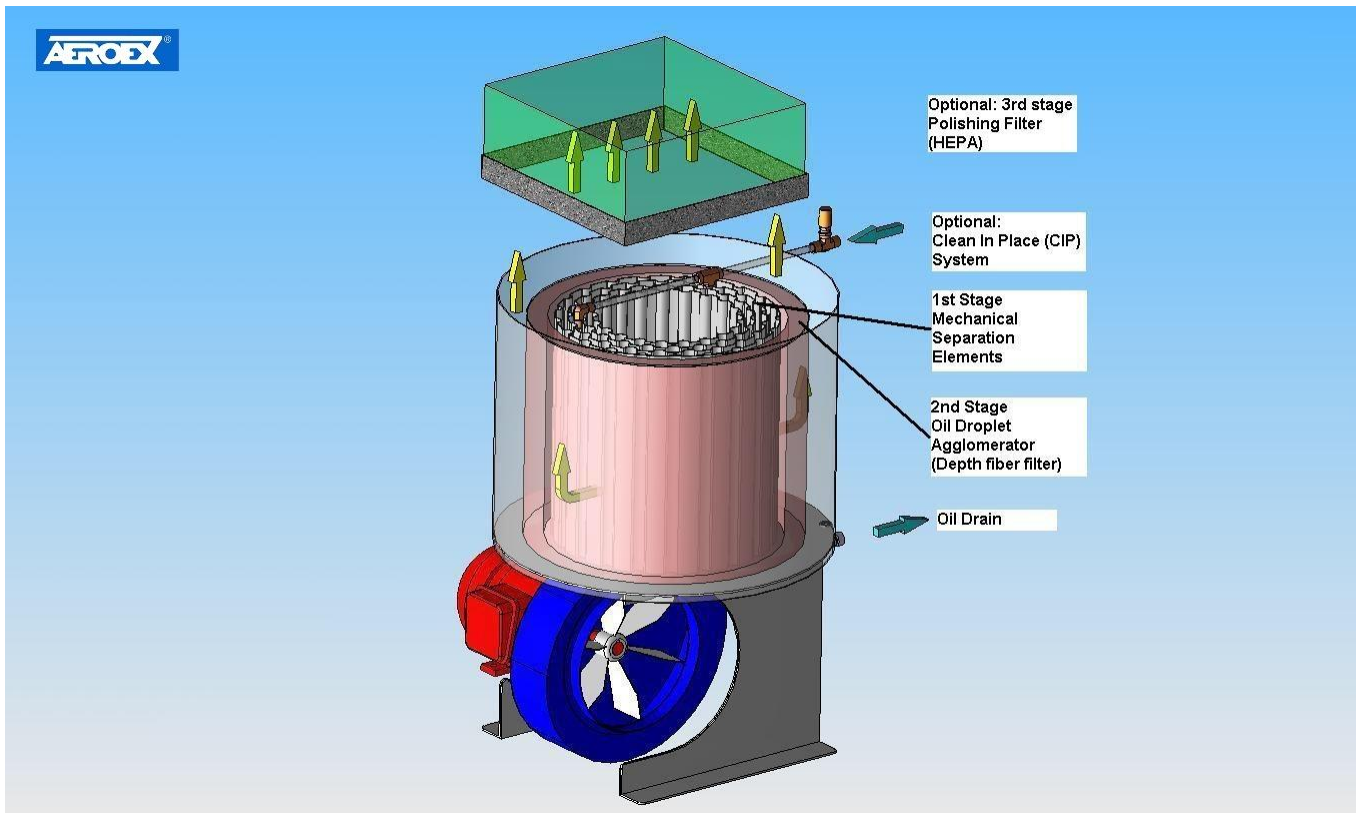
**Specifications:**

Model	CFM (m <sup>3</sup> /hr)	Sound dB(A)	Machine Tool Enclosure Volume ft <sup>3</sup>	Motor hp	Voltage RPM
<b>REX-500</b>	420 – 550 (715-870)	70-72	50 - 150	0.5	115/230/1/60 230/460 or 575/3/60 3600 / 60
<b>REX-700</b>	670 – 770 (1140-1310)	72-74	125 - 225	1	115/230/1/60 230/460 or 575/3/60 3600
<b>REX-1100</b>	1030 – 1150 (1759-1940)	76-78	200 - 350	3	230/460 or 575/3/60 3600
<b>REX-2000</b>	1750 – 2000 (3040-3400)	70-72	300 - 600	5, VFD 70-80 hz	230/460 or 575/3/60 2100 – 2300
<b>REX-3000</b>	2600 – 3000 (4420-5100)	70-72	600 - 1000	5	230/460 or 575/3/60 1800
<b>REX-4000</b>	3000 – 4000 (5100-6800)	71-73	900 - 1400	7.5 VFD 70-80 hz	230/460 or 575/3/60 2100 - 2300



Model	Dimensions	Weight	Duct Con.
REX-500	24" x 24" x 41"ht (610 x 610 x 1041 mm)	130 lb (60 kg)	5" (127 mm)
REX-700	24" x 24" x 47"ht (610 x 610 x 1194 mm)	210 lb (95 kg)	6" (152 mm)
REX-1100	29" x 29" x 51"ht (742 x 742 x 1260 mm)	300 lb (136 kg)	7" (177 mm)
REX-2000	55" x 32" x 50"ht (1397 x 813 x 1250 mm)	360 lb (164 kg)	10" (254 mm)
REX-3000	85" x 32" x 52" ht (2110 x 813 x 1321 mm)	650 lb (295 kg)	12" (305 mm)
REX-4000	82" x 45" x 37" ht (2083 x 1143 x 940 mm)	700 lb (320 kg)	16" (406 mm)

## Model REX Series Description



## Installation:

- Mount mist collector unit vertical only.
- Units can be mounted directly on top of machines/tanks, on a post or on the wall.
- Ensure that there is 40 inches (1 meter) free space above unit for air exhaust & maintenance.
- Minimize the length of ducting to avoid air flow losses.
- Metal ducting or flexible hose can be used.
- Do not locate suction intake on machining applications in direct line of the cutting spray.
- A suction intake screen mounted in the machine (CNC) enclosure is recommended to catch chips so that they do not enter mist collector.
- Connect oil drain line.
- Connect electrical power to motor.
- Check motor rotation.

## Maintenance:

The mist collector can operate for long periods without maintenance. The maintenance period will depend on the type of oil & solids/chips in air stream. Some soluble oil & synthetic concentrates will congeal requiring the mechanical separator elements and agglomerator (filter) media to be manually cleaned/washed. The air flow will reduce if this happens.

Inspect the unit after 3 months, 6 months & 1 year to establish the maintenance interval. If there is no fouling, the mist separator can run indefinitely without maintenance. It is recommended that the 2<sup>nd</sup> stage agglomerator filter media be replaced every 7 - 10 years.

### Optional Clean In Place (CIP) System:

Eliminates manual cleaning of 2<sup>nd</sup> stage media.

Connect to water or clean coolant.

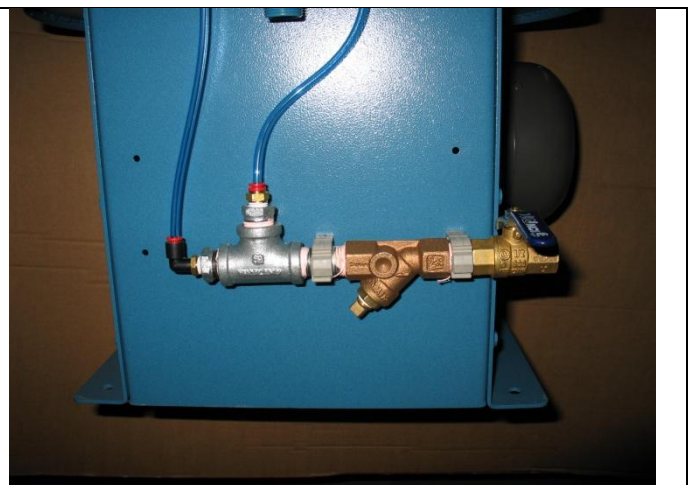
Turn fan off

Flush for 5-15 min every 2- 4 mths.

.

Picture:

Typical CIP connection.



**Disassembly:**

<p>Remove HEPA polishing filter</p>		
<p>Remove cover plate. Remove 2<sup>nd</sup> stage filter media (agglomerator). This is a permanent media and can be washed many times.</p>		
<p>Remove mechanical separation elements. They can be disassembled for cleaning by removal of the bolts (6).</p>		
<p>Replace bottom foam gasket each time HEPA filter is changed.</p>		



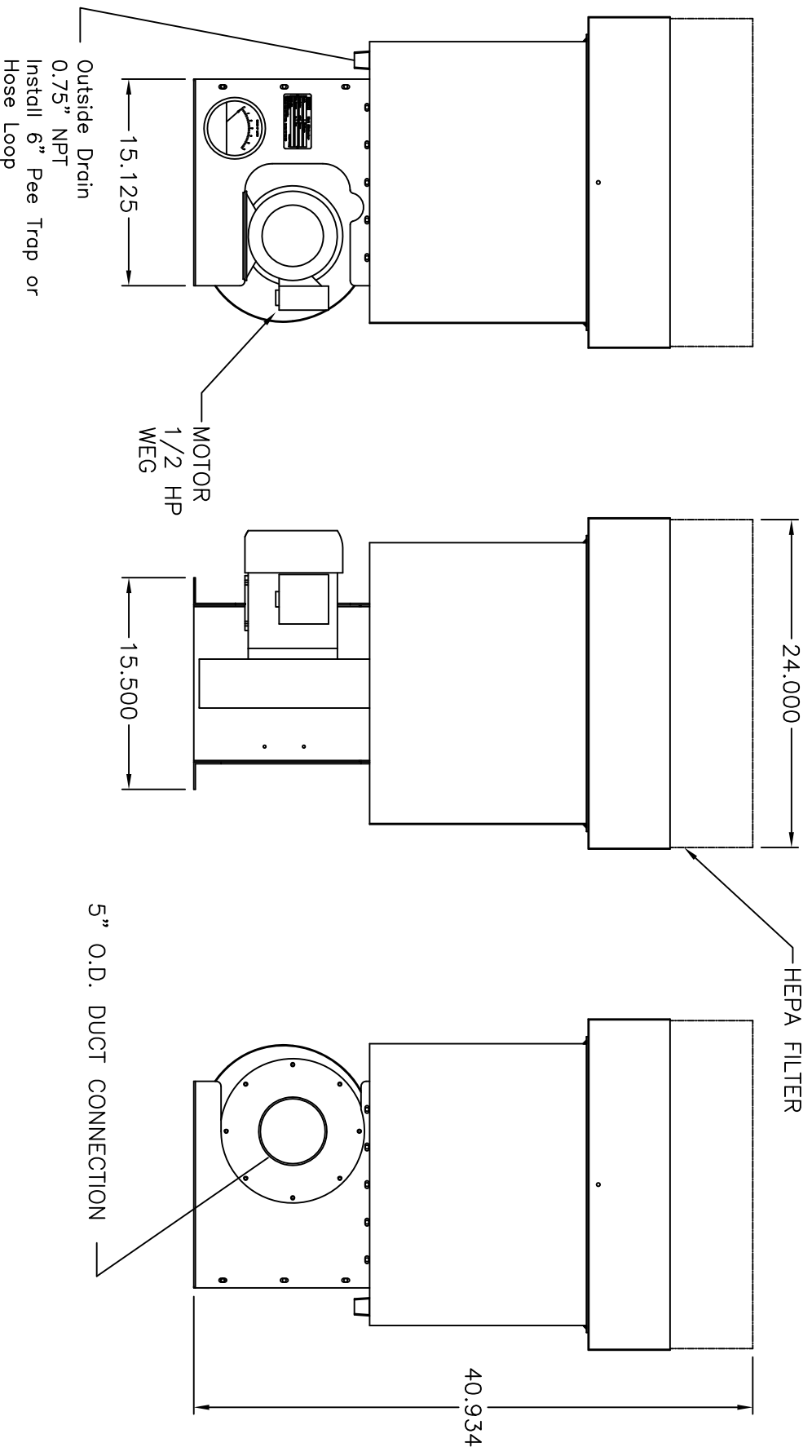
Parts List, Model REX\_\_\_\_ .

Qty	Description	Part Number
	<b>Motor:</b>	
1	REX-500 – 0.5 hp, 115/1/60	500M001
1	REX-500 – 0.5 hp, 230/460/60	500M002
1	REX-500 – 0.5 hp, 575/3/60	500M003
1	REX-700 – 1 hp, 230/460/60	700M002
1	REX-700 – 1hp, 575/3/60	700M003
1	REX-1100 – 3 hp, 230/460/3/60	1100M002
1	REX-1100 – 3 hp, 575//3/60	1100M003
1	REX-2000 – 3 hp, 230/460/3/60	2000M002
1	REX-2000 – 3 hp, 575//3/60	2000M003
1	REX-3000 – 5 hp, 230/460/3/60	3000M002
1	REX-3000 – 5 hp, 575/3/60	3000M003
1	REX-4000 – 7.5 hp, 230/460/3/60	4000M002
1	REX- 4000 – 7.5 hp, 575/3/60	4000M003
	<b>Fan Impeller:</b>	
1	REX-500 – PW 9	500FI001
1	REX-700 – PW 11	700FI001
1	REX-1100 – PW 12	1100FI001
1	REX-2000 – PW 14 (version w/o VFD)	2000FI001
1	REX-2000 – TK 9	2000FI002
1	REX-3000 – TK 11	3000FI002
1	REX-4000 – TK 11	4000FI002
	<b>1<sup>st</sup> stage mechanical element set:</b>	
1	REX-500	500ME002
1	REX-700	700ME002
1	REX-1100	1100ME002
1	REX-2000	2000ME002
2	REX-3000	2000ME002
2	REX-4000	2000ME002
	<b>2<sup>nd</sup> stage agglomerator filter media set:</b>	
1	REX-500	500AF002
1	REX-700	700AF002
1	REX-1100	1100AF002
1	REX-2000	2000AF002
2	REX-3000	2000AF002
2	REX-4000	2000AF002



Parts List continued, Model REX\_\_\_\_ .

Qty	Description	Part Number
1 1 1 2 2 4  1	3 <sup>rd</sup> stage HEPA filter 95% @ 0.3um polyester media. nominal 24"x24"x12" , filter adaptor is required REX-500, REX-700, REX-1100 REX-2000 REX-3000 REX-4000  Filter adaptor	2000HF001 (same for all models)        2000FA001
1 1 2 2 4	3 <sup>rd</sup> stage HEPA filter 95% @ 0.3um Glass fiber media 24"x24"x12" REX-500, REX-700, REX-1100 REX-2000 REX-3000 REX-4000	2000HF002 (same for all models)
1 1 2 2 4	3 <sup>rd</sup> stage HEPA filter 99.9% @ 0.3um Glass fiber media 24"x24"x12" REX-500, REX-700, REX-1100 REX-2000 REX-3000 REX-4000	2000HF003 (same for all models)
1 1 1 1 2 2	3 <sup>rd</sup> stage HEPA pre-filter 85% @ 0.3um Glass fiber media 24"x24"x6" REX-500 REX-700 REX-1100 REX-2000 REX-3000 REX-4000	2000PF001 (same for all models)
1 1 1 1 2 2	Top plate rubber gasket REX-500 REX-700 REX-1100 REX-2000 REX-3000 REX-4000	500TG001 700TG001 1100TG001 2000TG001 2000TG001 2000TG001
1 1 1 1 2 2	Bottom foam gasket REX-500 REX-700 REX-1100 REX-2000 REX-3000 REX-4000	500BG001 700BG001 1100BG001 2000BG001 2000BG001 2000BG001
1	Pressure gauge, all models	2000PG001



Outside Drain  
 0.75" NPT  
 Install 6" Pee Trap or  
 Hose Loop

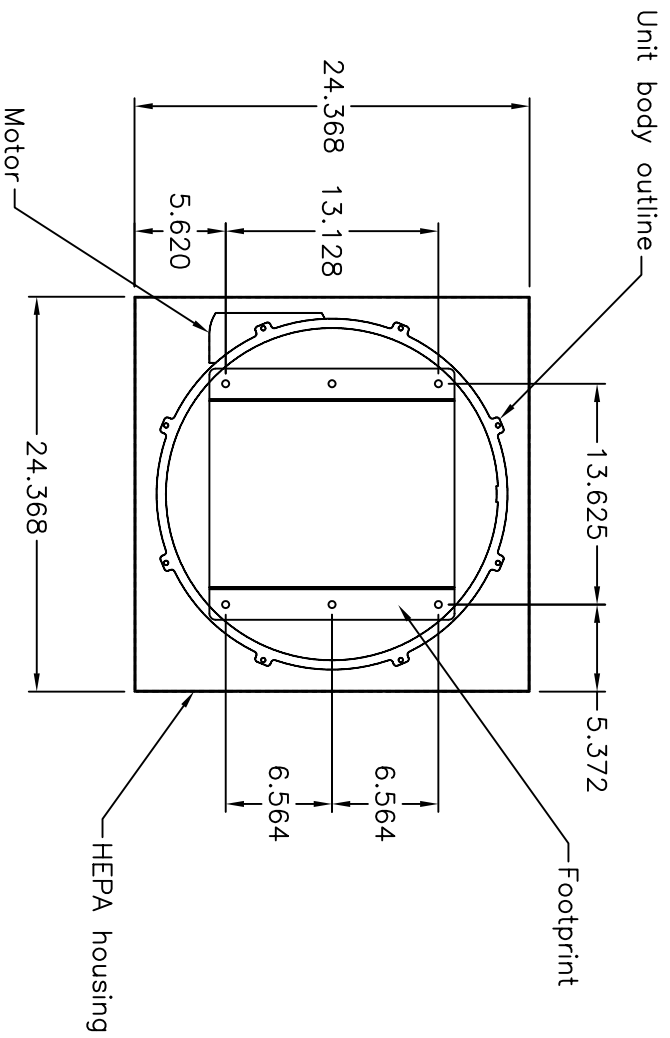
Motor specifications

1/2 hp	3600 rpm	208 VAC	1.7 A	3 phase
		230 VAC	1.65 A	
		460 VAC	0.83 A	

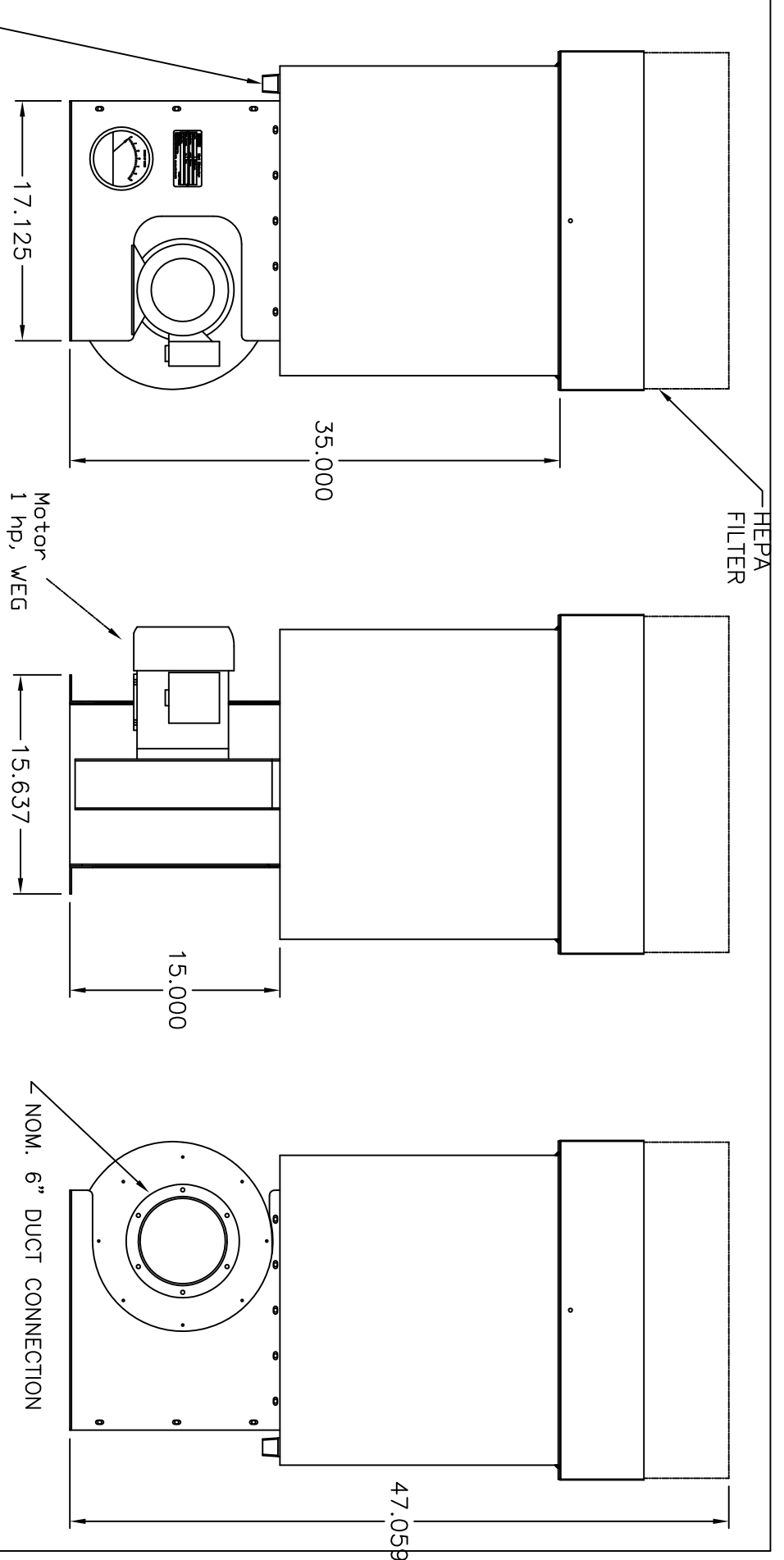
REV. #	DESCRIPTION	DATE	BY
E	Updated	24 May 2006	TB
A	New Drawing	27 April 2005	TB

**AEROEX International Inc.**  
 90 Ellis Drive  
 Barrie, Ontario L4N 6Z3  
 Tel: (705) 794-0199 Fax: (705) 794-1013

DESCRIPTION: REX-500 ASSY DRAWING  
 DATE: April 27/05 DESIGN: T.B. SCALE: DWG NUM: A-02-0050-E



REV. #	A	DESCRIPTION	New Drawing	DATE	27 April 2005	BY	TB
<p><b>ARROEX International Inc.</b>          90 Ellis Drive          Barrie, Ontario L4N 8Z3          Tel: (705) 794-0199 Fax: (705) 794-1013</p>							
<p>DESCRIPTION: REX-500 FOOTPRINT DRAWING c/w HEPA</p>							
DATE:	April 27/05	DESIGN.:	T.B.	SCALE:		DWG NUM.:	A-02-0050-C

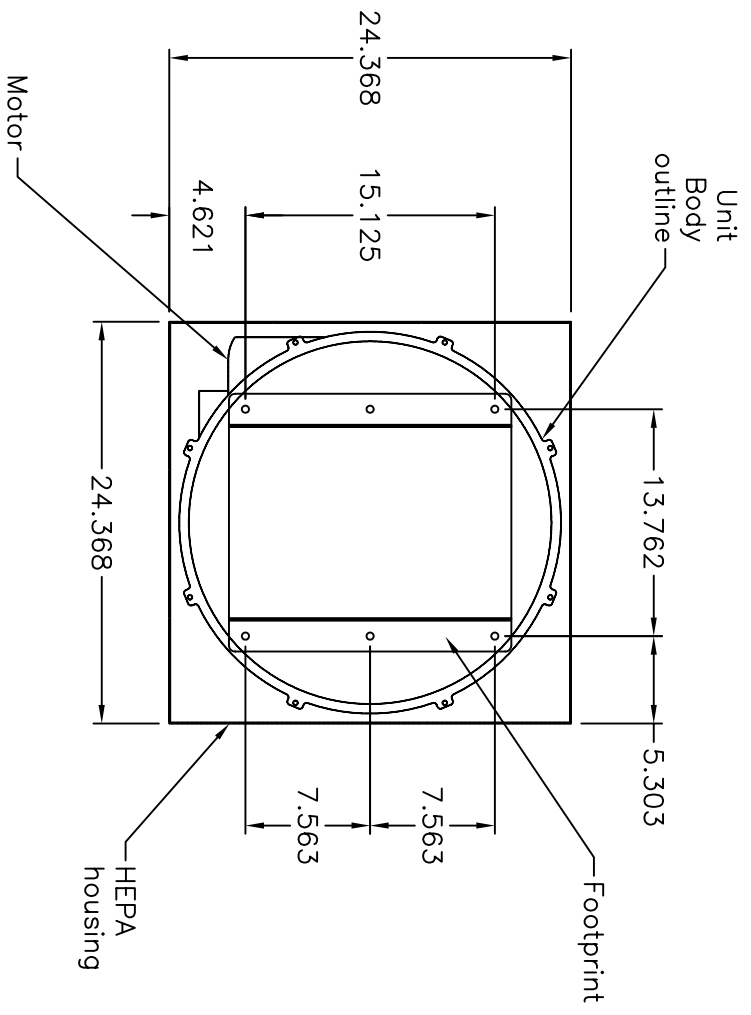


Outside Drain  
 0.75" NPT  
 Install 6" Pee Trap  
 or  
 Hose Loop

Motor specifications

1 hp	3600 rpm	208 VAC	2.87 A	3 phase
		230 VAC	2.80 A	
		460 VAC	1.44 A	

C	Updated	24 May 2006	TB
A	New Drawing	28 April 2005	TB
REV. #	DESCRIPTION	DATE	BY
<b>AEROEX International Inc.</b> 90 Ellis Drive Barrie, Ontario L4N 8Z3 Tel: (705) 734-0199 Fax: (705) 734-1013			
DESCRIPTION:		SIZE	MAT'L
TYPE 700 Compact ASSY DRAWING		SEE CHART	MODEL NO.
		REX-700	
DATE:	DESIGN:	SCALE:	DWG NUM:
Sept. 28/05	T.B.		A-03-0050-C



B				
A	New Drawing		28 April 2005	TB
REV. #	DESCRIPTION	SIZE	DATE	BY
<b>AEROREX International Inc.</b> 90 Ellis Drive Barrie, Ontario L4N 8Z3 Tel: (709) 734-0199      Fax: (709) 734-1013				
DESCRIPTION:		MAT'L	SEE CHART	
		MODEL NO.	REX-700	
TYPE 700 FOOTPRINT DRAWING c/w HEPA				
DATE:	DESIGN:	SCALE:	DWG. NUM:	
April 28/05	T.B.		A-03-0050-C	

29.156

49.434

19.312

MOTOR 3 HP

17.762

17.375

Outside Drain  
0.75" NPT  
Install 6" Pee Prap or  
Hose Loop

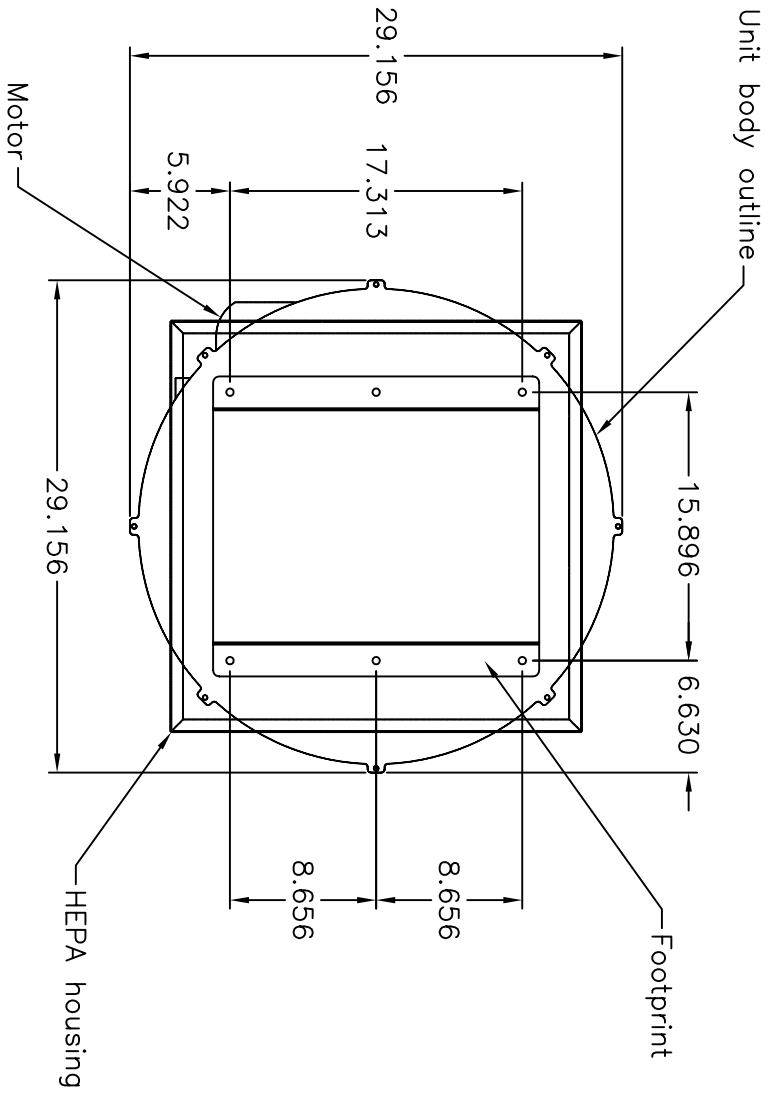
HEPA FILTER

NOM. 7" DUCT CONNECTION

Motor specifications

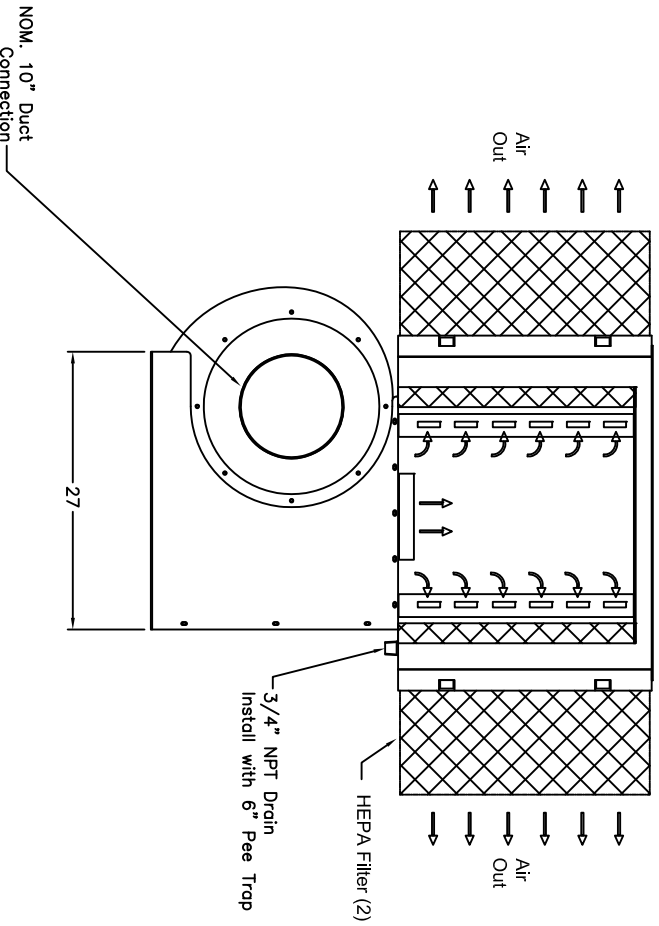
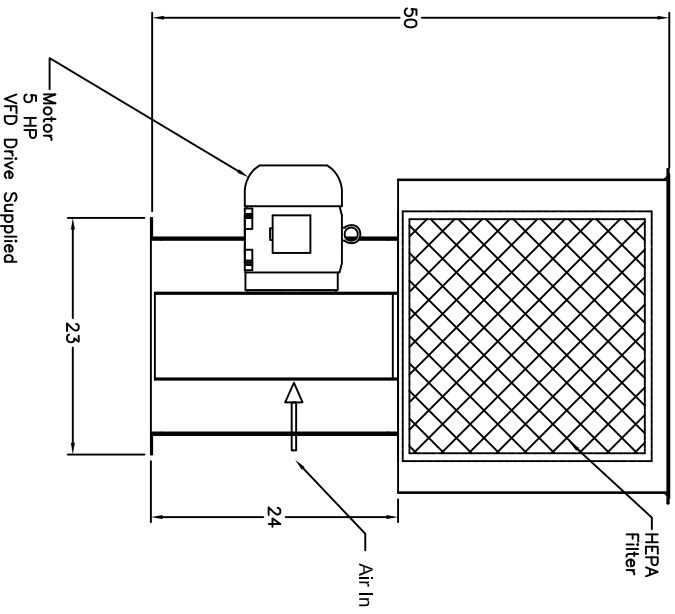
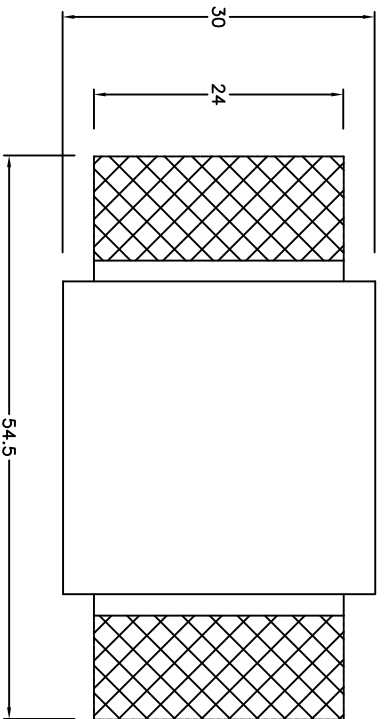
3 hp	3600 rpm	208 VAC	8.17 A	3 phase
		230 VAC	7.43 A	
		460 VAC	3.71 A	

C	Updated	24 May 2006	TB
A	New Drawing	25 April 2005	TB
REV. #	DESCRIPTION	DATE	BY
<b>AEROREX International Inc.</b> 90 Ellis Drive Barrie, Ontario L4N 8Z3 Tel: (705) 734-0199 Fax: (705) 734-1013			
DESCRIPTION:		MAT'L	SEE CHART
TYPE 1100 ASSY DRAWING c/w HEPA		MODEL NO.	REX-1100
DATE:	DESIGN:	SCALE:	DWG NUM:
April 25/05	T.B.		A-04-0050-C



B			
A	New Drawing		25 April 2005
REV. #	DESCRIPTION	DATE	BY
<p><b>AEROEX International Inc.</b>            90 Kille Drive            Barrie, Ontario L4N 8Z3            Tel: (705) 734-0199 Fax: (705) 734-1013</p>			
DESCRIPTION:		SIZE	MODEL NO.
TYPE 1100 FOOTPRINT DRAWING c/w HEPA		MAT'L	SEE CHART
			REX-1100

DATE:	DESIGN:	SCALE:	DWG NUM:
April 25/05	T.B.		A-04-0050-C



Motor specifications

5 hp	1800 rpm	208 VAC	A	3 phase
		230 VAC	A	
		460 VAC	A	
		575 VAC	A	

<b>AERODUX International Inc.</b> 9000 State Avenue, Unit 800 Fort Worth, TX 76116 Tel: (760) 794-1818 Fax: (760) 794-1818		DATE: AUG. 15/07 DRAWN: T.B. CHECKED:	SIZE: See Chart MODEL NO: REX-2000B DESCRIPTION: REX-2000 VER "B" ASSY DRAWING
PROJECT: A-05-0085-B SCALE:		TITLE:	DRAWN:

Aeroex  
REX-4000 ver B  
Ap, 2008

