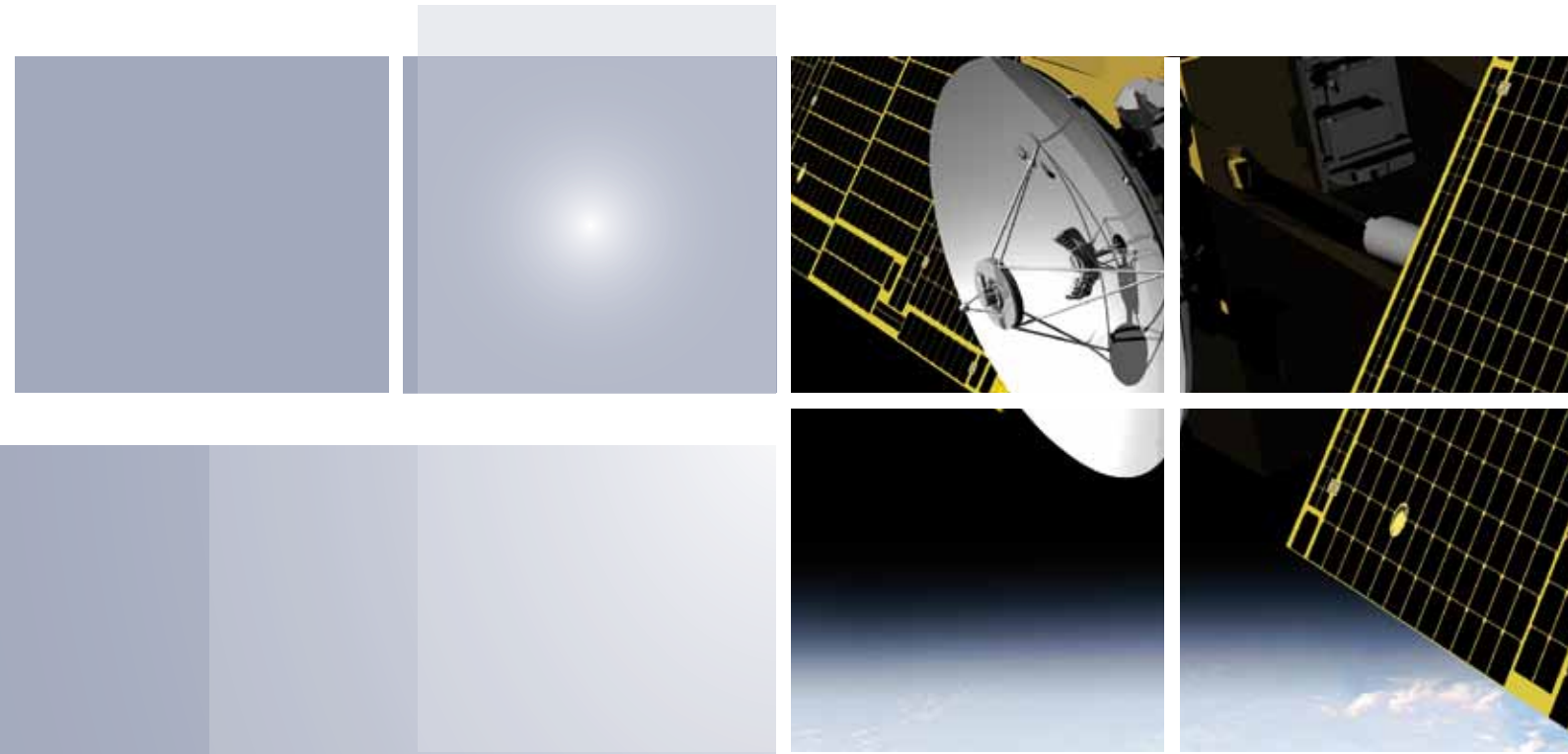


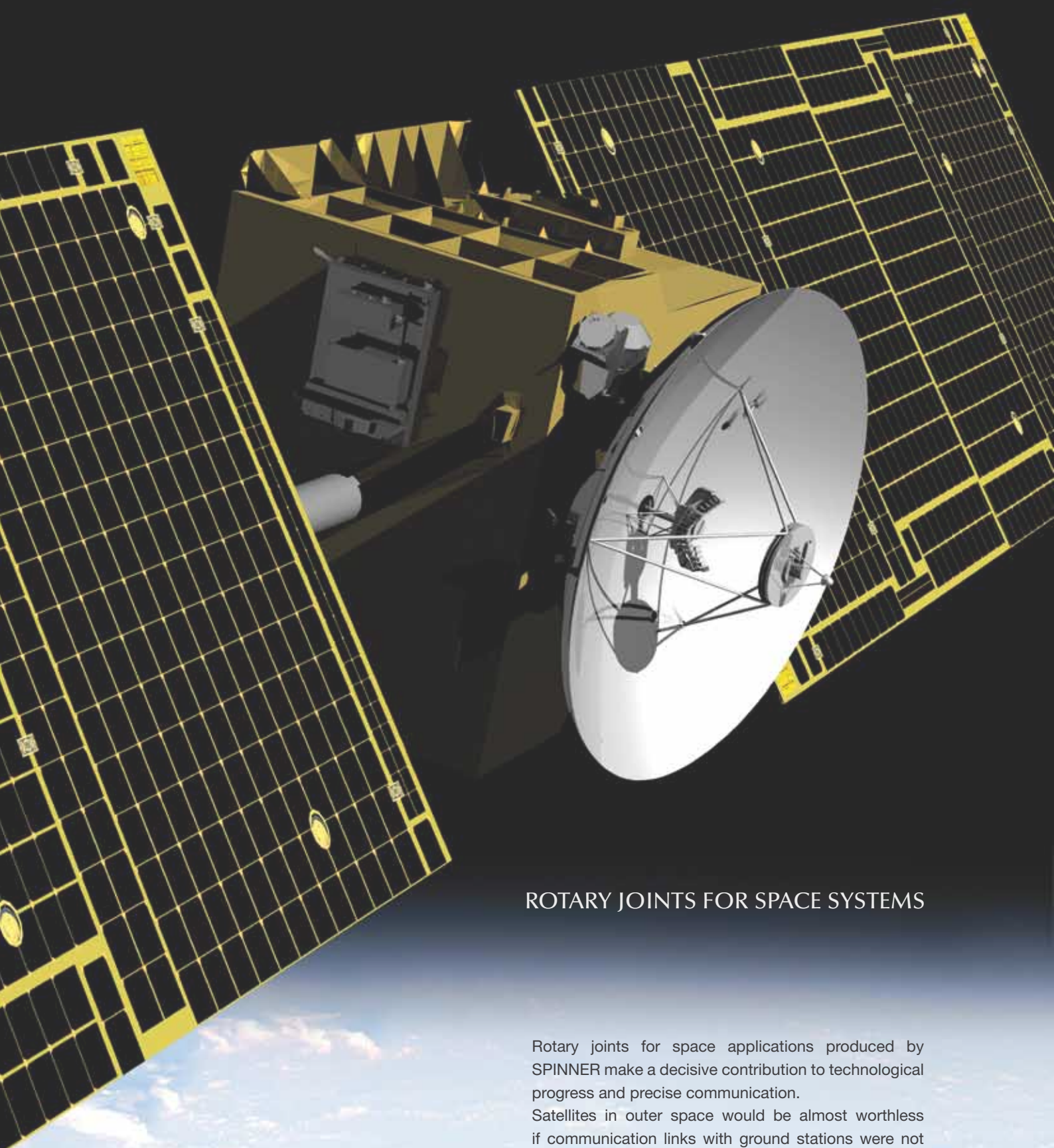


# SPINNER || SPACE SYSTEMS ROTARY JOINTS



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**High Frequency Performance Worldwide**  
[www.spinner-group.com](http://www.spinner-group.com)



## ROTARY JOINTS FOR SPACE SYSTEMS

Rotary joints for space applications produced by SPINNER make a decisive contribution to technological progress and precise communication.

Satellites in outer space would be almost worthless if communication links with ground stations were not permanently maintained. Their antennas have to be continuously targeted at their ground stations, a task for which rotary joints are indispensable.

Likewise a moving satellite requires a rotary joint solution to continuously point the antenna beam. The rotary joints used for signal transmission need to be small and often designed specifically for the application.

SPINNER, the leading European supplier of rotary joints provides custom-made solutions with excellent electrical and mechanical performance and longest life time.

In space, which is one of the hardest conceivable environments, reliability, precision and quality of products are most critical. Extreme temperature fluctuations in orbit generate enormous stress on the material.

Even under those extreme conditions in space, a rotary joint has to ensure absolutely reliable signal transmission over the whole service life of the satellite. In addition, low weight plays a key role. That is why SPINNER uses special materials that have low weight and excellent durability. The wealth of experience that our engineers have with rotary joints in extraterrestrial use and our commitment to continuous product improvement are the basis of our great success.

When it comes to space applications SPINNER offers customized solutions with all relevant simulations, tests, screenings, reports and analysis. That is why all major space companies trust in our rotary joints.

## WHO ARE OUR CUSTOMERS?

- European Space Agency
- Airbus Defence & Space
- Amideon
- Korean Aerospace Research Institute
- Japan Aerospace Exploration Agency
- MDA
- Thales Alenia Space
- Shanghai Space Institute
- Kongsberg ... and many more



## WHAT IS OUR HERITAGE?

- BepiColombo
- KOMPSat
- NigeriaSat-2
- Kourou Station
- Villafranca Station
- Iridium Next
- ExoMars
- MetOp ... and many more





## FROM COMPONENTS TO PRODUCTS

All rotary joints and components for space applications are assembled in a 30 m<sup>2</sup> (323 ft<sup>2</sup>) temperature-controlled, dust-free clean room ISO class 7. In order to assemble to tight tolerances and to prevent product contamination SPINNER follows strict rules and procedures meeting specified air flow rates, pressurization, temperature, humidity, and specialized filtration.

Our experienced and well trained personnel take care of high precision machining, precision engineering, manufacturing and assembly.



Data subject to change without notice

SPINNER GmbH | Headquarters | Erzgiessereistr. 33 | 80335 München | Germany  
Tel.: +49 89 12601-0 | Fax: +49 89 12601-1292 | rs@spinner-group.com | www.spinner-group.com  
Certified according to DIN EN ISO 9001 / 14001