



CASE STUDY 20070208R

Optimizing Pressroom Lubrication

Uni-Roller / SPR 2000 Caps Efficiency Project

An automotive stamper in the Southeastern US evaluated his entire fluid handling and application process. Among many opportunities to reduce cost he found that his spray application method was causing significant waste and clean up issues. When the project was complete he found as much as 600 gallons per month of lube had been finding its way to somewhere else besides on the part or the tooling where it was needed to reduce friction and heat build up.

Details:

Original Process

Metal stamping transfer operations 12'-15' press beds.

Carry lubricant to each press and hand fill reservoir using a 5 gallon bucket.

Spray lubrication on top and bottom of transfer stock prior to entering the transfer line.

Problems

Downtime costs: Presses down to refill fluid reservoirs each shift, using 5 gallon buckets hand carried to each press

Labor Costs: 45 minutes per shift twice per day estimated clean up time around each press for fluid overspray and fluid dropped off the bottom of material.

Fluid Costs: All fluid cleaned up from floors, machines etc., cannot be recycled and is considered waste.

New Process

Supply fluid using a central supply tank plumbed to each UNIST SPR 2000 Controller.

Apply fluid to top and bottom of material at a predetermined thickness using the Uni-Roller®, controlled by the SPR 2000.

Apply small amounts of fluid to die and cup portions of drawn parts downstream when required, using spray nozzles also controlled with the SPR 2000.

Benefits

- Cleanup – went from twice per day to once or twice weekly.
- Fluid Consumption – reduced 50% from 1200 gallons per month to 600.
- Air quality improved on shop floor.
- Die life extended.
- Part quality improved – zero splits in drawn parts.
- 6 month payback for capital project