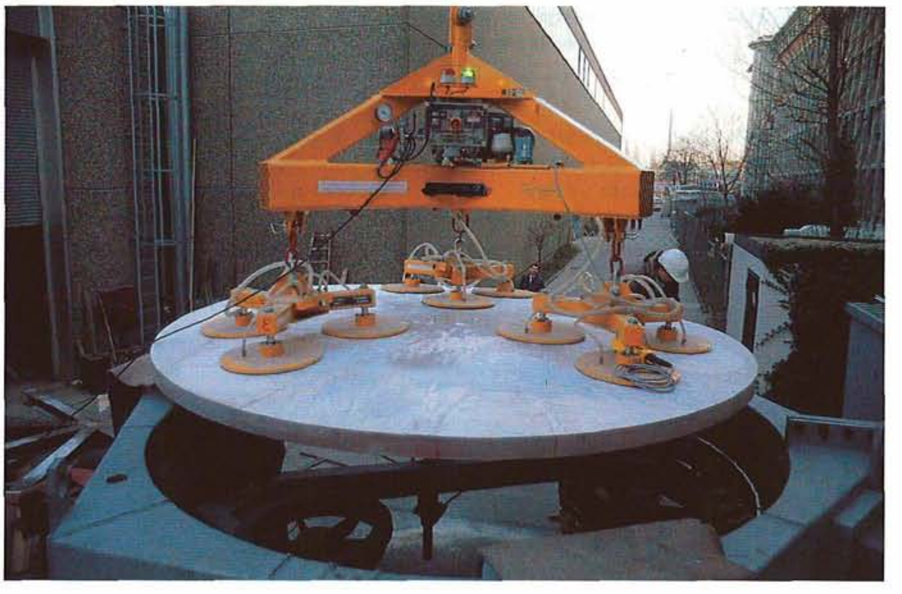
or 4 auxiliary telescopes (2 to be funded out of the VLT budget, the others by additional contributions by research groups in ESO member countries) and limited wavelength coverage (.45 to 25 μm) will start soon after the commissioning of the first large telescope on the VLT site. The full VLTI capability (including such features as the inclusion of the 8-metre telescopes, rapid reconfiguration of the auxiliary telescopes, a non-zero interferometric field-of-view, blind fringe acquisition and maintenance, extended wavelength coverage into the ultraviolet, additional auxiliary telescopes possibly at long NS baselines, additional delay lines) will evolve over a number of years after this, some of it requiring additional resources. The goal will be to provide early on at the VLT Interferometer a facility which will serve both the needs posed by the astronomical programmes of the non-experts in interferometry, as well as the needs of the experts in this rapidly developing field of astronomy. This is a tall task, but as it could be done for radio interferometry, it should also be possible to do it at optical wavelengths. The field is ready for it and the opportunity is here.

How Will the VLT Mirrors be Handled?

Schott is now putting the final touch to the building where the facility to produce the Zerodur VLT mirror blanks is to be installed. Meanwhile Schott is developing the various tools and equipment necessary for the casting, annealing, ceramization, machining and test of the mirror blanks.

Handling in particular is a major concern for Schott. The raw blanks obtained after casting are considerably heavier than the finished blanks and are also a lot more fragile because of the local defects at the surface which have a tendency to behave like perfect crack propagators. An additional difficulty is that after casting only the top surface is physically accessible.

Schott has therefore developed a special handling tool based on suction. The photograph shows a smaller-scale system developed to handle 4-m-diameter mirrors. It is being tested on an experimental thin meniscus realized in the frame of the VLT development programme. This mirror has been produced with the spin casting technology and was originally 4.1 m diameter. It has subsequently been machined down to 3.7 m diameter and to 7.5 cm thickness.



The picture shows the vacuum pumps located at the top and the large sucking cups arranged as a whiffle tree. The triangular structure is used as a vacuum buffer.

The tests have demonstrated the good functioning and the reliability of this type of handling device. Even in case of power failure the system can safely hold the mirror during several hours. A similar system is likely to be used for handling the mirror during its polishing and for its integration into the cell at the observatory. *D. ENARD (ESO)*

Adaptive Optics at the ESO 3.6-m Telescope

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From April 11 to 16, 1990, the VLT adaptive optics prototype system has been tested at the 3.6-metre telescope on La Silla. After the two preceding test periods at the Haute-Provence Observatory in October and November 1989 (see the article by F. Merkle in *The Messenger* **58,** 1989) this was the first test of the adaptive optics prototype system at the telescope for which the system was initially designed.

A description of the prototype system has been given earlier (Merkle, *The Messenger* **57,** 1989). The following table summarizes the major data: