



Stack Customers: NASA

Stack's DVR has been tested in the extremes of space flight. Nasa used the DVR to monitor the solid-rocket booster rockets as they were subjected to soaring heat and g forces. In terms of lifting power, the two boosters firing at launch produce 6.6 million pounds of thrust. It would take 32 Boeing 747 jumbo jets, all applying take-off thrust, to get the same power yield.

Stack's DVR was involved with the testing of the reusable rockets.

United Space Alliance's Solid Rocket Booster Element division is the prime contractor for SRB assembly, checkout and refurbishment for all non-solid-rocket-motor components and for SRB integration.

The two solid-rocket boosters (SRBs) provide about 71% of the total thrust at liftoff. They are ignited after the three Shuttle main engine thrust level is verified. A little over two minutes into the ascent, the SRBs are jettisoned at an altitude of approximately 150,000 feet and 24 nautical miles downrange.

Each booster has a thrust (sea level) of 3,239,600 pounds at launch.

The SRBs consist of the forward dome section, 6 individual cylindrical weld-free steel sections approximately 12 feet in diameter, the aft ET attach ring section, two stiffener sections, and the aft dome section. When "stacked" to form an SRB, they are almost 149 feet long. The cylindrical sections contain the solid propellant which is the consistency of a rubber pencil eraser. Once lit, this solid propellant can not be extinguished.

