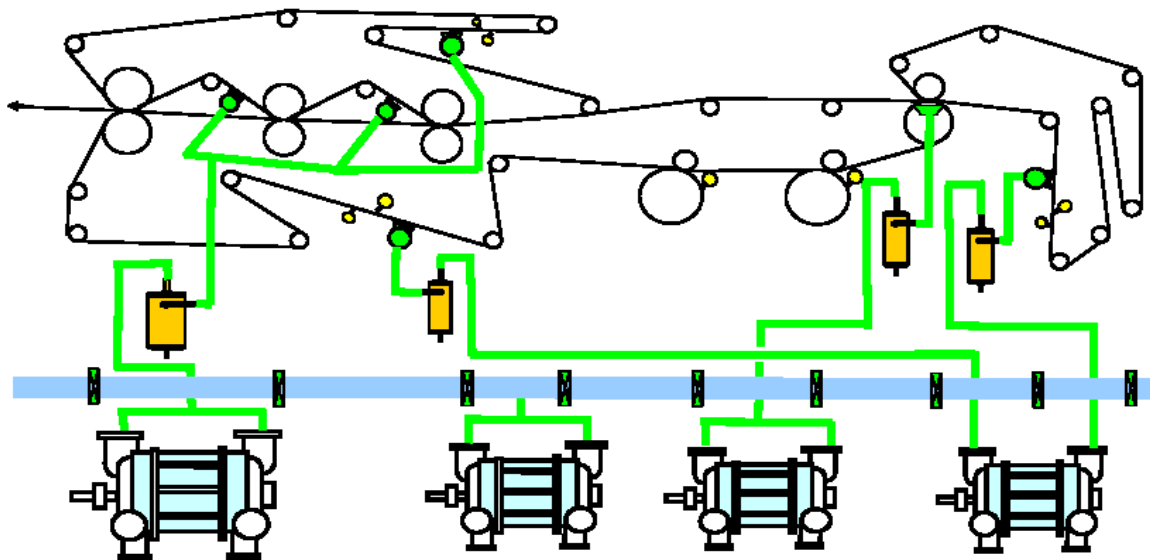


VACUUM SYSTEM FEASIBILITY STUDY

Evaluate the vacuum services demand on your paper machine and verify both correct vacuum element sizing (uhle box, suction roll, flat box, etc.) and vacuum pump sizing on your paper machine before committing to a pump rebuild.

- Orifice Plate Test Vacuum Pumps to determine airflow compared to new pump capacity and to your actual service demand.
- Review your existing sizing of uhle boxes, suction roll box sizing, etc. for TAPPI recommended operation at your current machine conditions.
- Review vacuum system piping, inlet & discharge separators, sealing liquid system.
- Analyze vacuum system energy and seal water costs.
- Analyze complete coverage cleaning of forming wires and press felts .
- Recommend TAPPI best practice placement of showers and shower oscillators.
- Submit a complete engineering report within four (4) weeks.



SERVICE CHARGES

LABOR: Minimum charge of \$1,380.00/day for time of 8 hours or less.

TRAVEL: Travel Time of \$650.00 per day plus actual travel and living expenses incurred by our employee. This includes lodging, meals, air fare, car rental or taxi.

REPORT PREPARATION: Depending on scope of study, a charge of \$1,500.00/day may apply for perhaps two days.

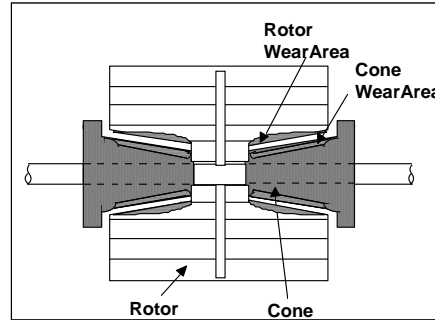
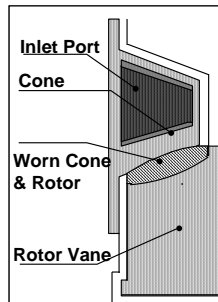
Both labor and travel expenses accrue from the time our employee leaves Greeneville, TN until he returns to Greeneville, TN.



info@cvnvooner.com; telephone 423-638-2211; fax 423-638-8805

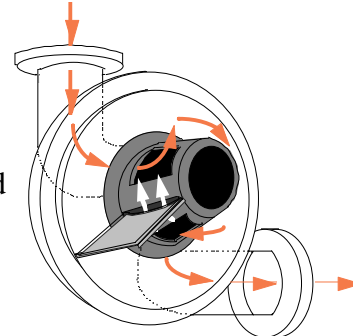
VACUUM SYSTEM FEASIBILITY STUDY

As an internally cast iron pump is exposed to white water or process carryover, the rotor/cone clearance will increase due to corrosion and/or erosion.

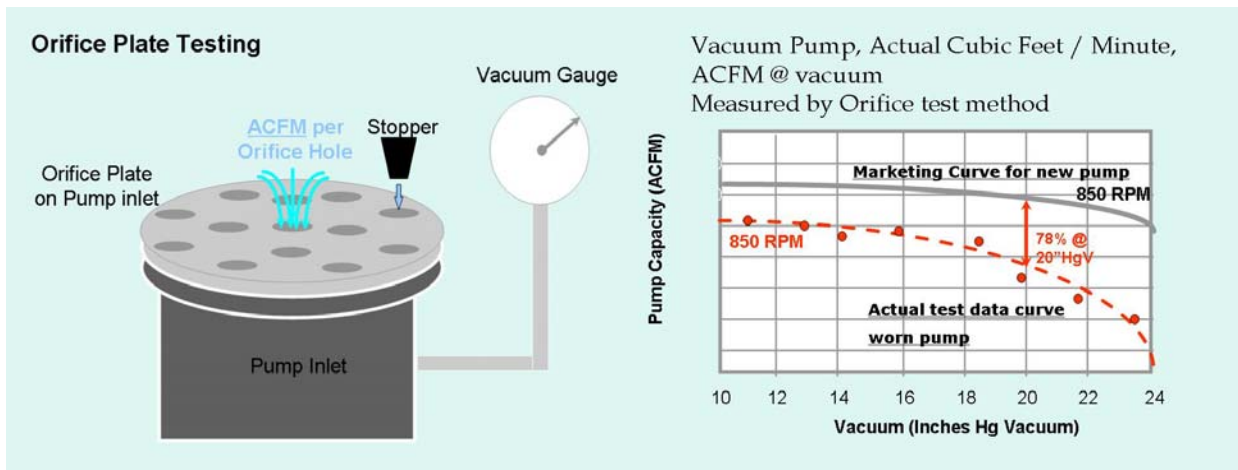


With age, “Vaneslip” occurs and airflow at vacuum declines.

Worn rotor vanes will allow high pressure air from the discharge segment to leak under vanes, “slip” back into the inlet segment and rob space available for new incoming vacuum airflow.



Orifice Plate Test Vacuum Pumps to determine airflow compared to new pump capacity and to your actual service demand.



SERVICE

- Spares, parts, and rebuild services are located in Greeneville, Tennessee.
- Onsite technical service is available from Greeneville, Tennessee.

