OPTICAL SYSTEMS FOR ASTRONOMY

- 1-m to 8-m aspheric active mirror assembly
- 1-m to 2-m segmented mirrors
- Large thin shell for adaptive mirrors
- Large field correctors, filters & instrument assembly
- 1-m to 3-m robotic telescopes
- Advanced thin film services

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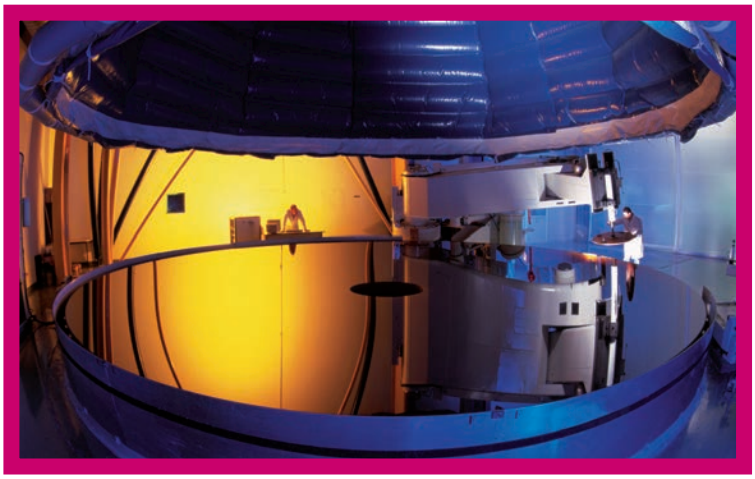
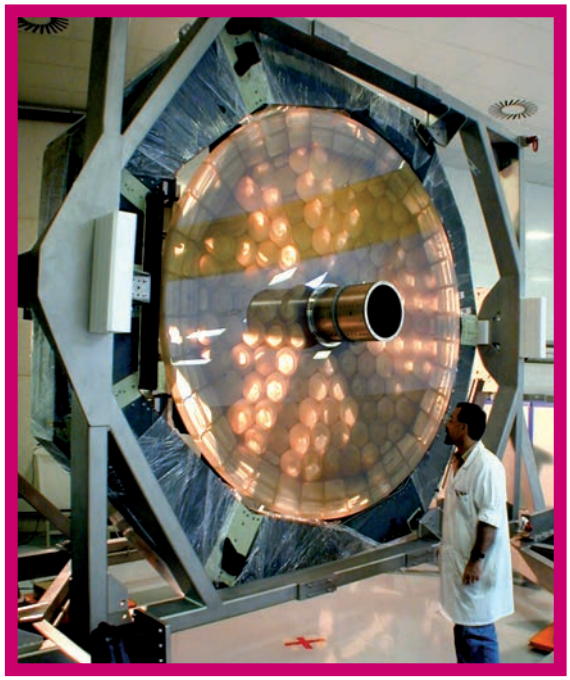
80TH ANNIVERSARY OF SAFRAN REOSC 2017

Optical systems for astronomy

Safran Reosc solutions



- Large aspheric mirrors
- Large segmented mirrors
- Filters and dichroic plates
- Thin shell for AO mirrors
- Advanced optics for instrumentation
- Robotic telescopes and domes



As a longstanding partner of the French, European and international astronomical community, Safran Reosc, a subsidiary of Safran Electronis & Defense, designs and manufactures a complete range of high-performance optics and equipment. Drawing on its engineering and technical expertise, Safran Reosc continues to push back the boundaries of possibility to meet the many technological challenges raised by the most ambitious projects.

Founded in 1937 by Henri Chrétien and Charles Fabry, Safran Reosc gained significant experience in large and aspheric optics with precision polishing and testing as well as in design, fabrication, assembly and test of robotic telescopes and instruments.

As a participant in major international scientific programs, Safran Reosc produced the giant 8.2-m Very Large Telescope (VLT) and Gemini active primary mirrors polished well bellow diffraction limit (down to 8.5 nm RMS figure for VLT n° 4), the 42 1.8 m off-axis segments for the Gran Telescopio Canarias telescope and the 7 prototype segments for the primary mirror of the Extremely Large Telescope (ELT).

REFERENCES

Extremely Large Telescope

- 931 segments for 39-m primary mirror
- Convex secondary mirror segments (4-m)
- Concave tertiary mirror segments (4-m)
- Thin glass petals for adaptative M4 mirror

Gran Telescopio Canarias 11-m telescope

- 36 +6 spare 1.8-m hexagonal off-axis segments
- 1.2-m beryllium secondary mirror

AURA GEMINI 8.2-m telescope optics

- Two 2.2-m M1, 1.1-m lightweight M2 Glass mirrors

ESO VLT 8.2-m telescope optics

- Four 8.2-m M1, Four 1.1-m beryllium M2
- 4 Coudé Train, 4 Cat's Eye telescopes
- M1 active support system (150 actuators)
- 1.1-m thin shell for M2 adaptive mirror

Other references

- ESO 3.6-m telescope optics assembly
- SOFIA airborne telescope optics
- 2.5-m Robotic observatory
- Pic du Midi telescope optics
- Nishi Harima telescope optics
- Keck Outrigger telescope optics
- US NAVY 1.8-m lightweight mirror assemblies
- 1.8-m aluminium mirrors
- Korean Astronomical Institute 1.8-m optics
- IOE-Chengdu 1.8-m optics
- Various 1.5-m class telescopes
- LAMOST prototype segments
- Large Field Corrector
- Large thin plates for AO mirrors

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