

# Synergy Vision™ Imaging System

Revolutionizing Surgical Imaging



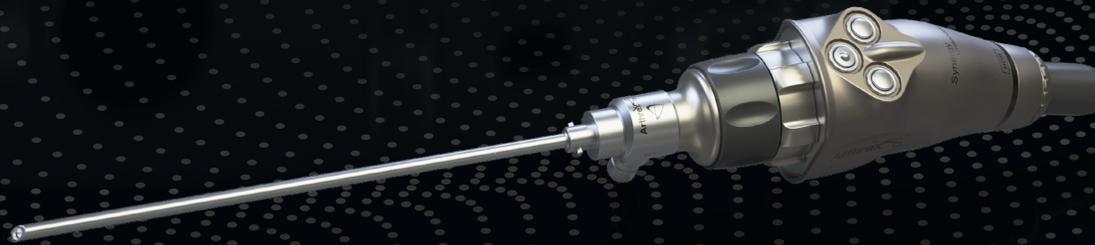
**Arthrex**<sup>®</sup>  
Vet Systems





## Contents

- 05** The Future of Surgical Imaging Is Here
- 07** Pano™ Scope
- 09** Nano Vision™ Functionality
- 10** Synergy Vision Connect™ Console
- 11** High Dynamic Range
- 13** Fluorescence Imaging
- 13** Synergy Vision™ Tablet
- 15** Camera Heads
- 17** Additional System Features and Benefits



# The Future of Surgical Imaging Is Here

Experience the Synergy Vision™ imaging system, an all-in-one option featuring high dynamic range 4K visualization with wide-view imaging and fluorescence while supporting the NanoNeedle Scope and video integration.

## Key Features and Benefits

The Synergy Vision imaging system was designed with the latest technology to deliver optimal and revolutionary results.

### Pano™ Scope

Quickly and easily switch between traditional scope views and an ultrawide view (encompassing most of 30° and 70° views) at the touch of a button, which allows veterinarians to visualize more anatomy on a single screen while minimizing the need for additional portals or scopes.

### Nano Vision™ Functionality

The NanoNeedle Scope integrates directly to the Synergy Vision console as either a primary or secondary view and offers a simultaneous 4K and Nano visualization on the same screen.

### Synergy Vision Connect™ Console

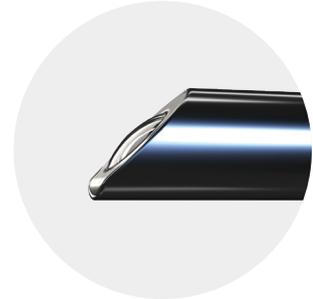
Allowing for 6 inputs and 4 outputs, the Synergy Vision Connect system offers built-in OR integration capabilities for in-room switching and routing.

### High Dynamic Range

The Synergy Vision imaging system offers high dynamic range (HDR), allowing for enhanced contrast of surgical anatomy and ideal visualization.

### Fluorescence Imaging

Switch to fluorescence 4K imaging with the touch of a button.



Pano scope



Fluorescence imaging



Nano Vision port

Product Description	Item Number
Synergy Vision console	VAR-3200-0026



# Pano™ Scope

Visualize anatomy like never before with the state-of-the-art Pano scope. Experience endless clinical benefits, from potential portal negation to visualizing pathology in fewer movements, made possible by the ability to change directions of view with the push of a button.

## Key Features and Benefits

The Pano scope is an integral part of the Synergy Vision™ platform. When combined, veterinarians can toggle between a 30°, 70°, and 45° ultrawide view, ultimately giving the veterinarian an unprecedented field-of-view.

With a length of 161 mm, the Pano scope optimally facilitates a variety of applications. Given its unique length, dedicated hardware and accessories, including sheaths, cannulas, and bridges, were created and offer the following benefits:

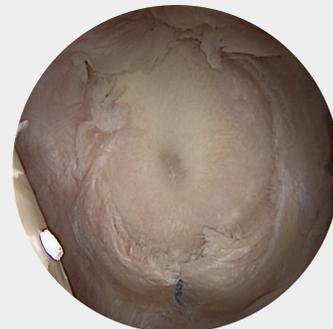
- Potentially decreased risk of iatrogenic trauma due to switching scopes and portals
- Possible portal negation
- Enhanced clinical decision-making ability
- Increased visualization variety of anatomical features



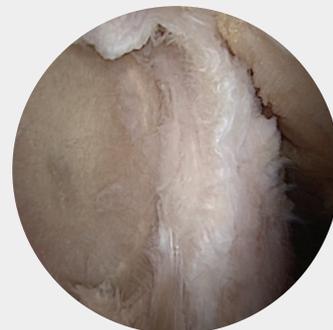
Product Description	Item Number
Pano scope	VAR-3355-4050
Sheath, HF, Tap/Fen, 1 stopcock for Pano™ scope	AR-3373-4201
Sheath, HF, Tap/Fen, 2 stopcock for Pano scope	AR-3373-4202
Conical obturator w/ handle for Pano scope sheath, HF, Tap/Fen	AR-3375-4201



30°



Ultrawide view



70°



2 NanoVision



1 4K ULTRA HD



Synergy Vision

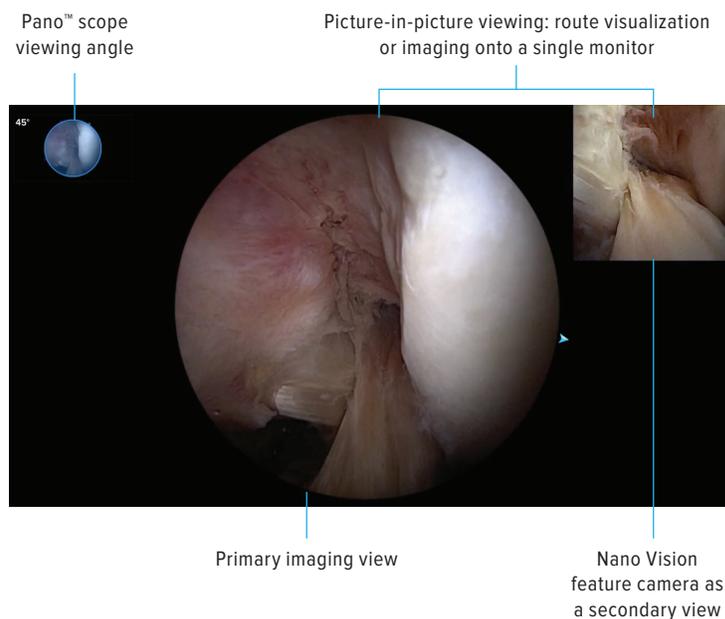
# Nano Vision™ Functionality

The Synergy Vision™ imaging system, via a built-in port to connect a NanoNeedle Scope, supports Nano Vision functionality, which features simultaneous use of 4K and Nano visualization, giving veterinarians access to additional views and allowing them to see more of the anatomy than with a traditional single-camera view.

## Key Features and Benefits

Nano arthroscopy offers a variety of benefits, including:

- Customized anesthetic options (eg, light sedation vs general anesthetic)
- Same-day diagnostic and surgical treatment options
- Potential to reduce facility costs
- Opportunity to redirect or increase cases in underused treatment and procedure rooms
- Ability to decrease or eliminate medical workup, monitoring, and general anesthetic complications
- Ancillary surgical views not seen with a single 4K camera



Product Description	Item Number
NanoNeedle Scope, 125 mm	AR-3210-0043
NanoNeedle Scope, 180 mm	AR-3210-0044
NanoNeedle Scope, 250 mm	AR-3210-0045

\*Please refer to vLB1-000011-en-US for additional Nano arthroscopy item numbers.



# Synergy Vision Connect™ Console

Explore the world's first imaging console with built-in video integration. A pioneer in visualization, Arthrex designed the Synergy Vision Connect system with a variety of capabilities, including:

- 6 video inputs and 4 unique video outputs allow for in-room surgical video routing; can be routed to surgical displays, composited to create new surgical views, or captured
- Generate a variety of distinctive views, including picture-in-picture (PIP), picture-by-picture (PBP), and quad-view layouts for routing and capture
- Live visual thumbnail views of all video inputs and outputs ensure streamlined and informed routing

Product Description	Item Number
Synergy Vision Connect console	VAR-3200-0027
Synergy Vision Connect integration software license	VAR-3200-1088

# High Dynamic Range

The Synergy Vision™ imaging system offers the latest in imaging quality, including high dynamic range (HDR). HDR optimizes the way in which light is processed, producing images in greater detail and improved contrast over non-HDR imaging, ultimately offering enhanced surgical imaging.

A 32" 4K IPS LCD surgical display supports HDR10 with backlight output stabilization, continuous even brightness guaranteeing the stability of the LCD backlight, making image viewing thorough and clear, even over a long period of time. The display also supports the PIP and PBP capability of the Synergy systems, allowing for a display of 4 simultaneous inputs.

Product Description	Item Number
32" HDR surgical display	VAR-3250-3212



Visualization without HDR



Visualization with HDR



HDR ULTRA HD

# Fluorescence Imaging

The Synergy Vision imaging system combines state-of-the-art 4K visualization with unique augmented reality features, such as fluorescence imaging, to see more than ever before. Designed to offer a range of customizable veterinarian preferences, this system enables advanced visualization in virtually any surgical specialty.

Fully integrated near-infrared (NIR) fluorescence imaging allows veterinarians to use different modes in all procedures and at any time.

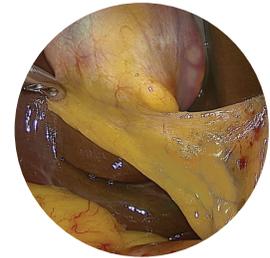
Fluorescence imaging supports multiple modes: fluorescence overlay on full 4K visible light image, fluorescence overlay on grayscale 4K image, and fluorescence image only. All of these modes are easily accessed via the touch of a camera head button.

Product Description	Item Number
Laser light source	VAR-3200-1018
4K laparoscope, 0°, 10 mm × 330 mm, NIR	VAR-3351-1001
4K laparoscope, 30°, 10 mm × 330 mm, NIR	VAR-3351-1031
4K laparoscope, 45°, 10 mm × 333 mm, NIR	VAR-3351-1046
4K laparoscope, 0°, 5.5 mm × 300 mm, high magnification, NIR	VAR-3352-5501
4K laparoscope, 30°, 5.5 mm × 300 mm, high magnification, NIR	VAR-3352-5531
4K laparoscope, 45°, 5.5 mm × 302 mm, high magnification, NIR	VAR-3352-5546

# Synergy Vision™ Tablet

The Synergy Vision imaging system is a unique and innovative medical-grade tablet with an advanced touch interface that allows users to remotely and efficiently enter patient information, veterinarian preferences, route video inputs, and adjust image management settings within surgical cases. The Synergy tablet controller promotes reduced costs, shortened OR times, and increased efficiency.

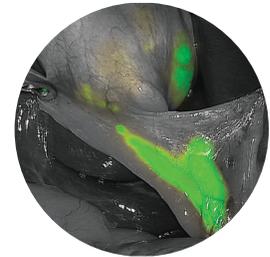
Product Description	Item Number
Synergy Vision tablet	VAR-3200-1016



Standard visible light



Standard visible light + near-infrared (NIR) overlay



Grayscale visible light + NIR overlay



NIR only



Amtrak

# Camera Heads

The Synergy Vision™ imaging system supports 2 distinct options of camera heads: the Synergy Visionary™ camera head and the Synergy Vision camera head. With unique features and benefits for each style, these camera heads were designed for both orthopedic and endoscopic procedures while meeting the needs of veterinarians.



## Features and Benefits

### Ultrawide View\*

Both the Synergy Visionary camera head and the Synergy Vision camera head can toggle between 30°, 70°, or a 45° with ultrawide view at the touch of a button. Veterinarians will recognize the ergonomics of the traditional camera heads but will notice the introduction of a third, programmable button to toggle between views.

### HDR\*\*

The Synergy Vision imaging system features HDR, allowing for exceptional contrast of surgical anatomy and ideal visualization. The Synergy Visionary camera option offers a unique design that produces optimal resolution. With one chip receiving all dark light and another processing all dark light, these 2 chips work together to enhance surgical images while eliminating dark spots and shadows.

Product Description	Item Number
Synergy Visionary camera head	VAR-3210-0034
Synergy Vision camera head	VAR-3210-0035
4K C Mount Coupler	VAR-3210-0012

\*Feature available on both the Synergy Vision and Synergy Visionary camera heads

\*\*Feature available only on the Synergy Visionary camera head

### Fluorescence Technology\*\*

The Synergy Vision imaging system with the Synergy Visionary camera head enables advanced visualization in virtually any surgical specialty by combining state-of-the-art 4K visualization with unique augmented reality features, such as near-infrared fluorescence imaging, to see more than ever before. A dedicated NIR sensor in the Synergy Visionary camera ensures that fluorescence imaging capabilities are never compromised.

Synergy Visionary  
Camera Head



Synergy Vision  
Camera Head





# Additional System Features and Benefits

The Synergy Vision™ console contains state-of-the-art visualization, fluorescence imaging, LED lighting, image management, and integration in a small footprint. Producing outstanding 4K video for veterinarians, this system allows staff to focus on patients instead of equipment through a simple-to-use, tablet-based user interface. Designed to offer a range of customizable veterinarian preferences, this system enables advanced visualization in virtually any surgical specialty.

In addition to the other features detailed in this brochure, the Synergy Vision system offers the following features and benefits:

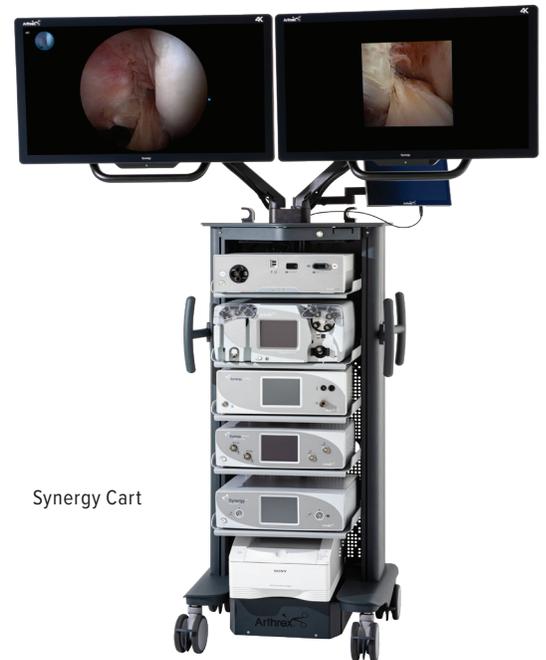
- Ability to capture and automatically export 4K stills and video to multiple destinations, such as a network share, PACS, the Synergy Surgeon™ iPad application, Synergy.net™ software, and SurgeonVault® system
- Live, secure video streaming to authorized users with intraoperative messaging
- Built-in wired and wireless network connectivity
- Heads-up display to keep the surgeon informed of imaging, shaver, pump, insufflator, and RF settings throughout the procedure
- Software-based solution, allowing for the easy addition of new functionality over the life of the system
- Built-in LED light source with a 30,000-hour warranty
- Unique augmented reality features and image enhancement functionality, which help to optimize visualization
- System control provided via easy-to-learn user interface on tablet
- Programmable individual veterinarian/procedure preferences, which reduce system setup time and ensure surgeons have a consistent experience from case to case
- On-screen guided surgical timeout

This revolutionary system also offers unparalleled 4K white light visualization featuring:

- Increased dynamic range and depth of light for unrivaled contrast and even distribution of light
- Unsurpassed depth of field for optimal sharpness from the front to the back of the image

- Brand-new imaging modes for white light color augmentation
- 4 times the number of pixels as HD and a multisensory camera design for increased resolution and a stunning depth perception
- 10-bit color for precise color reproduction
- Direct LED integration with the 4K visualization system for maximum performance

In addition, the next-generation Synergy video cart was designed and developed with the latest ergonomics in mind to outfit even the largest operating rooms. This next-generation cart features a number of customizable configurations, including dual-monitor capabilities to optimally support the Synergy Vision system outputs.



Synergy Cart

## Ordering Information

Product Description	Item Number
Synergy Vision™ console	VAR-3200-0026
Synergy Vision Connect™ console	VAR-3200-0027
Synergy Visionary™ camera head	VAR-3210-0034
Synergy Vision camera head	VAR-3210-0035
Pano™ scope	VAR-3355-4050
Synergy Vision Connect integration software license	AR-3200-1088
NanoNeedle Scope, 125 mm	AR-3210-0043
NanoNeedle Scope, 180 mm	AR-3210-0044
NanoNeedle Scope, 250 mm	AR-3210-0045
Laser light source	VAR-3200-1018
32" Synergy Vision HDR surgical display	VAR-3250-3212
Synergy Vision tablet	VAR-3200-1016
Synergy Video cart, w/ boom, 120 V	AR-3260-0001
4K C Mount Coupler	VAR-3210-0012
Sheath, HF, Tap/Fen, 2 stopcock for Pano™ scope	AR-3373-4202
Conical obturator w/ handle for Pano scope sheath, HF, Tap/Fen	AR-3375-4201
Sheath, HF, Tap/Fen, 1 stopcock for Pano scope	AR-3373-4201
Trocar for Tap/Fen HF Pano scope sheath, w/ handle	AR-3375-4202
Cannulated obturator for Tap/Fen HF Pano scope sheath, w/ handle	AR-3375-4203
Blunt for Tap/Fen hi-flow Pano scope sheath, w/ handle	AR-3375-4204
Conical obturator, for Tap/Fen HF Pano scope sheath	AR-3375-4207
Pano scope sheath, HF, 2 stopcocks	AR-3372-4202
Pano scope sheath, HF, 1 stopcock	AR-3372-4201
Conical obturator, HF Pano scope sheath, w/ handle	AR-3375-4211
Trocar for hi-flow Pano scope sheath, w/ handle	AR-3375-4212
Cannulated obturator for HF Pano scope sheath, w/ handle	AR-3375-4213
Blunt for hi-flow Pano scope sheath, w/ handle	AR-3375-4214
Conical obturator, HF Pano scope sheath	AR-3375-4217
Inflow/outflow sheath set for Pano scope	AR-3370-4203
Inner sheath for Pano scope, part A	AR-3370-4203A
Outer sheath for Pano scope, part B	AR-3370-4203B
Conical obturator for in/out Pano scope sheath	AR-3375-4201A
Trocar for in/out Pano scope sheath	AR-3375-4202A

Product Description	Item Number
Bridge for Pano scope, 2 stopcocks	AR-3380-4202
Bridge for Pano scope, 1 stopcock	AR-3380-4201
Bridge for sealed cannula Pano scope, 1 stopcock	AR-3380-0421
Bride for sealed cannula Pano scope, 2 stopcocks	AR-3380-0422
Pano scope metal cannula, 4.75 mm, fenestrated	AR-3525-4.75
Pano scope metal cannula, 5 mm, fenestrated	AR-3525-5.0
Pano scope metal cannula, 5.5 mm, fenestrated	AR-3525-5.5
Pano scope metal cannula, 6.5 mm, fenestrated	AR-3525-6.5
Pano scope metal cannula, 4.75 mm, w/ dam	AR-3515-4.75
Pano scope metal cannula, 5 mm, w/ dam	AR-3515-5.0
Pano scope metal cannula, 5.5 mm, w/ dam	AR-3515-5.5
Blunt obturator, for 4.75 mm metal cannula w/ dam, Pano scope	AR-3516-4.75
Flush-fit quick-connect bridge, 2 stopcocks, for Pano scope	AR-3380-4056H
Switching stick, 4.2 mm × 15 in	AR-3020-10
Switching stick, cannulated, 4.2 mm × 15 in	AR-3020-11





The information contained in this brochure is not veterinary advice and is not meant to be a substitute for the advice provided by a veterinarian or other qualified veterinary professional on the use of these products. You should talk with your veterinarian for more information about your animal's health condition and whether Arthrex products might be appropriate for your animal. The veterinarian who performs any surgical procedure is responsible for determining and using the appropriate techniques for surgical procedures on each individual patient. Arthrex recommends that veterinarians be trained on the use of any particular product before using it in surgery. A veterinarian must always rely on their own professional medical judgment when deciding whether to use a particular product when treating a particular patient. A veterinarian must always refer to the package insert, product label, and/or directions for use before using any Arthrex product. Postoperative management is patient-specific and dependent on the treating professional's assessment. Individual results will vary and not all patients will experience the same postoperative activity level or outcomes. Products may not be available in all markets because product availability is subject to the regulatory approvals and medical practices in individual markets. Please contact Arthrex if you have questions about the availability of products in your area.

**[arthrexvetsystems.com](http://arthrexvetsystems.com)**

© 2024-03 Arthrex, Inc. All rights reserved. vLB1-000490-en-US\_A



Arthrex manufacturer,  
authorized representative,  
and importer information  
(Arthrex eIFUs)



US patent  
information