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## APPLICATION # 01:

### COFFEE TIN WITH A TAP TO A ELECTRO PNEUMATIC SPRAY LUBE SYSTEM

Wheels and Castor manufacturer

#### The Problem:

The presses were getting covered in lubricants as a result, a tin (Milo tin), would be hung from machine guard to drip on strip being feed into press. This would result in the tin being left on and it flowing over the feeder onto the floor. This resulted in an unsafe work area and tools not being lubricated correctly.

#### Tooling Configuration:

Not changed.

#### The UNIST Solution:



The customer tested and purchased (4) of the Unist uni-max lubrication system. These units were the standard Coolubricator system with a pulse generator and metering pump to apply a measurable amount of lubricant via one or more co-axial nozzles. This results in no misting of the lubrication oil. The Coolubricators are connected to the press electrics for total control.

#### Justification:

Cost of wasted lubricants, clean up costs, unsafe work areas and down time of production. These units were treated as a new investment and as there were no rollers or any other on going consumable parts to be replaced they were happy with this purchase.

#### Pay Back:

Was estimated in 3 months.

#### Conclusion:

Excellent!

The customer was very happy with the total result and would not hesitate to install these spray lube units to any new presses they purchased. The customer advised that they would be happy to let other PSA customer's view the units installed so our customers could view the spray systems in action. The Unist spray lube system visually looks good on the press.



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## APPLICATION #02:

### UNIST COOLUBRICATOR IMPROVES POWDER COATING SUCCESS

Internal suspended ceiling manufacturer 900mm Wide x 1500mm long component

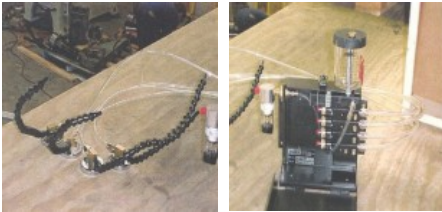
#### The Problem:

The customer was using a paint roller to apply lubricant to the material. This system, while CHEAP was totally unsatisfactory. The customer had no control over the amount of oil that was applied. The uncontrollable application of the oil caused many problems for the customer down stream when the material had to be powder coated, the material had to go through a washing stage twice to remove the excess oil.

#### Tooling Configuration:

This was not a consideration in this application, as the tooling did not require any changes to be made.

#### The UNIST Solution:



After studying the application, PSA recommend a Unist Coolubricator system. This system consists of a pulse generator (up to 200 pulses/min) with two banks of 4 metering pumps, 8 plastic spray nozzles (4 off top, 4 off bottom). The size of the component is very large 900mm x 1500mm long and is fed into the press by an automatic sheet feeder. The Unist system is controlled via a PLC for total control flexibility.

#### Justification:

Because the material was now easy to clean and only needed a light wash (once through the washer) justification was easy as production increased.

#### Pay Back:

This was estimated at 6 months

#### Future action:

The company has another identical line and plans to invest in another system for this line. The customers system used 8 pumps and nozzles, which would be double of what is shown in this picture



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## APPLICATION 03:

### UNIST ROLLER LUBRICATOR REPLACES PAINT ROLLERS Car Radiator Component Manufacturer

#### The Problem:

A very traditional manual antiquated method of applying the oil via a PAINT ROLLER. The operator would dip his roller in oil and apply it to the coil when he remembered. The whole operation was messy, dirty, time consuming and random in the application. Furthermore the spilt oil on the press and on the ground then had to be cleaned up, adding to the inadequate method of applying the right amount of oil.

#### Tooling Configuration:

This was not a consideration in this application, as the tooling did not require any changes.

#### The UNIST Solution:



PSA recommended an RL18-P-B-P & RL24P-B-P roller lubricator with Polyurethane foam rollers and pneumatic cylinder on the top roller as standard. This unit was an improvement on the previous method especially because the previous method did not apply oil to the bottom of the strip where a critical drawing operation took place.

#### Justification:

The project was justified simply on the increased production, savings in oil and the labour cost applying the oil.

#### Pay Back:

Pay back was calculated at less than 6 months

#### Conclusion:

The result was excellent, this line now runs fully automatically, no mess, no more paint rollers and dip trays.

#### Future Action:

Additional orders have been placed for more units, as the company is very happy with the reduced cost of oil and reduced costs in cleaning up the mess.



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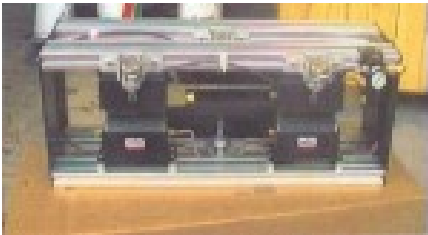
## APPLICATION 04:

### UNIST ROLLER LUBRICATOR REPLACES SPRAY SYSTEM FOR CUT TO LENGTH LINE APPLICATION

#### The Problem:

A very old and antiquated method of applying the oil via a SPRAY SYSTEM was being used. The operators would continually complain about the amount of mist in the air. The O & HS division of the company was called in and before any trouble could develop, PSA was approached to come up with a solution. The lubricant applied to the material is only used as a rust inhibitor. The lubricant used is CASTROL ILOFORM PSI 06.

#### The UNIST Solution:



PSA recommended a RL-52-PF-B-P Unist Roller lubricator. This was a somewhat special unit as we had to supply 4 x 300mm wide rollers and a 150mm wide roller as we needed to just cover the entire width of the material. Due to the lubricant used the roller covers needed to be POLYESTER FELT since chlorinated agents are in the lubricant would cause foam covers to swell.

#### Justification:

The project was justified simply on the O & HS reasons.

#### Conclusion:

The unit was installed Mid May, 2000, the result so far have been excellent, this line now runs 24 hours a day.

