

# DIESEL ENGINE SERVICE EXTENSION

THE ARIO DGOPT LOW PRESSURE SERVICE EXTENSION PACKAGE COMBINES ESTABLISHED TECHNOLOGY WITH A NEW INNOVATIVE DESIGN THAT PROVIDES AN ECONOMICAL SOLUTION TO DECREASE OPERATING COST AND INCREASE RELIABILITY.

The Ario DGOpt service extension package decreases a generator engine's maintenance intervals from the 250 hours normally specified by Original Equipment Manufacturers (OEMs) to 2000 hours.

The standard DGOpt systems are configured for engines larger than 500kW and smaller than 40kW. A customised package is available for engines between 40 and 500kW. The configuration of the customized package depends on the application.

The DGOpt service extension package includes by-pass oil filtration, fuel conditioning and a reserve oil capacity to ensure a service interval of 2000 hours. The 500kW product is controlled by a Mitsubishi PLC that allows for complete engine, generator and DGOpt measurement and evaluation with remote monitoring capability.

#### **BY-PASS OIL FILTER**

The by-pass oil filter system is specified for each engine size and Application. It removes 99% of 3-micron solid contaminates to a concentration less than 100 ppm and removes water sludge, resins and soot.

#### ENGINE FUEL CONDITIONING RESERVE OIL SYSTEM

The engine fuel conditioning unit incorporates a heavy-duty, high capacity water separation and fuel filtration system. The filter protects precision engine components from dirt, rust, algae, and especially water, which is prevalent in engine fuels. It removes contaminants from fuel through a three-stage process:

#### (I) Separation:

Occurs in the centrifuge and spins off large solids and water droplets that fall in the collection bowl.

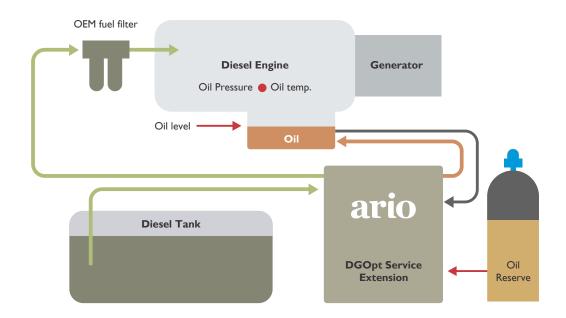
#### (2) Coalescing:

Small water droplets collect on the surface of the conical baffle, to combine and fall to the bottom of the collection bowl.

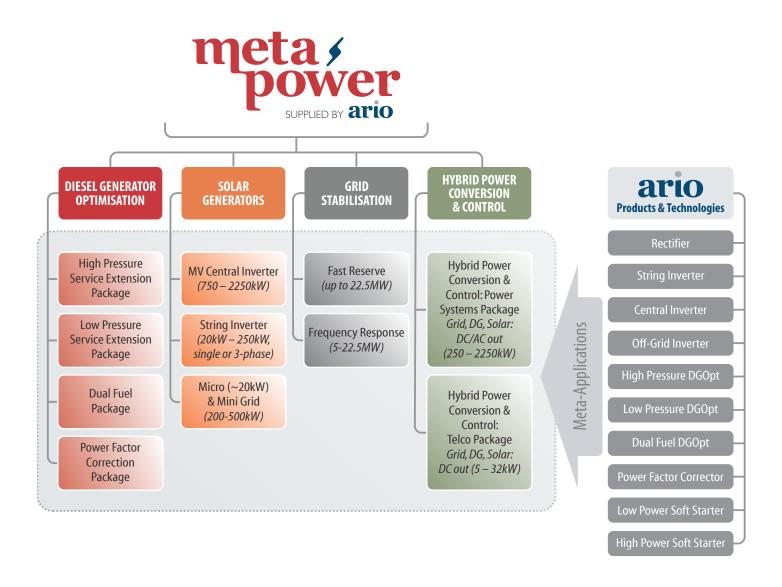
### (3) Filtration:

The filter cartridge repels water and removes contaminants from fuel down to 2-micron.

The DGOpt service extension package includes a reverse oil capacity that is supplied to the engine to maintain the lubricant to the desired and functional specification.







## THE COMPLETE ARIO OFFERING

Ario's range of power electronic products and technologies includes Rectifiers, Inverters, Diesel Generator Optimisation Technologies, Power Factor Correctors and Soft Starters. These products and technologies are combined into Ario's innovative Meta-Power solutions for a variety of Solar Generator offerings including Micro and Mini-Grid, Diesel Generator Optimisation Packages, Grid Stabilisation and Hybrid Power Conversion and Control.

