UpSurgeOn

Making surgical excellence
universally accessible

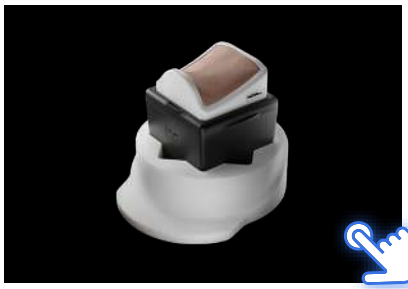
Spine Series

Surgical Training Technologies for Spine Surgery

Interactive Brochure 2026

Life-like as never before!

The modularity and compactness of this series enable advanced cadaver-free training in any setting, with optimized costs.



Anterior CervicalBox 3

Multilevel Spondylotic Myelopathy and Radiculopathy | **C3 - C7**

Endoscopic Posterior CervicalBox 5

Multilevel Posterior Cervical Compression | **C2 - C6**

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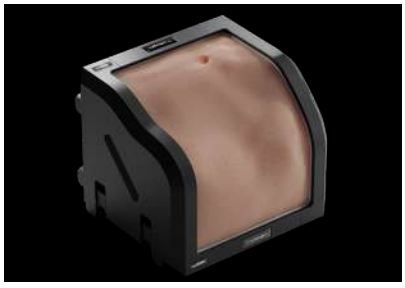
Posterior Approaches to the Lumbar Spine | **L1 - S1**

ThoracolumbarBox 13

Posterior Approaches to the Thoracolumbar Spine | **T8 - S1**



Anterior-Lateral LumbarBox 15

Anterior, oblique and lateral approaches to the Lumbar Spine **L2 - S1**

Spine Deformity 17

Lenke type 1 deformity with anatomically accurate vertebral rotation | **C7-S1**

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Anterior CervicalBox

Multilevel Spondylotic Myelopathy and Radiculopathy | C3-C7

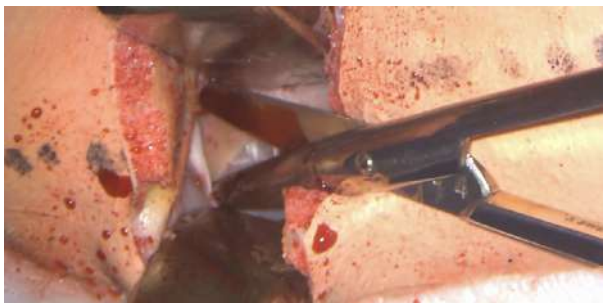
- Disposable Parts
- Surgical Realism
- Standard X-Ray and CT Scan
- Augmented Reality App
- Mobile X-Ray

What you can do

- Skin incision
- Layer by layer soft tissue dissection
- Platysma incision
- Detection of carotid artery
- Multilevel decompressions for spondylotic myelopathy
- Multiple discectomies and corpectomies
- Any kind of anterior cervical spine fixation
- Fluoroscopy and CT scans

Surgical Realism

Experience unparalleled surgical realism with Anterior CervicalBox. From the moment you make your incision to the intricate maneuvers around delicate structures, every aspect is meticulously crafted to mirror the complexities of real surgery.



*Click here to download the **Datasheets***

Augmented Reality App

Get the Neurosurgery App to explore cases, navigate 3D models, and utilize Augmented Reality on the Box to strategize your procedure.

Standard Imaging

Scan the box with X-Ray and CT to verify the level and visualize the positioning of the fixation implants.

Mobile X-Ray

For the first time, surgical fluoroscopy is accessible through a user-friendly App*, marking a groundbreaking shift in training and courses.

Download the App

Use of the tools integrated with the simulator.

**Attention: Mobile X-Ray module works on Apple Devices only.*

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Disposable Levels available

Designed to specifically mimic the properties of human tissues, such as softness, elasticity, and texture.

Box
Reusable

Spine Level
Disposable

Skin Level
Disposable

Composition of Anterior CervicalBox

Skin Level | *Disposable*

Bleeding skin and subcutaneous tissue
Platysma
Connective tissues
Sternocleidomastoid muscle
Trachea and esophagus (medial mass)
Carotid Artery

Spine Level | *Disposable*

Prevertebral fascia
Paravertebral muscles
Vertebral bodies and discs from C3 to C7
Spinal cord
Peridural fat

Box | *Reusable*

Base | *Reusable*

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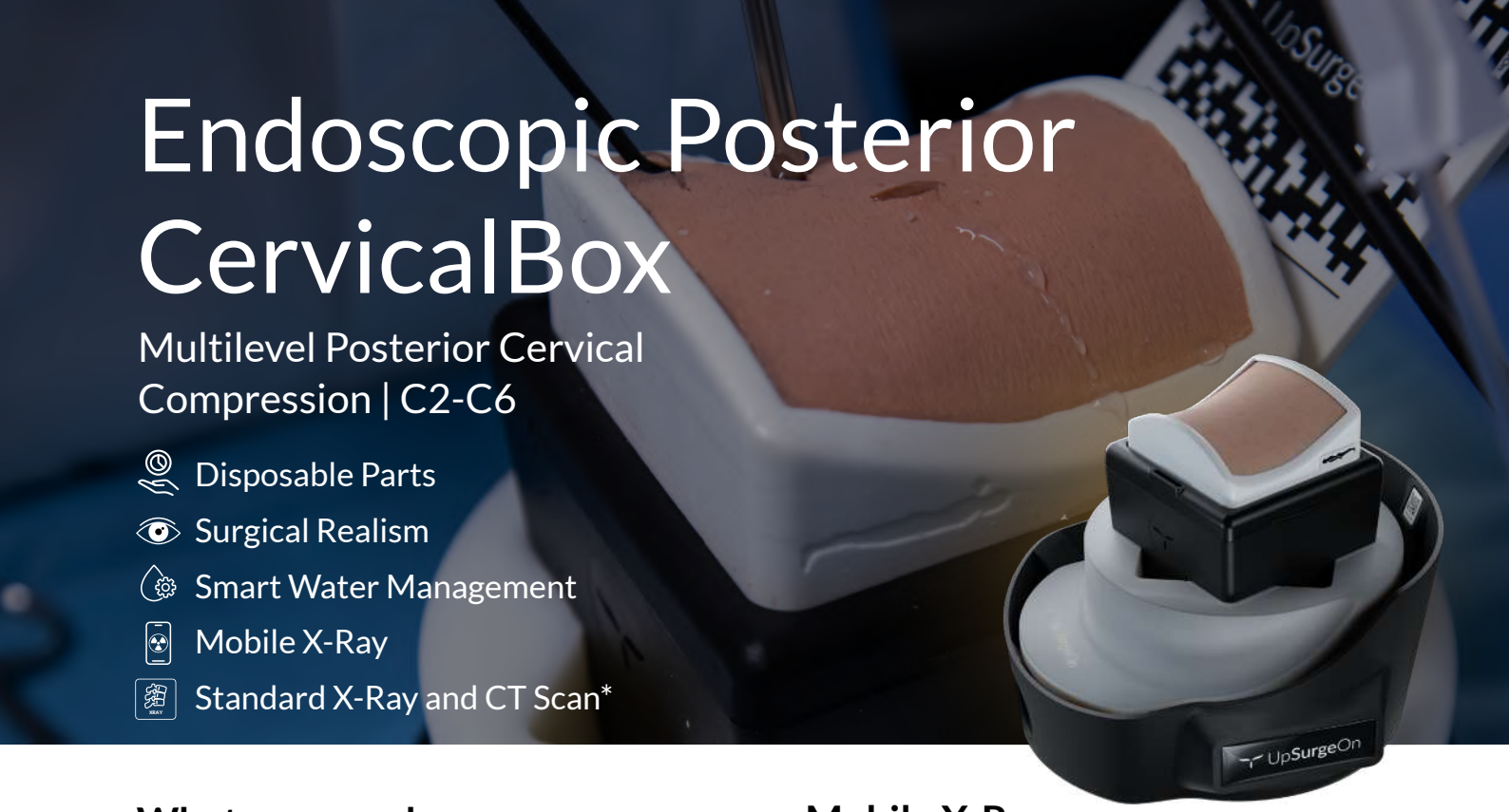
Endoscopic Posterior CervicalBox

Multilevel Posterior Cervical Compression | C2-C6

- Disposable Parts
- Surgical Realism
- Smart Water Management
- Mobile X-Ray
- Standard X-Ray and CT Scan*



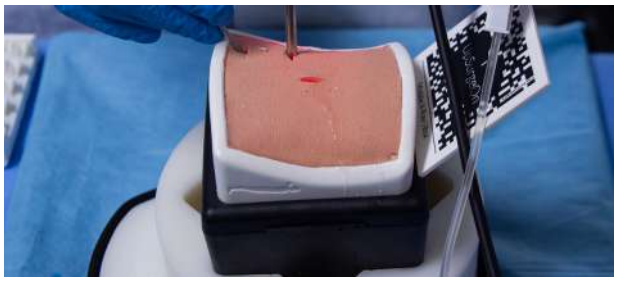
What you can do

Posterior Laminectomies from C2 to C6 (5 laminectomies)

Posterior Laminoplasties from C2 to C6 (5 laminoplasties)

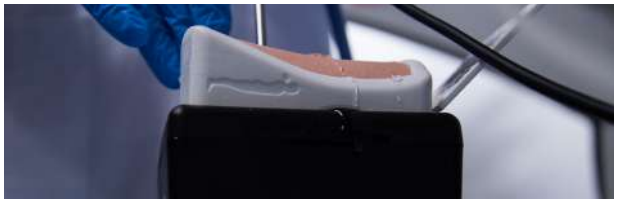
Screw fixations from C2 to C6

Endo Fusion



Smart Water Management

The simulator is equipped with an internal water drainage and outflow system, facilitating the management of high flow rates during endoscopy anywhere and preventing any leakage during surgical procedures.



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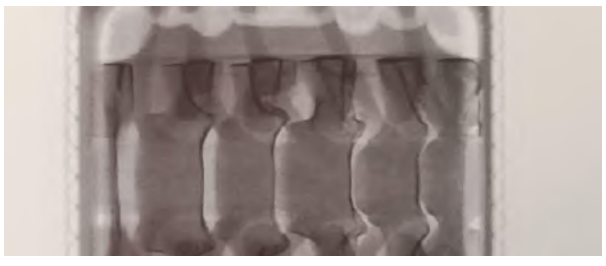
Standard Imaging*

Scan the box with X-Ray and CT to verify the level and visualize the positioning of the fixation implants.

*Feature available upon request.



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Disposable Levels available

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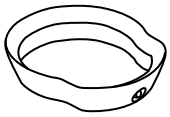
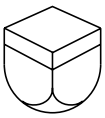


Collection Base
Reusable

+

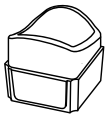


Box
Reusable

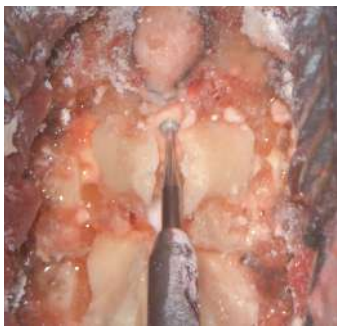
+

Spine Level
Disposable

+



Skin Level
Disposable



Composition of Endoscopic Posterior CervicalBox

Black Frame | *Reusable*

Skin & Spine Levels | *Disposable*

Skin Level:
Skin and subcutaneous tissue
Paravertebral muscles

Spine Level:
Ligaments
Vertebrae from C2 to C6
Spinal cord
Peridural fat
Vertebral arteries

Black Box | *Reusable*

White Base | *Reusable*

Collection Base | *Reusable*

Water collection base

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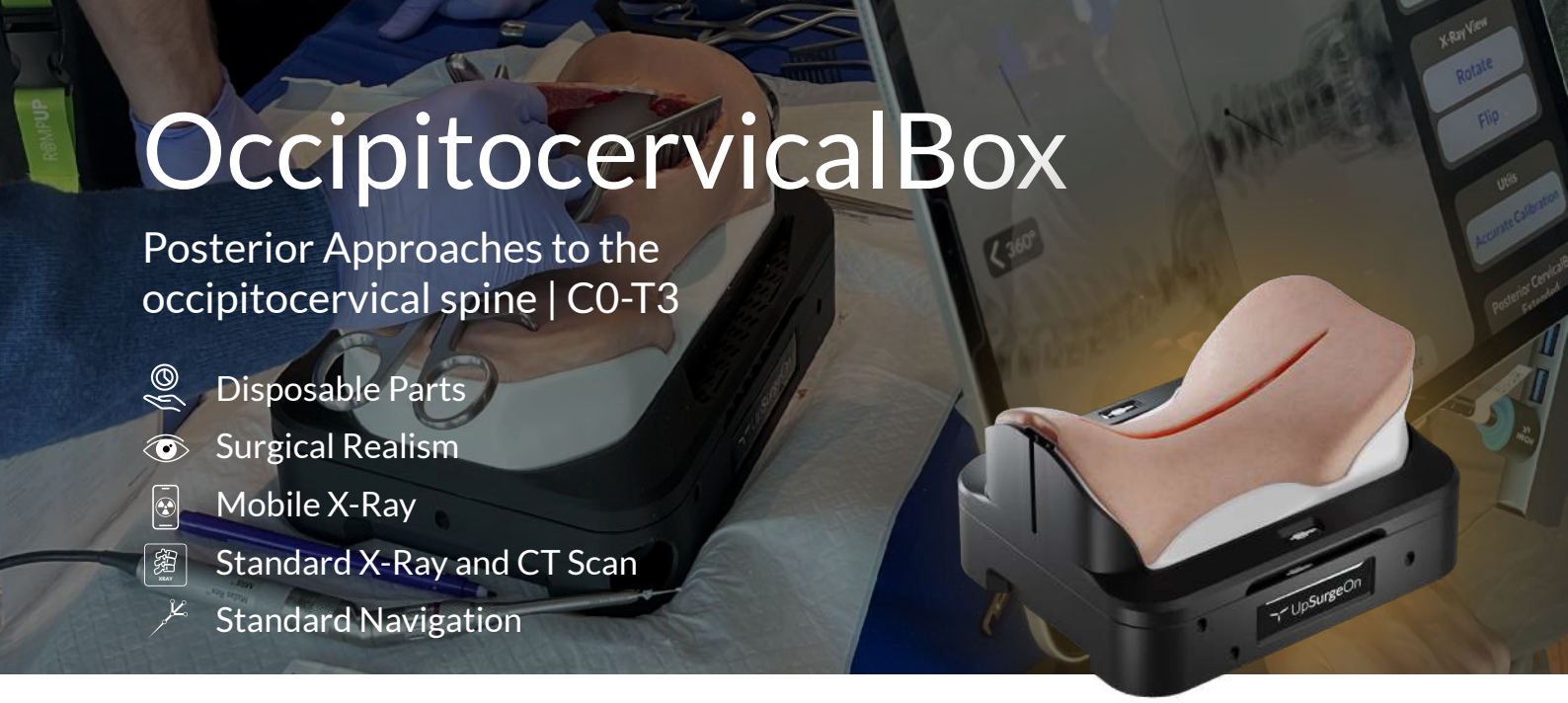


OccipitocervicalBox

Posterior Approaches to the occipitocervical spine | C0-T3

- Disposable Parts
- Surgical Realism
- Mobile X-Ray
- Standard X-Ray and CT Scan
- Standard Navigation

What you can do

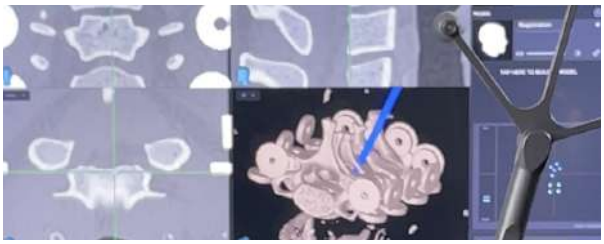
Multilevel posterior decompressions for spondylotic myelopathy through:

- Posterior Laminectomies from C0 to T3
- Posterior Laminoplasties from C0 to T3
- Flavectomies
- Any kind of Occipito fixations

*Click here to download the **Datasheets***

Navigation*

Upload the CT scan on the navigator and start navigating the Box.



*Contact us at support@upsurgeon.com to check the compatibility of your Navigation technology.

Standard Imaging

Scan the box with X-Ray and CT to verify the level and visualize the positioning of the fixation implants.

Mobile X-Ray

For the first time, surgical fluoroscopy is accessible through a user-friendly App*, marking a groundbreaking shift in training and courses.

Download the App

Use of the tools integrated with the simulator.

**Attention: Mobile X-Ray module works on Apple Devices only.*

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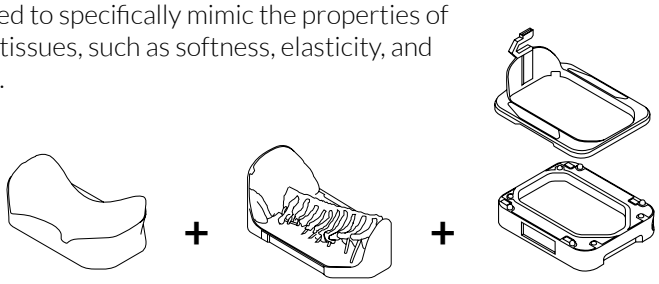
Disposable Levels available

Designed to specifically mimic the properties of human tissues, such as softness, elasticity, and texture.



Skin Level
Disposable

Spine Level
Disposable

Workstation
Reusable

Composition of OccipitocervicalBox

Black Frame | *Reusable*

Skin Level | *Reusable*

The most durable Skin ever
Reusable multiple times.

Spine Level | *Disposable*

- Occipital Bone
- Mastoid Processes
- Atlas
- Vertebrae from C1 to T3
- Vertebral Artery
- Spinal Cord
- Nerve roots
- Ligament

Black Base | *Reusable*

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Endoscopic LumbarBox

10 Operable Levels | L1-S1 Left/Right
2 Spine Levels Available

- Disposable Parts
- Surgical Realism
- Smart Water Management
- Mobile X-Ray
- Standard X-Ray and CT Scan*

What you can do

PELD (Percutaneous Endoscopic Lumbar Discectomy)

TELD (Transforaminal Endoscopic Lumbar Discectomy)

Monoportal, biportal and more lateral procedures

Endo Fusion

Radiofrequency Surface

Radiofrequency is used in endoscopic spine surgery for hemostasis and soft-tissue dissection. Rehearse electrothermal technique on muscle and connective tissue.

TISSUE COMPATIBILITY

Superficial muscle: From the first layer.
Use radiofrequency as you work through the approach.

Extravertebral muscle: All the way down. Keep radiofrequency in play toward the target level.

Connective tissue: Same procedure, no switch.
Use radiofrequency without leaving the box.

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Standard Imaging*

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*Feature available upon request.

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Disposable Levels available

Designed to specifically mimic the properties of human tissues, such as softness, elasticity, and texture.

Collection Box *Reusable* + Frame *Reusable* + Spine Level *Disposable* + Iliac Crests *Reusable* + Skin Level *Disposable*

Composition of Endoscopic LumbarBox

Skin Level | *Disposable*

The most durable Skin ever
Reusable multiple times

Iliac Crests | *Reusable*

Spine Level | *Disposable*

Spine Level Mixed Pathologies:
L1-2 Left | Paramedian Herniation
L1-2 Right | Extraforaminal Herniation
L2-3 | Central Herniation
L3-4 Left | Foraminal Herniation
L3-4 Right | Paramedian Herniation
L4-5 Right | Extraforaminal Herniation
L5-S1 Left | Foraminal Herniation
L5-S1 Right | Paramedian Herniation

Spine Level Paramedian Herniations:
L1-L2 | Bilateral paramedian herniation
L2-L3 | Bilateral paramedian herniation
L3-L4 | Bilateral paramedian herniation
L4-L5 | Bilateral paramedian herniation
L5-S1 | Bilateral paramedian herniation

Black Frame | *Reusable*

The frame with the drainage grid for the Water Management System

Collection Base | *Reusable*

Water collection base

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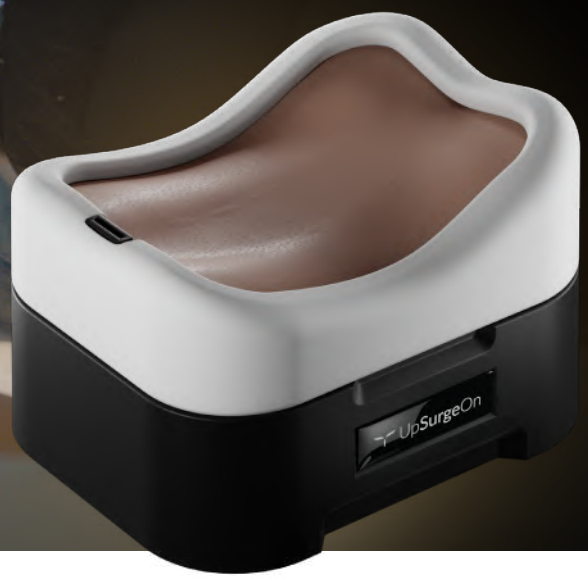
Posterior LumbarBox

10 Operable Levels | L1-S1

3 Paramedian Herniations
2 Foraminal Herniations
2 Extraforaminal Herniations
1 Central Herniation
1 Canal Stenosis

- Disposable Parts
- Surgical Realism
- Mobile X-Ray
- Standard X-Ray and CT Scan
- Standard Navigation



What you can do

Laminectomies

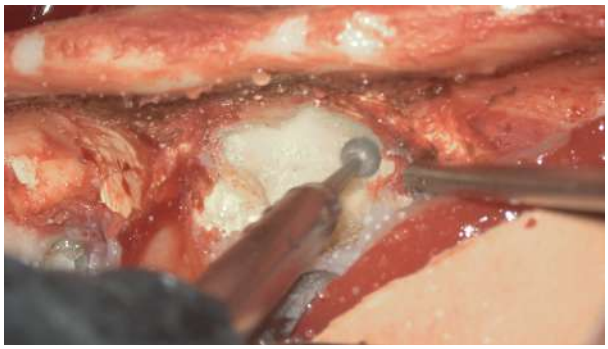
Flavectomies

Discectomies

Corpectomies

Any kind of posterior lumbar spine fixation

Fluoroscopy and CT scans



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Navigation*

Upload the CT scan on the navigator and start navigating the Box.

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Standard Imaging

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Disposable Levels available

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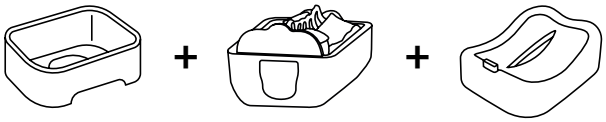
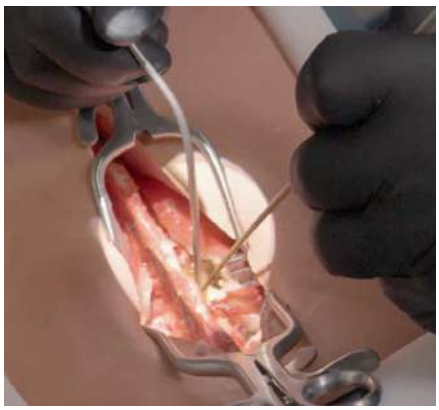


Box
Reusable

Spine Level
Disposable

Skin Level
Reusable



Open and Minimally Invasive Skin Level

Composition of Posterior LumbarBox

Skin Level | *Reusable/Disposable*

Dissected Skin and subcutaneous tissue
(Open & MIS Skin)
Dissected paravertebral muscles

Spine Level | *Disposable*

L1-2 Left | Paramedian Herniation
L1-2 Right | Extraforaminal Herniation
L2-3 | Central Herniation
L3-4 Left | Foraminal Herniation
L3-4 Right | Paramedian Herniation
L4-5 Right | Extraforaminal Herniation
L5-S1 Left | Foraminal Herniation
L5-S1 Right | Paramedian Herniation

Base | *Reusable*

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ThoracolumbarBox

10 Operable levels | T8-S1

- Disposable Parts
- Surgical Realism
- Mobile X-Ray
- Standard X-Ray and CT Scan
- Standard Navigation

What you can do

Posterior decompression and fixation of the lower thoracic and lumbosacral segments

PLIF (Posterior Lumbar Interbody Fusion)

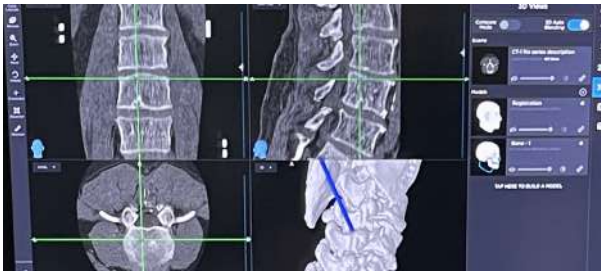
TLIF (Transforaminal Lumbar Interbody Fusion)

Open and **MIS** Approaches (using open Reusable Skin Level and MIS Disposable Skin Level, respectively)

*Click here to download the **Datasheets***

Navigation*

Upload the CT scan on the navigator and start navigating the Box.



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Standard Imaging

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Mobile X-Ray

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Disposable Levels available

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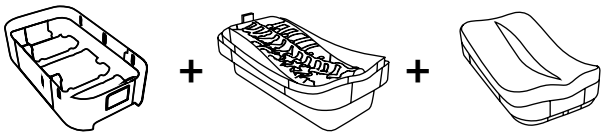
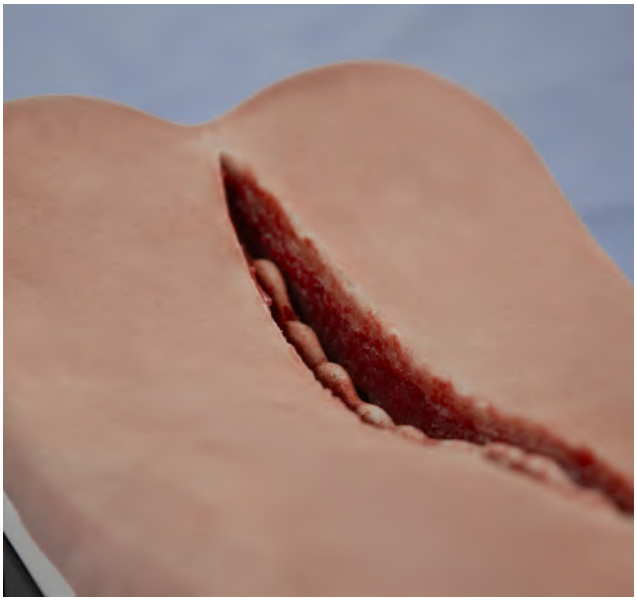


Box *Reusable* + Spine Level *Disposable* + Skin Level *Reusable*

Open and Minimally Invasive Skin Level



Composition of ThoracolumbarBox

Skin Level | *Reusable/Disposable*

Reusable: Open Skin (Dissected Skin and subcutaneous tissue)
Disposable: Closed Skin - MIS (Minimally invasive surgery)

Spine Level | *Disposable*

Standard

Vertebrae from T8 to S1

- Ligaments
- Cauda equina and lumbar nerve roots
- Peridural fat
- Lumbar discs with herniations

Ideal for conventional approaches to the thoracolumbar region

Base | *Reusable*

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Anterior-Lateral LumbarBox

Multilevel Discopathy | L2-S1

- Dual Surgical Position
- Standard X-Ray and CT Scan
- Mobile X-Ray

The simulator is designed to reproduce both supine and lateral positions, facilitating the simulation of all oblique and lateral anterior approaches to the lumbosacral spine.

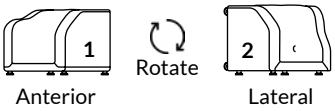
What you can do

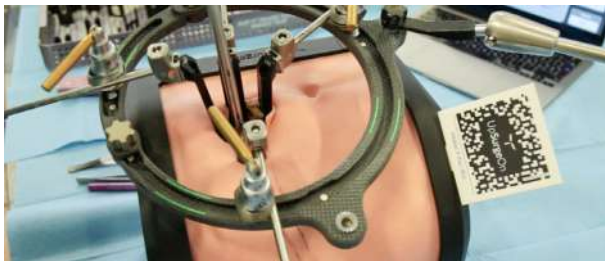
ALIF (Anterior Lumbar Interbody Fusion)

OLIF (Oblique Lumbar Interbody Fusion)

XLIF (Extreme Lumbar Interbody Fusion, aka LLIF, Lateral Lumbar Interbody Fusion)

Dual Surgical Position





*Click here to download the **Datasheets***

Standard Imaging

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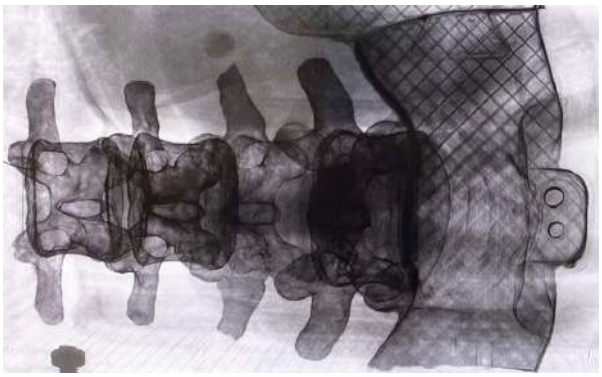

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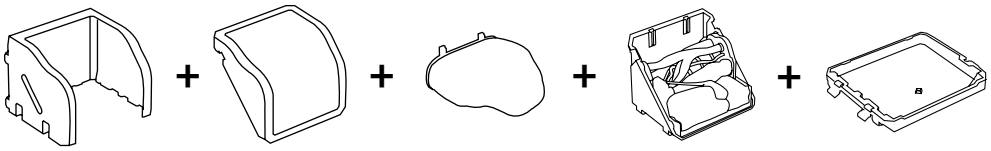


Workstation Cap
Reusable

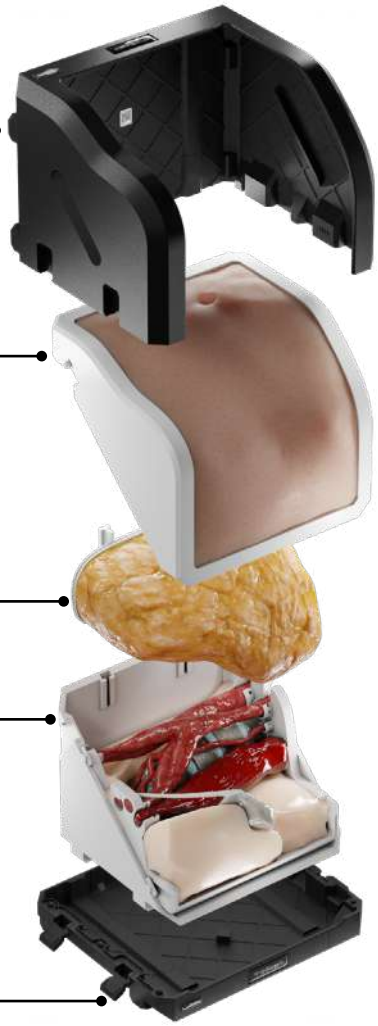
Skin Level
Disposable

Peritoneal Sac
Reusable

Spine Level
Disposable

Base
Reusable

Composition of Anterior-Lateral LumbarBox



Workstation Cap | *Reusable*

Skin Level | *Disposable*

Features:
- Skin
- Fat of the superficial fascia
- Superficial Fascia
- Muscles
- Transversalis Fascia
- Extraperitoneal Fat

Peritoneal Sac | *Reusable*

Spine Level | *Disposable*

- **ALIF** (Anterior Lumbar Interbody Fusion)
- **OLIF** (Oblique Lumbar Interbody Fusion)
- **XLIF** (Extreme Lumbar Interbody Fusion, AKA LLIF, Lateral Lumbar Interbody Fusion)

Workstation Base | *Reusable*

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Spine Deformity

Lenke 1 | From C7-S1

- Real Time Telemetry
- Surgical Realism
- Disposable Parts
- Quantitative Correction Measurement
- Standard X-Ray and CT Scan

The Spine Deformity Simulator is the most realistic spinal deformity training platform, designed to reproduce with unparalleled fidelity the anatomy, biomechanics, and resistances encountered in real surgical cases. Now with real-time telemetry!

What you can do

Measure the degree of correction of Cobb angles, derotation and spinal length in real time using the Spine Deformity App.

Perfect pedicle screw placement and fixation planning

Develop stepwise correction strategies with measurable outcomes.

Understand the forces and resistances acting during real deformity correction.

Practice data-driven surgical decision-making and manage potential intraoperative complications in a controlled, realistic environment.

Spine Deformity App

The Spine Deformity App turns physical maneuvers into real-time digital data. Through a wireless connection, it streams Cobb angles, derotation percentages, and length recovery metrics directly to your tablet, providing instant visual feedback.
The interactive 3D spine and live AP/LL projections enable precise monitoring of corrections and progress throughout each training session.

Standard Imaging

Scan the box with X-Ray and CT to verify the level and visualize the positioning of the fixation implants.

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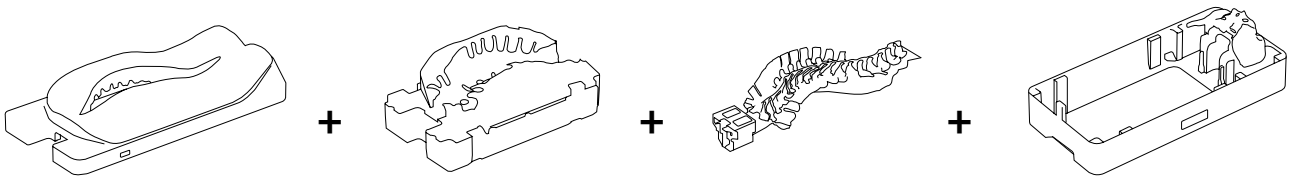
Disposable Levels available

Designed to specifically mimic the properties of human tissues, such as softness, elasticity, and texture.



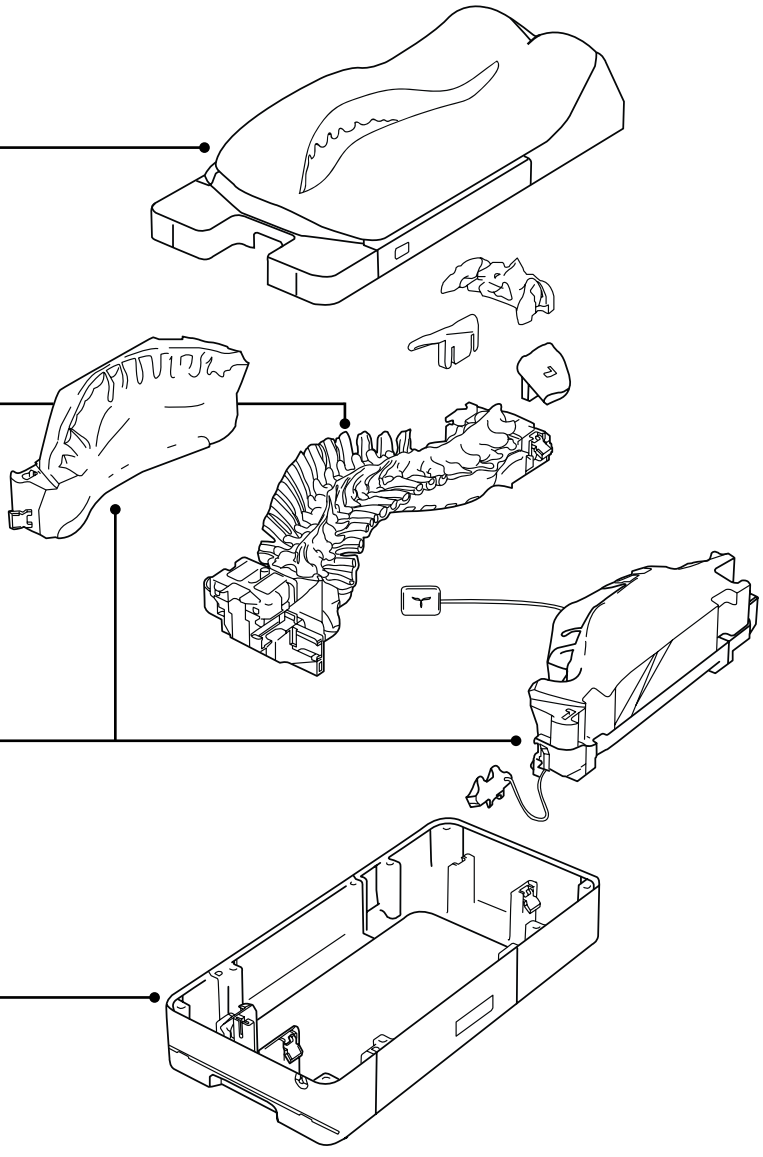
Skin Level
Reusable

Paravertebral Muscle Fillers
Reusable

Spine Level
Disposable

Workstation
Reusable

Composition of Spine Deformity



Skin Level | *Reusable*

Features:
- Skin
- Fat
- Prevertebral Muscles

Spine Level | *Disposable*

LENKE 1
- Vertebrae from **C7** to **S1**
- Intervertebral discs
- Spinal ligaments
- Spinal Cord

Paravertebral Muscle Fillers | *Reusable*

- Sensor Logic Unit
- Sensor Cartridge
- Spinal Extension Recovery Cartridge

Workstation Base | *Reusable*

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