Central Lubrication Systems for Machine tools

Products - Engineering - Service
About us

The BIJUR DELIMON International Group includes brands known throughout the world: BIJUR, DELIMON, DENO LUBRICATION, FARVAL and LUBE SITE.

Since its foundation over 140 years ago, BIJUR DELIMON International has become one of the leading manufacturers of central lubrication systems in the world, for industrial requirements and special applications.

Today we have facilities in nine main markets throughout the world for manufacturing, development, sales and logistics, with over 1000 highly-qualified and motivated employees, ready to provide solutions to your lubrication requirements. Our customers are engaged in international business, so our provision of service on 6 continents, coupled with our technical competence in the development of customer-specific solutions in the fields of commercial vehicles and construction site machinery, goods and passenger transport, rail lubrication systems, factory and mining equipment is of vital importance to them.

The development of innovative concepts using the latest 3D CAD/CAM technology, high-performance machining centres and continuous further training of our highly qualified employees, ensure that we maintain the capability to provide our customers with the best possible solution concepts for their specific applications.

The BIJUR DELIMON product portfolio comprises innovative total solutions in the fields of centralised lubrication systems and cooling, together with all necessary components such as pumps, distributors, switchgear and controllers, special lubrication equipment and accessories. BIJUR DELIMON products guarantee you the best possibility of reliability coupled with precise lubrication.

For smooth movement

Efficiency, speed and sustainability are the key words for profitable production. Accordingly production machines and plant must satisfy ever higher standards, become ever larger and incorporate ever quicker drives.

It doesn’t matter if the lubricant is oil, low-viscosity grease or heavy grease. It pays to provide all machine tools with regular lubrication. More than 50% of the failures of bearings and linear guides are down to lack of lubrication or ingress of dirt.

Only continuous and precisely metered lubrication can ensure that your machine tool does not fail unexpectedly due to lack of lubrication. DELIMON offers you all the necessary systems and products for the machine tool sector; to avoid unplanned machine downtime and interruptions in production. With more than 140 years experience of central lubrication systems, our competent and experienced employees are available in-house.

The advantages to you of an automatic central lubrication system

- Minimisation of unplanned machine downtime
- Reduction in maintenance costs
- Precise, accurate supply of clean lubricant in the right place at the right time
- Reduction in grease consumption
- All lubrication points are served – no missed points
- Extension of maintenance intervals
- Increased safety at work
Single-line systems for oil and liquid grease - SureFire PDI

Features
- Medium: Oils and liquid greases up to and including NLGI 00
- Reservoir sizes: 2, 3 and 6 litre
- Level control: Low level switch with pre-warning indication
- System pressure: Low pressure switch
- Delivery line pressure gauge for visual indication
- Push button to initiate a manual pre-lube cycle
- Power supply via cable connector or assembly plug
- Signal outputs via cable connector or M12x1 plug
- Remote operation via the parent machine or external controller
- Power supply options - DC, AC Single phase or 3-phase

Introducing SureFire PDI

The SureFire PDI gear pump series for single-line systems works on the principle of creating and releasing pressure.

SureFire offers the necessary preset maximum pressure in the main pipe and the downstream piston distributor supplies the fixed metered quantity of lubricant to the lubrication points. Depending on the type of injector, delivery of the lubricant to the lubrication points occurs during the pump running time or after it. The individual lubricant requirement per lubrication point can be adjusted by exchanging the metering caps. Systems with PDI piston distributors can be extended without problems.
Single-line systems for oil and liquid grease - ZEM injectors

Introducing ZEM injectors

The injectors in the ZEM series for single line systems work on the principle of creating and releasing pressure.

The pump unit generates the necessary system pressure in the main pipe and the piston distributors distribute the fixed metered quantity of lubricant to the lubrication points.

After the pump unit is switched off the main line pressure relaxes, and the metering chambers re-fill automatically with fresh lubricant via internal porting. The injectors are now ready for the next lubrication cycle.

Features

- Medium: Oils and liquid greases up to and including NLGI 00
- Metering volumes/stroke: 0.01 to 1.5 cm³
- Manifolds: 1, 2, 3 and 5 outlets
- Push-in or compression fitting type pipe connectors
- Metering volumes easily changed
- A combination of injector sizes can be utilized within a system
- Plugging of outlets permissible

Applications

ZEM injector with three outlets and connection fittings
Single-line systems for oil and liquid grease - SureFire SLR

Introducing the SureFire SLR

The SureFire SLR gear pump series, delivers the lubricant to the SLR proportioning units.

The quantity of lubricant delivered to the lubrication points is subject to the resistance of the selected proportioning unit serving that point; the greater the resistance the smaller the volume of oil.

The pump running time determines the quantity of lubricant delivered to the individual lubrication points.

Features

- Medium: Oils from 20 cst to 1500 cst operating viscosity
- Reservoir sizes: 2, 3 and 6 litre
- Level control: Low level switch with pre-warning indication
- System pressure: Low pressure switch
- Delivery line pressure gauge for visual indication
- Push button to initiate a manual pre-lube cycle
- Power supply via cable connector or assembly plug
- Signal outputs via cable connector or M12x1 plug
- Remote operation via the parent machine or external controller
- Power supply options - DC, AC Single phase or 3-phase

SureFire SLR

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Single-line systems for oil - SLR proportioning units

Features

- Medium: Oils from 20 cst to 1500 cst operating viscosity
- Metric or imperial screw threads
- Eight different resistances available
- Metering ratio: 1:128 maximum
- Proportioning units for cyclic or continuous oil flow

Introducing SLR proportioning units

A quantity of oil is delivered to the distribution system by a piston pump or gear pump.

Each SLR proportioning unit has a pre-set resistance in the form of an orifice. The smaller the orifice the greater the resistance and the lower the quantity of oil that passes through to the lubrication point.

BIJUR DELIMON offers eight different resistance levels that allow a ratio up to 1:128.
Air-oil lubrication - Oil Streak system

Features

• Compact and pre-assembled ‘Plug & Play’ assembly in modern design
• Precise air-oil mixing valves; metering and mixing
• Electrical connections with M12x1 – cable box
• Metering volume/stroke: 0.01 to 0.4 cm³
• Each outlet can be monitored separately
• Stand-alone control and monitoring
• Customised colour specification (option)
• Air flow: adjustable/outlet

Introducing Oil Streak

The heart of the Oil Streak unit is a SureFire PDI and the AV(H) air-oil mixer valve.

SureFire delivers the oil at the required pre-set maximum pressure into the main oil supply line, and the downstream mixer valve divides the oil into fixed metered quantities into the auxiliary pipes. In addition to the lubricant, the mixer valve receives and supplies a controlled, adjustable quantity of air into the oil. The lubricant is transported to the lubrication points as an air-oil mixture.

The individual lubricant requirement per lubrication point can be changed by replacing the metering unit.
Air-oil lubrication – Mixing valves AV / AVH

**Introducing the mixer valve AV(H)**

The AV(H) series mixer valve can be ordered with the option of 1 to 8 discharge ports to cater for the requirements of the application.

The precise metering accuracy of +/-5% means that mixer valves are the best choice for your spindle lubrication requirements.

The metering and mixing of the oil with compressed air is performed in the mixer valve.

The metered quantity of oil is transported to the lubrication points as an air-oil mixture on the hose wall.

The individual lubricant requirement per lubrication point can be changed by replacing the metering units.

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**Features**

- Metering volume/stroke: 0.01 to 0.4 cm³
- Number of outlets: 1 to 8
- Metering accuracy of +/- 5% or +/- 20% selectable
- Air flow: Adjustable/outlet

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Mixer valve AV (H) with four outlets
Progressive system - DYNAMIS pumps

Features

• Medium: Oils and greases up to and including NLGI 2
• Discharge pressure maximum: 300 bar
• Reservoir sizes: 2 to 20 litre
• Integrated controller with data logger (option)
• Operating temperature range: (-40°C to +75°C)
• 16 outlets maximum with flange mounted progressive divider (option)
• Up to 2.9 cm³/min per pump element
• Stand-alone controller and monitoring
• Suitable for rotating systems

Introducing DYNAMIS family of pumps

The DYNAMIS electric piston pump was originally developed for Wind Turbine applications, but is ideally suited for machine building.

The Dynamis offers two discharge ports with a maximum delivery of 2.9 cm³ per minute for each outlet. The Dynamis MAXX however offers three discharge ports also with a maximum delivery rating of 2.9 cm³ per minute. The outlets in each case can be combined as necessary to suit the requirements of the application.

The optional integral controller allows all monitoring switches to be interrogated and evaluated. Fault signals are fed directly to the machine controller.

The pump delivers the lubricant via pump elements to the progressive dividers which sub-divide the lubricant in equal or unequal portions and meter it to the attached lubrication points.
Progressive system - Progressive divider

**Introducing the progressive system**

The purpose of the progressive divider is to sub-divide and distribute the lubricant from the pump to the individual lubrication points.

The progressive divider operates continuously while lubricant is being supplied. The piston and porting system within the divider ensures that all lubrication points are supplied with lubricant in succession [progressively].

If a blockage occurs downstream of the divider, the divider stops operating and so does the entire lubrication system. As an option, the dividers can be fitted with a motion indicator pin to provide visual indication of grease flow. By attaching a switch to interface with the indicator pin, the confirmation of flow, or none flow, can be monitored electrically.

In a blocked condition as described, the system is also protected mechanically by a pressure relief valve which is set to relieve at the maximum system pressure.

**Features**

- Ideal for continuous and cyclic applications
- Suitable for oils and greases up to and including NLGI 2
- Wide range of metering volumes available
- Solid block, segmented or modular design
- System pressures up to 300 bar (grease)
- System function monitoring by means of motion indicator pin (visual) or sensor (electrical)

**Accessories**

- M2500 divider
- PVB divider
- ZP-A divider
Notes
Since 1872 an innovator in lubrication technology

BIJUR DELIMON International has production facilities throughout the world, and these are certified to ISO 9001:2008 and ISO 14000. You can be confident that your centralised lubrication system satisfies the highest industrial quality standards. We are committed to quality and customer service!