



**BROKEN VANE REPLACEMENT
VTLF SERIES**



Becker Vacuum Pumps are leaders in their field in dependability and design. The nature of an oil-free, carbon vane, rotary sliding vane vacuum pump is that the vanes do wear out eventually.

The Becker VTLF series vacuum pump requires a minimum amount of preventative maintenance to ensure optimum vane life and volumetric performance. Please do not over maintain this pump. Maintenance after the initial 500 hour break-in period should be limited to once every 6 months. Grease the pump with the amblygon grease provided and inspect the vane width.

41 mm is the minimum recommended vane width. To remove the risk of broken vanes you may wish to replace them at 43 mm. In the event the vanes have chipped severely or broken, it is important to remove all of the broken pieces to ensure they do not re-enter the pump and break or chip the new set just installed.



BECKER globally certified warranty repair and service.



Canadian Master Distributor
Original MANN FILTER
Replacement Cartridges

R.E. Morrison Equipment Inc.

4161 Sladeview Crescent, Unit 5, Mississauga, Ontario L5L 5R3
(905) 828-6301 1-800-668-8736 Fax (905) 828-3674
email: info@remequip.com

Guaranteed Solutions

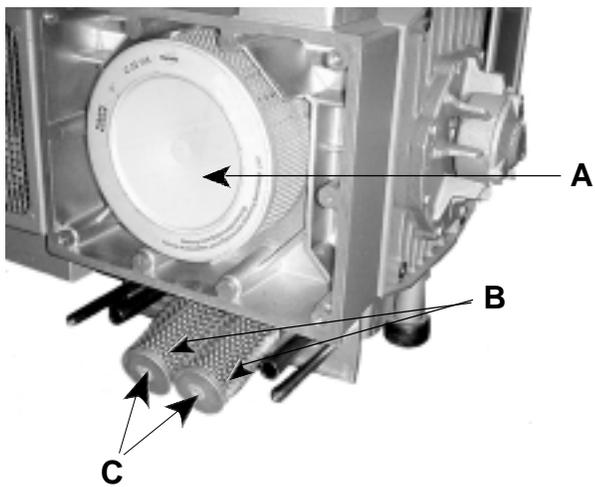


Broken Vane Replacement Procedure

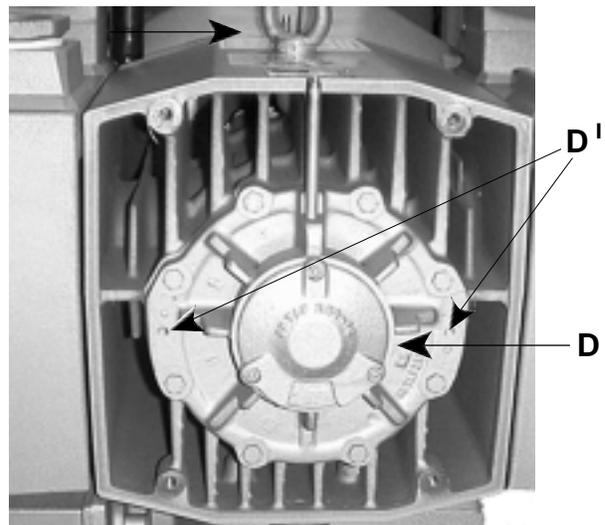
NOTE: Broken vanes will be easily visible during the inspection of both the inlet filter and discharge housing. The inlet filter will have a heavy coating of dust on the inside and there will be broken pieces inside the discharge box.

To ensure that the new set of vanes will not break, immediately following installation, it is necessary to use the procedure detailed below:

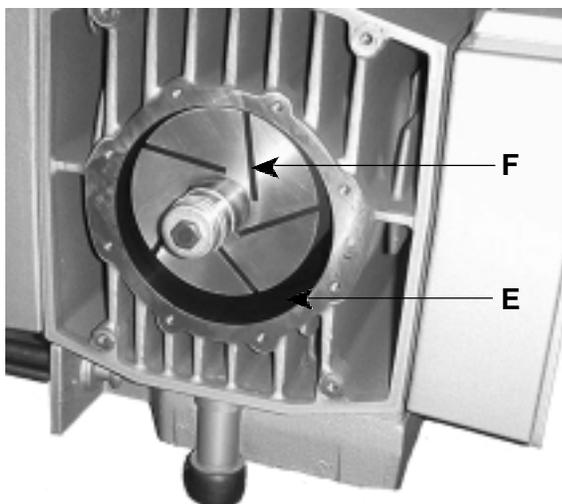
BECKER VTLF 250



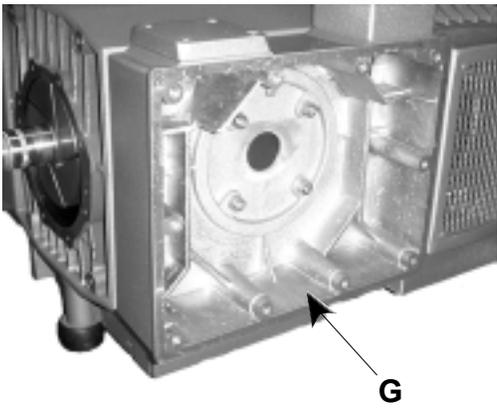
1. Remove the inlet filter (A) and secondary suction filters (B). Remove the plastic plugs (C) as they will be needed in the new filters being installed. Discard all three filters as they cannot be reused.



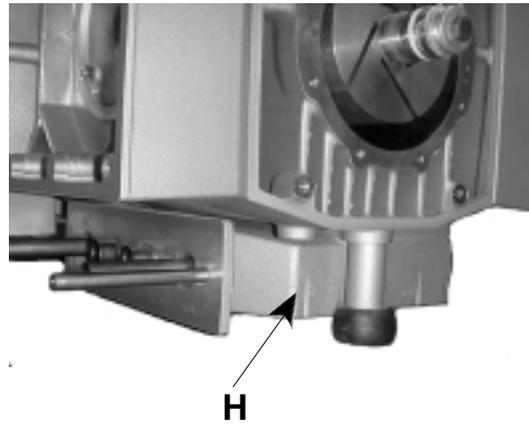
2. Remove the endshield (D) to gain access to the pump housing. Re-thread two of the bolts into holes (D'). Tighten bolts alternately, this will pull the end shield off without damage.



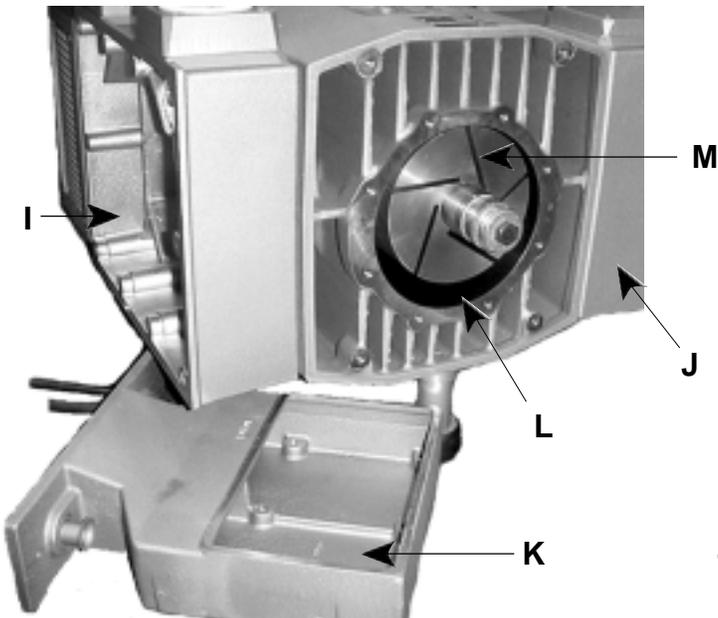
3. Remove the broken vanes from the housing (E) and rotor vane slots (F). Use a straight steel blade (ruler) to remove pieces stuck in the vane slots (F).



4. Remove the cover and clean out broken pieces from the discharge box (G).

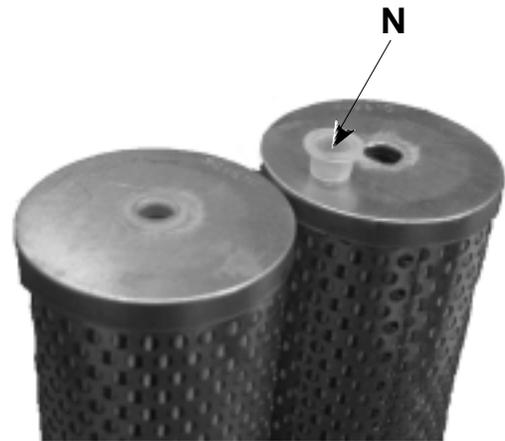


5. Unbolt the secondary suction housing (H) from the pump and remove, taking care not to tear the connecting gasket.

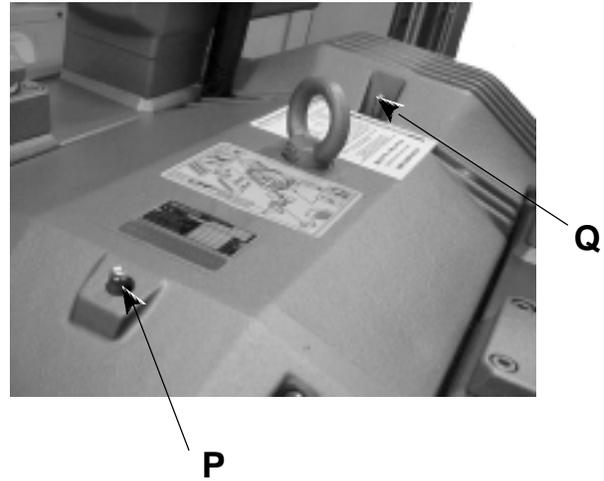
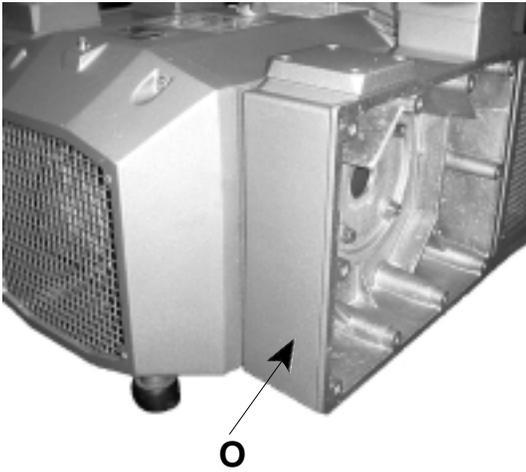


6. Using compressed air, blow out the inlet (I) and discharge (J) housings. Blow out the secondary suction housing (K). Blow out the pump housing (L) and rotor vane slots (M). Be sure to spin the rotor and blow out pieces from top dead center. Use a flashlight to check for pieces.

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 damaging a new set of vanes.

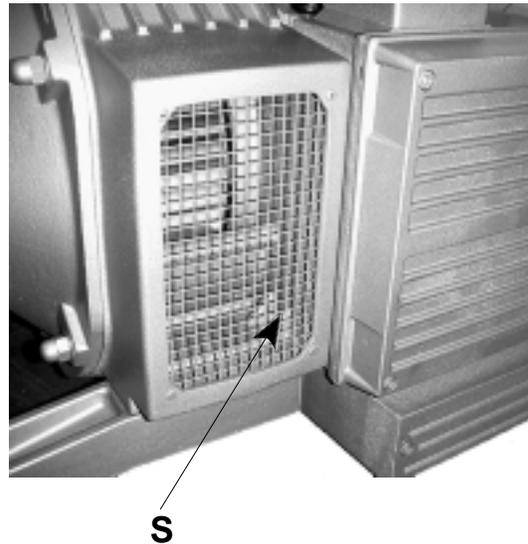
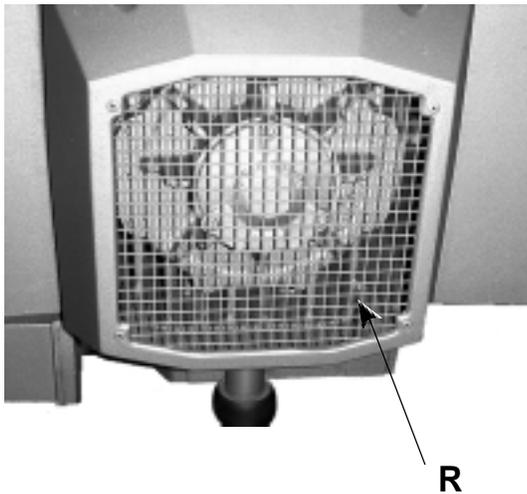


7. Install new vanes. Check to be sure high point in the tapered edge points in the direction of rotation. Ensure vanes fit freely into vane slots. Reinstall end shield ensuring no dust or debris is in the bearing chamber. Install **new** filters, remembering to reuse plastic plugs (N) in the secondary suction filters. If this is not done, dirt will bypass the filter and head directly into the pump causing unnecessary vane wear.



8. Install the covers except the cover on the discharge box (O). Start pump and check rotation, then switch on the pump for three seconds and then turn it off. Repeat a second time and then install the cover. This procedure will allow any missing vane pieces to be forced out of the pump.

9. While pump is running, use the supplied grease gun filled with Amblygon TA 15/2 to grease fittings (P) and (Q). Greasing while the pump is in operation will distribute the grease evenly throughout the bearings. **NOTE:** Between 3 and 5 pumps of the Amblygon grease gun is sufficient once the pump is primed.



10. Care should be taken to keep the pump free of dirt and contaminants. It should be given a compressed air bath regularly and the internal cooling fins should be kept clear

by blowing through the front cover (R) and the side fan covers (S). This will help to prevent the pump from overheating and causing premature bearing failure.

The parts required to undertake the replacement of the vanes in the VTLF 250 Becker pump are listed on page 6.



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Vane Replacement Parts List

Becker VTLF 250 SK

Vanes (5 Pc)	901367			
Mann & Hummel Filters	2 only	C 713		909507
	1 only	C 22 115		909510

Becker DTLF 250

Vanes (5 Pc)	901367			
Mann & Hummel Filters	2 only	C 713		909507
	1 only	C 22 115		909510

Becker DVTLF 250

Vanes (5 Pc)	901367			
Mann & Hummel Filters	2 only	C 713		909507
	1 only	C 22 115		909510

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