Used Element Examples

After changing the filter elements leave them to drain before disposing of them. Upon visual inspection you may be able to see wear metals or silicon particles on the top of the paper surface. The presence of water is also visible in some of the following examples. Filtergrams may be performed on elements to determine the type and the amount of contamination. The following examples are a guide only.

Used engine oil element

The paper is black in colour and is compressed down into the Zytel housing. This is caused from the ingress of soot. As the element becomes blocked the paper media is compressed by the oil pressure. If the elements are not changed regularly or the engine is badly worn the elements will become totally blocked. This will not effect the oil supply to the engine. This stops the by-pass oil filtration process only and in some extreme cases oil may track between the filter media and the Zytel housing.

If the filter media is compressed more than 25 mm into the Zytel housing the elements are blocked. If this continues over a period of several services you may need to add additional Filter Technology systems.

Used crusher oil element

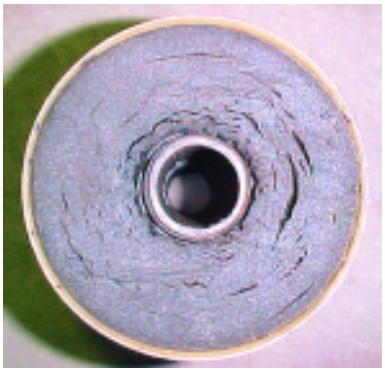
This example shows an ingress of water into the filter media. This is detected by the presence of circular cracks in the filter media. The media will absorb some water. Tracking may occur through the media when the elements are subjected to large amounts of water that may be present in the oil being filterd.

This example also shows a heavy deposit of silicon on the top of the filter media. There are a few reasons why this happens.

1) Water damage to the filter media.
2) Oil not changed prior to filter installation.
3) Damaged countershaft seal or dust seal ring.

Extended element change interval.

Used fuel pump fuel filter element



The filter media is usually dark brown or black in colour and will only compress down about 5 mm at each end. The following example is typical of a used fuel element. The circular cracks in the filter media are caused by water this is quite common in fuel bowser applications. A large presence of water will split the filter media reducing the elements filtering capacity. If wear metals are present on the surface of the filter media the fuel transfer pump may be worn or the fuel tank has a loose baffle.