



Consultancy

The application of 'good tribology' contributes significantly to the efficiency, reliability and performance of European Spacecraft mechanisms. ESTL offers independent, specialist support in this field for the benefit of the European Space mechanisms community. Part of ESTL's remit is to provide an accessible consultancy service, so there are many ways that ESTL can support your activities through tribological consultancy.

Free Minor Consultancy

ESTL can provide you with free-of-charge consultancy support, to help you overcome some uncertainties in your development project. Typically, this will take the form of half to one day of ESTL's support on general tribological matters, such as bearing questions or test considerations. For example, we could help you with your choice of lubricant, or analyse and size bearings for load capacity, or provide you with data on life from our knowledge base of previous programs. We call this 'Minor Consultancy' and it can cover any specific query or uncertainty relating to the tribology in your application. If this is of interest, we have ESA funding to support you at no cost to your project or your partners. To qualify, you must be based in an ESA member state.

ESA-Funded Major consultancy

If a minor consultancy is not sufficient, ESTL can, with ESA's agreement, implement specific studies and activities that support either an on-going ESA programme or an organisation based in an ESA member state. This fast track technical consultancy can typically provide larger scale analytical support, detailed advice and even bespoke test programmes. Visibility of results may be restricted to ESA and the industrial entity.

Commercial Consultancy

If you need additional support, or if you cannot use or need more than the ESA-funded minor or major consultancies, ESTL can provide you with tailored consultancy support

on any tribological issue on a commercial basis. Your consultancy could be entirely confidential in this instance, if appropriate.

ESTL Website Members Area

We can also support your activities through the multiple online resources that are accessible via <https://esrtechnology.com/> These include:

- **ESTL Document database** – Fully searchable database of technical reports produced by ESTL, covering 40 years of R&D support to ESA (i.e. TAPS)
- **Database Of Liquid Lubricants (DOLLS)** – Updated to include recent formulations of fluid lubricant for spacecraft applications
- **Database of Empirical Bearing Running Attributes (DEBRA)** – Database of experimental bearing test data
- **ESTL conference papers and presentation** – Fully searchable database of conference papers and presentations produced by ESTL (including AMS, ESMATS, and FPD)
- **ESTL Tribology Tool Kit (coming soon)** – Calculations package including Hertzian stress calculations, oil loss, and friction & wear
- **Tribology Applications Programme (TAPS)** – These are focussed R&D projects, around 8-10 per year, that ESTL undertakes to generate essential tribological data for the European Space community. Typically, they involve developing, evaluating and validating tribology advancements and mechanism design data. They are fully funded by ESA. All TAP reports can be accessed from our Website Members area and when presented, at ESA Final Presentation Days, ESMATs, etc.



Whatever your tribological needs, ESTL can provide tailored consultancy and advice to support you on your project. Please contact us for further information.

- Simon Lewis, Manager, ESTL
E: Simon.Lewis@esrtechnology.com T: +44(0)1925 843451
- Simon Griffin, Business Director
E: Simon.Griffin@esrtechnology.com T: +44(0)1925 843499
- Or visit www.esrtechnology.com