

# Xenon loading carts

Ground support equipment for xenon loading  
or equipment pressure testing



- ✓ Dedicated to small or larger satellites
- ✓ No contamination during filling
- ✓ Optimized propellant consumption
- ✓ Easy to operate





## Air Liquide, 20+ years' experience in loading carts manufacturing

Electrically-powered thrusters benefit from enhanced propulsive performances compared with conventional thrusters. Electric propulsion can indeed achieve high speeds over long periods. Thanks to these further performances and competitiveness, electric propulsion has become a key technology for the new generations of commercial and scientific satellites. By 2022, most of the satellites will be equipped with electric thrusters, more specifically with xenon and krypton as a propellant.

With this growing demand for electrically-powered satellites, Air Liquide developed an integrated offer with technical solutions and services for xenon ground support equipment (Xe GSE).

## Features of the range

### Loading cart for small satellites



### Loading cart for large satellites



- Filling and draining of the spacecraft tanks
- Propellant mass, pressure and temperature monitoring
- Oxygen and moisture control
- User-friendly Human Machine Interface (HMI)
- Compliant with EU and US standards

## Technical characteristics

<b>Recommended quantity of xenon to be loaded</b>	<100kg for small satellites	>100kg for large satellites
<b>Compatible for the loading of:</b>	Argon / krypton / xenon	
<b>Pressure</b>	200 up to 300 bar (on demand)	

## Services

On-demand filling service can be performed by Air Liquide's teams: propellant loading of the satellite's tank.

We can also provide an all-inclusive offer including propellant supply and loading into the spacecraft.

### Advantages:

- No investment required on your part
- Budget defined in advance with no additional costs
- Air Liquide's worldwide presence in the main launching bases

## Contacts

### Air Liquide Advanced Technologies

2, rue de Clémencière  
BP 15 – 38360 Sassenage, France  
Phone: +33 4 76 43 62 27  
E-mail: [gcom.alat@airliquide.com](mailto:gcom.alat@airliquide.com)  
[www.advancedtech.airliquide.com](http://www.advancedtech.airliquide.com)

[www.airliquide.com](http://www.airliquide.com)



A world leader in gases, technologies and services for Industry and Health, Air Liquide is present in 73 countries with approximately 67,100 employees and serves more than 3.9 million customers and patients.