

Case Study 28

Venting your Filter Housing

Background

In western Ohio there is a full-service mechanical plating and galvanizing facility who were having issues with filter bags bursting. Failures of the filter bags were impossible to predict but in some cases were bursting at the seams 1-2 times per shift. Typically, the bottom of the filter bags is where they experienced most of their failures. Leading us to believe there could be an issue with the filter bags themselves. Failure of the filter bags meant containments going downstream causing a variety of issues. Initial concerns from Northeast filter were regarding the welded seam strength of the filters being used.

Solution

Northeast Filter arrived on site to provide inspections of the filter bags to determine what could be the root cause of these failures. Inspection included observation of the filter bags themselves, filter basket removal from the housing (to verify bag length/fit), and finally analysis of the filter housing and operational procedures. The first action to be taken was replacement of the filter bags with a new manufacturer who provided better quality weld seams. Another concern was the partial coloration of the used filter bags. The bags had visual discoloration on only the bottom half of the media. This indicated the housing was not being properly vented causing an air lock (bubble) in the top of the housing. After consultation with the customer, they purchased automatic vent valves for each housing allowing air to completely displace the liquid in the housings. Upon follow up the customer has increased their life exponentially and are changing filters a couple of times a week instead of 1-2 times per shift. The issue with weld seam failure has been completely eliminated.

