Surgical Technique



Revision Acetabular System Modular Shell

**CONCELOC**\* Advanced Porous Titanium



### Design surgeon list

Smith & Nephew thanks the following surgeons for their participation as part of the REDAPT° Revision Acetabular System design team:

Dr. Robert Bourne London, Ontario London Health Sciences, Univ. of Western Ontario

Dr. Richard McCalden London, Ontario London Health Sciences, University of Western Ontario

**Dr. Andrew Shinar** Nashville, TN Vanderbilt Orthopaedics

**Dr. Scott Marwin** New York, NY NYU-Hospital Joint Diseases

Dr. Steven Weeden Fort Worth, TX The Texas Hip & Knee Center

Dr. Mathias Bostrom New York, NY Hospital for Special Surgery **Dr. John Masonis** Charlotte, NC OrthoCarolina

**Dr. James Waddell** Toronto, Ontario University of Toronto, St. Michael's Hospital

Dr. Craig Della Valle Chicago, IL Midwest Orthopaedics at RUSH

Mr. Stephen Jones Cardiff, UK Univ. Hosp. of Wales and Univ. Hosp. Llandough

Dr. David Campbell Adelaide, South Australia Wakefield Ortho. Clinic

Prof. Christian Götze Bad Oeynhausen, Germany Auguste-Viktoria-Klinik

The following technique is for informational and educational purposes only. It is not intended to serve as medical advice. It is the responsibility of the treating physician to determine and utilize the appropriate products and techniques according to their own clinical judgment for each of their patients. For more information on any product referenced herein, including indications for use, contraindications, effects, precautions and warnings, please consult the product's Instructions for Use (IFU) prior to use.

## Nota Bene

The technique description herein is made available to the healthcare professional to illustrate the manufacturer's suggested treatment for the uncomplicated procedure. In the final analysis, the preferred treatment is that which addresses the needs of the specific patient.

Be advised of the Warnings and Precautions when using this system particularly of the Intraoperative and Postoperative considerations noted in the product's package Insert.

The following is an abbreviated technique description for the REDAPT Modular Shell. The purpose of this technique is to provide the user with important information and tips about the implants and instruments in this system. It is expected that the user is familiar with and understands the demands of total hip surgery. However, for appropriate training on the REDAPT Modular Shell, please read this surgical technique manual and the accompanying package insert. Consult your Smith & Nephew Sales Representative for a review of the system implants and instrumentation.

### Preoperative planning

Preoperative X-Rays should include an AP of the pelvis centered over the symphysis and an AP and lateral of the affected hip.

Templating can be done on the affected side, but it is important that the contralateral hip also be templated to verify the size.

To ensure a congruent fit, the acetabular component should be medialized to the medial aspect of the acetabulum, as indicated by the teardrop.

The center of rotation also should be marked for subsequent reference.



#### Surgical tips:

- To minimize the need of assistance, each of the acetabular retractors can be tied directly to a Charnley retractor.
- Dividing the transverse acetabular ligament will allow reaming to begin inferiorly, limiting the tendency of the reamer to migrate superiorly.
- Removal of soft tissue and overhanging osteophytes from the foveal notch aids visualization of the quadrilateral plate and the depth that the acetabulum should be reamed.

### Acetabular exposure

Complete exposure of the acetabulum is required, regardless of the type of approach. Use the approach with which you are most familiar and achieve the best surgical results.

First, resect the acetabular labrum and place a blunt retractor anteriorly.

After identifying the transverse acetabular ligament, place a blunt retractor around the inferior margin of the acetabulum.

Depending on the exposure, a third retractor can be placed posteriorly following the excision of the labrum.

Remove all overhanging soft tissue and osteophytes in order to visualize the entire acetabular socket.

The acetabulum should be medialized to restore the normal center of hip rotation.

# Acetabular reaming



Select an acetabular reamer that is considerably smaller than the templated size of the shell. Generally, reaming 6–8mm lower than the templated size is suitable.

Position the initial reamer in a vertical direction (1) to ensure the reamer is taken down to the medial wall.

Direct the second reamer and all subsequent reamers in approximately 45° of abduction and 20° of anteversion or at the surgeon's desired acetabular shell orientation for final position of the acetabular component. (2)

Preserve subchondral bone to provide good support for the prosthesis. This might mean the reamer will not be medialized all the way to the inner wall.

Frequently palpate the posterior and anterior walls of the acetabulum during the reaming process as these walls will determine the largest acetabular size that can be accommodated. Avoid allowing the reamer to drift posteriorly where the bone might be less dense and the path of least resistance for the reamer.

To press-fit an REDAPT Modular Shell, the acetabulum can either be under-reamed by 1mm or may be reamed line-to-line depending on the bone quality and size of the acetabulum.

#### Surgical tips:

- Each successive reamer must be fully seated within the acetabulum. Failure to do so will result in lateralization of the trial and exposure of the porous coating. If lateralization occurs, go back to a smaller reamer and begin again, checking each size to ensure that the reamers are fully seated.
- Increasing the reamer size by 2mm is recommended, although in smaller patients 1mm increments may be preferred.

#### Note:

Teeth on the reamer domes do not extend all the way to the periphery. As a result, once the surgeon has reamed to the proper size, drop down to a smaller sized reamer to dust the rim at the periphery.

#### Instrument tips:

- The acetabular reamer has an open back, which helps visualize reaming and allows easy access to bone chips. This style of reamer is hemispherical and when fully seated it should be covered by the rim of the acetabulum.
- Gently rock the reamer handle back and forth approximately 5° for last size used only to ensure rim is accurate for the desired press-fit.

### Acetabular trialing



After the preparation of the acetabulum, the trial shell should be inserted to verify size and position of the shell. Use a trial acetabular shell that is the same diameter as the last reamer used. The surgeon should note the appropriate orientation of the acetabular trial to position the shell correctly. The trial should be congruent with the reamed acetabular cavity and bottom out without significant force required to seat it.

A trial liner insert cannot be inserted into a trial shell for trial reduction.

If trial reduction using a trial insert is desired at this time, then the preparation of the femur should occur up until the trial reduction stage. The surgeon then has the option of inserting a trial acetabular liner (preferred) in the acetabular implant for subsequent leg length, offset and stability assessments or the real acetabular insert.

Select appropriate type and size component based on anatomical and biomechanical factors such as patient age and activity levels, weight, bone and muscle conditions.

Generally the largest cross-section component that will allow adequate bone support to be maintained is preferred. Muscle looseness and/ or malpositioning of the components may result in loosening, subluxation, dislocation, fracture of components and/or bone. Firmly seat all components and check for component looseness during surgery.

#### Surgical tip:

 The bone at the edge of the trial shell can be marked with an electric cautery to help in final component positioning.

#### Instrument tip:

 The trial shells are the exact size specified. They can be used to assess the accuracy of reaming or can be press-fit into the acetabulum if using a larger size than the final reamer.

# Acetabular shell insertion



After trialing, select the corresponding size acetabular shell and affix to the Shell Impactor/ Impactor (7136-4450). Care should be exercised to introduce the shell at the desired inclination and version angles. Once the desired positioning of the shell is achieved, a mallet is used to impact the shell. Unlike a primary case where adequate host bone is available and predictable landmarks are available for visual confirmation, revision cases will require the surgeon to assess stability of the shell using tactile methods. The shell should be securely fixed and unable to be moved or repositioned without significant force being applied. Remove shell positioner by unscrewing from the threaded apex hole.



#### Surgical tip:

 If hard host bone is encountered, a heavy mallet may be required.

#### Instrument tips:

- The acetabular shell should be securely threaded onto the impactor.
- Use supplied alignment guide to assess shell version and inclination.



### Acetabular screw insertion



Screws can be used to augment fixation and further secure the shell. For screw fixation, each screw hole must be pre-drilled. When drilling to prepare for screw holes, the REDAPT° Drill Guide (7135-5121) must be used. If the tip is not fully seated, damage to the locking tabs may occur, the limits of angulation may be exceeded and the locking strength of the screws may be affected. After drilling the hole, use the depth gauge to verify appropriate screw length(s). The hole pattern of the REDAPT Modular Shell provides multiple opportunities for fixation to host bone. Care should be taken to orientate the shell so that the hole pattern aligns with desired points of fixation. Each hole can accept either a spherical head screw or a REDAPT Locking Screw.

#### Spherical Head Screws

Use the screw forceps to hold the screw. Attach the ball-joint or flexible screwdriver shaft to the end of the screw. Then introduce the screw into the hole and screw it into place using the ratcheting screwdriver handle. Make sure the screw is fully seated within the screw hole so that it will not impinge on the REDAPT Modular Shell.

#### Locking screws

The Torque Limiting Driver (7135-4299) should always be used to ensure a secure fit and prevent overtightening. Over-tightening may result in damage to the locking screw tabs on the shell.



#### Surgical tips:

- The REDAPT Drill Guide has two different tip angles. When using this guide, use whichever end of the drill guide provides optimal access to ensure it is fully seated in the selected screw hole.
- Many surgeons choose to place a non-locking screw first, then proceed to locking screws. At least one, non-locking screw should be placed prior to placing locking screws.
- It is important to avoid neurovascular complications by proper screw placement, avoiding the anterior/ superior or anterior/inferior quadrants.
- Inspect each screw to ensure that screw heads are flush or below the inner diameter of the REDAPT Modular Shell.
- The use of radiographic imaging may facilitate precise screw placement.



#### Instrument tips:

• The tip of the REDAPT drill guide must be fully seated in the screw hole.

# Acetabular screw insertion (continued)

### Reduction/range of motion assessment

An R3 Poly Trial Liner can be used to perform a trial reduction at this time. The proper size trial liner should be selected to correspond with the implanted shell. A trial reduction for subsequent leg length, offset and stability assessments can be performed at this time if femoral component preparation is complete. Once the trial liner is removed, assemble threaded apex hole cover (7133-0001) into the threaded apex hole.



#### Surgical tip:

 7133-0001 R3"/REFLECTION" Threaded Hole Cover is the only threaded apex hole cover that should be threaded into the apex hole feature of REDAPT Modular Shells.

### R3° acetabular liner insertion

A trial reduction should be performed with the final shell and broach in place to appropriately assess head length, stem offset, liner style and position. With XLPE liners, use of 'skirted' modular heads should be avoided when possible to maximize range of motion.

Before inserting the R3 acetabular liner, cover the apex hole with the threaded hole cover (7133-001). Using the straight screwdriver, screw in the hole cover until it stops and is flush with the inner diameter of the shell.

For XLPE liner insertion, screw the appropriate sized liner impactor head on the end of the shell impactor handle and ensure that the tabs on the liner are aligned with the indentions in the shell. Ensure all soft tissue and osteophytes have been removed from the periphery of the shell to avoid interference with the liner lock.

Wipe the shell ID with a lap sponge or gauze until clean and dry. **Press the liner impactor firmly** until liner is partially locked. Then use light, repetitive impacts with the mallet until the liner is fully seated.

Inspect the liner/shell interface for proper seating. The liner should sit flush with the face of the shell.

#### Surgical tips:

- Running a finger around the circumference of the shell and a visual check will help determine if the liner is flush with the shell face.
- The XLPE liner requires an impaction force between 60 and 120 pounds, increasing with the diameter of the shell.
- The XLPE liner can be removed and repositioned once without compromising the locking mechanism of the liner. To remove R3 liners, insert the liner removal tool fully into the removal slot and pry or impact the liner loose.
- All R3 Anteverted XLPE Liners are lateralized +4mm

#### Instrument tips:

 The anteverted liner trials are designed with a central screw to facilitate placement. The central screw is tightened into the apex hole of the R3 shell. When using anteverted trial liners it is important that the trial be held firmly in place while using the screwdriver to tighten the screw in the anteverted trial liner into the apex hole of the R3 shell to maintain proper alignment of the anteverted trial liner Align tabs with indentions and tighten into position. Do not force trial.



### Postoperative Care

Physician should provide appropriate postoperative directions and warnings to patients regarding their care. Weight-bearing status should be individualized with the non- or partial weight bearing period determined.

Patients should be warned against unassisted activity, particularly use of toilet facilities and other activities requiring excessive motion of the hip such as sitting in low chairs, crossing legs, low bending at waist, sharp twisting hip motion, etc.

Adequate support should be provided to the operative leg when moving the patient. While placing the patient on bedpans, changing dressings, clothing, or similar activities, precautions should be taken to avoid placing excessive load on the operative leg.

Periodic X-Rays are recommended for close comparison with immediate postoperative conditions to detect long-term evidence of changes in position, loosening, bending and/or cracking of components or bone loss. Patient reports of squeaking or clicking should be carefully evaluated as they may indicate position changes in the components compromising the durability of the implants.

# **REDAPT Modular Shell Liner offerings**

	XLPE				
Shells	28	32	36	40	44**
48	•	•			
50	0	•	<b>*</b>		
52	•	•	0		
54	0	•	0	•	
56	•**	**	0	0	
58	<b>O</b> **	<b>*</b> *	0	0	
60	<b>O</b> **	**	0	•	0
62		<b>*</b> *	0	0	0
64			0	•	0
66			0	•	0
68			0	•	0
70			0	0	0
72			0	0	0
74			0	0	0
76			0	0	0
78			0	0	0
80			0	0	0

\*Anteverted liners only \*\*Excluding anteverted liners

# Poly thickness chart (Neutral liners)

Shell OD	Poly ID	Poly Thickness Taper Region mm	Poly Thickness Load-Bearing Region mm		Shell OD	Pol
48	28	6.4	7.1		62	32
48	32	4.3	5.1		62	36
50	28	7.3	8.1		62	40
50	32	5.3	6.1		62	44
52	28	8.3	9.1		64	36
52	32	6.3	7.1		64	40
52	36	4.3	5.1		64	44
54	28	9.3	10.1		66-68	36
54	32	7.3	8.1		66-68	40
54	36	5.3	6.1		66-68	44
56	28	10.3	11.1		72-74	36
56	32	8.3	9.1		72-74	40
56	36	6.3	7.1		72-74	44
56	40	4.6	5.0		76-80	36
58	28	11.3	12.1		76-80	40
58	32	9.3	10.1		76-80	44
58	36	7.3	8.1			
58	40	5.3	6.0			
60	28	12.3	13.1	Тар	er region	
60	32	10.3	11.1		/	
60	36	8.3	9.1		1	
60	40	6.5	7.0			
60	44	4.3	5.0			$\boldsymbol{<}$

Shell OD	Poly ID	Poly Thickness Taper Region mm	Poly Thickness Load-Bearing Region mm
62	32	11.3	12.1
62	36	9.3	10.1
62	40	7.5	8.0
62	44	5.3	6.0
64	36	10.3	11.1
64	40	8.4	9.0
64	44	6.4	7.0
66-68	36	11.3	12.1
66-68	40	9.3	10.0
66-68	44	7.2	8.0
72-74	36	13.8	14.0
72-74	40	11.8	12.0
72-74	44	9.8	10.0
76-80	36	15.8	16.0
76-80	40	13.8	14.0
76-80	44	11.8	12.0



Load-bearing

# Poly thickness chart (Anteverted liners)

Shell OD	Poly ID	Poly Thickness Taper Region mm	Poly Thickness Load- Bearing Region mm
48	28	7.7	10.1
48	32	5.7	8.1
50	28	8.6	11.1
50	32	6.6	9.1
50	36	4.6	7.1
52	28	9.5	12.1
52	32	7.5	10.1
52	36	13.3	16.1
54	28	10.5	13.1
54	32	8.5	11.1
54	36	6.5	9.1
54	40	4.5	7.1
56	28	11.4	14.1
56	32	9.4	12.1
56	36	7.4	10.3
56	40	5.4	8.3
60	28	13.3	16.1
60	32	11.3	14.1
60	36	9.3	12.1
60	40	7.3	10.1
60	44	5.3	8.0
62	32	12.2	15.1
62	36	10.2	13.1
62	40	8.3	11.0

Shell OD	Poly ID	Poly Thickness Taper Region mm	Poly Thickness Load- Bearing Region mm
62	44	6.2	9.0
64	36	11.2	14.1
64	40	9.2	12.0
64	44	7.2	10.0
66-70	36	12.1	15.1
66-70	40	10.2	13.0
66-70	44	8.2	11.0
72-74	36	14.5	17.1
72-74	40	12.6	15.0
72-74	44	10.6	13.0
76-80	36	16.5	19.1
76-80	40	14.5	17.0
76-80	44	12.5	15.0



# Catalog



#### 7135-2390 REDAPT° Modular Shell Core Sizes

Cat. no.	Description
7135-2348	REDAPT Modular Shell 48mm
7135-2350	REDAPT Modular Shell 50mm
7135-2352	REDAPT Modular Shell 52mm
7135-2354	REDAPT Modular Shell 54mm
7135-2356	REDAPT Modular Shell 56mm
7135-2358	REDAPT Modular Shell 58mm
7135-2360	REDAPT Modular Shell 60mm
7135-2362	REDAPT Modular Shell 62mm
7135-2364	REDAPT Modular Shell 64mm
7135-2366	REDAPT Modular Shell 66mm
7135-2368	REDAPT Modular Shell 68mm



7135-2340 REDAPT° Modular Shell Jumbo Sizes

Cat. no.	Description
7135-2370	REDAPT Modular Shell 70mm
7135-2372	REDAPT Modular Shell 72mm
7135-2374	REDAPT Modular Shell 74mm
7135-2376	REDAPT Modular Shell 76mm
7135-2378	REDAPT Modular Shell 78mm
7135-2380	REDAPT Modular Shell 80mm



#### R3° XLPE Acetabular Liners 20° XLPE Liner 0° +4 XLPE Liner 20°+4 XLPE Liner 0° XLPE Liner Cat. no. Cat. no. Cat. no. Cat. no. ID OD 28 48 7133-7548 7133-4948 7133-5948 7133-7748 28 50 7133-7550 7133-4950 7133-5950 7133-7750 52 28 7133-7552 7133-4952 7133-5952 7133-7752 54 28 7133-7554 7133-4954 7133-5954 7133-7754 28 56 7133-7556 7133-4956 7133-5956 7133-7756 28 58 7133-7558 7133-4958 7133-5958 7133-7758 28 60 7133-7560 7133-4960 7133-5960 7133-7760 32 48 7133-9548 7133-7648 7133-6648 7133-7948 32 50 7133-9550 7133-7650 7133-6650 7133-7950 32 52 7133-9552 7133-7652 7133-6652 7133-7952 32 54 7133-9554 7133-7654 7133-6654 7133-7954 32 56 7133-9556 7133-7656 7133-6656 7133-7956 32 58 7133-6658 7133-9558 7133-7658 7133-7958 32 60 7133-9560 7133-7660 7133-6660 7133-7960 32 62 7133-9562 7133-7662 7133-6662 7133-7962 36 52 7133-2752 7133-5752 7133-6952 7133-8552 36 54 7133-2754 7133-5754 7133-6954 7133-8554 36 56 7133-2756 7133-5756 7133-6956 7133-8556 36 58 7133-2758 7133-5758 7133-6958 7133-8558 36 60 7133-2760 7133-5760 7133-6960 7133-8560 36 62 7133-2762 7133-5762 7133-6962 7133-8562 36 64 7133-2764 7133-5764 7133-6964 7133-8564 36 66-70 7133-0766 7133-1266 7133-1566 7133-2666 36 72-74 7133-8686 7133-8694 7133-8703 7133-8712 7133-1103 36 76-80 7133-1112 7133-1114 7133-8946



### R3° XLPE Acetabular Liners (continued)

ID	OD	0° XLPE liner Cat. no.	20° XLPE liner Cat. no.	0° +4 XLPE liner Cat. no.	20°+4 XLPE liner Cat. no.
40	56	7133-8679	7133-8687	7133-8695	7133-8704
40	58	7133-8680	7133-8688	7133-8696	7133-8705
40	60	7133-8681	7133-8689	7133-8697	7133-8706
40	62	7133-8682	7133-8690	7133-8698	7133-8707
40	64	7133-8683	7133-8691	7133-8699	7133-8708
40	66-70	7133-8684	7133-8692	7133-8701	7133-8709
40	72-74	7133-8685	7133-8693	7133-8702	7133-8711
40	76-80	7133-1094	7133-1104	7133-1113	7133-1116
44	60	7133-1096	7133-1106	7133-0011	7133-1118
44	62	7133-1097	7133-1107	7133-0012	7133-1119
44	64	7133-1098	7133-1108	7133-0013	7133-1121
44	66-70	7133-1099	7133-1109	7133-0014	7133-1122
44	72-74	7133-1101	7133-1110	7133-0016	7133-1123
44	76-80	7133-1102	7133-1111	7133-0017	7133-1124



#### R3° XLPE Anteverted Liners

		20°+4 XLPE anteverted liner
ID	OD	Cat. no.
28	48	7133-2373
28	50	7133-2374
28	52	7133-2375
28	54	7133-2376
32	48	7133-2381
32	50	7133-2382
32	52	7133-2383
32	54	7133-2384



R3° XLPE Anteverted Liners (continued

ID	OD	20°+4 XLPE anteverted liner Cat. no.
36	50	7133-2498
36	52	7133-2401
36	54	7133-2402
36	56	7133-2403
36	58	7133-2404
36	60	7133-2405
36	62	7133-2406
36	64	7133-2407
36	66-70	7133-2408
36	72-74	7133-2409
36	76-80	7133-2411
40	54	7133-2499
40	56	7133-2412
40	58	7133-2413
40	60	7133-2414
40	62	7133-2415
40	64	7133-2416
40	66-70	7133-2417
40	72-74	7133-2418
40	76-80	7133-2419



#### R3° Trial Shells Standard size trial shells

Cat. no.	OD mm
7136-0748	48
7136-0749	49
7136-0750	50
7136-0751	51
7136-0752	52
7136-0753	53
7136-0754	54
7136-0755	55
7136-0756	56
7136-0757	57
7136-0758	58
7136-0759	59
7136-0760	60
7136-0761	61
7136-0762	62
7136-0763	63
7136-0764	64

### Small size trial shells

Cat. no.	OD mm
7136-0768	68
7136-6524	69
7136-6525	70

### Jumbo size trial shells

Cat. no.	OD mm
7136-6526	71
7136-6527	72
7136-6528	73
7136-6529	74
7136-6530	75
7136-6531	76
7136-2019	77
7136-2020	78
7136-2021	79
7136-2022	80



R3° Disposable Poly Trial Liners

				20° XLPE trial		
		00	0° XLPE trial liner	liner	0° +4 XLPE trial	20°+4 XLPE trial
		00				
1	28	48	/136-9/81	/136-9806	/136-9832	/136-9861
1	28	50	7136-9782	7136-9807	7136-9833	7136-9862
1	28	52	7136-9783	7136-9808	7136-9834	7136-9863
1	28	54	7136-9784	7136-9809	7136-9835	7136-9864
1	28	56	7136-9785	7136-9811	7136-9836	7136-9865
1	28	58	7136-9786	7136-9812	7136-9837	7136-9866
1	28	60	7136-9787	7136-9813	7136-9838	7136-9867
;	32	48	7136-9788	7136-9814	7136-9839	7136-9868
;	32	50	7136-9789	7136-9814	7136-9841	7136-9869
;	32	52	7136-9791	7136-9816	7136-9842	7136-9871
;	32	54	7136-9792	7136-9817	7136-9843	7136-9872
;	32	56	7136-9793	7136-9818	7136-9844	7136-9873
;	32	58	7136-9794	7136-9819	7136-9845	7136-9874
;	32	60	7136-9795	7136-9821	7136-9847	7136-9875
;	32	62	7136-9796	7136-9822	7136-9848	7136-9876
;	36	52	7136-9797	7136-9823	7136-9851	7136-9877
;	36	54	7136-9798	7136-9824	7136-9852	7136-9878
;	36	56	7136-9799	7136-9825	7136-9853	7136-9879
;	36	58	7136-9801	7136-9826	7136-9855	7136-9881
	36	60	7136-9802	7136-9827	7136-9856	7136-9882
;	36	62	7136-9803	7136-9828	7136-9857	7136-9883
	36	64	7136-9804	7136-9829	7136-9858	7136-9884

All R3 disposable poly liners on page 22 are single use only and provided sterile.



### R3° Poly Trial Liners

		0° XLPE trial		0° +4 XLPE	
ID	OD	uner Cat. no.	20° XLPE trial liner Cat. no.	trial liner Cat. no.	20°+4 XLPE trial liner Cat. no.
28	48	7136-0548	7136-6448	7136-8348	7136-8748
28	50	7136-0550	7136-6450	7136-8350	7136-8750
28	52	7136-0552	7136-6452	7136-8352	7136-8752
28	54	7136-0554	7136-6454	7136-8354	7136-8754
28	56	7136-0556	7136-6456	7136-8356	7136-8756
28	58	7136-0558	7136-6458	7136-8358	7136-8758
28	60	7136-0560	7136-6460	7136-8360	7136-8760
32	48	7136-5148	7136-6548	7136-8448	7136-8848
32	50	7136-5150	7136-6550	7136-8450	7136-8850
32	52	7136-5152	7136-6552	7136-8452	7136-8852
32	54	7136-5154	7136-6554	7136-8454	7136-8854
32	56	7136-5156	7136-6556	7136-8456	7136-8856
32	58	7136-5158	7136-6558	7136-8458	7136-8858
32	60	7136-5160	7136-6560	7136-8460	7136-8860
32	62	7136-5162	7136-6562	7136-8462	7136-8862
36	52	7136-5252	7136-7952	7136-8552	7136-9152
36	54	7136-5254	7136-7954	7136-8554	7136-9154
36	56	7136-5256	7136-7956	7136-8556	7136-9156
36	58	7136-5258	7136-7958	7136-8558	7136-9158
36	60	7136-5260	7136-7960	7136-8560	7136-9160
36	62	7136-5262	7136-7962	7136-8562	7136-9162
36	64	7136-5264	7136-7964	7136-8564	7136-9164
36	66-70	7136-5266	7136-7966	7136-8566	7136-9166
36	72-74	7136-6571	7136-6574	7136-6577	7136-6580
36	76-80	7136-2312	7136-2314	7136-2316	7136-2318



#### R3° Poly Trial Liners

ID	OD	0° XLPE trial liner Cat. no.	20° XLPE trial liner Cat. no.	0° +4 XLPE trial liner Cat. no.	20°+4 XLPE trial liner Cat. no.
40	56	7136-3420	7136-3422	7136-2030	7136-2035
40	58	7136-2023	7136-2026	7136-2031	7136-2036
40	60	7136-2024	7136-2027	7136-2032	7136-2037
40	62	7136-3421	7136-2028	7136-2033	7136-2038
40	64	7136-2025	7136-2029	7136-2034	7136-2039
40	66-70	7136-6569	7136-6572	7136-6575	7136-6578
40	72-74	7136-6570	7136-6573	7136-6576	7136-6579
40	76-80	7136-2311	7136-2313	7136-2315	7136-2317
44	60	7136-6081	7136-6094	7136-6087	7136-6101
44	62	7136-6082	7136-6095	7136-6088	7136-6102
44	64	7136-6083	7136-6096	7136-6089	7136-6103
44	66-70	7136-6084	7136-6097	7136-6091	7136-6104
44	72-74	7136-6085	7136-6098	7136-6092	7136-6105
44	76-80	7136-6086	7136-6099	7136-6093	7136-6106



#### R3° Anteverted Trial Liners

		20°+4 Anteverted trial liner		
ID	OD	Cat. no.	ID	OD
28	48	7133-2429	36	76-80
28	50	7133-2431	40	54
28	52	7133-2432	40	56
28	54	7133-2433	40	58
			40	60
32	46	7133-2430	40	40
32	48	7133-2437	40	02
32	50	7133-2438	40	64
32	52	7133-2439	40	66-70
32	54	7133-2441	40	72-74
			40	76-80
36	50	7133-2440		
36	52	7133-2471		
36	54	7133-2472		
36	56	7133-2473		
36	58	7133-2474		
36	60	7133-2475		
36	62	7133-2476		
36	64	7133-2477		
36	66-70	7133-2478		
36	72-74	7133-2479		

20°+4 Anteverted trial liner Cat. no. 7133-2481 7133-2482 7133-2482 7133-2483 7133-2484 7133-2485 7133-2485 7133-2487 7133-2488 7133-2489



R3 Liner Impactor Heads				
Cat. no.	Size mm			
7136-6428*	28			
7136-6432*	32			
7136-6436*	36			
7136-6438*	38-42			
7136-6444*	44-48			

\*Exclusively for liner impaction



**R3 MIS Instruments** 

Cat. no.	Decsription
7136-8569	Offset Shell Impactor
7136-6052	Offset X-Bar
7136-3077	Offset Impactor Tip
7136-4073	Offset Reamer Handle

R3° Straight Shell Impactor <b>Cat. no.</b> 7136-4450	
R3 Impactor Replacement Tip <b>Cat. no.</b> 7136-8570	
R3 Depth Gauge <b>Cat. no.</b> 7136-4451	
X-Bar <b>Cat. no.</b> MT-2201	
Screw Forceps <b>Cat. no.</b> 7136-2298	
Ball Joint Screwdriver Shaft <b>Cat. no.</b> 7136-2295	
REDAPT° Drill Guide <b>Cat. no.</b> 7135-5121	~
Reamer Handle <b>Cat. no.</b> 7136-2279	
Flexible Screw Drills   Cat. no. Length mm   7136-2915 15   7136-2925 25   7136-2935 35   7136-2950 50	
Captured Flexible Screwdriver Shaft <b>Cat. no.</b> 7136-2291	
Captured U-Joint Screwdriver Shaft <b>Cat. no.</b> 7136-2292	
REDAPT Straight Shaft Drill   Cat. no. Length mm   7135-5368 15   7135-5369 25   7135-5371 35   7135-5372 50	





Reamer Domes Standard size		Small size	
Cat. no.	Size mm	Cat. no.	Size mm
7136-2742	42	7136-2738	38
7136-2743	43	7136-2739	39
7136-2744	44	7136-2740	40
7136-2745	45	7136-2741	41
7136-2746	46		
7136-2747	47	Large size	
7136-2748	48	Cat. no.	Size mm
7136-2749	49	7136-2765	65
7136-2750	50	7136-2766	66
7136-2751	51	7136-2767	67
7136-2752	52	7136-2768	68
7136-2753	53	7136-2769	69
7136-2754	54	7136-2770	70
7136-2755	55	7136-2771	71
7136-2756	56	7136-2772	72
7136-2757	57	7136-2773	73
7136-2758	58	7136-2774	74
7136-2759	59	7136-2775	75
7136-2760	60	7136-2776	76
7136-2761	61	7136-2777	77
7136-2762	62	7136-2778	78
7136-2763	63	7136-2779	79
7136-2764	64	7136-2780	80

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R3°/REFLECTION° Watertight Threaded Hole Cover **Cat. no.** 7133-0001



Spherical Head : <b>Cat. no.</b>	Screws Length mm	
7133-2515	15	
7133-2520	20	
7133-2525	25	
7133-2530	30	
7133-2535	35	Backalalalalalalalalalalalalalalala
7133-2540	40	
7133-2545	45	
7133-2550	50	
7133-2560	60	
7133-2570	70	

Locking Head So Cat. no.	crews Length mm
7135-4502	15
7135-4503	20
7135-4504	25
7135-4505	30
7135-4506	35
7135-4507	40
7135-4508	45
7135-4509	50

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Notes	

#### MRI Compatibility Assessment:

Non-clinical testing has demonstrated that the subject devices are MR Conditional. The conditions under which a patient with the subject devices may be safely scanned in a MR environment can be found in the MR Safety Information section of the IFU.

For detailed product information, including indications for use, contraindications, precautions and warnings, please consult the product's Instructions for Use

Smith & Nephew Pty Ltd Australia T +61 2 9857 3999 F +61 2 9857 3900

Smith & Nephew Ltd New Zealand T +64 9 820 2840 F +64 9 820 2841 smith-nephew.com/australia smith-nephew.com/new-zealand

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