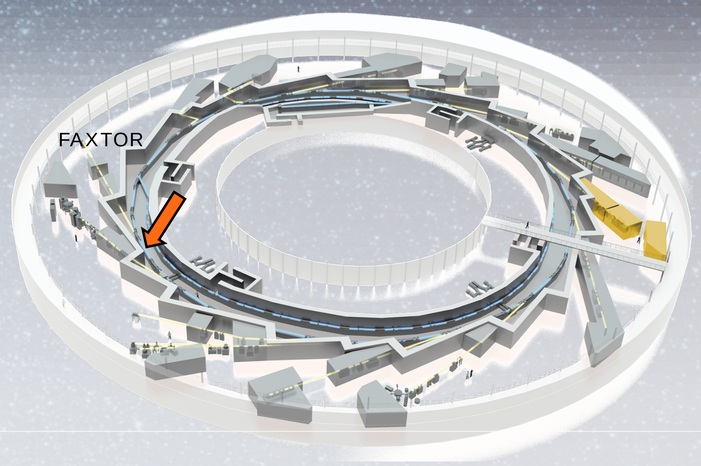
# X055
# In-vacuum Multipole Wiggler

## What is it?

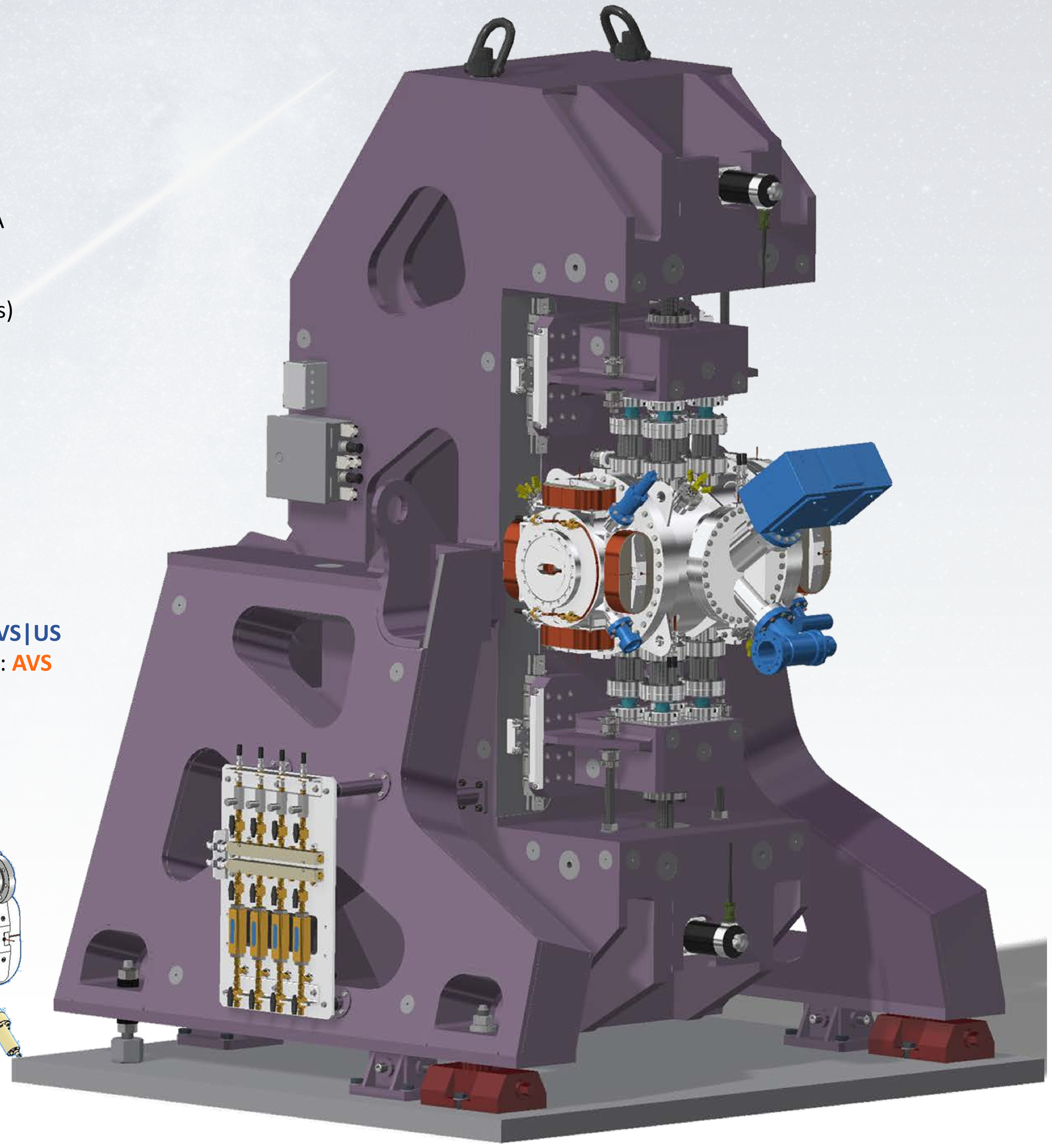
**Purpose**: X-ray source for beamline BL31 (FAXTOR)
**Application**: Fast X-ray Tomography and Radiography
**Client**: Spanish Synchrotron Laboratory (ALBA)
**Location**: Barcelona (Spain)




## Quick facts

**Magnetic structure:** 5.5 full periods
**Magnetic array length:** 362.5 mm
**Gap range**: 5-54 mm
**Maximum field:** 2.514 T at 5 mm gap
**Working pressure**: ~$5\times10^{-10}$ mbar
**Motion resolution**: 0.5 µm/step
**Encoder resolution**: 50 nm/tick
**Total weight**: 5.8 t
**Required tests**:

- Visual inspection
- Vacuum performance including RGA
- Magnetic field map
- Magnetic alignment
- Geometrical checks (key dimensions)
- Motion test
- Electrical test
- Pressure test of the cooling circuit



## About the Project

**Management**: AVS
**Design**: AVS|US
**Analysis:** AVS (magnetism: external contractor)
**Construction**:

- In-vacuum elements & magnetic structure: AVS|US
- Support structure & out-of-vacuum elements: AVS
- Final integration and testing: AVS