1. Product Handling

All of the components used, except the positioning arm, which is used with a sterile cover, may only be used in a sterile condition. The UE connector, UE Forearm Bracket and UE Lateral Decubitus Bracket are supplied in a non-sterile condition and must be cleaned and sterilized before each use. The UE Disposable Kit (804-33-105) are supplied as a sterile kit. Sterile components should always be stored unopened in their respective peel packs. Prior to use, inspect packages for damage that may compromised sterility. If packaging has been opened or damaged upon receipt, contact the manufacturer’s rep. Also inspect labeling to verify that expiration date has not passed. If product is expired, contact Customer Service and do not use. When removing sterile products from its packaging, observe relevant aseptic technique. The sterile components are part of a system and should only be used without related original Adaptable Arm positioning systems.

High temperatures, moisture and humidity can damage the reusable Adaptable Arm product. Protect the product against moisture and humidity, clean by wipe disinfection only. Do not store close to radiators and protect from high radiation. Do not expose the product to large impacts and vibration, the product is not designed for impulse loads.

2 Product Description and Materials

The ADAPTABLE Arm is mounted to the accessory rail of operating tables and it’s used to support and position patient’s limbs during surgical procedures. The device is quickly and easily locked and unlocked using one-hand operation trigger. Depending on the operation, ensure sterility.

The ADAPTABLE Arm may only be used in conjunction with the following accessories:

- UE Connector (804-33-001)
- UE Forearm Bracket (804-33-003)
- UE Lateral Decubitus Bracket (804-33-010)
- UE Prep Hook (804-33-004)
- BC Disposable Thorax Pad (804-33-125)

- UE Connector (804-33-001)
  The UE Connector (804-33-001) is used as intermediate element designed to couple the Forearm Bracket (804-33-003) or the Lateral Decubitus Bracket (804-33-010) to the ADAPTABLE arm.

- UE Forearm Bracket (804-33-003)
  The UE Forearm Bracket (804-33-003) is used as intermediate element designed to couple the UE Connector (804-33-001) to the UE Disposable Kit (804-33-105).

- UE Decubitus Bracket (804-33-010)
  The UE Decubitus Bracket (804-33-010) is used as intermediate element designed to couple the UE Connector (804-33-001) to the UE Disposable Kit (804-33-105).

- UE Disposable Kit (804-33-105)
  The UE Disposable Kit (804-33-105) is used to cover the operative arm and secure the patient’s arm to the UE Forearm Bracket (804-33-003).

The disposable kit includes:
- 1 x Camera Drape
- 1 x Rollof Self-Adhesive Wrap
- 1 x Disposable Arm Pad
- 1 x Hand Grip Pad

- Beach Chair Disposable Kit (804-33-115)
  The Beach Chair Disposable Kit is used to provide extra cushion to the patient.

The disposable kit includes:
- 1 x Head Pad
- 1 x Neck Pad
- 1 x Elbow Pad
- 1 x Halo Pad

- Beach Chair Disposable Thorax Pad (804-33-125)
  The Beach Chair Disposable Thorax Pad is used to provide extra cushion to the patient.

- Beach Chair Positioning Kit (804-33-300)
  The Beach Chair Positioning Kit is used to position and support a patient on a surgical table during upper extremity surgical procedures.

The Beach Chair Positioning Kit (804-33-300) includes:
- 1 x Beach Chair Cart (804-33-302)
- 1 x Beach Chair Knee Bolster (804-33-303)
- 1 x Beach Chair Non-Operative Arm Holder Assembly Right (804-33-304)
- 1 x Beach Chair Non-Operative Arm Holder Assembly Left (804-33-305)
- 2 x Beach Chair Neck Pad (804-33-396)
- 1 x Beach Chair Backrest Pad (804-33-307)
- 2 x Beach Chair Lateral Bracket Assembly (804-33-308)
- 2 x Beach Chair Lateral Pad Foam (804-33-309)
- 1 x Beach Chair Mounting Feet Right (804-33-310)
- 2 x Beach Chair Mounting Feet Left (804-33-311)
- 1 x Beach Chair Knurled Knob (804-33-312)
- 2 x Beach Chair Flip Handle (804-33-313)
3. Indications

The ADAPTABLE Arm and all related components and attachments listed above are indicated for patients undergoing shoulder, arm and other upper extremity surgery.

4. Intended Use

The ADAPTABLE Arm (BD3-33-000) is used, in combination with specific accessories, to accommodate a patient's arm immediately before, during and after surgical interventions as well as for examination and treatment and retractor holding applications.

5. Contraindications

Arm positioning with the ADAPTABLE Arm is contraindicated where the patient's arm is injured or incapable of safely enduring the fixation of the arm securing EU Disposable Kit.

6. Precautions and Warnings

Vital functions may be impaired through improper use and/or positioning of the device. Service and modification to the device is to be provided by trained personnel only. This device should be inspected and proper function verified before each use. Ensure that this user manual is readily available to all personnel at all times.

- The maximum patient weight for use of the product is 350 lbs.
- Improper use and positioning may lead to injury. Follow all instructions for use of the operating table system and ADAPTABLE exactly and maintain observation of patient while product is in use.
- Use only approved accessories with the ADAPTABLE Arm. All accessories must be used in accordance with instructions for use from Quantum OPS. Accessories made by other providers may be used only with written approval from Quantum OPS.
- Risk of burns may occur through contact between the ADAPTABLE Arm and electrical equipment such as computer components and defibrillators. Contact between the patient and metallic surfaces must be avoided.
- The product can be repositioned by opening fastening elements. Prior to initially mounting or repositioning the product, hold the movable segments securely so that they do not fall or move suddenly. Also, be aware that moving the product during initial mounting or repositioning can expose personnel, patient, and other equipment to pinching or shearing. Prior to mounting or repositioning the product, be sure that the patient, all other personnel and equipment are clear of the product so pinching or shearing does not occur.
- Improperly secured products or accessories may result in patient injury. After initial positioning and after every repositioning of the product, check all fastening elements (clamps / handles...etc.) to make sure they are fully closed and secure.
- Do not continue to use the ADAPTABLE Arm if the product is worn, defective, or damaged in any way. Only use the product in full working condition.
- The ADAPTABLE Arm is to be used only with accessories specifically designed for the patient and approved by Quantum OPS.
- A sterile cover must be used on the ADAPTABLE Arm during surgery to avoid contact with liquids and other substances used in surgery.
- The product is designed to support only the weight of the patient. Do not put any additional force on the Arm Positioning System by leaning or resting on the product.
- Avoid exposing the product to high impacts, vibrations, moisture, humidity, and radiation. The product is designed to be cleaned by wipe disinfection only.
- A risk of infection exists if the product is stored or used in a non-sterile environment. If the product is stored or used in a non-sterile environment, clean the product using the instructions given in the “Cleaning and Disinfection” section.
- An approved sterile disposable kit is required for proper use of the product. The Adaptable UE Disposable Kit (BD04-33-105) and BC Disposable Kit (90-33-115) are the only disposable kit approved for use with the ADAPTABLE Arm.
- The product is intended for use in a sterile condition only. The product should be cleaned and disinfected prior to initial use and after each use.

7. Preoperative Planning

Ensure that all sterile components (UE Connector, UE Forearm Bracket and UE Lateral Decubitus Bracket) are available before surgery, and that the surgical bed has a side rail that functions with the ADAPTABLE Arm.

8. Adverse Effects

1. Chaffing or redness of the skin of the patients arm is possible.

9. Sterilization and Cleaning

The UE Connector, UE Forearm Bracket and UE Lateral Decubitus Bracket Quick Connect, Leg Bracket, Retractor Holder Kit and Knee Bracket are supplied in a non-sterile condition and must be cleaned and sterilized (autoclave) before the first use following the guidelines listed below.

The UE Disposable Kit (BD04-33-115) is supplied as a sterile kit. Sterile components should always be inspected for damage that may compromise sterility. If packaging has been opened or damaged upon receipt, contact the manufacturer.

The BC Disposable Kit (BD04-33-105) is supplied as a non-sterile kit.

Sterilization of the UE Disposable Kit (BD04-33-105) is performed by electron beam radiation at the minimum dosage of 25kGy to achieve sterility. Disposable kits are all single use.

Automatic Cleaning

1. Insure all the pre-processing instructions followed prior installation.

2. Clean the device via the following cleaning parameters:

<table>
<thead>
<tr>
<th>Phase</th>
<th>Minimum Recirculation Time</th>
<th>Water Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre- Wash 1</td>
<td>15 seconds</td>
<td>Tap water 1c - 16c</td>
</tr>
<tr>
<td>Enzyme Wash</td>
<td>1 Minute</td>
<td>Hot Tap Water 43c - 82c</td>
</tr>
<tr>
<td>Wash 1</td>
<td>2 Minutes</td>
<td>Tap Water 43c-82c</td>
</tr>
<tr>
<td>Rinse 1</td>
<td>15 Seconds</td>
<td>Tap Water 43c-82c</td>
</tr>
<tr>
<td>Pure Rinse</td>
<td>10 Seconds</td>
<td>Purified Water 43- 82c</td>
</tr>
<tr>
<td>Drying</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

3. If visible moisture is present dry the instrument with a clean lint free towel.

4. Visually examine each instrument for cleanliness.

5. If visible soil remains, repeat cleaning procedures.

Inspection/Maintenance

Proper care and handling is essential for satisfactory performance of any Adaptable device. The provided cautions should be taken to ensure long and trouble free service from all your surgical devices. Inspect devices before each use for replacement. Before sterilizing, lubricate complex devices with instrument milk or a steam permeable / water soluble lubricant following the lubricant manufacturer’s instructions. Let the devices drip dry for three (3) minutes before packaging for sterilization. Inspect for broken, cracked, tarnished surfaces, movement of hingos and slides, and chipped or worn parts. If any of these conditions appear, do not use the device, return device to an authorized agent for repair or replacement.

Packaging

Devices can be loaded into dedicated packaging systems. Sterilization wrap material must be cleared for the applicable sterilization modality by your country’s regulatory body. Use in accordance with packaging manufacturers sterilization instructions being sure to protect jaws, hinges, points, and cutting edges from damage.
Sterilization

All devices must be processed in the completely open position or disassembled to allow sterilant contact of all surfaces. All devices with concave surfaces shall be configured so that water/liquid pooling does not occur.

Pre-Vacuum Steam Sterilization Parameters

Arm positioning with the ADAPTABLE Arm is contraindicated where the patients arm is injured or incapable of safely enduring the fixation of the arm securing EU Disposable Kit.

Minimum Preconditioning Pulses: 4
Minimum Temperature: 132°C (270°F)
Minimum Exposure Time: 4 Minutes
Minimum Dry Time: 20 Minutes
Sterilization Configuration: Wrapped (2 layer 1-ply or 1 layer 2-ply)
Packaging: Sterilizable pouches

Storage

After sterilization, devices must remain in sterilization packaging and be stored in a clean, dry environment.

Pre-processing Instructions

- Initiate cleaning of devices within 2 hours of use. Always use personal protection equipment (PPE) when cleaning gross material or biohazard material from instruments/devices.
- Remove excess gross soil as soon as possible after use by rinsing or wiping device.
- All devices must be processed disassembled in the completely open position to allow solutions to contact all surfaces. Manual Cleaning: (steps 5, 6, 7, 9 and 11 are required for lumen devices only)
- Ensure all pre-processing instructions are followed prior to cleaning.
- Prepare enzymatic/neutral pH detergent solution, utilizing a temperature range of 27°C to 44°C (81°F-111°F). Per manufacturer’s instructions.
- Place device in the open/relaxed position. Completely immerse in the detergent solution and allow device to soak for a minimum of 5 minutes. Actuate all controls during the initiation of the soak time.
- For lumen devices, use a soft bristled brush with a brush diameter and length that is equivalent to lumen diameter and length. Scrub the lumen until no visible soil is detected in the lumen rinse step below.
- For lumen devices, place if visible soil is detected during the final lumen flush re-perform brushing and flushing of the lumen.
- Rinse device by completely immersing in tap water with a temperature range of 27°C to 44°C (81°F-111°F) for a minimum of 30 seconds to remove any residual detergent and debris.
- For lumen devices, following the rinse step, place the device into the open/relaxed positions with all sharp pointed tips facing down. Flush the device with a minimum of 50 ml of tap water utilizing a temperature range of 27°C to 44°C (81°F-111°F) to remove any residual detergent and debris.
- Dry the device with a clean lint free towel.
- For lumen devices, manipulate the device to allow rinse water to drain from the lumen.
- Visually examine each device for cleanliness.
- If visible soil remains, repeat cleaning procedure. GUIDELINES FOR EACH PRODUCT

<table>
<thead>
<tr>
<th>Components</th>
<th>Cleaning</th>
<th>Disinfection</th>
<th>Sterilization/Autoclaving</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADAPTABLE Positioning Arm (803-33-000)</td>
<td>Clean with a cloth soaked with warm soapy water: using a soft toothbrush to remove any dirt or debris as needed. Dry with a soft, clean cloth. DO NOT IMMERSE.</td>
<td>Wipe ADAPTABLE Positioning Arm and ADAPTABLE, DA Patient Positioning System components with disinfectant wipes. Dry with clean and soft cloth.</td>
<td>N/A – NOT STERILIZABLE. DO NOT AUTOCLAVE.</td>
</tr>
<tr>
<td>UE Forearm (804-33-003)</td>
<td>Clean with warm soapy water using a soft bristle brush to remove any dirt as needed. Dry with a soft, clean cloth.</td>
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<tr>
<td>UE Lateral Decubitus Bracket (804-33-010)</td>
<td>Immerse in disinfection solution (30 minutes) (e.g. Dr. Wengert, 2% Iv/Iv at 20°C ± 2°C in water – minimum quality of drinking water). Before immersion use a disposable syringe (60 ml syringe) to rinse every joint and movable part with 20 ml solution, Ro remove air bubbles move the components by hand in the solution for 10 seconds at the beginning of immersion. Immerse components in cold, demineralized water (1 minute).</td>
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<tr>
<td>UE Connector (804-33-007)</td>
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<td>UE Prep Hook (804-33-004)</td>
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<td>Beach Chair Cart (804-33-302)</td>
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<td>Beach Chair Knee Bolder (804-33-303)</td>
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<td>Beach Chair Non-Operative Arm Holder Assembly Right (804-33-304)</td>
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<tr>
<td>Beach Chair Non-Operative Arm Holder Assembly Left (804-33-305)</td>
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<tr>
<td>Beach Chair Neck Pad (804-33-306)</td>
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<td>Beach Chair Backrest Pad (804-33-307)</td>
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<td>Beach Chair Lateral Bracket Assembly (804-33-308)</td>
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<tr>
<td>Beach Chair Lateral Pad Foam (804-33-309)</td>
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<tr>
<td>Beach Chair Mounting Feet Right (804-33-310)</td>
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<td>Beach Chair Mounting Feet Left (804-33-311)</td>
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<td>Beach Chair Knurled Knob (804-33-312)</td>
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<tr>
<td>Beach Chair Flip Handle (804-33-313)</td>
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</tbody>
</table>

WARNING! Do not autoclave or immerse the ADAPTABLE positioning leg.

WARNING! Do not re-sterilize the Leg Positioner disposable kit or Retractor Holder Disposable Sleeves.

WARNING! Do not re-sterilize the Knee Positioner disposable kit

10. Trademarks and Patents

ADAPTABLE® QUANTUM OPS® are registered trademarks.

ADAPTABLE Arm system covered by United States Patent Application 20160067080