## Phantom ML3 MIS Lumbar Surgical Access System

Simplified Transforaminal Access

TIGHTEN BY HAND FORE USING



ML-3000 Series

## Enabling Surgeons to Focus on What Matters

Leveraging minimal components and a lightweight, hand-held retractor frame, the Phantom ML3<sup>™</sup> System provides an efficient solution to streamline access to the targeted facet joint and disc space. Designed to provide a simple, reproducible workflow for various transforaminal procedures, such as facetectomies, decompressions, discectomies, or TLIF's, allowing surgeons to focus on the patient rather than on their retractor.

ML-3000

Phantom ML3 MIS Lumbar Surgical Access System

# Adaptable Surgical Exposure

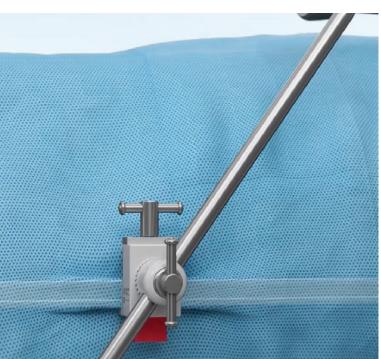
Independent retraction and pivoting of each blade allows surgeons to actively adjust their working channel, creating versatile exposure ranging from a closed tube to mini-open access. The Phantom ML3 Access System is equipped with a 15° pivoting capability on each blade, enabling patient specific exposure based on precise, incremental adjustments to aid in maintaining a small incision.





#### Minimizing Procedural Interruptions

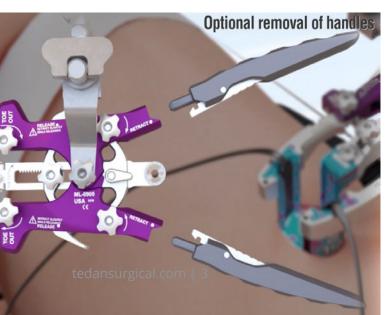
System stability is paramount in minimizing inadvertent movement, requiring tedious readjustments to the retractor. Interlocking teeth on the starburst connector enable rigid and precise fixation to the table mounted Articulating Arm.



## Low Profile Stability

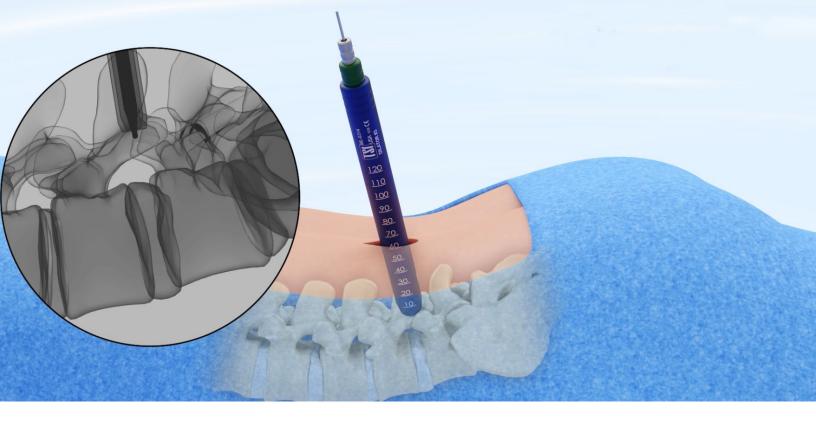
The Phantom ML<sup>™</sup> Articulating Arm's robust technology enables retractor stability throughout procedures.

The Phantom ML Rotatable Table Clamp can be positioned at various angles to accommodate Articulating Arm placement that remains out of the surgeons' working space.



#### Maximizing Working Space

Retractor frame handles may be removed at the click of a button – creating an even lower profile system setup to avoid interference with contralateral screws.



#### **Enhancing Intraoperative Visibility**

Retractor blades, select dilators, and portions of the retractor frame are radiolucent under AP and lateral fluoroscopy, providing enhanced visualization when confirming system trajectory over the targeted facet joint and disc space.



ML-0068 Light Cable, Shim Tip

#### Seeing More of the Procedure

Integrated cool LED lighting inserted down the blades' utility channel delivers direct illumination into the operating field that can eliminate shadowing from instruments and surgeon hands when using a headlight or a surgical microscope.

## Managing Tissue Creep

Each surgical procedure is as unique as the patient involved, and the Phantom ML3 System's intuitive design and application-focused accessories allow surgeons to be adaptive to these diverse anatomical demands.

When using a shorter medial blade to conform to the slope of the lamina, the optional extension shim provides medial blade flexibility, allowing blade lengthening up to 14 mm when tissue creep is present.

ML-0907

The Ancillary 4th Blade can be used to manually combat lateral tissue creep.



Optional, Shim Extension Locking



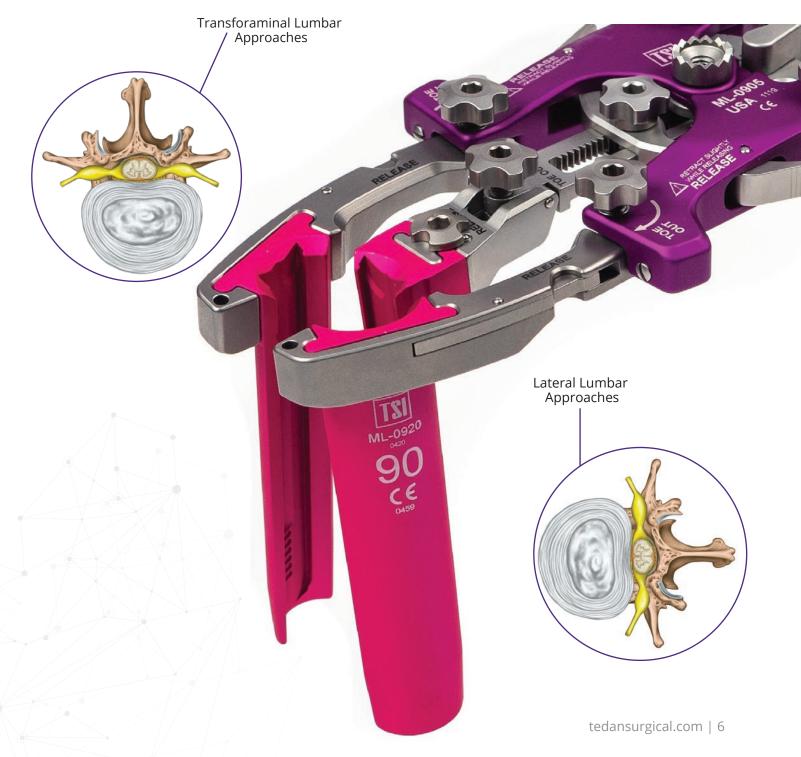


ML-0507

Optional, Locking Shim Inserter Tool

# One Solution, Multiple Procedures

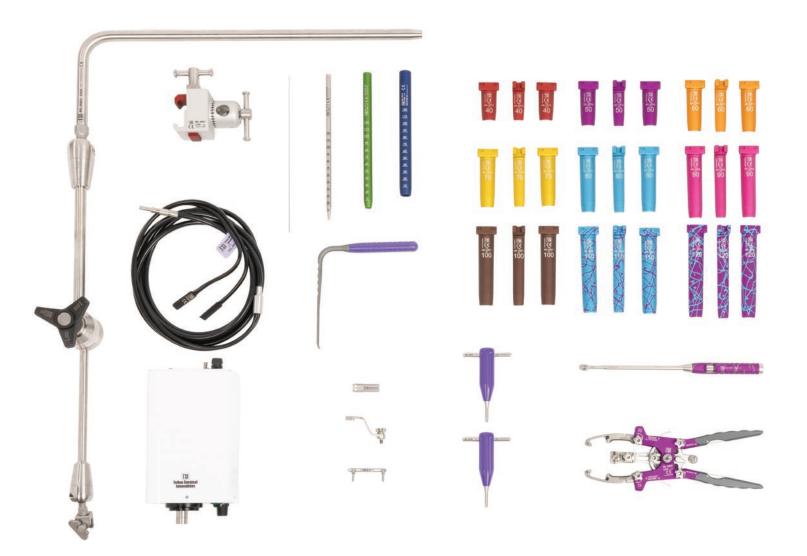
With the Phantom ML3 System, our aim is to promote hospital capital acquisition savings with a single access solution to facilitate MIS exposure in either transforaminal or lateral lumbar approaches. TSI's existing Phantom XL3<sup>™</sup> platform can be cost effectively upgraded with the Phantom ML3 Upgrade Set, featuring a catered blade range and reusable dilators to extend the System's use for lateral and transforaminal lumbar access.



# **Phantom ML3** MIS Lumbar Surgical Access System

## ML-3000

The Phantom ML3 system utilizes minimal components, promoting an efficient, reproducible workflow in transforaminal procedures. With independent retraction and pivoting capabilities alongside a robust Articulating Arm, surgeons can create adaptable surgical exposure without compromising overall system stability.



	CAT. NO.	DESCRIPTION	QTY
	ML-0021	Rotatable Table Clamp	1
	ML-0051	LED Light Source	1
	ML-0063	Angled Articulating Arm, Rack Clamp, Large	1
	ML-0068	Light Cable, Shim Tip, 10', Non-Sterile	1
	ML-0300	K-Wire, Sharp, 1.4 x 230 mm, Single Use, 6/Pack, Non-Sterile	1
	ML-0310	Dilator, 8 mm, Silver, Stainless Steel	1
	ML-0312	Dilator, 13 mm, Green, Aluminum	1
	ML-0314	Dilator, 18 mm, Blue, Aluminum	1
	ML-0504	*Shim Extension, Locking, 38 mm, Single Use, Non-Sterile- ML-0507 Required	1
	ML-0505	Hex Driver Tool	2
	ML-0507	*Locking Shim Insertion Tool	1
	ML-0901	Ancillary 4th Blade Cross Bar	1
	ML-0902	Arm Interface Connector For ML-0905	1
	ML-0905	3 Blade Retractor Frame	1
	ML-0907	Ancillary 4th Blade Retractor, 100 mm, Aluminum	1
	ML-0915	Blade Set, 18 X 40 mm, Red, Aluminum	1
	ML-0916	Blade Set, 18 X 50 mm, Violet, Aluminum	1
	ML-0917	Blade Set, 18 X 60 mm, Gold, Aluminum	1
	ML-0918	Blade Set, 18 X 70 mm, Yellow, Aluminum	1
	ML-0919	Blade Set, 18 X 80 mm, Teal, Aluminum	1
	ML-0920	Blade Set, 18 X 90 mm, Pink, Aluminum	1
	ML-0921	Blade Set, 18 X 100 mm, Brown, Aluminum	1
	ML-0923	Blade Set, 18 X 120 mm, Purple Splash, Aluminum	1
	ML-0715	Instrument Tray, ML3	1

\*Not available in all countries

# Phantom ML3 MIS Lumbar Surgical Access System UPGRADE COMPONENTS

## ML-3001

The Phantom ML3 Upgrade Components configuration allows surgeons and hospitals to leverage one solution for multiple procedures. Customers already using our Phantom XL3 Lateral Lumbar Surgical Access System can get the most out their system by combining their XL3 with our ML3 upgrade solution to accommodate lateral and transforaminal lumbar procedures.



CAT. NO.	DESCRIPTION	QTY
ML-0300	K-Wire, Sharp, 1.4 x 230 mm, Single Use, 6/Pack, Non-Sterile	1
ML-0310	Dilator, 8 mm, Silver, Stainless Steel	1
ML-0312	Dilator, 13 mm, Green, Aluminum	1
ML-0314	Dilator, 18 mm, Blue, Aluminum	1
ML-0504	*Shim Extension, Locking, 38 mm, Single Use, Non-Sterile- ML-0507 Required	1
ML-0507	*Locking Shim Insertion Tool	1
ML-0915	Blade Set, 18 x 40 mm, Red, Aluminum	1
ML-0916	Blade Set, 18 x 50 mm, Violet, Aluminum	1
ML-0917	Blade Set, 18 X 60 MM, Gold, Aluminum	1
ML-0918	Blade Set, 18 X 70 MM, Yellow, Aluminum	1
ML-0919	Blade Set, 18 X 80 MM, Teal, Aluminum	1
ML-0704	Instrument Tray, ML3 Ancillary Blades	1

\*Not available in all countries





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