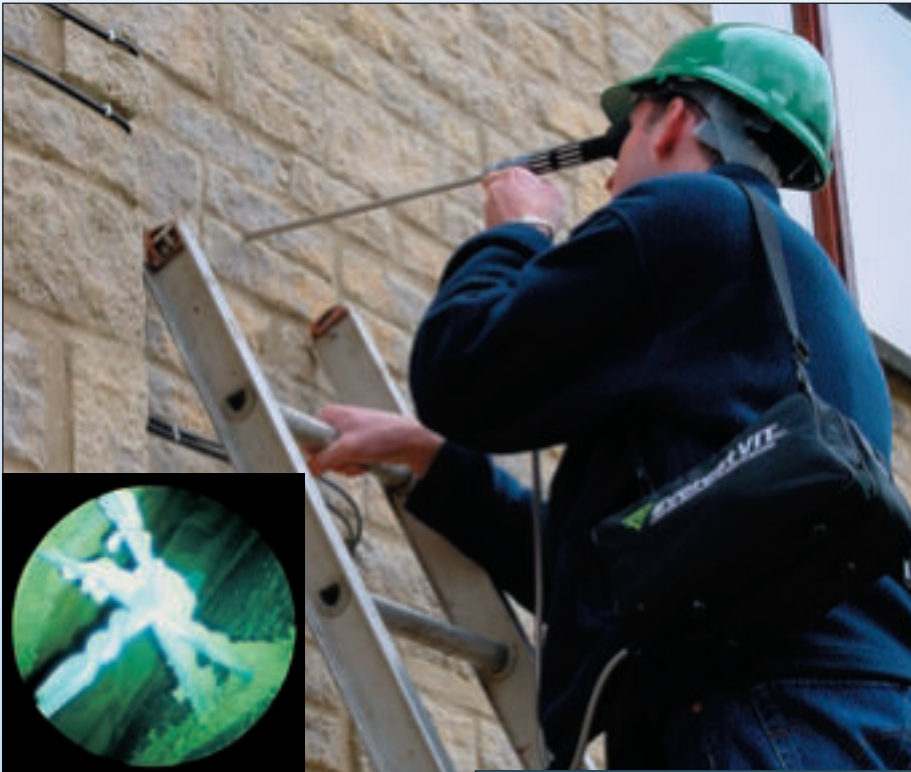




## Econoscope

A low-cost rigid endoscope kit with conventional lamp tip-illumination. Econoscope uses the same high-quality optical components as the Cavitymaster endoscope, but has a miniature quartz-halogen lamp built into the tip. Can be operated from rechargeable battery pack or its charger unit or optional vehicle power adapter.



Industrial endoscopes or borescopes allow detailed internal visual inspection of building structures through small access holes without costly disruption and re-installment.

All kinds of structure can be inspected in this way, including cavity-walls, under-floor and between-floor voids, ceiling and roof spaces, air-conditioning and heating service ducts.

An access hole of 1/2" (12-13 mm) diameter is required, this being normally drilled in the mortar joint of brickwork and masonry or directly through the floor material if viewing beneath a floor. Making-good after the inspection is simply accomplished by application of mortar or plaster or a suitable plug in the case of a floor.

From our large range of industrial borescopes Henke-Sass Wolf offer two standard kits for building and structural survey purposes. Both are configured for portability and simplicity of use as well as the highest possible level of optical performance and durability.

## Cavitymaster 3 Inspection Kit

Cold-light rigid zoom borescope with a portable high-intensity metal-halide Hi-lux arc lamp light source which delivers more than 50% greater light output than typical 150w tungsten halogen light sources.

The RZ10-322-90-35 rotoscope zoom borescope has a computer-optimised optical system which delivers pin-sharp images. The instrument can be used by eye, or with optional photographic or video adapters, with photographic, digital or video cameras.

The borescope can focus from approximately 15 mm to infinity and the variable 2:1 zoom eyepiece, in conjunction with the narrow 35° field of view, is ideal for viewing long distances down narrow cavities, duct-work and under-floor spaces.

High colour-temperature (5,500° K) is ideal for video and photographic recording whilst the extremely low current consumption makes operation for prolonged periods possible from batteries of only moderate capacity. For operation out-doors, a durable weather-resistant pouch houses the light source and sealed lead-acid battery.

## The Hi-Lux Lamp

The Hi-Lux lamp is a high intensity short-arc metal halide lamp, designed specifically for use with small fibre optic light bundles and liquid light guides.

The key factor in the efficiency of fibre optic illumination is the collection efficiency of the lamp and the fibre optic system. That is, light intensity at the output of a system is not solely dependent on lamp power (watts). High efficiencies result when the lamp/reflector combination are matched to maximise light capture, thus maximising the amount of light delivered to a spot. The very low electrical power consumption creates minimal waste heat and permits the enclosure of the light source to be kept very small with only very modest cooling and ventilation.

Welch Allyn's Hi-Lux metal halide arc lamp delivers Xenon quality lighting in a package less than 1/4 the size of the smallest Xenon

light sources. The Hi-Lux lamp's white light is ideal for conventional optical and CCD imaging systems.

Hi-Lux lamps may generally be used as long as they continue to start. Unlike many metal halide arc lamps the Hi-Lux lamp does not exhibit a large loss of light output other than the initial drop of typically 8% in the first 50 hours of life. Subsequent loss of light intensity is relatively small throughout the life of the lamp. This means that provided the lamp starts, you can rely on the light source to be delivering a uniform performance and maintaining stable inspection conditions.

Average lamp life is at least six times longer than that of halogen tungsten lamps.

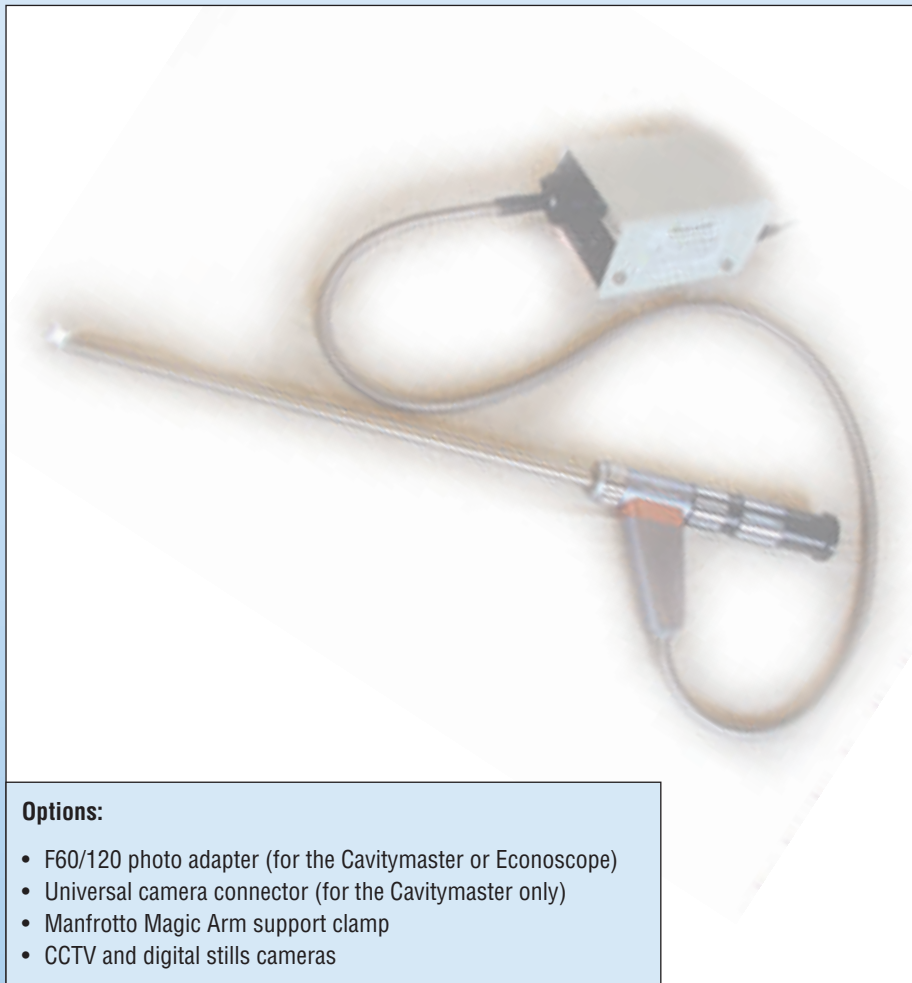


## Econoscope

### 9mm Diameter Rigid Endoscope.

#### Comprises:

- Working length: 315 mm
- Direction of View: 90°
- Field of View: 56° with fixed-focus eyepiece, focussing from 7 mm to infinity.
- Illumination: Quartz Halogen 6 V 4.5 W
- Rechargeable sealed battery in strong leather case.
- Combined charger/transformer unit for mains/battery operation. (vehicle adapter optional)
- Spare lamp.
- Charger to battery connection cable.
- Scope-saver protection sleeve for use in masonry.
- Robust polypropylene carrying case.



#### Options:

- F60/120 photo adapter (for the Cavitymaster or Econoscope)
- Universal camera connector (for the Cavitymaster only)
- Manfrotto Magic Arm support clamp
- CCTV and digital stills cameras

## Cavitymaster 3 Inspection Kit

### Advanced cold-light rigid borescope kit with miniature Hi-Lux metal halide arc lamp light source.

#### Comprises:

- 10 mm diameter borescope type RZ10 x 322 x 90 x 35.
- Working length: 322 mm
- Direction of View: 90°
- Field of View: 35°
- With focussing, variable magnification Zoom eyepiece. (2:1 magnification ratio)
- Waterproof to 3 bar pressure "Rotary Scan" rotatable probe shaft (340°) ELS-24 DC miniature high-intensity metal halide short-arc lamp light source.
- Light-output greater than 30 million lux at 5,600° K. colour temperature.
- 350 hour median lamp life. Operates on 100-240 VAC (AC Adapter supplied) and 12 VDC
- Military spec texturised nylon carrying bag gives light-source protection to IP43.
- Sealed 12V 10Ah battery pack with charger.
- Fibre-optic Light-guide, 5 x 1000 mm
- Scope-saver protection sleeve
- Rotatable rubber eye-cup for better viewing out-doors.
- Robust flight-case with compartments.

