

FERBECK

Ariane 6, French Guiana



The Guiana Space Centre, also called Europe's Spaceport, is a French and European spaceport to the northwest of Kourou in French Guiana, a region of France in South America.

Operational since 1968, it is particularly suitable as a location for a spaceport for its proximity to the equator and open sea to the east.

The Ariane 6, Europe's next-generation launch vehicle, provides Arianespace with new levels of efficiency and flexibility and has been conceived for reduced production costs and design-to-build lead times. It will be in a position to perform its maiden flight in the second quarter of 2022.

The scope of work includes:

- concrete shell
- slabs and roof

Key facts about the spaceport

- Guiana Space Centre
- Owner: ESA
- Parent agency: CNES
- Contractor: Eiffage Génie Civil



Key facts about the tower

- · Completed in 2019
- Water tower
- H 90m
- Outer Ø = 14.7m

A water tower, replenished by the nearby reservoir "Roche Nicole", is used to inject large quantities of water below the launch pad, into the exhaust plume, and in the area above the pad to absorb acoustic energy and vibrations generated during a rocket launch.

With a space industry track record stretching back more than 50 years, Eiffage won this project as it notably helped to build launch pads ELA1, ELA2 and ELA3, as well as Soyuz (rocket) and Vega (launch vehicle).

In this spaceport, FERBECK INTERNATIONAL SA has been awarded a construction contract of a 90 meterhigh-concrete water tower by Eiffage Génie Civil.





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Concrete shell

The outer concrete shell is made of t 1,025m³ of concrete with the following size:

• 14.7m of external diameter

• h 90m

The casting is performed with a slipform operating 24/7.



Slabs and roof

2 slabs are installed inside the structure:

- roof slab at EL.+90.0m
- water reservoir slab at EL.+80.0m

The reservoir slab is made of concrete predalles, which are placed on steel beams supporting the mass concrete pouring.





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Overview of the plant

For Arianespace's commercial launches with the heavy-lift Ariane 5, medium-size Soyuz and lightweight Vega, this strategically located facility provides optimum operating conditions for launching its customers' satellites into the desired orbits or trajectories; it markets the launch services, prepares the missions and handles all relations with customers.

