



The Quarry Industry : Introduction

The quarry industry is agreeably the harshest industry in which plant and machinery will operate. This environment places extreme pressures on crusher lubrication systems with high levels of contamination (mainly silicon) entering the system through:

- faulty or inadequate breathers
- faulty dust seals
- house keeping - such as leaving lids off lube inspection tanks

Silicon (dirt) entering the crusher lubrication tanks is one of the reasons oil viscosity increases causing oil operating temperatures to rise. In hotter climates this may trip the high temperature alarm leading to the crusher shutting down under load causing costly downtime. Oil life is affected by this increased temperature - for every 10 degrees above recommended specification oil life is halved.

Once silicon is in a crusher lube system it is highly abrasive and will cause accelerated wear to lube pumps, bushes, shafts, gears and seals. High silicon levels in crusher lubrication oil can also cause the oil to foam. When this happens the oil becomes aerated losing its film strength between the mating parts which can lead to major component failure.



In our experience within the crusher industry, greatly reducing silicon and other wear metals within the lubrication system will increase oil and component life and decrease costly breakdowns.

Filter Technology Australia has our standard JQ240, 340 and 440 range of crusher systems which will accommodate systems up to 800 litres, or we can build a system to suit your needs.



Servicing can be done while the crusher is still operating and is typically done on a three monthly basis with oil samples taken to monitor trends. An added benefit of the systems had been an increase in oil life of more than 800%. Some crusher systems have been operating for three years with oil analyses still returning good results.

Fuel is also a concern in this dusty environment as fuel storage tanks, if not fitted with a quality breather, will suck in dust and moisture. In older installations this moisture will have caused rust scale to form in the tanks. This dust, moisture and rust is usually dislodged when the tank is being filled and if not filtered at the fuel pump these fine particles will pass through most conventional filtration fitted on your machines, causing accelerated injection wear.

Quarries running Filter Technology Australia JQ440 bowser and breather systems have gained extensions of OEM filter life by up to 300%.