

spray.xact 5000

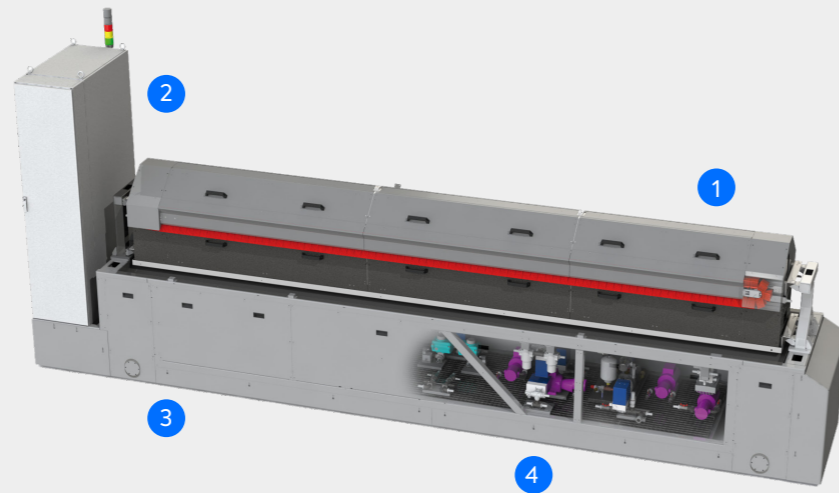
Airless spray lubrication for large-scale systems



spray.xact

Your advantages at a glance:

- Proprietary spray valve
- No manual adjustment of the spray nozzles
- No extraction necessary



› Detailed view of the spray unit, including:
1) upper and lower spraying chamber, 2) control cabinet, 3) rack and drive system, 4) intermediate tanks with a temperature control system

Economically efficient spray lubrication solution

The spray.xact 5000 spray lubrication system has been specifically developed for large presses with a spraying width of up to 4,800 mm.

When it comes to the lubrication of blanks and coils or the production of standard components, such as structural elements or even the outer skin parts of vehicle bodies, spray.xact 5000 is an optimum and economically efficient solution for all types of lubrication tasks.

The heart of the system is the proprietary spray valve. It is electronically controlled and emits spray pulses at an exceptionally high frequency. That results in a particularly homogeneous spray pattern on the sheet metal surface. The oil quantity can be adjusted extremely precisely simply by changing the spraying parameters. In addition, the adjustment is completely reproducible due to the fact that it is 100 % electronically controlled. Apart from full-surface lubrication, the system can also produce spray patterns with varying quantities of oil.

The spray patterns can be programmed directly at the spray lubrication system, presscontrol station or via a PC in an office.

The entire spraying process is completely airless. This considerably reduces the formation of oil mist so that an extraction system is unnecessary. The spraying chamber itself is sealed with an innovative rotating brush system for preventing any drag oil from leaking out. Oil droplets that adhere to the brushes are scraped off.

Easy access to all of the components for maintenance or in the event of malfunctions as well as the redundant provision of key components for the emergency mode are, of course, ensured just like the easy operation of the system.

Airless spray lubrication for large-scale systems

Design and function

The spray unit consists of a rack, an upper and lower spraying chamber and an integrated control cabinet.

The entire spray unit can be moved into, and out of, the press system by way of

the rack with its own drive system. In addition, the rack holds:

- two intermediate oil tanks,
- one oil collecting pan
- and several heating elements for preheating the medium.

From there, the oil is supplied to the nozzle rails in the two spraying chambers.

The upper spraying chamber includes the spraying nozzles for the lubrication from above. Up to 8 nozzles can be combined in an extruded profile in order to form a separate assembly unit. The spacing between the individual nozzles is 100 mm.

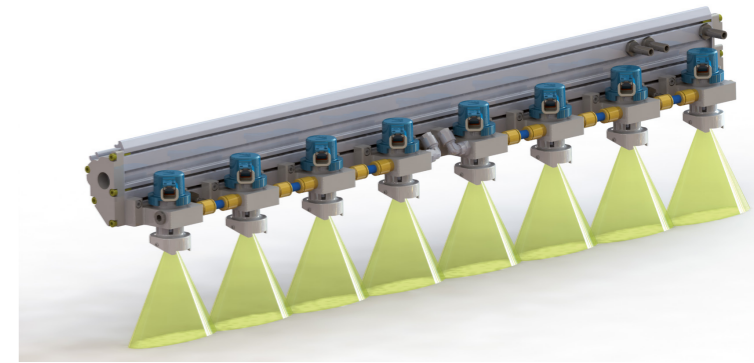
The nozzle rail is where the oil is finally heated to the desired temperature for spraying. The fact that the oil is heated directly at the spraying nozzles helps to achieve constant spraying results at all times.

Lateral covers and maintenance lids protect the spray units. The position of the lids is monitored in order to prevent the production from starting when a lid is still open. The nozzles for lubricating the underside of the metal sheets are located in the lower spraying chamber.

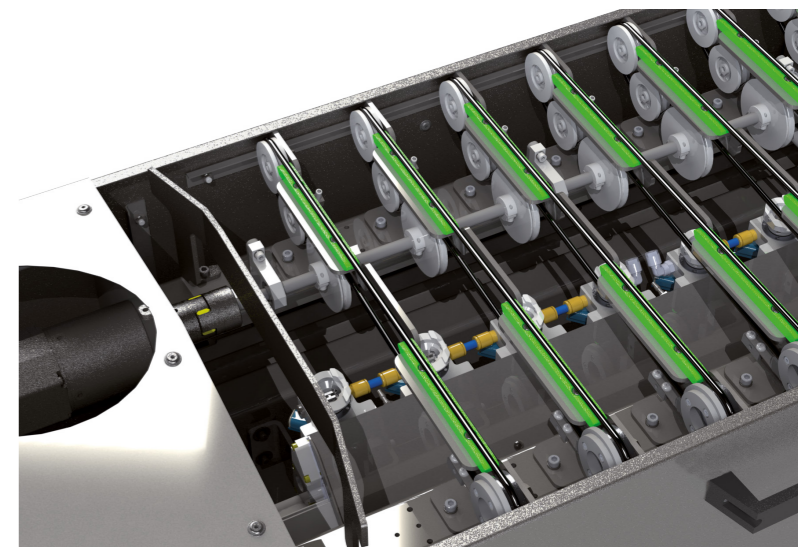
To prevent particularly slim blanks from falling, optional belt conveyors can be used to ensure safe transport through the spraying chamber.

The control cabinet with a Siemens control system is installed in the rack so that it can be moved out of the press system together with the spray unit.

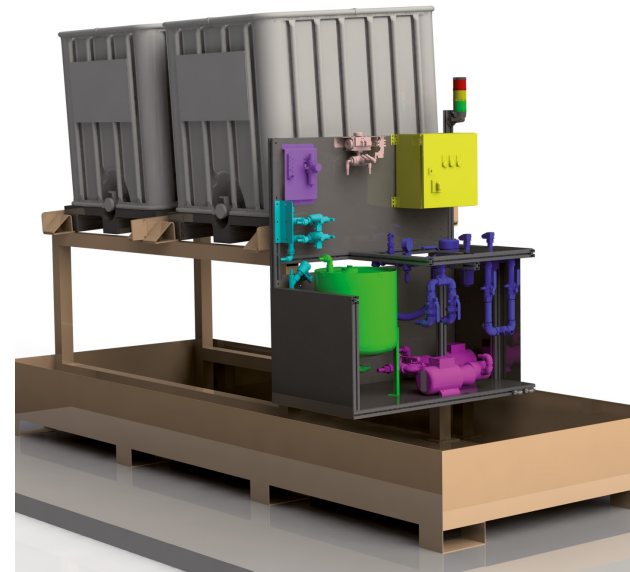
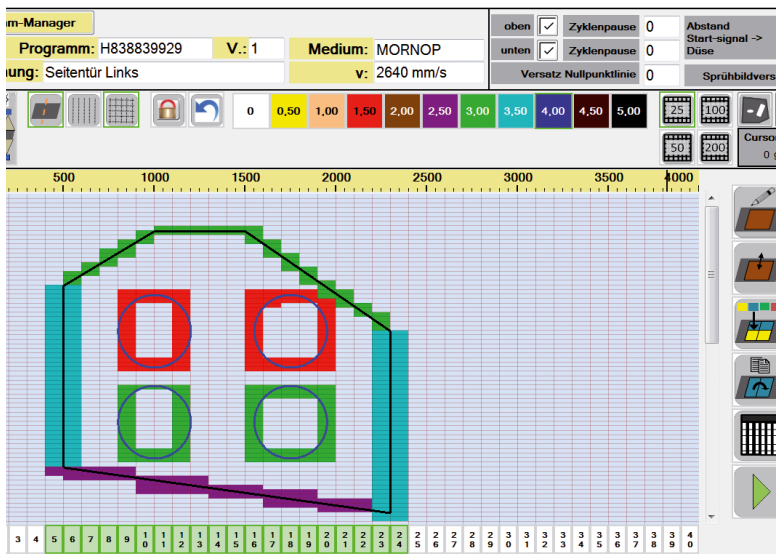
The spray unit is also available in a so-called „slim line“ design.



› nozzle assembly unit



› lower nozzle rail and belt conveyor



- › screen for programming a spray pattern for the lubrication of blanks
- › oil supply via IBCs

Sophisticated supply and control system

The oil supply is characterised by a high level of flexibility: IBCs, drums or pipes that are connected to an on-site, central supply system can all be used.

In the example shown, the oil flows from a container into an intermediate tank from where it is then fed to the spray unit by way of a gear pump.

Additional key features of the oil supply modules are its filters, a collecting pan compliant with the German Federal Water Act (Wasserhaushaltsgesetz, WHG) and a signalling and control unit.

The spray.xact 5000 is controlled via its own control panel which can communicate with other, superordinate systems via a bus connection (Profibus, Profinet or Ethernet). Alternatively, it can also be connected to an external panel, e. g. in the control station, via a TeamViewer or Remote Desktop connection.

A small, separate service panel, which is connected to the control system via a cable, can be used flexibly in a mobile setting for maintenance or in the event of malfunctions.

Our experts will be happy to advise you on finding the optimum solution for your specific application!

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Advantages at a glance:

- Spraying without compressed air
- No extraction system required
- No costs for compressed air
- Consistent, reproducible spraying results
- Easy programming of the spray patterns
- High level of process and production reliability

Additional features:

- installation of up to 2 x 48 nozzles for a maximum spraying width of 4,800 mm
- applied oil quantities of 0.5 g/m² up to 3.0 g/m² for standard applications
- can be used for sheet metal feed rates of up to 3 m/s
- quick, automated nozzle test run for the detection of blocked nozzles
- read-in of CAD files in DXF format, e. g. for the representation of blank contours
- drawing tool for the independent drawing of blanks