



## Environmentally friendly and efficient delivery of fluids

Process reliability through innovative ideas and solutions

- Spray nozzles
- Lubrication units
- Lubrication systems and accessories



# HISSL Lubrication Systems - High quality & multi-functional

## MICROFLUID – minimal quantity lubrication system

The innovative and multi-functional control unit - modular design, compact construction

### MICROFLUID minimal lubrication system

- Suitable for a variety of Group 1 fluids
- Maximum permitted tank pressure of 6 bar
- Standard configuration of 1 bar (safety valve)
- 24 VDC solenoid valve, 230 VAC on request
- Valve with manually assisted operation
- Highly resistant sealing material
- Permitted temperature: -10°C to +50°C
- Tank volume: 500 ml, 1000 ml and 2000 ml
- Optional floating switch



## FLUIDTEC - multifluid system

Stainless steel tank with 5-way delivery system and high-quality, precision valve units

### FLUIDTEC multifluid system

- Suitable for a variety of Group 1 fluids
- Maximum permitted tank pressure of 6 bar
- Standard configuration of 1 bar (safety valve)
- 24 VDC solenoid valve, 230 VAC on request
- Valve with manually assisted operation
- Highly resistant sealing material
- Permitted temperature: -20°C to +80°C
- Tank volume: 5.7 l, 10 l and 20 l
- Optional floating switch



# HISSL Lubrication Technology - Fluids applied economically

**Your goal is our challenge: to only apply as much fluid as necessary.**

**Economic application of fluids with our spray systems achieves huge cost savings:**

- Significantly reduced consumption, procurement and storage costs
- Substantial cuts in cleaning costs for workpieces, machinery and workstations
- Increased tool uptime and reduced rejection rate thanks to optimal lubrication and cooling
- Minimization of disposal costs for waste oil

## Nozzle technology

Our product range includes a wide variety of dual-material spray nozzles in many sizes and for various applications. The angle of spray can be configured according to the use case.

All our spray nozzles are pneumatic and have very short actuation times. Thanks to the wide variety of spray heads we offer, we are able to cater to all requirements. Accessories and customer-specific solutions make it possible to economically apply a uniform film of fluid even to hard-to-reach surfaces.

**Flexibility: The machine type or use case determines the configuration and delivery specifications of the spray device.**

**Our products are components of a modular system:**

Almost all spray devices, nozzles, valve units and accessories can be freely combined. This makes it possible to cater to your unique requirements and requests and also to extend areas to be sprayed to accommodate complex processes.

**Innovative and goal-driven approach to design and production:**

In close collaboration with you, we develop and construct spray systems and custom machines tailored



specifically to your needs and realize your ideas and visions from planning right through to the finished product.

## Spray patterns

	High pressure		Low pressure	
<b>Spray air</b>				
Droplet size	small		large	
Oil diffusion	high		low	
Distribution	fine		coarse	
<b>Flat spray air</b>				
Core spray area	much larger than halo		larger than halo	
Lubrication pattern	ellipse		circle	
<b>Oil</b>				
Volume	large		small	

## Your advantages

- Very low risk of clogging due to self-cleaning spray head
- No dripping due to integrated seal in the spray head
- Low mist generation with patented technology
- Suitable for use with your own fluids
- Spray air pressure adjustment at spray head or optionally at spray device
- High-quality sealing material for almost all fluids
- Stepless dosage from effectively 0 to 15,000 ml/h at the spray head
- Extremely compact

# HISSL Spray Heads – Models for every use case

Technical details		Connections				Sealing materials	Spray angle	Spray pattern	Fluid volume at 1 bar [ml/h]		
		Oil	Guide air	Spray air	Flat spray air				Viscosity 1 mm <sup>2</sup> /s (20°C)	Viscosity 100 mm <sup>2</sup> /s (40°C)	Viscosity 400 mm <sup>2</sup> /s (40°C)
 <p><b>SD18</b></p> <ul style="list-style-type: none"> <li>The classic precision coaxial spray head</li> <li>Spray air adjustable directly at spray head</li> <li>Finely adjustable fluid quantity</li> </ul>	+	coupled	-		Viton (FPM)	$\alpha = 15^\circ$		0 – 6400	0 – 580	0 – 115	
 <p><b>SD18 BS</b></p> <ul style="list-style-type: none"> <li>Precision coaxial spray head</li> <li>Spray air/flat spray air adjustable directly at spray head</li> <li>Finely adjustable fluid quantity</li> <li>Broad elliptical spray fan</li> </ul>	+	coupled			Viton (FPM)	$\beta = 90^\circ$		0 – 6400	0 – 580	0 – 115	
 <p><b>SD18 Lance Spray Nozzle</b></p> <ul style="list-style-type: none"> <li>Precision coaxial spray head</li> <li>Spray air adjustable directly at spray head</li> <li>Finely adjustable fluid quantity for tight spaces</li> <li>Customer-defined bend of lance (30 mm – 1000 mm)</li> </ul>	+	coupled	-		Viton (FPM)	$\alpha = 15^\circ$		0 – 6400	0 – 580	0 – 115	
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 <p><b>SD14</b></p> <ul style="list-style-type: none"> <li>Precision coaxial spray head</li> <li>Compact construction</li> <li>Narrow spray diameter</li> </ul>	+	+	+	-	Viton (FPM)	$\alpha = 8^\circ$		0 – 5900	0 – 500	0 – 105	

# Optimized lubrication and cooling despite low material consumption

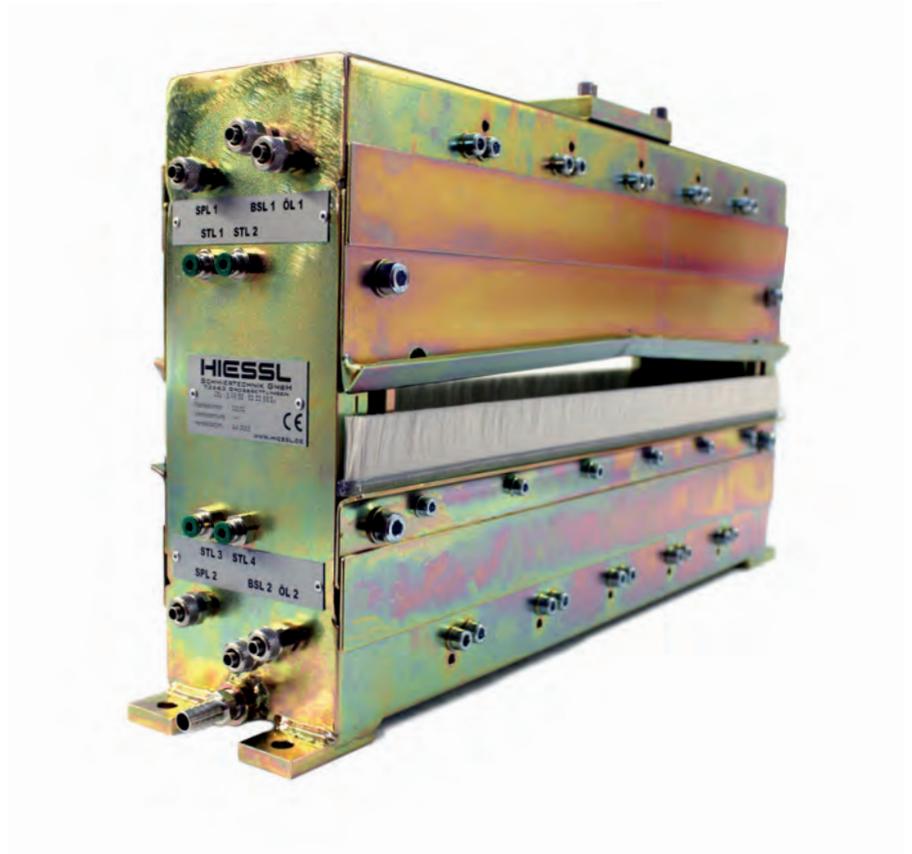
Technical details		Connections				Sealing materials	Spray angle	Spray pattern	Fluid volume at 1 bar [ml/h]		
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 <p><b>WSK18</b></p> <ul style="list-style-type: none"> <li>Extremely compact – modular construction possible</li> <li>Very broad spray angle</li> <li>Highly configurable spray parameters</li> <li>Highly replicable application of fluid</li> <li>Very rapid response time</li> </ul>	+	+	+	+	Viton (FPM)	$\alpha = 15^\circ$ to $\beta = 150^\circ$ – 360° rotation		0 – 6400	0 – 580	0 – 115	
 <p><b>Nozzle Block Module</b></p> <ul style="list-style-type: none"> <li>Specially designed for construction of nozzle arrays</li> <li>Highly configurable spray parameters</li> <li>Highly replicable application of fluid</li> <li>Very rapid response times</li> <li>Fluid volume adjustable with precision M6 x 0.5 mesh strainers with 40 mesh/rotation settings</li> </ul>	+	+	+	+	Viton (FPM)	$\alpha = 15^\circ$ to $\beta = 90^\circ$ – 360° rotation		0 – 8400	0 – 2820	0 – 660	
 <p><b>DBS07</b></p> <ul style="list-style-type: none"> <li>Spray air and flat spray air adjustable separately at the nozzle</li> <li>Highly replicable application of fluid</li> <li>Very rapid response time</li> <li>Fluid volume adjustable with precision M6 x 0.5 mesh strainers with 40 mesh/rotation settings</li> </ul>	+	coupled			Viton (FPM)	$\alpha = 15^\circ$ to $\beta = 90^\circ$ – 360° rotation		0 – 8400	0 – 2820	0 – 660	
 <p><b>BS Nozzle Block</b></p> <ul style="list-style-type: none"> <li>Highly configurable spray parameters</li> <li>Highly replicable application of fluid</li> <li>Very rapid response times</li> <li>Various extensions available for setting fluid volume</li> </ul>	+	+	+	+	Viton (FPM)	$\alpha = 15^\circ$ to $\beta = 90^\circ$ – 360° rotation		0 – 8400	0 – 2820	0 – 660	
 <p><b>BS Nozzle Block Grinder Boring</b></p> <ul style="list-style-type: none"> <li>Specially designed for construction of nozzle arrays</li> <li>Highly configurable spray parameters</li> <li>Highly replicable application of fluid</li> <li>Very rapid response times</li> <li>Various extensions available for setting fluid volume</li> </ul>	+	+	+	+	Viton (FPM)	$\alpha = 15^\circ$ to $\beta = 90^\circ$ – 360° rotation		0 – 8400	0 – 2820	0 – 660	
 <p><b>HST100</b></p> <ul style="list-style-type: none"> <li>For fluids with high viscosity</li> <li>Highly configurable spray parameters</li> <li>Highly replicable application of fluid</li> <li>Very rapid response times</li> <li>Fluid volume adjustable with precision M6 x 0.5 mesh strainers with 40 mesh/rotation settings</li> </ul>	+	+	+	+	Viton (FPM)	$\alpha = 15^\circ$ to $\beta = 90^\circ$ – 360° rotation		0 – 8400	0 – 2820	0 – 660	

# The cross-industry solution provider

## Spray chambers

In countless variations from the smallest constructions to chambers up to 4 meters wide

- Controlled application of fluid film in a closed housing
- Integrated ventilation devices remove mist residue
- Excess liquid can be collected and returned to the system



## Spray bars

Procurement costs significantly reduced through highly efficient materials usage

- For low-space environments
- Compact assembly of spray heads
- Extruded aluminum profiles protect from outside damage



## Custom construction

We don't believe in the impossible

We can adapt our systems to the given requirements, always in harmony with the vision of our clients.



## Distributor modules

One spray unit – multiple nozzles

- Standard distributor with up to 5 connectors
- Modules with higher number of connectors available on request



# For any industry where fluids need to be applied cost-effectively

## Storage and pressure containers

Depending on the intended application, our range of containers of different sizes is available as a selection of products

- 0.5 l, 1 l and 2 l aluminum containers
- Standard 5.7 l, 10 l and 20 l stainless steel containers
- Steel plate containers from 24 l to 200 l



## Valve units and housings

For supplying and controlling spray nozzles, spray bars and spray gates



- Pressure regulators with gages
- Modular system
- Variety of spray intervals
- 230 VAC or 24 VDC, as well as custom voltage and non-corrosive variants
- High-quality valves for air and oil, with further connection options for spray heads (any number possible)

## Accessories

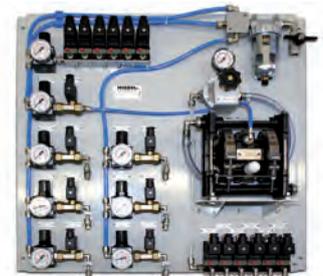
- Various mounts for all varieties of spray head
- Flexible joint mounting system
- Hose guides in various designs
- Quick-release couplings
- Built-in housings
- Mass flow meters
- Pressure sensors
- Specialized valves



## Diaphragm pumps

We primarily offer air-operated double diaphragm pumps designed for year-round use

- Full hose connections to valve plates or housings
- For standard 200 l tanks, we offer a combination of pump vacuum pipes and floating switches
- Precision assembly ensures consistent fluid delivery





## The systems provider for lubrication technology

For over 20 years, **HISSL Schmiertechnik GmbH** has been manufacturing and supplying lubrication systems for belts, circuit boards and molded parts, as well as associated lubricants and modular custom spray units for cutting applications.

As specialists in minimal quantity lubrication, our team works in collaboration with our clients to develop optimal solutions for every industry.



We are full of ideas to introduce a variety of new materials and fluids into your production processes.  
More at [www.hiessl.de](http://www.hiessl.de)

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