

Technology for metering / lubrication / controlling

Chain lubrication



Reduction of wear and tear / longer lifespan of the chains

Savings in lubricant, as only as much is supplied as is used at the chain.

The chain links are safely relubricated with the exact amount of lubricant required.

General Information about chain conveyor plants

Chain conveyor plants are present in all branches of our economics.

In large automobile factories they transport engine mounts and body parts, in slaughterhouses cattle halves and in the post office packages. Wood processing companies use chain conveyors outside to transport the incoming logs and the finished chipboards inside the work hall. Chain conveyors move steel blocks through annealing furnaces and cans through lacquer drying ovens, or ice-cream packings through ice machines.

A wide variety of chain types and conveyor systems have been developed for the most diverse tasks, all of which require regular maintenance to protect them from premature wear and tear and to prevent unpleasant breakdowns.

Chain pins, sprockets, bearings and drives must be **adequately lubricated**, whereby oils or fluid greases can be used as lubricants depending on the design of the conveyor system and operating conditions.

For manufacturers and operators of chain conveyor systems, selecting the safest and most economical lubrication is therefore of the utmost importance.

An optimal lubrication is achieved here by our **automatic TEKAWE chain lubrication system**. Automatic systems can be controlled by pulses from sensors on the chain or sprocket.

With a **TEKAWE - chain lubrication system**, there are different methods for applying the lubricant to the chain. Customised specifications and requirements are taken into account.

We design the plant exactly according to your wishes!

conception + application: **single line systems** twin line systems metering technology
 progressive systems fittings / piping / hoses handling technology

Chain lubrication

Exact lubrication of a chain via brushing (fig.1) and/or dripping (fig.2):



fig.1

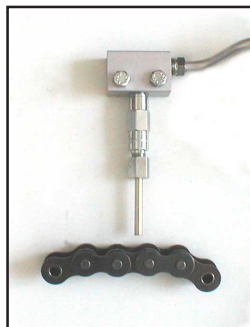


fig.2

Exact spraying of a chain (fig.3):

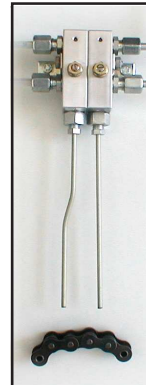


fig.3

Construction of a TEKAWE chain lubrication unit (spraying version):

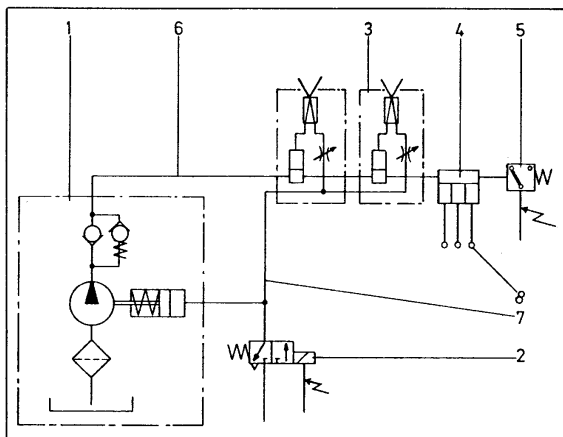


fig.4

- 1) pneumatically activated lubrication pump
- 2) 3/2-way-solenoid-valve for air pressure
- 3) oil-spraying unit
- 4) single line manifold with metering valves
- 5) pressure switch
- 6) main pipeline for oil
- 7) air pressure pipeline
- 8) lubricating point

Fig. 4 shows the configuration of a chain spraying unit for oil and fluid grease. A pulse pause timer controls the 3/2-way-solenoid-valve (fig. 2) and switches on the compressed air for the pump and the spray units. The lubricant is supplied to the spraying points by the compressed air in macro-atomized distribution (in fine drops, without misting). The oil spraying units, which can also be combined into blocks, each have one connection for the main line of the central lubrication unit and a connection for the compressed air line for spraying. They contain a metering valve for oil dosing as well as a throttle screw for adjusting the spray air. Metering valves are available between 5 and 250 mm³ and can be replaced without special tools. The built-in bottle screw enables the setting of an optimum spray pattern for each individual spray point.

Spraying units can be equipped with flat jet or circular jet nozzles. The pulse pause control saves compressed air and prevents over-lubrication. By setting the pulse-pause time accordingly, a different section of the circulating chain is wetted with each spray pulse. The compressed air supply must be controlled via a maintenance unit with water separator, air lubricator and pressure reducer. A pressure switch in the main line monitors the systems spray pulses.

Alternatively a chain spraying unit can also be designed with a throttle system if it is a continuous spray lubrication system that is time-controlled. However, a throttle spraying unit is dependent on the temperature-related oil viscosity in relation to the spraying quantity.

We are happy to help you with the design and realisation of the right system for your application. Please contact us so that we can provide you with a detailed quotation and comprehensive advice.

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