

URGENT REPAIR OF ELECTROLYTE TRANSFER PUMP



SERVICE MATTERS

Identifying abrasive sludge contamination as the root cause of efficiency loss

AVTPUMP was contacted by an existing customer following a reported drop in efficiency on a pump used within a steel coating process. The customer required an urgent repair to restore performance and reduce the risk of disruption to production.



THE CHALLENGE

The pump is used to transfer electrolyte during the coating process.

While one pump failure can usually be managed, the failure of two or more units would create a serious risk of unplanned downtime and interruption to production.

OUR APPROACH

The asset was collected from site and returned to AVTPUMP for urgent strip, inspection and repair.

The objective was to identify the cause of the efficiency loss, carry out the required repair, pressure test the unit and return it to site as quickly as possible.

OUR FINDINGS

Inspection revealed a heavy build-up of highly abrasive sludge within the pump. This contamination had caused excessive wear to the wet end components, which directly explained the drop in pump efficiency.

Further investigation suggested that the main holding tank feeding the pumps had been allowed to run low. As sludge typically settles at the bottom of the tank, low tank levels allowed this material to enter the pump, causing rapid internal wear.

“We often see several pumps fail within a short period when sludge contamination is the root cause. Once the main tank is cleaned and maintained properly, these pumps can typically run for years before the same failure mode returns.”

THE RESULT

The pump was successfully repaired and returned to the customer, restoring performance and reducing the immediate risk of process disruption.

AVTPUMP also advised the customer to implement regular tank cleaning to prevent sludge build-up from entering the pumps and causing premature failures.

Where this recommendation is followed, similar pumps can often operate for several years before the same failure mode reappears.

OUR SOLUTION

AVTPUMP completed a full repair using OEM spare parts.

The pump was fitted with new Santoprene diaphragms, stainless steel balls and valve seats.

All O-rings were replaced, and the air side was fully overhauled using an air kit.

Following repair, the pump was pressure tested and returned to site ready for service.

AT A GLANCE

Industry: Energy & Power, Steel Processing
Application: Electrolyte transfer during coating process

Equipment: Air-operated diaphragm pump

Products Used: OEM spare parts, Santoprene diaphragms, stainless steel balls and valve seats, O-rings, air kit

Services Provided: Collection, strip and inspection, full repair, pressure testing, return to site

Key Issue: Abrasive sludge contamination causing wet end wear and efficiency loss



Need help?

Contact our experts

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