

## R. P. ADAMS PORO-EDGE STRAINERS TROUBLESHOOTING GUIDE

<u>SYMPTOM</u>	<u>POSSIBLE CAUSE</u>	<u>CORRECTIVE ACTION</u>
1) Drive motor running, but shaft between speed reducer and packing gland not turning (SHEARED KEY)	Obstruction in element/backwash arm Stop collar not set (VWS-7 to H/VDWS-314) High differential pressure Packing gland too tight  Improper tube sheet to seal plate clearance	Remove obstruction Set stop collar after setting tubesheet to seal plate gap See Symptom 4 Loosen, replace packing if necessary Set clearance to 1/8", using spacer and stop collar
2) Continuous or frequent backwash (differential pressure normal)	Excessive incoming solids Faulty or improperly set DP switch Optional backwash initiation timer (TR) set too low Control panel selector switch in 'HAND'	Reduce solids loading Adjust to 4 PSI, replace if necessary Adjust setting  Return to 'AUTO' position
3) Strainer not backwashing (differential pressure high)	No power to control panel Faulty signal wiring from DP switch Faulty or improperly set DP switch  Control panel selector switch in 'OFF' Faulty backwash duration timer (TDR) Blown fuse in strainer control panel  Instrument tubing to DP switch plugged Valves to DP switch closed Motor overloads tripped	Restore service Check wiring Check set point, replace if necessary Return to 'AUTO' position Replace timer Determine cause of fuse failure, replace Remove tubing and clean  Open Valves Reset overloads
4) Continuous or frequent backwash (differential pressure high)	Plugged elements  Inadequate backwash duration  Inadequate backwash frequency Excessive flow rate through strainer Sheared key (see Symptom 1) Inadequate backwash pressure  Excessive incoming solids loading  Backwash valve closed during backwash (See Symptom 6)	Manually backwash strainer, clean elements by hand if condition persists Set backwash duration timer (TDR) to 2-3 minutes Decrease backwash interval timer Decrease flow rate  Increase strainer operating pressure to 25 PSIG minimum Backwash continuously, reduce incoming solids if possible

SUPERSEDES TD-45942 (10/21/87)

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### R. P. ADAMS COMPANY, INC.

BUFFALO, NEW YORK 14240

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<u>SYMPTOM</u>	<u>POSSIBLE CAUSE</u>	<u>CORRECTIVE ACTION</u>
4) CONTINUED	Excessive back pressure downstream of backwash valve Distributor barrel/seal plate worn (Contact surface less than $\frac{3}{16}$ " tk.)	Reduce back pressure Replace distributor barrel/seal plate
5) Drive motor overload tripped.	Starter overload heaters improperly sized Low voltage supply to motor Packing gland too tight Speed reducer damaged Motor damaged No clearance between seal plate and tubesheet	Install proper size overload heaters Restore proper voltage Loosen packing gland Repair/replace speed reducer Replace motor Set clearance at $\frac{1}{8}$ " gap between seal plate and tubesheet when seal plate is fully recessed.
6) Backwash valve closed during backwash	Actuator improperly wired Valve actuator damaged Faulty backwash duration timer (TDR) Valve actuator cams loose (electric valve) or cam(s) displaced Valve stem stuck or clutch disengaged (electric valve)	Check electrical drawings, re-wire, check wire continuity Replace actuator Replace timer Adjust and tighten cams Clean and lubricate stem, push and twist stem to engage clutch
7) Water leak at weep holes on drive shaft (VWS-7 to H/VWS-40)	Worn drive shaft gasket or gasket missing Loose drive shaft hex and jam nut Loose drive shaft stud Drive shaft coupling halves not engaged	Replace drive shaft gasket Tighten hex nut and jam nut Loosen hex and jam nuts, tighten stud, re-tighten hex and jam nuts Loosen hex and jam nuts, tighten stud, engage coupling, re-tighten hex and jam nuts
8) Water leak at packing	Loose packing gland Worn packing Worn drive shaft	Tighten packing gland Replace packing & split ring gaskets Replace drive shaft (Consider use of ceramic-coated drive shaft if problem is persistent)
9) Excessive backwash flow rate		Contact factory regarding throttling backwash flow

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