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# Laparoscopic Hysterectomy Morcellator



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# Laparoscopic Hysterectomy

Nowadays newly developed medical devices make hysterectomy possible by a laparoscopic intervention. The advantage for the patient of the laparoscopic method is less pain and a much faster recovery. Patients appreciate much the minimal invasive character of this operation because it leaves almost no scars on the patient's skin, reduces the healing of the wounds and saves money and time for all involved parties.

## Laparoscopic access

A manipulator (guide instrument) is inserted into the uterus via the vagina to enable it to be moved during the operation. A ceramic cap over the cervix later allows it to be safely withdrawn from the vagina. The abdominal cavity is filled with gas (CO<sub>2</sub>) through a thin cannula in order to elevate the abdominal wall and provide an unobstructed view of the abdominal organs. The camera optics is inserted in the umbilical area through a percutaneous access route. The required surgical instruments (e.g. electric scissors, morcellator, haemostatic clamps, etc.) are inserted in the lower abdomen through small (5 – 10 mm) incisions. The camera passes the image to a large monitor. The modern optics and instruments provide an unobstructed view and so ensure safe surgery.

## Incision

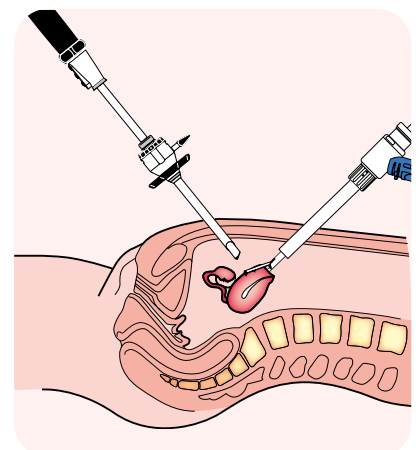
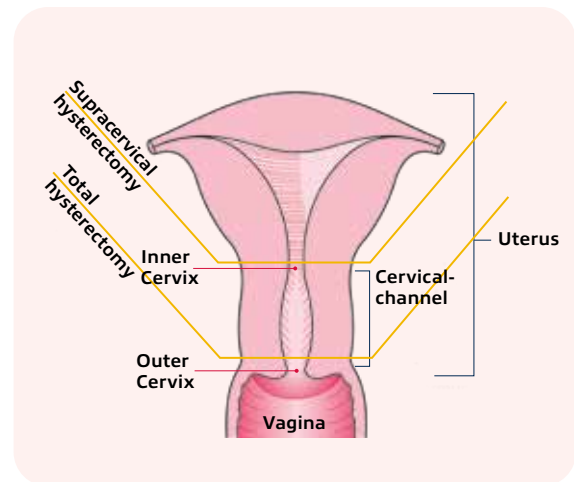
If the uterus requires complete removal (up to the outer cervix), the incision is made at the ceramic cap and then it is sutured. The severed uterus is excised from the abdominal cavity piece by piece with the morcellator and aspirated. In the case of a supracervical hysterectomy the uterus is severed above the inner cervix. Depending upon the diagnostic findings the physician opts either to remove the uterus through the vagina or by laparoscopic means. In the event of a higher risk, for example, due to an enlarged uterus and thus reduced visibility and constricted space, the surgery can be concluded by means of an abdominal incision. The uterus can, however, invariably be removed using morcellation in all the variants on a hysterectomy.

## Morcellation with Protection Sleeve

At the Hysterectomy in laparoscopic surgery the Morcellator is inserted into the abdominal cavity with the Obturator inserted in the Protection Sleeve. After removing the Obturator, the Cutting Tube can be inserted. To expose the Cutting Tube to the tissue that has to be removed, the Protection Sleeve has to be unlocked from the Non-cut-position by holding the Transmission Unit with one hand and performing a counter movement of the Protection Sleeve with the other hand.

## Morcellation with Trocar Sleeve

When morcellating with a Trocar Sleeve the abdominal wall is kept in safe distance from the operation area by inflating the abdominal cavity. This gives also safe clearance for the surgical operation. The Trocar Sleeve stays flexible while operating, means it can be rotated against the organ or tissue to be protected. Only than the Obturator is removed and the Cutting Tube can be inserted. The configuration of instruments needed for this procedure are shown on the System chart under option 2. Under option 1 the configuration with the Cutting Tube is shown.





Inspired by the human body **NOUVAG<sup>+</sup>**

# Morcellator

## The System

The compact control unit TCM 3000 BL - Morcellator with its simple and intuitive operation panel controls the speeds of the attached instruments. For the morcellation of tissue speeds of up to 1000 rpm are appropriate.



**Simple and intuitive**



**High cutting performance**



**Quick cutting tube exchange**



### TCM 3000 BL – Morcellator

- Compact and practical unit
- Variable speed in Vario mode, continuously controllable by pedal
- Choose between 3 Vario programs with specific speed ranges, alternatively to free callable speed ranges
- Simple, intuitive operation
- Valuable, sturdy architecture
- Pedal with precise control
- Quick cutting tube exchange

**TCM 3000 BL**  
**MORCELLATOR**

# Set for Laparoscopic Hysterectomy

## Accessories

05



**REF: 5152nou**  
Obturator, Ø 15 mm



**REF: 5155nou**  
Cutting tube Ø 15 mm



**REF: 5138nou**  
Protection Sleeve Ø 15 mm



## Cutting Tubes, Protection Sleeves, Obturators

To suit the needs of every procedure the model range of the Morcellator consist of instruments with three different diameters. They are available in 12 and 15 mm versions. By carefully composed and aligned instruments and accessories the system as a whole delivers excellent results at morcellation and guarantees for maximum safety at operation.

Set Name	Consisting of
3287nou	TCM 3000BL unit 3281, Pedal 1507nou, Electronic Motor 21 2090nou, Spray Connector 19584
4144nou (12 mm Set)	Gear Unit 5163nou, Handle 5183nou, Cutting Tube 12 mm 5154nou, Protection Sleeve 12 mm 5137nou, Obturator 12 mm 5151nou
4145nou (15 mm Set)	Gear Unit 5163nou, Handle 5183nou, Cutting Tube 15 mm 5155nou, Protection Sleeve 15 mm 5138nou, Obturator 15 mm 5152nou
4147nou (12 mm Trocar - Set)	Gear Unit 5163nou, Handle 5183nou, Cutting Tube 12 mm 5154nou, Trocar Sleeve 12 mm 5141nou, Obturator 12 mm 5151nou
4148nou (15 mm Trocar - Set)	Gear Unit 5163nou, Handle 5183nou, Cutting Tube 15 mm 5155nou, Trocar Sleeve 15 mm 5142nou, Obturator 15 mm 5152nou

# Myoma removals



REF: 5193

Myoma drill  
Ø 10 mm



# Grasping forceps



REF: 5192

Claw forceps,  
Ø 13,5 mm/15,00 mm/420 mm



REF: 5194

Claw forceps,  
Ø 5 mm/420 mm



REF: 5196

Tenaculum forceps,  
Ø 10 mm/420 mm



REF: 5195

Claw forceps,  
Ø 10 mm/420 mm



# Sterilization tray



REF: 4113

Stericase, 465 x 280 x 100 mm  
For the sterilization and the  
storage of sterilizable instru-  
ments and accessories.



REF: 4126

Silicone mat, 450 x 270 mm,  
Nonslip nubby mat to  
prevent sterilizable items  
from rolling around.



# Drive train and seals



Seal holder



REF: 5167nou

Roof shaped seal for all cutting tube diameters.  
10 pieces per packaging unit

REF: 5166nou

Membrane seal for all cutting tube diameters.  
10 pieces per packaging unit

Membrane screw



REF: 5163nou

Gear unit with seal unit incl. seals and locking wrench.  
The motor speed is transmitted through the gear unit to the cutting tube at the appropriate ratio.



REF: 5136nou Seal unit



REF: 5183nou

The ergonomic handle that is slipped onto the gear unit protects the operator from excess heat of the motor and the gear unit.



REF: 2090nou

Electronic motor 21 Autoclavable brushless electronic motor with a 3 meter cord delivers adequate torque, while running smooth and consistent.



# Technical data

## TCM 3000 BL MORCELLATOR

Type	TCM 3000 BL MORCELLATOR
Mains voltage	100/115/230 Volt at 50 / 60 Hz
Power consumption	60 VA
Max. torque	100 Ncm
Motor cable length	3 m
Speed range, Morcellator	up to 1000 rpm
Dimensions, control unit (Width/depth/height)	120/180/107 mm
Weight, control unit	1.8 kg
Controls	Vario pedal

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