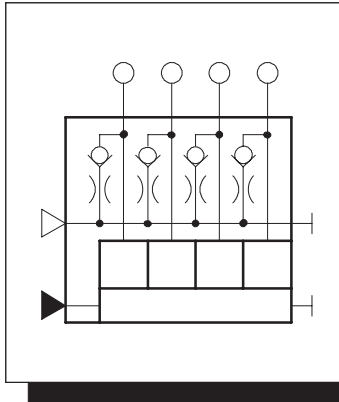


Zentralschmiertechnik BAIER + KÖPPEL

The oil/air mixing distributor is especially used to lubricate antifriction bearings with high "dm x n" r.p.m. identification results. At his lubrication system is immediately by the lubrication point a measured oil volume supplied to a stream of air in time intervals and sprayed to the scraping place.

The classic range of use is by the results "dm (average bearing diameter) x n (r.p.m.) = 4×10^5 up to $1,8 \times 10^6$.



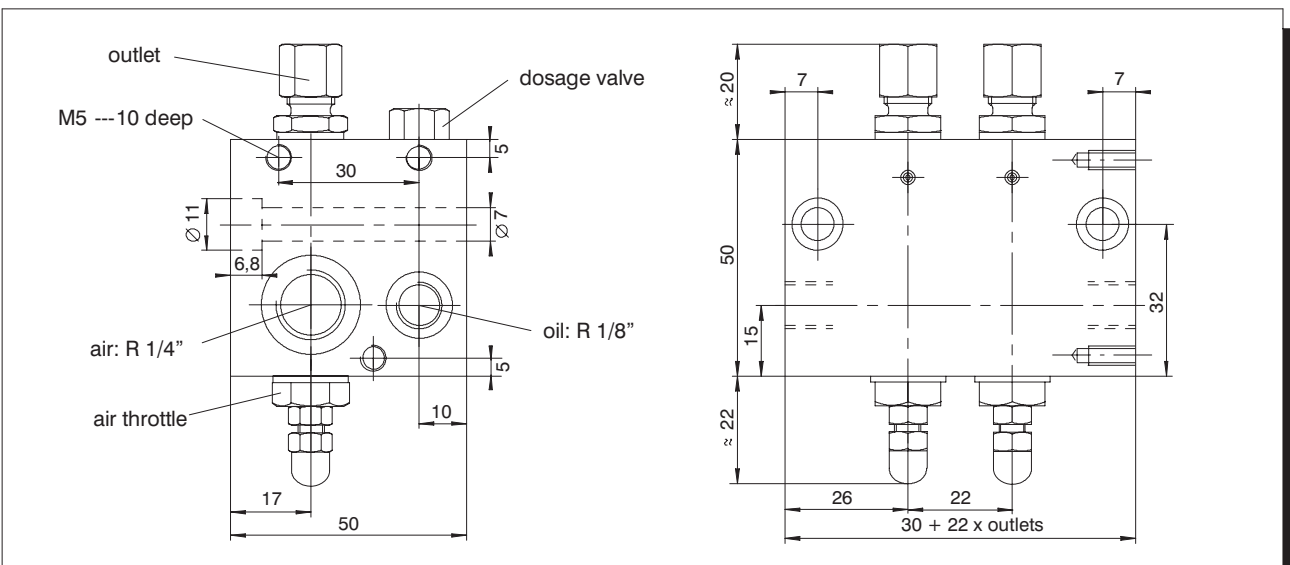
OIL/AIR MIXING DISTRIBUTOR

- noo il fog
- low bearing temperature
- low productivity loose
- smalll ubrifant consumption
- big viscosity range
- simple bearing sealing
- no get in of water andd irt into the bearing

Technical Details

on the part of oil	dosage valve
dosage volume	look like the diagram
control pressure	> 10 bar
adm. excess pressure	< 50 bar
relieving pressure	< 1 bar
medium	oil

range of viscosity	50 up to 700 cSt
range of temperature	+ 5 up to + 60° C
on the part of air	air throttle
operating pressure	> 1 bar
adm. excess pressure	< 10 bar
material	housing Al



Description for ordering

mixing distributor **4089 . 2 . 4 . 03 .000**

number of outlets 1 up to 6

type of outlets pipe dia. 4 or 6 mm

Dosage volume, code 03 up to 16

(In case of mixedd osing volumes, state indicative figures separately, and starting them on the left--hand side:)

Special variant

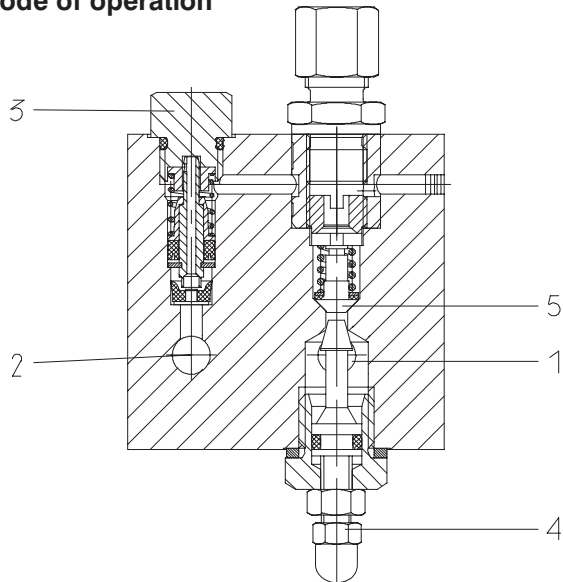
Dosage volume

size	mm ³ / pulse
03	30
06	60
10	100
16	160

---1---

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Mode of operation



At work of the system compressed air is permanently and regular supplied by connector 1. The adjustable

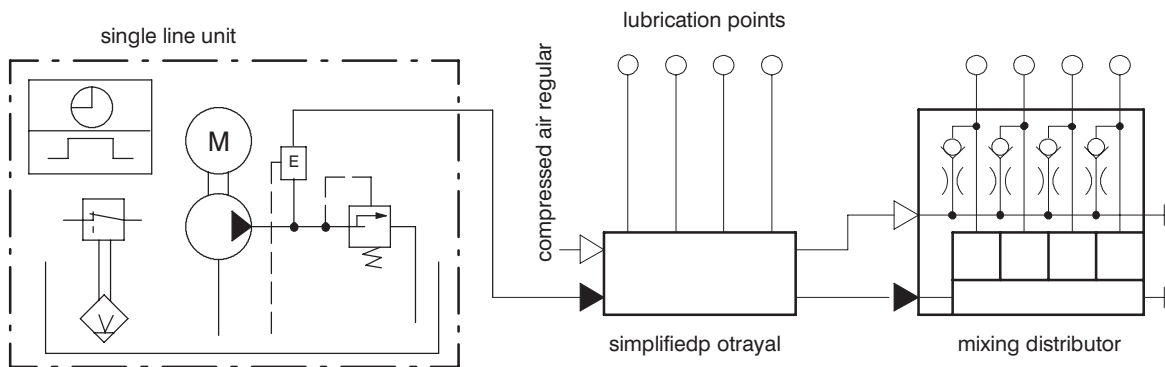
pressure has to be determined during work. Experience shows that the necessary pressure has to be 1,5 up to 4 bar. In time intervals the connector 2 has to be set under oil pressure. In course of this effects by the dosage valves, whose dosage volume is defined by the dosage screw 3, an oil dosage into the stream of air.

The oil drop, splitted up by the stream of air is treatable stretched at the pipe wall and carried to the lubrication point in flow direction of the stream of air. A spray on the rolling element happens direct at the scraping point through a nozzle typed narrowing. By regulation at hrottle 4 the stream of air has to be adjusted that the oil is coming out at the scraping point regular without interruption.

The non return valve prevents that oil reaches into the compressed air supplying. The lubrication point pipeline generally a tube with dia. 4 mm should have a minimum length of 0,5 m. The pipeline should be spooled spiral for preventing a return flow of oil into the the lubrication point pipeline.

Using a transparent pipeline makes possible to watch the oil during the transport.

example for system



design advices

The lubricant quantity which is especially necessary at the scraping point is dependent from the type of bearing, breadth and bearing line number. The recommended value, for definition of the maximum oil quantity could be assumed by the following formula.

$$Q = d \times W \times A : 250$$

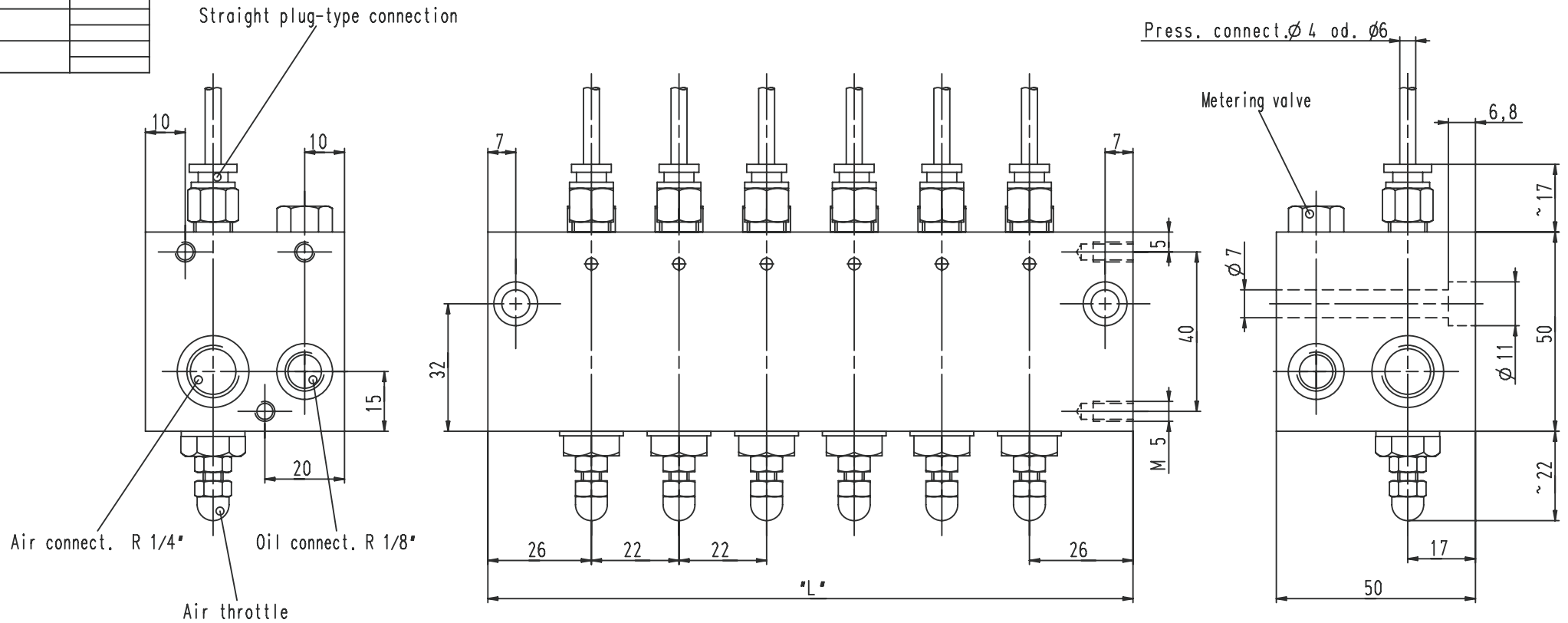
Q = oil quantity in cm³/h
d = inside bearing diameter

W = rolling element lines
A = 1 --- 1,5 for symetrically roll--bodies
2 for conical roll--bodies

The outflow opening for the oil/air mixture with a diameter of 0,8 mm should be directed for spraying in the middle of rolling element and bearing ring. Each bearing line must be supplied separately.

An air outflow opening in spraying direction and a sufficiently oil drain hole must be guaranteed to avoid the building of an oil marsh.

Nom. dim	Dimen.



TECHNICAL DATA

Oil metering valve
 Metering vol.: see table
 Control press.: > 10 bar
 Perm. over press.: < 50 bar
 Relief press.: < 1 bar
 Medium: Oil 50 up to 700 cSt
 Temperature range: + 5°C up to 60°C
 Air: air throttle
 Operat. press.: > 1 bar
 Perm. over press.: < 10 bar
 Material: Housing AlCuMgPb
 Technical description: see FAZ01822-02

Order example:

Order-no.: 4089 . 6 . 4 . 03 . 004
 Type _____
 No. of outlets 1 to 6 (e.g. 6) _____
 Press. connection pipe- ϕ 4 or 6 (e.g. 4) _____
 Metering vol. code no. 03 to 16 (e.g. 03) _____
 (Indicate metering code no. beginning from left to the right and separately if they are different).
 Pressure connection straight plug-type connection

Number of outlets	1	2	3	4	5	6
"L"	52	74	96	118	140	162

METERING VOLUME

Size	metering quant.
03	30 mm ³ /pulse
06	60 mm ³ /pulse
10	100 mm ³ /pulse
16	160 mm ³ /pulse

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Änderungen vorbehalten		Subject to alterations	
Format Size	Datum Date	Name Name	BAIER + KÖPPEL PRÄZISIONSAPPARATEFABRIK PEGNITZ / GERMANY
Gezeichnet Drawn	27.09.04	Wiest	
Geprüft Checked			Zentralschmier-technik
Maßstab Scale	Ersetzt durch Replaced by		
1:1	Ersatz für Used instead of		Zeichnungs-Nr. Drawing-No. FAZ03088-00GB
	Art.-Nr. Part.-No.		
			Stücklisten-Nr. Partlist-No.