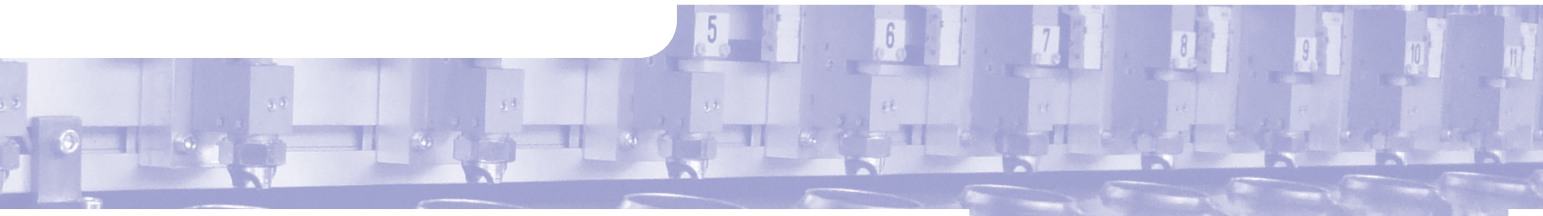
smt | schleifstein



Spray Lubrication Systems

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.

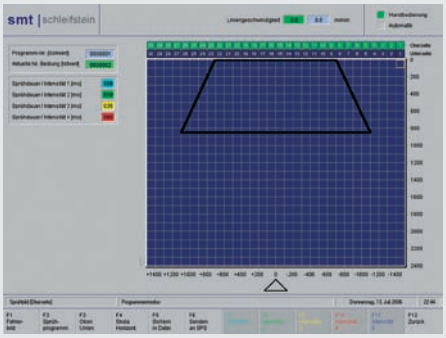
Use our experience. We integrate the appropriate spray system in your new or already existing production line.

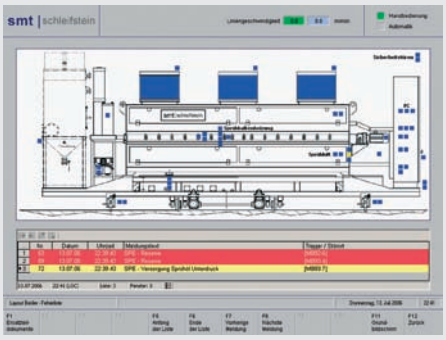
Technical Data

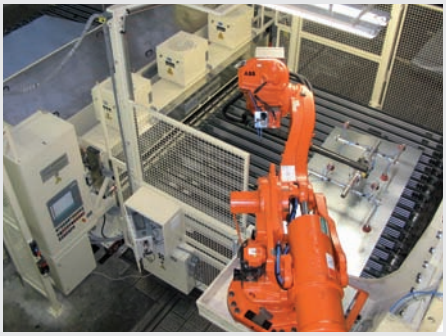
spray lubrication systems type SLS, depending on size and design:

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, aluminium, 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	standard: 125 x 125 mm, or as required
spreads	0.5 – 5.0 g/m2, or as required
blank transport	standard: passive on rollers; optional: integrated conveyor or „SLIM-Oiler“ type SLS-S
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
automatic spray medium change	optional, for 2 or several media
spray bar heating	temperature- and power-regulated ± 0.5 °C; optional: additional tank heating
pressure settings	standard: manual; optional: automatic
filtration for spray media	switch filter, with electronic dirt control
oil mist separation	standard: electrostatic; optional: mechanic
machine traversible	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 Factory Talk
options	further options on request, e. g.: • spraying of several media; with automatic media change • refill station

Examples: **Schleifstein**-spray visualisation







Schleifstein Maschinentechnik GmbH
Siegstrasse 92 | 57076 Siegen | Germany
phone +49 (0)2 71-77 51-0 | telefax +49 (0)2 71-77 51-150
e-mail: info@schleifstein.de | www.schleifstein.de