Detail of the main reflector consisting of 264 aluminium panels. Each panel has a surface accuracy of 5 µm. At the four corners and in the center the panels are fitted to the backstructure with adjustment screws. It is possible to adjust and optimize the shape of the main mirror using these screws.

# APEX KEY FACTS:

## Telescope

| | |
|---|---|
| Location | Llano de Chajnantor,<br>50km east San Pedro de Atacama, Northern Chile |
| Coordinates | |
| Latitude | 23°00′20.8″ South |
| Longitude | 67°45′33.0″ West |
| Elevation | 5105 m |
| Telescope diameter | 12 m |
| Total mass | 125 t |
| Main reflector | 264 aluminium panels, average panel surface r.m.s. 5 µm |
| Overall surface accuracy | 17 µm |
| Pointing accuracy | 2″ r.m.s. over sky |
| Manufacturer | Vertex Antennentechnik GmbH, Germany |

## Optics:

| | |
|---|---|
| f/D | 8 |
| Beam width (FWHM) | 7.8 ″ (800 / f [GHz]) |
| Receiver cabins | 2 Nasmyth, 1 Cassegrain |

## Instrumentation:

| | |
|---|---|
| Spectral coverage | 200-1500 µm |
| Frontends | Heterodyn single-pixel + array receivers<br>Large bolometer cameras |
| Backends | Facility Autocorrelator<br>New technology Fast Fourier Transform Spectrometer |

Aluminium subreflector with hexapod positioner. Using the hexapod it is possible to allign the subreflector in six dimensions of freedom.This is needed to optimize the optics for the large variety of receiver systems and to compensate for gravity effects.

Overlook of the APEX site: Llano de Chajnantor, at 5105 m (picture S. Redford