# **ENDOMAT® SELECT**

Versatile pump system for interdisciplinary use







### **ENDOMAT® SELECT**

#### The Choice is Yours

All aspects of life and work appear to be in an almost constant state of flux at the present time. To make an investment in an object with long-term value, therefore, seems paradoxical when short-lived trends are the norm.

The ENDOMAT® SELECT from KARL STORZ thus marks the beginning of a new era of sustainability. In one interdisciplinary system, the unit combines ease of use and a clearly arranged user interface with a compact exterior while allowing uncomplicated combination with existing products – thereby adding fresh momentum to the OR.

The ENDOMAT® SELECT is a single roller pump for the irrigation or suction of fluids during surgical and diagnostic procedures. The pump can be equipped with various software modules so that the unit can be used for multiple disciplines in various rooms according to the respective indication.

This technology offers the customer a wide range of customized solutions. Such diversity of application is indeed a market revolution in medical technology. The benefit for the user is twofold: Resource conservation and cost efficiency.



UP210	<b>ENDOMAT® SELECT,</b> suction or irrigation pump, incl. mains cord, power supply 100-240 VAC, 50/60 Hz
UP601	SURGERY Software, license, allows selection of the procedures "LAP", "THOR" and "PROCTO"
UP602	HYSTEROSCOPY Software, license, allows selection of the procedure "HYS"
UP603	IBS® Shaver Software, license, allows selection of the procedure "IBS® Shaver"
UP604	<b>UROLOGY Software,</b> license, allows selection of the procedures "CYST", "PCN", "URS", "CALCUSON" and "RES"
UP605	<b>ARTHROSCOPY Software,</b> license, allows selection of the procedures "KNEE", "HIP", "SHOULDER" and "SMALL JOINTS"
UP606	ENT Software, license, allows selection of the procedure "CLEARVISION®"
UP607	SPINE Software, license, allows selection of the procedures "LUMBAR" and "THORACIC"
UP610	<b>ADVANCED Package,</b> software, license, extends functions of installed software packages, for use with the ENDOMAT® SELECT UP210 and ENDOMAT® SELECT UP220

#### CASSETTE TUBING SET - Accessories

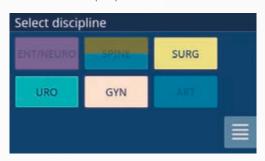
#### Special Features:

- Easy insertion thanks to one-handed installation of the cassette tubing set
- Coded tubing sets for clear identification
- Respective specialty color displayed on the packaging

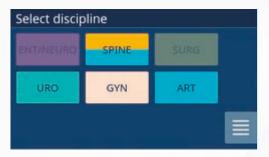
The following overview shows which tubing set is used for each application:

#### **IRRIGATION**

#### Flow Control (FC)

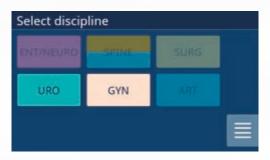


#### Pressure Control (PC)

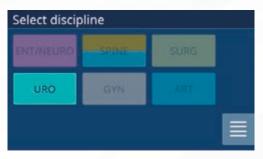


#### SUCTION

#### Direct Suction (DS)

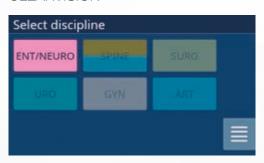


#### Suction via CALCUSON bottle



#### LENS IRRIGATION

#### **CLEARVISION®**



### CASSETTE TUBING SET for single use

The following tubing sets for the irrigation and suction of fluids are available for single use:



#### Note

Reusable tubing sets are also available. If interested, please contact your KARL STORZ representative.

#### **ONE-DAY USE**

The following one-day tubing sets for the pressure- as well as flow-controlled irrigation of fluids are available:



One-Day Tubing Set, irrigation, PC¹, STERILE Sterile, package of 10, for use with the ENDOMAT® SELECT UP210, ENDOMAT® SELECT UP220 and HAMOU® ENDOMAT® 26331120 in combination with Patient Tube 031162-10



One-Day Tubing Set, irrigation, FC², STERILE Sterile, package of 10, for use with the ENDOMAT® SELECT UP210, ENDOMAT® SELECT UP220 and HAMOU® ENDOMAT® 26331120 in combination with Patient Tube 031162-10

Both one-day tubing sets require the following patient tubing set:



O31162-10 Patient Tube, sterile, for single use, package of 10, for use with Pump Tubing Day Sets 031563-10 and 031564-10

Explanation for the abbreviations used above:

<sup>1</sup> PC – Pressure-regulated irrigation

<sup>4</sup> BS - Suction via CALCUSON bottle

<sup>2</sup> FC – Flow-regulated irrigation

<sup>5</sup> CV - CLEARVISION® irrigation

<sup>3</sup> DS – Direct suction

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# For use in Laparoscopy, Proctology and Thoracic Surgery

The ENDOMAT® SELECT enables the irrigation of fluids in applications for general surgery. Interventions for the following indications are integrated in the SURG package:

- Laparoscopy:
   Reliable and powerful irrigation plays a vital role in practically all laparoscopic procedures as even minor hemorrhaging can have a drastic effect on visibility.
- Proctology:
   In proctology and rectoscopy, the ENDOMAT® SELECT can be used for cleaning the OR field in the rectum.
- Thoracoscopy:
   In order to maintain a clear site in the thoracic cavity, reliable cleaning is necessary.
   Regardless of whether it is required after empyema suction or for a leakage test, effective and easy-to-control irrigation is of particular importance during interventions such as video-assisted thoracic surgery.





Flow-controlled irrigation "Laparoscopy" inactive

Flow-controlled irrigation "Laparoscopy" active

#### Accessories:

Illustration	Order No.	Product
SURG		SURGERY Software, license, allows selection of the procedures "LAP", "THOR" and "PROCTO", for use with the ENDOMAT® SELECT UP210

For laparoscopy		
9	031524-10	Tubing Set, irrigation, flow-controlled, sterile, for single use, package of 10, for use with the HAMOU® ENDOMAT® 26331120 and ENDOMAT® SELECT UP210
-\$	26173BN	Suction and Irrigation Tube, with lateral holes, anti- reflex surface, with two-way stopcock for single-hand control, size 5 mm, length 36 cm
	37360LH	Suction and Irrigation Tube, with lateral holes, size 5 mm, length 36 cm, for use with suction and irrigation handles
	37113A	<b>Handle,</b> pistol grip, with clamping valve, for suction and irrigation, <b>autoclavable</b>
	031134-10	Tubing Set, sterile, for single use, package of 10, for use with Handles 37112A, straight, 37113A, pistol grip and 37112RV in combination with silicone tube at the patient side, inner diameter 5 mm

For proctology		
9	031524-10	Tubing Set, irrigation, flow-controlled, sterile, for single use, package of 10, for use with the HAMOU® ENDOMAT® 26331120 and ENDOMAT® SELECT UP210
+	25025AR	<b>Suction and Irrigation Tube,</b> with two-way stopcock, size 5 mm, working length 43 cm
-\$	26173BN	Suction and Irrigation Tube, with lateral holes, anti- reflex surface, with two-way stopcock for single-hand control, size 5 mm, length 36 cm

For thoracoscopy			
90	031524-10	Tubing Set, irrigation, flow-controlled, sterile, for single use, package of 10, for use with the HAMOU® ENDOMAT® 26331120 and ENDOMAT® SELECT UP210	
	40360LH	Suction and Irrigation Tube, with lateral holes, size 5 mm, length 28 cm, for use with suction and irrigation handles	
	30805	Handle with Two-Way Stopcock, for suction and irrigation, autoclavable, for use with suction and irrigation tubes size 5 mm	

Further accessories can be found in the catalogs for Laparoscopy, Thorax and Proctology.

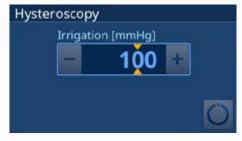
# For use in Gynecology

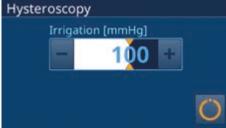
Thanks to thinner and, therefore, more atraumatic optical systems, the ENDOMAT® SELECT unit particularly supports interventions in clinical outpatient departments or office settings.

KARL STORZ offers two software packages for gynecology:

#### Diagnostic and operative hysteroscopy (HYS)

For diagnostic and operative hysteroscopy, the ENDOMAT® SELECT provides pressure-controlled dilation of the uterine cavity. It can be used in the operating room as well as the office setting or the clinical outpatient department and ensures a dilated and stable uterine cavity thanks to its simple application. The pressure settings can be adjusted manually at any time.





Pressure-controlled "Hysteroscopy" inactive

Pressure-controlled "Hysteroscopy" active

In operative hysteroscopy, the ENDOMAT® SELECT can be used as a suction pump as an alternative to dilation.

#### Hysteroscopic tissue ablation with the IBS®

For purely mechanical tissue resection, the ENDOMAT® SELECT can also be used as a suction pump in conjunction with the Intrauterine BIGATTI Shaver (IBS®). The uterine cavity is dilated with an existing irrigation pump (e.g., HAMOU® ENDOMAT®). The ENDOMAT® SELECT ensures controlled suction of the resected tissue and, consequently, good visibility. Both the ENDOMAT® SELECT and the motor system of the IBS® are controlled via a two-stage footswitch so that the operating surgeon has direct control of resection and suction of the resected tissue (polyps, myomas, placental remnants) with only one pedal. Consequently, the ENDOMAT® SELECT allows the use of the Intrauterine BIGATTI Shaver (IBS®) with an existing irrigation pump and the UNIDRIVE® S III motor control unit.



Suction "Intrauterine BIGATTI Shaver" inactive



Suction "Intrauterine BIGATTI Shaver" active

# Accessories:

For hysteroscopy			
HYS	UP602	HYSTEROSCOPY Software, license, allows selection of the procedure "HYS", for use with the ENDOMAT® SELECT UP210 and ENDOMAT® SELECT UP220	
	031523-10	Tubing Set, irrigation, pressure-controlled, sterile, for single use, package of 10, for use with the HAMOU® ENDOMAT® 26331120, ENDOMAT® SELECT UP210 and ENDOMAT® SELECT UP220	
00	030647-10	Tubing Set, suction,  DS, sterile, for single use, package of 10, for use with the ENDOMAT® SELECT UP210 and ENDOMAT® SELECT UP220	
In conjunction with UNIDRIVE® S III			
IBS®	UP603	IBS® Shaver Software, license, allows selection of the procedure "IBS®", for use with the ENDOMAT® SELECT UP210 and ENDOMAT® SELECT UP220	
90	030647-10*	Tubing Set, suction,  DS, sterile, for single use, package of 10, for use with the ENDOMAT® SELECT UP210 and ENDOMAT® SELECT UP220	
	20701070	Control Cable, 2x LEMO 5-pin 0° connectors, length 100 cm, for transmission of footswitch control signals between the UNIDRIVE® S III 20701020-1, ENDOMAT® SELECT UP210 and ENDOMAT® SELECT UP220	

Further accessories can be found in the Gynecology catalog.



# For use in Urology

The ENDOMAT® SELECT accommodates the wide range of applications in the field of urology, allowing seamless integration into existing systems and providing pressure-regulated irrigation for diagnostic and operative interventions. Alternatively, the ENDOMAT® SELECT can be used as a suction pump.

Intracavity pressure can be increased as necessary via activation of the footswitch or touch screen. This increase in pressure can be adjusted on the display in terms of percentages. However, this does not exceed the value of 150 mmHg.

#### Cystoscopy

The ENDOMAT® SELECT provides pressure-controlled irrigation for cystoscopy.



Pressure-controlled irrigation "Cystoscopy" inactive



Pressure-controlled irrigation "Cystoscopy" active



Pressure-controlled irrigation "Cystoscopy" active with activated boost function

#### Percutaneous Nephrolithotomy

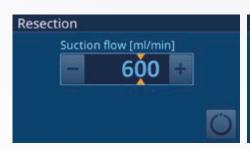
The ENDOMAT® SELECT delivers good visibility during percutaneous nephrolithotomy thanks to the fluid administered and continuous fluid exchange.

#### Uretero-Renoscopy

In uretero-renoscopy (rigid as well as flexible), the ENDOMAT® SELECT ensures that the operating surgeon's view is not impaired by stone dust during lithotripsy thanks to the pressure-regulated irrigation of fluid.

#### Resection

During resection (TUR-B/P), the ENDOMAT® SELECT ensures a thorough removal of tissue chips. The values can be adjusted at the unit.





Suction "Resection" inactive

Suction "Resection" active

Alternatively, the ENDOMAT® SELECT can be used as an irrigation pump during resection.

# Removal of kidney, bladder, and ureter stones in conjunction with the CALCUSON

The ENDOMAT® SELECT can be used in combination with the CALCUSON for the aspiration of stone fragments during lithotripsy. The pump and the CALCUSON generator are conveniently activated via a footswitch.





Suction "CALCUSON" inactive

Suction "CALCUSON" active

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# Accessories for use in Urology:

Illustration	Order No.	Product
URO	UP604	UROLOGY Software, license, enables the selection of the procedures "CYST", "RES", "URS", "CALCUSON" and "PCN", for use with the ENDOMAT® SELECT UP210 and ENDOMAT® SELECT UP220

For cystoscopy, percutaneous nephrolithotomy and uretero-renoscopy		
	031523-10	Tubing Set, irrigation, PC, sterile, for single use, package of 10, for use with the HAMOU® ENDOMAT® 26331120, ENDOMAT® SELECT UP210 and ENDOMAT® SELECT UP220
	20014130	One-Pedal Footswitch, digital, one-stage



For resection in TUR-B/TUR-P		
0.9	030647-10	Tubing Set, suction,  DS, sterile, for single use, package of 10, for use with the ENDOMAT® SELECT UP210 and ENDOMAT® SELECT UP220
	031523-10	Tubing Set, irrigation, PC, sterile, for single use, package of 10, for use with the HAMOU® ENDOMAT® 26331120, ENDOMAT® SELECT UP210 and ENDOMAT® SELECT UP220

For lithotripsy with CALCUSON		
	031647-10	Tubing Set, suction, via bottle, sterile, for single use, package of 10, for use with the ENDOMAT® SELECT UP210 and ENDOMAT® SELECT UP220
	20701070	Control Cable, 2x LEMO 5-pin 0° connectors, length 100 cm, for transmission of footswitch control signals between the CALCUSON 27610020, ENDOMAT® SELECT UP210 and ENDOMAT® SELECT UP220

# For use in Arthroscopy

In the field of arthroscopy, the ENDOMAT® SELECT regulates the irrigation of fluids according to the latest standards. A sophisticated pump system allows steady, clear imaging during the entire intervention.

The ENDOMAT® SELECT for arthroscopy communicates effectively with the KARL STORZ shaver unit UNIDRIVE® S III ARTHRO and regulates the pressure and flow rate in such a way that joint distension is maintained, thus enabling good imaging. A BOOST mode, which can be activated at any time, provides a temporary increase in pressure and irrigation inside the joint to enable clear visualization.

As an alternative to irrigation, the ENDOMAT® SELECT can also be used as a suction pump in arthroscopy.

Interventions for the following indications are integrated in the arthroscopy package:

- Knee
- Hip
- Shoulder
- Small joints



Pressure-controlled irrigation "Hip" inactive



Pressure-controlled irrigation "Hip" active



Pressure-controlled irrigation "Hip" active with activated boost function

# Accessories:

Illustration	Order No.	Product
ART	UP605	ARTHROSCOPY Software, license, allows selection of the procedures "KNEE", "HIP", "SHOULDER" and "SMALL JOINTS", for use with the ENDOMAT® SELECT UP210 and ENDOMAT® SELECT UP220
	031523-10	Tubing Set, irrigation, pressure-controlled, sterile, for single use, package of 10, for use with the HAMOU® ENDOMAT® 26331120, ENDOMAT® SELECT UP210 and ENDOMAT® SELECT UP220
0.9	030647-10	<b>Tubing Set,</b> suction, DS, sterile, for single use, package of 10, for use with the ENDOMAT® SELECT UP210 and ENDOMAT® SELECT UP220
	UP006	Control Cable, 1x LEMO 5-pin 0° and 1x LEMO 12-pin 0° connector, length 100 cm, for transmission of footswitch control signal between the UNIDRIVE® S III ARTHRO SCB 28723020-1, ENDOMAT® SELECT UP210 and ENDOMAT® SELECT UP220
	20014130	One-Pedal Footswitch, digital, one-stage

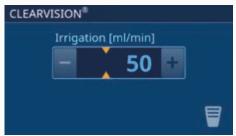
Further accessories can be found in the Arthroscopy catalog.

## For use in ENT

To maintain a clear view, the ENDOMAT® SELECT is used in combination with irrigation sheaths from ENT for rinsing the lens with the CLEARVISION® module.

By activating the first footswitch position, the pump flushes the telescope lens with fluid. Continuous oscillation of the pump head draws the drops of liquid away from the lens. When releasing the footswitch, any started cycles are fully completed.

The continuous irrigation mode can be started by activating the second footswitch position, if desired. Liquid is suctioned back into the irrigation sheath when the pedal is released.



Irrigation [ml/min]

50

Flow-controlled CLEARVISION® irrigation inactive

Flow-controlled CLEARVISION® irrigation activated via footswitch



# Accessories:

Illustration	Order No.	Product
ENT	UP606	ENT Software, license, allows selection of the procedure "CLEARVISION®", for use with the ENDOMAT® SELECT UP210 and ENDOMAT® SELECT UP220
59	031529-10	Tubing Set, irrigation, CV, sterile, for single use, package of 10, for use with the ENDOMAT® SELECT UP210 and ENDOMAT® SELECT UP220
	20014230	One-Pedal Footswitch, digital, two-stage
	7230AS	Suction and Irrigation Sheath 0°, outer diameter 4.8 x 6 mm, working length 14 cm, for use with HOPKINS® Telescopes 7230AA, 28132AA, TIPCAM®1 S 3D 7240AA3D and 28164AA3D as well as the ENDOMAT® SELECT UP210  Suction and irrigation sheath also available in 30°, 45° and 70°
	7241AS	Irrigation Sheath 0°, outer diameter 4.8 mm, working length 14 cm, connection facing upwards, for use with the TIPCAM®1 S 3D 7240AA3D or HOPKINS® Telescope 7230AA and ENDOMAT® SELECT UP210 Suction and irrigation sheath also available in 30°, 45° and 70°
THE THE	7230AES	Irrigation and Suction Sheath 15°-90°, outer diameter 4.8 mm, working length 14 cm, for use with the ENDOCAMELEON® ENT HOPKINS® Telescope 7230AE, ENDOCAMELEON® NEURO HOPKINS® Telescope 28132AE and ENDOMAT® SELECT UP210

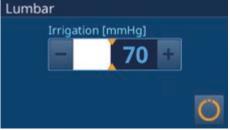
For further accessories, please refer to the ENT catalog.

# For use in Spine Surgery

The ENDOMAT® SELECT offers the following software packages for the irrigation of fluids for indications in spine surgery:

- Lumbar
  - The synergy between the ENDOMAT® SELECT and the SpineTIP system provides the continuous flow necessary for this surgical technique and to perform a surgical procedure.
- Thoracic
   Irrigation with the ENDOMAT® SELECT is also possible for thoracoscopic procedures through the use of appropriate KARL STORZ irrigation/suction instruments.





Pressure-controlled irrigation "Lumbar" inactive

Pressure-controlled irrigation "Lumbar" active

# Accessories:

Illustration	Order No.	Product
SPINE	UP607	SPINE Software, license, enables the selection of the procedures "LUMBAR" and "THORACIC", for use with the ENDOMAT® SELECT UP210 and ENDOMAT® SELECT UP220

For lumbar treatment:			
	031523-10	Tubing Set, irrigation, pressure-controlled, sterile, for single use, package of 10, for use with the HAMOU® ENDOMAT® 26331120, ENDOMAT® SELECT UP210 and ENDOMAT® SELECT UP220	
	28163BTA	HOPKINS® Wide Angle Telescope 25°, angled eyepiece, outer diameter 6.6 mm, working channel 3.6 mm, length 25.7 cm, autoclavable, fiber optic light transmission incorporated, color code: blue	
	28163BFA	HOPKINS® Wide Angle Telescope 25°, angled eyepiece, outer diameter 6.6 mm, working channel diameter 3.6 mm, length 18 cm, autoclavable, fiber optic light transmission incorporated, color code: red	
	28163FFA	HOPKINS® Wide Angle Telescope 15°, angled eyepiece, outer diameter 6.1 mm, working channel diameter 2.9 mm, length 18 cm, autoclavable, fiber optic light transmission incorporated, color code: green	

For thoracic treatment:				
	031523-10	Tubing Set, irrigation, pressure-controlled, sterile, for single use, package of 10, for use with the HAMOU® ENDOMAT® 26331120, ENDOMAT® SELECT UP210 and ENDOMAT® SELECT UP220		
	37370GC	GORDTS and CAMPO <b>Coagulation Suction and Irrigation Tube</b> , bipolar, diameter 5 mm, length 36 cm, for use with suction and irrigation handles		
-	26173BN	Suction and Irrigation Tube, with lateral holes, anti- reflex surface, with two-way stopcock for single-hand control, size 5 mm, length 36 cm		

Further accessories can be found in the Spine Surgery catalog.

# Advanced Package

The ADVANCED Package supplies various additional features to increase the number of possible settings within an installed software pack or on the device itself.

The following settings can be chosen after installing the ADVANCED Package:



Pressure adjustment during SURG applications (100/300/500 mmHg)



Flow adjustment during SURG applications up to a maximum of 3.5 l/min



Flow adjustment during HYS, SPINE, and URO applications (200/400/600 ml/min)



Flow adjustment during ART applications (1.5/2/2.5 l/min)



Adjustment of the duration of pressure increase (boost function) during ART and URO applications within the range of 2-60 seconds.

#### Advanced device settings:

- Height difference: Compensates the height difference between the device and patient
- Boost shut-off delay/duration of pressure increase (ART and URO)
- Choice of pressure unit, mmHg or cm H<sub>2</sub>O
- SCB integration

#### Accessories:

Illustration	Order No.	Product
AVCD	UP610*	ADVANCED Package, software, license, extends functions of installed software packages, for use with the ENDOMAT® SELECT UP210 and ENDOMAT® SELECT UP220
	20090170	SCB Connecting Cable, length 100 cm

<sup>\*</sup> The ADVANCED Package requires at least one further software package.



Shaping the Future of Endoscopy with you







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