

# CELEBRATING 50 Years

supplying fluid replenishing to the aircraft industry

Risbridger has been manufacturing replenishing pumps since the early 1960s.

The early 1960's saw the development of Type II or '2nd Generation' synthetic turbine oils that were the most technical and commercially successful oils developed for the Aviation Industry. They are still used in virtually all turbine powered aircraft.

The MIL-L-23699 specification was then introduced and despite the huge advances in performance and operational demands on the fluid, manufacturers looked to increase cleanliness and prevent degradation of the fluids or systems in which they were used. The aim was to increase component life and extend service and maintenance intervals.

In 1963 Risbridger began developing replenishing pumps to deliver filtered fluid directly into aircraft systems. After design approval pumps underwent successful trials and oil cleanliness results were established. Over 50 years later we continue to manufacture pumps that dispense super clean oils and fluids to the Aviation Industry.

The British Aircraft Corporation then purchased similar pumps specifically to deliver filtered phosphate esters and hydraulic fluids. After positive trials these pumps were introduced. Around this time we began our long association with the UK MoD, supporting the fixed wing aircraft fleet. BAC merged with Hawker Siddeley and Scottish Aviation in 1977 to become British Aerospace. By the late 60's and early 70's Risbridger was supplying major British commercial airlines such as BOAC, British Caledonian, Laker Airways, Dan Air and BEA with pumps. This equipment is also referenced in Aircraft Maintenance Manuals.

Risbridger has continuously developed equipment for a wide range of aircraft fluid replenishment applications, racing cars, radar equipment and many other critical systems. Some of our applications include: De-icing fluid, radar coolant, hydraulic fluids for F1 cars.

We are sponsors of the Bloodhound SCC Project, see: [www.bloodhound-risbridger.com](http://www.bloodhound-risbridger.com)

# Risbridger

Quality Engineering Solutions

The Risbridger brand is synonymous with quality, performance and value for money and continues to serve the world aviation market from our manufacturing base in Redhill, Surrey. Using the latest CAD/CAM equipment our talented design team have developed bespoke designs for individual customers and for many different aircraft applications.

The high quality equipment is made to fit directly to factory sealed cans, kegs or containers whenever possible to reduce possible introduction of contaminants. The fluid is pumped through the integral '1600' SERIES filter element, via hoses and couplings to suit various aircraft systems.

Lubrication oil contamination is a primary cause of wear. It has been shown that the highest rates of engine/transmission component wear are due to contamination by particles as small as or slightly larger than the oil film thickness between working parts. These particles are known as 'clearance size' particles. Larger particles cause less wear damage because they are unable to get into the clearance between the working parts. A combination of water and particulate contamination results in oil oxidation, and increases acid levels. It follows that lubrication fluids function most efficiently, and last longer, when water and clearance size particles are controlled.

Risbridger replenishing pumps have consistently achieved this high standard of filtration excellence over the 50 plus years that we have been a preferred partner to the UK MoD, Aircraft and Engine manufacturers and many of the world's leading civil and military aircraft operators and MRO's.

Working to protect critical systems, personnel and environmental health has led us to develop specialist tools and kits to ensure ease of use, safety and cleanliness in and out of the Hangar. Overspill Collection Kits, Flyaway Kits and bespoke tools for niche applications, such as Oleo Leg Fill and Drain Rigs are our areas of expertise.

## We supply fluid replenishing equipment to a wide range of customers including:

Aer Lingus, AgustaWestland, Air France, Avianca, BAe Systems, Bristow Helicopters, British Airways, Bugatti, Bloodhound SCC, Cathay Pacific, Embraer Aviation International, Emirates, Etihad, FlyBe, Fokker, Gulfstream Aerospace Corporation, KLM, McLaren Racing, Mercedes GP Petronas, Qatar Airlines, Saab, Red Bull Technology, Virgin Atlantic.

### Please see examples of various 'series' of Risbridger Fluid Replenishment Equipment:



**7 Series**  
1 US quart cans handheld pumps  
For engine oils and phosphate esters.



**893 Series for Phosphate Esters**  
1 US gallon rectangular cans – freestanding vertical action pumps.



**A range of Trolley Dispensers**  
are available to fit factory packed cans/drums or with 5,8 or 12 litre refillable reservoir.



**1130 Series**  
1 US gallon refillable freestanding vertical action pumps.



**951 Series**  
for 1 US Gallon round can freestanding vertical action pumps.



**2315Mk4**  
**Oil overspill collection kits.**  
Safe and clean collection of oil from 'fill to overspill' operations, keeping the hangar and your personnel safe from slips and environmental pollution.



**Flyaway Kits**  
Using our kits you can ensure that wherever your aircraft requires top up operations, the correct equipment is available.

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