

individual

Viscosity

The fluids presented here show up the viscosity range in which HPM Technologie minimum quantity cool lubricating systems work.

The gradation is selected in such a way that the borders between the function principles TC and MDJ as well as the possible viscosity area for use with the trickling doser (JOP) are shown up.

Viscosity at 20°C	at 40°C	Fluid (Examples)	
1 mm ² /s		Water	TC
41 mm ² /s		Concrete separating	
100 mm ² /s	35 mm ² /s	Cutting Oil	
101 mm ² /s		Mineral Oil	MDJ
300 mm ² /s		Motor Oil (Diesel)	
400 mm ² /s		Silicon oil	
640 mm ² /s		Deep drawing oil	
2300 mm ² /s	500 mm ² /s	Deep drawing oil	
			JOP
			1000 mm ² /s at 20°C 240 mm ² /s at 40°C

individual

Demomobile

Spraying, trickling, cleaning – on the road:

In our demonstration mobile we can present to you right on the spot our complete range of products. The most varied configurations from our business can be presented to you at our vehicle – or even more tangibly right at your machine – from the minimum quantity spray system right up to the NSW hot cleaner and if we can convince you there and then we will set up for you your new minimum quantity spray system immediately.



spraying | trickling

The solution precisely for the target



HPM Technologie GmbH
spraying · trickling · cleaning

precise | modular | individual

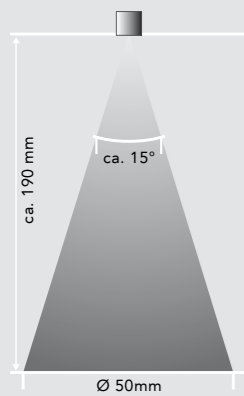
The spray heads and complete devices shown in this brochure are only an extract from our standard range of products. In addition, we also offer individual special constructions – adapted to the installation situation and task in question.

HPM spray heads can be used with all the liquids customary in the trade. Exceptions: varnishes, resins, adhesives.

Modular

 in innumerable variants, precisely tailor-made to match you.

Consumption values



Example **Spray head**

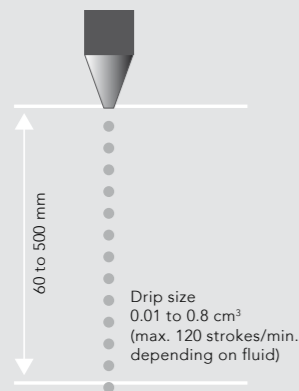
Air consumption per nozzle:
at 0.5 bar 2 l/min.
at 1.5 bar 4 l/min.
starting at 1.5 up to 2.5 bar 5 l/min.

Consumption value with water:
from 0.04 to 4.2 l/h depending on nozzle combination

All nozzles generate a complete cone and a cone angle of about 15°, depending on the fluid structure.

Example **JOP Trickling doser**
Viscosity range
up to 1000 mm²/s at 20°C
up to 240 mm²/s at 40°C

Working pressure:
depending on viscosity
of the fluid: 4 to 6 bar



Drip size
0.01 to 0.8 cm³
(max. 120 strokes/min.
depending on fluid)

Faxreply +49 7381 9344-88

Yes, I am interested in your offer.
Please give me a call.

Company _____

Department _____

Contact partner _____

Street _____

Postcode/town _____

Telephone/Telefax _____

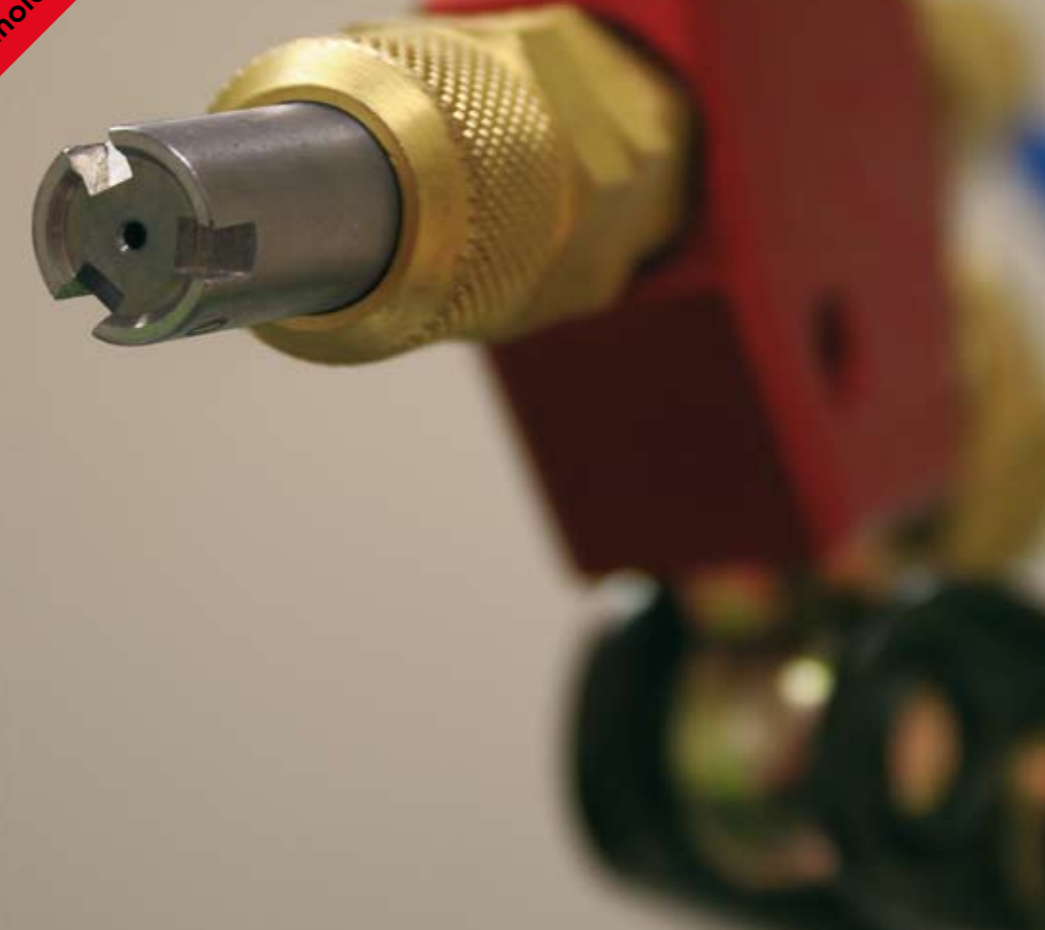
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HPM Technologie GmbH
spraying · trickling · cleaning

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Product configurator
on the Internet
www.hpmtechnologie.de



For 60 years now, the name of HPM Technologie has stood all over the world for the construction of highly modern plant in the area of minimum quantity spray application, trickling application and cleaning technique. Thanks to a modular set-up, our systems for universal use can be adapted individually to any task – for purposeful application of any fluids to surfaces or to three-dimensional bodies.

The highly technical minimum quantity spray systems and nozzles, which are produced in our own development, excel thanks to their highly precise and consistent way of working. In this way, thrifty and environmentally beneficial dealing with fluids of various properties is ensured.

For precise mechanical use in trade and industry, HPM Technologie GmbH offers high-quality fluids in variable package sizes. With outstanding lubrication properties and maximum degrees of evaporation with minimum toxicity, they even do justice to the highest demands of sophisticated processing methods.

Convince yourself.

modular

Modular in innumerable variants

Container

PE-containers of TC series are available in 3 sizes (TC with 1 connection: 2.5 litres; TC with 3 connections: 5 litres; TC with 6 connections: 10 litres). For fluids with low viscosity (up to 100 mm²/s) the container is fitted directly to the valve module as a compact unit.

A special steel pressure container with a capacity of 10 litres is applied with the MDJ series for higher viscosity fluids.



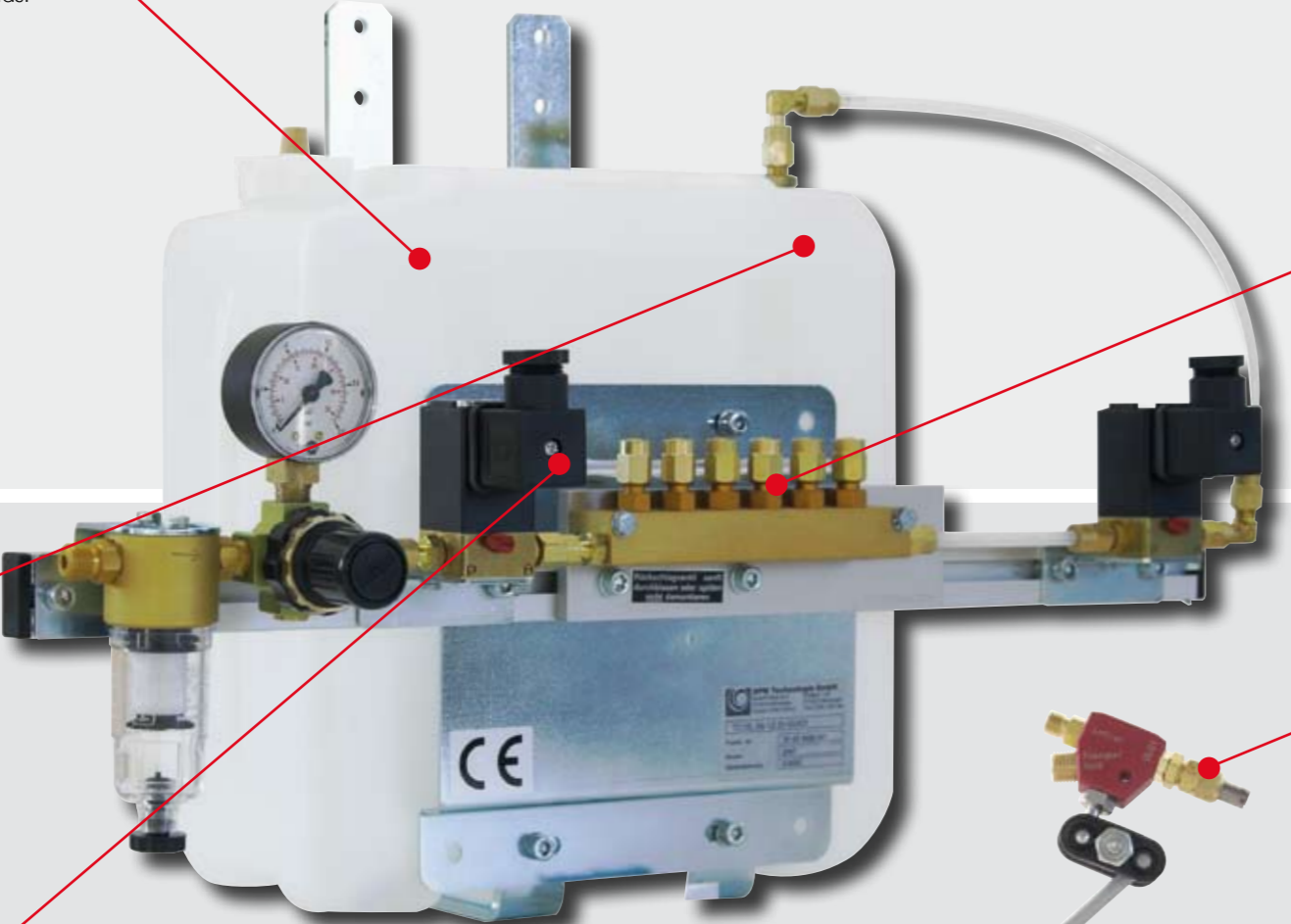
Series MDJ with 10 litre special steel pressure container

Connection possibilities

Standard modules of series TC and MDJ are supplied with connection possibilities for one, three or six sprayheads. When delivered, connections of spray air and fluid are closed. We are pleased to develop individual customer's specifications for connections in excess of six sprayhead groups.

Spray head, trickling doser, nozzle bar

HPM's knowledge and many years experience in minimum quantity technology are reflected in all its spray heads and nozzles. For every area of use and for every assembly situation we have the ideal spraying solution. You will find a small selection from our programme in the overview on the right hand side.



The figure shows an example of a valve and container module with 6 connections, 10 litre PE container and electric 24V DC activation (Article number: 50 00 0006.001)

Level control (filling of container)

Level control by means of an in-built float switch. Evaluation by customer.

Activation

Standard modules of series TC and MDJ are supplied with 24V DC valves. Pneumatic activation and other electric valve voltages are available upon request.

Mounting

High quality and solid mountings bring the spray head into position to within a millimetre. As standard equipment there are up to four lever arm clamps, three lever arms and a strong magnetic foot. This ensures that places that are difficult to access can be reached, even around corners.



The figure shows an example of a complete spray head module consisting of a PTRB50 spray head and a three-part magnetic foot lever arm (Article number: 32 37 0000.001)

spray heads

For every area of use

The selection of the spray head depends on the application area and in particular, on the conditions under which the machine is to be used. In many cases the deciding factors are the room conditions, the feed line direction for the fluid and also the ambient temperature. Our technical staff have many years experience in minimum quantity technology and will find the ideal solution for your workplace.

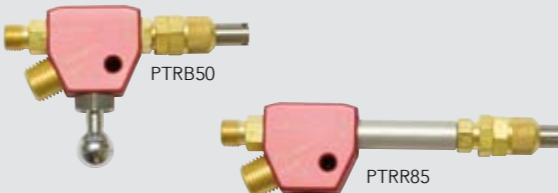
Our sprayheads are available in series B and R. This is recognizable by the last letter of the product's name, e.g. PTRB. Series B is supplied with a ball connection piece for assembly to a HPM support. Series R is supplied with a thread for assembly to the customer's appliance.

Areas of use in general:

Bevelling, bending, drilling, turning, pressing, fine processing, milling, joining, thread cutting, assembly technology, pressing, rubbing, sawing, cutting, welding, spatter pouring, riveting, separating, deep drawing, shaping, coating, conservation.

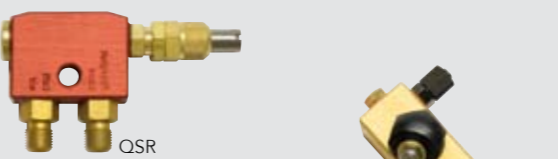
PTR

Universal sprayhead, tough, suitable for every application. Large channel diameters and direct feed, therefore particularly suitable for use with critical and thick fluids. Flow quantity can be adjusted at the front of the nozzle. Different length adapters are available for the front nozzle. Application: universal.



PSM

Smallest sprayhead. Suitable for restricted assembly situations. Flow regulation from the rear. Feed at 90° from rear of spray jet. Application: universal.



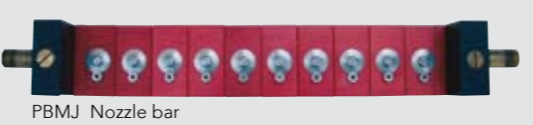
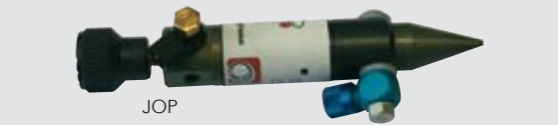
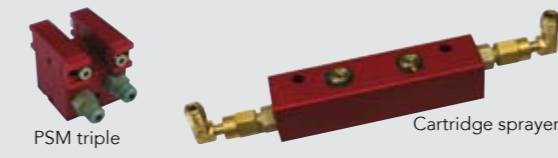
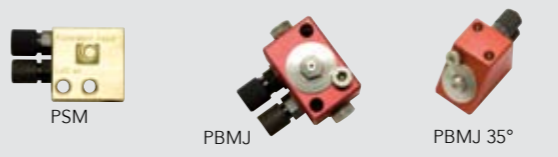
PCJ

Spray head equipped with a nozzle head adjustable 360°. Flow regulation at the front, at the outlet of spray jet. Suitable limited only for viscous, strongly adhesive fluids. Application: universal. PCJ double has 2 spray spots. Application: universal, sawing.



JOP

Areas of use amongst others are threading, thread boring, thread forming, lubrication of floating bearings.



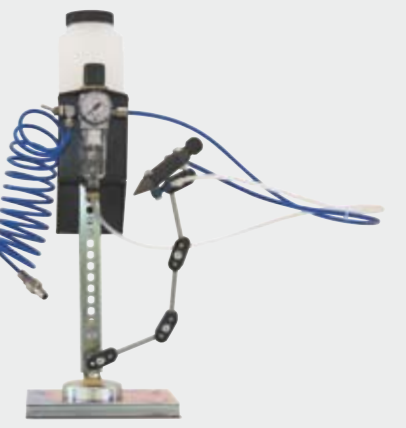
precise

ProfiKompakt

For everyone who wants to spray or trickle in a quick, flexible and uncomplicated way, we have our ProfiKompakt system in our programme. You simply choose one of our spray heads and state the container size. The appliances can be used everywhere and must simply be connected to a compressed air line and are immediately ready to use.



The figure shows an example of a ProfiKompakt with a 1 litre PE container and a PTRB50 spray head (Article number: 46 01 1000.001)



The figure shows an example of a ProfiKompakt with a 1 litre PE container and a JOP trickling doser (Article number: 46 01 6000.001)

Cooling lubricants



SURVOS Standard
Special qualities:
Evaporates without leaving any residue
High lubricating capacity
Low evaporation rate

SURVOS Standard is suitable for virtually all applications and is recommended for sheet metal processing, metal cutting and assembly engineering.



SURVOS Rapid D
Special qualities:
Evaporates without leaving any residue
High lubricating capacity
Very high evaporation rate

SURVOS Rapid D evaporates more rapidly than the "Standard" formulation (but provides a slightly reduced lubricating capacity).



SURVOS Plus L
Special qualities:
Evaporates without leaving any residue
High lubricating capacity
High evaporation rate

Fulfils the strict legal requirements of the FDA US regulations for products used in the Food Industry according to 21 CFR 178.3620 (b) and 178.3120. The active agents used are approved according to 21 CFR 178.3910 as a surface lubricant for deformation of sheets or strips of metal, in the manufacture of objects which come in contact with food.*



SENTOS V-LR3
Special qualities:
Evaporates leaving a residue of just 3% (residue not visible and tangible)
Highest lubricating capacity
Volatile components
High evaporation rate

Fulfils the strict legal requirements of the FDA US regulations for products used in the Food Industry according to 21 CFR 178.3620 (b). The active agents used are approved according to 21 CFR 178.3910 as a surface lubricant for deformation of sheets or strips of metal, in the manufacture of objects which come in contact with food.*

* Confirming expert report from Institut Nehering, Braunschweig, July 2006