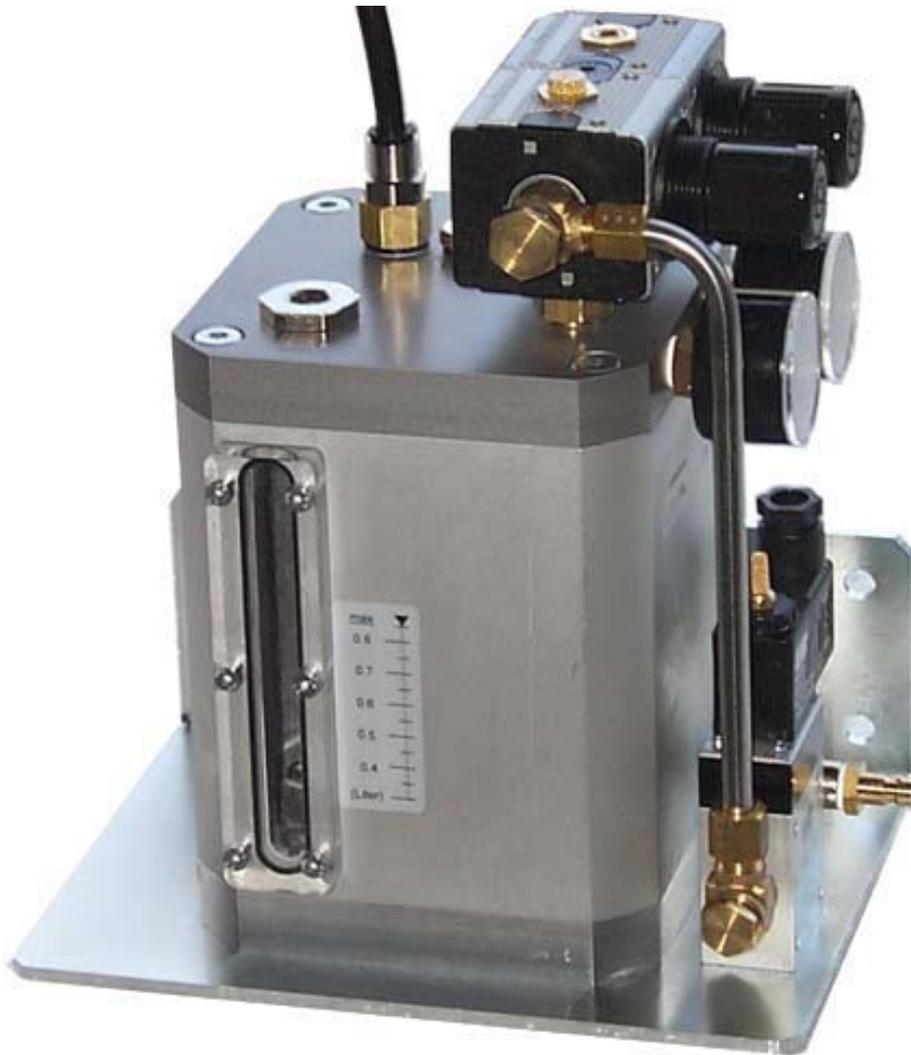




PSD 250 Minimum Lubrication System



For lubricants in the 1000 mm²/sec viscosity range

unimex Nv.

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PSD 250 Spray System



Minimum lubrications system for the external feed of paste-type products

Use

Formdrill with 1 and 2 spindles simultaneously

Features

- For use with paste-type lubricants in the viscosity range 1000 mm²/sec
- Sight glass facilitates the use of high-tack products
- Delivery of the products from a pressurised reservoir without the use of pumps or other moving parts
- Coaxial feed pipe to the nozzle, with separate ducts for medium-pressure air and spray-pressure air
- Electrical control with solenoid valve
- Automatic circulation of the lubricant in the reservoir, using a ventilated reservoir base, allows the use of products containing solid lubricant particles.

Operating principle

Under controlled delivery pressure, the lubricant is directed from a pressurised reservoir via a differential pressure metering device and into a coaxial pipe, where it is mixed with compressed air and ejected through a nozzle. The low pressure atomisation at the outlet from the nozzle produces a consistent, uniform spray pattern. The spraying air can be adjusted with the aid of a pressure regulator.

Advantages

No moving parts to wear out
Straightforward installation
No drips
Very fast setup

Typical applications

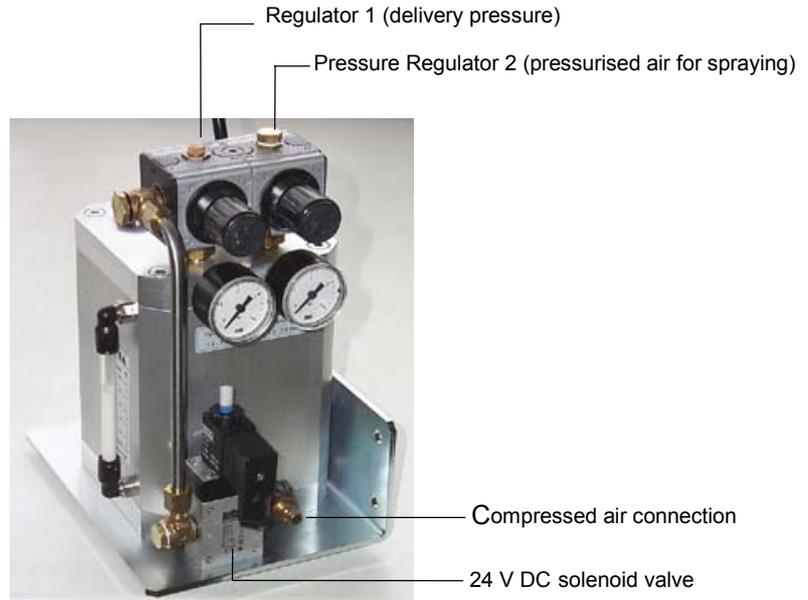
Formdrill on numerically controlled machine tools
Formdrill in automated production plants
Formdrill on vertical drilling machines for longer production runs

Instructions for setting up the system

Once the device has been filled, the feed hoses to the nozzles must be filled with lubricant.

To do this, on **Pressure Regulator 1** set the **delivery pressure to 2 bar** and, on **Pressure Regulator 2**, set the spraying pressure to **≥1.5 bar**. Allow the device to operate continuously for at least 5 minutes in order to ensure that the hoses are completely full.

Important: The same procedure must be followed if the level in the device falls below the minimum setting..



Coaxial feed pipe to the nozzle

Filler plug

Transverse drillings for venting



WARNING: Never open while the device is in operation.

FILLING THE DEVICE The device can only be filled while it is switched off. In this condition, the reservoir is not pressurised. Maintain cleanliness while filling the device in order to prevent the ingress of foreign bodies due to contaminated funnels or lubricant.

Fill the reservoir to the maximum permissible level. Note that, with highly viscous lubricants, there will be a delay before the actual level is indicated. **For this reason, the top-up quantity must always be measured beforehand.**

The maximum permissible level for the PSD250 is 1.8 litres.

MIXING

simultaneously for all connected nozzles

Volume of lubricant: Pressure Regulator 1 set to the range 0 to 3.0 bar
Pressurised spraying air: Pressure Regulator 2 set to the range 0 to 3.0 bar

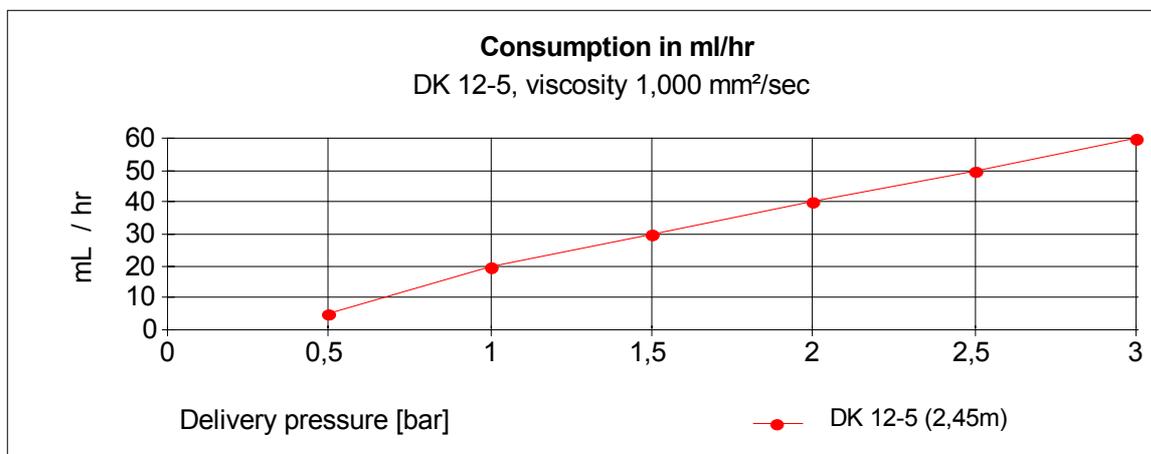
Any alteration to the lubricant/air mixing ratio by varying the delivery pressure will only take effect after the device has been running for a period equivalent to 1 to 2 minutes per linear metre of feed hose. The same applies when the device is used for the first time.

Important note regarding rapid shutdown of the device

If the settings for the delivery pressure are altered, the hysteresis of the regulator must be taken into account, i.e. in the case of a deliberate reduction in pressure, the regulator must be set to a lower value (preferably 0 bar); the required pressure should then be set by adjusting the regulator to a higher value.

FACTORY SETTINGS and STANDARD VALUES

Valid for lubricant:	Unimex 1000 cts	
Feed pipe length:	2.45 m	
Recommended values:	Delivery pressure, liquid:	2.0 bar
	Spraying pressure (spraying air):	1.0 to 1.5 bar
	Spraying period:	2 sec.



Operating instructions

The PSD 250 Minimum Lubrication System is a spraying and metering system for high-viscosity lubricants in the viscosity range around 1000 mm²/sec.

The consumption of lubricant is solely dependent on the delivery pressure, as well as the type of lubricant used and the factory setting (the type of metering heads installed and the length of the feed pipe to the nozzle).

The air vent in the base of the device prevents the accumulation of solid particles from the lubricant.

The PSD 150/250 Minimum Lubrication System does not have any moving parts and, subject to the following conditions, it is maintenance-free.

ATTENTION :
<ol style="list-style-type: none">1. Do not use any other lubricants besides Formdrill FDKSO-FSP2. Avoid over-filling Observe the maximum and minimum filling levels.3. The device should not be tipped over when it is full of lubricant4. Before the device is filled, any impurities in the lubricant must be filtered out.5. Do not use with highly flammable liquids.6. Do not direct the spray nozzle towards the face or towards any source of ignition.7. Only use dry and filtered compressed air.8. Observe the mixing ratios indicated on the side of the device.

MOTIVE POWER / ELECTRICAL SUPPLY

ON / OFF: 24 V DC solenoid valve / permanent signal
(compressed air feed)

Spraying period: ≥2 seconds

Compressed air supply: 5 to 6 bar dry, filtered to ≤50 microns

INSTALLATION INSTRUCTIONS

An unobstructed space of at least 300 mm must be left above the device to allow for filling.

Technical data:

Dimensions	PSD250: W x H x D = 220 x 350 x 160 mm
Capacity	PSD250: 1.80 litre
Control	ON / OFF: electromagnetic (solenoid valve)
Total air flow volume	DN 1.0 per nozzle
Compressed air supply	5 to 7 bar, dry and filtered
Service pressure	0.5 bar to 3.0 bar
Accessories / option	<ul style="list-style-type: none">• Magnetic bracket for spray mechanism• Pressure monitoring

An unobstructed space of approx. 300 mm must be left above the device to allow for filling

