

## Air-Oil Spray System

- The lubrication system is activated by a proximity switch mounted at the drive end sprocket. This sends an electrical impulse to the PLC which initiates a spray cycle.
- The spray is a mixture of air and oil, produced by a progressive element injecting a specified amount of oil into an air stream.
- The air then carries the oil to the spray nozzles at the chain and deposits a fine film of oil at the required point.
- The amount of oil deposited is determined by the output of each element and the number of injections each element completes (these injections are referred to as cycles).
- The cycles are counted by the PLC via a proximity switch mounted on one element.
- When the required number is reached, the PLC deactivates the Zone control valve and the air solenoid.
- The system then enters a dwell mode until the proximity switch at the chain sprocket activates the system again
- Oil is delivered to the spray control cabinet from an oil storage tank or a drum using a 26:1 ratio air operated pump.
- Once inside the control cabinet, the velocity of the oil is controlled by the flow control valve. This determines the speed at which the element cycles, thus regulating the concentration of the air in the oil.
- Air flow is also regulated by a flow control valve within the control cabinet.
- This determines the velocity of the air/oil mix at the spray nozzles, thus controlling the spray pattern on the chain and the amount of misting within the chain guard.

For a small chain system, requiring low volumes of the oil, the 11Ltr tank with integral pump can be used as illustrated.

- All solenoid valves are 24 VAC
- All signals from proximity switches are 24 VAC
- 110vac/240 VAC supply is required to the controller
- The air supply should be clean and dry at a pressure of no less than 80psi

### ALARMS

Various alarms can be installed to alert a remote maintenance department or an operator locally.

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