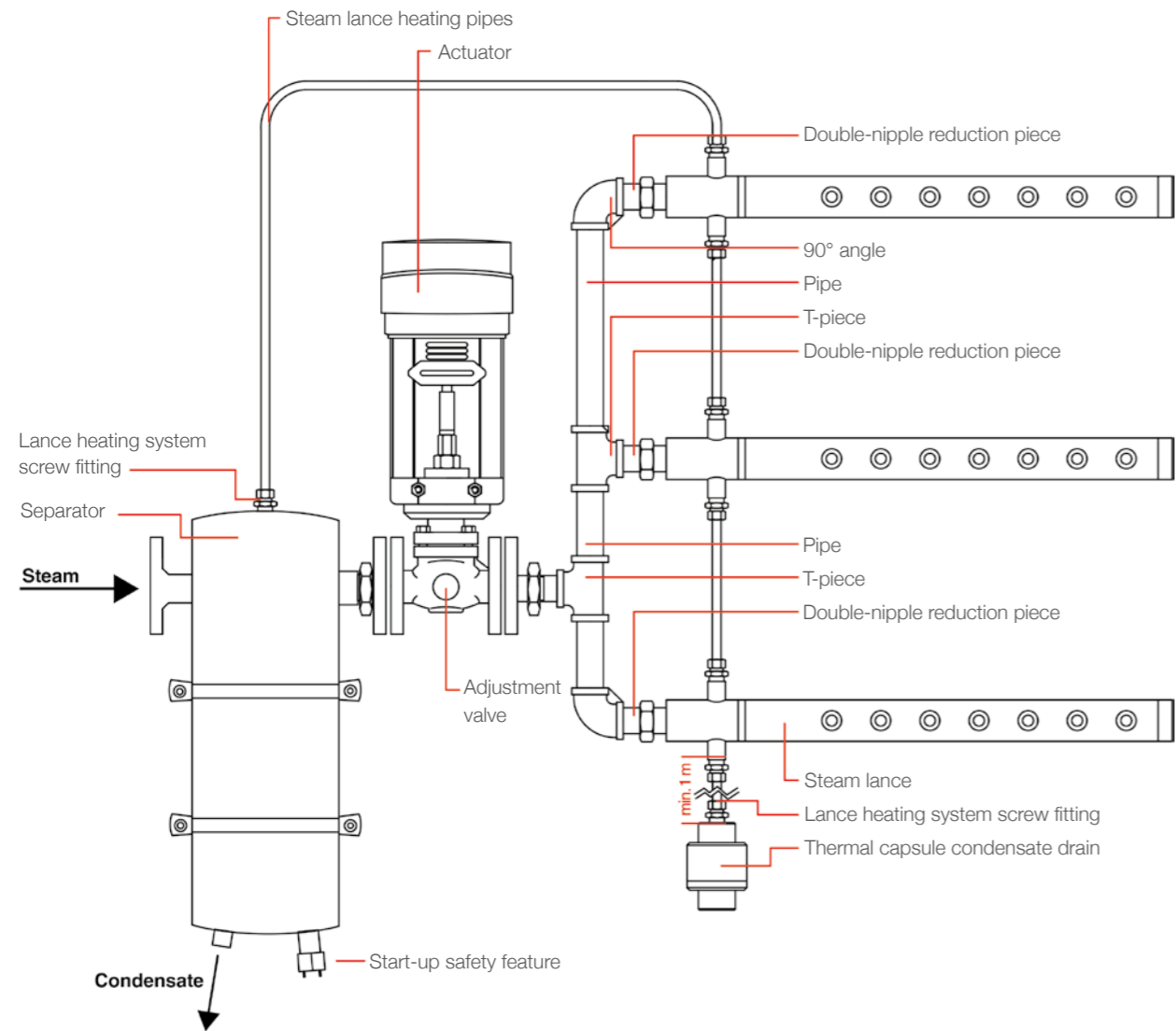


## DDS installation schematic



Source of cover pictures:  
Lilly Forschung GmbH, Hamburg

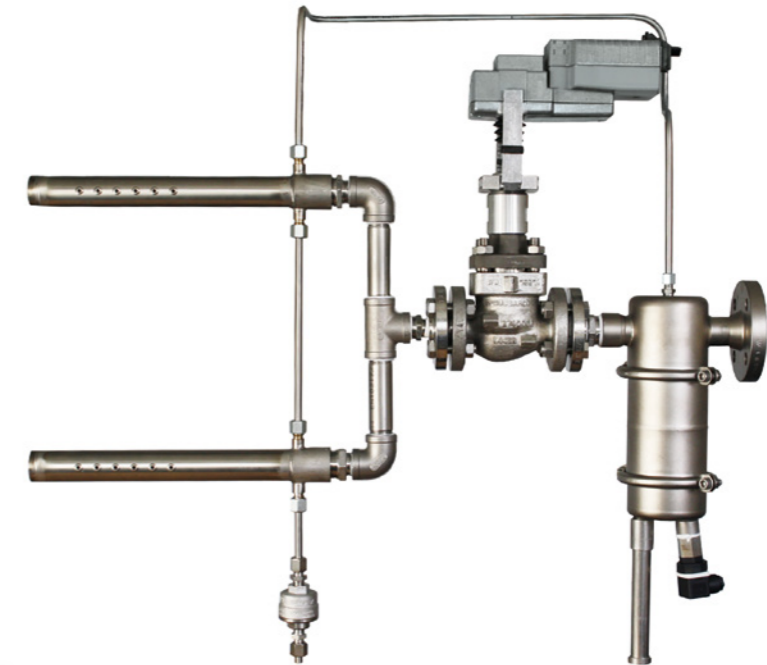
**HygroMATIK**  
WE HUMIDIFY THE AIR



**HygroMATIK**  
WE HUMIDIFY THE AIR

## HygroMatik DDS

Steam injection humidifiers



**HygroMATIK**  
MORE THAN  
**45 YEARS**  
HUMIDIFICATION



Climate and process humidification  
for industry, manufacturing processes, public buildings and offices.

01/2019

# HygroMatik DDS

The HygroMatik DDS, the only system offering four components in one compact unit. High performance separator, strainer, condensate drain and start-up safety feature – all in V4A stainless steel. Compact, light and energy-efficient.

The DDS can be configured individually. The standard flanged connections, compact dimensions and light weight ensure easy installation – even where available space is at a premium.

The HygroMatik DDS humidifies with condensate-free saturated steam and offers the shortest absorption distances.



## Everything in the green area

- The only 4 in 1 system
- Compact dimensions and low weight
- Best energy efficiency
- Easy installation
- Flexible modular construction
- Customer-specific solutions

### Exchangeable strainer

The high-quality stainless steel strainer protects the actuator and the condensate drain from foreign particles from the steam network.

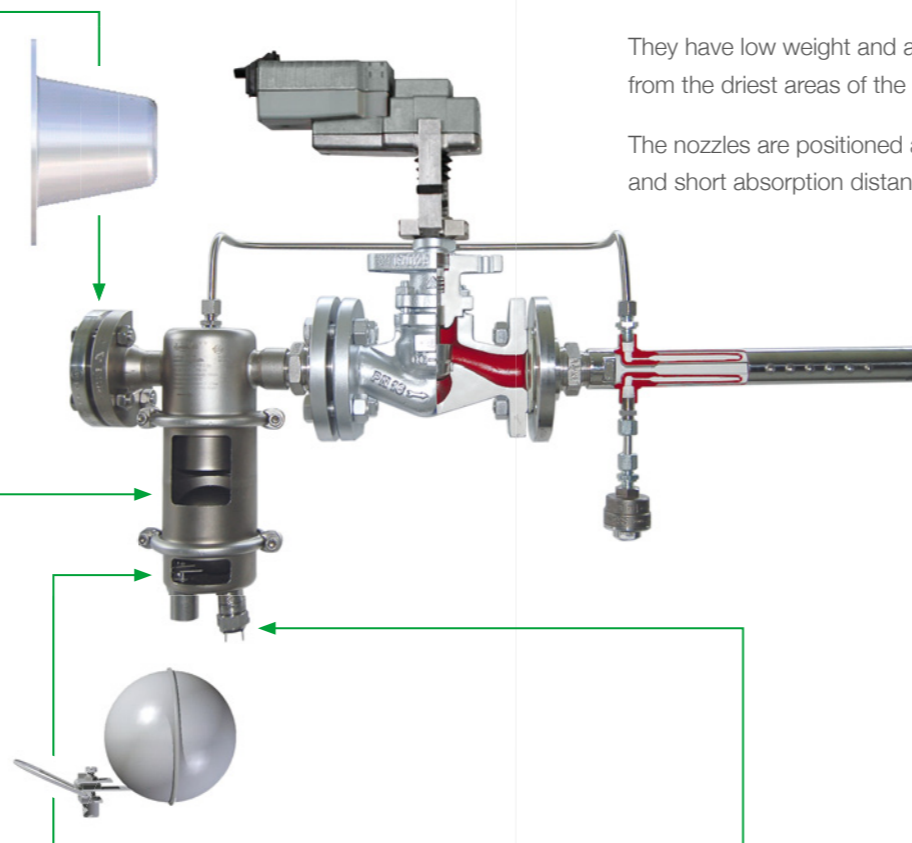
The internal fine-mesh strainer can be exchanged when necessary.

### High performance separator

The stainless steel separator separates steam from condensate using a spiral shaped guidance system. The low weight and compact closed system makes the HygroMatik DDS easy to install and energy efficient.

### High performance condensate drain

The robust, tight-sealing, ball-float condensate drain discharges condensate. Due to the fast-reaction operating principle and high capacity it can handle large amounts of condensate which are discharged away, for instance when starting the system. The closed system prevents steam loss.

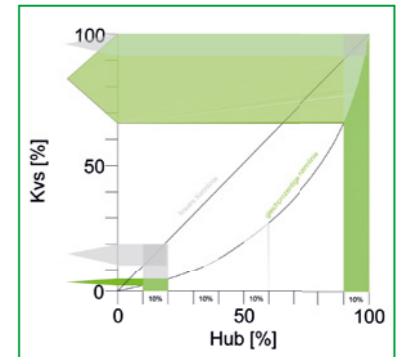


# Optimum regulation

The bus compatible actuator ensures optimum control. Direct connection – no adapter involved.

The special metal-to-metal or soft sealing HygroMatik valve controls the steam flow via valve-lift with percentual characteristic curve. This means

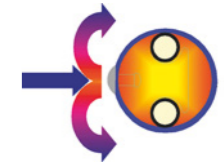
- especially fine control in lower ranges
- rapid reaction for high humidification requirements in higher ranges



# Stainless steel steam lances

They have low weight and are easily installed. Low-noise steam nozzles take steam from the driest areas of the steam lance.

The nozzles are positioned against the air-flow direction which ensures fast distribution and short absorption distances.



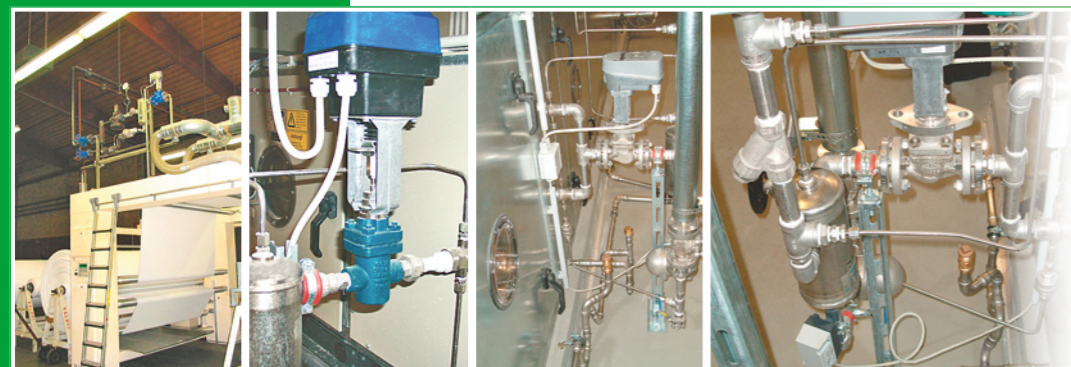
# The internal, closed system steam lance heating system

It is located at the lowest point of the steam lance so that any possible condensate can be vaporised immediately. The light and maintenance-friendly thermal condensate drain discharges condensate out of the heating system. The heating system is supplied directly from the separator or, alternatively, from a separate steam supply.

- Space-saving through internal heating system
- Rapid regulation during start-up through pre-heated steam lances
- No air-flow heating

### Reliable start-up safety feature

The start-up safety feature switches in humidification only after a specified temperature has been reached. This effectively prevents condensate ingestion from the steam network into the air-conditioning duct.



### Flexible

All DDS components are light, simple to install and can be individually configured. It will fit anywhere.

### Our service for you

- HygroMatik distributors in more than 45 countries worldwide
- Technical hotline: +49 4193 895-293 or hotline@hygromatik.com
- Manuals and information material at www.hygromatik.com

