



AEROEX Technologies Inc.

Oil Mist Eliminator

Model Series ROX-400 / 600



Installation & Service Manual

www.aeroex.ca

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Model ROX-400 / 600 Specifications

AEROEX – Mist Eliminator

For highly effective separation of oils, emulsion, water. Designed to exhaust air from metalworking machinery and oil reservoirs. Aerosol measurements less than 0.020 mg/m³ at 0.3 microns.

Consisting of:

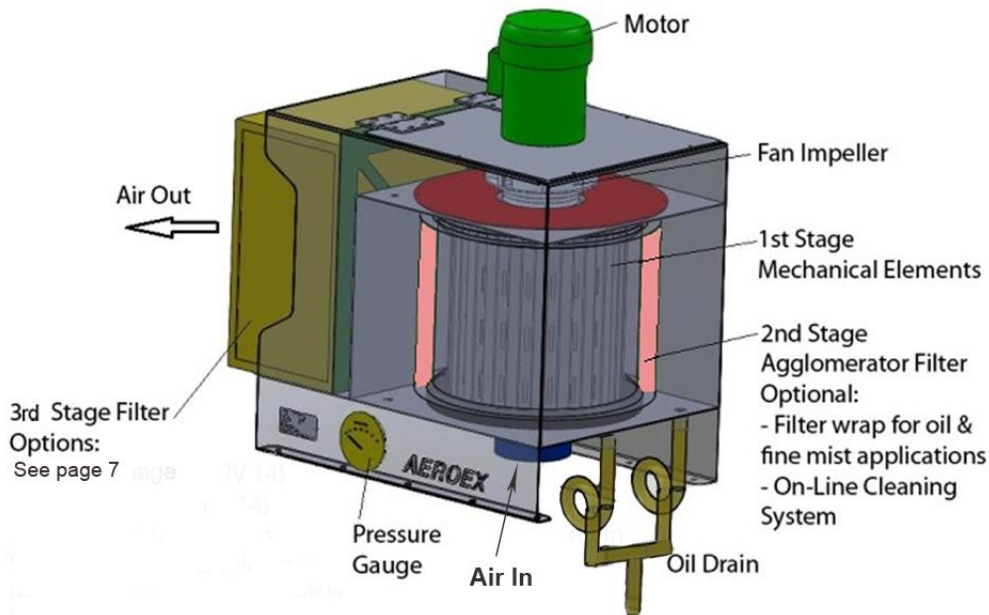
- Powdered coated mild steel housing.
- Motor and fan impeller
- First stage mechanical separator elements.
- Second stage filtration by droplet agglomerator. (Depth Fiber Filter)
- 3rd stage filter (HEPA)
- Optional On-Line Cleaning System.

Specifications:

Model	CFM (m ³ /hr)	Sound dB(A)	Machine Tool Enclosure Volume ft ³	Motor hp	Voltage RPM	Amps	RPM
ROX-400	325 - 400 (600 - 720)	71	50 - 100	0.5	115/230/1/60 230/460 575/3/60	9.8/4.9 2.2/1.1	3450
ROX-600	500 - 650 (850 - 1100)	72	75 - 150	0.75	115/230/1/60 230/460/3 575/3/60	0.9	3450

Model	Dimensions	Weight	Duct Con.
ROX-400	25.7" x 21" x 36"ht (653 x 535 x 915 mm)	210 lb (95 kg)	6" (152 mm)
ROX-600	25.7" x 21" x 36"ht (653 x 535 x 915 mm)	210 lb (95 kg)	6" (152 mm)

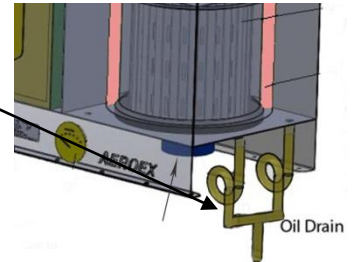
Description:



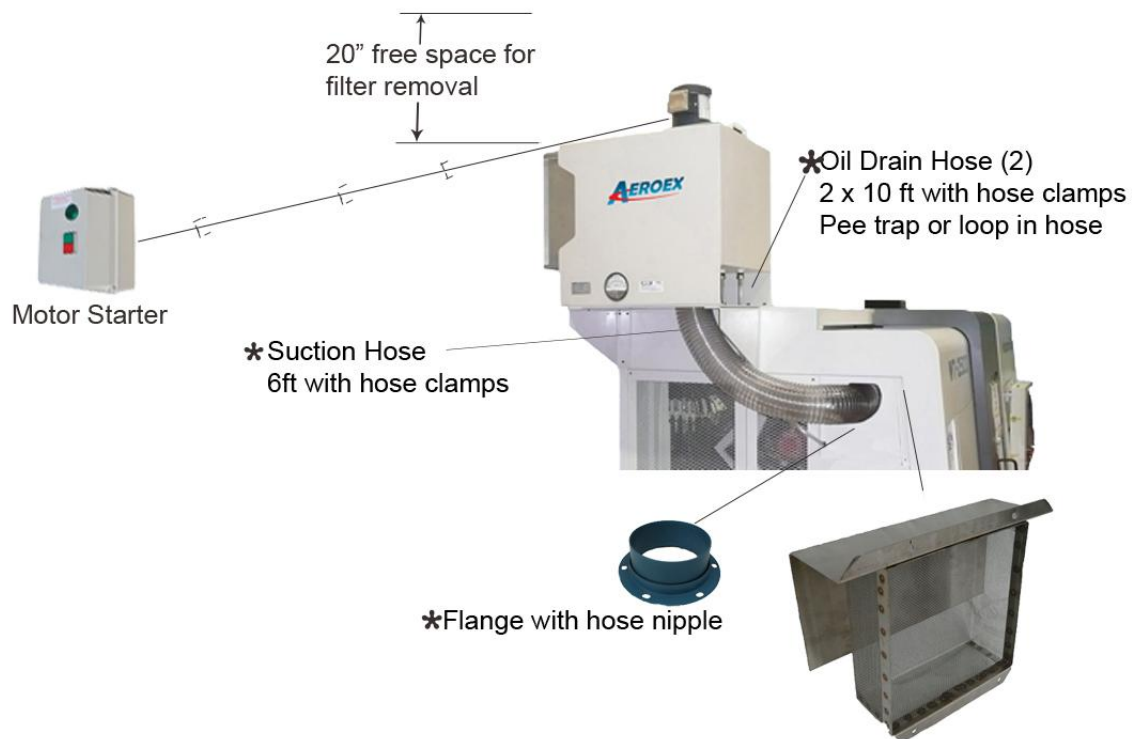


Installation:

- Mount mist collector level.
- Units can be mounted directly on top of machines, on a post or on the wall.
- Ensure that there is 20" free space above to open lid and remove filters.
- 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 chip strainer mounted in the machine (CNC) enclosure is recommended.
- Connect the 2 oil drain lines using a pee trap (5") or loop in hose.
- Connect into 1 hose after pee traps.
- Install motor starter and set overloads.
- Connect electrical power to motor using a flexible cable.
- Check motor rotation.



Typical installation:



Installation Options:

- *Installation kit
- Motor starter control panel.
- Floor mount stand
- Wall mount stand



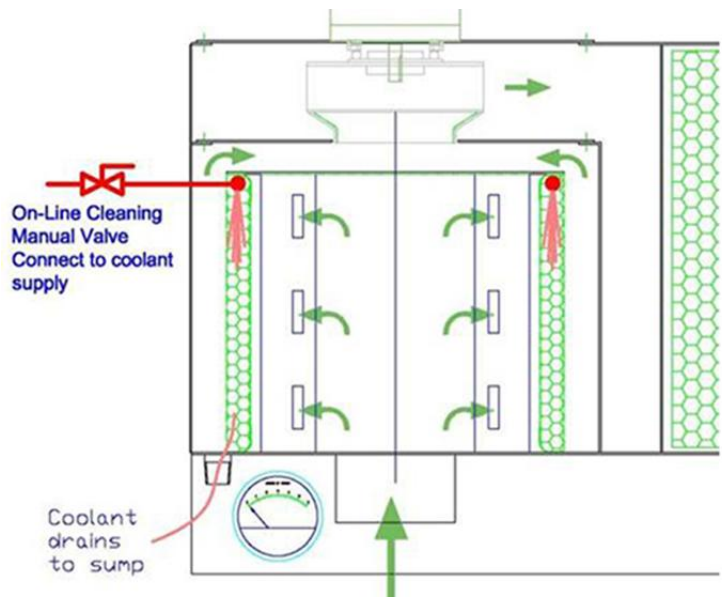
Maintenance:

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 2nd stage agglomerator filter media be replaced every 10 years.

Optional On-Line Cleaning System:

Eliminates manual cleaning of 2nd stage media.
For coolant applications only.
Connect to water or clean coolant.
Turn fan motor off
Flush for 5-15 min every 2- 4 mths.


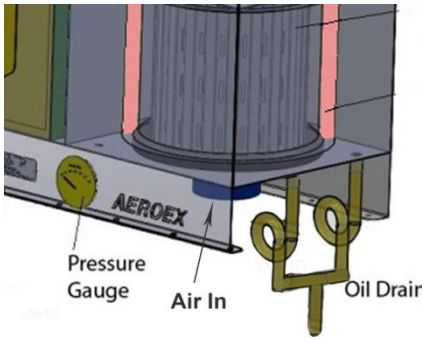



HEPA filter replacement:
Replace when magnehelic pressure gauge reaches 3" wg






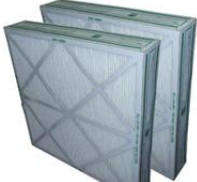



Disassembly:

<p>Disconnect and lock-out electrical power.</p> <p>Remove bolts (4) on hinged lid.</p> <p>Remove the bolts(4) on impeller inlet plate.</p>		
<p>Remove impeller inlet plate.</p> <p>Remove nut (1) on pressure plate and lift out plate.</p>		
<p>Remove 1st stage mechanical separation elements. They can be disassembled for cleaning by removal of the bolts (6).</p> <p>Remove 2nd stage filter media (agglomerator). This is a permanent media and can be washed many times.</p>		

<p>Replace bottom foam gasket each time HEPA filter is changed.</p>		
<p>Check oil drain line, clean if necessary.</p>		
<p>To remove to remove 3rd stage filter (HEPA), loosen straps.</p>		





Filter Options:

Filter Options	Part Number		Application/Comments
1 st stage Mechanical Elements ROX-400 ROX-600	400ME-002 600ME-002		Standard on all units Does not normally need replaced.
2 nd stage Agglomerator filter ROX-400 ROX-600	400AF-001 600AF-001		Coolant & oil Standard on all units
2 nd stage Agglomerator filter with single filter wrap ROX-400 ROX-600	400FW-001 600FW-001		High coolant mist, cast iron, oil Will reduce air flow 50 cfm
2 nd stage Agglomerator filter with double filter wrap. ROX-400 ROX-600	400FW-002 600FW-002		High oil mist Will reduce air flow 100 cfm.
3 rd stage filter One 4" MERV 14 20" x 20" x 4"	600PF-001		Coolant or oil Low to medium mist Cast iron Smallest dimension for mist eliminator
3 rd stage filter Two 4" MERV 14 20" x 20" x 4"	600PF-001		Coolant or oil Medium to high mist Cast iron, grinding
3 rd stage filter HEPA 95% @ 0.3 microns 20" x 20" x 12"	600HF-002		Captures 100% of mist Captures 80%- 99% smoke

Note: same 3rd stage filters for 400 and 600.

2nd Stage Filter Wrap Instructions

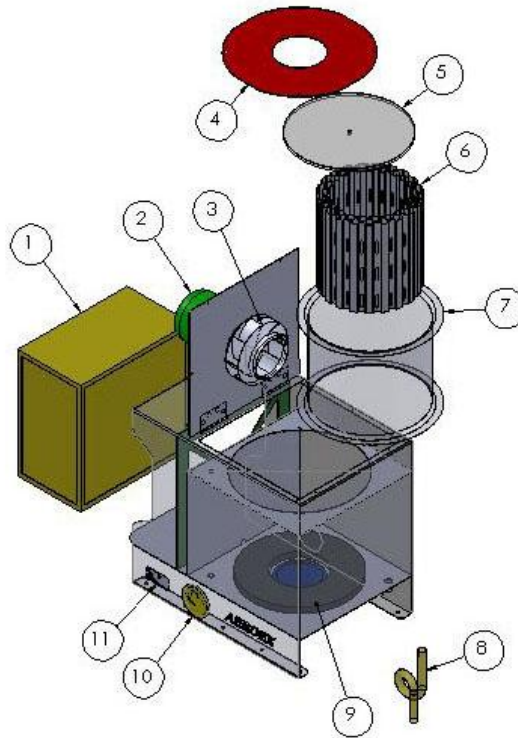
For oil and other fine mist applications

<p>1st stage mechanical element must have 3 elements. Remove outer element if there is 4. Replace existing bolts (6) with 1.5" long bolts.</p>	
<p>Lay wrap on floor or table and roll tightly onto filter. Start at opposite end to the draw string. Approximately 2" will extend on both ends.</p>	
<p>The wrap draw string end must be last to be rolled onto filter.</p>	
<p>Tie draw string at both ends.</p> <p>A foam rubber spacer under mechanical elements could be required to even height between filter and mechanical elements.</p>	

Notes:

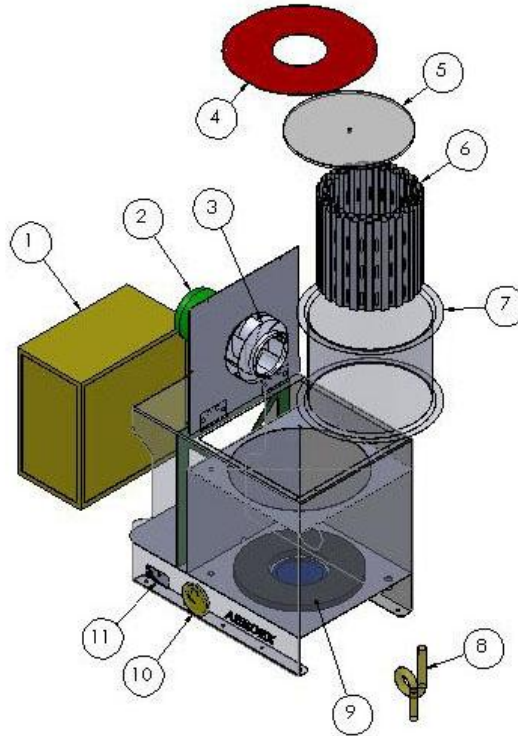
Air flow will be reduced 50 - 100 cfm
 Single wrap for fine coolant mist, cast iron etc.
 Double wrap for straight oil applications.

Parts List Model ROX-400

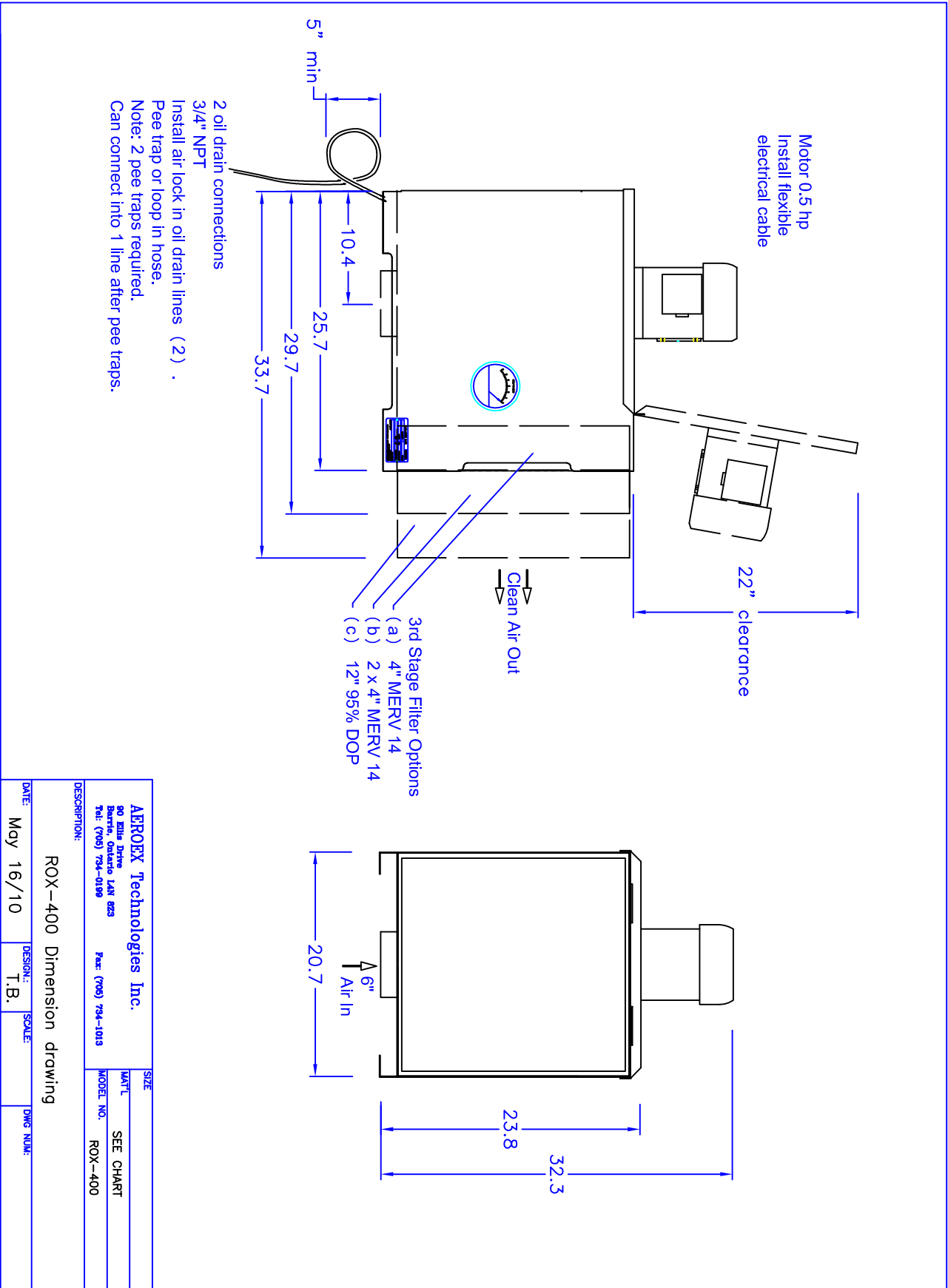


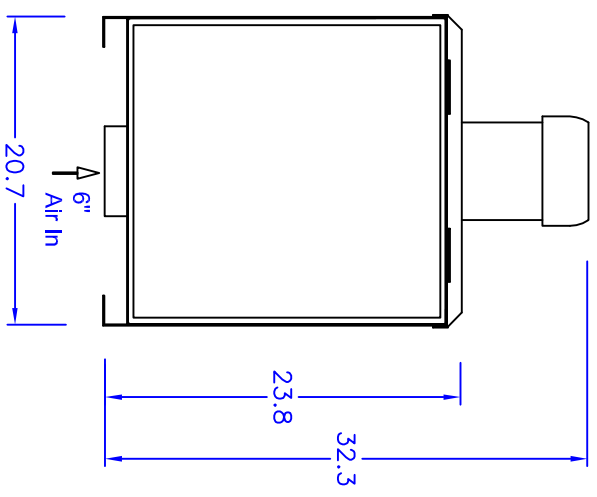
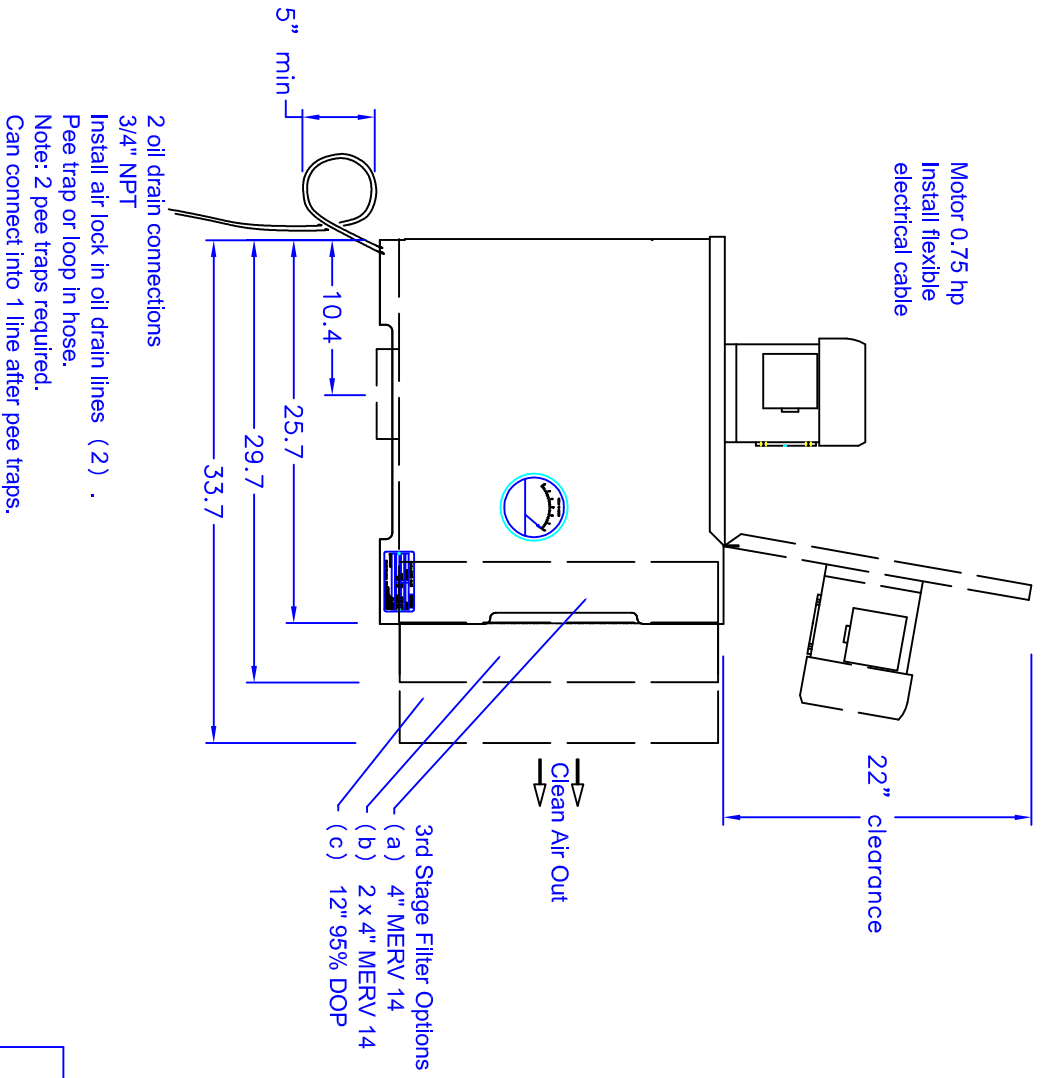
Item #	Description	Qty	Part #
1(a)	Filter, 4" MERV 14	1 or 2	600PF-001
1(b)	HEPA Filter, 12" 95% @ 0.3 um	1	600HF-002
2(a)	Motor 0.5 hp 115/230/1/60	1	400M-115230
2(b)	230/460/3/60	1	400M-230460
2(c)	575/3/60	1	400M-575
3	Fan impeller,	1	400FI-001
4	Impeller inlet plate	1	400FI-001
5(a)	Pressure plate & gasket	1	400PP-001
5(b)	Pressure plate gasket	1	400PPG-001
6	1 st stage mechanical elements	1	400ME-001
7(a)	2 nd stage agglomerator filter	1	400AF-001
7(b)	2 nd stage filter wrap, single	1	400FW-001
7(c)	2 nd stage filter wrap double	1	400FW-002
8	Drain hose, 2 drains	per foot	400DH-001
9	Bottom foam gasket	1	400BG-001
10	Magnehelic pressure gauge	1	400MG-001
11	Nameplate	1	n/a
Accessories			
12	Installation kit	1	400IK-001
13	Suction hose, 6"	per foot	400SH-001
14	Flange with hose nipple, 6"	1	400HN-008
15	Hose clamps, 6"	2	400HC-008
16	Suction strainer	1	400SS-001

Parts List Model ROX-600



Item #	Description	Qty	Part #
1(a)	Filter, 4" MERV 14	1 or 2	600PF-001
1(b)	HEPA Filter, 12" 95% @ 0.3 um	1	600HF-002
2(a)	Motor 0.75 hp 115/230/60	1	600M-115230
2(b)	230/460/3/60	1	600M-230460
2(c)	575/3/60	1	600M-575
3	Fan impeller, TEK 250	1	600FI-001
4	Impeller inlet plate	1	600FI-001
5(a)	Pressure plate & gasket	1	600PP-001
5(b)	Pressure plate gasket	1	600PPG-001
6	1 st stage mechanical elements	1	600ME-001
7(a)	2 nd stage agglomerator filter	1	600AF-001
7(b)	2 nd stage filter wrap, single	1	600FW-001
7(c)	2 nd stage filter wrap double	1	600FW-002
8	Drain hose, 2 drains	per foot	600DH-001
9	Bottom foam gasket	1	600BG-001
10	Magnehelic pressure gauge	1	600MG-001
11	Nameplate	1	n/a
Accessories			
12	Installation kit	1	600IK-001
13	Suction hose, 8"	per foot	600SH-001
14	Flange with hose nipple, 8"	1	600HN-008
15	Hose clamps, 8"	2	600HC-008
16	Suction strainer	1	600SS-001





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Fax: (706) 794-1013		SIZE	
MODEL NO. ROX-600		SEE CHART	
DESCRIPTION: ROX-600 Dimension drawing			
DATE: May 16/10	DESIGN: T.B.	SCALE:	DWG NUM: