



Innovative Mechanism Solutions

Frangibolt[®] Non-Explosive Actuator (NEA) Qualification & Flight History

The Frangibolt was developed under a joint contract for the Naval Research Laboratory (NRL) and National Aeronautics and Space Administration (NASA). The 3+ year development effort resulted in flight qualification and outer space debut aboard the spacecraft Clementine, launched February 1994. Since this time, the Frangibolt has gained increasing popularity resulting in the following heritage.

CUSTOMER	PROJECT / APPLICATION	MODEL NUMBER
Naval Research Laboratory	Clementine	FB4-24-10SR2-TC
TRW	TOMS	FB4-16-9SR2-TC
Honeywell	STRV2	FB4-24-10SR2-TC
Naval Research Laboratory	ARTS I	FB4-24-10SR2-TC
Lockheed Martin	STEX	FB3-20-16SR2-TC
Naval Research Laboratory	ATEX	FB4-24-10SR2-TC
Lockheed Martin	Classified	FB4-24-10SR2-RTD
Wel Research Ltd.	Classified	FB4-24-10SR2-RTD
Spectrum Astro	HESSI	FB3-20-16SR2-TC
Jet Propulsion Laboratory	EOS	FB4-24-10SR2-RTD2
NEC	CPDR	FB4-24-10SR2-RTD2
Alenia	GIADA	FB2-16-31SR2-TC
Wel Research	Classified	FC2-16-31SR2-TC
Ball Aerospace Corp.	R52000	FC4-24-10SR2-RTD2
Lockheed Martin	P81	FC4-24-10SR2-RTD2
Cedrat Recherche	Rosetta	FC2-16-31SR2
Hunting Engineering	Beagle 2	FC6-32-7SR2-TC
Spectrum Astro	Coriolis	FC6-32-7SR2-TC
NT Space	Classified	FC3-20-16SR2-TC
Astrium Limited	Beagle 2	FC2-16-31SR2-TC
Ball Aerospace	CloudSat	FC4-24-10SR2-RTD2
Astrium Limited	Beagle 2	FC3-20-16SR2-TC
U Leicester	Mars Express	FC3-20-16SR2-TC
Lockheed Martin	Classified	FC4-24-10SR2-RTD2
University Utah	USUSAT	FC2-16-31SR2-TC
Honeywell	Othello	FB12-32-6SR2-TC

Note: All units shown above have been either Flight Qualified and or Flown.