Separation Systems for Human Rated Applications

Products with outstanding flight heritage. For more than three decades, RUAG Space has been delivering separation systems and payload adapters to the commercial and governmental launcher markets.

These products have an outstanding flight record with more than 430 in-orbit separations with 100% mission success. This means that our products will be able to provide safe and low risk operation in all types of missions, including human rated applications. RUAG Space has the capability to support you through all the steps in the human rating qualification process.
High Load Capability for all I/F diameters

The RUAG Space Separation Systems are compatible with all standard spacecraft interfaces, today ranging from diameters of 360 to 2'624 mm (14 to 103 inches). The mature and flight proven Separation System design can without major design changes be scaled to up to 5'000 mm diameter. The unique Marman clamp band interface provides high load capability for all diameters. The foreseen human rated applications range from separation of small auxiliary units up to separation of launch vehicle stages or re-entry vehicles.

Low Shock Release Function

With our CBOD™ Separation System Release Mechanism we can provide the unique combination of high load capability and a release shock as low as 1000 g. The CBOD is designed with high safety margins and dual initiation to ensure safe and reliable operation at all times. Furthermore, the CBOD can be reset and enables functional test of the flight configuration prior to launch.

Human Rating of Separation Systems

According to NASA’s Human Rating Requirements NPR 8705.2B, the RUAG Space Separation System is classified as a Design For Minimum Risk (DFMR) - component. For each human spaceflight mission a Separation System Human Rating Certification Package will be developed. This is to provide evidence that our product is failure tolerant, safe to operate, highly reliable and designed and built using a robust and well established process. Our track record is your guarantee for mission success.