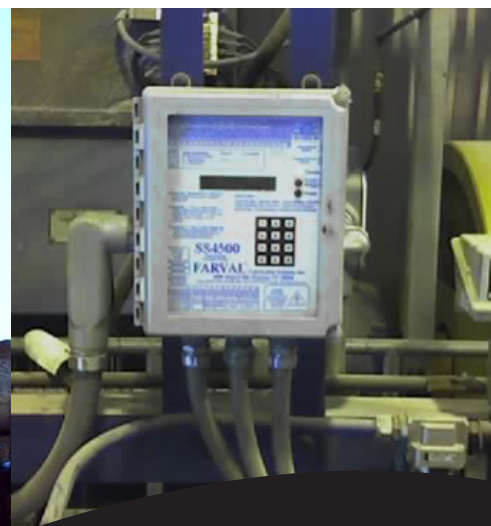


Application Success

Mineral Processing



Application Overview

Spraying lubricant on open gears on Ball mills & Rod Mills.

Why Automatic Lubrication?

The alternative method is to apply gear lubricant manually with either a mop or similar applicator; this provides very inconsistent coverage on the gear teeth.

Advantages

- + Able to provide complete gear coverage with a uniform spray.
- + Apply the correct amount of gear lubricant repeatedly based on gear face width.
- + With the SC400 Controller you can monitor that gear lubricant has been dispensed and air on the spray nozzles has been maintained.
- + The SC400 Controller has an "after blow" feature that allows the spray tip to be cleaned after each cycle. This prevents nozzles from clogging when being used with gear lubricant that normally uses a tackifier.

BDI Products

- + DP55 Pump
- + SC400 Controller
- + 3000 Series Divider Valves
- + Spray Lance/Air Control Panel

BDI Benefits

- + Cost effective system
- + Longer maintenance intervals
- + Lower costs for repair parts
- + Improved operating time
- + Local distribution and support
- + Wide range of system types to accommodate unique machine arrangements
- + High level of reliability
- + All system components from one source

Please contact factory for additional information on this or any other application.

Products Utilized for Mineral Processing

DP55 Pump

+ **Description:** 400 lb drum, 55:1

The DP55 Pump is a compressed air-operated reciprocating piston pump designed for high pressure greasing. These pumps are compatible with all types of mineral and synthetic greases (up to NLGI grade 2 viscosity). These pumps can be supplied as separate components or as complete systems. The pump can be mounted on mobile units as well as on fixed drums and connected to a distribution line for single reel use.



SC400 Controller

+ **Description:** Input voltage 85 to 265 VAC (50/60 Hz)

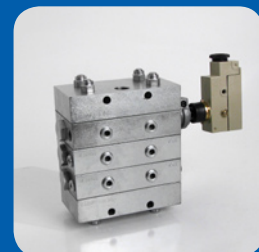
The SC400 Controller is a full featured lubrication control, offering "two plus one" functionality: Two independent lubrication zones may be programmed with a single controller, plus control of one automatic reservoir fill system.



3000 Series Divider Valve

+ **Description:** With cycle switch

The 3000 Series Progressive Divider Valve manifold distributes and proportions incoming grease to bearing points. A typical divider valve manifold consists of an inlet section, three to ten valves and an end section. One assembly can serve up to a maximum of 20 lubrication points. Individual divider valves have a discharge piston and built-in outlet check valves. Blocks are offered in six output sizes.



Spray Lance/Air Control Panel

+ **Description:** 4 point assembly, 21.7" gear face width, 110/120 VAC (50/60 Hz)

Spray systems are used to lubricate large gears and pinion sets such as those found on ball mills, rod mills, kilns, etc. Each system includes an air operated pumping station, a measuring valve panel, a spray nozzle lance and electrical controls. Since gear spray systems operate intermittently, they can be thought of as film maintaining devices. The electrical controls provide broad cycling flexibility as well as fault monitoring and afterblow to purge the nozzles.



Typical System Layout

The system is made up of a DP55 Pump, SC400 Controller, 3000 Series Divider Valve with a cycle switch and a LD9327 Series Spray Lance/Air Control Panel. Depending on the gear face width lubrication points vary from 1-8 nozzles. [View Typical System Layout.](#)

Background

Company experienced premature gear wear due to inconsistent/insufficient lubrication so they decided to switch to Bijur Delimon automatic lubrication products. Bijur Delimon was able to provide custom spray lances tailored to the individual gear requirement based on gear face and gear guard dimensions.

Refer to the following datasheets:

+ Datasheet #35993:
DP55 Pump

+ Datasheet #35980:
SC400 Controller

+ Brochure #DL29:
Farval Dualine Systems

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