

BIJUR DELIMON
INTERNATIONAL

*Smooth motion –
by centralised
lubrication and
cooling systems*

Product-Overview 

The background is a solid blue color. It features several horizontal, wavy lines in a lighter shade of blue, giving it a textured, water-like appearance. Two prominent, thin, yellow curved lines (swooshes) sweep across the image, one above and one below the central text.

BIJUR DELIMON.

The market permanently demands innovations - also in the field of the centralised lubrication systems. Because machines become bigger and drives become faster. Or because of the fact that technical innovations simply require other solutions. We are prepared for this. We do not only take care that machine wear is reduced to a minimum due to unnecessary friction. One of our company goals is the permanent product improvement. And that is what teams of developers, technical designers, system analysts and product specialists work on day by day. Regular Kaizens under the motto " quality before capital" help to achieve these goals.

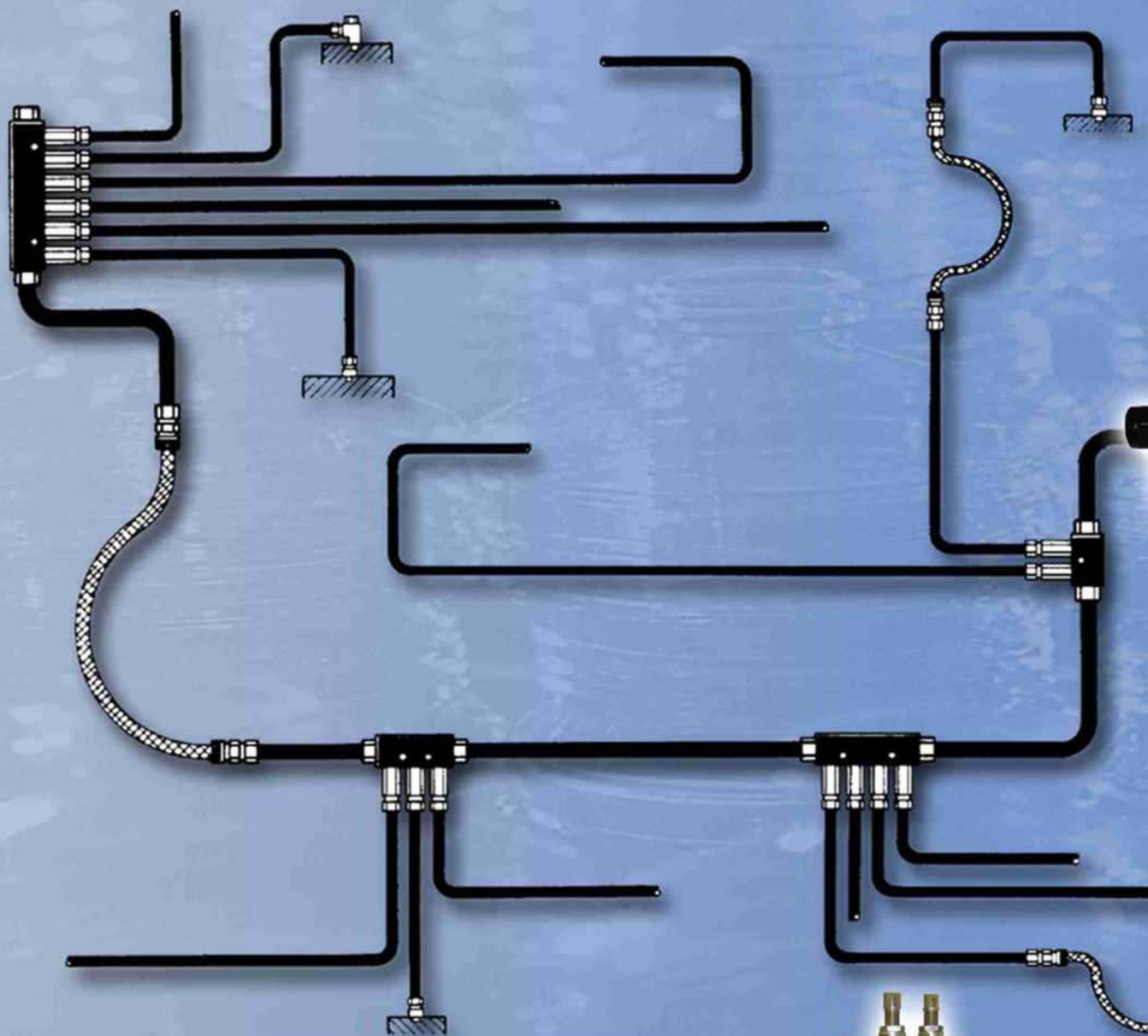


That's what you get.

- system-dependent lubricant systems
- high-quality products reducing your expenses and conserving resources
- most modern electronic checking systems for the measurement of the lubricant adjustment
- active environment protection due to a precise metering of the lubricant
- low expense for maintenance and repairs
- cost-free advice
- installation by our own staff
- quick service
- training of your staff
- regular lubricant checks



Single Line System



distributor ►



Type	FL32 / FL33	FL42 / FL43	FL1 / FL11
Lubricant	grease up to NLGI No. 2	oil	grease up to NLGI No. 2
Output volume per stroke and outlet	FL32: 0.016 - 0.131 cm ³ FL33: 0.016 - 0.049 cm ³	FL42: 0.016 - 0.049 cm ³ FL43: 0.016 - 0.131 cm ³	FL1: 0.131 - 1.64 cm ³ FL11: 0.82 - 8.2 cm ³
max. pressure	238 bar	68 bar	241 bar



A feed line leads from the pump to the distributor elements near the lubrication points. Each lubrication point has its own element. During the lubrication process, the pressure in the line is built up by the pump and lowered again after completion of the working stroke of the distributor. Suitable for compact to medium-sized equipment.



The TMD-5 is an automatic motor driven piston pump with a spring discharge - ideal for machines having up to around 50 lubrication points.

The L18P manual pump is perfectly adapted for use with resistance oil meter units (SLR) on medium size machines.



ZEM 32 / 33

oil - 20 to 1500 cSt
(soft greases NLGI 000 / 00
after consulting)

0.01 / 0.03 / 0.06 / 0.1 /
0.16 cm³

45 bar

ZEM 34

oil - 20 to 1500 cSt
(soft greases NLGI 000 / 00
after consulting)

0.01 / 0.03 / 0.06 / 0.1 /
0.16 cm³

45 bar

ZEM 35

oil - 20 to 1500 cSt
(soft greases NLGI 000 / 00
after consulting)

0.1 / 0.2 / 0.4 / 0.6 cm³

45 bar

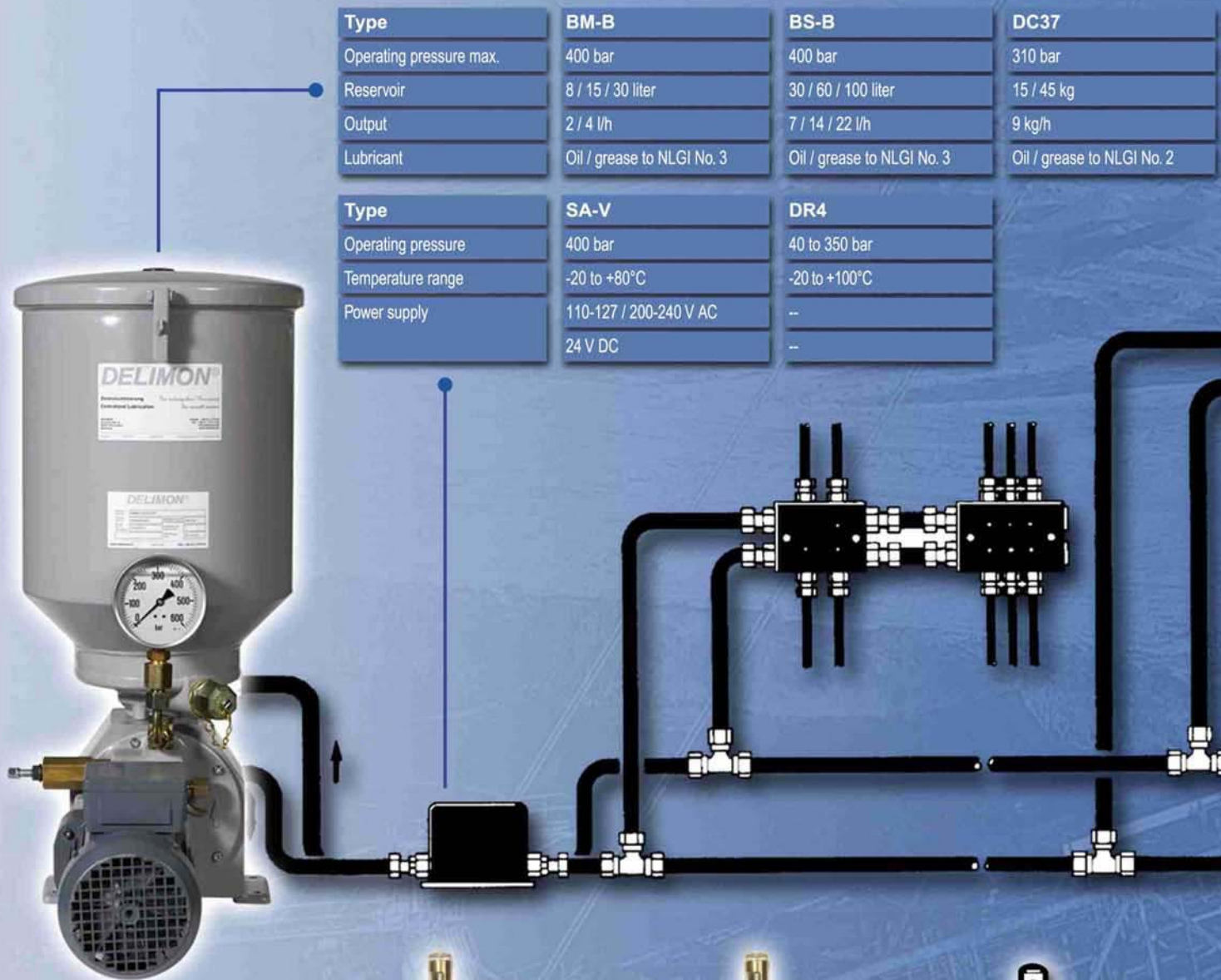
ZEM 39

oil - 20 to 1500 cSt
(soft greases NLGI 000 / 00
after consulting)

0.2 / 0.4 / 0.6 / 1.0 /
1.5 cm³

45 bar

Dual Line System



Type	BM-B	BS-B	DC37
Operating pressure max.	400 bar	400 bar	310 bar
Reservoir	8 / 15 / 30 liter	30 / 60 / 100 liter	15 / 45 kg
Output	2 / 4 l/h	7 / 14 / 22 l/h	9 kg/h
Lubricant	Oil / grease to NLGI No. 3	Oil / grease to NLGI No. 3	Oil / grease to NLGI No. 2

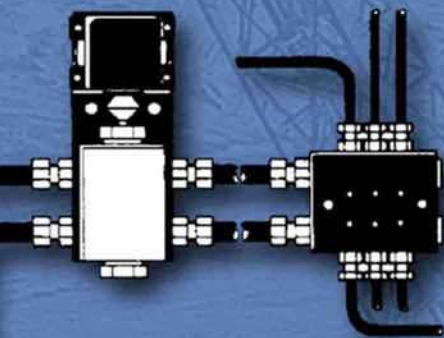
Type	SA-V	DR4
Operating pressure	400 bar	40 to 350 bar
Temperature range	-20 to +80°C	-20 to +100°C
Power supply	110-127 / 200-240 V AC 24 V DC	-- --

distributor ►

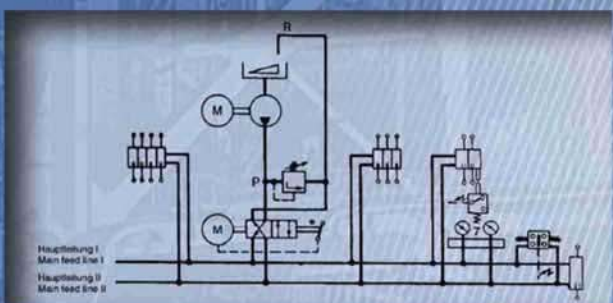


Type	DDM	SDM	ZV-B – flange distributor
Lubricant	oil or grease (max. NLGI No. 3)	oil or grease (max. NLGI No. 3)	oil / grease / liquid grease
Output volume per stroke and outlet	0.1 - 1.0 cm ³ (DDM 1) 0.5 - 5.0 cm ³ (DDM 5) 3.0 - 15.0 cm ³ (DDM 15)	0.2 - 2.0 cm ³ (SDM 1) 1.0 - 10.0 cm ³ (SDM 5) 6.0 - 30.0 cm ³ (SDM 15)	1.5 - 3.0 cm ³ optionally adjustable
max. pressure	350 bar	350 bar	400 bar

- DC42
- 300 (350) bar
- 45 / 90 kg
- 19.2 / 28.8 kg/h
- Oil / grease to NLGI No. 2



Pressure and return line are connected with the change-over valve. Via this electrically or hydraulically driven change-over valve, two mainline pipes are connected alternately with the feed and return line of the pump. All distributor elements are connected with the two main line pipes. For a more precise distribution it is possible to install additional progressive divider after each dual line divider outlet. The pressure change is released by means of a differential pressure switching device at the line end. After one pressure change had taken place in the two main line pipes, the lubrication points have been supplied with lubricant. Excellently suited for all applications, particularly for hard operating conditions and large plants.



DDJ

oil or grease
(max. NLGI No. 3)

0.13 - 0.6 cm³

350 bar



DM

oil or grease
(max. NLGI No. 3)

0.2 - 1.2 cm³
0.6 - 2.25 cm³
1.2 - 5.1 cm³
3.0 - 14.25 cm³
6.0 - 28.5 cm³

350 bar



ZV-B

oil / grease / liquid grease

0.5 - 1.5 - 3.0 cm³
optionally adjustable

400 bar



ZV-C

oil / grease / liquid grease

15.0 cm³
adjustable

400 bar



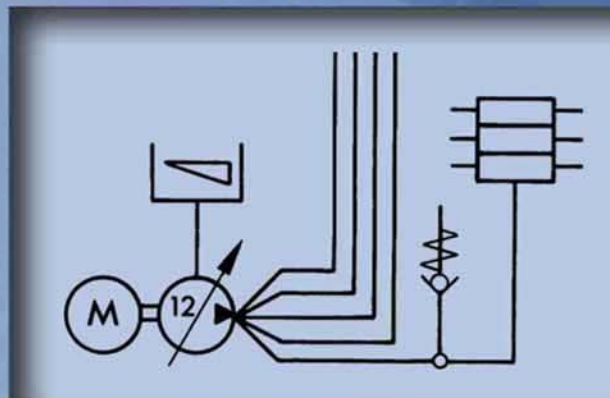
Multi Line System

Type	FZ-A
Operating pressure max.	200 bar
Reservoir	2.5 / 8 / 15 / 30 liter
Outlets	1 to 12
Output	0.01 to 0.63 cm ³ /min
Lubricant	Grease to NLGI No. 2



for oil / grease / liquid grease

All lubrication points are connected with the pump via pipelines without the necessity of arranging distributors. Metering of the lubricant for each single friction point takes place directly in the pump. Possibilities of extension and monitoring for the friction points are given by progressive distributors. Suitable for the lubricant supply to lubrication points on equipment.



distributor ►



Type	M2500
Lubricant	oil or grease to NLGI No. 2
Output volume per stroke and outlet	0.08 - 1.31 cm ³
max. pressure	240 bar

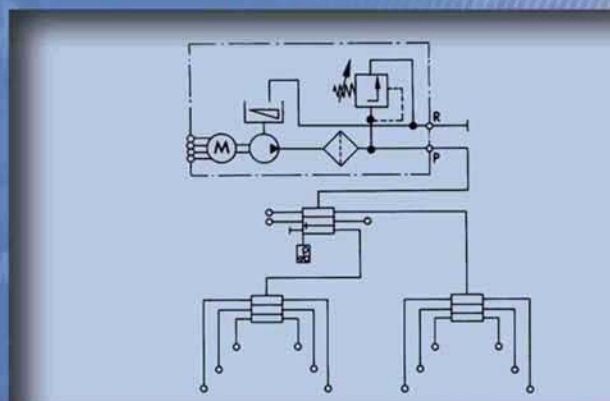
Progressive System

Type	FZ-B
Operating pressure max.	200 bar
Reservoir	2.5 / 8 / 15 / 30 liter
Outlets	1 or 2
Output	0.06 to 7.56 cm ³ /min
Lubricant	Grease to NLGI No. 2



The pump is connected with the progressive distributor via a lubricant line. The distributors meter the quantity of lubricant, which it receives from the pump, to the connected lubrication points according to the quantity ratios which are to be metered by the distributors and which were preselected on the occasion of the plant design. Progressive systems can be monitored and controlled easily. A combination with other systems and thus also the monitoring of the same is possible in many cases.

for oil / grease / liquid grease



ZP - A/C

oil / grease / liquid grease

0.1 / 0.2 / 0.3 cm³

160 bar



ZP - B/D

oil / grease / liquid grease

0.5 / 1.2 / 2.0 cm³

300 bar

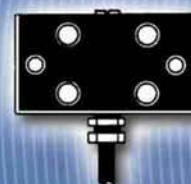


PVB - block construction

oil / grease / liquid grease

0.17 cm³

160 bar



E 4 - block construction

oil / grease / liquid grease

0.4 cm³

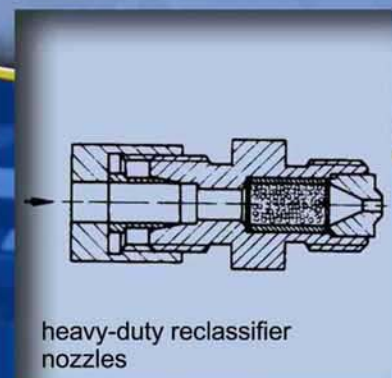
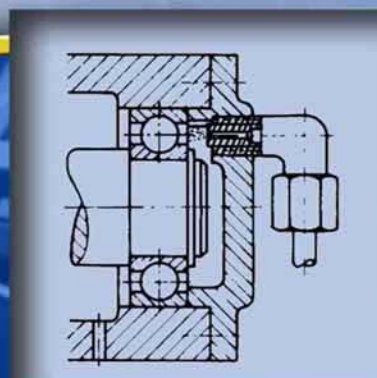
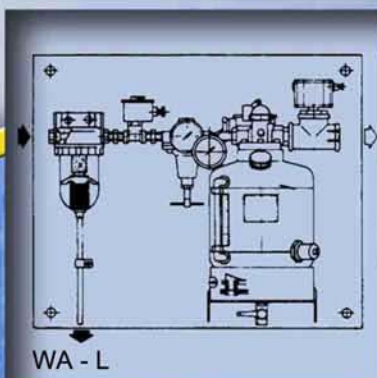
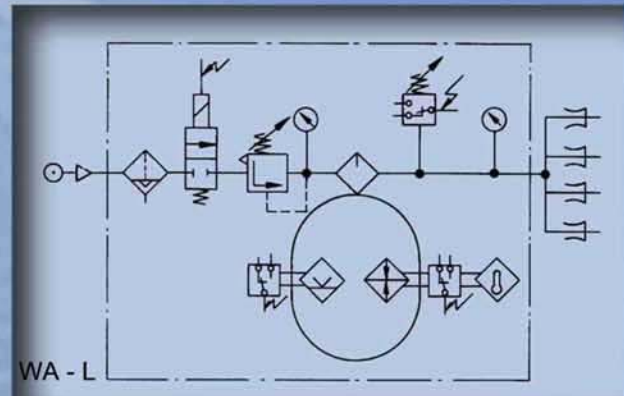
160 bar



Oil Reclassifying System



In a microfog oiler, oil is torn to small ultimate particles (oil mist) in a venturi nozzle with the help of compressed air. The low weight of these particles allows their transport even via a large, branched network of pipes due to the continuously flowing compressed air. Nozzles at the lubrication point cause the oil-air flow to accelerate, and on this occasion, the very small oil droplets are reclassified to big, lubricating drops. Due to modern heavy-duty reclassifier nozzles (DP 2 218 293) with sphere packing and multiple reclassifying effect it is possible to conceive environment-friendly systems ensuring a residual oil content of up to 1% for the air escaping at the bearing. Suitable for small to large systems.



Air-oil Lubrication System

SKYJET

The highlights are:

- 50% reduced air
- exact dosing
- easy installation.



The air-oil lubrication is a progressive lubrication system with an additional air metering block which is firmly screwed to a progressive distributor. Lubricant having been introduced into the system is delivered with continuously flowing compressed air. The lubricant deposits on the inner pipe wall and is carried on in flow direction by the compressed air. Due to the extension of the lubricant on its carrying way in the pipeline, the

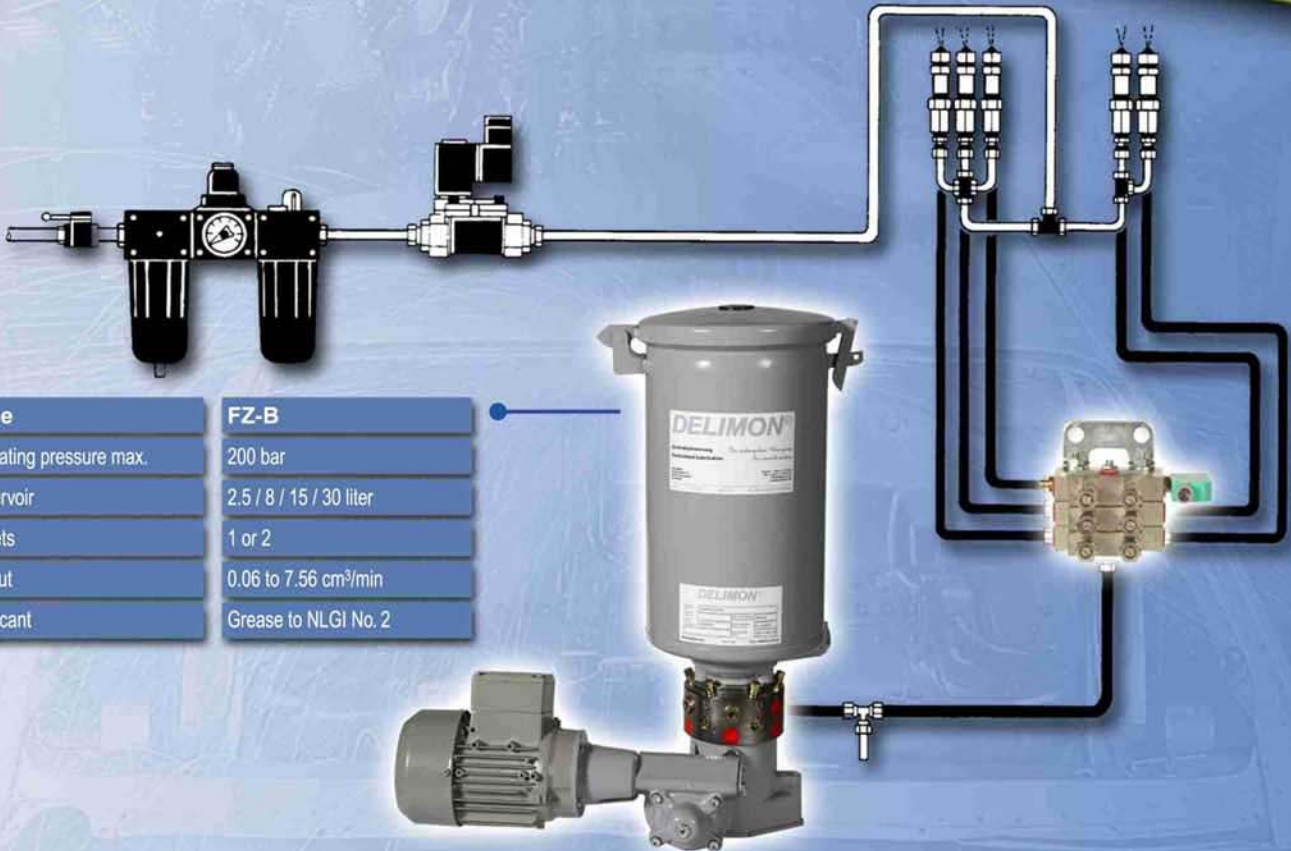
pulsed feeding turns into a nearly continuous lubricant dispensation to the lubrication point. Suitable for all system sizes with a great variability of the metered quantities.

Lubrication with oil and compressed air is today widely adopted and accepted within hi-tech plant and mechanical engineering applications. In steel and aluminum mills for example, this method of lubrication is being used on continuous casting plants, cold and hot strip mills and various types of rolling mills. A significantly automated lubrication system or procedure ensures operational safety, long service life and low maintenance requirements along with minimal lubricant consumption and eco-friendliness. Meeting all of these requirements, the SKYJET system offers a tailor-made solution for each application and provides decisive advantages.





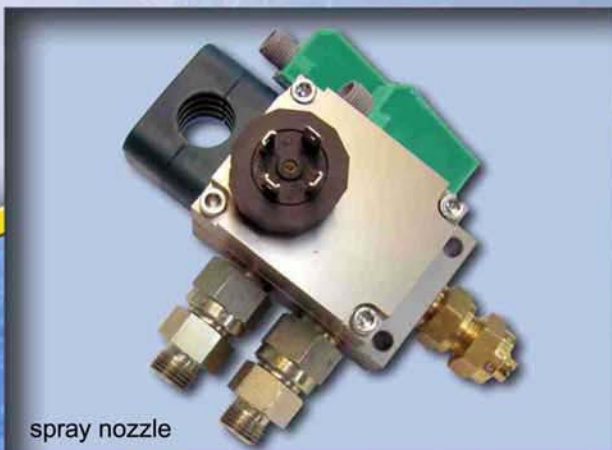
Spray Lubrication System



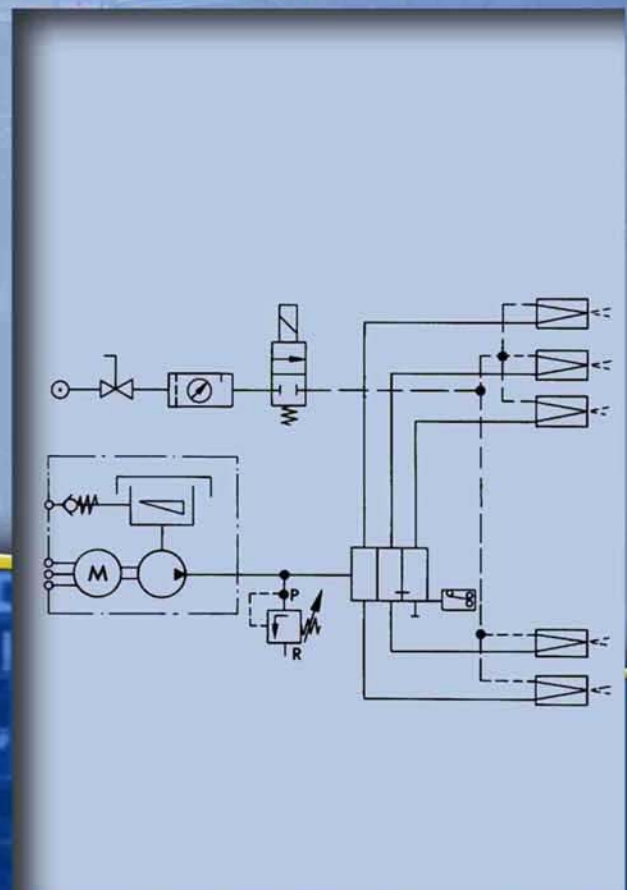
Type	FZ-B
Operating pressure max.	200 bar
Reservoir	2.5 / 8 / 15 / 30 liter
Outlets	1 or 2
Output	0.06 to 7.56 cm ³ /min
Lubricant	Grease to NLGI No. 2

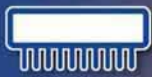
for grease / liquid grease

Via a centralised oiling or greasing system lubricant is metered and fed into spray nozzles and then entrained in the nozzle by the flowing compressed air. The spray pattern desired for the case of requirement is made by means of an omnidirectional or fan jet nozzle insert. Through the spray nozzles one achieves an excellent distribution of the lubricant. Simple nozzle design and rugged construction. Long working life and a minimal maintenance expenditure.

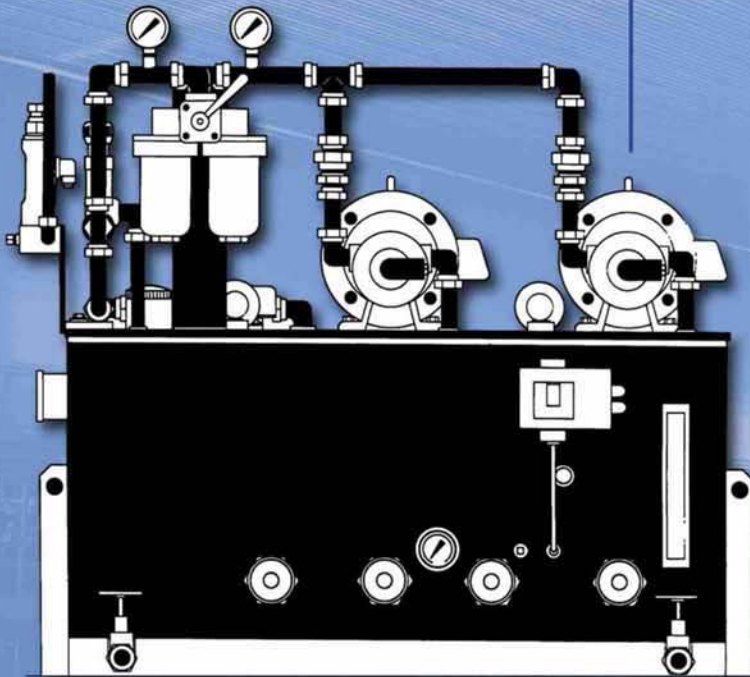


spray nozzle





Oil Recirculation Systems



Type

Reservoir size

Output

Viscosity

Temperature

Oil recirculation unit

4 to 20.000 liter

0.06 to 1.200 l/min

ISO VG 33 to 680 cSt

15 to 60°C



Flow meter,
independent of
viscosity max. 20 l/min.

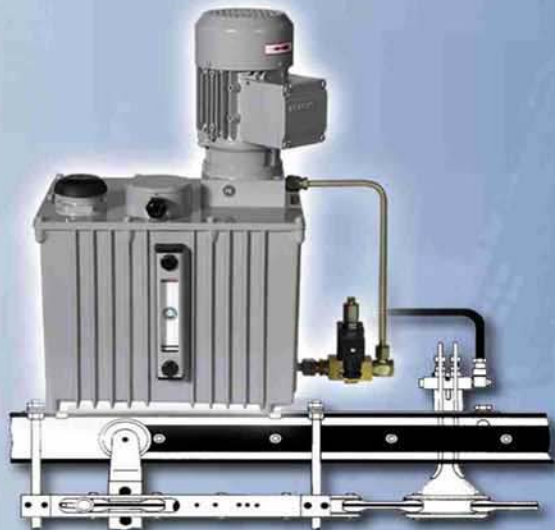
metering — lubricating — cooling — cleaning

The oil is metered and delivered from the reservoir via a restrictor system or alternatively via a progressive system to the lubrication points from where it flows back into the reservoir again. Suitable to keep bearings at a moderate temperature and to drain contaminations.





Chain conveyor lubrication system WS - E



for oil

This system is intended for the feeding of chain lubrication points with very small quantities of oil without the use of compressed air. With a WS-E pump it is possible to feed up to 12 different lubrication points of a chain. If it deals with multi-strand systems, it is possible to feed much more lubrication points. The big advantage of the system is the small oil quantity of 0.01 cm³ and/or 0.025 cm³ per lubrication point and lubricating cycle as well as the well-aimed spray application without the use of compressed air, e.g. in the car industry. (German registered utility model DGM 7 826 547).

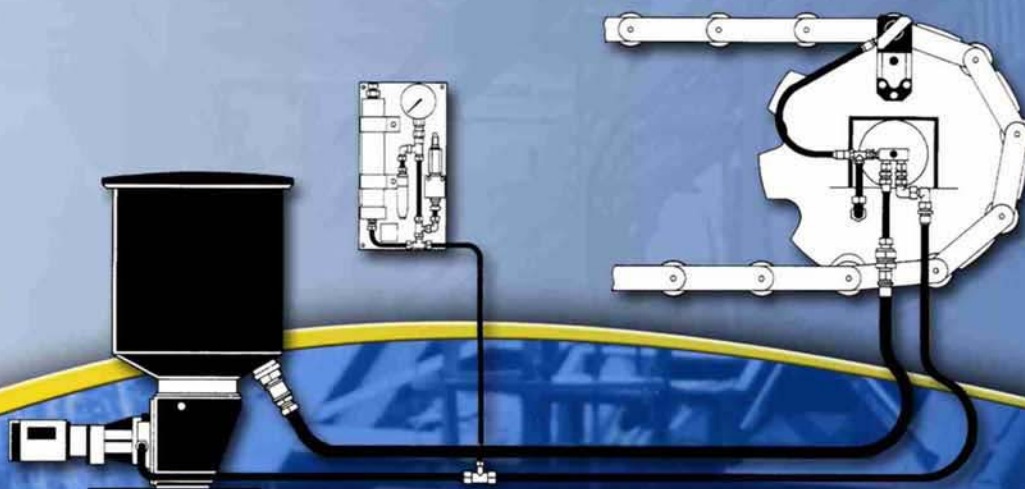


Chain conveyor lubrication system RK - C

for grease / liquid grease

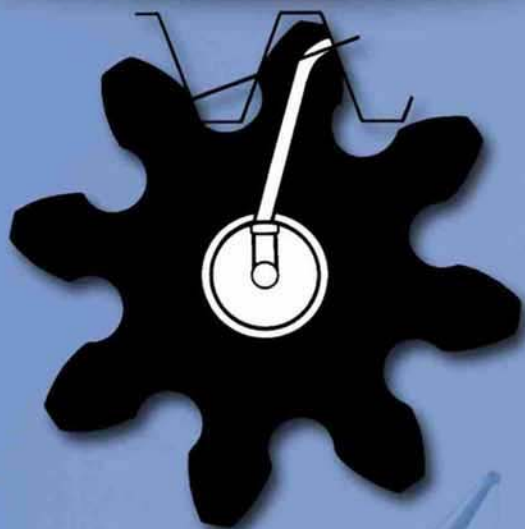
For the feeding of conveyor facilities provided with lubricating nipples, e. g. apron conveyors or sugar-beet conveyors we have created a lubrication system which ensures a continuous, automatic lubrication without the

use of a great number of moving parts. The lubricating heads are controlled via a rotary slide valve, and they lubricate the bolts at the chain wheel during the reversing phase.





Gear wheel lubrication system NV - K



for grease / liquid grease

With our gear wheel lubrication system NV-K it is possible to apply a perfect lubricant film with great precision onto gear rims. This becomes possible due to the controlled grease supply to the meshing teeth and due to the outlet bores being staggered in height and arranged on the teeth of the NV-K appliance. The introduction of grease into the NV-K appliance is effected through one of our pumps.

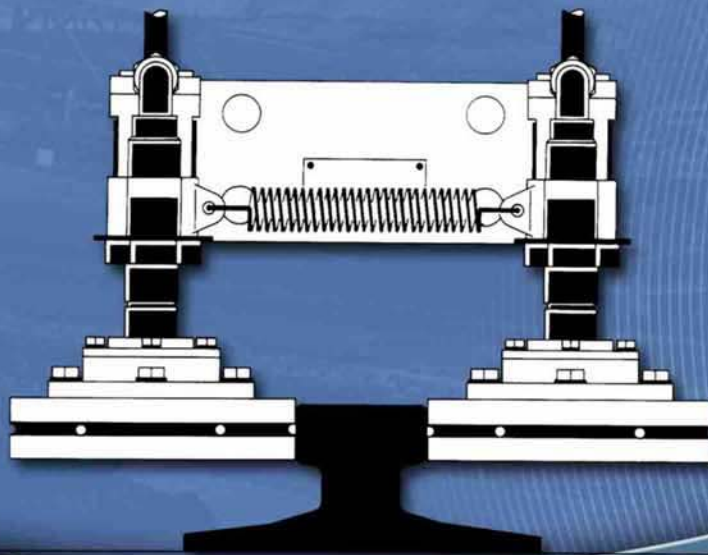


Crane track lubricator KS - A

for grease / liquid grease

With this appliance one applies a lubricant film onto both flanks of the crane track which reduces the wear

of track and wheel considerably. The lubricant supply into the KS-A unit is effected through one of our pumps.



Mobile wheel flange lubrication system



Railjet

Advantages

When underground trains, trams and railway trains run from one station to the next with a low noise level, this is often due to Railjet, the mobile wheel flange lubrication system. It reduces to a minimum friction and wear at both wheel flange and rail.

By means of compressed air, the lubricants are sprayed onto the wheel flanges - and while the train is running, automatically transferred via the rail flanks on the wheel flanges of the following wheel sets.

- 5 to 15 % saving in driving energy
- Reduction of wear by up to 80%
- Cost reduction due to greater reprofiling intervals
- Preservation of environment by noise attenuation

And still more: Even biodegradable lubricants can be used the low weight of the spray nozzle of 265 g only clearly facilitates the installation and the adjustment the intelligent electronic control allows the adaptation to all operational requirements.

Stationary rail lubrication

StaTrack



StaTrack - central

When track systems are exposed to heavy loads, when the use of the same causes much noise, StaTrack is employed:

- in track systems with narrow curve radii
- in case of grooved rails in the free and closed track bed in the public road system

StaTrack - decentral

The decentral system feeds distributed points in the trackage. It works with a central grease pump. It delivers the lubricant via a high-pressure line directly to the lubrication points of the rail. For double-track systems, two pumps that work independently of each other can be installed in one cabinet.

The central system with many tracks on a small area is installed for example in industrial yards, in the entrance and exit of the car shed. Due to progressive distributors it is possible that the individual tracks are supplied with lubricants via a common pump. The connection of a track and the apportioning of the lubricant are effected via so-called track distributors on site. The progressive distributors allow a comprehensive monitoring of the system.

Advantages

- Reduction of wear at wheel and rail
- Reduction of noise to a minimum
- Biodegradable lubricants of good adherence can be metered precisely, therefore an environmentally friendly solution
- Lubrication times and intervals can be adapted to local conditions.

Cooling

The Cooling division specialised in the design, supply and installation of industrial cooling systems. Custom built or standard equipment to suit the duty required and temperatures required, the Cooling project team can design a system for your application. Benefits of our cooling water system include:

- Accurate control of flow, pressure and temperature
- Reduced water charges
- Reduced operating costs
- Reduced corrosion problems
- Reduced maintenance costs
- Extended equipment life



Chillers



Dry air cooler

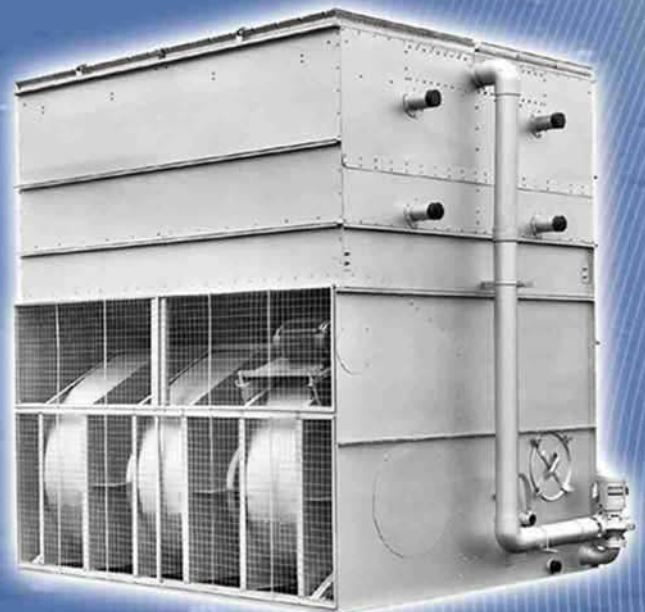


Pump station





Roll coolant systems



Evaporative cooling tower

A good package: products made to measure and a thought-out service

Reduce wear, avoid downtimes, guarantee reliability and precision, comply with the best possible preservation of environment. This is what you can expect when you choose our company as partner for the sector "centralised lubrication". And even much more:

Under the term

Total Lubrication Management

you will receive full performance from one hand. This makes the centralised lubrication become effective and efficient - also in your company. Because the appropriate lubrication system for maintenance and new equipment will be placed at your disposal - quickly, safely and functionally.

The "Total Lubrication Management" orientates itself towards the requirement for

- lubrication systems
- oil and grease
- system choice and dimensioning
- preventive maintenance
- applications engineering and service
- documentation of servicing and maintenance
- cleaning and waste disposal
- stock keeping and stockpiling

**Total Lubrication
Management**

ISO 9001:2000



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