



Crown Cup[®] Ceramic



*RENEWING INNOVATIONS.
ENDURING SOLUTIONS.*

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NOVATION CROWN CUP CERAMIC DESIGN TEAM

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INTRODUCTION

Like the art of fine woodworking, the Novation® Comprehensive Hip System design began with the end in mind. Before launching into development, Exactech's engineers and design team surgeons established a comprehensive plan. Their goal: to provide a system of femoral stems, acetabular components and surgical instrumentation that would address any situation encountered during primary total hip replacement.

They let science be their guide and conducted an extensive research review to identify the best of the best in design and materials. These proven features were blended with masterfully crafted innovations. The result: a comprehensive hip system that provides stable reconstruction of the widest range of anatomies, state-of-the-art bearing surfaces and low profile instrumentation and implants that are compatible with a multitude of surgical approaches.

PRE-OPERATIVE PLANNING

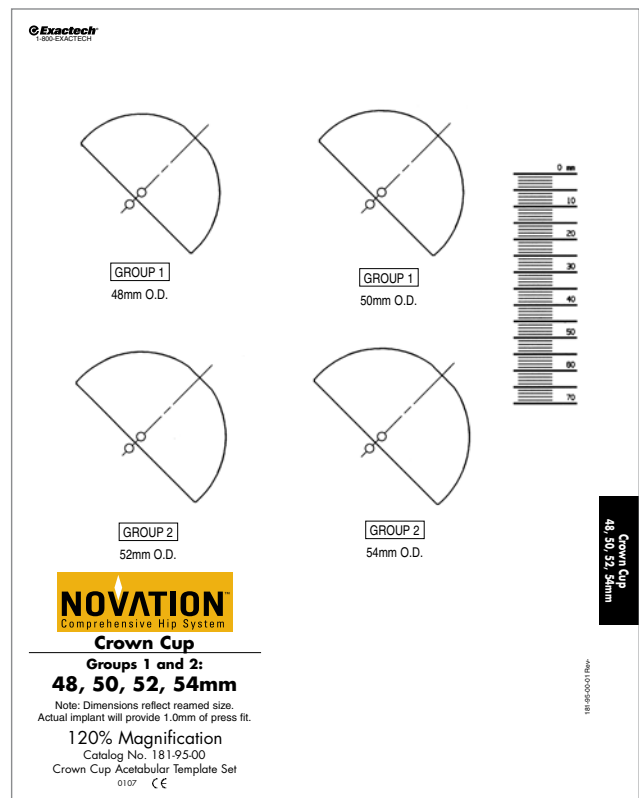
TEMPLATING

Accurate pre-operative planning and acetabular templating are essential for obtaining a successful outcome. Estimate the acetabular size utilizing the Novation Crown Cup® hip templates along with the appropriate femoral templates in the A/P view. The desired magnification for all imaging should be 120 percent, which corresponds to the templates provided for the Novation Crown Cup system.

For the A/P view, the patient is placed supine with both extremities placed in 15 degrees of internal rotation to position the head and neck parallel to the coronal plane. The radiograph should be centered on the symphysis pubis and should clearly show the acetabular construct with the endosteal and periosteal contours of the femoral head, neck and proximal femur.

For traditional 'hard-copy' templating, estimate the acetabular component size by placing the overlay templates on the film selecting a size that matches the contour of the patient's acetabulum without the removal of excessive subchondral bone. To ensure a congruent fit, the medial position of the acetabular template should be lateral to the lateral aspect of the teardrop with the inferior part of the cup level with the obturator foramen and the superior position marked by the true superior edge of the acetabulum.

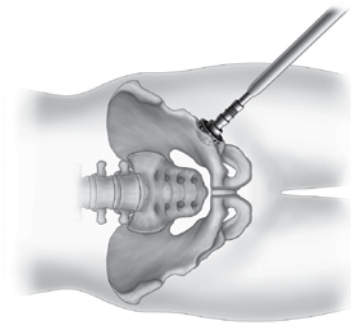
Templating should be done on the affected side, but the contralateral side may also be templated to confirm size. Mark the center of rotation and the expected acetabular component size on the radiograph of the femur.



Please note that the pre-operative template is to be used as a guide only – final size and position of the component should be determined intra-operatively.

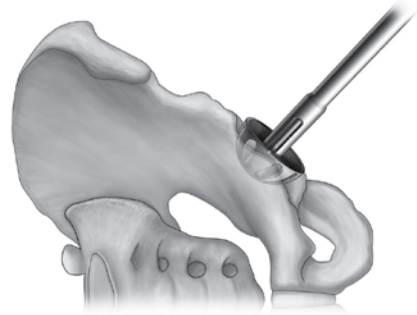
Note: For digital templating, follow the software manufacturer's instructions for use while following the preceding instructions regarding placement and implant fit.

OPERATIVE TECHNIQUE OVERVIEW



1

Acetabular Reaming



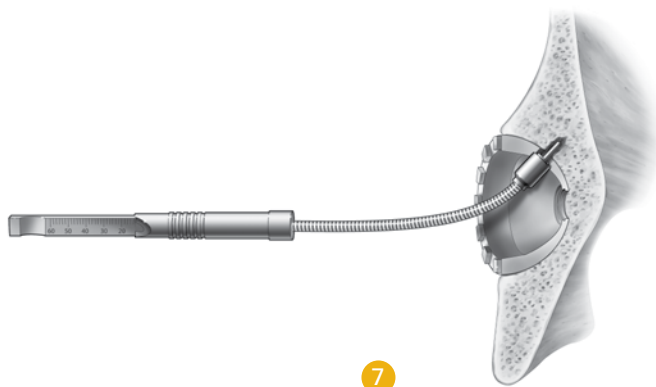
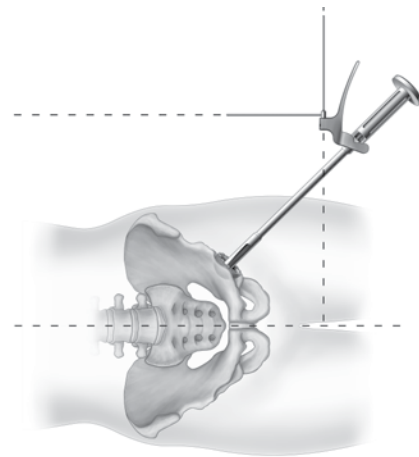
2

Shell Trial Placement



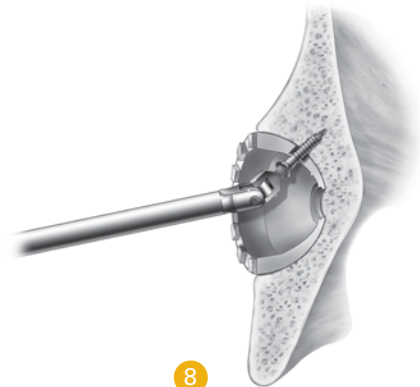
4

Shell Impaction



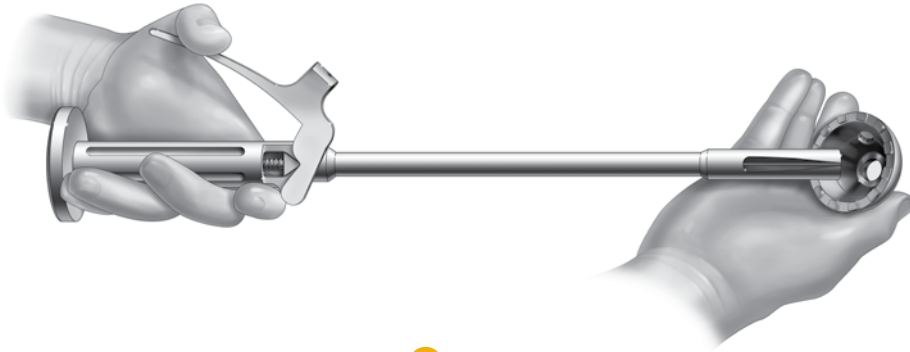
7

**Measurement of Pilot Hole
for Screw Selection (Optional)**



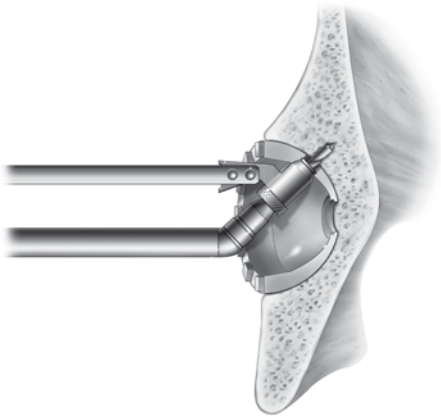
8

**Screw Placement
(Optional)**



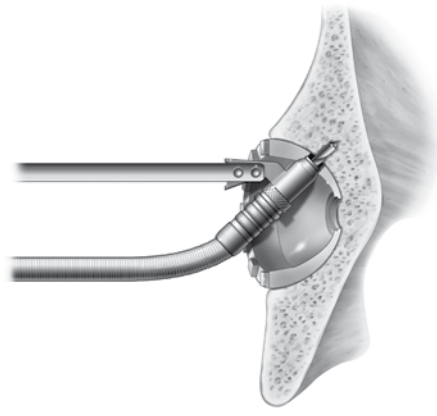
3

Assembly of Acetabular Shell



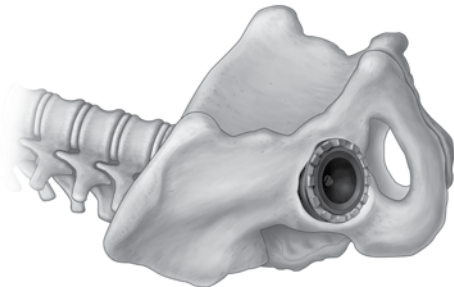
5

Screw Preparation by 45-Degree Fixed Angle Drill Shaft (Optional)



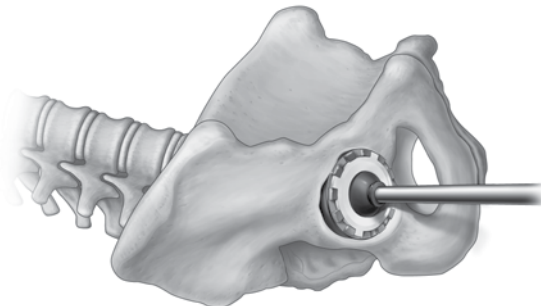
6

Screw Preparation by Flexible Drill Shaft (Optional)



9

Trial Reduction



10

**Liner Insertion and Impaction
(Ceramic or Polyethylene)**

DETAILED OPERATIVE TECHNIQUE

The entire prosthesis size range should be available at the time of the surgery. Selecting the correct type of prosthesis with the correct size for each specific application is essential to the success of the procedure.

APPROACH AND EXPOSURE

This operative technique assumes that the patient has been positioned in the lateral decubitus position. However, the Novation Crown Cup instrumentation is compatible with any standard approach necessary to gain exposure of the acetabulum.

ACETABULAR REAMING

Step 1: Assemble the acetabular **Reamer Handle, Straight**, into the power source. Assemble a hemispherical **Acetabular Reamer** 4 to 6mm smaller than the size templated onto the Reamer Handle.

Step 2: Circumferential exposure of the acetabulum is essential prior to beginning reaming. Osteophytes and peripheral soft tissue should be removed to assess the acetabular rim.

Step 3: Initial reaming may be directed more medially, though subsequent reaming should be done in 45 degrees of abduction and 20 degrees of anteversion (*Figure 1*).

Step 4: Continue reaming incrementally until the articular cartilage has been removed and bleeding bone has been exposed along the superior dome anterior and posterior walls. Care should be taken to avoid excessive acetabular thinning and to maintain as much subchondral bone as possible.

Note: *Novation Crown Cup Acetabular Shells are available in even millimeter increments (see System Specifications on page 10 for complete offerings).*

ACETABULAR TRIALING

Step 1: Assemble the appropriate **Acetabular Shell Trial** onto the **Acetabular Shell Impactor, Straight**, and insert into the reamed acetabulum (*Figure 2*). Trialing of the shell will determine reaming accuracy as well as judging final placement of the acetabular implant relative to the peripheral rim.

Step 2: Check quality of fit and bone apposition and remove the Shell Trial. Actual implant provides 1mm of press fit over the normally sized shell trial.

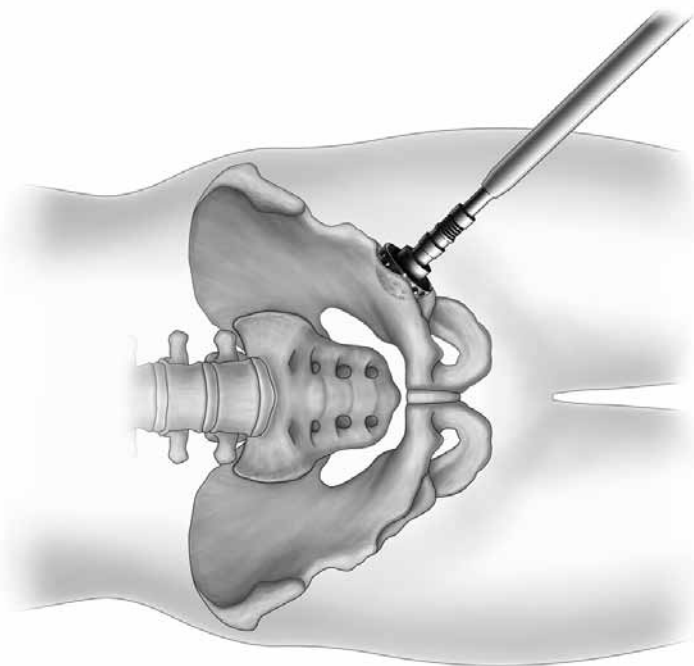


Figure 1
Acetabular Reaming

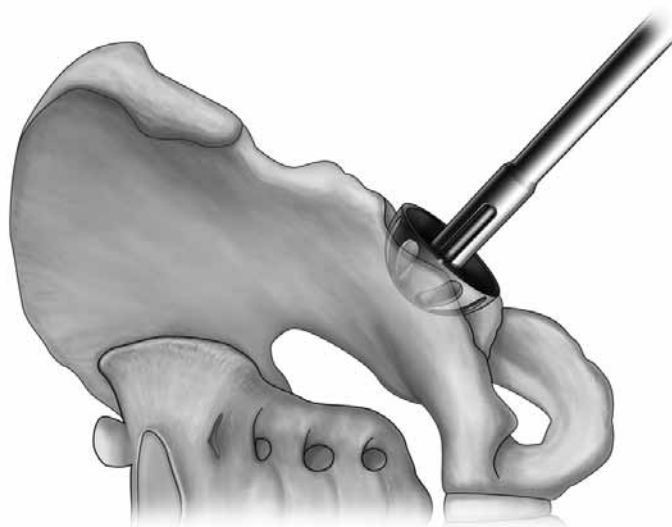


Figure 2
Shell Trial Placement

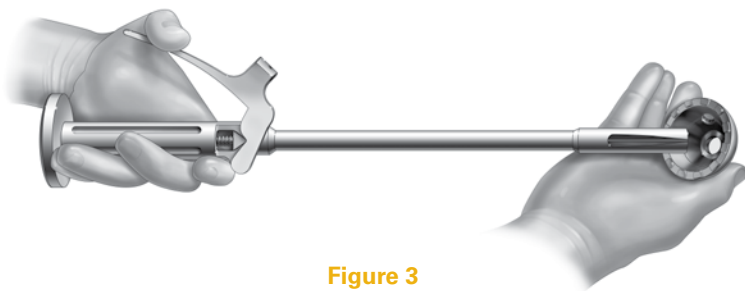


Figure 3
Assembly of Acetabular Shell

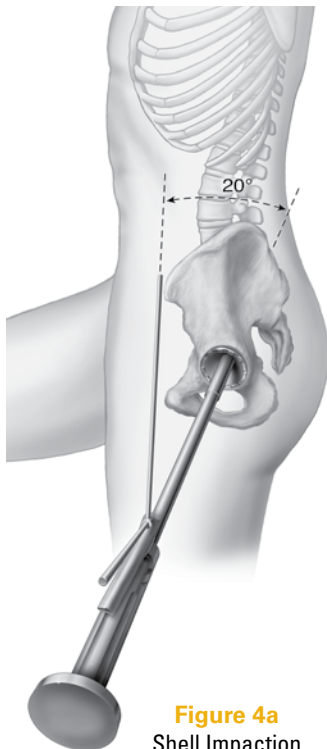


Figure 4a
Shell Impaction

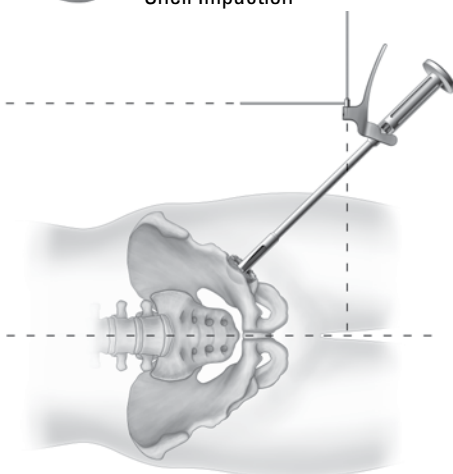


Figure 4b
Shell Impaction

ACETABULAR SHELL IMPLANTATION

Step 1: Select the desired Shell Configuration (Cluster-Hole, No-Hole or Multi-Hole). Choose the appropriately sized Acetabular Shell based on reaming and bone quality. The Novation Crown Cup acetabular shell is oversized a total of 1mm as compared to the Acetabular Reamer and Shell Trial in order to provide an appropriately secure interference fit. Under-reaming is usually not necessary where adequate bone stock is present. For example, if the last Acetabular Reamer used was size 50mm, then a size 50mm Acetabular Shell is typically implanted, providing 1mm of press fit.

Step 2: Assemble the appropriately sized shell onto the Shell Impactor by squeezing the handle of the Shell Impactor and inserting the tip into the recessed area at the apex of the shell. Release the handle to engage the Shell Impactor (*Figure 3*). Note the position of the screw holes relative to the lever of the Shell Impactor.

Step 3: Assemble the **Shell Impactor Alignment Guide** to the Shell Impactor. Once assembled, rotate the Alignment Guide to the appropriate L/R marking on the Shell Impactor. Introduce the shell into the reamed acetabulum and impact it into place. Once impacted, the horizontal rod of the Alignment Guide should be positioned parallel to the long axis of the body (*Figure 4a*) for a 20-degree anteverted shell position (if patient is in the lateral decubitus position) while the vertical rod should be pointed towards the ceiling, perpendicular to the ground for 45 degrees of shell inclination (*Figure 4b*). Correct alignment is typically 45 degrees of inclination and 20 degrees of anteversion as indicated by the Alignment Guide. Seating of the Acetabular Shell at this position is recommended to ensure proper positioning and to decrease the potential for dislocation and impingement. Stability of the bone-implant interface should be checked by applying moderate force to several areas on the rim of the prosthesis. The acetabular implant should be firmly fixed within the acetabulum, with no gaps between the shell and the acetabulum. If the shell rotates within the acetabulum, a larger shell must be selected and the bone preparation process should be repeated by reaming to a larger size.

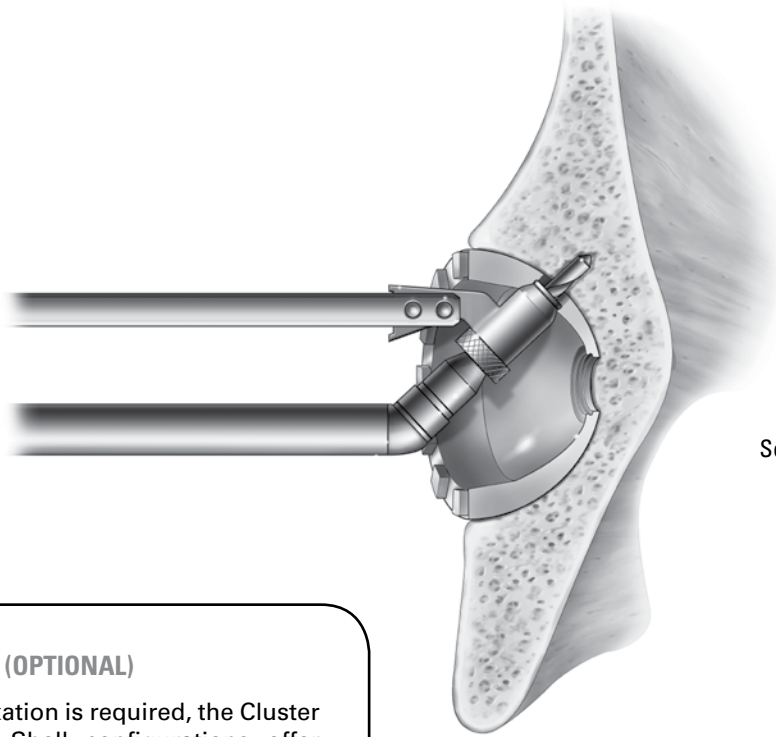


Figure 5
Screw Preparation by 45-Degree
Fixed Angle Drill Shaft

ADJUNCTIVE FIXATION (OPTIONAL)

Step 1: If adjunctive fixation is required, the Cluster Hole and Multi-Hole Shell configurations offer dome holes that accept **6.5mm Bone Screws**. Also, Multi-Hole Shells, size 56mm and greater, offer peripheral rim holes that accept **4.5mm Peripheral Rim Screws**. The No-Hole Shell is intended as press-fit only, offering no opportunity for adjunctive fixation.

If 6.5mm Bone Screws are to be used, select either a 3.2mm or 4.5mm **Drill Bit** and insert it into the **45-Degree Fixed Angle Drill Shaft** or the **Flexible Drill Shaft, Bayonet Connection** (Figures 5 and 6). If 4.5mm Peripheral Rim Screws are to be used, select the 3.2mm Drill Bit.

Note: When positioning the Acetabular Shell and screw fixation holes, keep in mind that the best quality bone for fixation screw holes is the superior, medial (weight bearing) region of the acetabulum. Due to intrapelvic vascularity, screw placement in the medial aspect of the acetabulum must be carefully considered.

Step 2: If a **3.2mm Drill, Bayonet Connection**, is used, the **Drill Guide Sleeve, 3.2mm ID**, must first be screwed into the **Adjustable Drill Guide** thereby changing the Adjustable Drill Guide from the standard 4.5mm to a smaller 3.2mm. Conversely, when a **4.5mm Drill, Bayonet Connection**, or **40mm**, is used, it should be used without the Drill Guide Sleeve, 3.2mm ID. Drill to the appropriate depth pilot hole using the Adjustable Drill Guide for each screw placed. Be certain that the Adjustable Drill Guide is fully seated in the screw hole before drilling.

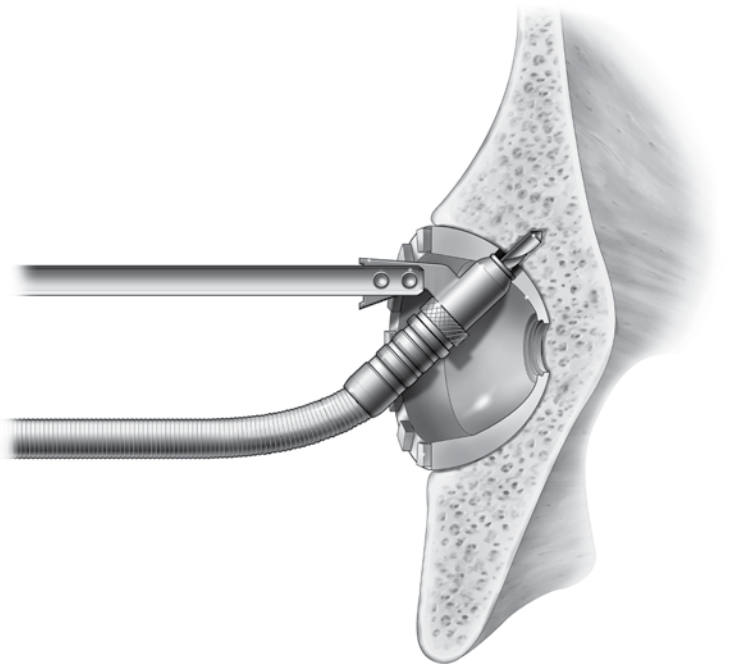


Figure 6
Screw Preparation by Flexible Drill Shaft

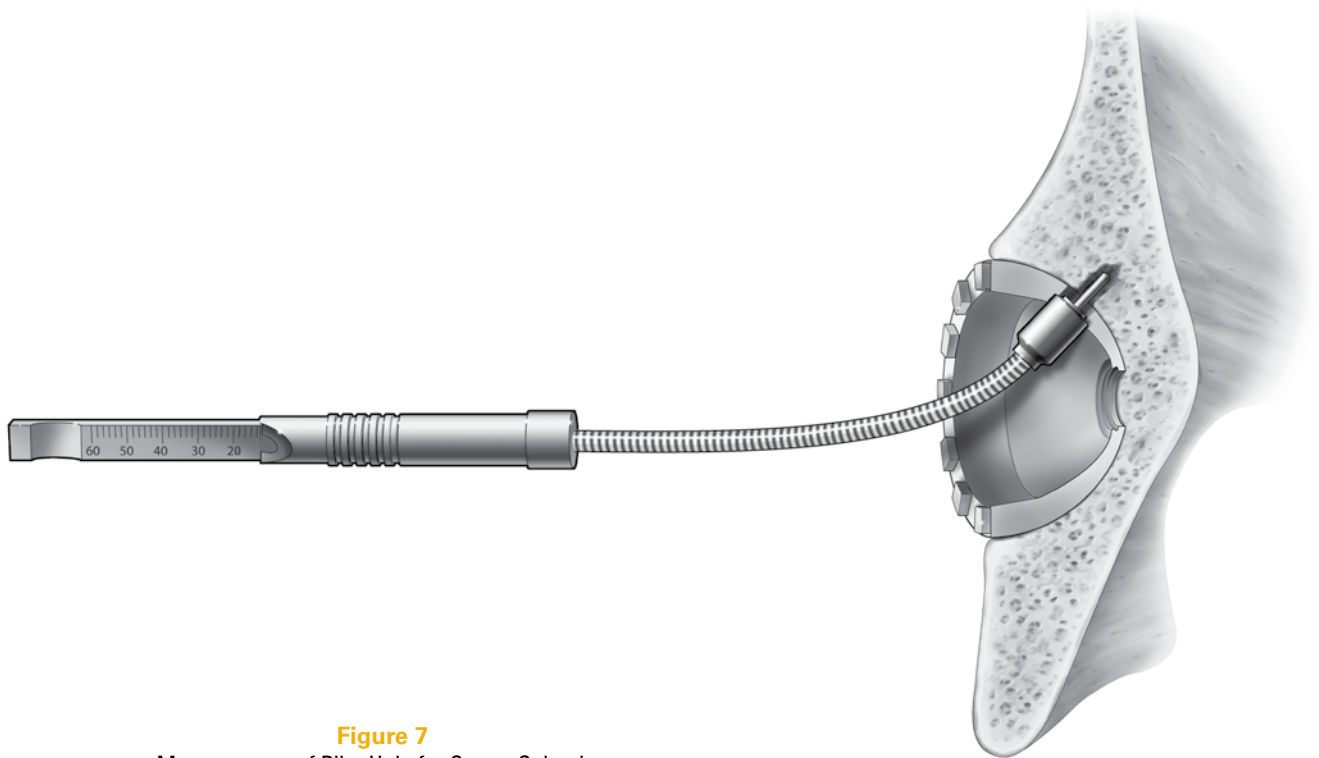


Figure 7
Measurement of Pilot Hole for Screw Selection

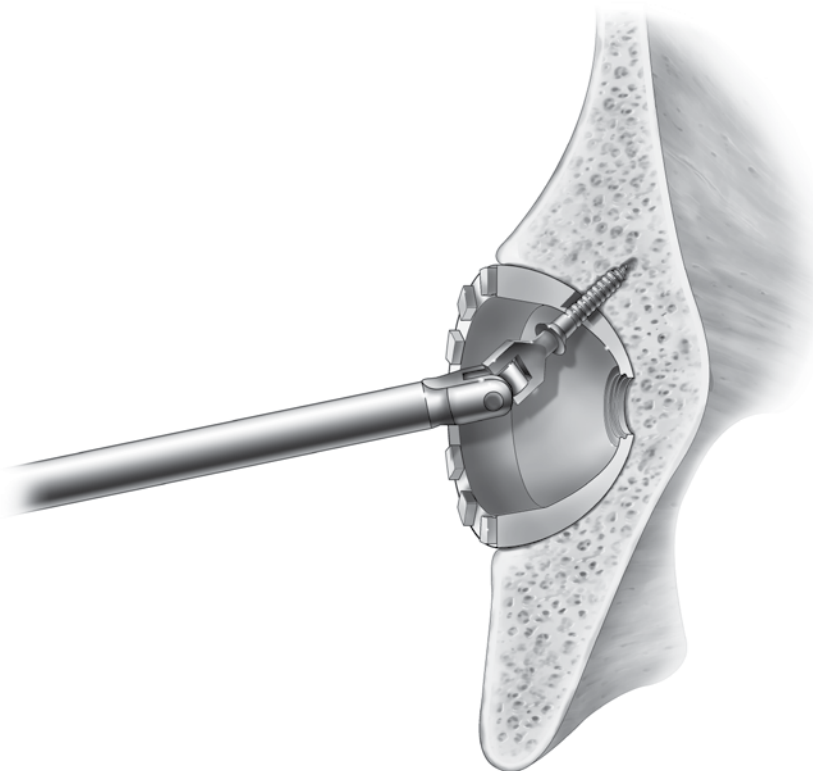


Figure 8
Screw Placement

Step 3: Determine screw length by inserting the **Flexible Depth Gauge** and sliding the barrel down into the screw hole (*Figure 7*).

Step 4: Determine the screw length by reviewing the depth indicator on the shaft of the Flexible Depth Gauge. Assemble the **Ratcheting Driver Handle** to either the **3.5mm Universal Screwdriver** (for 6.5mm Bone Screws) or the **2.5mm Screwdriver Bayonet Connection** (for 4.5mm Peripheral Rim Screws). Using the **Screw Holding Forceps** to hold the screw, insert the appropriate Bone Screw taking care to fully seat the screw (*Figure 8*). The acetabular shell holes allow +/- 11 degrees of screw angulation for proper seating of the screw. Failure to seat the screw could result in impingement with the locking mechanism of the mating acetabular liner. If extremely hard bone is encountered, a **6.5mm Bone Tap, Bayonet Connection**, may be used after drilling to prepare for a 6.5mm Bone Screw.

LINER TRIALING

Step 1: Use of an acetabular **Liner Trial** is recommended prior to insertion of the definitive liner into the Acetabular Shell. Select the appropriately sized Liner Trial in the desired liner configuration according to the acetabular shell inserted (*Table 1*). If a Ceramic Liner is desired, the appropriate **Neutral Liner Trial** ID option should be selected for trial reduction (*Table 1*). Ceramic is offered in less ID options than polyethylene so care should be taken to ensure the appropriate Liner Trial is selected.

Step 2: Ensure that the inner diameter of the acetabular shell and all mating surfaces are clear from soft tissue and debris before placing the Liner Trial.

Step 3: Place the Liner Trial into the Acetabular Shell. The Liner Trial should remain in place until after trial reductions have been performed (*Figure 9*).

LINER INSERTION

Step 1: Remove the Liner Trial using the **Novation Liner Trial Removal T-Handle**. Place the T-Handle into the central slot of the Liner Trial, rotate approximately 90 degrees and then pull on the T-Handle to remove the Liner Trial. Ensure that the internal taper of the Acetabular Shell is clear from soft tissue and debris.

Step 2: Select the appropriately sized liner in the desired configuration and gently insert by hand, taking care to ensure that the tabs of the liner enter the slots between the crowns on the rim of the Acetabular Shell (*Figure 10*).

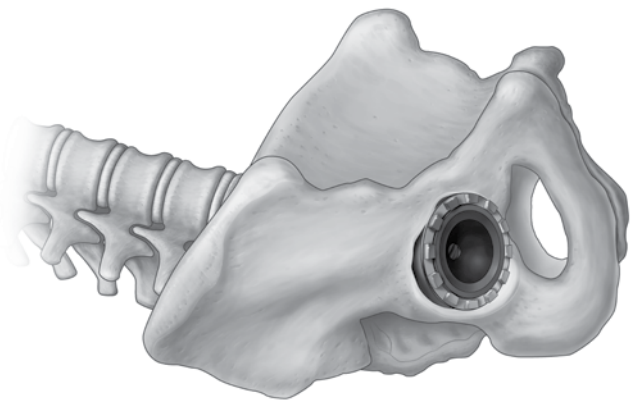


Figure 9
Trial Reduction

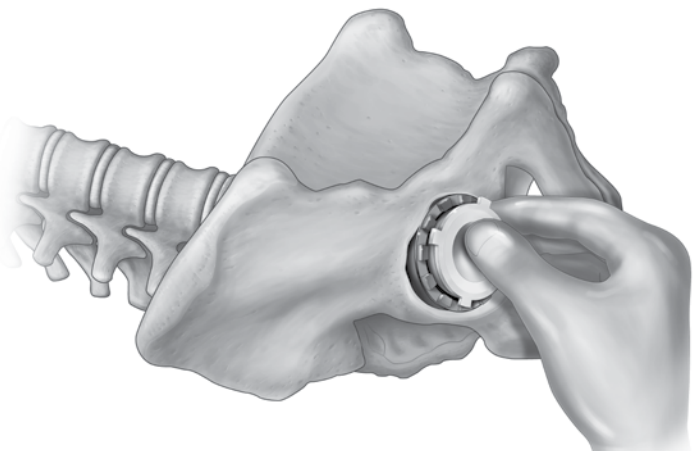


Figure 10
Ceramic/Poly Liner Insertion

TABLE 1 SHELL/LINER GROUPINGS

Acetabular Shell Groups			Liner ID Options (mm)					
Size	No-Hole and Cluster-Hole	Multi-Hole	Liner Grouping	Neutral (Ceramic)	Neutral (Poly)	Lipped (Poly)	+5mm Lateralized (Poly)	10-Degree Face Changing, +5mm Lateralized (Poly)
48mm 50mm	Group 1 (Brown)	Group 1 (Brown)	Group 1 (Brown)	28	28	28	28 or 32	32
52mm 54mm	Group 2 (Blue)	Group 2 (Blue)	Group 2 (Blue)	32	28 or 32	28 or 32	32 or 36	36
56mm 58mm	Group 3 (Gray)		Group 3 (Gray)	36	32 or 36	32 or 36	32 or 36	36
60mm 62mm	Group 4 (Purple)	Group 3 (Gray)	Group 4 (Purple)	36	32 or 36	32 or 36	32 or 36	36
64mm 66mm 68mm	Group 5 (Green)	Group 4 (Purple)	Group 5 (Green)	36	32 or 36	32 or 36	32 or 36	36

Note: Rim fixation is offered in sizes 56-68mm Multi-Hole shell only. No other shells offer Peripheral Rim Screw options.

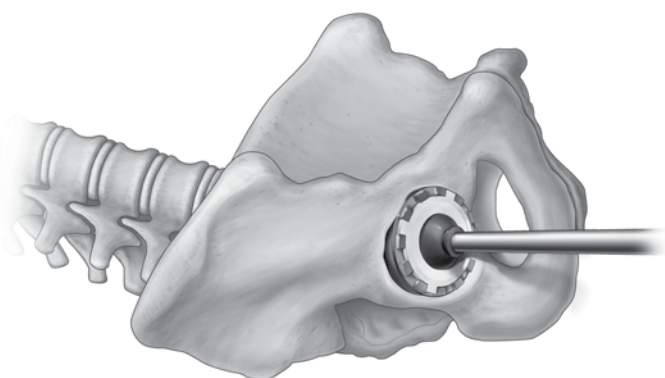


Figure 11
Liner Impaction

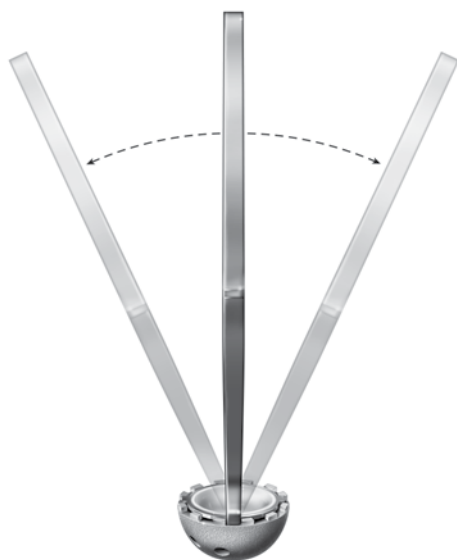


Figure 12a
Ceramic Liner Removal

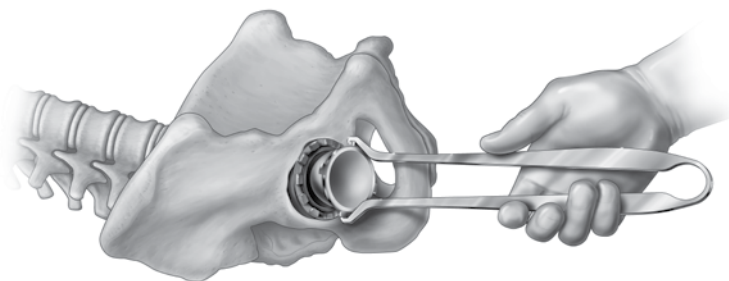


Figure 12b
Ceramic Liner Removal

Step 3: Assemble the appropriate diameter **Novation Liner Driver Head** on the end of the **Liner Driver Handle**. With a mallet, strike the driving platform of the Liner Driver with one sharp blow (*Figure 11*). Once seated, the top surface of the liner will rest slightly above the level of the Acetabular Shell crowns and be a uniform height around the circumference of the implant construct.

Important: *If an Alumina Ceramic Liner is selected, an Alumina Femoral Head must also be used. Any other femoral head will cause premature and possibly catastrophic failure of the implant construct.*

FINAL REDUCTION

After the femur has been prepared, perform final reduction to assess stability, range of motion and leg length.

POLYETHYLENE LINER REMOVAL

If a Polyethylene Liner must be removed, the **Polyethylene Removal Tool** is first assembled to the **Ratcheting T-Handle**. This assembly is then screwed into the assembled Polyethylene Liner adjacent to the apical locking mechanism. Screw until the locking mechanism is visibly disengaged from the Acetabular Shell.

CERAMIC LINER REMOVAL

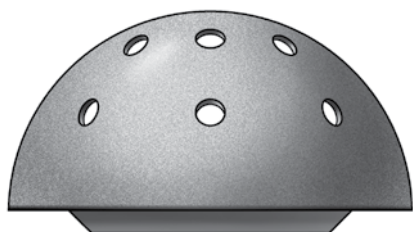
If a Ceramic Liner must be removed, insert the **Crown Cup Ceramic Liner Removal Tool** underneath opposing metal anti-rotation tabs. Once inserted, squeeze the Ceramic Liner Removal Tool handle and pivot the top of the instrument (*refer to figure 12a*) until the Ceramic Liner disengages from the Acetabular Shell (*Figure 12b*). A Ceramic Liner that has been disassembled from the Acetabular Shell should not be reassembled.

POST-OPERATIVE CARE

Regular, long-term post-operative follow-up should be undertaken to detect early signs of component wear and loosening, and to consider the course of action to be taken if such events occur. Extreme care in patient handling (e.g., moving patient, placing on bedpans, changing clothes, etc.) immediately after surgery is necessary. A continuing periodic follow-up is recommended. Periodic X-rays should be taken to detect evidence of positional changes, loosening, bone loss and/or device fracture. All patients should be instructed on the limitations of the prosthesis and the possibility of subsequent surgery. The patient should be warned against unassisted activity, particularly use of toilet facilities and other activities requiring excessive motion of the hip. Patients should be informed that their weight and activity level might affect the longevity of the implant. Patients should be advised to report any pain, decrease in range of motion, swelling, fever or unusual sounds (e.g. clicking or squeaking) as this may indicate positional changes in the implant that could lead to premature failure.

SYSTEM SPECIFICATIONS

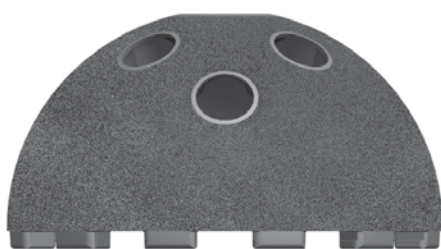
The Novation Crown Cup Acetabular Shells incorporate a 1mm press fit into the sizing of the implants. An example of the amount of press fit is shown in the following illustration.



Reamer
50mm

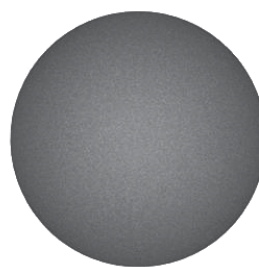


Shell Trial
50mm



Crown Cup Shell
50mm
(51mm true diameter due to porous coating)

NOVATION ACETABULAR SHELL CONFIGURATIONS



No-Hole Shell



Cluster-Hole Shell



Multi-Hole Shell (without
Rim Fixation options,
sizes 48-54mm)



Multi-Hole Shell (with
Rim Fixation options,
sizes 56-68mm)

EXACTECH BONE SCREWS

Length (mm)	4.5mm Peripheral Rim Screws	MBA 6.5mm Bone Screws (Pointed Tip)	6.5mm Bone Screws (Full Radius Tip)
15	N/A	122-65-15	120-65-15
20	N/A	122-65-20	120-65-20
25	SC45-25	122-65-25	120-65-25
30	SC45-30	122-65-30	120-65-30
35	SC45-35	122-65-35	120-65-35
40	SC45-40	122-65-40*	120-65-40*
45	SC45-45	122-65-45*	120-65-45*
50	SC45-50*	122-65-50*	120-65-50*
55	SC45-55*	122-65-55*	120-65-55*
60	SC45-60*	122-65-60*	120-65-60*
65	SC45-65*	N/A	N/A
70	SC45-70*	N/A	120-65-70*

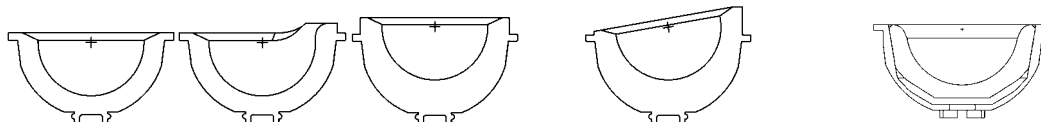
* Special order

NOVATION ACETABULAR SHELL CONFIGURATIONS

Item Number				Item Number	
Group	No-Hole	Cluster-Hole	Size	Group	Multi-Hole
1 (Brown)	180-00-48	180-01-48	48mm	1 (Brown)	180-02-48
	180-00-50	180-01-50	50mm		180-02-50
2 (Blue)	180-00-52	180-01-52	52mm	2 (Blue)	180-02-52
	180-00-54	180-01-54	54mm		180-02-54
3 (Gray)	180-00-56	180-01-56	56mm		180-03-56*
	180-00-58	180-01-58	58mm		180-03-58*
4 (Purple)	180-00-60	180-01-60	60mm	3 (Gray)	180-03-60*
	180-00-62	180-01-62	62mm		180-03-62*
5 (Green)	180-00-64	180-01-64	64mm	4 (Purple)	180-03-64*
	180-00-66	180-01-66	66mm		180-03-66*
	180-00-68	180-01-68	68mm		180-03-68*

*Multi-Hole Shells, sizes 56-68mm, have Peripheral Rim Screw holes for additional fixation.

NOVATION LINER CONFIGURATIONS



Liner Grouping	Poly Liner Options				Ceramic Liner Option*
	Neutral	Lipped	+5mm Lateralized	10-Degree Face Changing, +5mm Lateralized	Neutral
Group 1 (Brown)	130-28-51	132-28-51	136-28-51 or 136-32-51	138-32-51	166-28-21
Group 2 (Blue)	130-28-52 or 130-32-52	132-28-52 or 132-32-52	136-32-52 or 136-36-52	138-36-52	166-32-22
Group 3 (Gray)	130-32-53 or 130-36-53	132-32-53 or 132-36-53	136-32-53 or 136-36-53	138-36-53	166-36-23
Group 4 (Purple)	130-32-54 or 130-36-54	132-32-54 or 132-36-54	136-32-54 or 136-36-54	138-36-54	166-36-24
Group 5 (Green)	130-32-55 or 130-36-55	132-32-55 or 132-36-55	136-32-55 or 136-36-55	138-36-55	166-36-25

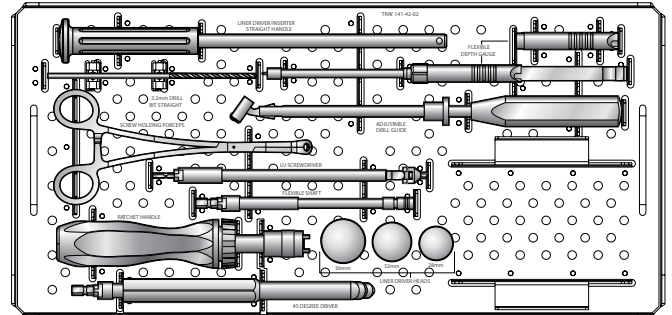
*Neutral ceramic liner option is made from Alumina Ceramic BIOLOX[®] forte

INSTRUMENT LISTING

Catalog Number **Part Description**

141-42-00 **Novation General Acetabular Instrument Case**

141-42-02 **Novation General Acetabular Instrument Case - Top Level**



101-05-21 Drill Bit, 3.2 x 32mm



105-02-01 Screw Holding Forceps



131-01-01 Liner Driver Handle



141-01-28 Novation Liner Driver Head, 28mm
 141-01-32 Novation Liner Driver Head, 32mm
 141-01-36 Novation Liner Driver Head, 36mm



T6158 Flexible Depth Gauge



T6160 Flexible Drill Shaft, Bayonet Connection



T6161 Universal Screwdriver, 3.5mm



Catalog Number

Part Description

T6162

Ratcheting Driver Handle



T6163

Adjustable Drill Guide



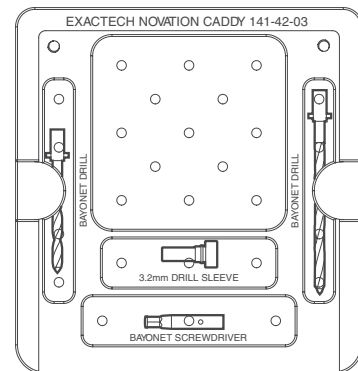
T6164

45-Degree Fixed Angle Drill Shaft, Bayonet Connection



141-42-03

**Novation General Acetabular
Instrument Case - Caddy**



T20
T22

Drill, Bayonet Connection, 4.5 x 20mm
Drill, Bayonet Connection, 4.5 x 40mm



T6117
T6118

Screwdriver, Bayonet Connection, 2.5mm
Screwdriver, Bayonet Connection, 3.5mm



T6119

Bone Tap, Bayonet Connection, 6.5mm



T6159

Drill, Bayonet Connection, 3.2 x 20mm



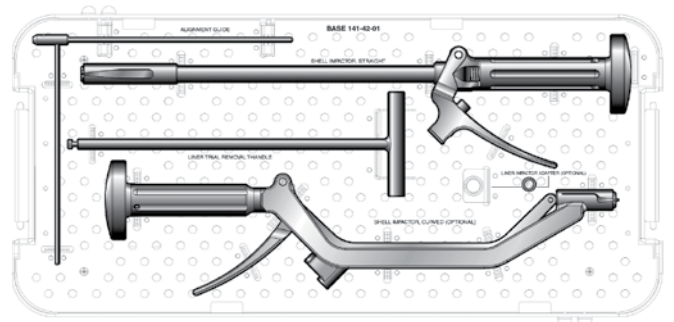
T6200

Drill Guide Sleeve, 3.2mm ID



Catalog Number Part Description

141-42-01 **Novation General Acetabular Instrument Case - Bottom Level**



101-16-00 Poly Removal Tool



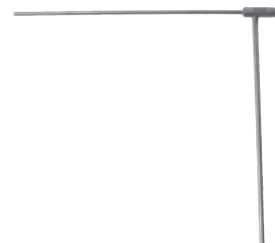
101-31-06 Ratcheting T-Handle



121-01-00 Acetabular Shell Impactor, Straight



121-01-01 Shell Impactor Alignment Guide



121-01-02* Acetabular Shell Impactor, Offset



121-01-04* Liner Driver Head Impactor Adapter



131-01-02 Novation Liner Trial Removal T-Handle



180-20-00 Crown Cup Ceramic Liner Removal Tool



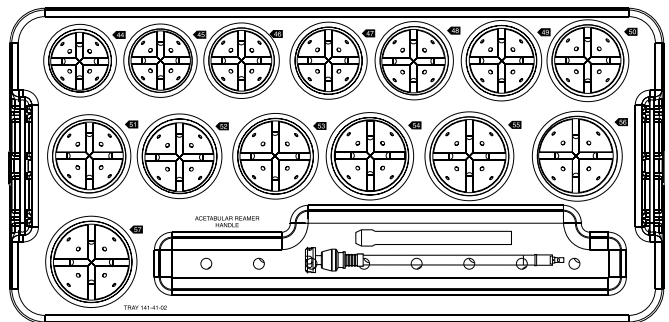
* Special order

Catalog Number

Part Description

141-41-00 **Novation Acetabular Reamer Instrument Case**

141-41-02 **Novation Acetabular Reamer Instrument Case - Top Level**



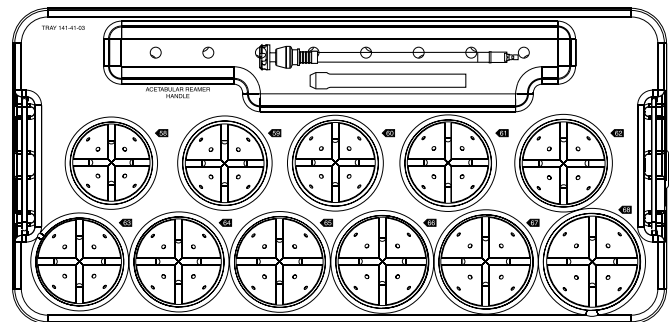
123-00-00 Reamer Handle, Straight



- 123-00-44 Acetabular Reamer, 44mm
- 123-00-45 Acetabular Reamer, 45mm
- 123-00-46 Acetabular Reamer, 46mm
- 123-00-47 Acetabular Reamer, 47mm
- 123-00-48 Acetabular Reamer, 48mm
- 123-00-49 Acetabular Reamer, 49mm
- 123-00-50 Acetabular Reamer, 50mm
- 123-00-51 Acetabular Reamer, 51mm
- 123-00-52 Acetabular Reamer, 52mm
- 123-00-53 Acetabular Reamer, 53mm
- 123-00-54 Acetabular Reamer, 54mm
- 123-00-55 Acetabular Reamer, 55mm
- 123-00-56 Acetabular Reamer, 56mm
- 123-00-57 Acetabular Reamer, 57mm



143-41-03 **Novation Acetabular Reamer Instrument Case - Middle Level**



- 123-00-58 Acetabular Reamer, 58mm
- 123-00-59 Acetabular Reamer, 59mm
- 123-00-60 Acetabular Reamer, 60mm
- 123-00-61 Acetabular Reamer, 61mm
- 123-00-62 Acetabular Reamer, 62mm
- 123-00-63 Acetabular Reamer, 63mm
- 123-00-64 Acetabular Reamer, 64mm
- 123-00-65 Acetabular Reamer, 65mm
- 123-00-66 Acetabular Reamer, 66mm
- 123-00-67 Acetabular Reamer, 67mm
- 123-00-68 Acetabular Reamer, 68mm

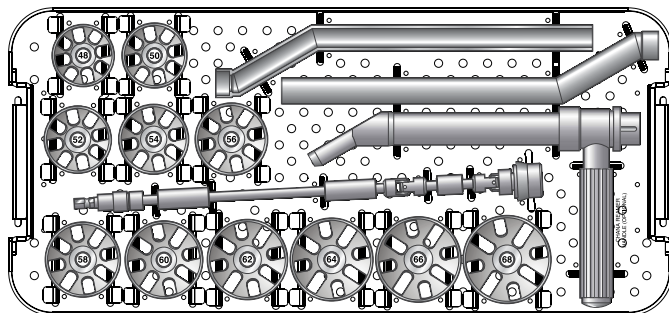


Catalog Number

Part Description

141-41-01

**Novation Acetabular Reamer
Instrument Case - Bottom Level**



- 121-00-48
- 121-00-50
- 121-00-52
- 121-00-54
- 121-00-56
- 121-00-58
- 121-00-60
- 121-00-62
- 121-00-64
- 121-00-66
- 121-00-68

- Acetabular Shell Trial, 48mm
- Acetabular Shell Trial, 50mm
- Acetabular Shell Trial, 52mm
- Acetabular Shell Trial, 54mm
- Acetabular Shell Trial, 56mm
- Acetabular Shell Trial, 58mm
- Acetabular Shell Trial, 60mm
- Acetabular Shell Trial, 62mm
- Acetabular Shell Trial, 64mm
- Acetabular Shell Trial, 66mm
- Acetabular Shell Trial, 68mm



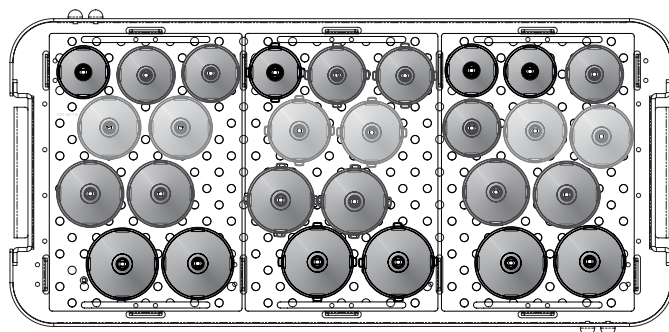
T6149*

Chana Reamer Handle, Offset



143-44-00

**Novation Crown Cup Liner Trial
Instrument Case**



* Special order

Catalog Number**Part Description**

131-28-11	Liner Trial, Neutral, Group 1 (Brown), 28mm
131-28-12	Liner Trial, Neutral, Group 2 (Blue), 28mm
131-32-12	Liner Trial, Neutral, Group 2 (Blue), 32mm
131-32-13	Liner Trial, Neutral, Group 3 (Gray), 32mm
131-36-13	Liner Trial, Neutral, Group 3 (Gray), 36mm
131-32-14	Liner Trial, Neutral, Group 4 (Purple), 32mm
131-36-14	Liner Trial, Neutral, Group 4 (Purple), 36mm
131-32-15	Liner Trial, Neutral, Group 5 (Green), 32mm
131-36-15	Liner Trial, Neutral, Group 5 (Green), 36mm



133-28-11	Liner Trial, Lipped, Group 1 (Brown), 28mm
133-28-12	Liner Trial, Lipped, Group 2 (Blue), 28mm
133-32-12	Liner Trial, Lipped, Group 2 (Blue), 32mm
133-32-13	Liner Trial, Lipped, Group 3 (Gray), 32mm
133-36-13	Liner Trial, Lipped, Group 3 (Gray), 36mm
133-32-14	Liner Trial, Lipped, Group 4 (Purple), 32mm
133-36-14	Liner Trial, Lipped, Group 4 (Purple), 36mm
133-32-15	Liner Trial, Lipped, Group 5 (Green), 32mm
133-36-15	Liner Trial, Lipped, Group 5 (Green), 36mm



137-28-11	Liner Trial, +5 Lateralized, Group 1 (Brown), 28mm
137-32-11	Liner Trial, +5 Lateralized, Group 1 (Brown), 32mm
137-32-12	Liner Trial, +5 Lateralized, Group 2 (Blue), 32mm
137-36-12	Liner Trial, +5 Lateralized, Group 2 (Blue), 36mm
137-32-13	Liner Trial, +5 Lateralized, Group 3 (Gray), 32mm
137-36-13	Liner Trial, +5 Lateralized, Group 3 (Gray), 36mm
137-32-14	Liner Trial, +5 Lateralized, Group 4 (Purple), 32mm
137-36-14	Liner Trial, +5 Lateralized, Group 4 (Purple), 36mm
137-32-15	Liner Trial, +5 Lateralized, Group 5 (Green), 32mm
137-36-15	Liner Trial, +5 Lateralized, Group 5 (Green), 36mm



139-32-11*	Liner Trial, 10-Degree Face Changing, +5 Lateralized, Group 1 (Brown), 32mm
139-36-12*	Liner Trial, 10-Degree Face Changing, +5 Lateralized, Group 2 (Blue), 36mm
139-36-13*	Liner Trial, 10-Degree Face Changing, +5 Lateralized, Group 3 (Gray), 36mm
139-36-14*	Liner Trial, 10-Degree Face Changing, +5 Lateralized, Group 4 (Purple), 36mm
139-36-15*	Liner Trial, 10-Degree Face Changing, +5 Lateralized, Group 5 (Green), 36mm



* Special order

NOT AVAILABLE FOR SALE IN THE UNITED STATES

For additional device information, refer to the Exactech Novation Comprehensive Hip System – Instructions for Use.

For further product information, please contact Customer Service, Exactech, Inc., 2320 NW 66th Court, Gainesville, Florida 32653-1630, USA. (352) 377-1140, (800) 392-2832 or FAX (352) 378-2617.

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