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# Vane Replacement Guide for Becker

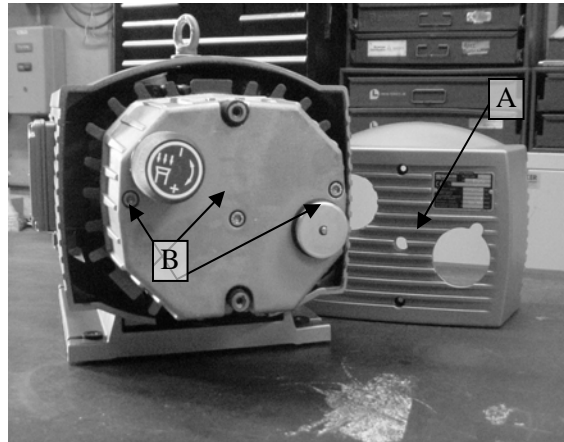
VT 3.10 UP TO VT 3.40  
VT 4.10 UP TO VT 4.40  
VT - VACUUM PUMP  
DT - PRESSURE BLOWER

## BROKEN VANE REPLACEMENT PROCEDURE

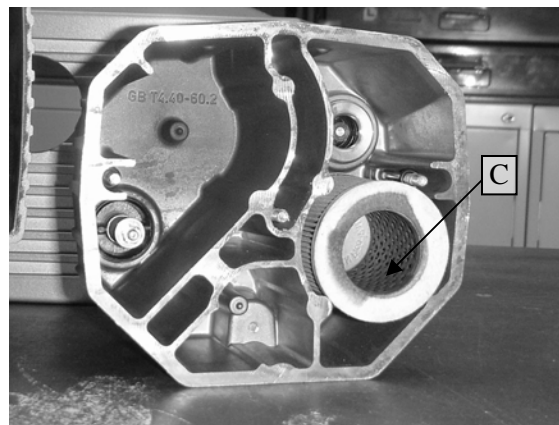
**NOTE:** Broken vanes will be easily visible during the inspection of both the inlet filter and exhaust housing. The inlet filter will have a heavy coating of dust on the inside and there will be broken pieces inside the exhaust housing.

### Becker T series pumps

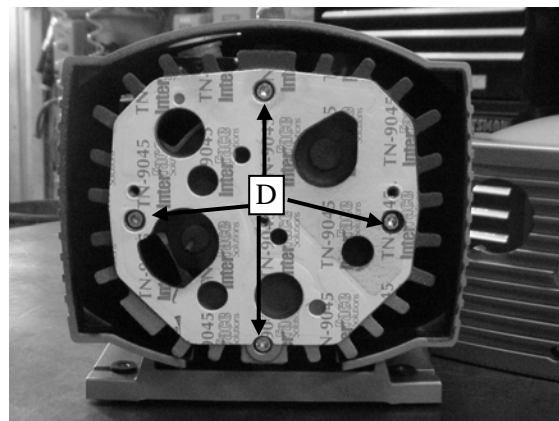
1. Remove the plastic pump cover (A) and the filter housing (B) from the pump.



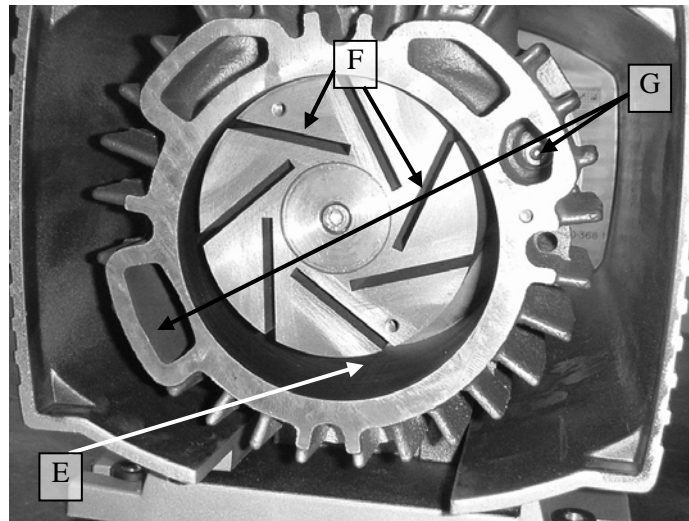
2. Remove inlet filter (c) and any other filters inside the housing and discard. Do not re-use these filters



3. Remove the endshield (D) to gain access to the pump housing.

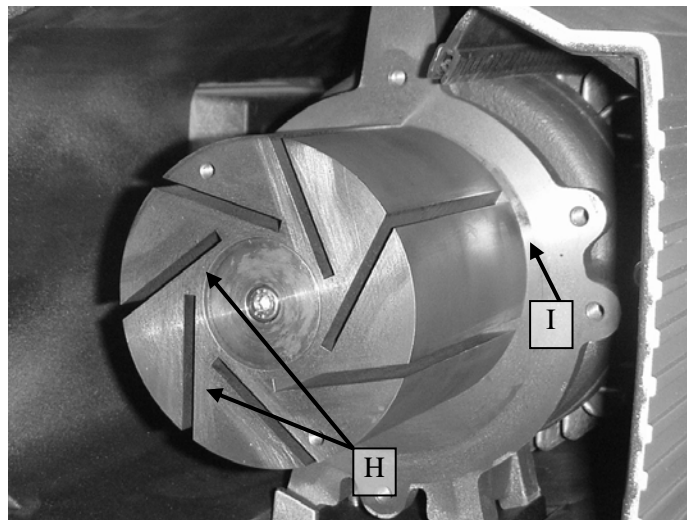


4. Remove the broken vanes from the housing (E) and rotor vane slots (F). Remove the pump housing (G) from the back endshield.



5. Using compressed air, blow out the filter housing and pump housing while there are removed from the pump. Blow out the rotor vane slots (H) and the space between the rotor and back endshield (I). Be sure to spin the rotor. Use a flashlight to check for broken pieces.

Care should be taken during this step to remove all broken pieces. This will prevent any particles from working their way back into the pump and breaking a new set of vanes.



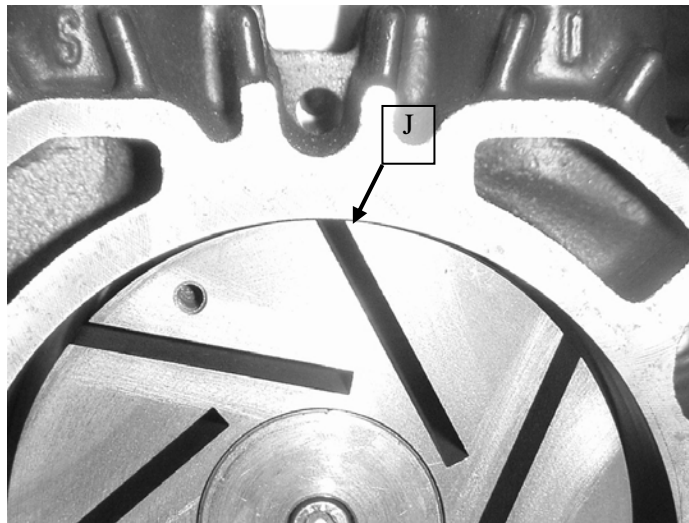
6. Bolt the pump housing back on to the pump.

**Note:** At this point the distance between the rotor and pump housing must be reset (J). The proper size feeler gauge must be inserted between rotor and housing at top dead center before tightening down the pump body.

The following chart has the clearance measurements for the various T pumps.

<b>Pump Type</b>		<b>Rotor to Housing Clearance</b>
DT, VT, T	3.10/4.10	0.03 – 0.04 mm
DT, VT, T	3.16/4.16	0.03 – 0.05 mm
DT, VT, T	3.25/4.25	0.04 – 0.06 mm
ST, VT, T	3.41/4.40	0.05 – 0.07 mm

Make sure the rotor spins freely. If the rotor makes contact with the housing, reset the clearance from that high spot on the rotor.



7. Install new vanes. Check to be sure high point in the tapered edge, points in the direction of rotation. Ensure vanes fit freely into vane slots. Reinstall endshield. Install NEW filters and bolt filter housing back onto pump. Start pump and check rotation. The parts required to undertake the replace of the vanes in the T series pumps are in the attached list.

## Vane Replacement Parts List

### Becker T 4.16 DSK

Vanes (7 Pc)	901347		
Mann & Hummel Filters	1 only		C 64/3
	1 only		C 75/2
	1 only		C 44

### Becker T 4.25 DSK

Vanes (7 Pc)	901349		
Mann & Hummel Filters	1 only		C 75/2
	1 only		C 44
	1 only		C 78/6

### Becker T 4.40 DSK

Vanes (7 Pc)	901352		
Mann & Hummel Filters	1 only		C 75/2
	1 only		C 44
	1 only		C 78/6

### Becker DT 4.10

Vanes (7 Pc)	901327		
Mann & Hummel Filter	1 only		C 44

### Becker DT 4.16

Vanes (7 Pc)	901347		
Mann & Hummel Filter	1 only		C 64/3

### Becker DT 4.25 K

Vanes (7 Pc)	901349		
Mann & Hummel Filters	1 only		C 44
	1 only		C 75/2
	1 only		C 78/6

### Becker DT 4.40 K

Vanes (7 Pc)	901352		
Mann & Hummel Filters	1 only		C 75/2
	1 only		C 44
	1 only		C 78/6

### Becker VT 4.10

Vanes (7 Pc)	901327		
Mann & Hummel Filter	1 only		C 44

### Becker VT 4.16

Vanes (7 Pc)	901347		
Mann & Hummel Filter	1 only		C 64/3

### Becker VT 4.25

Vanes (7 Pc)	901349		
Mann & Hummel Filter	1 only		C 75/2

### Becker VT 4.40

Vanes (7 Pc)	901352		
Mann & Hummel Filters	2 only		C 75/2