





Positionings of patients on DIAMOND





Preface

The ideal positioning of the patient provides the best possible access for surgical procedures. Safety is a prerequisite for a successful intervention and reduction of risks for the patient. SCHMITZ u. Söhne would like to guide you in accordance with state-of-the-art methods and exemplify optimal patient positioning options by means of this primer.

In the following chapters you will find clear illustrations for patient positionings by specialist disciplines. Various positioning options are illustrated in detail and in their most suitable form from our point of view. The aim is to protect the patient from positional injuries and to ensure a smooth surgical procedure. Methods may vary in detail between different hospitals. Please note that patient positionings are described here without any reference to the prevention of pressure ulcers. It is therefore vital to ensure that appropriate and sufficient padding is provided to prevent patients from coming to harm.

An X in the reference number (e.g. 101.0123.X) of the accessories represents the version or variant of the illustrated accessory. Please refer to the latest edition of our catalogue for the currently available version.

High-frequency surgery methods place special demands on positioning conditions, which have to be observed by all means. The patient must not get into contact with conductive material. Ensure insulated positioning of the patient and observe the manufacturer's instructions for the respective appliances!

In addition to this primer, we offer workshops at our premises in Wickede (Ruhr).

• **IMPORTANT:** The SCHMITZ positioning primer merely serves as a tool to assist patient positioning in everyday surgery. This document does not replace any training in anatomy, nor does it exempt you from reading the instructions for use both of the operating table and of the accessories.

These documents are not intended for use in the USA.



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Overview of accessories



General Surgery

Patient positionings by surgical discipline

1.1. Supine position using leg plates





Required accessories Basic equipment DIAMOND OR table 1 2 Head plate 101.0017.X 3 Leg plates (pair) 101.0116.X General accessories for side rail attachment 101.0177.X Body restraint strap 4 Arms abducted 5 Arm rest 2 x 101.0192.X Arm adducted 6 101.0123.X Wristlet (not illustrated) 101.0153.X 7 as an alternative to the wristlet: Arm protector (not illustrated) Arm elevated 8 Wristlet 101.0137.X (not illustrated) 9 Anaesthetic frame 101.0012.X (not illustrated) **Positioning aids** 10 Gel supine head rest 101.0337.X 11 Gel arm retainer pad 101.0343.X (not illustrated) 101.0211.X 12 Cushion 13 Gel heel pads (pair) 101.0328.X

1.1. Positioning

Supine position using leg plates

We recommend:

• Place the head in central position using a gel head rest (10) or a gel head ring. Avoid rotating the cervical spine.

Options for positioning of arms

1. Arms abducted

- Attach arm rests (5) near the patient's shoulders.
- IMPORTANT: The upper arm has to be positioned above table level (n. radialis)!
- The distal joint has to be placed higher than the proximal joint.
- In case of a shoulder abduction of 0 to 40 degrees, the hand is pronated, in case of shoulder abduction of 40 to 90 degrees, the hand is supinated.
- Do not abduct the shoulder beyond 90 degrees!
- 2. Arm adducted
- By means of a wristlet (6) or an arm protector (7) in connection with a gel arm retainer pad (11).
- **IMPORTANT:** The medial elbow joint (n. ulnaris) must be protected!
- 3. Arm elevated
- Wristlet (8) for attachment to anaesthetic frame (9).
- IMPORTANT: In this position the elbow joint should be flexed to 90 degrees! Do not abduct the shoulder beyond 90 degrees.
 Observe 5 to 10 degrees external rotation.

- Position the cushion (12) under the distal femur.
- **IMPORTANT:** Make sure that no pressure is applied to the head of the tibia (n. peroneus)!
- Position gel heel pads (13) at the transition of the Achilles tendon to the heel.
- **IMPORTANT:** Ensure that the heels are free of the surface of the operating table!
- Position body restraint strap(s) (4) according to the requirements of the intervention.
- Optionally, use a vacuum mattress.
- When surgery is completed, reposition the patient in reverse order.



Arm elevated: Wristlet (8) for attachment to anaesthetic frame (9)

1.2. Supine position with spread leg plates





Required accessories		
Bas	sic equipment	
1	DIAMOND OR table	
2	Leg plates (pair)	101.0116.X
3	Table extension (pair)	101.0443.X
Ger	neral accessories for side rail	attachment
4	Leg restraint strap 2 x	101.0164.X
5	Flexible anaesthetic frame	101.0125.X
6	Attachment clamp 2 x	101.0146.X
Arn	ns abducted	
7	Arm rest 2 x	101.0192.X
Arn	n adducted	
8	Wristlet (not illustrated)	101.0123.X
9	as an alternative for the wristlet: Arm protector (not illustrated)	101.0153.X
Arn	n elevated	
10	Anaesthetic frame (not illustrated)	101.0012.X
11	Wristlet (not illustrated)	101.0137.X
Positioning aids		
12	Gel head ring	101.0332.X
13	Gel arm retainer pad (not illustrated)	101.0343.X
14	Gel heel pads (pair)	101.0328.X
15	Gel universal patient positioner (not illustrated)	101.0347.X

1.2. Positioning

Supine position with spread leg plates

We recommend:

- Place the head in central position using a gel head ring (12). Avoid rotating the cervical spine.
- The head plate can be adjusted according to the patient's size.

Options for positioning of arms

1. Arms abducted

- Attach arm rests (7) near the patient's shoulders.
- IMPORTANT: The upper arm has to be positioned above table level (n. radialis)!
- The distal joint has to be placed higher than the proximal joint.
- In case of a shoulder abduction of 0 to 40 degrees, the hand is pronated, in case of shoulder abduction of 40 to 90 degrees, the hand is supinated.
- Do not abduct the shoulder beyond 90 degrees!
- 2. Arm adducted
- By means of a wristlet (8) or an arm protector (9) in combination with a gel arm retainer pad (13).
- **IMPORTANT:** The medial elbow joint (n. ulnaris) must be protected!
- 3. Arm elevated
- By means of an anaesthetic frame (10) and a wristlet for attachment to the anaesthetic frame (11).
- IMPORTANT: In this position the elbow joint should be flexed to an angle of 90 degrees! Do not abduct the shoulder beyond 90 degrees. Observe 5 to 10 degrees external rotation.

- The patient's legs are spread using a split type leg section (2) or a four-part leg section and, if applicable, a table extension (3). The patient's acetabulum is placed over the leg section joint.
- Position a gel universal patient positioner (15) under the distal femur.
- IMPORTANT: Make sure that no pressure is applied to the head of the tibia (n. peroneus)!
- Position gel heel pads (14) at the transition of the Achilles tendon to the heel.
- **IMPORTANT:** Ensure that the heels are free of the surface of the operating table!
- Position leg restraint straps (4) according to the requirements of the intervention.
- If applicable, make use of the longitudinal shift function of the operating table.
- When surgery is completed, reposition the patient in reverse order.

1.3. Thyroidectomy position using the head plate





Required accessories Basic equipment DIAMOND OR table 1 2 Head plate 101.0017.X 3 Leg plates (pair) 101.0116.X General accessories for side rail attachment Body restraint strap 101.0177.X 4 Arms abducted 5 Arm rest 2 x 101.0192.X Arm adducted 6 Wristlet 101.0123.X (not illustrated) 7 Arm protector 101.0153.X (not illustrated) **Positioning aids** 8 Gel head ring 101.0332.X Gel arm retainer pad 101.0343.X 9 (not illustrated) 10 Cushion 101.0211.X 101.0328.X

11 Gel heel pads (pair)

1.3. Positioning

Thyroidectomy position using the head plate

We recommend:

• Place the head in central position using a gel head ring (8). Avoid rotating the cervical spine.

Options for positioning of arms

1. Arms abducted

- Attach arm rests (5) near the patient's shoulders.
- IMPORTANT: The upper arm has to be positioned above table level (n. radialis)!
- The distal joint has to be placed higher than the proximal joint.
- In case of a shoulder abduction of 0 to 40 degrees, the hand is pronated, in case of shoulder abduction of 40 to 90 degrees, the hand is supinated.
- Do not abduct the shoulder beyond 90 degrees!
- 2. Arm adducted
- By means of a wristlet (6) or an arm protector (7) in connection with a gel arm retainer pad (9).
- **IMPORTANT:** The medial elbow joint (n. ulnaris) must be protected!

- Position a cushion (10) under the distal femur.
- **IMPORTANT:** Make sure that no pressure is applied to the head of the tibia (n. peroneus)!
- Position gel heel pads (11) at the transition of the Achilles tendon to the heel.
- IMPORTANT: Ensure that the heels are free of the surface of the operating table!
- The back section of the OR table is raised slightly (approx. 30°) and the patient's head is tilted back by means of the head plate.
- Position body restraint straps (4) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.

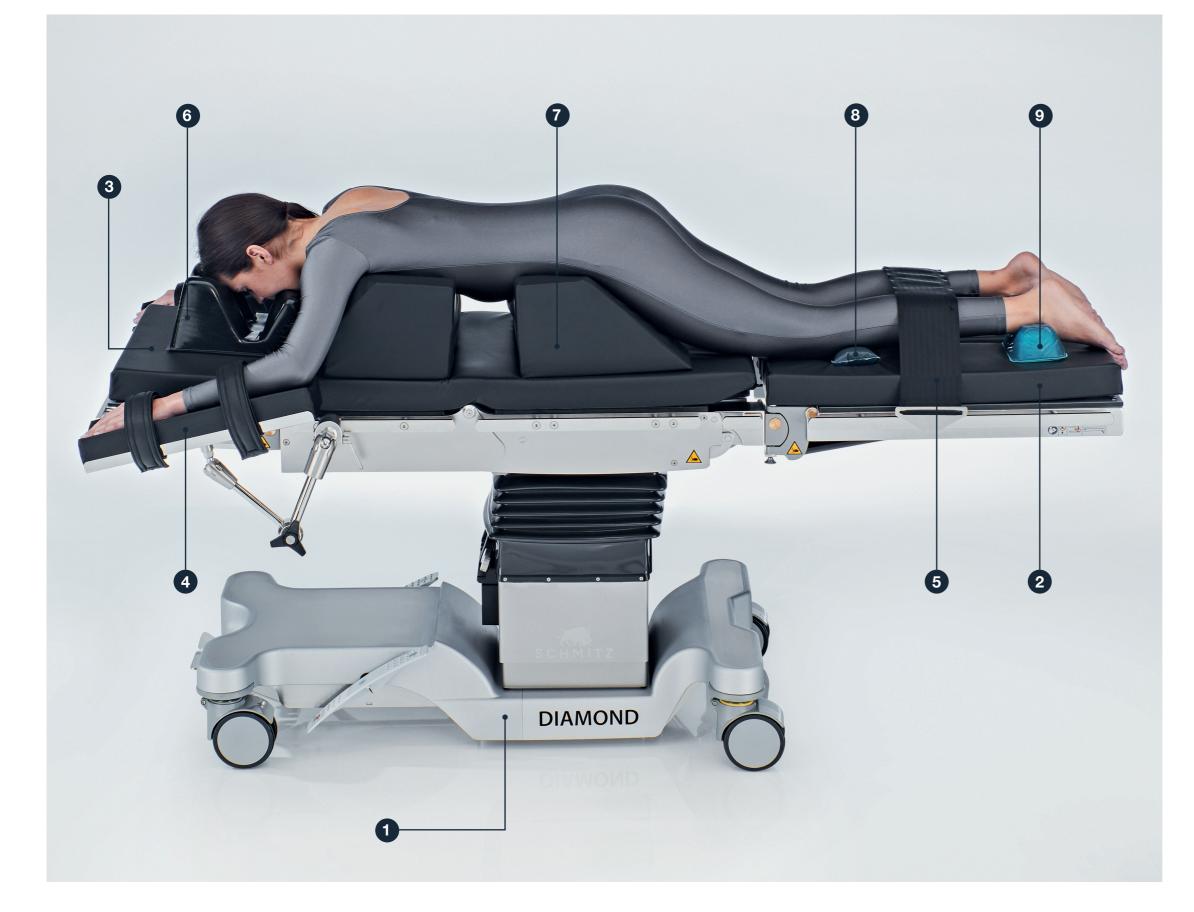


Arm adducted using a wristlet (6)



Arm adducted using an arm protector (7)

1.4. Prone position





Required accessories

Basic equipment

1	DIAMOND OR table	
2	Leg plates (pair)	101.0116.X
3	Head plate	101.0017.X
General accessories for side rail attachment		
4	Arm rest 2 x	101.0192.X
5	Body restraint strap	101.0177.X
	··· , ······	
Po	sitioning aids	
Po :		101.0334.X
_	sitioning aids Gel head rest	101.0334.X 101.0015.X
6	sitioning aids Gel head rest for prone positioning	

1.4. Positioning Prone position

We recommend:

- Set up the OR table with the required positioning aids.
- Align the thoracic cushion of the pad (7) with the patient's breastbone and the pelvic cushion with the patient's pelvis, making sure it does not extend beyond the iliac crest.
- **IMPORTANT:** Make sure the patient's abdomen is free of any pressure!
- Transfer the intubated patient into prone position.
- Position the patient's head in neutral zero position using the gel head rest for prone positioning (6).
 If required, remove the standard mattress of the head plate.

Options for arm positioning

- 1. Arm abducted
- Attach arm rests (4) near the patient's shoulders and place the patient's arms in pronated position below the level of the tabletop.
- IMPORTANT: The shoulder joint should be positioned in 70 to 90 degrees of abduction!

- Place the gel knee pad (8) under the patient's patellae and the gel heel pads (9) under the insteps.
- Position body restraint strap(s) (5) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.

1.5. Lithotomy position





Required accessories

Basic equipment

1	DIAMOND OR table		
2	Leg plates (pair) (not illustrated)	101.0116.X	
3	alternatively: Transfer leg plates (pair) (not illustrated)	101.0218.X	
4	Leg supports UniLeg (pair)	101.0369.X	
5	alternatively: Leg support (Göpel type) 2 x (not illustrated)	101.0115.X	
6	Attachment clamp 2 x (not illustrated)	101.0146.X	
General accessories for side rail attachment			
7	Arm rest 2 x	101.0192.X	
8	Body restraint strap (not illustrated)	101.0177.X	
Pos	Positioning aids		

9	Gel supine head rest	101.0337.X
10	Gel sacral protector	101.0344.X
	(not illustrated)	

1.5. Positioning Lithotomy position

We recommend:

- For anaesthesia induction: use leg plates (2) or <u>alternatively</u> transfer leg plates (3).
- Place the head in central position using a gel supine head rest (9). Avoid rotating the cervical spine.
- Use a gel sacral protector (10) to protect the os sacrum.

Options for arm positioning

1. Arms abducted

- Attach arm rests (7) near the patient's shoulders.
- IMPORTANT: The upper arm has to be positioned above table level (n. radialis)!
- The distal joint has to be placed higher than the proximal joint.
- In case of a shoulder abduction of 0 to 40 degrees, the hand is pronated, in case of shoulder abduction of 40 to 90 degrees, the hand is supinated.
- Do not abduct the shoulder beyond 90 degrees!
- 2. Arm adducted
- By means of a wristlet or an arm protector in connection with a gel arm retainer pad.
- **IMPORTANT:** The medial elbow joint (n. ulnaris) must be protected!

- Position the patient's legs by means of Göpel-type leg supports (5) or UniLeg leg supports (4) with hips flexed to 90 degrees and an external rotation angle of max. 30 degrees. The knees should be flexed to an angle between 70 and 120 degrees.
- IMPORTANT: When flexing the knees, observe the anatomical course of the nerves; pressure-free positioning of the head of the tibia (n. peroneus!)
- When surgery is completed, reposition the patient in reverse order.

1.6. Thoracic surgery in lateral position





Required accessories

Basic equipment

1	DIAMOND OR table	
2	Head plate	101.0017.X
3	Back section extension, inclinable	101.0159.X
4	Leg plates (pair)	101.0116.X
Ар	plication-specific accessori	es
5	Bracket for body support 2 x (1 x not illustrated)	101.0121.X
6	Back/buttock support (not illustrated)	101.0162.X
7	Pubis/sacrum/sternum support	101.0175.X
General accessories for side rail attachment		
8	Arm rest	101.0192.X
9	Leg support (Göpel type)	101.0115.X

10Attachment clamp101.0146.X11Body restraint strap101.0177.X

Positioning aids

12	Gel supine head rest	101.0337.X
13	Gel lateral leg positioner	101.0352.X
14	Vacuum mattress for lateral position (not illustrated)	101.0547.X



1.6. Positioning

Thoracic surgery in lateral position

We recommend:

- Turn the patient from supine to recovery position.
- The tip of the patient's scapula is placed near the joint of the inclinable back section extension, which is inclined by 30 to 40 degrees in order to open the intercostal spaces.
- If required, replace the standard head section pad with the thicker one which comes with the inclinable back section extension (3).
- Position the patient's head in proper axial alignment using the gel head rest (12).
- Adjust the head plate to the patient's head by means of the double-adjustment function.
- IMPORTANT: Make sure the downside eye and ear are free from pressure!

Positioning of arms

- Relieve the lower shoulder by pulling to the front (ventrally).
- The arm is placed on an arm rest (8) and abducted 90 degrees.
- IMPORTANT: Ensure pressure-free positioning of upper arm (n. radialis)!
- Position the upper arm on a Göpel-type leg support (9), or <u>alternatively</u> an arm rest. Consider using a gel padding.
- IMPORTANT: Do not abduct the arm beyond 90 degrees (plexus brachialis)!

- Both legs are placed in a slightly flexed position.
- The upside leg is placed on top of the gel lateral leg positioner (13).
- IMPORTANT: For the posterolateral approach, the thorax is further inclined on the operative side. For thoracoscopy, the raised arm is placed lower and further forward.
- Position the brackets and supports (5, 6, 7) as required by the intervention.
- If applicable, make use of the longitudinal shift function of the OR table.
- Consider using a vacuum mattress (14).
- Position body restraint strap(s) (11) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.



Gynaecology

Patient positionings by surgical discipline

2.1. Lithotomy position using leg supports

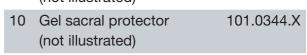




Required accessories

Basic equipment

	• •	
1	DIAMOND OR table	
2	Leg plates (pair) for anaesthesia induction (not illustrated)	101.0116.X
3	alternatively: Transfer leg plates (not illustrated)	101.0218.X
Ар	plication-specific accessor	ies
4	Leg supports UniLeg (pair)	101.0369.X
General accessories for side rail attachment Arms abducted		
5	Arm rest 2 x	101.0192.X
Arr	m adducted	
6	Wristlet (not illustrated)	101.0123.X
7	as an alternative to the wristlet: Arm protector (not illustrated)	101.0153.X
Positioning aids		
8	Gel supine head rest	101.0337.X
9	Gel arm retainer pad (not illustrated)	101.0343.X
	-	





2.1. Positioning Lithotomy position using leg supports

We recommend:

- For anaesthesia induction: use leg plates (2) or <u>alternatively</u> transfer leg plates (3).
- Place the head in central position using gel supine head rest (8). Avoid rotating the cervical spine.
- Use a gel sacral protector (10) to protect the os sacrum.

Options for arm positioning

1. Arms abducted

- Attach arm rests (5) near the patient's shoulders.
- IMPORTANT: The upper arm has to be positioned above table level (n. radialis)!
- The distal joint is placed higher than the proximal joint.
- In case of a shoulder abduction of 0 to 40 degrees, the hand is pronated, in case of shoulder abduction of 40 to 90 degrees, the hand is supinated.
- Do not abduct the shoulder beyond 90 degrees!
- 2. Arm adducted
- By means of a wristlet (6) or alternatively an arm protector (7) in connection with a gel arm retainer pad (9).
- **IMPORTANT:** The medial elbow joint (n. ulnaris) must be protected!

- Position the patient's legs by means of Göpel-type leg support Cysto-Lift, Göpel-type leg supports or UniLeg leg supports (as shown in the photo) with hips flexed to 90 degrees and an external rotation angle of max. 30 degrees.
- The knees should be flexed to an angle between 70 and 120 degrees.
- IMPORTANT: When flexing the knees, observe the anatomical course of the nerves; pressure-free positioning of the head of the tibia (n. peroneus)!
- When surgery is completed, reposition the patient in reverse order.



Transfer leg plates (3)

2.2. Lithotomy position using the leg section ModuLeg





Required accessories

Basic equipment

1	DIAMOND OR table
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Application-specific accessories

2	Leg section ModuLeg	101.0570.X
3	Leg supports (pair)	101.0571.X

General accessories for side rail attachment Arms abducted

4	Arm rest 2 x	101.0192.X

Arm adducted

5	Wristlet (not illustrated)	101.0123.X
6	as an alternative to the wristlet: Arm protector (not illustrated)	101.0153.X

Positioning aids

7	Gel head ring	101.0332.X
8	Gel arm retainer pad (not illustrated)	101.0343.X
9	Gel sacral protector (not illustrated)	101.0344.X

2.2. Positioning

Lithotomy position using the leg section ModuLeg

We recommend:

- Use the leg section ModuLeg (2).
- Place the head in central position using the gel head ring (7). Avoid rotating the cervical spine.
- Use a gel sacral protector (9) to protect the os sacrum.

Options for arm positioning

- 1. Arms abducted
- Attach arm rests (4) near the patient's shoulders.
- IMPORTANT: The upper arm has to be positioned above table level (n. radialis)!
- The distal joint has to be placed higher than the proximal joint.
- In case of a shoulder abduction of 0 to 40 degrees, the hand is pronated, in case of shoulder abduction of 40 to 90 degrees, the hand is supinated.
- Do not abduct the shoulder beyond 90 degrees!
- 2. Arm adducted
- By means of a wristlet (5) or an arm protector (6) in connection with a gel arm retainer pad (8).
- **IMPORTANT:** The medial elbow joint (n. ulnaris) must be protected!
- 3. Arm elevated
- By means of an anaesthetic frame and a wristlet for attachment to the anaesthetic frame.
- IMPORTANT: In this position the elbow joint should be flexed to 90 degrees! Do not abduct the shoulder beyond 90 degrees.
 Observe 5 to 10 degrees external rotation.

- The patient's legs are spread using the leg section ModuLeg (2). In this leg section, the upper and lower leg plates can be replaced by Göpel-type leg supports (3).
- Position the patient's legs with hips flexed to 90 degrees and an external rotation angle of max. 30 degrees.
- The knees should be flexed to an angle between 70 and 120 degrees. Consider using gel pads.
- IMPORTANT: When flexing the knees, observe the anatomical course of the nerves; pressure-free positioning of the head of the tibia (n. peroneus)!
- When surgery is completed, reposition the patient in reverse order.

2.3. Lithotomy position

using a vacuum mattress and leg supports





Required accessories

Basic equipment

1	DIAMOND OR table	
2	Head section	101.0017.X
3	Leg plates (pair) for anaesthesia induction (not illustrated)	101.0116.X

Application-specific accessories

4	Attachment clamp 2 x	101.0018.X
5	Leg support (Göpel type) 2 x	101.0115.X
6	Vacuum mattress SigmaLap	101.0549.X

General accessories for side rail attachment

7	Arm rest
	(not illustrated)

101.0192.X

Positioning aids

8 Gel crutch stirrup pads (pair) 101.0349.X (not illustrated)



2.3. Positioning

Lithotomy position using a vacuum mattress and leg supports

We recommend:

- For anaesthesia induction: use leg plates (3) or <u>alternatively</u> transfer leg plates.
- Attach the Göpel-type leg supports (5) by means of clamps (4) to the side rails and pre-position the vacuum mattress (6).
- For tall patients: Place the head in central position using a gel head rest. Avoid rotating the cervical spine.
- IMPORTANT: Before positioning the patient on the vacuum mattress, pre-mould the mattress already approximately to the patient's body shape in order to prevent the filling from sliding out from under the patient.

Positioning of arms

- Attach arm rests (7) near the patient's shoulders.
- IMPORTANT: The upper arm has to be positioned above table level (n. radialis)!
- The distal joint has to be placed higher than the proximal joint.
- In case of a shoulder abduction of 0 to 40 degrees, the hand is pronated, in case of shoulder abduction of 40 to 90 degrees, the hand is supinated.
- Do not abduct the shoulder beyond 90 degrees!

- Position the patient's legs by means of Göpel-type leg supports (5) or, <u>alternatively</u>, UniLeg leg supports with hips flexed to 90 degrees and an external rotation angle of max. 30 degrees.
- The knees should be flexed to an angle between 70 and 120 degrees. Consider using gel crutch stirrup pads (8).
- **IMPORTANT:** When flexing the knees, observe the anatomical course of the nerves; pressure-free positioning of the head of the tibia!
- Shape the mattress around the patient's body. Release air from the mattress by means of the pump to create the required vacuum.
 If possible, create an "anchor" to secure the mattress on the OR table.
- If applicable, make use of the longitudinal shift function of the OR table.
- When surgery is completed, reposition the patient in reverse order.



Leg positioning using the gel crutch stirrup pad (8)

2.4. Beach-chair position for mamma surgery





Required accessories

Basic equipment

1	DIAMOND OR table	
2	Head plate	101.0017.X
3	Back section extension, fixed	101.0131.X
4	Leg plates (pair)	101.0116.X
Ger	neral accessories for side rail	attachment
5	Arm rest 2 x	101.0192.X
6	Body restraint strap (not illustrated)	101.0177.X
7	Foot plate (pair)	101.0368.X
Pos	sitioning aids	
8	Gel supine head rest	101.0337.X
9	Cushion	101.0211.X
10	Gel heel pads (pair)	101.0328.X



2.4. Positioning Beach-chair position for mamma surgery

We recommend:

- For patients taller than 160 cm we recommend to use a back section extension, either fixed (3) or inclinable version.
- IMPORTANT: The patient's acetabulum is placed over the back section joint!
- Position the head using the gel supine head rest (8).

Positioning of arms

- Attach the arm rests (5) in such a way as to allow their intraoperative adjustment to the relative OR table position.
- IMPORTANT: Make sure to observe anatomical factors and the course of nerves!

- Place pad (9) or, <u>alternatively</u>, a plexus cushion under the distal femur.
- IMPORTANT: Make sure that no pressure is applied to the head of the tibia (n. peroneus)!
- Position gel heel pads (10) at the transition of the Achilles tendon to the heel.
- IMPORTANT: Ensure that the heels are free of the surface of the operating table!
- Move the OR table into slight Trendelenburg position and raise the back section slightly.
- Lower the leg section slightly. If the leg plates are to remain in flat position, use the foot plates (7).
- Position body restraint strap(s) (6) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.



Urology

Patient positionings by surgical discipline

3.1. Lithotomy position

using a seat section extension and leg supports





Required accessories

Basic equipment

1	DIAMOND OR table	
2	Leg plates (pair) for anaesthesia induction (not illustrated)	101.0116.X
Ap	plication-specific accessor	ies
3	Gyn. adaptor	101.0204.X
4	Leg support (Göpel type) 2 x	101.0115.X
5	Attachment clamp 2 x	101.0146.X
General accessories for side rail attachment		

6 /	Arm rest 2 x	101.0192.X
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Positioning aids

7	Gel supine head rest	101.0337.X
8	Gel crutch stirrup pads	101.0349.X
	(pair) (not illustrated)	



3.1. Positioning

Lithotomy position using seat section extension and leg supports

We recommend:

- For anaesthesia induction: use leg plates (2) or <u>alternatively</u> transfer leg plates.
- Position the patient on a gyn. adaptor (3) or, alternatively, on a uro. adaptor in such a way that his or her coccyx aligns with the edge of the table-top.
- Place the head in central position using a gel supine head rest (7). Avoid rotating the cervical spine.
- Attach Göpel-type leg supports (4) with attachment clamps (5) to the side rails of the gyn. or uro. adaptor.

Positioning of arms

- Attach arm rests (6) near the patient's shoulders.
- **IMPORTANT:** The upper arm has to be positioned above table level (n. radialis)!
- The distal joint has to be placed higher than the proximal joint.
- In case of a shoulder abduction of 0 to 40 degrees, the hand is pronated, in case of shoulder abduction of 40 to 90 degrees, the hand is supinated.

Do not abduct the shoulder beyond 90 degrees!

- Position the patient's legs by means of Göpel-type leg supports (4) or, alternatively, UniLeg leg supports with hips flexed to 90 degrees and an external rotation angle of max. 30 degrees.
- The knees should be flexed to an angle between 70 and 120 degrees.
- Consider using gel crutch stirrup pads (8).
- IMPORTANT: When flexing the knees, observe the anatomical course of the nerves; pressure-free positioning of the head of the tibia (n. peroneus)!
- When surgery is completed, reposition the patient in reverse order.



Gyn. adaptor (3)

3.2. Lithotomy position

using a vacuum mattress and leg supports





Required accessories

Basic equipment

1	DIAMOND OR table	
2	Head plate	101.0017.X
3	Leg plates (pair) for anaesthesia induction (not illustrated)	101.0116.X
_		

Application-specific accessories

4	Gyn. adaptor (not illustrated)	101.0204.X
5	Leg support (Göpel type) 2 x	101.0115.X
6	Attachment clamp 2 x	101.0146.X
7	Vacuum mattress SigmaLap	101.0549.X
General accessories for side rail attachment		

8	Arm rest	101.0192.X
	(not illustrated)	



3.2. Positioning Lithotomy position using a vacuum mattress and leg supports

We recommend:

- For anaesthesia induction: use leg plates (3) or <u>alternatively</u> transfer leg plates.
- Position the patient in such a way that his or her coccyx aligns with the edge of the table-top. Consider using a gyn. adaptor (4) or, <u>alternatively</u>, a uro. adaptor
- Attach Göpel-type leg supports (5) by means of attachment clamps (6) to the side rails at the electrohydraulically adjustable leg section interface (featured in DIAMOND 50 / 60 models) or to the side rails of the gyn. or uro. adaptor and pre-position the vacuum mattress (7).

Positioning of arms

- Attach arm rests (8) near the patient's shoulders.
- **IMPORTANT:** The upper arm has to be positioned above table level (n. radialis)!
- The distal joint has to be placed higher than the proximal joint.
- In case of a shoulder abduction of 0 to 40 degrees, the hand is pronated, in case of shoulder abduction of 40 to 90 degrees, the hand is supinated.

Do not abduct the shoulder beyond 90 degrees!

- Position the patient's legs by means of Göpel-type leg supports (5) or, <u>alternatively</u>, UniLeg leg supports with hips flexed to 90 degrees and an external rotation angle of max. 30 degrees.
- The knees should be flexed to an angle between 70 and 120 degrees.
- Consider using gel crutch stirrup pads.
- IMPORTANT: When flexing the knees, observe the anatomical course of the nerves; pressure-free positioning of the head of the tibia (n. peroneus)!
- Shape the vacuum mattress (7) around the patient's body. Release air from the mattress by means of the pump to create the required vacuum.
- If applicable, make use of the longitudinal shift function of the OR table.
- When surgery is completed, reposition the patient in reverse order.

3.3. Lateral position





Required accessories

Basic equipment

1	DIAMOND OR table	
2	Head plate	101.0017.X
3	Back section extension, inclinable	101.0159.X
4	Leg plates (pair)	101.0116.X
Application-specific accessories		
5	Bracket for body support 2 x (1 x not illustrated)	101.0121.X

101.0162.X

101.0175.X

101.0115.X

101.0146.X

101.0192.X

Back/buttock support

Pubis/sacrum/sternum

8 Leg support (Göpel type)

Attachment clamp

(not illustrated)

Positioning aids

10 Arm rest

support

6

7

11	Gel supine head rest	101.0337.X
12	Gel lateral leg positioner	101.0352.X
13	Body restraint strap	101.0177.X

3.3. Positioning Lateral position

We recommend:

• Turn the patient from supine position into recovery position.

- **IMPORTANT:** The patient's pelvis is placed at the highest point of the table-top adjusted into flex position.
- If required, replace the standard head section pad with the thicker one which comes with the inclinable back section extension (3).
- Position the patient's head in proper axial alignment using the appropriate gel head rest.
- Adjust the head plate to the patient's head by means of the double-adjustment function.
- IMPORTANT: Make sure the downside eye and ear are free from pressure!

Positioning of arms

- Relieve the lower shoulder by pulling to the front (ventrally).
- The arm is placed on an arm rest (10) and abducted 90 degrees.
- **IMPORTANT:** Ensure pressure-free positioning of upper arm (n. radialis)!
- Position the upper arm on a Göpel-type leg support (8) consider using a gel pad - or <u>alternatively</u> on an arm rest (10).
- IMPORTANT: Do not abduct the arm beyond 90 degrees (plexus brachialis)!

- Both legs are placed in a slightly flexed position.
- The upside leg is placed on top of the gel lateral leg positioner (12).
- Adjust the table-top of the OR table gradually to flex position.
- Position brackets and supports (5, 6, 7) as required by the intervention.
- If applicable, make use of the lateral adjustment function of the OR table.
- Consider using a vacuum mattress.
- Position body restraint strap(s) (13) as required by the intervention.
- When surgery is completed, reposition the patient in reverse order.



ENT, OMFS and Ophthalmology

Patient positionings by surgical discipline

4.1. Supine position using the OMFS plate





Required accessories		
Basic equipment		
1	DIAMOND OR table	
Application-specific accessories		
2	OMFS plate	101.0441.X
General accessories for side rail attachment		
3	Body restraint strap (not illustrated)	101.0177.X
Arms abducted		
4	Arm rest 2 x	101.0192.X
Arm adducted		
5	Wristlet (not illustrated)	101.0123.X
6	as an alternative to the wristlet: Arm protector (not illustrated)	101.0153.X
Positioning aids		
7	Gel arm retainer pad (not illustrated)	101.0343.X
8	Cushion	101.0211.X
9	Gel heel pads (pair)	101.0328.X



4.1. Positioning

Supine position using the OMFS plate

We recommend:

- Arrange the OR table elements for reverse patient positioning. Switch to "Reverse Mode" on the hand-held control (orange "Reverse Mode" key).
- Position the patient's head in proper axial alignment on the shaped head rest of the OMFS plate (2).

Options for arm positioning

1. Arms abducted

- Attach arm rests (4) near the patient's shoulders.
- IMPORTANT: The upper arm has to be positioned above table level (n. radialis)!
- The distal joint has to be placed higher than the proximal joint.
- In case of a shoulder abduction of 0 to 40 degrees, the hand is pronated, in case of shoulder abduction of 40 to 90 degrees, the hand is supinated.
 Do not abduct the shoulder beyond 90 degrees!
- 2. Arm adducted
- by means of a wristlet (5) or <u>alternatively</u> an arm protector (6) in connection with a gel arm retainer pad (7).
- IMPORTANT: The medial elbow joint (n. ulnaris) must be protected!

- Position the cushion (8) under the distal femur.
- IMPORTANT: Make sure that no pressure is applied to the head of the tibia (n. peroneus)!
- Position gel heel pads (9) at the transition of the Achilles tendon to the heel.
- **IMPORTANT:** Ensure that the heels are free of the surface of the operating table!
- The head is reclined by means of the shaped head rest.
- If applicable, make use of the longitudinal shift function of the OR table.
- Position body restraint strap(s) (3) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.



Reverse Mode

4.2. Supine position using a head ring





Required accessories

Basic equipment

1	DIAMOND OR table	
2	Back section extension, inclinable	101.0159.X
3	Leg plates (pair)	101.0116.X
	neral accessories side rail attachment	
4	Body restraint strap (not illustrated)	101.0177.X
Arm	is abducted	
5	Arm rest	101.0109.X
Arm	adducted	
6	Wristlet (not illustrated)	101.0123.X
7	as an alternative to the wristlet: Arm protector (not illustrated)	101.0153.X
Pos	itioning aids	
8	Gel head ring	101.0332.X
9	Gel arm retainer pad (not illustrated)	101.0343.X
10	Cushion (not illustrated)	101.0211.X
11	Gel heel pads (pair)	101.0328.X

4.2. Positioning Supine position using a head ring

We recommend:

- Arrange the OR table elements for reverse patient positioning. Switch to "Reverse Mode" on the hand-held control (orange "Reverse Mode" key).
- Place the head in central position using the gel head ring (8). Avoid rotating the cervical spine.

Options for arm positioning

1. Arms abducted

- Attach arm rests (5) near the patient's shoulders.
- IMPORTANT: The upper arm has to be positioned above table level (n. radialis)!
- The distal joint has to be placed higher than the proximal joint.
- In case of a shoulder abduction of 0 to 40 degrees, the hand is pronated, in case of shoulder abduction of 40 to 90 degrees, the hand is supinated.
 Do not abduct the shoulder beyond 90 degrees!
- 2. Arm adducted
- By means of a wristlet (6) or <u>alternatively</u> an arm protector (7) in connection with a gel arm retainer pad (9).
- IMPORTANT: The medial elbow joint (n. ulnaris) must be protected!

Positioning of legs

- Position the cushion (10) under the distal femur.
- **IMPORTANT:** Make sure that no pressure is applied to the head of the tibia (n. peroneus)!
- Position gel heel pads (11) at the transition of the Achilles tendon to the heel.
- **IMPORTANT:** Ensure that the heels are free of the surface of the operating table!
- The head is reclined by means of the head plate.
- If applicable, make use of the longitudinal shift function of the OR table.
- Position body restraint strap(s) (4) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.



Reverse Mode

4.3. Supine position

using a shaped head rest





Required accessories

Basic equipment

1	DIAMOND OR table	
2	Leg plates (pair)	101.0116.X
3	Universal adaptor	101.0141.X
4	Head rest connector	101.0363.X
5	Horseshoe head rest	101.0179.X
	neral accessories side rail attachment	
6	Body restraint strap	101.0177.X
Arn	ns abducted	
7	Arm rest 2 x	101.0192.X
7	Anniest 2 A	
	n adducted	
		101.0123.X
Arn	n adducted Wristlet	
Arn 8 9	n adducted Wristlet (not illustrated) as an alternative to the wristlet: Arm protector	101.0123.X
Arn 8 9	n adducted Wristlet (not illustrated) as an alternative to the wristlet: Arm protector (not illustrated)	101.0123.X
Arn 8 9 Pos	n adducted Wristlet (not illustrated) as an alternative to the wristlet: Arm protector (not illustrated) sitioning aids Gel arm retainer pad	101.0123.X 101.0153.X

4.3. Positioning

Supine position using a shaped head rest

We recommend:

- Arrange the OR table elements for reverse patient positioning. Switch to "Reverse Mode" on the hand-held control (orange "Reverse Mode" key).
- Set up the OR table with the universal adaptor (3) the head rest connector (4) and the shaped head rest (5).
- Position the patient's head in proper axial alignment on the shaped head rest (5).

Options for arm positioning

1. Arms abducted

- Attach arm rests (7) near the patient's shoulders.
- **IMPORTANT:** The upper arm has to be positioned above table level (n. radialis)!
- The distal joint has to be placed higher than the proximal joint.
- In case of a shoulder abduction of 0 to 40 degrees, the hand is pronated, in case of shoulder abduction of 40 to 90 degrees, the hand is supinated.
 Do not abduct the shoulder beyond 90 degrees!
- 2. Arm adducted
- By means of a wristlet (8) or <u>alternatively</u> an arm protector (9) in connection with a gel arm retainer pad (10).
- IMPORTANT: The medial elbow joint (n. ulnaris) must be protected!

- Position the gel universal patient positioner (11) under the distal femur.
- **IMPORTANT:** Make sure that no pressure is applied to the head of the tibia (n. peroneus)!
- Position gel heel pads (12) at the transition of the Achilles tendon to the heel.
- **IMPORTANT:** Ensure that the heels are free of the surface of the operating table!
- The head is reclined by means of the shaped head rest (5).
- If applicable, make use of the longitudinal shift function of the OR table.
- Position body restraint strap(s) (6) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.



Reverse Mode

4.4. Supine position

using the shoulder plate and a shaped head rest





Required accessories

Basic equipment

1	DIAMOND OR table	
2	Head plate	101.0017.X
3	Shoulder plate	101.0210.X
4	Head rest connector	101.0363.X
5	Horseshoe head rest	101.0179.X
	neral accessories side rail attachment	
6	Body restraint strap	101.0177.X
Arn	ns abducted	
7	Arm rest 2 x	101.0192.X
Arn	n adducted	
8	Wristlet (not illustrated)	101.0123.X
9	as an alternative to the wristlet: Arm protector (not illustrated)	101.0153.X
Pos	sitioning aids	
10	Gel arm retainer pad (not illustrated)	101.0343.X
11	Cushion	101.0211.X
12	Gel heel pads (pair)	101.0328.X



4.4. Positioning

Supine position using the shoulder plate and a shaped head rest

We recommend:

- Arrange the OR table elements for reverse patient positioning. Switch to "Reverse Mode" on the hand-held control (orange "Reverse Mode" key).
- Set up the OR table with the shoulder plate (3), the head rest connector (4) and the shaped head rest (5).
- Position the patient's head in proper axial alignment on the shaped head rest (5).

Options for arm positioning

1. Arms abducted

- Attach arm rests (7) near the patient's shoulders.
- **IMPORTANT:** The upper arm has to be positioned above table level (n. radialis)!
- The distal joint has to be placed higher than the proximal joint.
- In case of a shoulder abduction of 0 to 40 degrees, the hand is pronated, in case of shoulder abduction of 40 to 90 degrees, the hand is supinated.
 Do not abduct the shoulder beyond 90 degrees!
- 2. Arm adducted
- By means of a wristlet (8) or <u>alternatively</u> an arm protector (9) in connection with a gel arm retainer pad (10).
- IMPORTANT: The medial elbow joint (n. ulnaris) must be protected!

- Position the cushion (11) under the distal femur.
- **IMPORTANT:** Make sure that no pressure is applied to the head of the tibia (n. peroneus)!
- Position gel heel pads (12) at the transition of the Achilles tendon to the heel.
- **IMPORTANT:** Ensure that the heels are free of the surface of the operating table!
- The head is reclined by means of the shaped head rest (5).
- If applicable, make use of the longitudinal shift function of the OR table.
- Position body restraint strap(s) (6) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.



Reverse Mode



Spinal Surgery and Neurosurgery

Patient positionings by surgical discipline

5.1. Supine position using the Doro headrest system





Required accessories

Basic equipment

1	DIAMOND OR table	
2	Head plate for anaesthesia induction (not illustrated)	101.0017.X
3	Back section extension, fixed (not illustrated)	101.0131.X
4	Leg plates (pair)	101.0116.X
Арр	olication-specific accessor	ies
5	Universal adaptor	101.0141.X
6	Doro Universal basic unit	101.0142.X
7	Doro Skull Clamp adaptor	101.0113.X
8	Doro Skull Clamp	101.0127.X
	neral accessories side rail attachment	
		101.0192.X
for	side rail attachment	101.0192.X 101.0153.X
for 9	side rail attachment Arm rest	
for 9 10 11	side rail attachment Arm rest Arm protector	101.0153.X
for 9 10 11	side rail attachment Arm rest Arm protector Body restraint strap	101.0153.X
for 9 10 11 Pos	side rail attachment Arm rest Arm protector Body restraint strap sitioning aids Gel head ring for anaesthesia induction	101.0153.X 101.0177.X
for 9 10 11 Pos 12	side rail attachment Arm rest Arm protector Body restraint strap sitioning aids Gel head ring for anaesthesia induction (not illustrated) Gel arm retainer pad	101.0153.X 101.0177.X 101.0332.X



5.1. Positioning

Supine position using the Doro headrest system

We recommend:

- Set up the OR table with leg plates (4) and, depending on the size of the patient, a back section extension (3) and a head plate (2).
- Have the following parts ready separately: a universal adaptor (5) and a Doro headrest system (6, 7, 8) with a Doro shaped headrest or a Doro Skull Clamp.
- When anaesthesia induction has been carried out in the supine position, remove the head plate and attach the universal adaptor <u>together</u> with the Doro headrest system.
- When using the Doro Skull Clamp, fix this first to the patient's head and then to the Doro system.

Positioning of the arms

- By means of an arm rest (9) or an arm protector (10) in connection with a gel arm retainer pad (13).
- IMPORTANT: The medial elbow joint (n. ulnaris) must be protected!

- Position a cushion (14) under the distal femur.
- **IMPORTANT:** Make sure that no pressure is applied to the head of the tibia (n. peroneus)!
- Position gel heel pads (15) at the transition of the Achilles tendon to the heel.
- IMPORTANT: Ensure that the heels are free of the surface of the operating table!
- If the head is tilted strongly to one side, bolster the shoulder on the opposite side with a cushion.
- Position body restraint strap(s) (11) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.

5.2. Beach-chair position using the Doro head rest system





Required accessories

Basic equipment

1	DIAMOND OR table	
2	Head plate for anaesthesia induction (not illustrated)	101.0017.X
3	Back section extension, fixed	101.0131.X
Application-specific accessories		
4	Attachment clamp 2 x	101.0018.X
5	Cross-bar attachment	101.0014.X
6	Doro Universal basic unit	101.0142.X
7	Doro Skull Clamp adaptor	101.0113.X
8	Doro Skull Clamp	101.0127.X
	neral accessories side rail attachment	
9	Arm rest (not illustrated)	101.0192.X
10	Arm protector (not illustrated)	101.0153.X
11	Body restraint strap (not illustrated)	101.0177.X
Pos	sitioning aids	
12	Gel head ring	101.0332.X

12	Gel head ring	101.0332.X
	for anaesthesia induction	
	(not illustrated)	
13	Gel arm retainer pad (not illustrated)	101.0343.X
14	Cushion	101.0211.X
15	Gel heel pads (pair)	101.0328.X

5.2. Positioning Beach-chair position using the Doro head rest system

We recommend:

- Set up the OR table for anaesthesia induction with a back section extension (3) and a head plate (2). To reduce the length of the table-top, a second head plate can be used instead of the leg plates.
- Have the Doro headrest system (6, 7, 8) ready separately.
- The patient's acetabulum is positioned over the back section joint.
- Place the head in central position using a gel head ring (12).
- Make sure to avoid rotating the cervical spine.

Positioning of the arms

- By means of an arm rest (9). Alternatively, the patient's lower arms may rest on his or her thighs.
- **IMPORTANT:** The medial elbow joint (n. ulnaris) must be protected!

- Place a plexus cushion or a semicircular cushion (14) under the thighs.
 Position gel heel pads (15) at the transition of the Achilles tendon to the heel.
- **IMPORTANT:** Ensure that the heels are free of the surface of the operating table!
- Place the OR table in slight Trendelenburg position and raise the back section to 70 degrees.
- Increase the Trendelenburg tilt until the patient's feet are level with his or her sternum.
- Fix the cross-bar attachment (5) with the universal basic unit (6) and the Skull Clamp adaptor (7) to the side rails of the back section.
- Fix the Doro Skull Clamp (8) in horizontal orientation to the patient's head and attach it to the Skull Clamp adaptor (7). The head is slightly bent forward.
- **IMPORTANT:** The cross-bar attachment must never be attached to the seat section!
- Lower or <u>alternatively</u> remove the head plate (2).
- Position body restraint strap(s) (11) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.

5.3. Park-bench position





Required accessories

Basic equipment

1	DIAMOND OR table	
2	Head plate for anaesthesia induction (not illustrated)	101.0017.X
3	Back section extension, fixed	101.0131.X
4	Leg plates (pair)	101.0116.X
Арр	plication-specific accessori	es
5	Universal adaptor	101.0141.X
6	Doro Universal basic unit	101.0142.X
7	Doro Skull Clamp adaptor	101.0113.X
8	Doro Skull Clamp	101.0127.X
9	Bracket for body support 2 x (1 x not illustrated)	101.0121.X
10	Shoulder/lateral support 2 x (1 x not illustrated)	101.0151.X
	neral accessories side rail attachment	
11	Arm rest	101.0192.X
12	Arm rest	101.0109.X
13	Body restraint strap	101.0177.X
Positioning aids		
14	Gel head ring for anaesthesia induction (not illustrated)	101.0329.X
15	Gel lateral leg positioner	101.0352.X



5.3. Positioning Park-bench position

We recommend:

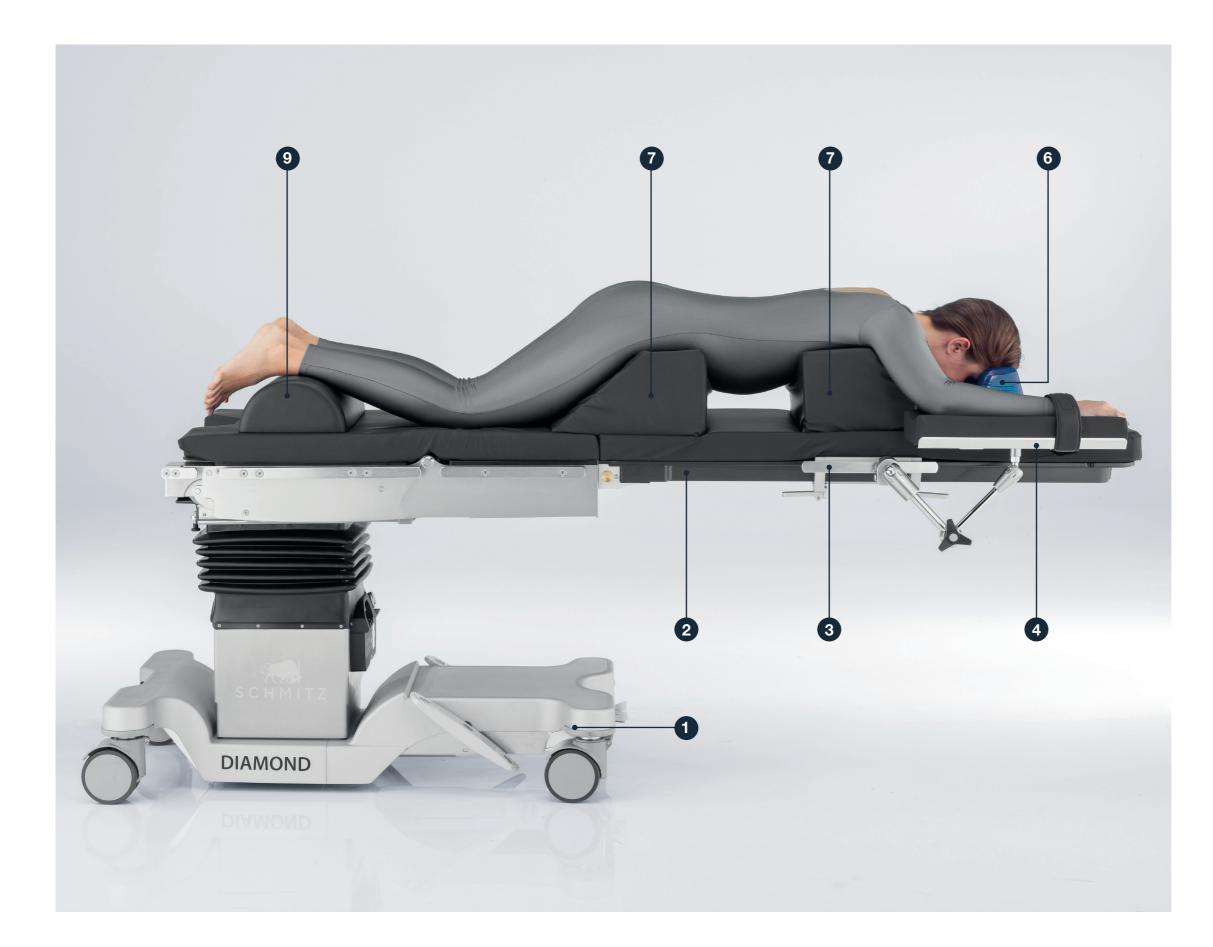
- When anaesthesia induction has been carried out in the supine position, transfer the patient into recovery position.
- Position the patient's head in proper axial alignment using a gel head rest (14).
- IMPORTANT: Make sure the downside eye and ear are free from pressure!

Positioning of the arms

- Relieve the downside shoulder by pulling the arm to the front (ventrally). The downside arm is placed on an arm rest (12) and abducted 90 degrees.
- IMPORTANT: Ensure pressure-free positioning of the upper arm (n. radialis)!
- <u>Alternatively</u>, the arm can be positioned on an arm rest attached to the side rail as near as possible to the patient's head and lowered below the level of the table-top.
- **IMPORTANT:** Protect the axilla from pressure by means of gel pads.
- The upside arm is placed on an arm rest (11).
- IMPORTANT: Do not abduct the arm beyond 90 degrees (plexus brachialis)!

- Both legs are placed in a slightly flexed position.
- The upside leg is placed on top of a gel lateral leg positioner (15).
- Position brackets and supports (9 + 10) as required by the intervention.
- Place the table into reflex position so that both the patient's body and his or her legs are raised approx. 30 degrees.
- Remove the head plate (2) and install the universal adaptor (5) with the Doro Universal basic unit (6) and the Doro Skull Clamp adaptor (7).
- Fix the head with the attached Doro Skull Clamp (8) to the Doro system.
- If applicable, make use of the longitudinal shift function of the OR table.
- Position body restraint strap(s) (13) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.

5.4. Prone position using the carbon plate





Required accessories

Basic equipment

1	DIAMOND OR table	
Application-specific accessories		
2	Carbon plate	101.7151.X
3	Side rail	101.7152.X
	for carbon plate 2 x	
Ge	neral accessories	
for	side rail attachment	
4	Arm rest 2 x	101.0192.X
5	Body restraint strap (not illustrated)	101.0177.X
Po	sitioning aids	
6	Gel head rest for prone positioning	101.0334.X
_		
7	Pad	101.0015.X
8	Gel knee pad (not illustrated)	101.0351.X
9	Cushion	101.0211.X

5.4. Positioning

Prone position using the carbon plate

We recommend:

- Set up the OR table with the appropriate positioning aids.
- In case of a weight load of 140 kg and more on the carbon plate, use the prop rod for support.
- Align the thoracic cushion of the pad (7) with the patient's breastbone and the pelvic cushion with the patient's pelvis, making sure it does not extend beyond the iliac crest.
- IMPORTANT: Make sure the patient's abdomen is free of any pressure!
- When intubation has been done, move the patient into prone position onto the OR table.
- Position the patient's head in neutral zero position using the gel head rest for prone positioning (6).

Positioning of the arms

- Attach arm rests (4) near the patient's shoulders and place the patient's arms in pronated position below the level of the tabletop.
- IMPORTANT: The shoulder joint should be positioned in 70 to 90 degrees of abduction!

- Place the gel knee pad (8) under the patient's patellae and the gel heel pads (9) under the insteps.
- Position body restraint strap(s) (5) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.

5.5. Knee-elbow position

using a knee positioning device and a buttocks support





Required accessories

Basic equipment

Application-specific accessories

_		
2	Knee-elbow positioning device	101.0150.X
3	Lateral support pad 2 x (not illustrated)	101.0190.X
4	Rectoscopy/Buttocks support	101.0178.X
5	Attachment clamp 2 x	101.0146.X
Ge	neral accessories	
for	side rail attachment	
6	Arm rest 2 x	101.0192.X
7	Body restraint strap (not illustrated)	101.0177.X
Po	sitioning aids	
8	Gel head rest for prone positioning	101.0334.X
9	Plexus cushion	101.0208.X



5.5. Positioning

Knee-elbow position using a knee positioning device and a buttocks support

We recommend:

- For this positioning it is advantageous to have two OR tables.
- Carry out intubation in supine position and then transfer the patient in knee-elbow position to the 2nd OR table, which has been set up with the knee-elbow positioning device and the appropriate positioning aids.
- Both the patient's hips and knees are flexed approx. 100 to 120 degrees.
- Depending on the positioning, place the plexus cushion (9) under the patient's sternum.
- The patient's buttocks are braced against the buttocks support (4).
- IMPORTANT: Make sure the patient's abdomen is free of any pressure!
- Position the patient's head in neutral zero position using the gel head rest for prone positioning (8).

Positioning of the arms

- Place the patient's arms in pronated position below the level of the tabletop.
- **IMPORTANT:** The shoulder joint should be positioned in 70 to 90 degrees of abduction!
- If applicable, make use of the longitudinal shift function of the operating table.
- Position body restraint strap(s) (7) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.

5.6. Position for cervical spine surgery





Required accessories

Basic equipment

1	DIAMOND OR table	
Application-specific accessories		
2	Head plate	101.0017.X
3	Leg plates (pair)	101.0116.X
General accessories for side rail attachment		
4	Arm rest 2 x	101.0192.X
5	Body restraint strap	101.0177.X
Ро	sitioning aids	
6	Gel head ring	101.0332.X
7	Cushion	101.0211.X
8	Gel heel pads (pair)	101.0328.X



5.6. Positioning Position for cervical spine surgery

We recommend:

- Place the head in central position using a gel head ring (6). Avoid rotating the cervical spine.
- The crown of the patient's head lines up with the edge of the head plate.

Positioning of the arms

- By means of arm rests (4) or arm protectors in connection with gel arm retainer pads.
- **IMPORTANT:** The medial elbow joint (n. ulnaris) must be protected!

Positioning of legs

- Position a cushion (7) under the distal femur.
- **IMPORTANT:** Make sure that no pressure is applied to the head of the tibia (n. peroneus)!
- Position gel heel pads (8) at the transition of the Achilles tendon to the heel.
- **IMPORTANT:** Ensure that the heels are free of the surface of the operating table!
- Recline the patient's head using the adjustment functions of the head plate.
- Consider placing an additional small pillow under the neck to prevent the cervical spine from moving.
- Position body restraint strap(s) (5) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.

Alternatively

• Instead of the head section and gel head ring, use the Doro headrest system with a universal adaptor as shown in the small photo.



Orthopedics and Traumatology

Patient positionings by surgical discipline

6.1. Prone position





Required accessories

Basic equipment

1	DIAMOND OR table		
2	Leg plates (pair)	101.0116.X	
3	Back section extension, inclinable (not illustrated)	101.0159.X	
4	Head plate	101.0017.X	
Ар	olication-specific accessori	es	
5	Pad	101.0015.X	
General accessories for side rail attachment			
6	Arm rest 2 x	101.0192.X	
7	Body restraint strap	101.0177.X	
Pos	sitioning aids		
8	Gel head rest for prone positioning	101.0334.X	
9	Gel knee pad	101.0351.X	
10	Gel heel pads (pair)	101.0328.X	

6.1. Positioning Prone position

We recommend:

- Set up the OR table with the required positioning aids.
- Align the thoracic cushion of the pad (5) with the patient's breastbone and the pelvic cushion with the patient's pelvis, making sure it does not extend beyond the iliac crest.
- IMPORTANT: Make sure the patient's abdomen is free of any pressure!
- When intubation has been done, move the patient into prone position.
- Position the patient's head in neutral zero position using the gel head rest for prone positioning (8).
- Avoid pressure on the patient's chin. If required, raise the head plate (4) slightly.

Positioning of the arms

- Attach arm rests (6) near the patient's shoulders and place the patient's arms in pronated position below the level of the tabletop.
- IMPORTANT: The shoulder joint should be positioned in 70 to 90 degrees of abduction!

- Place the gel knee pad (9) under the patient's patellae and the gel heel pads (10) under the insteps.
- Position body restraint strap(s) (7) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.

6.2. Surgery on the forearm

in supine position using the arm/hand surgery table





Required accessories		
Basic equipment		
1	DIAMOND OR table	
2	Head plate	101.0017.X
3	Leg plates (pair)	101.0116.X
Application-specific accessories		
4	Arm/hand operating table	101.0108.X
	neral accessories	
for	side rail attachment	
for 5	Arm rest	101.0192.X
		101.0192.X 101.0177.X
5 6	Arm rest	
5 6	Arm rest Body restraint strap	
5 6 Po	Arm rest Body restraint strap sitioning aids	101.0177.X

6.2. Positioning

Surgery on the forearm in supine position using the arm/hand surgery table

We recommend:

- Place the head in central position using a gel head ring (7).
- Avoid rotating the cervical spine.

Positioning of the arms

Non-operative arm

- Attach arm rest (5) near the patient's shoulders.
- IMPORTANT: The upper arm has to be positioned above table level (n. radialis)!
- The distal joint is placed higher than the proximal joint.
- In case of a shoulder abduction of 0 to 40 degrees, the hand is pronated, in case of shoulder abduction of 40 to 90 degrees, the hand is supinated. Do not abduct the shoulder beyond 90 degrees!

Operative arm

is positioned on the hand/arm operating table (4).
 Observe the junction of the OR table surface with that of the hand/arm operating table and adapt the height of the hand/arm operating table as required to avoid damage of nerves.

- Place a cushion (8) under the distal femur.
- IMPORTANT: Make sure that no pressure is applied to the head of the tibia (n. peroneus)!
- Position gel heel pads (9) at the transition of the Achilles tendon to the heel.
- **IMPORTANT:** Ensure that the heels are free of the surface of the operating table!
- Position body restraint strap(s) (6) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.

6.3. Elbow surgery in prone position





Required accessories Basic equipment DIAMOND OR table 1 2 Head plate 101.0017.X 3 Leg plates (pair) 101.0116.X Application-specific accessories 101.0122.X Upper arm 4 positioning plate 5 Attachment clamp 101.0117.X **General accessories** for side rail attachment 6 Arm rest 101.0192.X 7 Body restraint strap 101.0177.X Positioning aids 8 Gel head rest 101.0334.X for prone positioning 9 Gel knee pad 101.0351.X (not illustrated) 10 Gel heel pads (pair) 101.0328.X 11 Pad 101.0015.X (not illustrated)



6.3. Positioning Elbow surgery in prone position

We recommend:

- Set up the OR table with the required positioning aids.
- Optionally: Align the thoracic cushion of the pad (11) with the patient's breastbone and the pelvic cushion with the patient's pelvis, making sure it does not extend beyond the iliac crest.
- IMPORTANT: Make sure the patient's abdomen is free of any pressure!
- When intubation has been done, move the patient into prone position.
- Position the patient's head in neutral zero position using the gel head rest for prone positioning (8).

Positioning of the arms

Non-operative arm

• Attach an arm rest (6) near the patient's shoulder and position the pronated arm in such a way that the shoulder girdle is in proper axial alignment.

Operative arm

- Attach the upper arm positioning plate (4) by means of the attachment clamp (5) near the patient's shoulder, observing the junction to the OR table surface.
- Consider placing pads under the arm.
- **IMPORTANT:** The shoulder joint should be positioned in 70 to 90 degrees of abduction!

- Place the gel knee pad (9) under the patient's patellae and the gel heel pads (10) under the insteps.
- Position body restraint strap(s) (7) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.

6.4. Knee arthroscopy in supine position





Required accessories

Basic equipment

1		
1	DIAMOND OR table	
2	Head plate	101.0017.X
3	Leg plates (pair) for anaesthesia induction	101.0116.X
Application-specific accessories		
4	Leg restraint strap	101.0164.X
5	Knee arthroscopy support	101.0583.X
	neral accessories side rail attachment	
		101.0192.X
for	side rail attachment	101.0192.X 101.0177.X
for 6 7	side rail attachment Arm rest 2 x	
for 6 7	side rail attachment Arm rest 2 x Body restraint strap	

Alternative positioning using knee positioning device 101.0212.X.



6.4. Positioning

Knee arthroscopy in supine position

We recommend:

• Place the head in central position using a gel head ring (8). Avoid rotating the cervical spine.

Positioning of the arms

- Attach arm rests (6) near the patient's shoulder.
- **IMPORTANT:** The upper arm has to be positioned above table level (n. radialis)!
- The distal joint is placed higher than the proximal joint.
- In case of a shoulder abduction of 0 to 40 degrees, the hand is pronated, in case of shoulder abduction of 40 to 90 degrees, the hand is supinated. Do not abduct the shoulder beyond 90 degrees!

Positioning of legs

Non-operative leg

- Position gel heel pads (9) at the transition of the Achilles tendon to the heel.
- **IMPORTANT:** Ensure that the heels are free of the surface of the operating table!
- Secure the leg on the leg plate by means of the leg restraint strap (4).
- Swivel the leg plate slightly to the outside.

Operative leg

- Following placement of the tourniquet a hand's width above the knee, remove the leg plate.
- Position the knee arthroscopy support (5) at the side rail in such a way that the patient's thigh is placed inside the knee arthroscopy support near the tourniquet.
- Position body restraint strap(s) (7) according to the requirements of the intervention.
- If applicable, make use of the longitudinal shift function of the table.
- When surgery is completed, reposition the patient in reverse order.

6.5. Beach-chair position for shoulder surgery





Required accessories

Basic equipment

1	DIAMOND OR table	
2	Head plate	101.0017.X
Application-specific accessories		
3	Shoulder surgery plate	101.0244.X
4	Head rest connector	101.0364.X
5	Shaped head rest for shoulder surgery	101.0266.X
6	Lateral body support	101.0245.X
General accessories for side rail attachment		
7	Arm rest 2 x	101.0192.X
8	Body restraint strap (not illustrated)	101.0177.X
Positioning aids		
9	Cushion	101.0211.X
	(not illustrated)	

6.5. Positioning Beach-chair position for shoulder surgery

We recommend:

- Arrange the OR table elements for reverse patient positioning. Switch to "Reverse Mode" on the hand-held control (orange "Reverse Mode" key).
- Set up the OR table with the shoulder surgery plate (3), the head rest connector (4) and the shaped head rest (5).
- The patient's acetabulum is positioned over the leg section joints.
- Adjust the shaped head rest to the patient's height by means of the head rest connector.
- After anaesthesia induction, adjust the table into Beach-chair position.
- Readjust the patient's head and fix it on the head rest.

Positioning of the arms

- Attach the arm rests (7) at the short side rails at the leg section joint (DIAMOND 50 and 60 models) or at the seat section side rails (other table models).
- The arms are slightly bent at the elbows and slightly abducted at the shoulders.

Positioning of legs

- Place a cushion (9), or, <u>alternatively</u>, a plexus cushion, under the distal femur.
- **IMPORTANT:** Make sure that no pressure is applied to the head of the tibia (n. peroneus)!
- Position gel heel pads (10) at the transition of the Achilles tendon to the heel.
- **IMPORTANT:** Ensure that the heels are free of the surface of the operating table!
- Articulate the table using "Trendelenburg adjustment" function and "Raise the back section" alternately, then lower the leg plates until the desired position is achieved.
- Remove the shoulder segment of the operative side.
- Attach the lateral body support (6) and, if required, tilt the OR table slightly to the opposite side.
- Position body restraint strap(s) (8) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.



Reverse Mode

6.6. Fracture of the lower leg





Required accessories

Basic equipment

1	DIAMOND OR table	
2	Head plate	101.0017.X
3	Leg plates (pair) (for anaesthesia induction)	101.0116.X
Application-specific accessories		
4	Leg support (Göpel type)	101.0115.X
5	Meniscus positioning device	101.0261.X
6	Attachment clamp 2 x	101.0146.X
General accessories for side rail attachment		
7	Arm rest 2 x	101.0192.X
8	Body restraint strap	101.0177.X
Body restraint strap		
9	Gel supine head rest	101.0337.X
10	Gel crutch stirrup pads (not illustrated)	101.0349.X



6.6. Positioning Fracture of the lower leg

We recommend:

- Set the OR table up for anaesthesia induction with leg plates.
- Place the head in central position using a gel head ring (9). Avoid rotating the cervical spine.

Positioning of the arms

- Attach the arm rests (7) near the patient's shoulders.
- **IMPORTANT:** The upper arm has to be positioned above table level (n. radialis)!
- The distal joint is placed higher than the proximal joint.
- In case of a shoulder abduction of 0 to 40 degrees, the hand is pronated, in case of shoulder abduction of 40 to 90 degrees, the hand is supinated.
 Do not abduct the shoulder beyond 90 degrees!

Positioning of legs

Non-operative leg

- is positioned on a Göpel-type leg support (4), <u>alternatively</u> on the leg plate, placing a cushion under the distal femur.
- Consider using a gel crutch stirrup pad (10) for the Göpel-type leg support.
- **IMPORTANT:** Make sure that no pressure is applied to the head of the tibia (n. peroneus)!
- If using the leg plate, position a gel heel pad at the transition of the Achilles tendon to the heel.
- **IMPORTANT:** Ensure that the heels are free of the surface of the operating table!

Operative leg

- is positioned on the meniscus positioning device (5) so that the lower leg hangs free.
- Then remove the leg plate.
- Alternatively: Leave the leg plate at the table and position the patient's foot under the pad of the meniscus positioning device.
- **IMPORTANT:** When flexing the knee joint,

observe the anatomical course of the nerves!

- Position body restraint strap(s) (8) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.

6.7. Supine position for hip surgery





Required accessories

Basic equipment

1	DIAMOND OR table	
2	Head plate	101.0017.X
3	Leg plates (pair)	101.0116.X
Application-specific accessories		
4	Arm rest (for anaesthesia induction)	101.0192.X
5	Anaesthetic frame	101.0012.X
6	Wristlet	101.0137.X
7	Leg restraint strap	101.0164.X
8	Body restraint strap (not illustrated)	101.0177.X
Pos	sitioning aids	
9	Gel heel pad	101.0328.X
10	Gel head ring	101.0332.X
11	Gel universal patient positioner (not illustrated)	101.0347.X

6.7. Positioning Supine position for hip surgery

We recommend:

- Arrange the OR table elements for reverse patient positioning. Switch to "Reverse Mode" on the hand-held control (orange "Reverse Mode" key).
- The patient is positioned with the operative side at the outer edge of the table-top.
- Place the head in central position using a gel head ring (10). Avoid rotating the cervical spine.

Options for arm positioning

1. Arms abducted

- Attach an arm rest (4) near the patient's shoulder.
- **IMPORTANT:** The upper arm has to be positioned above table level (n. radialis)!
- The distal joint is placed higher than the proximal joint.
- In case of a shoulder abduction of 0 to 40 degrees, the hand is pronated, in case of shoulder abduction of 40 to 90 degrees, the hand is supinated.
 Do not abduct the shoulder beyond 90 degrees!
- 2. Arm raised
- Fix the arm by means of the wristlet (6) to the anaesthetic frame (5).
- IMPORTANT: The elbow joint has to be positioned in 90 degrees flexion. Do not abduct the shoulder beyond 90 degrees and observe an external rotation of 5 to 10 degrees!

- 1. Non-operative leg
- Place a gel universal patient positioner (11) under the distal femur.
- Position gel heel pads (9) at the transition of the Achilles tendon to the heel.
- Fix the leg using a leg restraint strap (7) or, <u>alternatively</u>, a body restraint strap (8).
- 2. Operative leg
- is positioned to be freely movable.
- Position body restraint strap(s) (8) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.



Reverse Mode

6.8. Lateral position for hip surgery





Required accessories

Basic equipment

1	DIAMOND OR table	
2	Head plate	101.0017.X
3	Leg plates (pair)	101.0116.X
Application-specific accessories		
4	Arm rest	101.0109.X
5	Arm rest	101.0192.X
6	Bracket for body support 2 x (1 x not illustrated)	101.0121.X
7	Pubis/sacrum/sternum support	101.0175.X
8	Back/buttock support (not illustrated)	101.0162.X
9	Body restraint strap (not illustrated)	101.0177.X
Positioning aids		
10	Gel pad for lateral positioning	101.0327.X

11 Gel lateral leg positioner 101.0352.X

6.8. Positioning Lateral position for hip surgery

We recommend:

- Arrange the OR table elements for reverse patient positioning. Switch to "Reverse Mode" on the hand-held control (orange "Reverse Mode" key).
- Move the patient from the supine position into recovery position, using the gel pad for lateral positioning (10).
- **IMPORTANT:** Position the patient's head in proper axial alignment, making sure the downside eye and ear are free from pressure!

Positioning of the arms

- Relieve the lower shoulder by pulling to the front (ventrally).
- The downside arm is positioned in the groove of the gel pad for lateral positioning, abducted 90 degrees, and the forearm is placed on an arm rest (4).
- **IMPORTANT:** Ensure pressure-free positioning of upper arm (n. radialis)!
- The upside arm is placed on an arm rest (5) or, <u>alternatively</u>, a Göpel-type leg support with a gel knee crutch pad.
- IMPORTANT: Do not abduct the arm beyond 90 degrees (plexus brachialis)!

- The downside leg is placed in a slightly flexed position and, if necessary, fixed using a body strap (9).
- The upside leg is placed on top of a gel lateral leg positioner (11).
- **IMPORTANT:** Prevent friction between the legs!
- Position the brackets and supports (6, 7 + 8) as required.
- Consider using a vacuum mattress.
- Position body restraint strap(s) (9) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.



Reverse Mode

6.9. Lateral position

using the shoulder traction system





Required accessories

Basic equipment

1	DIAMOND OR table	
2	Head plate	101.0017.X
3	Leg plates (pair)	101.0116.X
Арр	plication-specific accessor	ies
4	Shoulder traction device	101.0253.X
5	Sterile arm trap disposables	101.0265.X
Gei	neral accessories	
for	side rail attachment	
6	Bracket for body support 2 x (1 x not illustrated)	101.0121.X
7	Back/buttock support (not illustrated)	101.0162.X
8	Pubis/sacrum/sternum support	101.0175.X
9	Arm rest	101.0192.X
10	Body restraint strap (not illustrated)	101.0177.X
Positioning aids		
11	Gel pad	101.0327.X

11	Gel pad	101.0327.X
	for lateral positioning	
	(not illustrated)	
12	Gel lateral leg positioner	101.0352.X
13	Gel head ring	101.0329.X



6.9. Positioning

Lateral position using the shoulder traction system

We recommend:

- Move the patient from the supine position into recovery position, optionally using the gel pad for lateral positioning (11).
- Position the patient's head in proper axial alignment using the appropriate gel head ring (13).
- IMPORTANT: Make sure the downside eye and ear are free from pressure!

Positioning of the arms

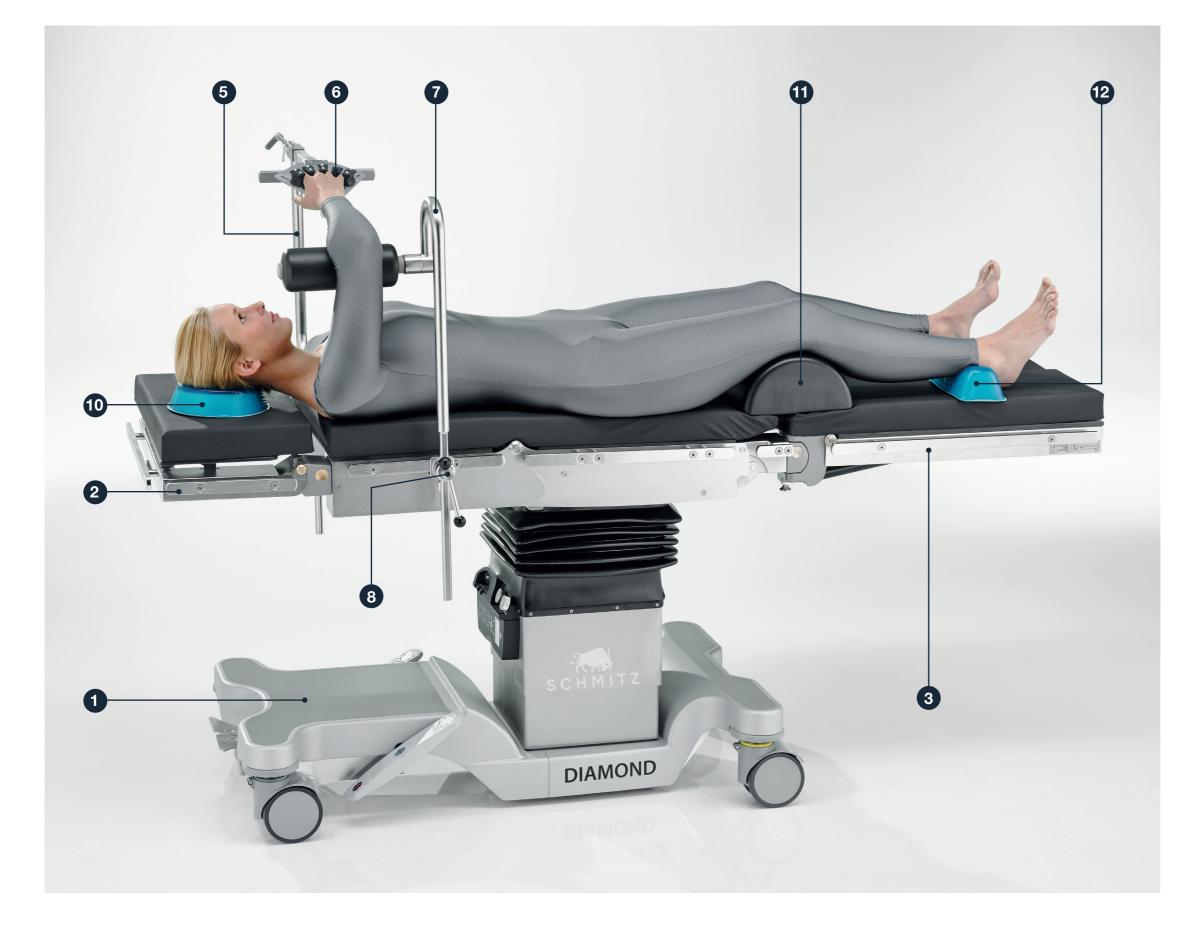
1. Non-operative arm

- Relieve the downside shoulder by pulling the arm to the front (ventrally).
- The downside arm is placed on an arm rest (9) and abducted 90 degrees.
- IMPORTANT: Ensure pressure-free positioning of the upper arm (n. radialis)!
- 2. Operative arm
- Attach the shoulder traction system (4) to the side rail of the seat section.
- Pull the sterile arm holder (5) over the arm and attach it to the rope system of the shoulder traction system.
- Adjust the cantilever arm up to 90 degrees.
- IMPORTANT: No counterweight is required!

- Both legs are placed in a slightly flexed position.
- The upside leg is placed on top of a gel lateral leg positioner (12).
- Position brackets and supports (6, 7, 8) as required by the intervention.
- Position body restraint strap(s) (10) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.

6.10. Supine position

Surgery of humerus fracture using the countertraction post





Required accessories		
Bas	sic equipment	
1	DIAMOND OR table	
2	Head plate	101.0017.X
3	Leg plates (pair)	101.0116.X
	plication-specific access	ories
4	Wristlet (not illustrated)	101.0123.X
Inju	ured arm	
5	Humerus positioning device	101.0136.X
6	Weinberger hand traction device	101.0163.X
7	Humerus countertraction post	101.0152.X
8	Attachment clamp 2 x (1 x not illustrated)	101.0146.X
General accessories for side rail attachment		
9	Body restraint strap (not illustrated)	101.0177.X
Positioning aids		
10	Gel head ring	101.0332.X
11	Cushion	101.0211.X
12	Gel heel pads (pair)	101.0328.X

6.10. Positioning

Supine position - Surgery of humerus fracture using the countertraction post

We recommend:

• Place the head in central position using a gel head ring (10). Avoid rotating the cervical spine.

Positioning of the arms

- 1. Non-operative arm
- is adducted by means of the wristlet (4).
- IMPORTANT: The medial elbow joint (n. ulnaris) must be protected!

2. Operative arm

- Attach the humerus countertraction post (7) at chest height to the side rail.
- Attach the humerus positioning device (5) at the same level to the opposite side rail.
- Position the upper arm with the elbow joint, flexed approx.
 90 degrees, on the padded roll of the humerus countertraction post.
- Fix the hand in the Weinberger hand traction device (6) and attach the device at the side rail of the humerus positioning device (5).

- Place a cushion (11) under the distal femur.
- **IMPORTANT:** Make sure that no pressure is applied to the head of the tibia (n. peroneus)!
- Position gel heel pads (12) at the transition of the Achilles tendon to the heel.
- **IMPORTANT:** Ensure that the heels are free of the surface of the operating table!
- Position body restraint strap(s) (9) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.

6.11. Lower arm fracture treatment using the traction unit





Required accessories Basic equipment DIAMOND OR table 1 2 Head plate 101.0017.X 3 Leg plates (pair) 101.0116.X Application-specific accessories 4 Traction unit 101.0105.X 101.0163.X 5 Weinberger hand traction device 6 101.0257.X Axilla support 101.0258.X 7 Elbow support **General accessories** for side rail attachment 8 Arm rest 2 x 101.0192.X for anaesthesia induction (not illustrated) 9 Body restraint strap 101.0177.X Positioning aids 10 Gel head ring 101.0332.X 101.0211.X 11 Cushion 12 Gel heel pads (pair) 101.0328.X

6.11. Positioning

Lower arm fracture treatment using the traction unit

We recommend:

- The patient is positioned with the operative side at the outer edge of the table-top.
- Place the head in central position using a gel head ring (10). Avoid rotating the cervical spine.

Positioning of the arms

- 1. Non-operative arm
- Attach an arm rest (8) near the patient's shoulder.
- **IMPORTANT:** The upper arm has to be positioned above table level (n. radialis)!
- The distal joint is placed higher than the proximal joint.
- In case of a shoulder abduction of 0 to 40 degrees, the hand is pronated, in case of shoulder abduction of 40 to 90 degrees, the hand is supinated.
 Do not abduct the shoulder beyond 90 degrees!
- 2. Operative arm
- For anaesthesia induction, the arm is initially placed on an arm rest (8). Attach the axilla support (6) and the elbow support (7) to the side rail according to the patient's height.
- Attach the traction unit (4) to the side rail of the seat section, then position the patient's hand in the Weinberger hand traction device (5) and fix it to the traction unit.
- IMPORTANT: Do not abduct the shoulder beyond 90 degrees!

- Place a cushion (11) under the distal femur.
- **IMPORTANT:** Make sure that no pressure is applied to the head of the tibia (n. peroneus)!
- Position gel heel pads (12) at the transition of the Achilles tendon to the heel.
- **IMPORTANT:** Ensure that the heels are free of the surface of the operating table!
- Position body restraint strap(s) (9) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.

6.12. Extension position

Femur fracture / Hip surgery using the extension device





Required accessories

Basic equipment

1	DIAMOND OR table		
Ap	plication-specific accessor	ies	
2	Extension device, carbon	101.0563.X	
3	Transport trolley (not illustrated)	101.0566.X	
4	Transfer leg plate (pair) (not illustrated)	101.0567.X	
	neral accessories side rail attachment		
5	Arm rest	101.0192.X	
6	Anaesthetic frame	101.0012.X	
7	Wristlet	101.0137.X	
8	Side rail extension (not illustrated)	101.0596.X	
9	Göpel-type leg support	101.0115.X	
10	Clamp (not illustrated)	101.0146.X	
Positioning aids			
11	Gel head ring	101.0332.X	
12	Gel knee pad	101.0349.X	



(not illustrated)



6.12. Positioning Femur fracture / Hip surgery using the extension device

Set-up of the OR table

- Remove leg plates; if required, the head plate can remain attached.
- Adjust the OR table into 0 position.
- Align the OR table in height with the transport trolley and insert the extension device at the head end of the OR table.
- Raise the OR table-top slightly and remove the transport trolley.

Positioning

- The patient is positioned with his or her buttocks on the seat section of the extension device.
- Place the head in central position using a gel head ring (11). Avoid rotating the cervical spine.
- Until final positioning, place the patient's legs on the transfer leg plate (4).

Positioning of the arms

- The arm on the operative side is raised by means of a wristlet (7) attached to the anaesthetic frame (6).
- **IMPORTANT:** The elbow joint has to be positioned in 90 degrees flexion.
- Do not abduct the shoulder beyond 90 degrees and observe an external rotation of 5 to 10 degrees.
- The arm should be protected by extra padding.
 Skin contact with the anaesthetic frame must be avoided to prevent pressure / burns in HF surgery.
- The arm on the opposite side is abducted on an arm rest (5) attached near the shoulder.
- The distal joint is placed higher than the proximal joint.
- In case of a shoulder abduction of 0 to 40 degrees, the hand is pronated, in case of shoulder abduction of 40 to 90 degrees, the hand is supinated. Do not abduct the shoulder beyond 90 degrees!

6.12. Positioning Femur fracture / Hip surgery using the extension device

After anaesthesia induction

- IMPORTANT: Make sure that the heel and the n. fibularis are free from pressure!
- Attach the extension shoe to the standard rail of the traction unit and adjust the traction device.
- Remove the transfer leg plates and insert the countertraction post into its mounting at the seat section of the extension device, oriented in the direction of the operative leg. Push the pad on.
- Position the patient on the OR table in such a way that his or her os pubis touches the countertraction post.
- Adjust the fracture by means of the traction unit and the swivelling function of the extension bar.
- Mount the prop at the extension bar of the operative leg.

- 1. Non-operative leg:
- The non-operative leg can be positioned either in the 2nd extension shoe or, alternatively, on a Göpel-type leg support (9). In the latter case, the 2nd extension bar is not required and can be removed.
- **IMPORTANT:** Observe the anatomical course of the nerves!
- Remove the transfer leg plate
- 2. Operative leg:
- Pad the foot appropriately and position in the extension shoe.
- IMPORTANT: The extension will exert a heightened strain on the n. ischiadicus while increasing pressure on the n. pudendus! The countertraction post should therefore have a minimum width of 8 to 10 cm and the extension should be released as soon as possible!
- As soon as the extension position is achieved, check the position of the patient's head and arms.
- Position body restraint strap(s) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.

6.13. Extension position

Lower leg fracture surgery using the extension device





Required accessories

Basic equipment

1	DIAMOND	OR	table
	DIAMOND		labic

Application-specific accessories

2	Extension device, carbon	101.0563.X
3	Transport trolley (not illustrated)	101.0566.X
4	Transfer leg plate (pair) (not illustrated)	101.0567.X
5	Traction device for tibial fractures	101.0568.X
6	Kirschner wire device	101.0165.X
7	Side rail extension (not illustrated)	101.0596.X

General accessories for side rail attachment

8	Göpel-type leg support	101.0115.X	
9	Attachment clamp (not illustrated)	101.0146.X	
10	Arm rest 2 x	101.0192.X	
Positioning aids			
11	Gel head ring	101.0332.X	



6.13. Positioning

Lower leg fracture surgery using the extension device

Set-up of the OR table

- Remove leg plates; if required, the head plate can remain attached.
- Adjust the OR table into 0 position.
- Align the OR table in height with the transport trolley and insert the extension device at the head end of the OR table.
- Raise the OR table-top slightly and remove the transport trolley.

Positioning

- The patient is positioned with his or her buttocks on the seat section of the extension device.
- Place the head in central position using a gel head ring (11). Avoid rotating the cervical spine.
- Until final positioning, place the patient's legs on the transfer leg plate (4).
- Mount the prop at the extension bar of the operative leg.

Positioning of the arms

- The arms are placed on arm rests (10) attached to the table near the shoulders. The distal joint is placed higher than the proximal joint.
- In case of a shoulder abduction of 0 to 40 degrees, the hand is pronated, in case of shoulder abduction of 40 to 90 degrees, the hand is supinated.

IMPORTANT: Do not abduct the shoulder beyond 90 degrees!

- Non-operative leg: can be positioned either in the 2nd extension shoe or on a Göpel-type leg support (8). In the latter case, the 2nd extension bar can be removed.
- **IMPORTANT:** Observe the anatomical course of the nerves!
- Remove the transfer leg plate.

6.13. Positioning

Lower leg fracture surgery using the extension device

After anaesthesia induction

- Insert the lower leg countertraction bar and the pad.
- Position the operative leg on the pad.
- IMPORTANT: The pad in the popliteal area should touch the thigh and leave approx. a hand's breadth of space beneath the hollow of the knee.
- Remove the transfer leg plate.
- Pad the foot appropriately and position in the extension shoe.
- Fix the extension shoe to the standard rail of the traction device and adjust the extension device.
- **IMPORTANT:** When using the extension shoe, make sure that the heel and the n. fibularis are free from pressure!
- A Kirschner wire device can be used as an alternative to the extension shoe.
- Position the prop at the extension bar of the operative leg.
- As soon as the extension position is achieved, check the position of the patient's head and arms.
- Position body restraint strap(s) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.

6.14. Minimally invasive hip replacement using the Condor Rotex Table/EAS





Required accessories

Basic equipment

1	DIAMOND OR table		
Spe	ecialized accessories	by Condor	
2	Connecting plate, Carbon fibre	RO.EAS.360.STS	
3	Leg plate	RO.0171.2016	
4	Countertraction post, Carbon fibre	RO.0097.2015	
5	Pad countertraction post	RO.0068.2013	
6	RotexShoe	RO.0172.2016	
7	Hypomochlion	R0.000.010	
8	Pad	R0.000.005	
9	RotexTable	R0.160.550	
Ар	olication-specific acce	essories	
10	Leg restraint strap	101.0164.X	
General accessories for side rail attachment			
11	Arm rest (not illustrated)	101.0192.X	
12	Anaesthetic frame	101.0012.X	
13	Wristlet	101.0137.X	
Positioning aids			
14	Gel head ring	101.0332.X	

The leg can be lowered intra-operatively by means of the hand-held control.



6.14. Positioning

Minimally invasive hip replacement using the Condor Rotex Table/EAS

Set-up of the OR table

- Remove head and leg plates.
- Adjust the OR table into 0 position.
- Attach the carbon fibre connecting plate (2) at the seat section of the OR table.
- Attach the leg plates (3) at the seat section of the carbon fibre connecting plate.

Positioning

- Position the patient with his or her buttocks in the middle of the carbon seat section.
- Place the head in central position using a gel head ring (14). Avoid rotating the cervical spine.

Positioning of the arms

- The arm on the operative side is raised by means of a wristlet (13) attached to the anaesthetic frame (12).
- IMPORTANT: The elbow joint has to be positioned in 90 degrees flexion. Do not abduct the shoulder beyond 90 degrees and observe an external rotation of 5 to 10 degrees!
- The arm should be protected by extra padding. Skin contact with the anaesthetic frame must be avoided to prevent pressure / burns in HF surgery.
- The arm on the opposite side is abducted on an arm rest (11) attached to the side rail of the OR table near the patient's shoulder.
- In case of a shoulder abduction of 0 to 40 degrees, the hand is pronated, in case of shoulder abduction of 40 to 90 degrees, the hand is supinated.

IMPORTANT: Do not abduct the shoulder beyond 90 degrees!

6.14. Positioning

Minimally invasive hip replacement using the Condor Rotex Table/EAS

Positioning of legs

1. Non-operative leg

- The non-operative leg is placed on the leg plate and secured by means of a leg restraint strap (10). Swivel the leg plate outwards by approx. 10 degrees. Consider using a gel pad to relieve the heel.
- 2. Operative leg
- The operative leg is padded appropriately and positioned in the RotexShoe (6).
- **IMPORTANT:** Make sure that the heel and the n. fibularis are free from pressure!
- Remove the leg plate and attach the Rotex Table (9), making sure the pin is properly latched.
- Fix the Rotex Shoe to the sliding traction unit. The traction unit should be positioned at the "START HIP" mark.
- Insert the countertraction post (4 + 5) and attach the hypomochlion with its pad (7, 8) at the same level.
- The leg can be lowered intra-operatively by means of the hand-held control.
- The outward rotation of the foot can be carried out through the sterile covers by the surgeon.
- **IMPORTANT:** The Rotex Table can only be adjusted in height when the traction unit is unlocked.
- Position body restraint strap(s) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.

6.15. Hip arthroscopy using the Condor Rotex Table/EAS





Required accessories

Basic equipment

Babio equipment			
1	DIAMOND OR table		
Spe	cialized accessories l	by Condor	
2	Connecting plate, Carbon fibre	RO.EAS.360.STS	
3	Leg plate	RO.0171.2016	
4	Countertraction post, Carbon fibre	RO.0097.2015	
5	Pad countertraction post	RO.0097.2015	
6	RotexShoe 2 x	RO.0172.2016	
7	Rotary bracket with additional joint	RO.0121.2015	
8	Traction device	RO.0042.2013	
9	RotexTable	RO.160.550	
General accessories for side rail attachment			
10	Arm rest (not illustrated)	101.0192.X	
11	Anaesthetic frame	101.0012.X	
12	Wristlet	101.0137.X	
Pos	itioning aids		

13 Gel head ring 101.0332.X



6.15. Positioning Hip arthroscopy using the Condor Rotex Table/EAS

Set-up of the OR table

- Remove head and leg plates.
- Adjust the OR table into 0 position.
- Attach the carbon fibre connecting plate (2) at the seat section of the OR table.
- Attach the leg plates (3) at the seat section.

Positioning

- Position the patient with his or her buttocks in the middle of the carbon seat section.
- Place the head in central position using a gel head ring (13). Avoid rotating the cervical spine.

Positioning of the arms

- The arm on the operative side is raised by means of a wristlet (12) attached to the anaesthetic frame (11).
- IMPORTANT: The elbow joint has to be positioned in 90 degrees flexion. Do not abduct the shoulder beyond 90 degrees and observe an external rotation of 5 to 10 degrees!
- The arm should be protected by extra padding.
- Skin contact with the anaesthetic frame must be avoided to prevent pressure / burns in HF surgery.
- The arm on the opposite side is abducted on an arm rest (10) attached to the side rail of the OR table near the patient's shoulder.
- The distal joint is placed higher than the proximal joint. In case of a shoulder abduction of 0 to 40 degrees, the hand is pronated, in case of shoulder abduction of 40 to 90 degrees, the hand is supinated.

IMPORTANT: Do not abduct the shoulder beyond 90 degrees!

6.15. Positioning Hip arthroscopy using the Condor Rotex Table/EAS

- Both legs are padded appropriately and positioned in the RotexShoe (6).
- 1. Non-operative leg
- Abduct the non-operative leg by 5 to 10 degrees.
 Pull the support for the traction fixture out from under the leg plate and insert the traction device (8).
- Attach the RotexShoe (6) with the patient's foot to the side rail of the traction unit.
- Insert the countertraction post with its padding (4 + 5) in the direction of the operative leg.
- Position the patient on the OR table in such a way that the patient's os pubis touches the countertraction post.
- IMPORTANT: Use a thick pad (5) for the countertraction post, as the extension will exert a heightened strain on the n. ischiadicus while increasing pressure on the n. pudendus!
- 2. Operative leg
- Remove the leg plate and attach the RotexTable (9) at the leg plates interface of the table.
- Align the RotexTable horizontally and attach the Rotex Shoe to the traction unit.
- In its initial position, the traction unit is positioned at the "START ARTHRO" mark.
- When extension position is achieved, check the positions of the patient's arms and head.
- Position body restraint strap(s) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.



Vascular Surgery

Patient positionings by surgical discipline

7.1. Supine position using the carbon plate





Required accessories

Basic equipment

1	DIAMOND OR table		
Application-specific accessories			
2	Carbon plate	101.7151.X	
3	Side rail for carbon plate 2 x (not illustrated)	101.7152.X	
General accessories for side rail attachment			
4	Body restraint strap (not illustrated)	101.0177.X	

Arms abducted

5	Arm rest 2 x	101.0192.X
Arn	n adducted	
6	Arm protector (not illustrated)	101.0153.X
Positioning aids		
7	Gel head ring	101.0332.X
8	Cushion	101.0211.X
9	Gel heel pads (pair)	101.0328.X
10	Gel arm retainer pad (not illustrated)	101.0343.X



7.1. Positioning

Supine position using the carbon plate

We recommend:

- Set up the OR table with the carbon plate, the OR table remains in zero position until final positioning.
- In case of a weight load of 140 kg and more on the carbon plate, use the prop rod for support.
- Position the patient's head by means of a gel head ring (7) or a plexus cushion. Avoid rotating the cervical spine.
- If required, attach the side rails at the appropriate position(s) of the carbon plate.

Arm positioning options

- 1. Arms abducted
- Attach arm rests (5) near the patient's shoulders.
- **IMPORTANT:** The upper arm has to be positioned above table level (n. radialis)!
- The distal joint has to be placed higher than the proximal joint.
- In case of a shoulder abduction of 0 to 40 degrees, the hand is pronated, in case of shoulder abduction of 40 to 90 degrees, the hand is supinated.
 Do not abduct the shoulder beyond 90 degrees!
- 2. Arm adducted
- By means of an arm protector (6) in connection with a gel arm retainer pad (10).
- IMPORTANT: The medial elbow joint (n. ulnaris) must be protected!

- IMPORTANT: Due to the difficult vessel conditions and relating circulatory problems, positioning aids are often dispensed with.
- Position body restraint strap(s) (4) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.



Bariatric Surgery

Patient positionings by surgical discipline

8.1. Standing position Bariatric surgery





Required accessories

Basic equipment

1	DIAMOND OR table	
2	Head plate	101.0017.X
3	Leg section, four-part (pair)	101.0171.X
Ар	plication-specific accesso	ries
4	Foot plate (pair)	101.0368.X
5	Leg restraint strap (pair)	101.0185.X
6	Leg restraint strap 2 x	101.0164.X
	neral accessories side rail attachment	
7	Arm rest 2 x	101.0192.X
Ро	sitioning aids	
8	Gel supine head rest	101.0337.X

8.1. Positioning Standing position Bariatric surgery

We recommend:

- If required, attach extension pads to the side rails at the seat and back section of the OR table.
- Place the head on a gel supine head rest (8). Avoid rotating the cervical spine.
- The patient's buttocks are placed as closely as possible to the lower edge of the table-top. Avoid shear and friction stresses by repositioning under anaesthetics.

Positioning of arms

- Attach arm rests (7) near the patient's shoulders.
- IMPORTANT: The upper arm has to be positioned above table level (n. radialis)!
- The distal joint has to be placed higher than the proximal joint.
- In case of a shoulder abduction of 0 to 40 degrees, the hand is pronated, in case of shoulder abduction of 40 to 90 degrees, the hand is supinated.
 Do not abduct the shoulder beyond 90 degrees!
- Under certain circumstances, it can be advisable to position the arms in such a way that both the shoulders and the elbows are raised 90 degrees.

Positioning of legs

• Attach foot plates (4).

IMPORTANT: The ankle joint should have a 90 degrees position!

- Spread the patient's legs on the leg plates.
- Position leg restraint straps (5 + 6) according to the requirements of the intervention.
- Consider using a vacuum mattress.
- Adjust the OR table into Reverse Trendelenburg position, possibly with a slight tilt to the left.
- When surgery is completed, reposition the patient in reverse order.

8.2. Beach-chair position Bariatric surgery





Required accessories

Basic equipment

1	DIAMOND OR table			
2	Head plate	101.0017.X		
3	Leg plates (pair)	101.0116.X		
Application-specific accessories				
4	as an alternative to the leg plates: Leg support (Göpel type) 2 x	101.0115.X		
5	Attachment clamp 2 x	101.0146.X		
6	Leg restraint strap 2 x	101.0164.X		
General accessories for side rail attachment				
7	Arm rest 2 x	101.0192.X		
Positioning aids				
8	Gel supine head rest	101.0337.X		
9	Gel crutch stirrup pads (pair) (not illustrated)	101.0349.X		



8.2. Positioning Beach-chair position Bariatric surgery

We recommend:

- For patients taller than 160 cm we recommend to use a back section extension, either fixed or inclinable.
- IMPORTANT: The patient's acetabulum is placed over the back section joint! If required, use extension pads.
- Place the head on a gel supine head rest (8). Avoid rotating the cervical spine.

Positioning of arms

- Attach arm rests (7) according to the patient's anatomical conditions.
- **IMPORTANT:** Positioning should always be carried out observing the course of nerves and blood vessels!

- The legs are positioned on Göpel-type leg supports (4) with gel crutch pads (9). The legs should have the largest possible contact area in the Göpel knee crutch.
- **IMPORTANT:** Make sure that no pressure is applied to the head of the tibia (n. peroneus)!
- <u>Alternatively</u>: Position the legs on the leg plates, which are slightly lowered. If required, use foot plates.
 Place pads under the distal femur.
- Adjust the OR table into slight Trendelenburg position and raise the back section slightly.
- Position body restraint strap(s) according to the requirements of the intervention.
- When surgery is completed, reposition the patient in reverse order.



Patient positionings by surgical discipline





1	Anaesthetic frame	101.0012.X
2	Cross-bar attachment	101.0014.X
3	Pad	101.0015.X
4	Head plate	101.0017.X
5	Attachment clamp	101.0018.X
6	Traction unit	101.0105.X
7	Arm/hand operating table	101.0108.X
8	Arm rest	101.0109.X
9	Doro skull clamp adaptor	101.0113.X
10	Leg support (Göpel type)	101.0115.X
11	Leg plates (pair)	101.0116.X
12	Attachment clamp	101.0117.X
13	Bracket for body support	101.0121.X
14	Upper arm positioning plate	101.0122.X
15	Wristlet	101.0123.X
16	Flexible anaesthetic frame	101.0125.X
17	Doro Skull clamp	101.0127.X
18	Back section extension, fixed	101.0131.X
19	Humerus positioning device	101.0136.X
20	Wristlet	101.0137.X
21	Universal adaptor	101.0141.X
22	Doro Universal basic unit	101.0142.X
23	Attachment clamp	101.0146.X
24	Knee-elbow positioning device	101.0150.X
25	Shoulder/lateral support	101.0151.X
26	Humerus countertraction post	101.0152.X





27	Arm protector	101.0153.X
28	Back section extension, inclinable	101.0159.X
29	Back/buttock support	101.0162.X
30	Weinberger hand traction device	101.0163.X
31	Leg restraint strap	101.0164.X
32	Kirschner wire device	101.0165.X
33	Leg section, four-part	101.0171.X
34	Pubis/sacrum/sternum support	101.0175.X
35	Body restraint strap	101.0177.X
36	Rectoscopy/buttocks support	101.0178.X
37	Horseshoe head rest	101.0179.X
38	Leg restraint strap (pair)	101.0185.X
39	Lateral support pad	101.0190.X
40	Arm rest	101.0192.X
41	Gyn. adaptor	101.0204.X
42	Plexus cushion	101.0208.X
43	Shoulder plate	101.0210.X
44	Cushion	101.0211.X
45	Knee positioning device	101.0212.X
46	Transfer leg plates (pair)	101.0218.X
47	Shoulder surgery plate	101.0244.X
48	Lateral body support	101.0245.X
49	Shoulder traction device	101.0253.X
50	Axilla support	101.0257.X
51	Elbow support	101.0258.X
52	Meniscus positioning device	101.0261.X
53	Sterile arm trap disposables	101.0265.X





54	Shaped head rest for shoulder surgery	101.0266.X
55	Gel pad for lateral positioning	101.0327.X
56	Gel heel pads (pair)	101.0328.X
57	Gel head ring	101.0329.X
58	Gel head ring	101.0332.X
59	Gel head rest for prone positioning	101.0334.X
60	Gel supine head rest	101.0337.X
61	Gel arm retainer pad	101.0343.X
62	Gel sacral protector	101.0344.X
63	Gel universal patient positioner	101.0346.X
64	Gel universal patient positioner	101.0347.X
65	Gel crutch stirrup pads	101.0349.X
66	Gel knee pad	101.0351.X
67	Gel lateral leg positioner	101.0352.X
68	Head rest connector	101.0363.X
69	Head rest connector	101.0364.X
70	Foot plate (pair)	101.0368.X
71	Leg supports UniLeg (pair)	101.0369.X
72	OMFS plate	101.0441.X
73	Table top extension (pair)	101.0443.X
74	Vacuum mattress, lateral position	101.0547.X
75	Vacuum mattress, SigmaLap	101.0549.X





76	Extension device, carbon	101.0563.X
77	Transport trolley	101.0566.X
78	Transfer leg plate (pair)	101.0567.X
79	Traction device for tibial fractures	101.0568.X
80	Condyle fixation	101.0569.X
81	Leg section ModuLeg	101.0570.X
82	Leg supports (pair)	101.0571.X
83	Knee arthroscopy support	101.0583.X
84	Countertraction post for lateral position	101.0594.X
85	Side rail extension (pair)	101.0596.X
86	Shoe for extension device	101.0611.X
87	Carbon plate	101.7151.X
88	Side rail for carbon plate	101.7152.X