smt - spray lubrication systems

for blanks and strips made of metal:
• programmed oiling
• as much as required
• as little as possible
• on the right place
• constant quality by repetitive accuracy

in press lines and coil lines:
• save resources and costs
• protect environment
• secure industrial safety

smt - spray lubrication systems are used where also at higher and high transport speeds an exact spraying in quantity and position is required without any impact on the environment.

• spot-exact oiling in rapid passing process

Spray Lubrication System SLS

The spray lubrication system for blanks is usually positioned within a blank loading system in front of a press or press line. It is used there for spraying deep-drawing media onto steel and aluminium blanks. The passing blank is sprayed with a programmed spray pattern according to the specific deep-drawing process.

Depending on the requirement the oiling is done on one side or both sides as well as on the full surface or partially.

The blank entering the machine via a conveyor or blank washing machine is transported through the spray box. Parallel switched sensors detect the front edge of the blank. An encoder registers the conveying speed.

The operation and functions of the SLS are automated and visualized as far as possible. All relevant process parameters are saved and automatically call-up depending on dies and programs. The operation is consciously designed in a simple way. No special programming knowledge is necessary for the graphical programming of spray patterns. The blank contour can be set behind the spray pattern.

Running spray programs can be edited at any time, new spray programs parallel created offline. Optionally it is possible to have an Ethernet-interface to external stations.

Any malfunctions in the machine are shown in an error list and are filed. Additionally, the malfunctions are graphically located.

Operating manuals, maintenance instructions and spare parts lists are integrated in the visualisation.

We have consequently followed for many years the tendency to go away from full oiling towards specific, minimum use of deep-drawing media.

Today we are the leading supplier of spray lubrication systems for automotive press lines and similar applications with various references.

On the basis of our standard programme we have developed tailored solutions from the simple application up to the fully-auto-mated spray lubrication systems for most modern press lines.

Use our experience. We integrate the appropriate spray system in your new or already existing production line.
Technical Data
spray lubrication systems type SLS, depending on size and design:

- **blank thickness**: standard: 0.5 – 3.0 mm, or as required
- **blank width crosswise to passing direction**: standard width: 500 – 5000 mm in grids of 100 mm, or as required
- **blank shape/type**: rectangular and formed blanks, also with cutouts, double and multiple blanks next to each other, welded blanks
- **blank material**: steel, non-galvanized and galvanized, aluminum, other nonferrous metals
- **number of spray nozzles above/below**: 4/4 – 40/40; depending on max. blank width and spray grid
- **nozzle control**: individually
- **spray media**: sprayable deep-drawing media
- **spray grid per nozzle spreads**: standard: 125 x 125 mm, or as required
  - 0.5 – 5.0 g/m², or as required
- **blank transport**: standard: passive on rollers; optional: integrated conveyor or „SLIM-Oiler“ type SLS-S
  - max. approx. 3.0 m/s, frequency-controlled
- **transport speed**: max. approx. 3.0 m/s, frequency-controlled
- **spray medium tank**: standard: provided supplier barrels of 200 l or 1000 l; optional: integrated tank 100 – 300 l
  - optional, for 2 or several media
- **automatic spray medium change**: temperature- and power-regulated ± 0.5 °C;
  - optional: additional tank heating
- **spray bar heating**: standard: manual; optional: automatic
  - switch filter, with electronic dirt control
- **pressure settings**: standard: electrostatic; optional: mechanic
  - optional: manual or by motor
- **control**: standard: Siemens S7
  - alternatively: Allen-Bradley ControlLogix, Beckhoff Twincat
- **visualisation**: standard: Siemens WIN CC Flexible; optional: WIN CC
  - alternatively: Allen-Bradley FactoryTalk
- **options**: further options on request, e. g.:
  - spraying of several media;
  - with automatic media change
  - refill station