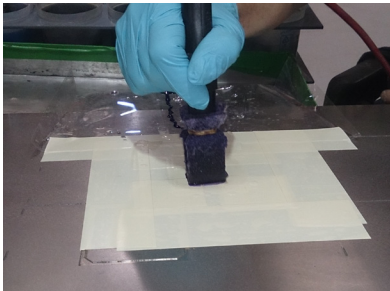


Case Study

Unique application of SIFCO ASC's selective plating process saves 30 man hours and almost \$6,000 for press-ready tooling company.



“We are extremely grateful to SIFCO ASC for providing an effective solution to a potentially tricky issue. By taking the time to assess the options available to us, SIFCO ASC was able to identify the most appropriate way to rectify the problem, saving us considerable time and money. Above all, the quality of the repair was outstanding to the extent that it was impossible to tell that the component had ever been damaged. We were extremely satisfied with the service we received and would be happy to use them again moving forward.”

Lasercomb

Kevin Holmes, Quality Manager

When Birmingham-based die tooling systems manufacturer, Lasercomb Dies, experienced technical difficulties with a machine used in its manufacturing process, a critical production component became damaged, posing the threat of significant, costly, downtime.

The company was faced with having to manufacture a replacement for the damaged component, which would have impacted its ability to meet crucial customer deadlines. The need for an immediate solution became apparent and, following a customer recommendation, Lasercomb contacted SIFCO ASC for help.

THE CHALLENGE

Lasercomb Dies produce steel counter plates lined with grooves that are used to form creases in carton packaging. However, when one of the creases became wrongly aligned this resulted in aesthetic damage to the stainless steel die print piece. Initially, Lasercomb was unsure as to whether the component was still fit for use and was considering replacing it but, after exploring the time and cost implications of producing a replacement component, it became clear that carrying out a repair was a more viable option.

To minimise downtime and any subsequent impact on productivity, a quick turn-around was required. Given the nature of the issue, there were relatively few options available, these being selective plating and tank plating. The problem with the latter was that it offered relatively little control of the deposit and since the damage was limited to a small area, it would have needed a vast amount of masking, hence, selective plating was the more practical option. This method was preferable on the basis that it offered control when applying the deposit by being able to fill the damage dress back, apply the cap and blend into the finish.

THE SOLUTION

Initially, the damage was Copper filled with Copper H/S Acid. This copper fill was then dressed back, and a final Nickel Cobalt (Semi Bright) cap was deposited and blended. This deposit was used because it was the solution that would achieve the closest match to the existing surface finish. The procedures were carefully carried out to ensure the best possible surface finish, given that the repair was for aesthetic reasons.

THE RESULT

The selective plating process was so successful that the component was restored to perfect condition within one hour, which is a time saving of more than 90 percent compared with manufacturing a new component. The overall savings included £2,500 – the cost for a replacement component - and perhaps even more significant is the minimal impact the repair had on productivity.

Had Lasercomb been unable to salvage the component, they would have needed to produce another one which would have taken somewhere in the region of 30 hours costing £1,350 in labour. As well as incurring extra cost for materials and the associated production costs, this would have negatively impacted workflow and therefore Lasercomb's capacity to meet agreed customer deadlines, potentially adversely impacting customer relations and Lasercomb's reputation.