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INFLATABLE MECHANISM FOR SOLAR PANELS

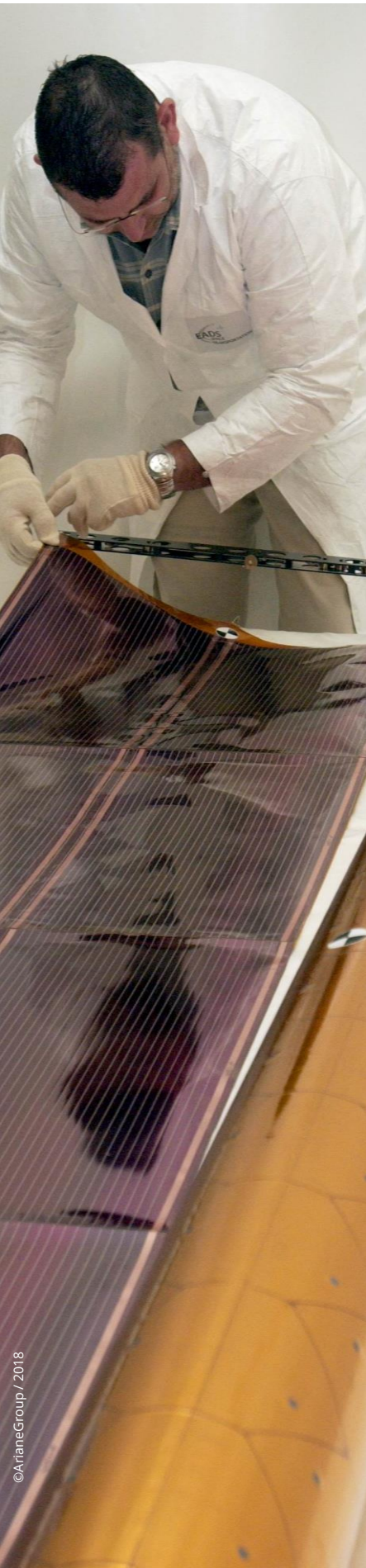
DEPLOYABLE STRUCTURES PRODUCT LINE

> **INFLATABLE MECHANISM FOR SOLAR PANELS**

> DEPLOYABLE BAFFLE

> DEPLOYABLE BOOMS

An innovative solar panel deployment system based on inflatable technologies



INFLATABLE MECHANISM FOR SOLAR PANELS

A lightweight and compact deployment system

ArianeGroup develops a portfolio of deployable mechanisms based on three booms technologies that offers improved cluttering and mass for solar panels solutions.

A customizable offer:

- > Relying on 3 inflatable booms **technologies** : composite, aluminum and telescopic
- > **Tailorable** concept for all kind of power needed and storage available
- > **Adaptable** to all satellites above **100 kg**
- > **Compatible** with **folded** or **rolled** membrane
- > **Compatible** with **flexible** or **thin-film** solar cells

DESIGN CONFIGURATION EXAMPLE	
Stowed height	300 mm
Deployed height	10 000 mm
Compactness coefficient	> 30
Membrane width	2 000 mm (x2)
Mechanism weight	< 30 kg
Total panel weight	< 60 kg
Power	10 kW
Specific power	> 130 W/kg



Panel in stowed configuration



Panels in deployed configuration

ADVANTAGES

- > A compactness coefficient between the stowed and deployed length > 30
- > Possibility to deploy very large surfaces to provide high power even with very low storage capabilities
- > Lightweight mechanism offering a specific power above 130W/kg
- > Cost efficient concept

CONTACT

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