

Phantom Retractor

System Overview



- Minimally invasive procedures
- Dual-directional expandable retractor
- 30 degree pivoting blades
- Fiber-optic light source for better visualization



Key Design Features

Dual-directional expandable retractor

- Modular setup offered by two, three, or four point retraction

30 degree pivoting blades

- All arms and blades move independently for better wound exposure

Various blade options

- Offers a wide variety of hooks and retractor blades

Cool, shadowless lighting component

- Continuous lighting that will keep the retractor at a lower temperature



Arm Assembly Positioning



The **Articulating Arm** mounts to the hospital bed rail. Check compatibility of the **Articulating Arm** to the hospital bed prior to surgery.

- Mount the **Table Clamp** to the hospital bed side rail. Hold **Table Clamp** up to align to side rail and tighten down wing nut to secure it to the bed.



- Once the **Table Clamp** is secure, insert the **Articulating Arm** into the **Table Clamp** and lock into place.
- Position the **Articulating Arm** as desired and lock into place.

Lighting Preparation

- Attach the **Light Source** to the appropriate adapter.
- Insert the **Light Cable** into the **Light Source**.
- Turn on the light source power to verify light output.

Note: The **Light Source** may need to be checked for electrical safety by the hospital before bringing it into the OR. Check local policy at least one day prior to surgery.



Establishing Access

Carefully determine the appropriate entry point and trajectory for the Phantom Retractor.

- Using A/P imaging, insert the **K-Wire** to establish the initial location and entry point.



Dilation



Option 1: Subsequent Dilator Insertion

- Slide **Dilator #1** over the **K-Wire**.
- After the initial **Dilator** is inserted the **K-Wire** can be removed.
- Slide **Dilator #2**, **Dilator #3**, and **Dilator #4** to sequentially penetrate and gently dissect soft tissue down to the lamina.
- Remove the previous **Dilator** after inserting the larger one.

Note: **Dilator #3** is 18mm in diameter and **Dilator #4** is 22mm in diameter.

Option 2: Finger Dilation

- Select desired **Retractor Blade** size and the corresponding **Obturator** size.
- Place the **Obturator** in-between the **Retractor Blades**. Insert the **Obturator** pegs into the side slots on the **Retractor Blades**.
- Manually insert into the wound.



Retractor Assembly & Insertion

Option 1: Retractor Insertion then Assembly

- Insert the **Retractor Blades** by sliding each down the appropriate **Dilator**.
- Attach the **Base Retractor** to the **Retractor Blades** by lowering it over the ball snaps onto the blade.
- Push down the **Base Retractor** to make sure it is fully seated.

Note: The **Base Retractor** is etched to aid in lining up the **Retractor Blades**. For proper blade placement, use the etched right and left areas to assist in lining up the right and left arms.

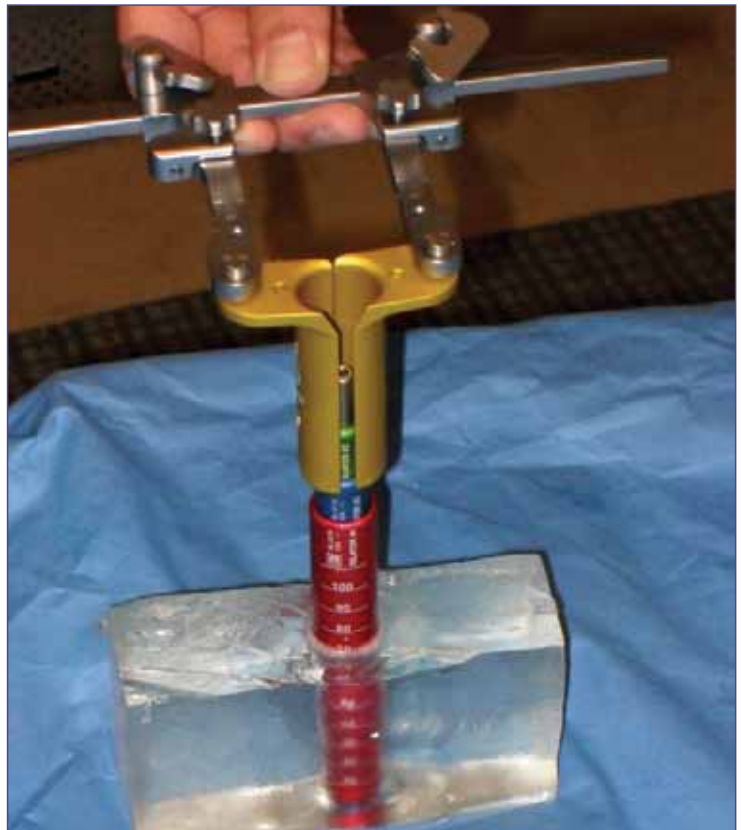
Note: Use the same method of retractor assembly if using the **Obturator** for dilation.



Option 2: Retractor Assembly then Insertion

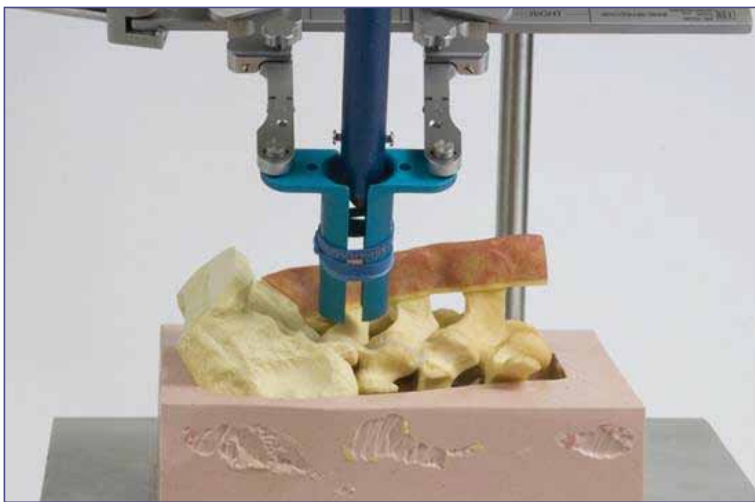
- Based on the **Dilator** diameter, obtain the corresponding **Retractor Blades**.
- Pre-attach the **Retractor Blades** to the **Base Retractor** body.
- Slide the closed Retractor assembly over the **Dilator**.

Note: Make sure the pivoting arms are flush with the **Base Retractor** body before lowering over the **Dilator**.



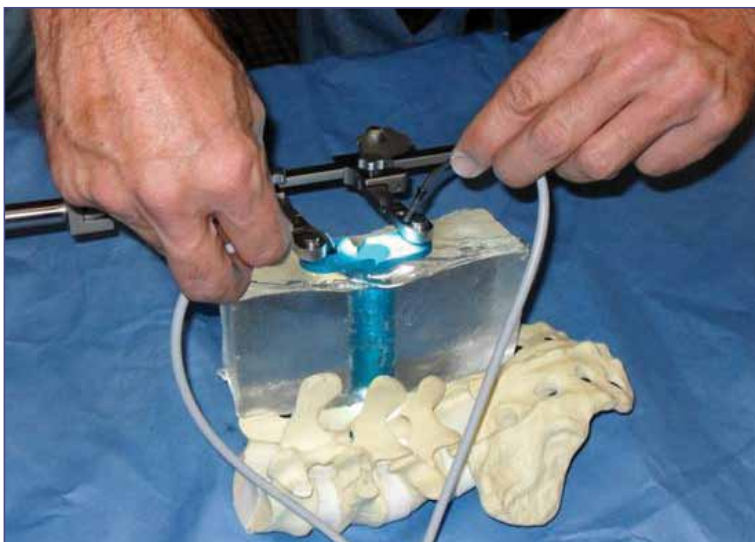


- Loosen the **Articulating Arm** and attach onto the **Base Retractor**.
- After desired position is determined, lock the **Articulating Arm** into place by tightening the knobs.



- Once the **Articulating Arm** is locked in place and positioned to the proper angle, remove the final **Dilator** or **Obturator**.

Note: Lift up on the **Obturator** and crank open the **Base Retractor** to remove the **Obturator**.



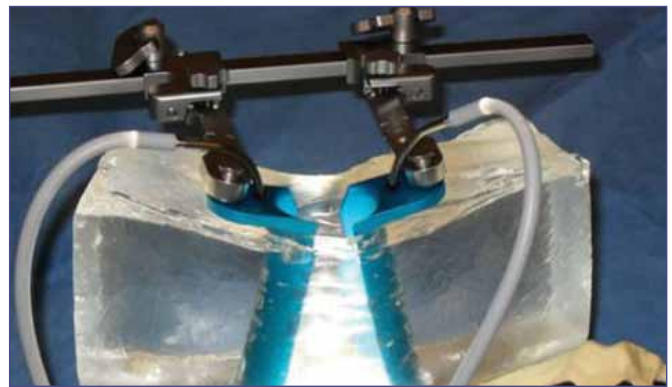
- Insert the **Light Cable** into the **Retractor Blades**. The bifurcated **Light Cable** should be inserted into the corresponding holes on each blade.

Retractor Variable Opening/Closing Mechanism

- Attach the **T-Handle** to the **Base Retractor** and turn clockwise to expand the distal end of the **Retractor Blades** up to 30 degrees.

Note: Each arm moves independently to customize retraction area.

- Turn metal wing nuts on the **Base Retractor** rack for translation.



Three Point Retraction

Three point retraction allows you to retract lateral or medial, depending on the retractor orientation.

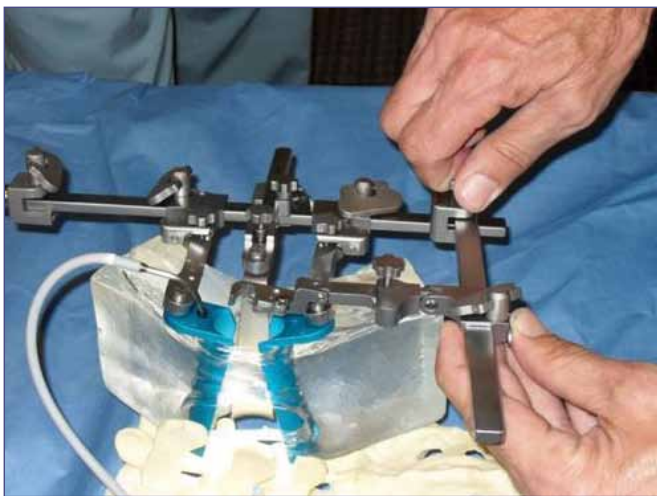
- Attach desired **Hook Straight, Fan Blade, or Counter Retractor Blade** to the **Pivoting Center Blade**.
- Lower the **Pivoting Center Blade** into the wound over the **Base Retractor** rack and ratchet into place.
- Attach the **T-Handle** to the **Pivoting Center Blade** and turn clockwise to pivot up to 30 degrees.



Four Point Retraction



- Slide the **Rack Connector** onto the open end of the **Base Retractor** rack.



- Insert the **Counter Retractor** into the **Rack Connector**. Attach the **T-Handle** to the **Rack Connector** and turn clockwise to secure into place.

Note: A **Counter Retractor** arm can be removed to use with **Pivoting Center Blade** for four point retraction. Remove **Counter Retractor** arm before inserting into **Rack Connector**. Make sure to use the right or left arm for the appropriate direction.

- Slide the desired **Hook Straight, Fan Blade, or Counter Retractor Blade** into the end of the **Retractor Blade Handle**. Turn purple handle on the **Retractor Blade Handle** clockwise to secure hook/blade.
- Position the blade or hook in the wound and slide into the blade holder on the **Counter Retractor** to lock into place.
- Turn purple handle on the **Retractor Blade Handle** counter-clockwise to disengage from hook/blade.
- Attach the **T-Handle** to the **Counter Retractor** and turn clockwise to expand the distal end of the blade up to 30 degrees.

Phantom Retractor

WCS Part Number	Stryker Order Number	Description	Quantity
WML-0400	48252234	Accessory Arm Complete Set (Articulating Arm + Table Clamp)	1
CS-0105	48252020	Retractor Blade Handle	2
LS-0086	48252040	Hook Straight, 40mm	1
LS-0087	48252050	Hook Straight, 50mm	1
LS-0088	48252060	Hook Straight, 60mm	1
LS-0089	48252070	Hook Straight, 70mm	1
LS-0090	48252080	Hook Straight, 80mm	1
LS-0091	48252090	Hook Straight, 90mm	1
LS-0092	48252100	Hook Straight, 100mm	1
LS-0093	48252120	Hook Straight, 120mm	1
ML-0200	48252007	Base Retractor	1
ML-0270	48252340	Counter Retractor Blades, 40mm	2
ML-0272	48252350	Counter Retractor Blades, 50mm	2
ML-0274	48252360	Counter Retractor Blades, 60mm	2
ML-0276	48252370	Counter Retractor Blades, 70mm	2
ML-0278	48252380	Counter Retractor Blades, 80mm	2
ML-0280	48252390	Counter Retractor Blades, 90mm	2
ML-0281	48252300	Counter Retractor Blades, 100mm	2
ML-0282	48252310	Counter Retractor Blades, 110mm	2
ML-0283	48252312	Counter Retractor Blades, 120mm	2
ML-0204	48252010	Counter Retractor	1
ML-0290	48252450	Fan Blades, 50mm	2
ML-0291	48252460	Fan Blades, 60mm	2
ML-0292	48252470	Fan Blades, 70mm	2
ML-0293	48252480	Fan Blades, 80mm	2
ML-0294	48252490	Fan Blades, 90mm	2
ML-0295	48252400	Fan Blades, 100mm	2
ML-0296	48252410	Fan Blades, 110mm	2
ML-0297	48252412	Fan Blades, 120mm	2
ML-0310	48252008	Dilator #1, 8mm	1
ML-0312	48252013	Dilator #2, 13mm	1
ML-0314	48252018	Dilator #3, 18mm	1
ML-0316	48252022	Dilator #4, 22mm	1
ML-0300	48252011	K-Wire, 1.4mm x 9", Disposable	10 per Pack

Phantom Retractor (continued)

WCS Part Number	Stryker Order Number	Description	Quantity
ML-0045	48252005	Light Cable	1
ML-0051	48252106	Light Source	1
ML-0320	48252118	Obturator, 18mm	1
ML-0322	48252122	Obturator, 22mm	1
ML-0203	48252009	Pivoting Center Blade	1
ML-0221	48252150	Retractor Blades (L&R), 18mm Dia. x 50mm, Violet	1
ML-0222	48252160	Retractor Blades (L&R), 18mm Dia. x 60mm, Gold	1
ML-0223	48252170	Retractor Blades (L&R), 18mm Dia. x 70mm, Light Green	1
ML-0224	48252180	Retractor Blades (L&R), 18mm Dia. x 80mm, Turquoise	1
ML-0225	48252190	Retractor Blades (L&R), 18mm Dia. x 90mm, Fuchsia	1
ML-0226	48251800	Retractor Blades (L&R), 18mm Dia. x 100mm, Chocolate	1
ML-0227	48251810	Retractor Blades (L&R), 18mm Dia. x 110mm, Turquoise Splash	1
ML-0228	48251812	Retractor Blades (L&R), 18mm Dia. x 120mm, Purple Splash	1
ML-0251	48252250	Retractor Blades (L&R), 22mm Dia. x 50mm, Violet	1
ML-0252	48252260	Retractor Blades (L&R), 22mm Dia. x 60mm, Gold	1
ML-0253	48252270	Retractor Blades (L&R), 22mm Dia. x 70mm, Green	1
ML-0254	48252280	Retractor Blades (L&R), 22mm Dia. x 80mm, Turquoise	1
ML-0255	48252290	Retractor Blades (L&R), 22mm Dia. x 90mm, Fuchsia	1
ML-0256	48252200	Retractor Blades (L&R), 22mm Dia. x 100mm, Chocolate	1
ML-0257	48252210	Retractor Blades (L&R), 22mm Dia. x 110mm, Turquoise Splash	1
ML-0258	48252212	Retractor Blades (L&R), 22mm Dia. x 120mm, Purple Splash	1
ML-0700	48252000	Sterilization Tray	1
ML-0201	48252019	Rack Connector	1
LS-0451	48252001	T-Handle	2

Joint Replacements

Trauma, Extremities & Deformities

Cranio-maxillofacial

Spine

Biologics

Surgical Products

Neuro & ENT

Interventional Pain

Navigation

Endoscopy

Communications

Imaging

Patient Handling Equipment

EMS Equipment

US Operations
2 Pearl Court
Allendale, New Jersey 07401 - USA
Phone: +1 201 760 8000
Fax: +1 201 760 8108
Web: www.stryker.com

Manufactured for Stryker by:
West Coast Surgical

A surgeon must always rely on his or her own professional clinical judgment when deciding whether to use a particular product when treating a particular patient. Stryker does not dispense medical advice and recommends that surgeons be trained in the use of any particular product before using it in surgery.

The information presented is intended to demonstrate the breadth of Stryker product offerings. A surgeon must always refer to the package insert, product label and/or instructions for use before using any Stryker product. Products may not be available in all markets because product availability is subject to the regulatory and/or medical practices in individual markets. Please contact your Stryker representative if you have questions about the availability of Stryker products in your area.