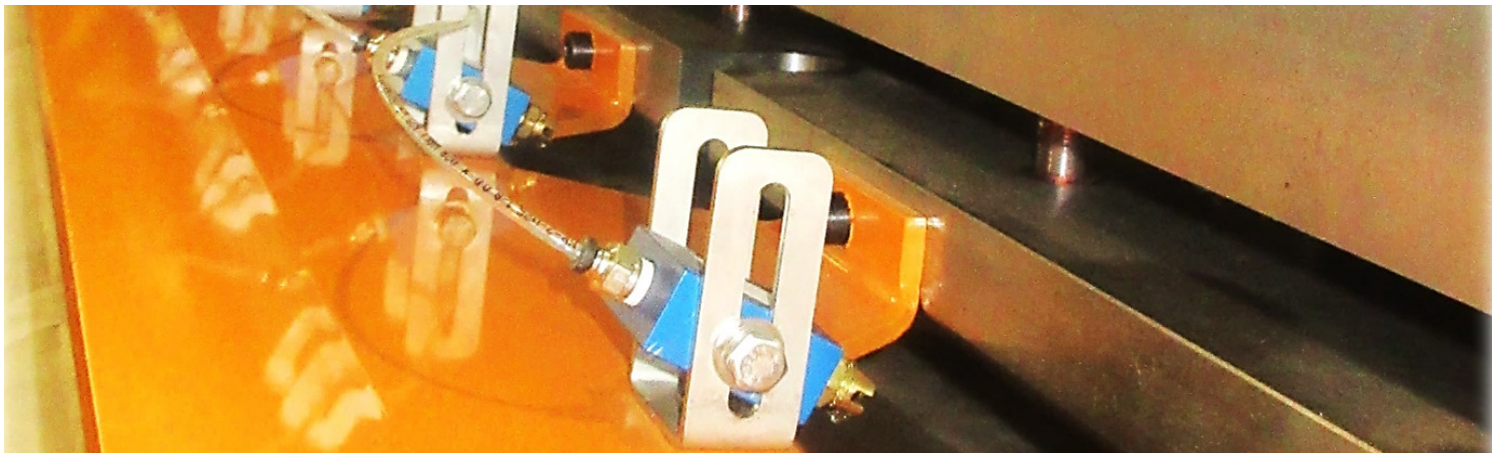
LUBRICATION FEATURE

BEHLEN® JOINER



PURPOSE:

Lubrication is an important option, used particularly in aluminum processing applications. Lubrication helps by reducing friction between the die and the material while it is cutting the stitch. Combined with minimizing punch penetration this will reduce the number of burrs and fines typically produced from cutting.

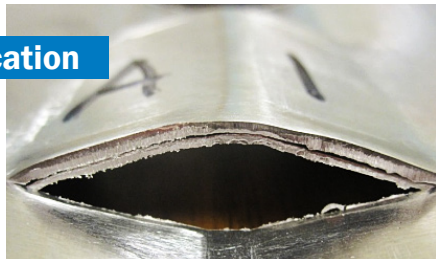
HOW IT WORKS:

The lubrication feature includes a remotely located pedestal that has an interface for programming. Different recipes can be programmed to account for different widths of material. There are nozzle bodies placed along the top edge of the die facing towards the inside of the die. With the press of a button, you can run a recipe and spray a mist of lubricant on the material before stitching. Lubricant on top of the strip of material reduces the number of burrs by decreasing the amount of friction between the punches and the material.

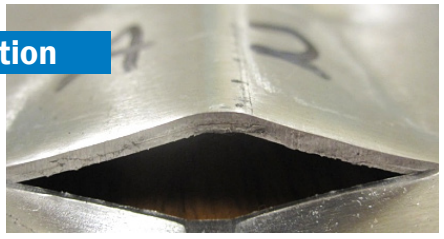
THE BENEFITS

- Reduces the number of burrs and fines. Burrs and fines can cause major issues if they migrate down the line and get embedded in urethane rollers or accumulate in other areas in the process which can cause damage to the coil material being processed
- Our engineering study found that the samples with lubrication had notably fewer burrs and fines than the samples with no lubrication

Without Lubrication



With Lubrication



THE REMOTELY LOCATED PEDESTAL

- Simple interface for programming
- Has a key to lock the ability to change the programmed recipes to prevent changes to the recipes during operation
- Recipes can be programmed for different widths of material by only turning on some of the valves
- Recipes are easily retrieved by typing in their corresponding number
- The lubrication tank is easy to fill
- A light will flash, and an alarm will sound if there is not enough lubrication in the tank
- The lubrication is sprayed by the press of a button on the operator controls or it can be automated with PLC integration

MANIFOLD, VALVES, & NOZZLES

- Nozzle bodies are easy to adjust by loosening the bolt on the bracket
- The components are all labeled for a less complicated reassembly if needed
- Labels also help with programming the correct valves and nozzles
- Both sides have nozzle bodies spaced out across the top of the die facing inside
- Manifolds include independent valves that allow for independent volume control of the nozzles
- There are two manifolds, one for each set of nozzles on the two sides
- The nozzles have a mist-like spray to cover a greater area in a more uniform way

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