

# Advanced Friction Reduction Technology

## Lofrix® Application Case Study

### Advanced jet fighter



#### The problem

In May 1994, in the development phase of the Typhoon Eurofighter, BAe Systems wanted to ensure that the canopy release mechanism of the planned fighter jet would work under all conditions without fail.

The company agreed to test the Lofrix® Dry friction inhibiting product with a view to using it in the Eurofighter cockpit, with the proviso that it would perform to specification under all flying conditions, including extremes of temperature and hostile environments, such as high moisture and salt water spray.

#### The solution

A stringent test programme for Lofrix® Dry was established and British Aerospace carried out five years of testing and trials before approval was granted for the product to be used in the construction and operation of the fighter aircraft.

A range of tests were undertaken that covered volumetric wear, corrosion (salt spray test – BS 7479) and co-efficient of friction. These tests were undertaken on different metals in a variety of environments (including extreme heat and cold) and repeated thousands of times without a single failure being recorded, and results were also compared to the results of tests on alternative non-Lofrix products.



Eurofighter Typhoon

#### The result

The Lofrix® Dry friction inhibitor passed all tests and was subsequently authorised to be the only product permitted for use on the Typhoon canopy release mechanism.

The data held from the results of the tests is confidential to British Aerospace and subject to the provisions of the Official Secrets Act. However, all the tests showed significantly better than predicted results with the co-efficient of friction tests showing a dramatic improvement over expected results.

**British Aerospace has been successfully using Lofrix® Dry for this application for over 12 years and Lofrix® has been awarded a permanent authority to supply.**

*Power and energy conservation is of paramount importance to manufacturing and process industries. This simple performance enhancing treatment will return huge savings at low cost. Lofrix® has a cost to performance ratio warranting its introduction in almost all applications.*

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