



## Separation Mechanisms for Satellites in 1-50KG Range



# Rideshare Launch Services

## **Piggyback launches**

Satellites: CubeSats, nano & micro satellites

Launchers: international

Orbits: LEO, GTO and above

Typical time-to-orbit : 12 months

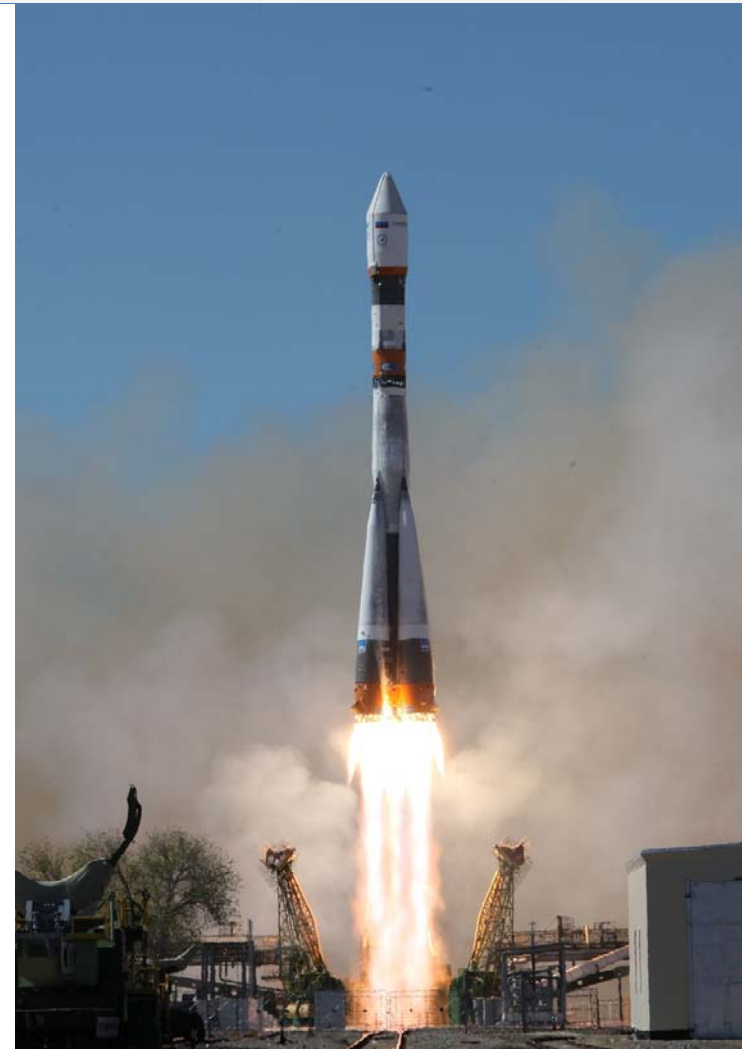
## **Turnkey service**

Slot reservation

Separation mechanism

Service

- Logistics
- Launch campaign
- Paperwork and procedures

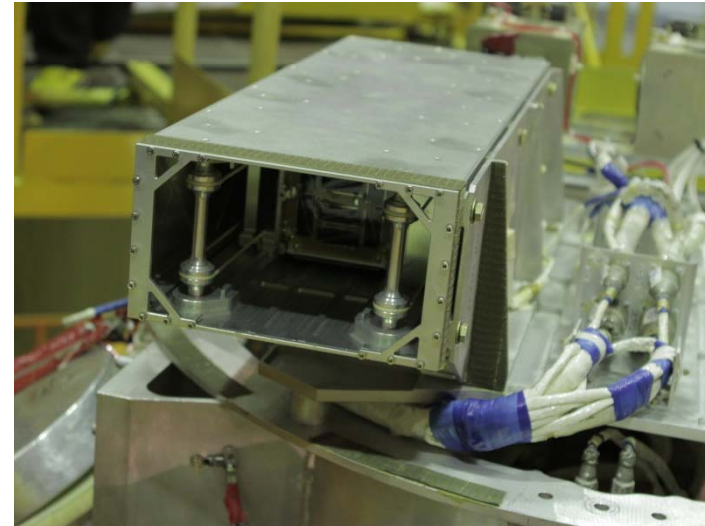


# FlyMate





# FlyMate



**Flight proven - First commercial service  
in April 2013 onboard BION-M N1 SC**



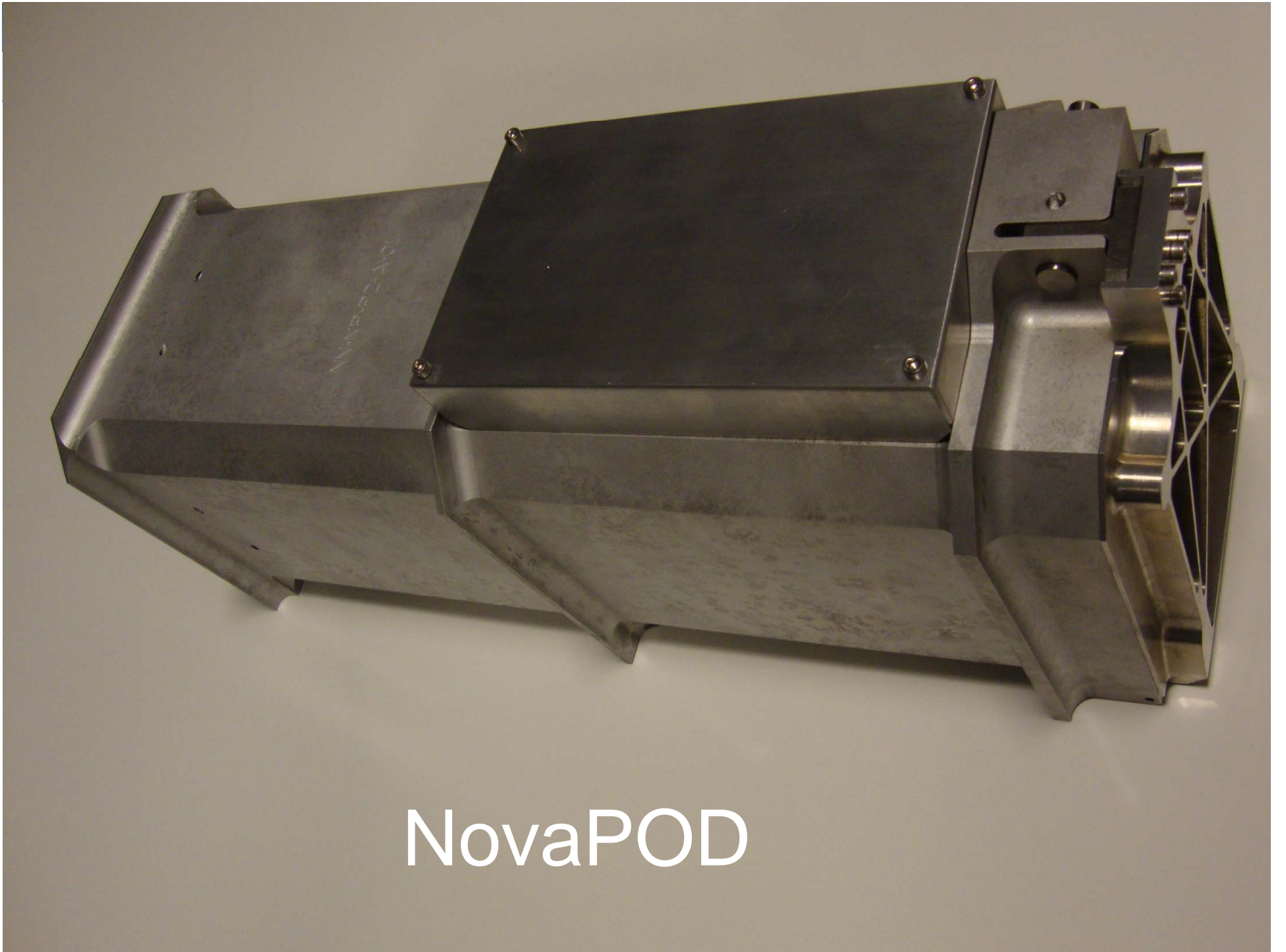
# FlyMate

## Features

### FlyMate™ - 2<sup>nd</sup> Generation CubeSats Deployer

- Compatible with most LEO Launch Vehicles
- Can eject its passengers separately
  - Adjustable speeds
  - Adjustable temporizations
- Compatible with '3x1U', '2x1U + 2U' and '3U' CubeSats configurations
- Motorized ejection mechanism. Patented
- Up to 60mm of free space between each CubeSat
- CubeSat separation velocity up to 2 m/s
- Off-the-Shelf & ITAR FREE





NovaPOD

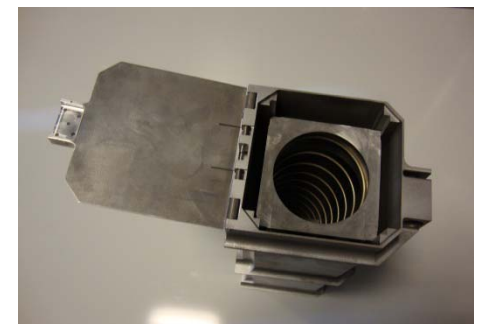


# NovaPOD

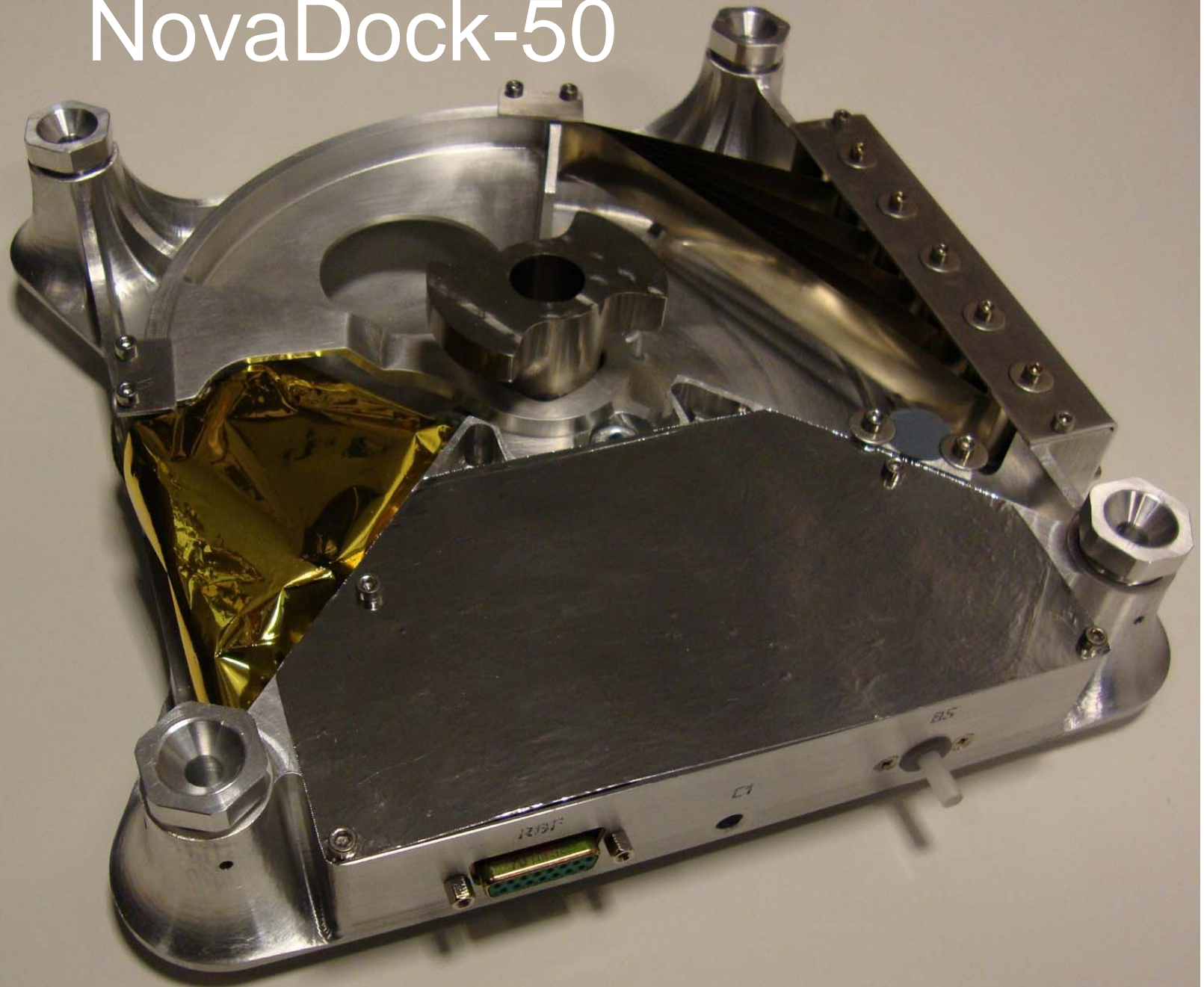
## Features

### NovaPOD - standard CubeSat deployer

- Compatible with most LEO LV
- ‘3U’ CubeSat payload compatible
- Spring based mechanism
- Pyrotechnics free
- Dimensions “before CubeSat ejection”: 418 x 140 x 169 mm
- Mass: 2,3kg +/- 0,2kg (depends on the ejection velocity and the electrical interface)
- CubeSat separation velocity up to 2 m/s
- ITAR FREE



# NovaDock-50







# NovaDock-50

## Features

### **NovaDock - for satellites up to 50kg**

Dimensions 255 x 255 x 55 mm

Mass: 2.3kg

Minimized mass and surface of parts fixed on the satellite: 300gr

Explosive- free, piezomotor based blocking mechanism

Energy autonomous - Embedded power module

Simple mechanical & electrical interfaces with the LV

- 9 x M8 bolts
- One connector

Satellite separation velocity up to 2 m/s

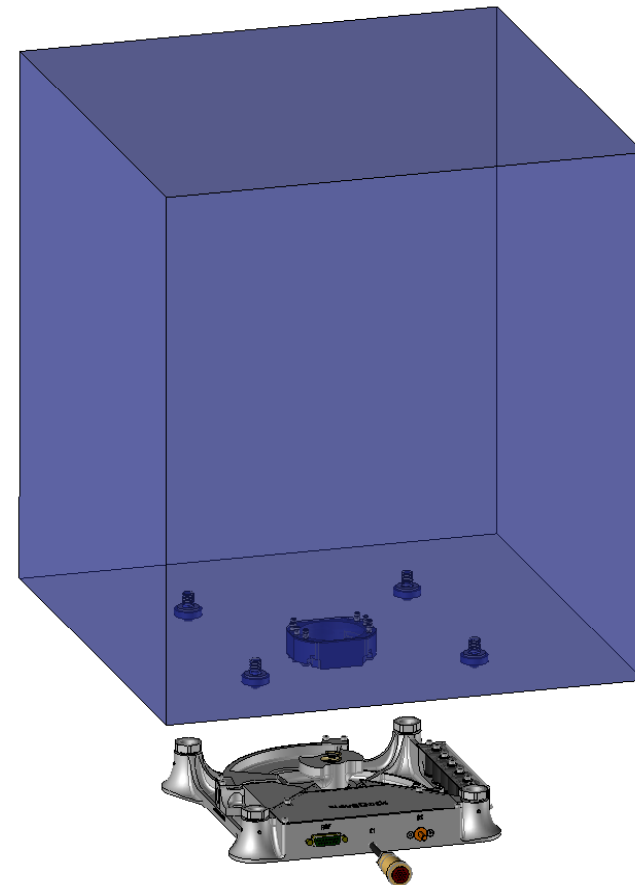
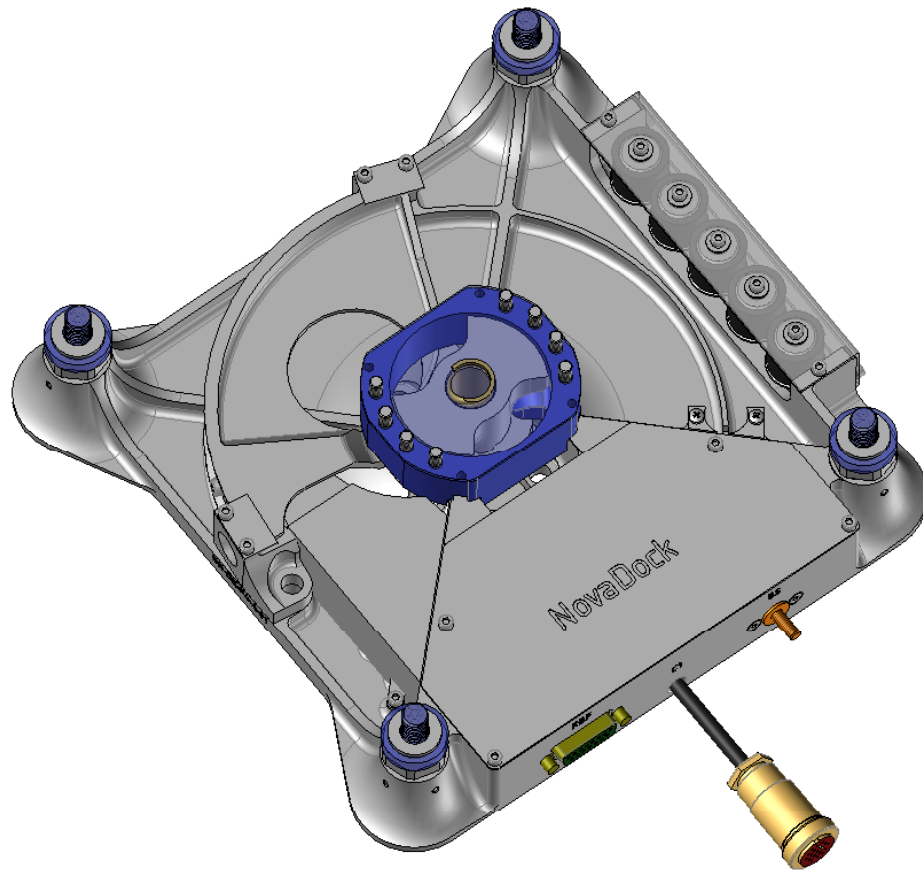
On ground qualified

Off-the-Shelf & ITAR FREE



# NovaDock-50

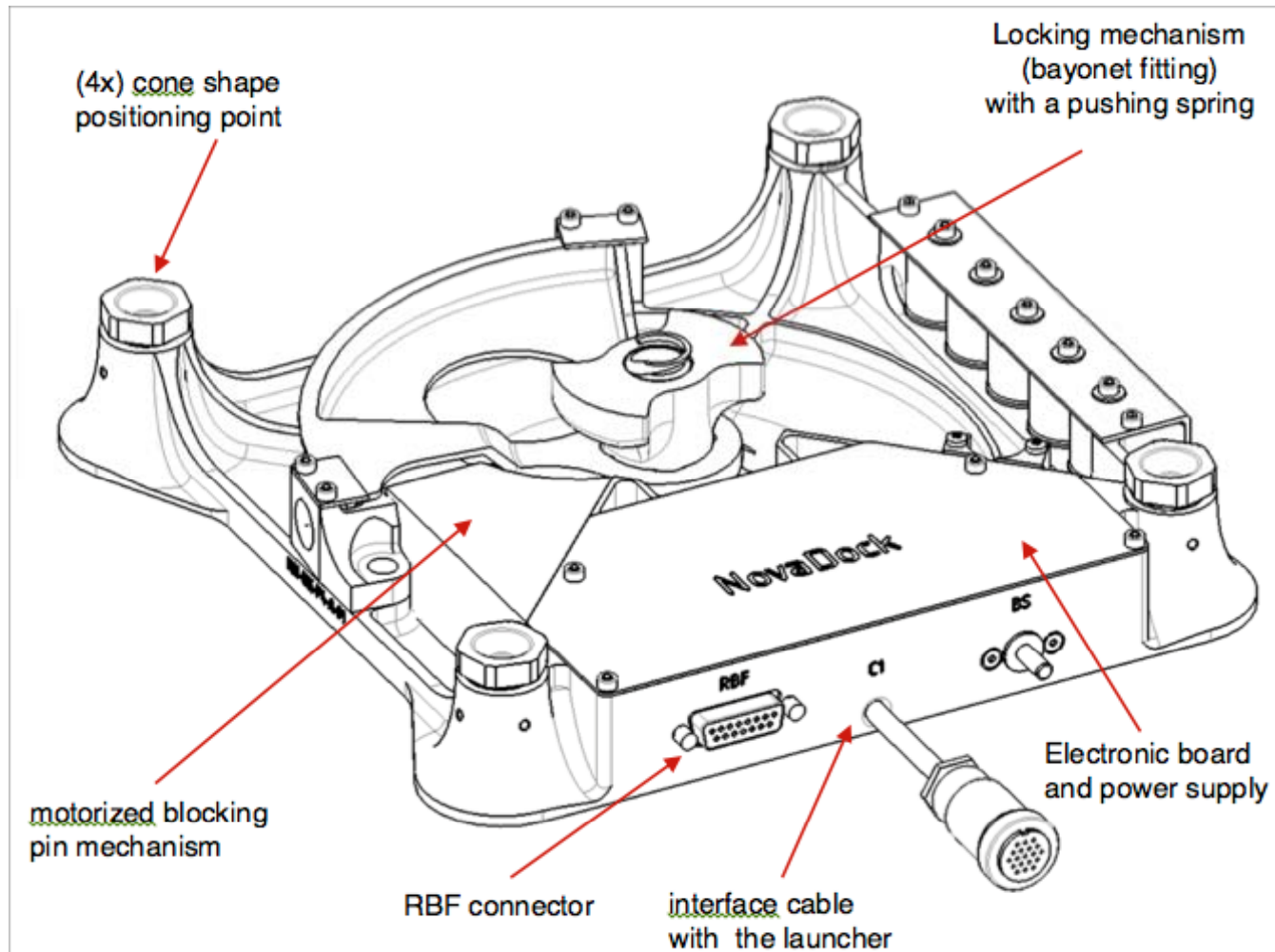
## Satellite Integration

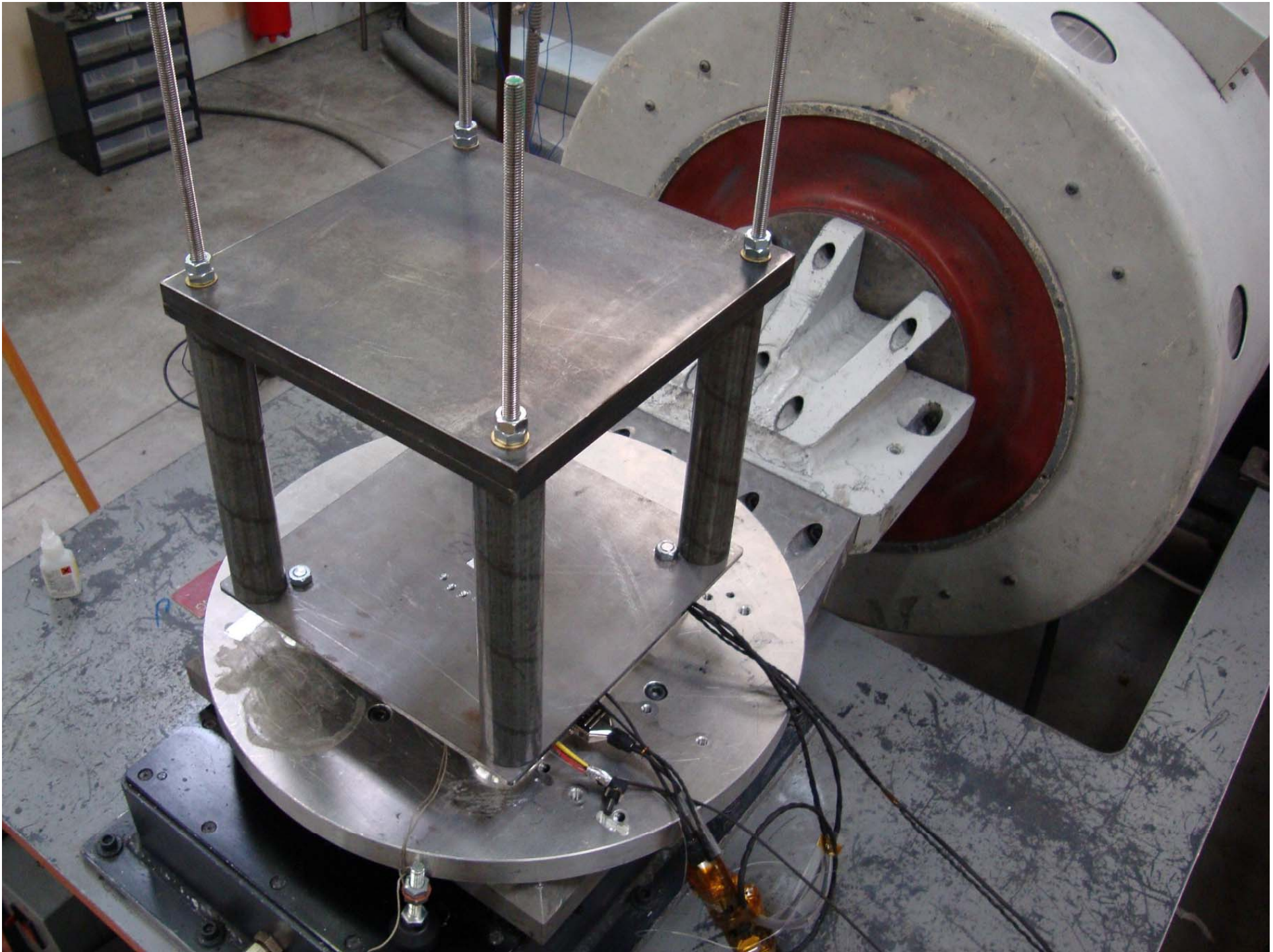




# NovaDock-50

## Parts & Modules





**Thank you for your attention!**

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