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12-010

20 June, 2012

## M602 PUMP REBUILD INSTRUCTIONS

### **I. PURPOSE:**

This service note will go through how to perform the necessary maintenance on the two pumps for the M602 Beta<sup>Plus</sup> Particulate Measurement System. Both pumps should be rebuilt every 6 months of operation.

### **II. TOOLS:**

4mm Hex Key (a 5/32" will also work if metric is unavailable)  
Cloth Towel  
Compressed Air

### **III. PARTS:**

x2 - DU0000023 KIT, ROTARY VANE VAC PUMP MAINTENANCE

### **IV. PROCEDURE:**

1. Take a 4mm Hex Key and remove the 5 screws that hold the pump cover onto the front of the pump (See Figure 1). Remove the pump cover.
2. Remove the 4 Vanes from the rotor grooves. Clean inside the operation chamber and inside the inlet and exhaust ports using a dry cloth towel and compressed air (See Figure 2)
3. Insert the new vanes, from the DU0000023 kit, into the rotor grooves (See Figure 2). Take care that the beveled edge of the vane is facing outwards and sloping counter-clockwise (See Figure 3). There will be an extra cylindrical piece in the kit, this can be thrown away and is not needed (See Figure 4)
4. Turn the rotor by hand and check that the vanes can move freely in their grooves.
5. Place the pump cover back onto the pump and re-install the 5 hex screws. Firmly tighten the screws in a star like pattern.
6. Repeat steps 1-5 for the second pump and then re-install both pumps back onto the M602.

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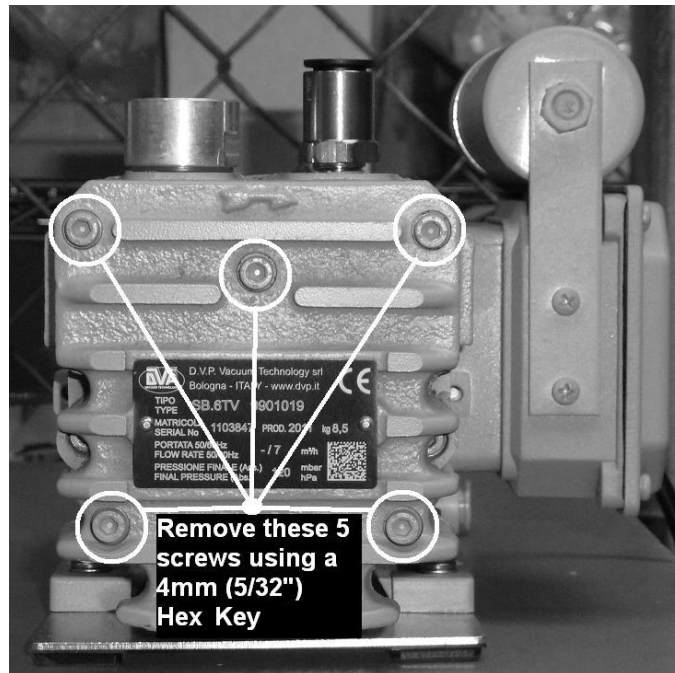


Figure 1

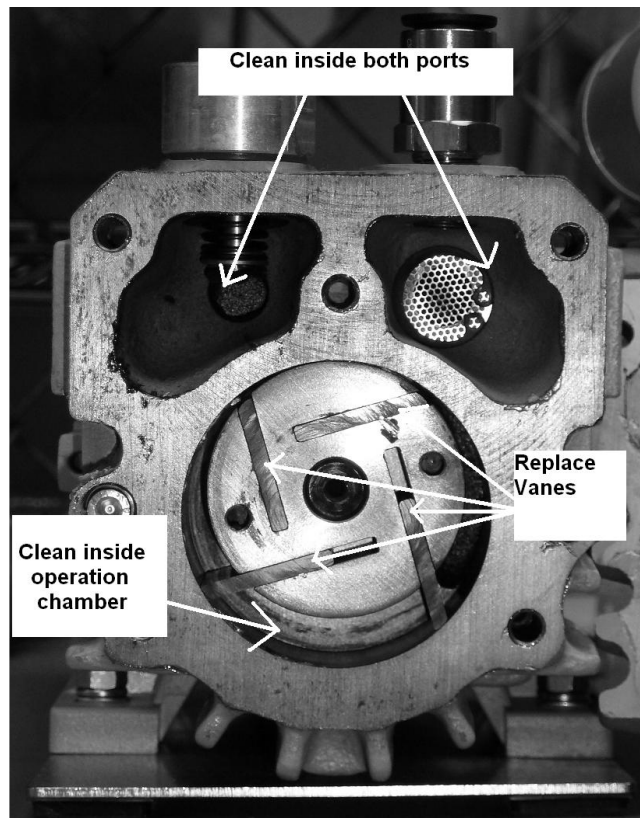


Figure 2

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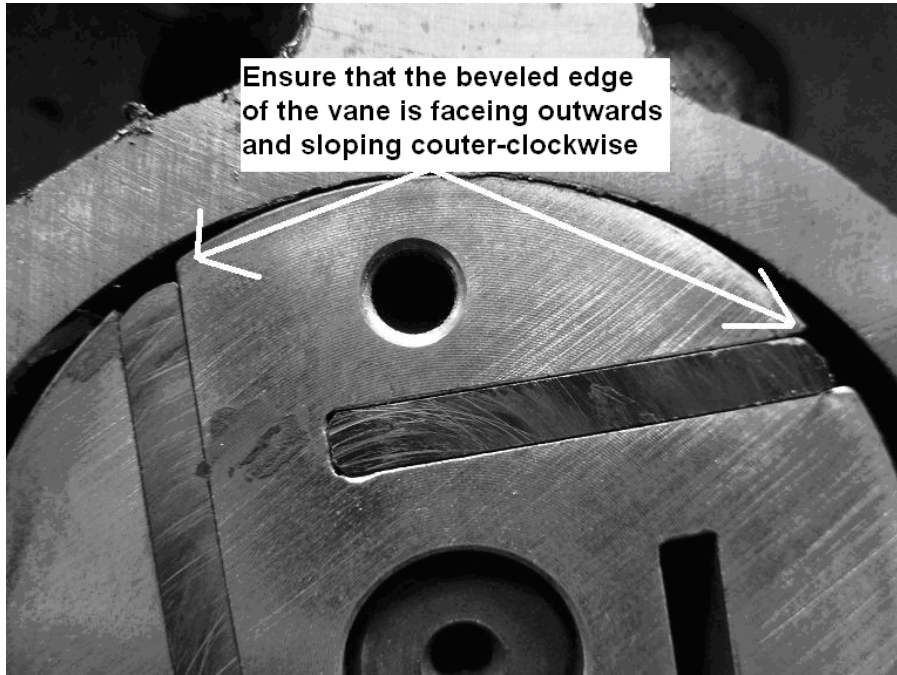


Figure 3

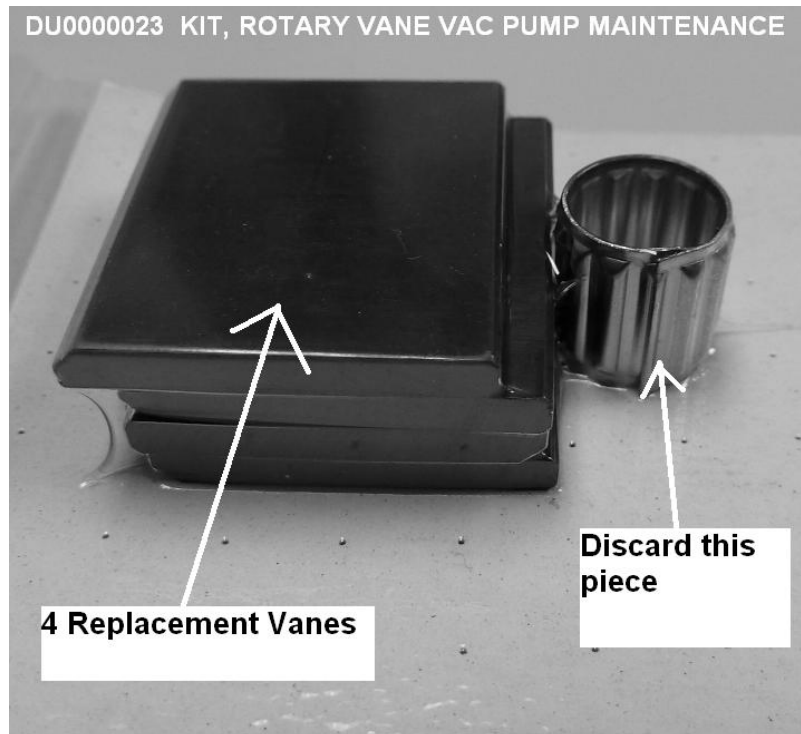


Figure 4