



# Separation Nut PSM 3/8B

The Beyond Gravity PSM 3/8B Separation Nut is the smallest member of our family of Low Shock Separation Nut designed for interfacing small sized spacecraft with Launcher Vehicles. It has been developed to fit the One Web™ class of satellites, typical 100-200kg.

## Low Shock Separation Nut for your mission succes

The Beyond Gravity PSM 3/8B introduces an internal mechanical leverage minimizing the required pressure spike generated by the initiators. Hence the shock is significantly reduced without sacrifice of reliability compared with heritage separation nuts.

The separation nut avoids metals with different thermal expansion coefficients to achieve a wide thermal operation range. It has been designed as a direct drop in replacement for many of the classical higher shock separation nuts.



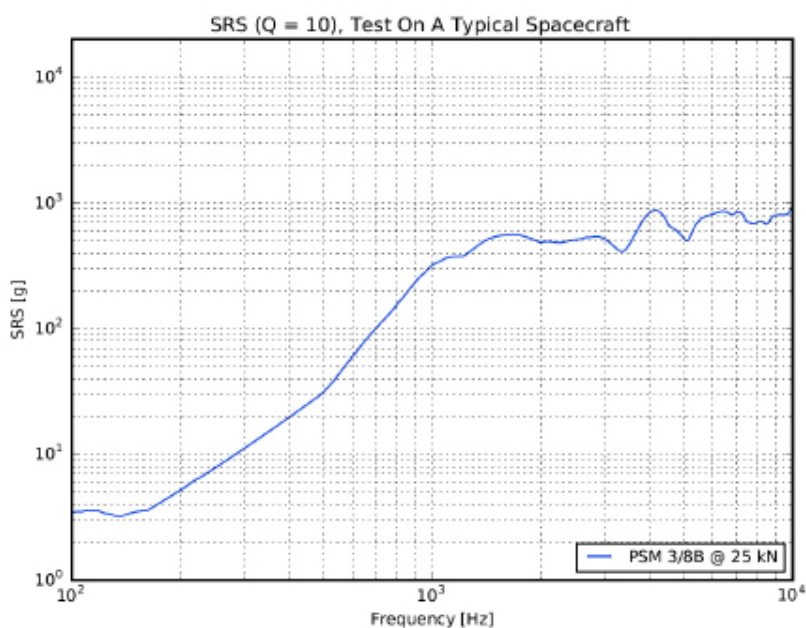
## Proven performance

Qualified per AIAA S-113-2005 (former DOD-E-83578A)

Initiated by dual NSI equivalent initiators (PC23, 103377-191, -449, -500, PD222400024-009, 2-8001140-1, 852420-XX).

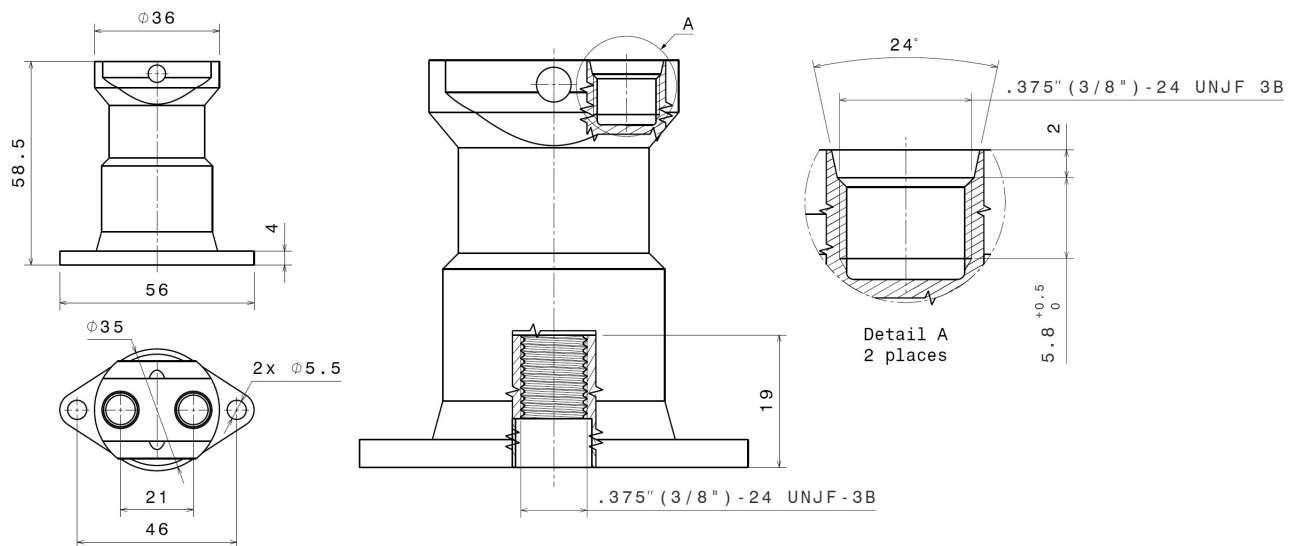
Tested worst case scenarios with 100% success:

- single 80% initiator
- cold case
- no internal lube
- no o-ring
- 150% external load



### Main characteristics of PSM 3/8B Separation Nut

		Unit	Value
Bolt pretension (nominal)		kN	25
Mass		kg	0.23
Dimensions	Height	mm	58.5
I/F	Separation Bolt		UNF/UNJF 3/8"-24 Class 3A with 19.5±0.5mmTBC engagement length
	Separation Nut		Two M5 bolts (or inch equivalent) placed 46 mm apart
	Initiator type		PC23 103377-191, -449, -500 PD22240024-09 2-8001140-1 852420-XX
Qualification temperature span		C°	-68 to +120
Overall random vibration levels (Qualification)		gRMS	50
Release time dispersion			Within 2.0ms on a 3σ -level
Reliability			0.99995 at a 95% confidence level



Interface Dimensions