INDULUBE®

TP4 Microspray

High quality, minimal lubricating units developed and produced in Denmark

No water-emulsion - From 3-6 gram of oil per hour!

Indu-Lube® **TP4**: A minimal-lubrication-system used when cutting and milling metals. The TP4-unit replace the use of waterbased emulsion, in order to avoid Your wellknown disadvantages from emulsion on workpieces and machines. Leaves workpieces clean and dry, ready to be processed again without delay or needs for cleaning and drying.

Development and production of minimal lubrication systems since 1989. You are offered a wellproven lubricating system, adaptable to your individual assignment. And - We are happy to deliver directly to You, worldwide.



Indu-Lube® TP4-EA

INDU-LUBE® TP4:

ting cutting and lubrication oil. Typ. 3-6gr. oil/hour. Lubricant is applied to the tool as a continuous, fine oilmoisted spray, by means of a low-volume airstream, thereby preventing irritating aerosol effect.

Lubricating unit for distribu-

TP4-EAR is equipped with internal monitoring of the lubricant and refills automaticly when oil-level is low.



Indu-Lube® MS-3000

INDU-LUBE® lubricant

A vegetable based, biodegradeable oil, all free of additives. Its viscosity and excellent adhesive capability ensures perfect lubrication, by reducing the heat-creating friction between tool and workpiece. The very modest consumption makes this oil most economical. MS-3000 catagorises as harmless.

Reg. nr. 869874 by Danish National Institute of Occupational Health.



INDU-LUBE® block-nozzles

Optimizes the lubrication of the tool, by applying a smooth spray, excactly where the friction between tool and workpiece is the largest. We market a large variety of block-nozzles. Our block-nozzles intended for band- and cirkular sawingblades offer unik efficiency in lubrication. Optional versions for different tasks available.

Individual designs to be manufactured upon request.

Metalworking with as little as 3-6 gram pure, vegetable based oil an hour.

- Dry workpieces, chips and machine
- Prolonged tool lifetime
- Less cleaning of materials and machines
- Vegetable based cutting oil, no additives
- No inconvinience from smoke or smell
- No cleaning necessary prior to welding
- No emulsion with bacterias or fungicides
- No disposal of used emulsion

Lubrication units adapted to Your individual assignment.

Also in our program: Drop-lubr., Lubricants, Flowdrill®, cold-form thread tapping

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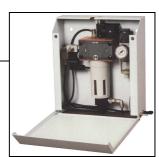
INDU-LUBE® **type TP** is an environmental friendly microspray system for lubricating processes when cutting and moulding in steel and non-ferrous metals.

Type TP is used for applying lubricant and performs efficiently down to as little as 3-6 grams/hour. TP units provide lubrication with oil-moisted air, all free of irritating aerosol effects. The system is most environmental friendly and especially suitable for:

- Sawing tubes, pibes and profiles.
- Drilling and tapping in light applications/smaller sizes
- CNC and deep-drilling, applied internally through machine spindel
- Milling and grinding, light applications

Indu-Lube® TP4

- Manual oil-level control. Internal bowl containing 160 cm³ lubricant.
- Manuel refilling by depressing a button. Refills from cannister placed below unit.
- Steel casing (LxBxH; = 270x100x300 mm), colour RAL-7035 Gray.
- Voltage (by choice): 24V AC, 24V DC, 110V AC, 230V AC / 0,4A ~10W
- Air: 5 bar 25 l/min.



Indu-Lube® TP4-EAR

- Equipped with build-in level control and automatic, electronicly controlled refilling.
- Simple to install, only need compressed air and on/off signal from machine
- Easy to use. Hardly any maintenance necessary.
- Steel casing (LxBxH; = 270x100x300 mm), colour RAL-7035 Gray.
- Voltage (by choice): 24 V DC, 24V AC / 0,8A ~20W Internal on/off/refilling switch. Air: 5 bar 25 l/min.

Indu-Lube[®] TP4-Junior

- TP4 unit intended for internal mounting (less the steel casing)

Indu-Lube® TP4 Microspray units include water separation unit, separate controls for regulating pressure, oil- and air-flow, as well as hoses, filter and our manual booklet of installation and use (available in 3 languages: GB, DE and DK). Indu-Lube® TP4 units are supplied in compliance with the EU-Machinery Directive and are CE-certified.

Our TP4 units are tested prior to delivery. If Your specific lubricating task is wellknown to us, we can preset the Indu-Lube[®] TP4 accordingly, offering an even easier initiation.

We highly recommend the use of Indu-Lube® MS-3000 for all basic lubricating needs.

Indu-Lube® - Your chance to ensure a better environment.

Indutek/Danish Tool Systems supply You with:

TP-type microspray-units for minimal-lubrication, P-type drop-lubrication units, vegetable-based, hydrocarbon-based and 100% evaporating cutting oils.

Agent and supplier of Flowdrill® frictional drills and cold forming tapping tools.