



**WHY YOU SHOULD CHANGE
TO
FTA
DEPTH FILTRATION
TODAY**





FTA Depth Filters for Diesel & Oils
give you the Ultra-Fine Depth Filtration you need,
but without any of the hassles generally
associated with depth type filters

There are many advantages in upgrading to the (Patented) design
of the FTA filter cartridge and housing.
We would like to illustrate those advantages and convince you
to change to the best depth filter system available today.

Introduction

It is commonly known that “Depth Filters” provide ultra-fine filtration at far lower levels than standard OEM filters. Depth filters generally remove particulate (dirt) down to 2 micron and less.

However, there are many “Depth Filter” manufacturers to choose from – but with little to differentiate the various products. **That is – until the FTA Depth Filter range was launched.**

We are pleased to announce that FTA (*Filter Technology Australia*) recently released the **most innovative developments** seen in Depth Filtration for many years.



The aim of this document is to highlight the **advantages** that the FTA Depth Filtration system has over other similar systems available on the market

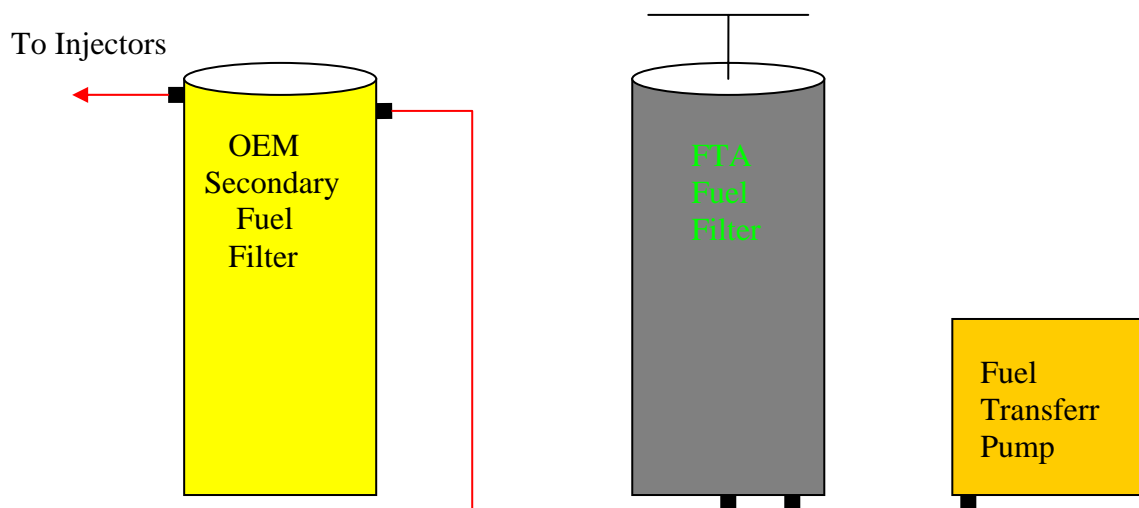


FTA SYSTEM ADVANTAGES

On diesel fuel installations we have found that many after market Depth Filter suppliers install their filter downstream of your OEM filters. This just doesn't make sense to us – why should your filter be extending the life of an add on product !

We always recommend that the FTA filter be installed upstream of your secondary filter. This will extend the life of the OEM filter and let it do its job more efficiently as the dirt holding ability of FTA filter is up to 5 times greater than the OEM filters on the market today.

The other main advantages to the FTA Depth Filter system are specific to both the Filter Housing and the Filter Cartridge and these are detailed on the following pages.





FILTER CARTRIDGE ADVANTAGES

Problems experienced with many depth filters on the market, include:

1. Tracking (*by-passing*) of the fuel/oil
2. High Pressure Drop (*fuel applications*)
3. Channelling (*through the media*)
4. Media Migration (*and element collapsing*)
5. Difficulty in Cartridge Replacement

The patented design of the FTA filter cartridge alleviates all of these problems.

1. By-Passing (Tracking)

By-passing occurs when the pressure drop across a cartridge becomes too high (through being blocked) or when saturated with water.



FTA is the only manufacturer to incorporate
“Anti-Tracking Rings” in its cartridge housing
Anti-tracking Rings (Patented)

These **patented** anti-tracking rings are moulded into the Zytel® canister and prevent by-passing of diesel/oil between the housing and the filter media (roll).



2. High Pressure Drop (Fuel Applications)

The secret to creating the optimum roll density depends on:

- a) The number of windings in the roll
 - b) Maintaining the correct tension when winding the roll
- Too few windings and too little tension will result in by-passing and channelling.
 - Too many windings and too much tension will result in a high pressure drop across the cartridge.

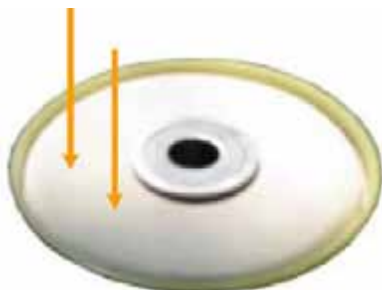


With the optimum number of windings in the FTA cartridge *AND* the precision controlled winding tension, pressure drop across the cartridge is minimised.

The picture on the left clearly shows the winding quality of the FTA cartridge.

3. Channelling

As described above, too few windings in the roll or too little tension during manufacture will result in by-passing and channelling. Channelling is when the windings separate and fuel can then by-pass through the media. This is especially the case when water is present.

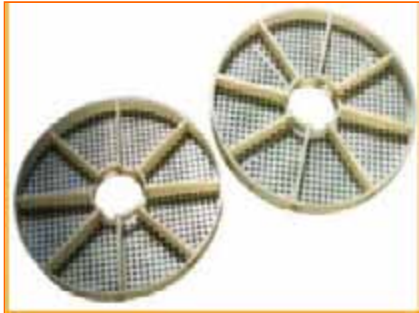


Again, the optimum number of windings in the FTA cartridge *AND* the precision controlled winding tension during manufacture, ensures that the chance of channelling through the media is minimised.



4. Media Migration

The curse of many depth filters !! Media migration is exactly what it says – pieces of filter media coming adrift and flowing downstream – most commonly into the injectors.



Another major problem encountered by operators the world over is that of the cartridge or roll collapsing when saturated – especially when water gets into the roll. Cartridges that have no outer support – or where the support is made of a material that can absorb water are most susceptible to this.

The patented FTA design incorporates a “Wagon Wheel” centre support that:

- a) Prevents the roll from collapsing (*which is further assisted of course by the anti-tracking rings*) and
- b) Prevents any filter media from passing downstream and clogging costly injectors.



5. Difficult Cartridge Replacement

This mostly occurs with saturated cartridges that have no outer support – or where the support is made of a material that can absorb water. The cartridge swells up into the housing and becomes almost impossible to remove. The design of the FTA filter with its Zytel® canister ensures that this becomes a problem of the past.



The FTA design also incorporates a full length aluminium insert which supports the inner diameter of the cartridge which further assists in easy element replacement.



FILTER VESSEL ADVANTAGES

Problems experienced with many depth filters on the market, include:

- 1) Difficult to remove cartridges for replacement
- 2) Difficult to drain fuel/oil for filter replacement
- 3) Difficult to seal the lid (leaks)
- 4) Difficult to bleed (fuel) after filter replacement

Although FTA did manufacture vessels in powder coated mild steel in the past, we have now standardised on Stainless Steel vessels. Pressure Tested to 210 PSI

1. Difficult Cartridge Replacement

When a filter becomes saturated – minimising downtime in replacement is critical. Many operators complain that machine availability is lost when replacing traditional Depth Filters. We have already covered the advantages in replacing the FTA cartridge (*over other competitor products*), but there are other advantages incorporated in the vessel design.



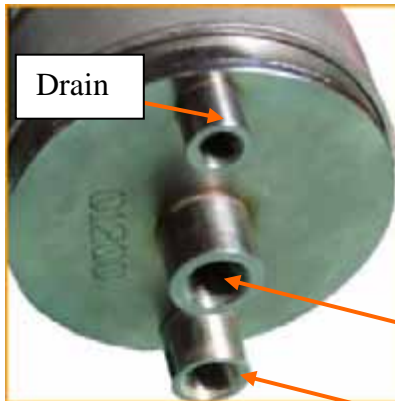
The first is the “T-Handle” which makes it very easy for operators to lift out the cartridge’s. It is important to bear in mind that the filter cartridges are saturated with diesel or oil, which makes the assembly quite heavy.

The second innovation is the use of pre-assembled **quick changeout kits**. This affords the operator the luxury of fast cartridge replacement. He can then replace the saturated elements with new elements at a later date which then becomes the new “quick changeout kit”.



2. Difficult to drain fuel/oil for filter replacement

We hear far too many operators complaining that their existing systems are not user friendly as it is difficult (*if not impossible*) to drain fuel prior to cartridge replacement.



All FTA housings are fitted with drains to ensure minimal mess during cartridge replacement.

The drain can be fitted with an extension hose to further aid ease of draining.

Return

Inlet

3. Difficult to seal the lid (leaks)

Many conventional depth filter housings incorporate a single o-ring seal in the lid. At first appearance one would think this will do the job, however these seals tend to “roll” when the lid is tightened down and become a nightmare to seal.



FTA housings have a twin seal design in the lid, as shown at left.

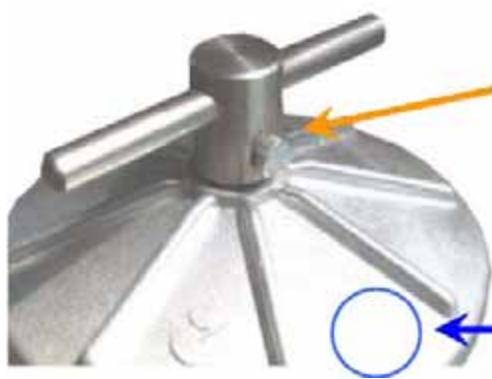
This ensures a proper seal is achieved every time, further aided by the innovative centralising spigot in

the vessel to ensure quick and easy changeout - even when the vessel is mounted horizontally.



4. Difficult to bleed (fuel) after filter replacement

Air & diesel engines just don't mix ! It is obvious – but often overlooked – that we need to ensure that we bleed off all the air out of the filter before starting up again. Many manufacturers fit their bleed screw into the filter housing lid. However, this doesn't allow us to bleed off all the air – as proven time and time again in the field.



The FTA bleed screw is fitted in the T-Handle – the highest point that air can be trapped on the vessel, ensuring all the air can be bled off.

Bleed screws fitted lower on the lid don't do the job !

Note

Depth Filtration is not new to the world. In fact it has been around for many years, but regrettably seems to have a bad reputation through products not living up to the "hype" created. We often hear of operators by-passing other factory fitted units.

With the introduction of FTA we aim to win back the positive image Depth Filtration should have.



We do not believe in "one size fits all" and FTA is one of the very few companies that produce different filter cartridges for fuels and oils.

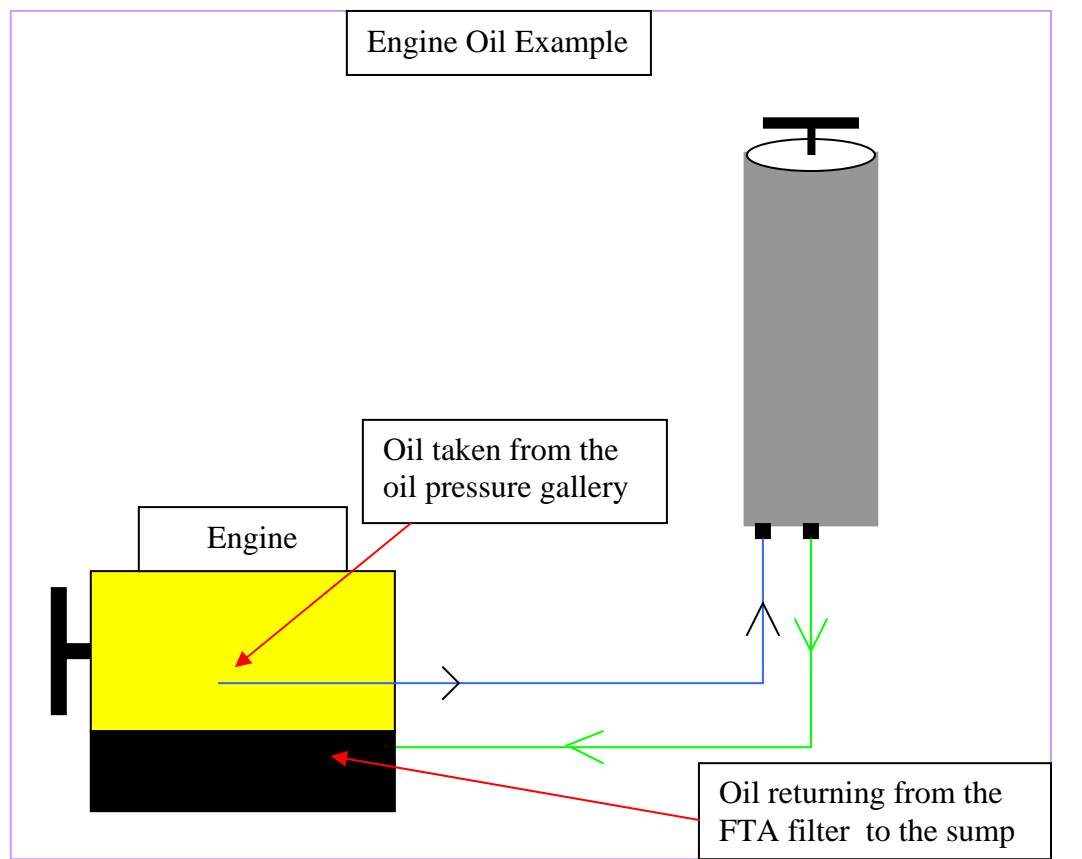
Oil Filtration

The FTA oil filter is fitted as a bypass unit on engines, hydraulics and gearboxes where possible FTA operate off the system pressure;

In engine applications FTA tap into the existing oil galleries and have a 1.5mm restriction on the return tube, this lets the oil flow through the media slowly allowing the capture mechanism within the media to do its job. The restrictor also eliminates any oil pressure drops to the engine and as most engines have up to 2 times the amount of oil needed by the engine.

The 1.5mm restrictor is on the outlet side of the filter and not on the inlet, unlike other filtration companies who have the restrictor on the inlet. FTA found this could become blocked with carbon or other particles thus rendering the bypass filter useless.

The same principle is applied to Hydraulics and Gearboxes, in some cases a pump may need to be fitted. When specifying a system for this application you need to see 15- 20% of the systems volume run through the FTA system every hour, **bypass systems need to turn over 7 times the volume of the reservoir to obtain one full pass of the oil in the reservoir.** i.e If the reservoir holds 1000 litres you need to filter 200 litres an hour and need to pass 7000 litres through FTA filters to obtain one pass.



DISCOVER THE DIFFERENCE – CHANGE TO FTA DEPTH FILTRATION TODAY !!!