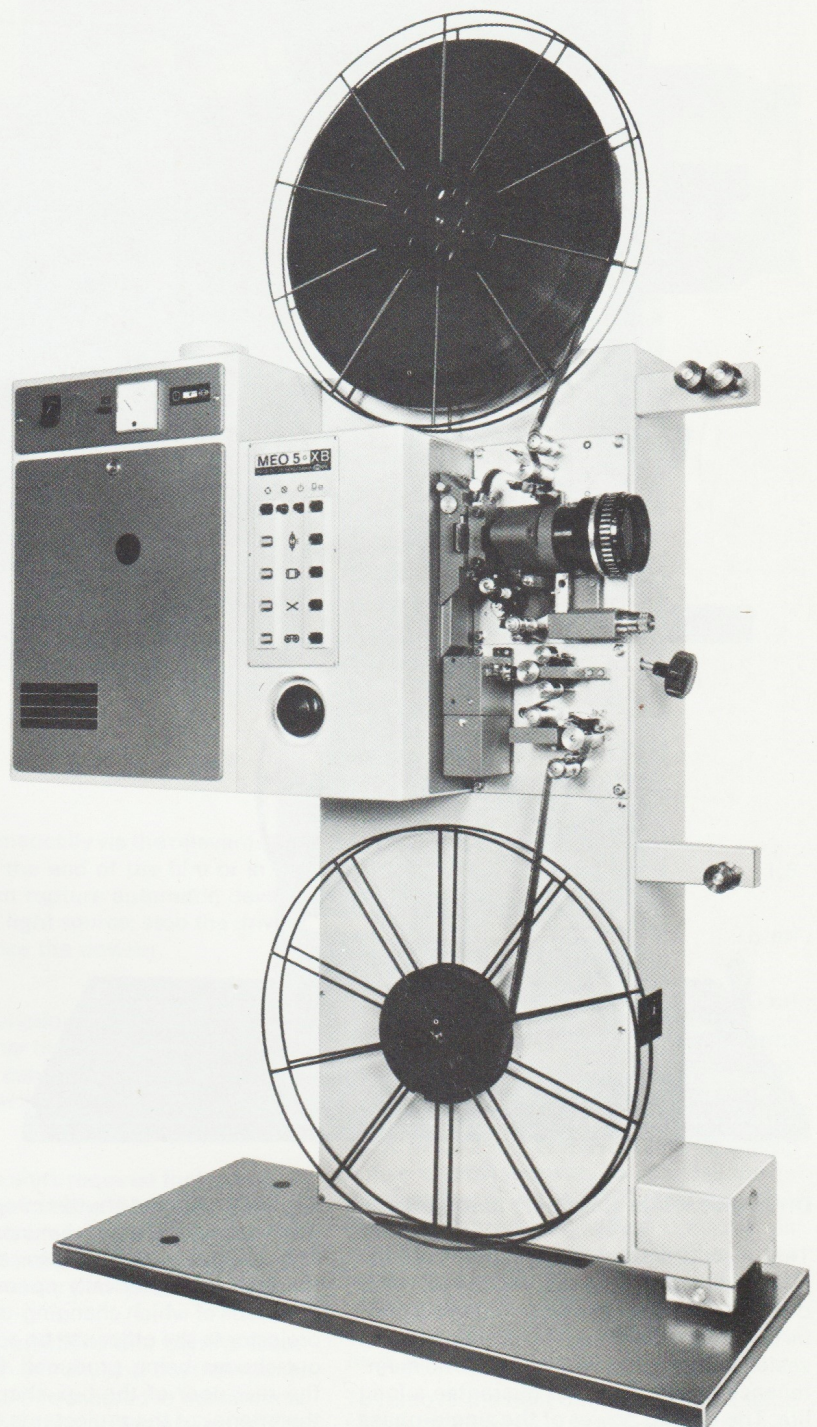




Projector MEO 5X

The MEO 5X is a compact 35 mm projector of modern construction. It is possible to use only one projector for solo operation or to combine two of them for changing-over application. It has been so wired that it is directly suitable for both modes of operation. The projector is supplied with an attached xenon lamp house.



- excellent picture and sound quality
- simple installation due to the way in which its housing is designed
- remarkably low price
- simple operation and maintenance
- high luminous efficiency by using a single-blade shutter and a horizontally mounted xenon lamp
- possibility of rewinding the film by the projector
- electrically controlled take-up and take-off devices

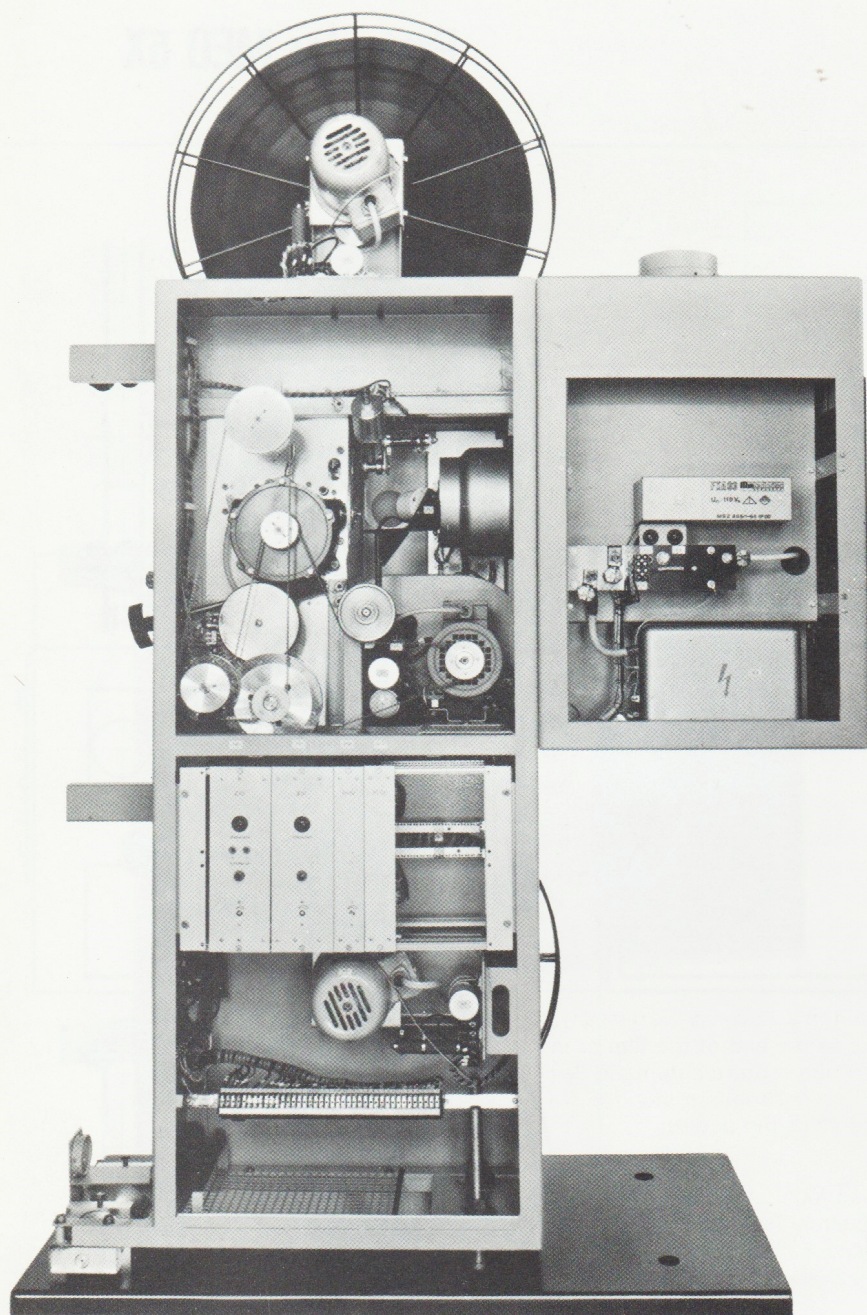
Compactness was one of the aims in designing the MEO 5X projector. Its solid steel housing serves as a chassis for the various fundamental parts, such as the driving mechanism, the film transport mechanism, the electrically controlled frictions, the re-winding device, the operation desk provided with push-buttons for manual operation, and the electrical control devices. A lamp house for horizontal xenon lamp is fixed to the projector housing.

The electrically controlled take-up and take-off frictions are driven by two separate motors; this solution not only ensures a silent operation, but it also permits accelerated rewinding of the film by merely switching-over the frictions. A curved film gate and resilient, adjustable film pressure bands ensure a steady picture. The film gate is cooled by a fan mounted on the spindle of the driving motor, so that the film is safeguarded even at the highest brightness.

Aperture plates and lens holder

The aperture plates for the different formats can be shoved into the projector, even during projection. They are positioned closely behind the film plane, thus ensuring sharply defined pictures.

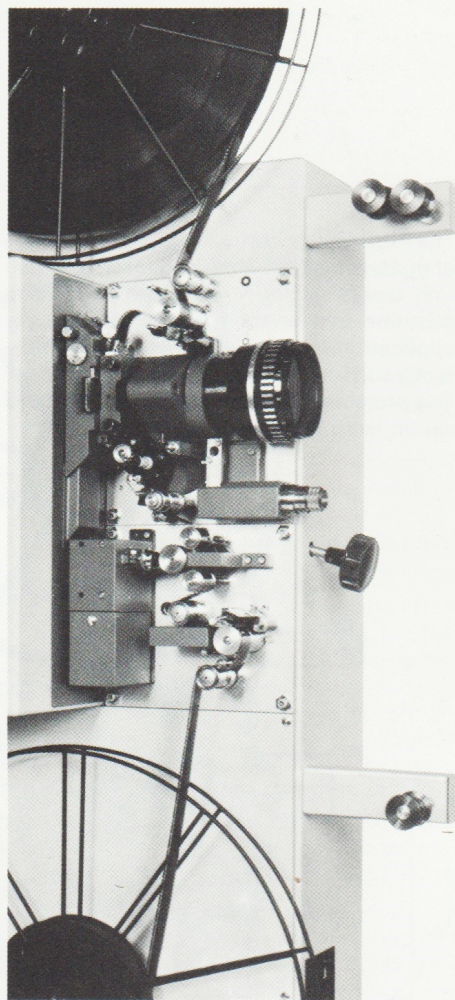
The lens holder allows lenses with a diameter of up to 90 mm diameter to be used. For lenses with the customary diameters of 80 mm, 70,6 mm and 62,5 mm, adaptor rings



Driving and film transport mechanisms

The high-precision intermittent mechanism with the gear wheel transmission for driving the shutter are mounted in a closed oil bath; the other shafts and spindles run in sealed ball bearings which require no maintenance whatsoever and guarantee a long life. The driving power of the single-phase motor is transferred via two silent identical toothed belts which require no maintenance.

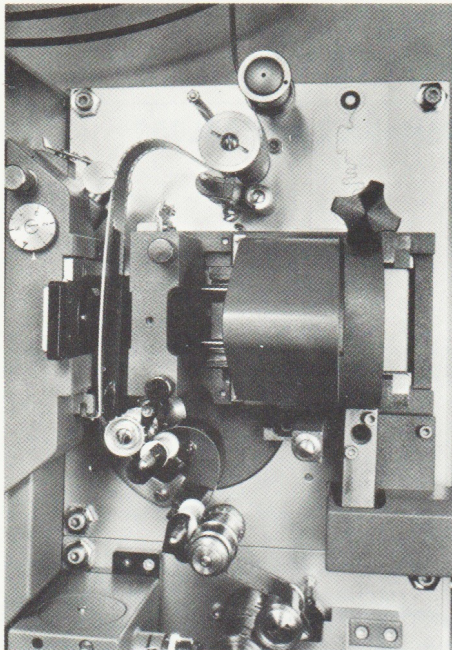
The single-bladed shutter of optimal configuration ensures a high luminous efficiency. The shutter housing also accommodates the electromagnetically operated dowser, by means of which changing-over from one projector to the other can be achieved without shades being produced. By removing the rear door of the box-shaped housing, the interior of the projector is easily accessible, which greatly facilitates the maintenance.



are available, which also serve for preliminary focusing the lenses. When the format is changed, the adaptor ring with its lens mounted into it can be replaced in no time by another adaptor ring with a lens of different focal length. The high-precision stop ring for the adaptors ensure that exact focusing of the picture is maintained.

Sound scanning

For scanning optical sound tracks, the projector is provided with a micro-optical device consisting of an exciter lamp, a slit optical system and a photodiode. To silence the film transport before the sound head, a sprocket with an adjustable braking torque is used. The sound scanning takes place on a rotating sound drum driven by the film and stabilized by a flywheel. An additional damping device is formed by a two-armed lever with guiding rollers. Fluctuations of the film speed are thus compensated and the risk of sound distortion as a result of wow and flutter are excluded.

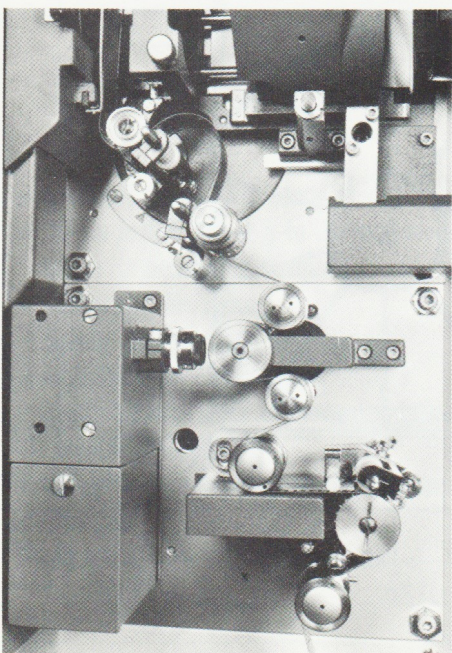


The use of a halogen exciter lamp with an extremely long life, a silicon photodiode and a high-quality slit optical system are characteristic for modern cinematographic engineering.

Spool shafts and non-rewind equipment

The projector MEO 5X is fitted with spool shafts and spools for 6000 ft (1800 m) or 2000 ft (600 m) of film. The removable shafts permit spools with a bore-hole with a diameter of 9 mm or 12,7 mm to be used. Electrically controlled units with special motors are used for the take-off and take-up of the film. These units can be switched-over so that the film can be rewound rapidly in the projector from the lower spool to the upper spool via a simpler film path. No separate rewinding device is thus needed.

It is also possible to use the projector with a flanged-on or separate non-rewind installation. For further details consult the relevant leaflets.



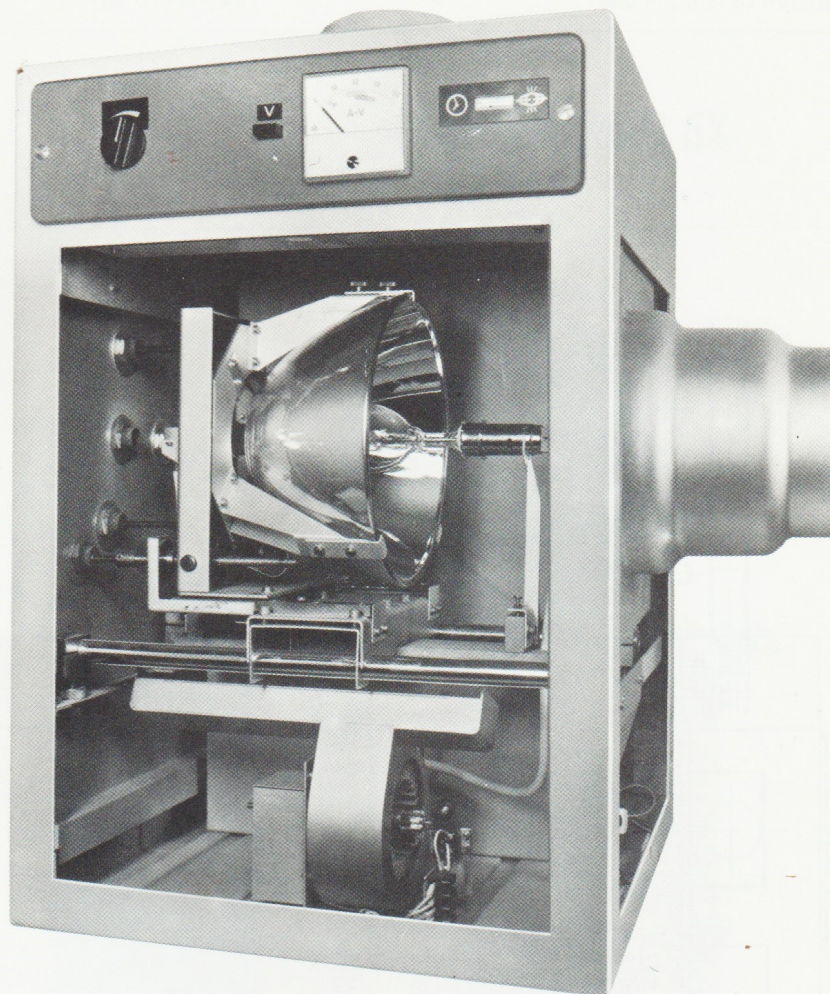
Electrical equipment

The projector is provided with control stages for the driving motor, the change-over, the light source, take-off and take-up motors, and also for the operation of the required supply units.

The dowser is operated by means of an electromagnet which can be energized ma-

Light source

The projector is supplied with the lamp house HI 2000 attached to it. The luminous output of this lamp house combined with the projector MEO 5X permits screens of the surface areas quoted below for two reflection factors to be adequately illuminated (defined according to the standard DIN 15 571):



nually or automatically via the relevant control stage. At the end of the film or in the event of a film rupture automatic devices switch off the light source, stop the driving motor and close the dowser.

The various functions of the projector are controlled either by means of the easily accessible and conveniently arranged buttons on the operating desk, or automatically.

The electronic units required for the operation of the projector and the xenon lamp are built on chassis mounted in the lower part of the cabinet and provided with plugs, so that they can easily be replaced.

The mains connections and control leads are led through entrances in the front panel of the projector and secured to the terminal strips in the lower part of the projector. The projector is obviously provided with a main switch and all electric circuits are fused.

reflections factor of screen	0,8	1,5
with horizontal 1600 W xenon lamp	41 m ²	75 m ²
with horizontal 2500 W xenon lamp	64 m ²	120 m ²

The connection for the lamp house forms part of the electrical control of the projector and has already been wired. Horizontal xenon lamps of either 1000 W, 1600 W, 2000 W or 2500 W may be used; the lamp house is provided with an elliptical mirror the diameter of which is 10" (250 mm). The arc is stabilized magnetically. Forced air cooling is applied to the electrodes of the lamp. Measuring instruments are provided for checking the lamp voltage and current and the number of hours that the lamp has been in operation.

To remove the heat developed in the lamp house, it is required to connect a chimney provided with a fan to it if large-powered lamps are used.

Technical data:

film speed (frames per second)	25
height of optical axis	48,2" (1225 mm)
permissible angle of inclination	+3° to 8°
mains voltage	220 V, 50 Hz
power drain without lamp (VA)	500
applicable xenon lamps (W)	1000-2500, horizontal
dimensions	see dimens. drawing
weight of projector	397 lbs (180 kg)
weight of lamp house	154 lbs (70 kg)

