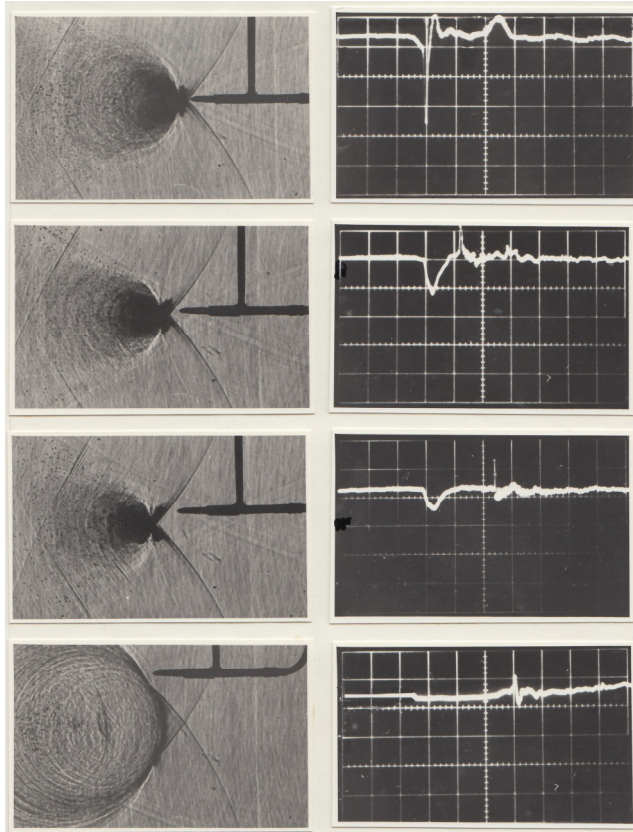
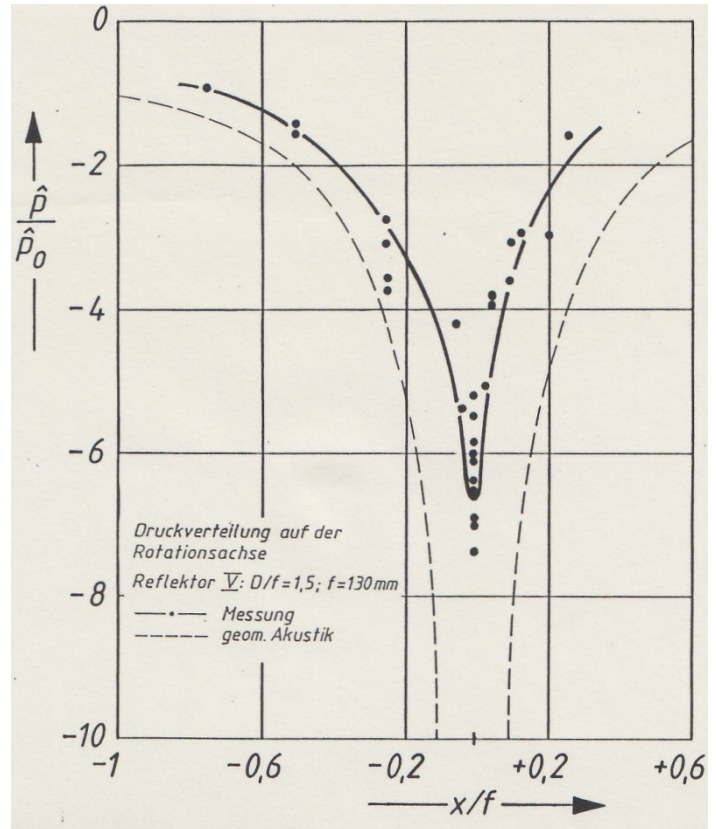


Focal Measurement of a Shallow Foam Reflector

See the details of the expansion shock wave profile and its Schlieren shadowgraphs in the focusing field of a shallow foam ellipsoidal reflector. Minimal focal pressure of -10 MPa was measured with the Needle Probe. The dark area in the focus is full of cavitation bubbles.



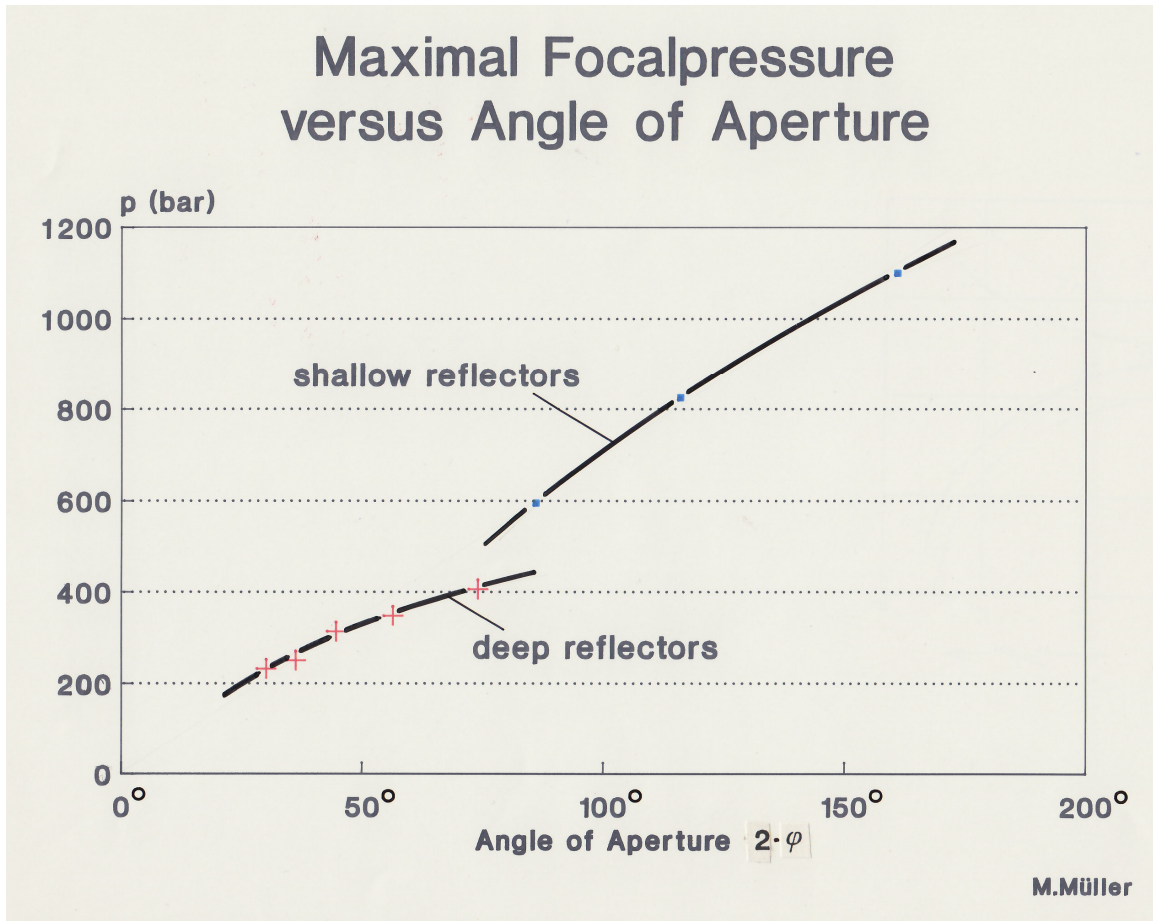
Vertical: 3 MPa/div., horizontal: 5 μ s/div.



Pressure distribution along the focal axis of a shallow foam reflector, $p_0 = 1.1$ MPa

Focal Pressures versus Angle of Aperture

Focal pressures increases with increasing aperture. In deep reflectors, where the shock wave is generated close to the reflector and the focusing takes place in the second focus of an ellipsoidal reflector. In this case pressures are limited due to non-linear effects on the long way to the focus. Higher focusing pressures can be reached if the process is invers.



Focal pressure increases proportional to the angle of aperture measured at same shock waves energy.