






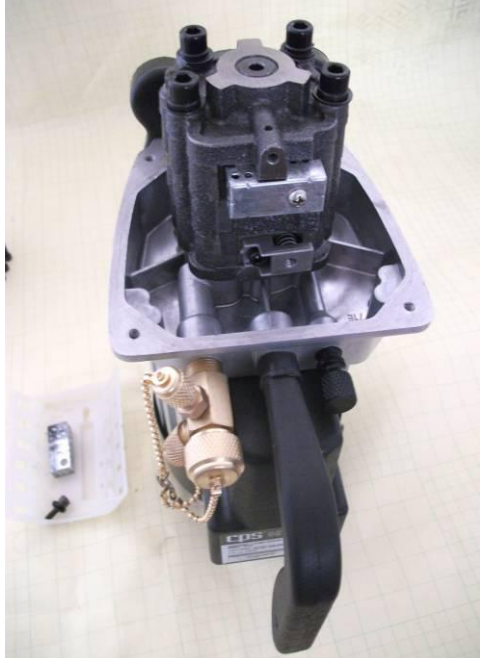
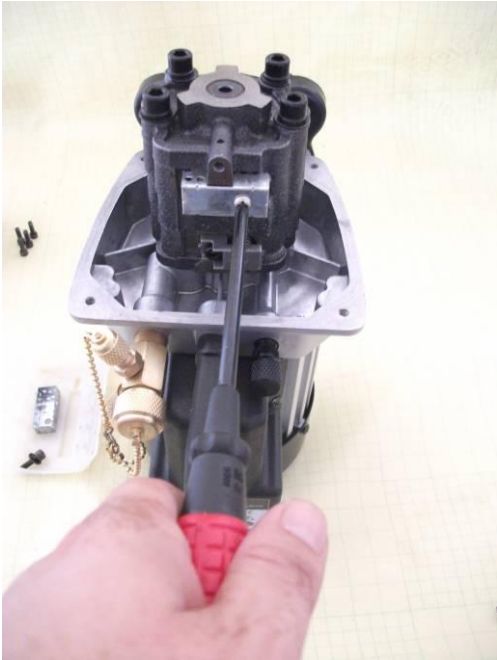


Maintain process of dual stage pump head

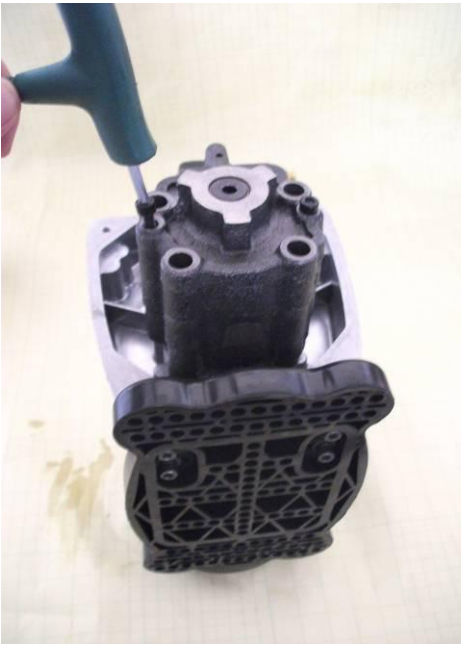



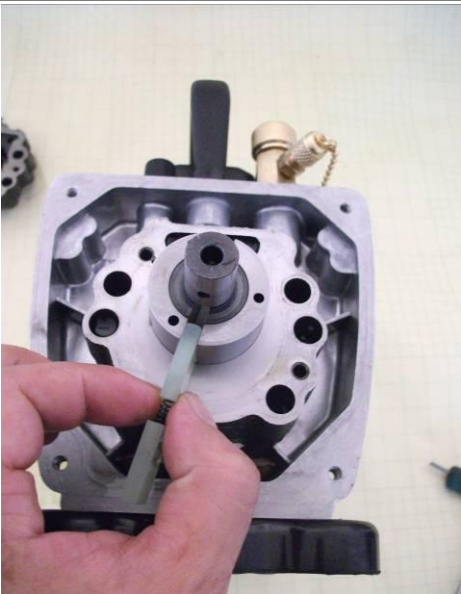

一、 needed tools of disassemble and assemble vacuum pump head:

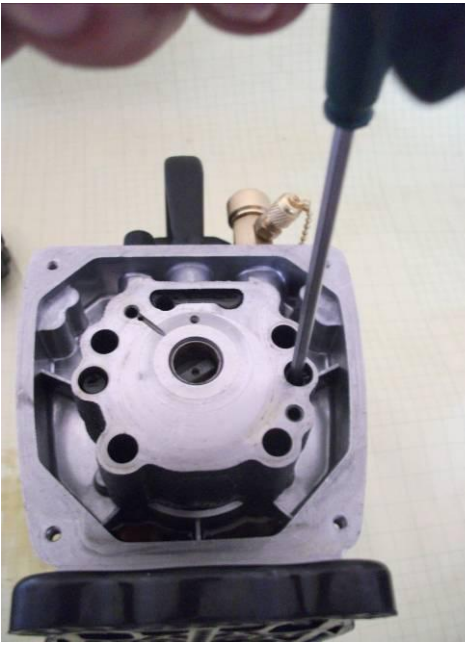


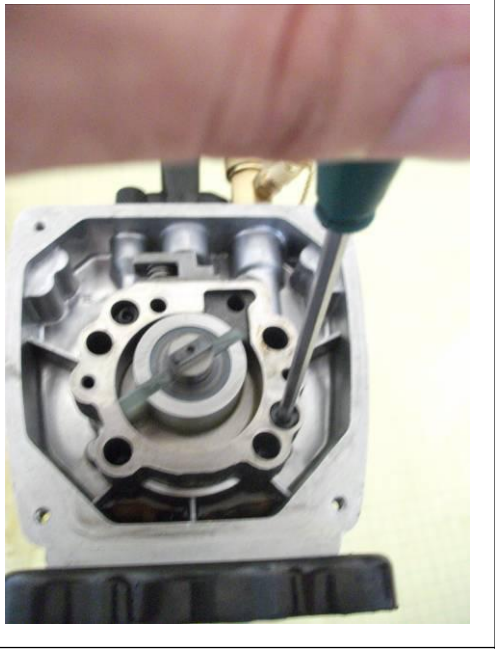

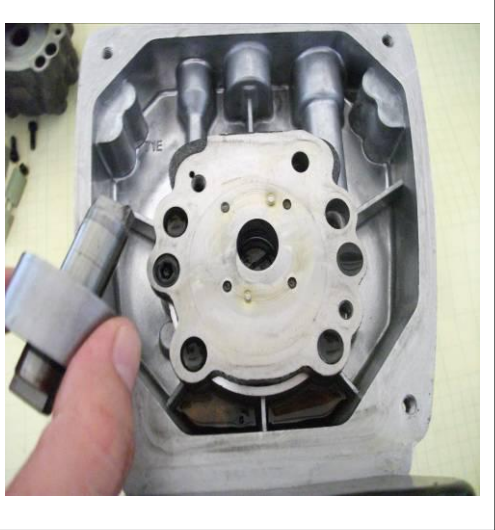
			
T01	S=4mm Inner hexagon manual wrench (or impact wrench)	T02	S=6mm Inner hexagon manual wrench (or impact wrench)
			
T03	cross screwdriver	T04	Loading pump tooling

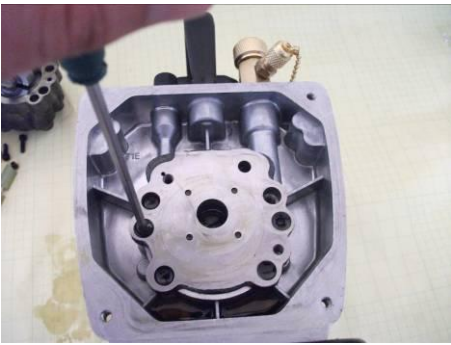
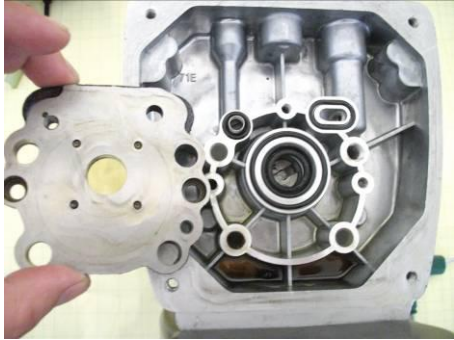
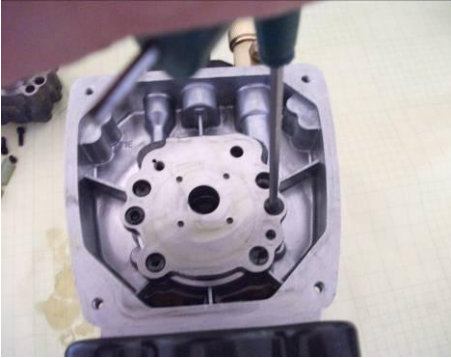

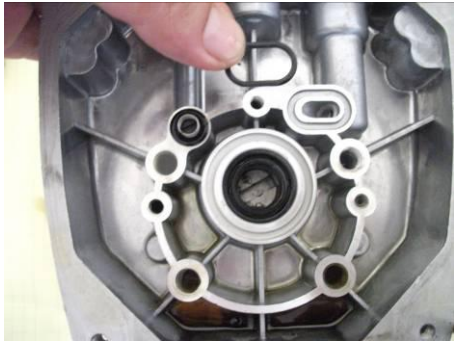
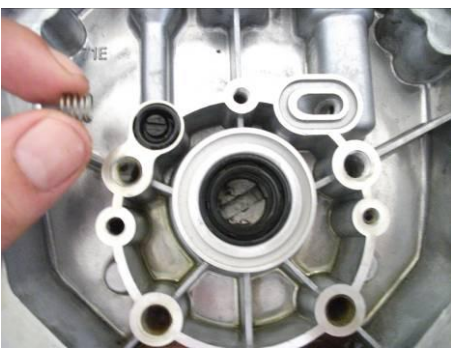
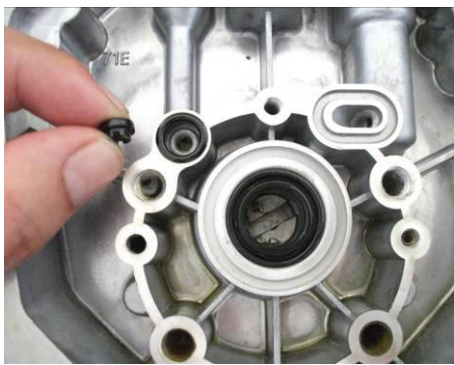


二、disassemble of pump





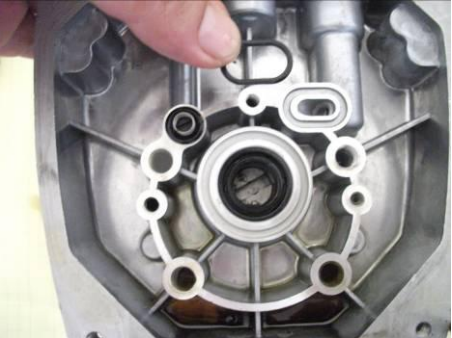


Steps		Chart	
Unscrew the trap			
Tool			
Note			
Unscrew the oil drain bolt (torque 3N • M), put the oil off completely			
Tool			
Note s			
Stand up the pump, unscrew the four screws in the oil tank (torque 3.5N • M), take out oil box			
Tool	T01		
Note s	put a piece of cloth under the wind cover before stand up the pump, so as not to scratch the wind cover surface		



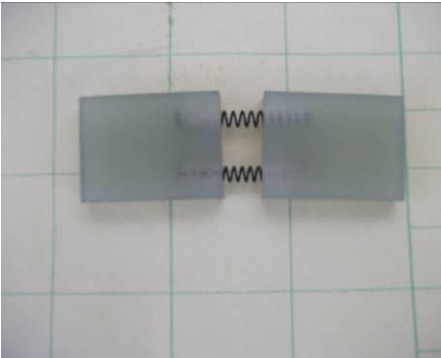

Disassemble plastic oil baffle (torque 2N • M)		 
Tool	T01	
Notes		
Disassemble of Iron exhaust hood (torque 2N • M)		
Tool	T03	
Notes		
Unscrew the four M8 fastening bolt of pump (torque 17N • M) , spring washer, flat washer		 
Tool	T02	
Notes		

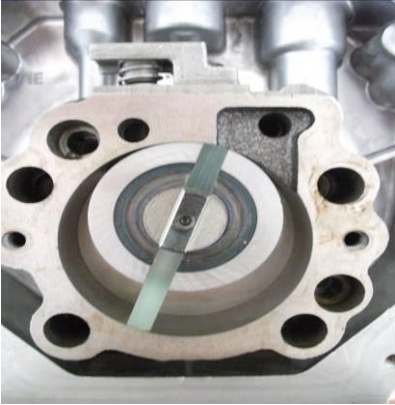



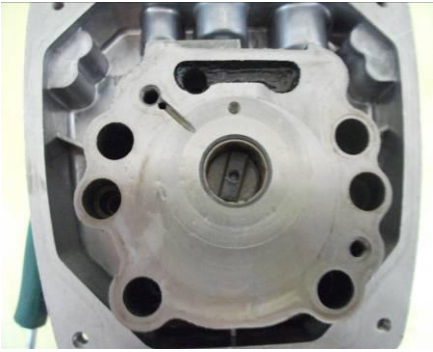

<p>Unscrew two M5 positioning bolt on back cover of pump (torque 3.5N • M) , take out back cover</p>			
<p>Tool</p>	<p>T01</p>		
<p>Notes</p>			
<p>Unscrew two M5 positioning bolt (torque 3.5N • M),take out single stage pump stator</p>			
<p>Tool</p>	<p>T01</p>		
<p>Notes</p>			
<p>Take out two rotary vane, rotary vane spring, pullout rear stage pump rotor</p>			
<p>Tool</p>			
<p>Notes</p>			



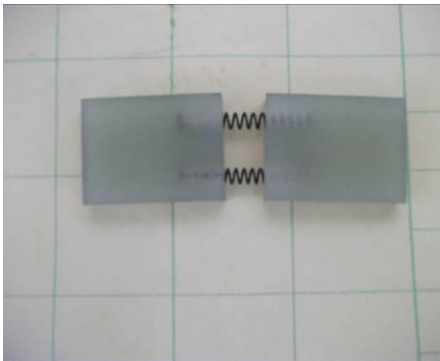

<p>Unscrew two M5 positioning bolt on front cover of pump (torque 3.5N • M), take out front cover</p>			
Tool	T01		
Notes			
<p>Unscrew two M5 positioning bolt on front cover of pump (torque 3.5N • M), take out the front stage pump rotor</p>			
Tool	T01		
Notes			
<p>Take out two rotary vane, rotary vane spring, pullout the front stage pump rotor</p>			
Tool			
Notes			

<p>unscrew two M5 positioning bolt on front cover of pump (torque 3.5N • M), take out front cover</p>			
Tool			
Notes			
<p>Take out the “O” types plane seal on the bracket; Take out air inlet seal; take out the gas seal</p>			
Tool			
Notes			
<p>Take out the internal device of the gas ballast</p>			
Tool			
Notes			
<p>三、 installation of the dual stage pump</p>			

1. Inspection of parts: Check and clean parts, do not allow scratches, bumps, dust, burrs.			
2 安装支架上的气镇装置 Install air ballast on the bracket			
tool			
Notes			
3. 安装支架上的进气道密封圈 Install the air inlet seal on the bracket			
Tool			
note s	After installation of the air inlet seal, height of seal should higher 0.3~0.5mm than bracket plane.		
4. install the “O” types plane seal on the bracket			
Tool			

<p>Note s</p>	<p>After installation of the “O” types seal, height of seal should higher 0.2~0.3mm than bracket plane.</p>		
<p>5. installation of front cover and rotor: put the front cover flat on the bracket, the pump rotor should be vertical and slowly rotating into the bracket shaft hole, rotating the pump rotor to adjust front cover’s position and alignment with the bracket screw hole, use the tool suppress the pump rotor, screw down the set screws of front cover (torque 3.5N • M), after screw down the set screws of front cover, rotating rotor without block.</p>			
<p>Tool</p>	<p>T01、T04</p>		
<p>Note s</p>	<p>1.can not scratch the lip on the bracket when install pump rotor; 2. after screw down the set screws on front cover, the pump rotor should be rotated easily; 3. When installing the pump front cover, be sure that the seal on the bracket is in place; 4.The pump front cover is aligned with the hole on the bracket</p>		
<p>6. install rotary vane: take two rotary vane springs into the hole of the rotary vane and install the rotary vane with the rotary vane spring into the rotary vane groove of the pump rotor, and rotary vane is slid without block in the rotary vane groove of pump rotor</p>			
<p>Tool</p>			
<p>Note s</p>	<p>1.the length of two rotary vane spring should be the same; 2.there’s 0.05~0.09mm gap between rotary vane thickness</p>		

	<p>and rotary vane groove, to ensure the rotary vane slide without block in the rotary vane groove.</p>		
<p>7.install front grade pump stator: flatly put pump stator on the frond cover of pump, to check pump rotor, rotary vane and pump stator's axial clearance(the height of rotary vane should be lower than Pump sator:0.025-0.045mm,The height of pump rotor should be lower than pump stator:0.055-0.075mm), use tool to press pu mp rotor, and adjust stator position, m ake the cut off clearance of stator and rotor 0.02-0.03mm, must guarantee v ertical plane of pump rotor and the fro nt cover of pump, lock tightly pump s tator, and firm screw(torque:3.5N •M) , to use T01 to rotate motor fan in sm ooth, or else must re-adjust installati on gap(clearance).</p>			
<p>Tool</p>	<p>T01、T04</p>		
<p>Notes</p>	<ol style="list-style-type: none"> 1.first measure pump rotor, rotary vane and pump stator 's size before install, to make sure Axial clearance after install. 2.must be proper position in between the front cover of pump and stator. 3.to use T01 to rotate motor fan in smooth. 4. the pump rotor will get vertical plane on the front cover of pump. 		
<p>8.Install the middle wall of the pump and the rotor of the rear stage pump: adjust the position so that the screw hole of the middle wall of the pump is aligned with the screw hole of the stator. Insert the rotor of the rear stage pump into the shaft hole of the middle wall of the pump easily. Press the pump rotor with the tooling, and lock the fixing screw of the middle wall of the pump (torque 3.5N • m). After</p>			

<p>the screw is locked, use T01 to rotate the fan blade of the motor. If it can not rotate, the installation clearance should be adjusted again</p>			
Tool	T01、T04		
Notes	<p>1.The center hole of the stator is aligned with the screw hole; 2.Use T01 to rotate the wind blade of the motor without blocking</p>		
<p>9. After the installation of the rotary blade: take 2 pieces of the vane spring into the hole of the rotary blade, and install the vane with the vane spring into the rotor slot of the pump, and the vane slides in the rotor blade groove without blocking</p>			
Tool			
Note	<p>1.The length of two leaf springs is the same 2.There is a gap of 0.05 ~ 0.09mm between the thickness of the rotor and the rotor blade groove, so as to ensure that there is no block in the vane groove of the pump rotor</p>		

<p>10 Install the rear stage pump stator: place the pump stator on the middle wall of the pump, and check the axial clearance between the pump rotor, the rotor and the pump stator (the height of the vane should be lower than the pump stator: 0.025-0.045mm, the height of the pump rotor should be lower than the pump stator: 0.035-0.055mm)</p>		
<p>Tool</p>	<p>T01、T04</p>	
<p>Notes</p>	<p>1、 Before assembly, measure the dimensions of pump rotor, rotor and stator to ensure the clearance after axial assembly 2.Align the screw hole position between stator and pump front cover 4.Use T01 to rotate the wind blade of the motor, and the rotation is easy 5.Make sure that the pump rotor is perpendicular to the front cover plane of the pump</p>	
		
<p>11. Install the rear cover of pump: to adjust position of the rear cover, the rear cover of pump and screw hole of stator must be in position, to use tool to press pump rotor, tightly lock 2-M3 screw of the rear cover(Torque 3.5N M), then use T01 to rotate motor fan after tightly locked, can be rotated easily, or else must re-adjust installation gap(interval). 2. to install 4-M8 Screw, the torque is not less than 17(N • M). to use T01 to rotate motor fan in smooth, or else,plz re-adjust installation gap(interval)</p>		
<p>Tool</p>	<p>T01、T02、T04</p>	
<p>Notes</p>	<p>to guarantee motor rotor can be rotated easily after screw on the bolt 2. Must be in same position in between the rear cover and</p>	
		

	<p>pump stator</p> <p>3. M8 screw must be locked tightly</p>		
<p>12</p>	<p>install the Iron exhaust hood, and plastic Oil Baffle. (torque 2N • M)</p>		
<p>Tool</p>	<p>T01、 T03</p>		
<p>Note s</p>			
	<p>13. Install Oil Tank: to use cloth to wipe support flat cleanly, Check O ring of Oil tank if it is good? Good O ring is put in seal groove of oil tank, put oil tank on the support, four corners are in proper position, then install and firm screws, and tightly.(torque 3.5 N • M), Note:first must be locked tightly from across corners</p>		
<p>Tool</p>	<p>T01</p>		
<p>Note s</p>	<p>put a piece of cloth under the wind cover before stand up the pump, so as not to scratch the wind cover surface;</p> <p>2. check “O” ring of Oil tank, if it were damaged, plz update for a new one;</p> <p>3. must be firmed rightly by the way of across corners</p> <p>4. Plz wipe support flat</p>		

	cleanly	
Refueling, testing the every performance of vacuum pumps, qualified factory		