



Star Machine
7810 Oak Avenue
Parkville, MD. 21234
Phone: 667.210.3874
Fax: 410.661.2467

INSTRUCTIONS

VACUUM PUMP OIL SEPARATOR/EXHAUST TANK

This new vacuum pump accessory is yet another example of Star Machines' continuing effort to offer only the finest vacuum components to the motorsports industry. Constructed of aluminum and CNC machined, the tank can be completely disassembled if necessary. The "tank within a tank" design incorporates two separate chambers. The inner oil separator chamber, containing a baffle and filter media, acts to reduce or eliminate oil reaching the vacuum pump. A secondary benefit of this section is its ability to trap debris resulting from engine failure before it can reach the vacuum pump and cause damage. The outer chamber serves as a free flowing exhaust vent for the pump and also contains filter media. Separate drain cocks located in the bottom plate will individually drain both chambers.

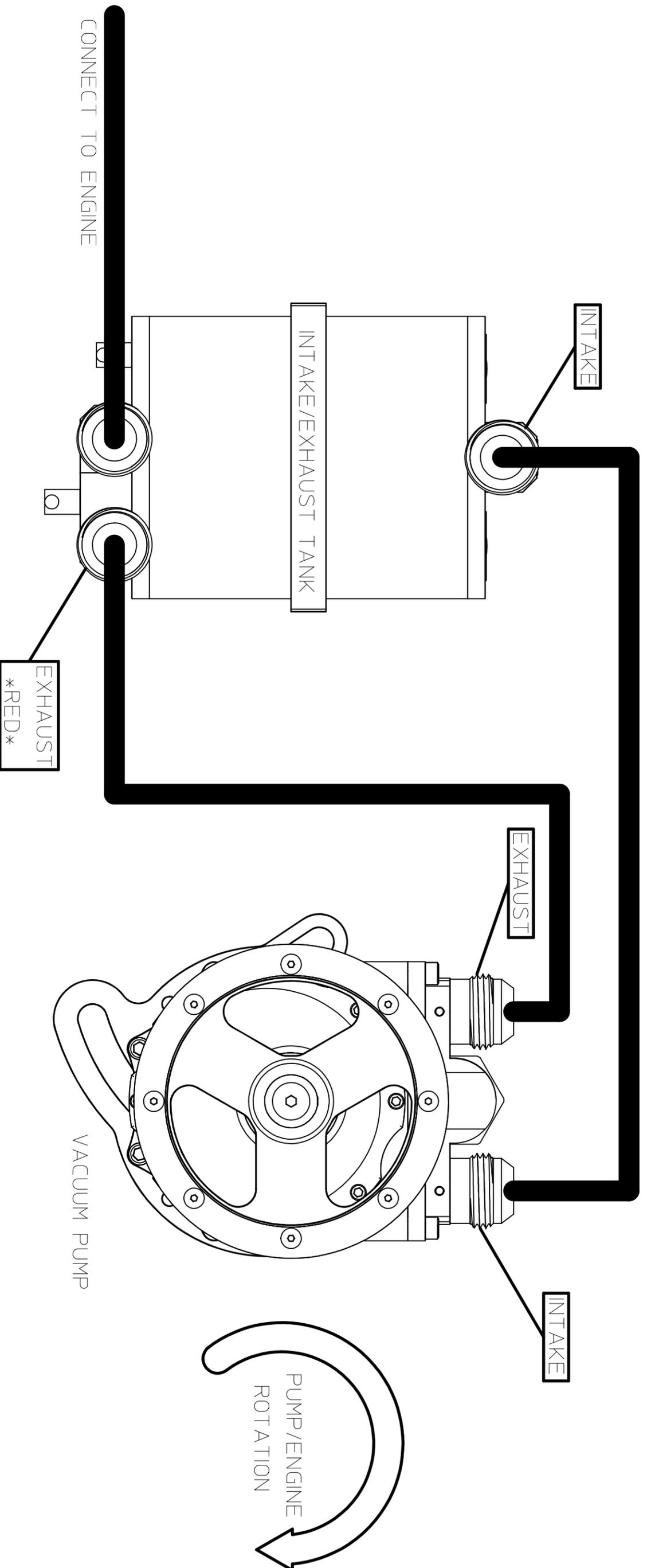
The top and bottom plates are sealed to the cylinders via o'rings. The bottom plate is fixed, the top plate is removable. To disassemble the tank remove the flat head screw from the top plate and pull the top plate from the cylinders. This will allow access to the filter media which can be removed for cleaning purposes. Both intake and exhaust filters are made from five, 1" thick "rings". They are easily removed with needle nose pliers. The inner baffle is threaded into the bottom plate and can be removed by using a 3/4" socket.

The tank can be adequately supported using the mounting bracket provided. When connected, the three hoses will serve as a vibration damper. Plumb the tank according to the diagram provided.

The tank will do an excellent job of separating a reasonable amount of oil. It is not a cure for excessive leakage that results in a large volume of oil.

When first using the tank monitor the amount of oil in the separator section by opening the drain after each run. This will give an indication of how often to drain the tank.

The tank is available with optional -12 A/N fittings.



2																																	
1																																	
0																																	
REV.					DATE																												
REVISION DESCRIPTION																																	
DESCRIPTION PLUMBING VACUUM PUMP TO INTAKE/EXHAUST TANK																																	
HEAT TREATING																																	
HARDNESS			DEPTH																														
DESIGNED BY T HIGDON																																	
SURFACE PREPARATION		SCALE		SHEET																													
FINISH		1 OF 1		SIZE																													
DRAWING NO. B																																	
TANK PLUMBING																																	
<p>Star machine 6018 Blackhead Road Salisbury, MD. 21220</p>																																	
TOLLERANCES UNLESS SPECIFIED		BREAK ALL EDGES UNLESS SPECIFIED																															
<table border="1"> <tr> <th>LINEAR (INCHES)</th> <th>ANGULAR</th> </tr> <tr> <td>0.05--10 ± 0.005</td> <td>0.90 ± 0.25°</td> </tr> <tr> <td>11--20 ± 0.010</td> <td>91-180 ± 0.50°</td> </tr> <tr> <td>21--30 ± 0.015</td> <td>181-270 ± 0.75°</td> </tr> <tr> <td>31--40 ± 0.020</td> <td>271-360 ± 1.00°</td> </tr> <tr> <td>41--50 ± 0.030</td> <td></td> </tr> <tr> <td>51--100 ± 0.050</td> <td></td> </tr> </table>	LINEAR (INCHES)	ANGULAR	0.05--10 ± 0.005	0.90 ± 0.25°	11--20 ± 0.010	91-180 ± 0.50°	21--30 ± 0.015	181-270 ± 0.75°	31--40 ± 0.020	271-360 ± 1.00°	41--50 ± 0.030		51--100 ± 0.050		<table border="1"> <tr> <th>GEOMETRIC (INCHES)</th> <th>ANGULAR</th> </tr> <tr> <td>0.05--20 ± 0.005</td> <td>0.05--20 ± 0.005</td> </tr> <tr> <td>21--40 ± 0.010</td> <td>21--40 ± 0.010</td> </tr> <tr> <td>41--50 ± 0.015</td> <td>41--50 ± 0.015</td> </tr> <tr> <td>51--100 ± 0.020</td> <td>51--100 ± 0.020</td> </tr> </table>	GEOMETRIC (INCHES)	ANGULAR	0.05--20 ± 0.005	0.05--20 ± 0.005	21--40 ± 0.010	21--40 ± 0.010	41--50 ± 0.015	41--50 ± 0.015	51--100 ± 0.020	51--100 ± 0.020	<table border="1"> <tr> <th>FINISH</th> <th>DEPTH</th> </tr> <tr> <td>0.002</td> <td>0-100 0.015</td> </tr> </table>	FINISH	DEPTH	0.002	0-100 0.015	<p>THIS DRAWING IS THE PROPERTY OF STAR MACHINE. IT SHALL NOT BE DISCLOSED OR COPIED WITHOUT THE WRITTEN AUTHORIZATION OF STAR MACHINE.</p>		
LINEAR (INCHES)	ANGULAR																																
0.05--10 ± 0.005	0.90 ± 0.25°																																
11--20 ± 0.010	91-180 ± 0.50°																																
21--30 ± 0.015	181-270 ± 0.75°																																
31--40 ± 0.020	271-360 ± 1.00°																																
41--50 ± 0.030																																	
51--100 ± 0.050																																	
GEOMETRIC (INCHES)	ANGULAR																																
0.05--20 ± 0.005	0.05--20 ± 0.005																																
21--40 ± 0.010	21--40 ± 0.010																																
41--50 ± 0.015	41--50 ± 0.015																																
51--100 ± 0.020	51--100 ± 0.020																																
FINISH	DEPTH																																
0.002	0-100 0.015																																