

# Nano Arthroscopy

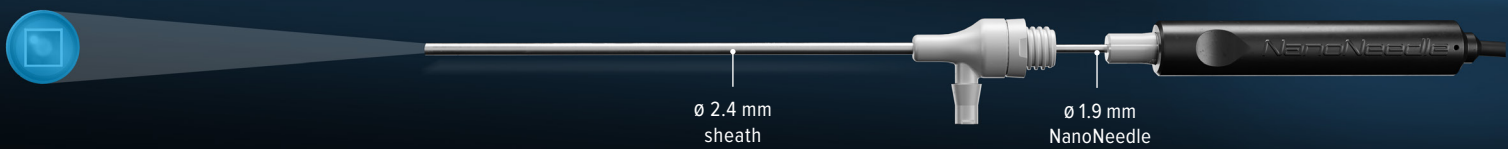
Small, Made Smaller



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

---

# Size Comparison: Conventional Arthroscope vs NanoNeedle Scope



---

## The Next Generation of Nano Arthroscopy

---

After helping pioneer Nano arthroscopy, Arthrex has designed the next-generation Nano arthroscope: the NanoNeedle Scope.

An all-in-one instrument, the NanoNeedle Scope features a built-in LED light source and chip-on-tip technology to provide surgeons with a needle-sized camera system. Its headless design is ergonomic and well balanced, allowing for more maneuverability and ease of use.

The intuitive tablet control unit is rechargeable-battery powered and features a touchscreen monitor. The portability of the imaging system allows the surgeon to perform minimally invasive arthroscopy during the preoperative, intraoperative, and postoperative phases of care using the NanoNeedle Scope as the main arthroscope or as an adjunct to a conventional arthroscope. Moreover, the system provides an alternative to MRI imaging and second-look arthroscopy and offers precise, direct image-guided visualization of injections.

Finally, Nano shaver blades, with a unique 2.8-mm diameter, are the newest additions to the NanoResection™ portfolio. Combined with Nano hand instruments, Arthrex offers a complete portfolio designed to lead the way into the future of Nano arthroscopy.

# Nano Arthroscopy System



Consisting of the NanoScope™ console and the NanoNeedle Scope, the Nano Arthroscopy System features the latest technologies in small imaging sensors, LED lighting, image management, and OR integration.

The NanoNeedle Scope is an all-in-one, chip-on-tip camera system offering surgeons the ergonomic benefits of a pencil-style handpiece.

### NanoScope Console



- Portable control unit, including documentation and data management
- 13 in touchscreen monitor
- Rechargeable-battery powered
- Medical-grade device
- Ethernet, USB, and HDMI ports and wireless network capabilities
- DICOM
- Integrated microphone

Product Description	Item Number
NanoScope console	VAR-3200-0030

### NanoNeedle Scope



- Chip-on-tip technology
- Headless design
- 1.9 mm scope diameter
- 0° direction of view
- 120° field of view
- Integrated LED light source
- Lightweight and well balanced
- 3 different lengths: 125 mm, 180 mm, and 250 mm

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

# NanoNeedle Scope

Sheath Kits, Access Kits, and Working Cannulas

## NanoNeedle Scope Sheath Kits



Surgeons can select the ideal sheath system to suit their specialty, site of care, and flow requirements independently of the NanoNeedle Scope. Options include the diagnostic sheath kit with an outer diameter of 2.4 mm and high-flow operative sheaths with a larger outer diameter (3.3 mm) for higher flow rates and increased joint distention. Each system is packaged sterile and contains a straight sheath as well as a 10° angled sheath to provide a 10° viewing angle.

### Components

- One straight inflow sheath with sharp obturator, single use, sterile
- One 10° angled inflow sheath with flexible blunt cannulated obturator, single use, sterile
- One stopcock, sterile

Product Description	Item Number
NanoNeedle Scope diagnostic sheath kit, 125 mm (outer diameter 2.4 mm)	AR-3210-0050
NanoNeedle Scope high-flow operative sheath kit, 125 mm (outer diameter 3.3 mm)	AR-3210-0051
NanoNeedle Scope high-flow operative sheath kit, 125 mm, with crown tip and fenestration cutout (outer diameter 3.3 mm)	AR-3210-0052
NanoNeedle Scope diagnostic sheath kit, 180 mm (outer diameter 2.4 mm)	AR-3210-0054
NanoNeedle Scope high-flow operative sheath kit, 180 mm (outer diameter 3.3 mm)	AR-3210-0055
NanoNeedle Scope high-flow operative sheath kit, 180 mm, with crown tip and fenestration cutout (outer diameter 3.3 mm)	AR-3210-0058



## NanoNeedle Scope Access Kits



The NanoNeedle Scope access kits contain both inflow sheaths and essential components for precise joint access.

### Components

- One straight inflow sheath with sharp obturator, sterile
- One 10° angled inflow sheath with flexible blunt cannulated obturator, single use, sterile
- One spinal needle stylet, sterile
- One guidewire, sterile
- One stopcock, sterile

Product Description	Item Number
NanoNeedle Scope high-flow operative sheath kit, 125 mm	AR-3210-0053
NanoNeedle Scope diagnostic sheath kit, 180 mm	AR-3210-0056
NanoNeedle Scope high-flow operative sheath kit, 180 mm	AR-3210-0057

## NanoNeedle Scope Working Cannulas

The NanoNeedle working cannulas are designed to facilitate the insertion of the NanoNeedle Scope, as well as Nano hand instruments and small-diameter shaver blades. They all feature a flexible plastic dam to prevent fluid loss and have a knurl pattern at the distal end to ensure the cannula stays in position during instrument removal.

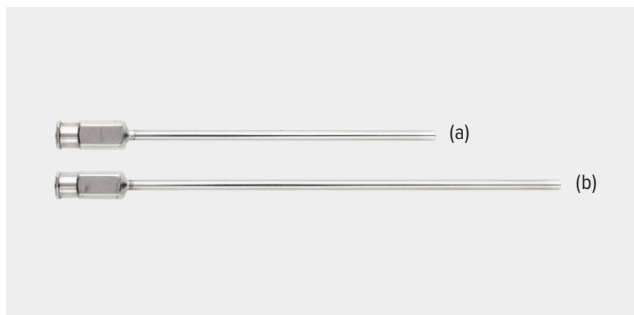
### Components

- One working cannula with blunt obturator, outer diameter 3.8 mm / inner diameter 3.4 mm, sterile

Product Description	Item Number
NanoNeedle Scope working cannula, 5 cm	AR-3210-0059
NanoNeedle Scope working cannula, 1.5 cm	AR-3210-0063



# Nano Arthroscopy Cannulas and Insertion Kit



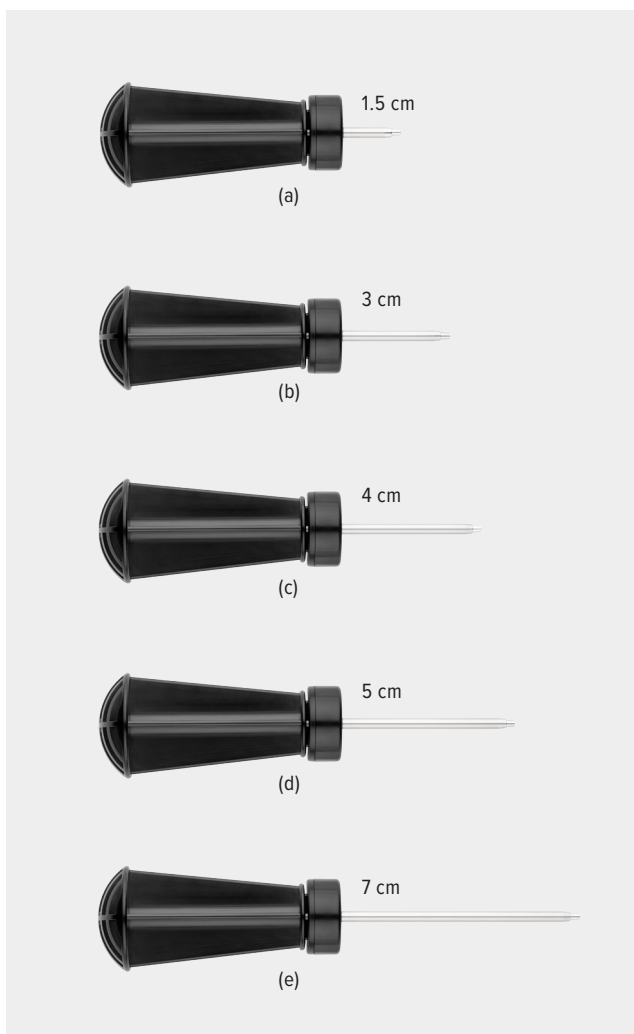
## Outflow Cannulas

The outflow cannula can be inserted through the NanoCannula for aspiration of fluid and resected soft tissue. It connects to syringes or suction tubing.

### Components

- Outflow cannula, 2.4 mm outer diameter, sterile

Product Description	Item Number
Outflow cannula, 7 cm <b>(a)</b>	AR-1090S-70-1
Outflow cannula, 10 cm <b>(b)</b>	AR-1090S-100-1



## Nano Arthroscopy Cannulas

The Nano arthroscopy cannula features a flexible plastic dam to prevent fluid loss. The cannula is designed to facilitate the insertion of the NanoNeedle Scope, as well as Nano hand instruments.

The included Tegaderm™ skin adhesive is placed over the NanoCannula to maintain cannula position during instrument removal.

### Components

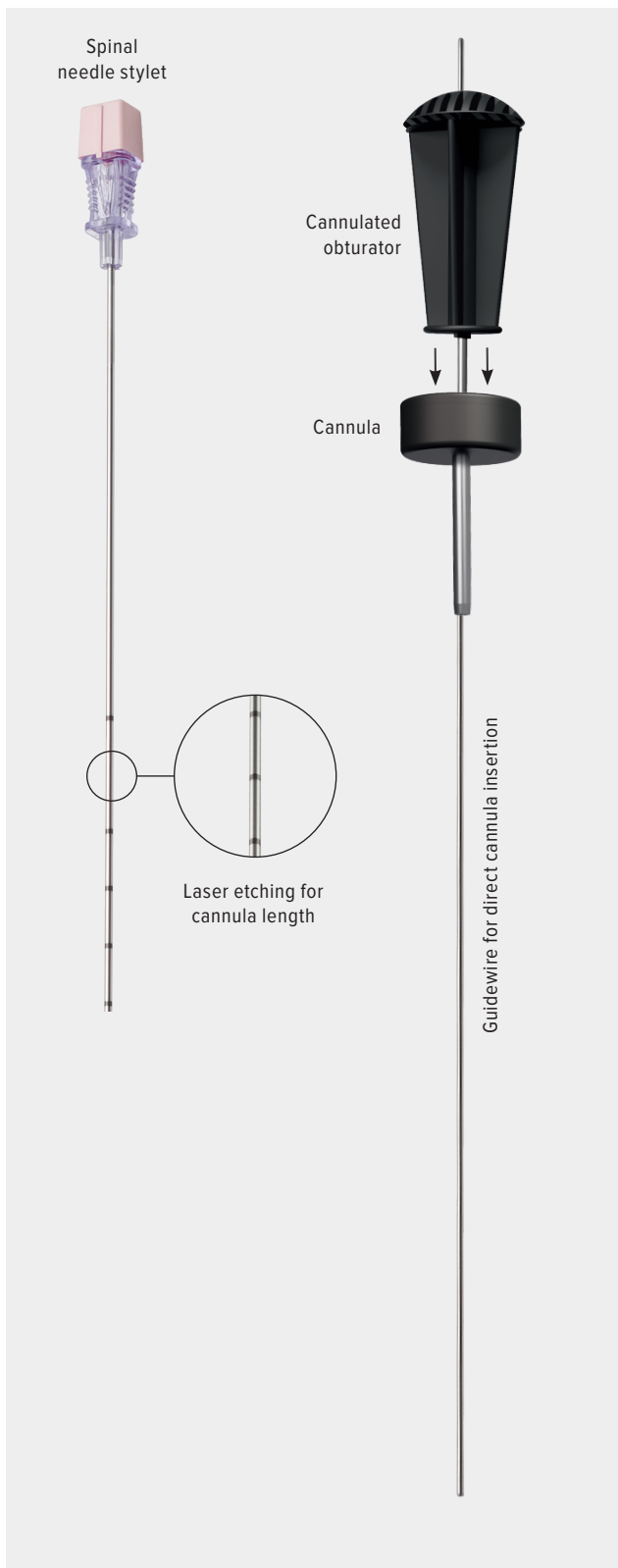
- NanoCannula and cannulated obturator, 2.7 mm inner diameter / 3.4 mm outer diameter, sterile,
- Tegaderm skin adhesive, sterile

Product Description	Item Number
NanoCannula, 1.5 cm length <b>(a)</b>	AR-1090C-15-1
NanoCannula, 3 cm length <b>(b)</b>	AR-1090C-30-1
NanoCannula, 4 cm length <b>(c)</b>	AR-1090C-40-1
NanoCannula, 5 cm length <b>(d)</b>	AR-1090C-50-1
NanoCannula, 7 cm length <b>(e)</b>	AR-1090C-70-1

Tegaderm is a trademark of 3M Medical.



## Percutaneous Insertion Kit



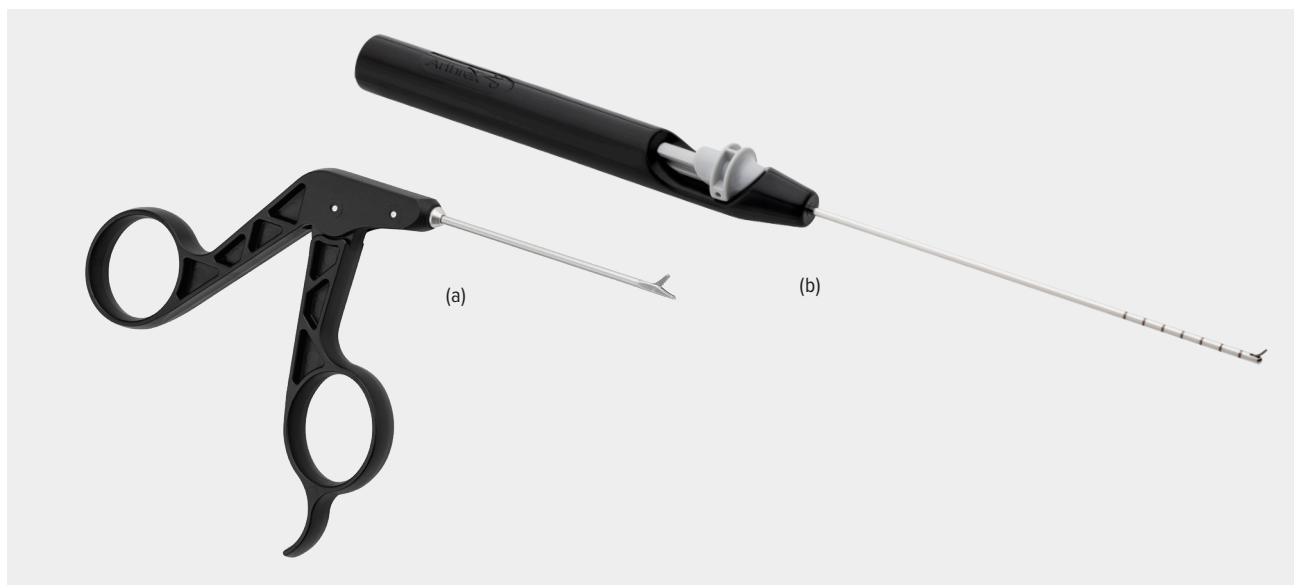
The Percutaneous Insertion Kit was designed for cannula insertion and measuring the appropriate cannula length.

### Components

- Calibrated spinal needle stylet, sterile
- Guidewire, sterile

Product Description	Item Number
Percutaneous Insertion Kit	AR-1090PK-1

# Nano Arthroscopy Hand Instruments



Harnessing 20 years of excellence, Arthrex has engineered the next generation of instruments for diagnostic, resection, and extraction procedures.

The NanoProbe is an articulating, retractable-hook probe used for diagnostic procedures. The NanoBiter, NanoScissor, and NanoGrasper are small arthroscopic soft-tissue resection instruments. Just 2 mm in diameter, they are designed for atraumatic insertion through tight joint spaces. These instruments are sharp and engineered to efficiently resect meniscal tissue and other soft-tissue structures.

## Nano Arthroscopy Hand Instruments, 130 mm Working Length, 2 mm Diameter, Sterile

Product Description	Item Number
NanoBiter, straight <b>(a)</b>	AR-10911D-1
NanoBiter, 15° up	AR-10922D-1
NanoGrasper, straight	AR-10913D-1
NanoScissor, straight	AR-10915D-1
NanoProbe, retractable <b>(b)</b>	AR-10100N

## Nano Arthroscopy Hand Instruments, 70 mm Working Length, 2 mm Diameter, Sterile

Product Description	Item Number
NanoBiter, straight	VAR-10901D-1
NanoBiter, 15° up	VAR-10902D-1
NanoGrasper, straight	VAR-10903D-1
NanoScissor, straight	VAR-10905D-1



### Product Description

NanoBiter Punch



### Product Description

NanoBiter, 15° up



### Product Description

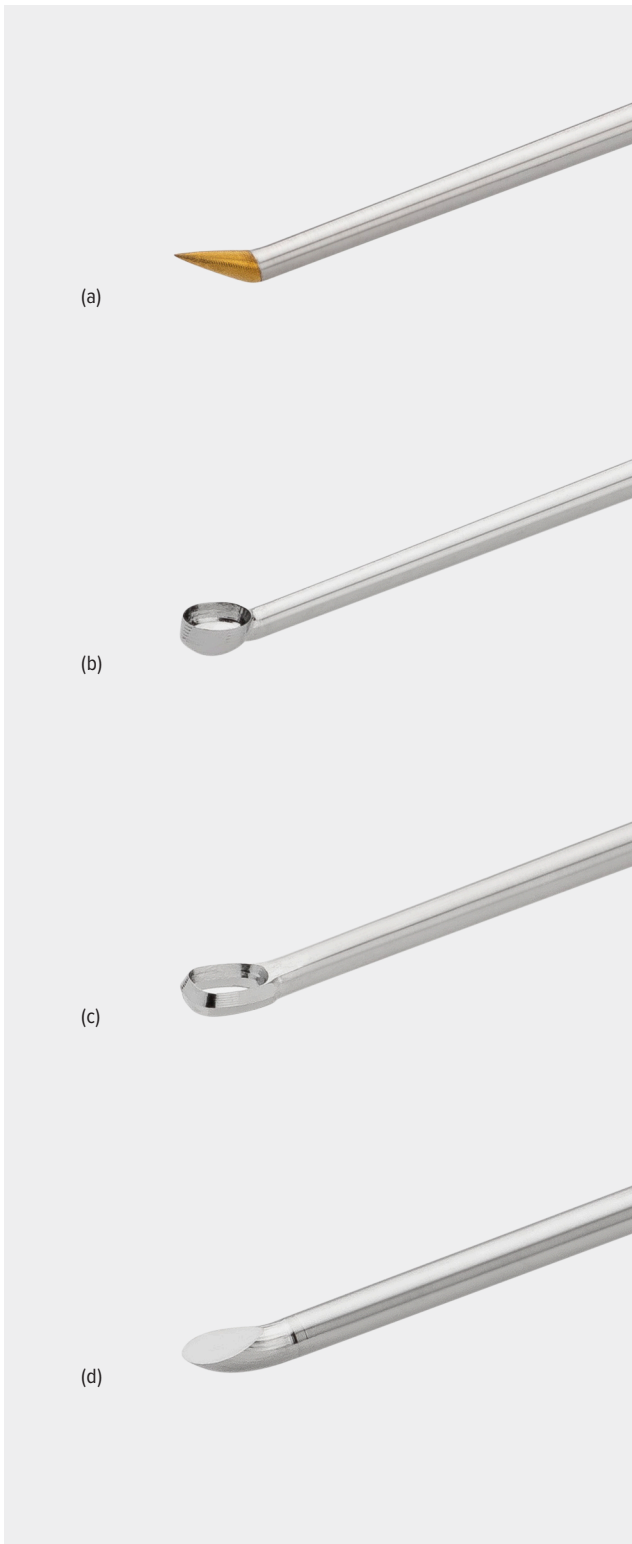
NanoGrasper



### Product Description

NanoScissor

# NanoScopic™ Bone Prep



- **Bendability:** Contour instruments in the Nano bone prep line using the new Nano reusable bending tool
- **Sharpness:** Limited use instruments are sharp and precise
- **Size:** Ergonomically designed for extremities, instruments in this line are available in 2 lengths—7 cm and 10 cm—for expanded applications

Product Description	Item Number
30° Chondral pick, 7 cm <b>(a)</b>	AR-1091CP-70-1
30° Chondral pick, 10 cm	AR-1091CP-100-1
Cup curette, 7 cm <b>(b)</b>	AR-1091CC-70-1
Cup curette, 10 cm	AR-1091CC-100-1
Ring curette, 7 cm <b>(c)</b>	AR-1091RC-70-1
Ring curette, 10 cm	AR-1091RC-100-1
Elevator, 7 cm <b>(d)</b>	AR-1091E-70-1
Elevator, 10 cm	AR-1091E-100-1

## NanoScope™ Mobile Cart Options

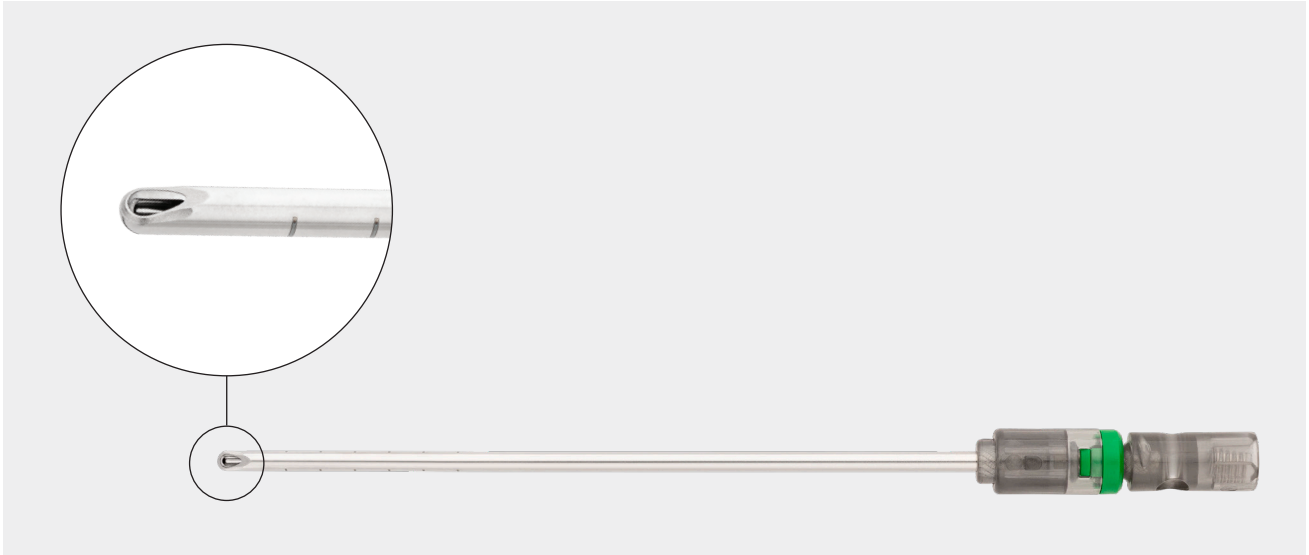
Product Description	Item Number
MSK mobile cart	AR-3502-CRT
NanoScope™ console mount	ATX-2601



# NanoResection™ Devices

Efficient Resection Devices Made Smaller

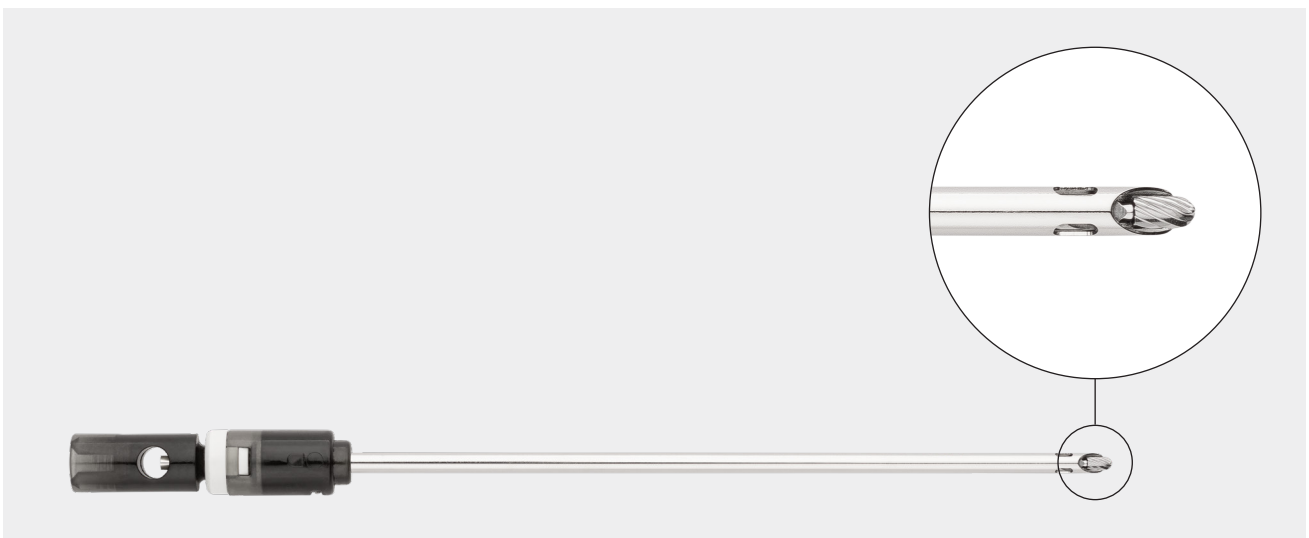
## Synergy<sup>Resection™</sup> Console



- 2.8 mm in diameter and 11 cm in length
- Teardrop-shaped window to reduce clogging
- Smooth cutting windows for clean resection

Product Description	Item Number
Nano Sabre shaver, sterile	AR-9280NSR-1

## Nano Oval Burr










- 2.8 mm in diameter and 11 cm in length
- Extended burr head for distal tip cutting capabilities
- 10 sharp flutes for smooth and efficient resection

Product Description	Item Number
Nano oval burr, sterile	AR-9280NOT-1

## Nano Shaver Small-Hub Blade and Burr Options

The Nano arthroscopy small-hub shaver handpiece, blades, and burrs allow for efficient minimally invasive tissue resection and debridement. The low-profile tip design facilitates safe introduction into most tight joint spaces without the need for a limb holder.

The foot-control shaver handpiece is a high-speed, high-torque accessory. The small diameter and light weight of the handpiece and blades make the NanoScope™ operative arthroscopy system one of the most versatile resection tools available.

	Description	1 (Ø mm)	2 (Ø mm)	3 (Ø mm)	3.5 (Ø mm)
	<b>PowerRasp™ Resector, Small Hub</b> Ideally suited for soft tissue, osteochondral and osteophyte resection, or bony site preparation				<b>AR-9350PR</b>
	<b>PowerPick™ Drill, Small Hub</b> Excellent for microdrilling osteochondral defects (1 mm refers to the drill tip diameter; the outer diameter of the shaft is 3.5 mm with a stepdown to 3.25 mm)	<b>AR-9100PP-00</b> (0°) <b>AR-9100PP-45</b> (45°)			
	<b>Torpedo™ Shaver Blade</b> Tapered tip and scissor-like cutting action facilitate rapid, aggressive soft-tissue resection				<b>AR-9350TD</b>
	<b>Dissector, Small Hub</b> Sharp, teardrop-shaped outer window; toothed inner cutting window aggressively attacks tissue, grabbing it and drawing it into the cutting area			<b>AR-9300DS</b>	<b>AR-9350DS</b>
	<b>Sabre, Small Hub</b> Sharp, teardrop-shaped outer window; smooth inner cutting window leaves crisp, clean edges for a more anatomic appearance following resection		<b>AR-9200SR</b>	<b>AR-9300SR</b>	<b>AR-9350SR</b>
10-flute 	<b>Oval Burr, Small Hub</b> Designed for rapid, aggressive bone resection in notchplasty, distal clavicle, and subacromial decompression procedures			<b>AR-9300OBT</b>	<b>AR-9350OBT</b>
10-flute 	<b>Round Burr, Small Hub</b> Ideally suited for soft tissue, osteochondral and osteophyte resection, or bony site preparation			<b>AR-9300RBT</b>	<b>AR-9350RBT</b>

Color bars reflect family color shown on the adapter.

### Synergy<sup>Resection</sup> Console



- Multifunctional shaver system
- Operation of 2 handpieces simultaneously
- Automatic detection of handpiece
- Control via 1 or 2 foot pedals
- Three different oscillating modes: standard, efficient, aggressive
- Shaver: FWD/REV: 8000 rpm max; OSC: 3000 rpm max

Product Description	Item Number
Synergy <sup>Resection</sup> console	VAR-8305

### Shaver Handpiece



Arthrex’s unique double-sealed shaver handpiece is robust and reliable with a light, ergonomic feel, and comes with or without touch-control options. With high-performance motors and the use of cutting-edge materials, Synergy<sup>Resection</sup> shaver handpieces are a great addition to the OR and procedure rooms.

Product Description	Item Number
Shaver handpiece, Nano arthroscopy	VAR-8330SJ

### Footswitch



Product Description	Item Number
Footswitch, APS II, standard (a)	VAR-8310
Synergy <sup>Resection</sup> Wireless Footswitch (b)	AR-8315W
Footswitch, APS II, multifunction, corded (c)	VAR-8315C

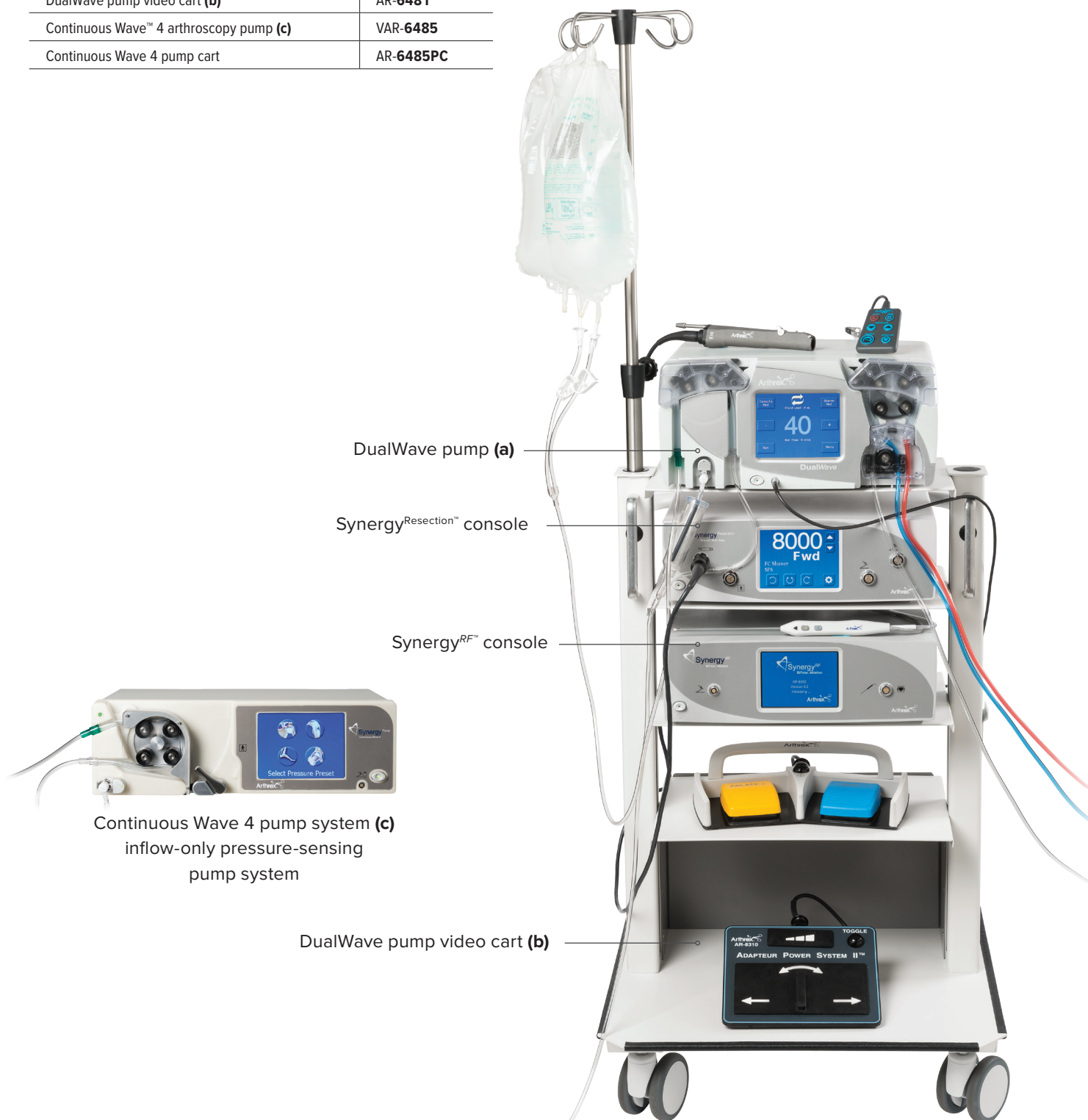


## Arthroscopy Powered Resection and Fluid Management System

Arthrex’s comprehensive portfolio of powered resection and fluid management products provides options for all procedure types and settings. Whether it’s controlling distention during complex arthroscopic procedures or providing simple gravity flow during office procedures,

Arthrex is dedicated to offering unique solutions for safe and reliable joint distention, tissue resection, and small-profile visualization with Nano arthroscopy in the OR or treatment room.

Product Description	Item Number
DualWave™ arthroscopy pump (a)	VAR-6480
DualWave pump video cart (b)	AR-6481
Continuous Wave™ 4 arthroscopy pump (c)	VAR-6485
Continuous Wave 4 pump cart	AR-6485PC



DualWave pump (a)

Synergy<sup>Resection</sup>™ console

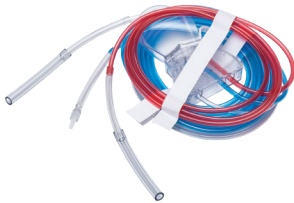
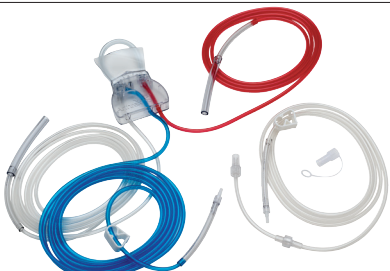
Synergy<sup>RF</sup>™ console

Continuous Wave 4 pump system (c)  
inflow-only pressure-sensing  
pump system

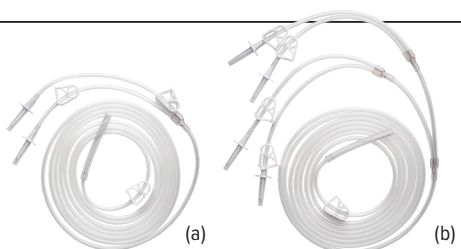
DualWave pump video cart (b)

## Tubing for DualWave™ Pump

### Main Pump Tubing


	Product Description and Note	Item Number
	<p><b>DualWave Outflow Tubing for AR-6480, qty. 10</b></p> <p>The DualWave outflow tubing allows the DualWave arthroscopy pump to regulate both inflow and outflow in the joint space. By controlling both aspects, distention is maintained at the highest level, resulting in maximum visualization.</p>	<p><b>AR-6430</b></p>
	<p><b>DualWave Outflow Tubing Set with ReDeuce™ Tubing System for AR-6480, qty. 10</b></p> <p>The combination set comes with both AR-6421 and AR-6430 packaged together. This simplifies preparation by reducing the number of items needed in the OR to set up the DualWave pump. Reducing the number of tubing packages also reduces ordering and simplifies inventory tracking. The combination set provides a direct price reduction associated with the reduced of packaging material.</p>	<p><b>AR-6435</b></p>

### Gravity Tubing


	Product Description and Note	Item Number
	<p><b>Gravity Tubing, 2 spikes, 20 per box (a)</b>  <b>Gravity Tubing, 4 spikes, 10 per box (b)</b></p> <p>Gravity tubing is compatible with all arthroscopic sheaths and cannulas and able to maintain proper distention even in complicated surgical cases that demand high flow. It is 13 ft working length and 14.2 ft total length.</p>	<p><b>AR-6412</b>  <b>AR-6414</b></p>

## Tubing for Continuous Wave™ Pump



### Main Pump Tubing

	Product Description and Note	Item Number
	<p><b>Main Pump Tubing for VAR-6480 or VAR-6485, Sterile, Qty. 10</b></p> <p>This tubing set is for those who prefer a complete tubing set and want to replace the fluid bags after each case. Each tubing set comes with an independently packaged press-fit Luer lock to allow for tubing length adjustment if used in conjunction with the extension tubing. If used alone, the set must be discarded after each case.</p>	AR-6410


### Extension Tubing

	Product Description and Note	Item Number
	<p><b>Extension Tubing, Sterile, Qty. 20</b></p> <p>This unique tubing provides an economical option to reduce tubing costs by allowing the main pump tubing to remain in use for the entire surgical day. The exclusive backflow valve prevents contaminated fluid from reaching the main pump tubing. The main pump tubing and fluid bags no longer need to be discarded after each surgical case.</p>	AR-6220


### 2-Piece Pump Tubing System

	Product Description and Note	Item Number
	<p><b>2-Piece Pump Tubing with Connector for AR-6480 or AR-6485, Sterile, Qty. 10</b></p> <p>The 2-piece pump tubing maintains sterility due to the design of the patient-side tubing and the touch-proof connector. Leaving the pump-side tubing in place the entire day saves on fluid because the remaining fluid does not need to be discarded after terminating each surgical case.</p>	AR-6411
	<p><b>2-Piece Patient Tubing, Sterile, Qty. 20</b></p> <p>The 2-piece patient tubing set contains a backflow restrictor, saving tubing costs and setup time by requiring only patient tubing to be discarded and passed off from the sterile field after and before each case.</p>	AR-6421

### Inflow Tubing

	Product Description and Note	Item Number
	<p><b>Continuous Wave 4 Inflow Tubing</b></p>	AR-6413

## Accessories

	Product Description and Note	Item Number
 A white, rectangular waste collection bag with a red zipper at the top. It features a vertical scale on the left side with markings from 1L to 10L. The Arthrex logo is printed in the center, and the text "Waste Collection AR-6431" is printed at the bottom.	<p><b>Waste Collection Bag, Qty. 10</b></p> <p>The waste collection bag can be hung from the AR-6481 pump cart and can hold up to 10 liters of waste fluid. At the end of a surgical case, simply seal the bag and dispose.</p>	<p><b>AR-6431</b></p>



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)**