Henkel Excellence is our Passion

Case Study 案例研究- 6704

Automotive Transmission Final Assembly Washer Conversion
汽车变速器的最终装配清洗转换

At this large OEM transmission production facility, an offensive odor around the transmission final washer / pack out area was affecting the work environment and all the surrounding workers. It was determined that the washer system chemistry coupled with an abundance of automatic transmission (ATF) entering the system was the primary cause. The abundance of ATF created a perfect environment for biological growth which led to the release of the offensive odors. The inconsistent bath quality led to a scheduled six week PM (preventive maintenance) rotation, inconsistent usage of product, as well as excessive and expensive biocide treatments.

在这个大型的OEM 传输生产设备中，在传输的最后一个清洗区/装配区周围有一种令人讨厌的气味，这影响了工作环境和周围的工人们。它确定了清洗系统的化学耦合与大量的自动变速箱油(ATF)进入系统是主要原因。ATF 的丰富性为生物生长创造了一个完美的环 境，从而导致了释放刺激性气味。不一致的清洗槽质量导致了预定6个星期轮流的PM(定期检修)，不一致的使用产品以及过量和昂贵的生物杀伤治疗。

The challenge for Henkel was qualifying a cleaner that would not remove the clear coat and ink from the identification labels of the transmission, while achieving top part cleanliness. Henkel also had to focus on finding a fluid that would inhibit bacteria growth and bring oil to the top of the wash for effective mechanical removal.

Henkel 面临的挑战是如何获得清洁度更高的产品，不需要从识别标签上去掉透明的涂层和油墨就能达到最高的清洁程度。Henkel 还必须专注于寻找一种能抑制细菌生长，并将油带至清洗顶部的液体，以便进行有效的机械清除。

More than 200 labels were tested with multiple products at different concentrations with ATF fluid to mimic the environment in the washer process. Numerous analytical tests were completed to ensure the customer continued to receive excellent quality performance in the wash system. After all testing was completed, Henkel had the perfect washing fluid for the customer process.

超过 200 个标签使用 ATF 液体体在不同浓度的产品下进行测试，来模拟清洗过程中的环 境。大量分析测试的完成确保了客户在清洗系统中继续获得优秀的质量体现。在所有测 试完成后，Henkel为客户的工艺提供完美的清洗剂。

The conversion was a success. The customer experienced cleaner parts, oil rejection, elimination of the odor and bacteria, all while keeping the integrity of the transmission identification labels. The customer also benefited from an 82% monthly cost savings due to fewer cleanings, elimination of expensive biocide additions, reduced make up rates, and a more economical price with the new cleaning solution.

这个转换是成功的。客户体验了更干净的零部件，油拒，消除了异味和细菌，同时保持了传输标识标签的完整性。由于减少了清洗的次数，减少了昂贵的生物杀菌剂的添加量，降低了补给率，并且采用了更经济实惠的清洗新方案，客户也从 82%的月成本节约中获利。

Process 进程	Method 方法	Impact Savings/Value to Customer 客户节省成本	Timing 时长
Chemical Use Reduction 使用化学还原	System makeup rate reduced using Bonderite 220WB compared to previous product. 82% reduction in chemical costs. 与之前的产品相比，使用 220WB 磷化剂能降低系统组成率。化学成本减少 82%	$68,000	12 months 12 个月
Preventive Maintenance Labor Cost Reduction and Biological treatments reduction 预防性维修、降低人工成本和减少生物处理	45% fewer cleanings required, tank side biocide and odor maskant additions eliminated. 所需的清洁次数减少了 45%，消除槽边生物添加剂和气味	$68,500	12 months 12 个月

More LEAN benefits realized by customer:

- Ability to buy in bulk, saving 15%
- System cleaning frequency reduced by 45%
- System cleaning chemical costs reduced accordingly
- Reduction in additive costs by 82%
- System simplification through consolidation of procedures and processes
- Total project savings $136,500 annually

实现客户更精益的效益：

- 批量购买可节省 15%
- 系统的清洗频率减少了 45%
- 系统清洗的化学成本相应下降
- 添加剂成本降低 82%
- 通过合并过程和工艺简化系统
- 每年的项目共节省$136,500