

LUBRICANTS AND MICRO-LUBRICATION SYSTEMS

- **Clean and safe workplace**
- **Minimum lubricant consumption**
- **Avoid clean-up and disposal problems**
- **Suitable for many machining applications**

MICRO-LUBRICATION SYSTEMS

DREX PALLOTTI S.R.L. supplies DREX-LUBE® systems for micro-lubrication composed by sectional modular units or dispensers with various nozzles that can be connected to pneumatic or NC circuits easily and with the right suitability. All systems can be realized in different versions and for dispensing different kinds of lubricant, depending on the customer requests.

PERFORMANCES

Lubrication thru micro-dispensing is an innovation in metal-cutting. Generally, for the various machining applications, the operator used big amounts of cutting coolants, contrary thanks to the micro-lubrication there is a daily consumption of only about 30 cm³ of coolant. In order to obtain the micro-lubrication, special dispensing systems must be used. DREX-LUBE® dispensers work due to a combination of coolant's volumes and timed dispensing cycles suitable for obtaining a fine supply. The key of the system is to dispense the right requested amount of coolant needed for obtaining a satisfied working.

All in excess has to be considered a waste. The micro-lubrication can be applied at many metal-cutting operations and it is more efficient when the part of the tool to be lubricated is located outside the cutting area. This situation can be noted in working operations such as milling, grinding and sawing. Besides it can be applied for operations as drilling, tapping and reaming. The lubricant must be supplied on the tool's cutter in order to be more efficient. When it is rightly dosed, cutting speed, feed and tool's life take a great advantage from its.

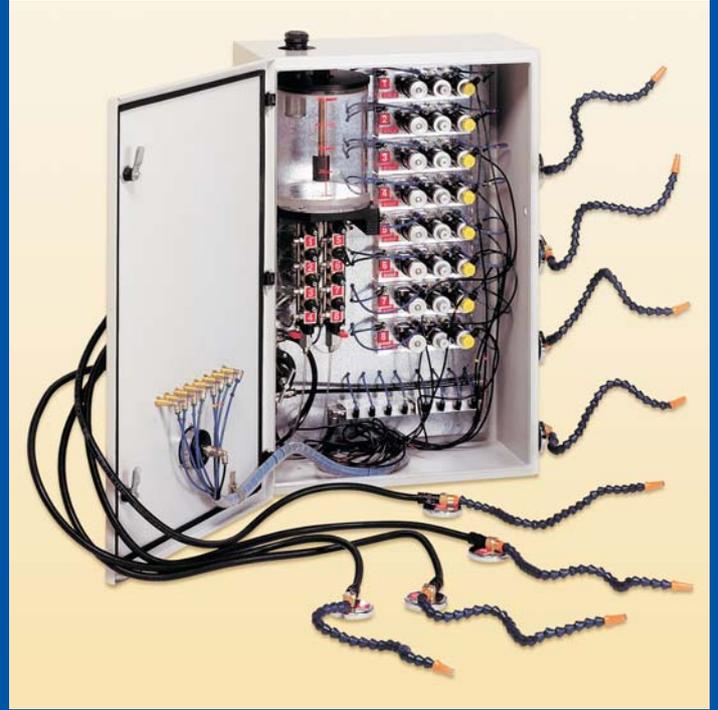


SYSTEM 900

It is a complete plant for micro-lubrication, to apply at many types of tools machines, to connect to pneumatic or NC circuits easily.

GENERAL FEATURES

- The plant is assembled in metal boxes of various dimensions.
- Composed by 1 up to 20 injectors actuated all by a single signal or singular by a solenoid valve of 110 V or 24 V.
- Reservoir with 1 Lt capacity or 3 Lt capacity with or without level gauge.
- Protected coaxial hose with a length of 3 Mt (other lengths available on request).
- Filter regulator group with gauge.
- Nozzles mounted on flexible modular hose with a length of 400 mm (other types of nozzles available on request).
- Input G 1/8" or G 1/4" .
- Pressure: 4-8 bar.
- Temperature: 5° -50° .



SYSTEM 800

This compact system for minimal lubrication is composed by modular pneumatic controlled elements suitable for dispensing coolants with a right amount and with a controlled frequency. With the standard system 800 below mentioned it is possible to meet the requirements for many applications.

System 800-1

Single nozzle controlled by a manual ON/OFF device. It can be supplied with 2,3 or 4 nozzles: please mention the number of requested nozzles.

(Example: 3 nozzles system part number 800-3)

System 800-1-E

Single nozzle controlled by a solenoid valve 110V 50-60 Hz or 24V CC.

It can be supplied with 2,3 or 4 nozzles: please mention the number of requested nozzles and the requested voltage. (Example: 3 nozzles system part number 800-3-E 24 CC)

DESCRIPTION: It is a compact system, pneumatic controlled, suitable for dispensing the coolant on the tool's cutter with a right amount and with a controlled frequency. It is a cheap solution for the problems caused by waste disposal created by using lubricants in big quantities. If used in machining operations the system 800 send a right quantity of lubricant and air directly on the tool's cutter. The system can be manually actuated thru an ON/OFF device or thru a solenoid valve, integrated in the system. This allows at the system to be interfaced with outside devices.



SYSTEM 890

System 890, shown aside, has been designed for supplying the customers with a standard version suitable for the minimal lubrication, supplying also the more requested options like standard features.

This system sends a controlled casting of coolant and for its working only a pneumatic ON/OFF signal is requested. The system's heart is a modular volumetric pump for using easily multipliers up to a maximum of four, with the possibility of 45 different settings.

Normally the system is supplied with a nozzle installed on a modular flexible plastic hose with a length of 305 mm. The reservoir with 1 Lt capacity, the magnetic base and the additional hoses for the nozzles can be supplied on request.

It is possible to assemble up to four nozzles, each nozzle can be adjusted individually obtaining a right dispensing. Thanks to its flexibility it is possible to design the most suitable system for meeting the customer's requirements in the cheaper way.

GENERAL FEATURES

- Big dispensing of right quantities of coolant.
- Modular design easily to suit.
- Nozzle assembly designed for a easy maintenance.
- Tested volumetric pump.
- Adjusted air quantity needed for the nozzles.

TECHNICAL FEATURES

Nozzle: mounted on modular flexible plastic hose with a length of 305 mm.

Additional hose for nozzles: in PVC with a length of 2000 mm, additions of 1000 mm available.

Reservoir: 1 Lt capacity.

Input: 1/8" G.

Pressure: 4-8 bar.

Temperature: 5° -50°.

BENEFITS: high clean of the working place; dispensing of big and right amounts of coolant; direction of the coolant rightly at the working place; every nozzle can be controlled individually.



SYSTEM 910

This modular system has basically used on special lines or machines. It is composed by a reservoir for the lubricant with a capacity of 3 Lt and completed with level gauge.

The injectors are directly applied on the reservoir; every injector is operated by its own modular device composed by a 24 V CC solenoid valve, an impulse generator and a flow regulator for setting the air quantity to the nozzles.

It is possible to assemble a maximum of 10 injectors.



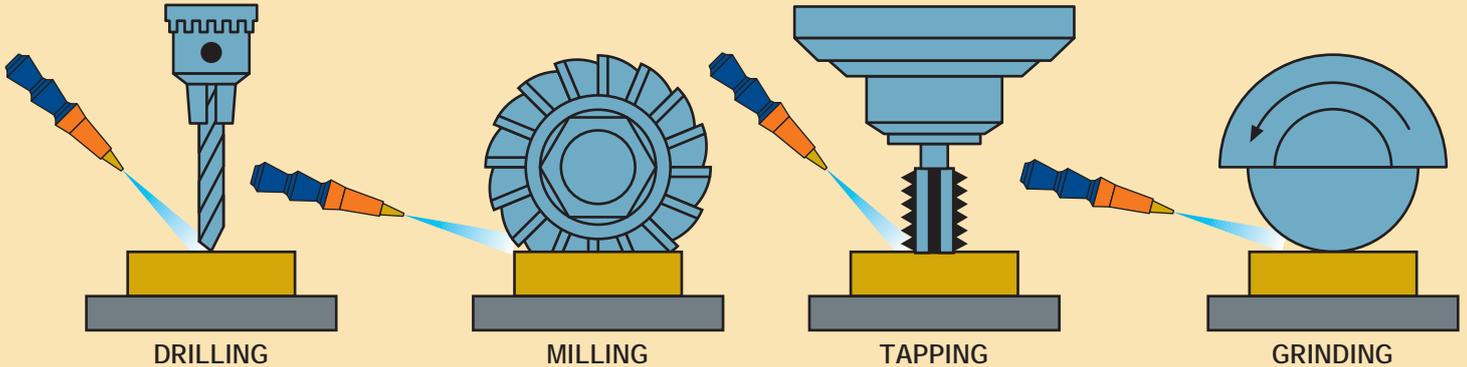
APPLICATIONS EXAMPLES

Drilling-reaming-tapping: for obtaining an efficient cooling and keeping the tool always clean by chips, direct the coolant's casting rightly on the tool.

Milling: the coolant has to be directed to the cutters entering in the cutting area.

Use a single nozzle for small removal operations, for deeper removal operations (more than a half of the tool's circumference) use two nozzles.

Grinding: direct the coolant directly on the grinder so that it has carried on the cutting surface, in order to obtain a good finishing and a clean place.



LUBRICANTS

DREX-LUBE® lubricant is designed to be used with DREX-LUBE® dispensing systems or other advanced micro-lubrication equipment. Thanks to its use the operator can experience more effective machining productivity and savings in fluid costs, while eliminating toxicity, waste and disposal problems.

Features

- A high lubrication factor that minimizes friction.
- The quality of clinging to tools throughout the cutting operation.
- The ability to transfer heat to the chips instead of to the tool thus increasing tool life.
- It is enough to use a small amount (30-60 gr. for 8 working hours) to be efficient.
- Unlimited shelf life.
- Do not attack metals, plastics or paints.

Applications

DREX-LUBE® vegetable-based high-performance lubricant can be used for milling, drilling, sawing, broaching, tapping and grinding operations. It can be used both on ferrous and non-ferrous metals included stainless steel, Inconel, nickel alloys as aluminium, brass, copper, titanium, bronze.

DREX-LUBE® lubricant has to be used complete, do not dilute its.

Safety

- Zero toxicity, the lubricant contains no petroleum or derivatives.
- Non-flammable and non-corrosive.
- Hypoallergenic and do not support the bacteria which cause dermatitis.

Packaged in cans.

