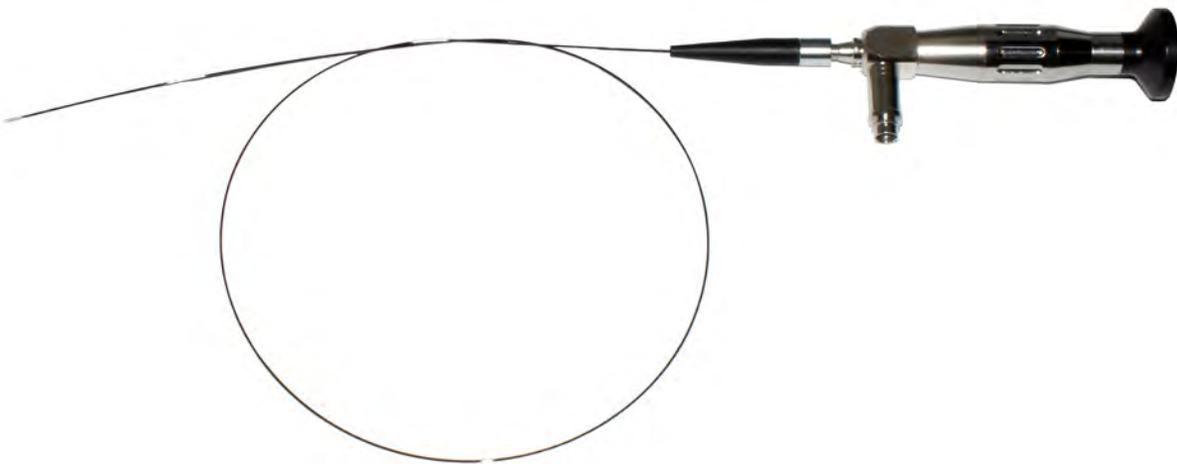


***MicroFlex***  
***Lumen Inspection***  
***Scope***  
***User's Manual***



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# 1. MicroFlex Features

The MicroFlex Lumen Inspection scope is a non-surgical/industrial-type borescope that permits the user to examine the interior lumens and channels of flexible scopes, orthopedic shavers handpieces, surgical instrumentation, and other lumened medical devices. It is a visual inspection tool designed to detect visible soil, rust and organic matter, as well as, lumen/channel damage, obstructions, or other internal defects to the lumen. These defects can arise from improper cleaning, normal wear and tear, and physical damage or abuse.

The MicroFlex Lumen Inspection scope is commonly used in hospital/surgery center Sterile Processing, Biomedical Engineering, and also for use by repair facilities for use in repair processes.

## 1.1 Specifications

- **Part # 300268 MicroFlex Inspection Scope**
- **Diameter: 1.6mm**
- **Working Length: 1000mm**
- **Pixels: 10,000**
- **NOT FOR SURGICAL OR PATIENT USE!**
- **Part # 300270 MicroFlex Inspection Scope**
- **Diameter: .09 mm**
- **Working Length: 700mm**
- **Pixels: 6000**
- **NOT FOR SURGICAL OR PATIENT USE!**
- Made in Germany
- Direction of View: 0 degree fixed
- Optical System: Glass Optical Image Fiber
- Insertion Tube: PTFE (contains no Latex)
- Body: Stainless Steel
- Eyepiece: Universal C-Mount, with focus adjustment, accepts any standard video camera
- Lighting System: Glass Light Fiber Optics
- Light Post Connection: Standard ACMI Male Light Post, Accepts Wolf, Storz and Olympus adapters
- Light Source Compatibility: LED, Halogen, Metal Halide or Xenon Light source (not included)
- Condition: New - unless otherwise noted
- Warranty: 90-day materials and workmanship. Warranty does not cover damage from physical abuse, mishandling or improper cleaning
- Repair: Contact CMR for RMA before sending in for repair/exchange
- Accessories Included:
  - Storage Case
- Optional Accessories:
  - 100068 - Portable, Rechargeable, LED Light Stick
  - 300202 - USB Light Cord
  - 300200 - Wireless USB Video Camera
  - 300272 - Stand / Holder
  - 300275 - Mineral Based Cleaning Liquid

## 2. Using the MicroFlex

### 2.1 Basic Handling

The MicroFlex scope is small in diameter and contains glass optical fiber that is delicate and may become damaged if handled roughly or improperly. Handle the scope as you would any other delicate flexible scope being careful not cause any trauma to the insertion tube which can result in damage to the image bundle, and render the scope unusable.

#### DO NOT:

- Drop the scope
- Carry the scope by the insertion tube
- Kink, crush, or sharply flex the insertion tube
- Sterilize scope. Scope is NOT Autoclave, ETO or Sterrad compatible!
- Subject scope to extreme heat or extreme freezing temperatures

#### DO:

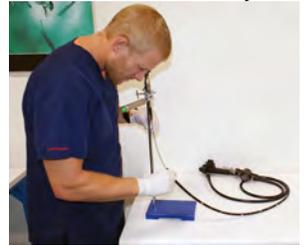
- Carefully handle the scope by the body/eyepiece while carefully protecting insertion tube and distal end
- Keep the eyepiece and distal window clean by carefully wiping with alcohol/acetone or approved cleaning solution
- Store and transport the scope in the storage case to help protect it from inadvertent harm. Use caution not to crush the insertion tube in the case when shutting the lid!

## 2.2 Attach to the Light Source

- Attach external light source to the light post of the scope. The post is an ACMI male adaptor that accepts standard light post adaptors including Wolf, Storz/Olympus. Using the appropriate adaptor to attach to any standard fiber optic light cord. Turn on the light source starting at the lowest setting and increasing the light output to adequately illuminate (but not wash out) the viewing area. Turn off the light source when not in use.
- NOTE: You can also attach to our optional LED Rechargeable Light Stick 100068 or USB light cord 300202 using the same approach.

## 2.3 Examine the Lumen

- While looking through the eyepiece, slowly and carefully guide the distal end of the Microflex into the Lumen that you wish to examine being careful not to kink, sharply flex, or force the Microflex should you meet an obstruction as damage to the scope may result.
- Focus the image by turning the focus adjustment ring on the eyepiece
- Use to Examine:
  - Flexible Endoscope Channels (biopsy, suction)
  - Duodenoscope Elevator
  - Orthopedic Shavers
  - Instrument Channels
  - Any internal lumen that is larger than the diameter of the MicroFlex
- Defects that can be Observed include:
  - Bioburden or organic matter such as blood, bone, tissue, etc.
  - Rust or corrosion
  - Lumen / Channel damage including kinks, obstructions, wear or delamination of the channel



## 3. Optional Accessories

### 3.1 Using the MicroFlex with a video camera

Any video camera and coupler that can be attached to a standard endoscope eyepiece can be attached to the MicroFlex scope. Using a video camera allows more than one person at a time to examine any defects. Captured images permit documentation of any defects that may be discovered. NOTE: Our affordable wireless USB Camera 300200 is an excellent option for portability and wireless access to any computer with a USB port and offers both still and video documentation.

### 3.2 Hands-Free use using the MicroFlex Stand

For hands-free operation you can use the Microflex with the optional stand 300272 (shown right) The stand is adjustable in height. The cork-lined clamp prevents scratching of the body and is pivotable for additional use adjustment.



## 4. Cleaning

### 4.1 Cleaning the MicroFlex Lens

Periodically clean the distal and eyepiece lens with a swab or lens tissue that has been moistened with alcohol or acetone or our mineral based, OEM provided lens cleaning liquid 300275.

### 4.2 Cleaning / Disinfection of the MicroFlex Scope

The MicroFlex scope is an industrial-type scope that is water-proof but NOT designed for sterilization. Between uses, it is recommended that you simply wipe down the insertion tube and eyepiece with a medical grade antiseptic wipe. If high-level disinfection is required the Microflex can be immersed for cleaning or soaking in Cidex for no more than 10 minutes however this is not recommended for routine care.

- Wipe down scope between uses with a medical grade antiseptic wipe
- Periodically clean distal and eyepiece window with acetone or alcohol wipe or OEM provided cleaning fluid
- Do NOT Sterilize! Scope is NOT Autoclave, Steris or Sterrad compatible!
- Improper cleaning & or sterilization will void warranty