



Biomet UK Ltd  
Waterton Industrial Estate  
Bridgend, South Wales  
CF31 3XA, United Kingdom  
Tel. +44 (0)1656 655221  
Fax. +44 (0)1656 645454



ReCap®

Total Resurfacing System

ReCap® Hip Resurfacing System  
Surgical Technique



**BIOMET®**

## ReCap<sup>®</sup> Hip Total Resurfacing System

Accumulated experience has shown that wear particles of polyethylene are the principle cause of interface failure. This is particularly important in young, high activity individuals where long term fixation is needed. The time has come when the use of optimally designed metal on metal bearings with greatly reduced potential for wear generation should be considered in such patients.

Biomet's commitment to manufacturing Gold Standard Metal on Metal implants dates back to 1961, with the Stanmore Total Hip System. Followed shortly after by the McKee Farrah Total Hip, and more recently with the M<sup>2</sup>a<sup>™</sup> Hip System.

In response to this, Biomet, alongside Key Development Centres world-wide, has developed the ReCap<sup>®</sup> Total Resurfacing System.

## Disclaimer

Biomet UK Ltd, as the manufacturer of this device, does not practice medicine and does not recommend any particular surgical technique for use on a specific patient. The surgeon who performs any implant procedure is responsible for determining and utilising the appropriate techniques for implanting the prosthesis in each particular patient. Biomet UK Ltd is not responsible for selection of the appropriate surgical technique to be utilised for an individual patient. ReCap<sup>®</sup> is a trademark in the U.S.A.

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## 1. Pre-operative planning

Selection of the correct components is attained through careful pre-operative planning. This can be achieved manually by means of x-ray templates, or digitally by means of a PAC system.

### Manual pre-operative planning

The ReCap® Hip Resurfacing System provides a comprehensive selection of femoral and acetabular x-ray templates.

These templates are positioned over the Anterior Posterior x-rays to best decide the correct implant size required to help restore the patient's natural anatomy.



### Digital pre-operative planning

The ReCap® Hip Resurfacing System digital templates are available through various digital template providers. When using digital templating for a primary THR, it is necessary to use a magnification marker with a known dimension. This is required in order for the PAC system to calculate the correct magnification.

As soon as the correct magnification has been determined, the PAC system can be used to best decide the correct implant size required to help restore the patient's natural anatomy.



























## 2. Templating

It is important to note that to carry out accurate templating of the anatomy, the x-ray magnification must be identical to the template used. Failure to follow this instruction will result in the wrong size implant being selected or incorrect measurements being taken. See chart below for details of ReCap/Magnum implant sizing.

Prior to surgery, the decision must be taken as to which method of guide pin positioning is to be undertaken. The ReCap® instrumentation offers two methods for completing this stage of the operation. The two methods of guide pin positioning are; a) utilising the ReCap KS Alignment Device, or b), utilising the guide pin alignment frame and laterally positioned pin. Once the decision has been made as to which method is to be employed, it is important that the correct pre-operative x-ray templating procedure is followed.

### Sizing Chart

Colour Code	ReCap/Magnum Femoral Component (mm)	ReCap / Magnum Standard Shell (mm)	ReCap/Magnum Oversize shell (mm)	Magnum Femoral Taper Adaptor (mm) (Type 1 Taper)	Magnum Femoral Taper Adaptor (mm) (12/14 Taper)
	38	44	46	38-40	-6
					-3
					STD
					+3
					+6
	40	46	48		+9
	42	48	50	42-50	-6
	44	50	52		-3
 	46	52	54		STD
 	48	54	56		+3
 	50	56	58		+6
					+9
 	52	58	60		52-60
  	54	60	62	-3	
  	56	62	64	STD	
  	58	64	66	+3	
				+6	
  	60	66	68	+9	
					STD
					+4
					+8

NB: When implanting the oversize acetabular shells use the insertion instruments for the equivalent standard acetabular shell e.g. When using the 58mm x 50mm oversize acetabular shell use the 56mm acetabular insertion instruments

## **2a Templating Procedure - Alignment Frame with Lateral Pin**

When utilising this method of guide pin positioning, it is necessary to first establish the position of the lateral pin in relation to the greater trochanter, as this will ultimately determine the valgus angle of the implant.

The femoral head is templated on the Anterior/Posterior x-rays for size and position. The implant template selected is to match the circumference of the original femoral head. The template is normally positioned so that the stem of the femoral component is either neutral or at a slightly valgus angle. The template should be positioned so that the stem of the femoral resurfacing component is NOT in varus.

At this stage of the operation, it is recommended that one takes note of the colour code of the selected implant. To facilitate the procedure, all ReCap® instruments are colour coded by size.

When the correct size implant has been selected that best suits the patient anatomy and the femoral component positioned in a neutral or slightly valgus angle, a line is drawn on the x-ray along the axis of the femoral component that bisects the lateral cortex of the femur. The dimension from the tip of the greater trochanter to this intersection point is then recorded.

## **2b. Templating pinless jig**

Component templating for correct sizing is important and should follow the same sizing procedure as described in section 2a, with the exception of no aligning measurement needs to be taken for the ReCap KS alignment device (31-600367).

More information on this device can be found in the KS alignment design rational (FLH187).

### 3. Surgical exposure

The ReCap® Hip Resurfacing System can be implanted using any of the standard approaches for total hip replacement. The aim of the approach selected is to provide adequate visualisation of both the acetabulum and proximal femur. However, the selected method of guide pin positioning will ultimately determine the size of incision necessary. The incision length when utilising the alignment frame and laterally positioned pin tends to be greater than the incision required when utilising the ReCap® KS Alignment Device. (Figure 1)

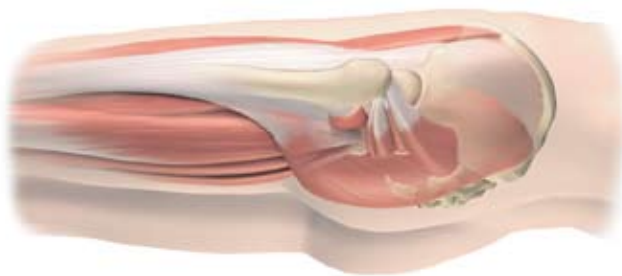


Figure 1

### 4. Femoral Head/Neck Sizing

Once the soft tissues have been resected and the femoral head dislocated, it is important to perform an intra-operative check to confirm the size of femoral head selected at the pre-operative planning stage is correct. This is achieved by placing the closed end of the head/neck-sizing gauge over the femoral head and the open end over the femoral neck. The closed end of the head/neck sizing gauge equates to the outside diameter of the femoral resurfacing component, whilst the open end equates to the internal diameter of the femoral resurfacing component. (Figure 2)

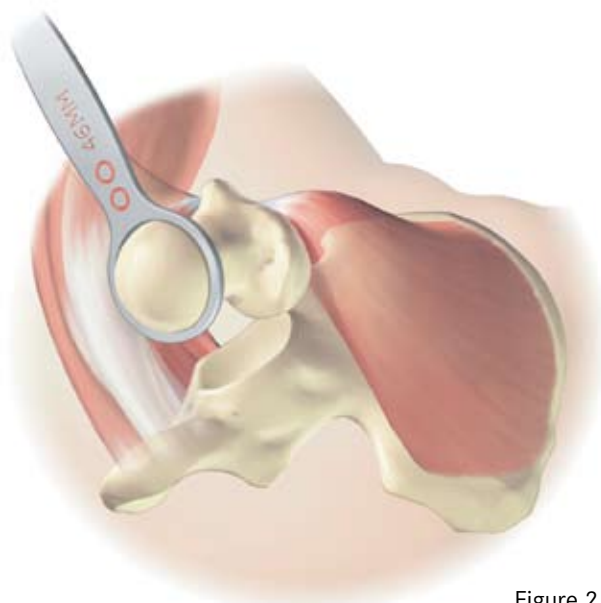


Figure 2

This is important as it confirms that an appropriate size implant has been selected and determines whether notching of the femoral neck will occur during cylindrical reaming. Once the diameter of the femoral head has been verified, the size is recorded on the ReCap® white board provided. (Figure 3)



Figure 3

## 5. Identifying the Femoral Neck Centre

(Optional)

To facilitate positioning of the guide pin, it is advisable to identify the centre of the femoral neck. Using a suitable surgical marker pen or cauterising marker, draw lines along the centres of the superior/inferior and anterior/posterior aspects of the femoral neck and then extend these lines over the top of the femoral head until they intersect. (Figures 4, 5 & 6)

**Note:** It is important to remember that the femoral neck centre is different to the femoral head centre. The femoral head centre should, therefore, be ignored when determining the location of the lines.

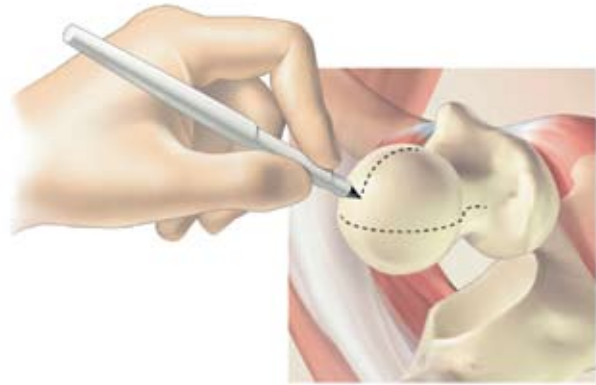


Figure 4

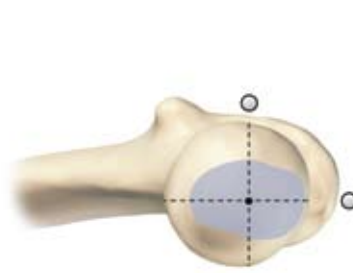


Figure 5

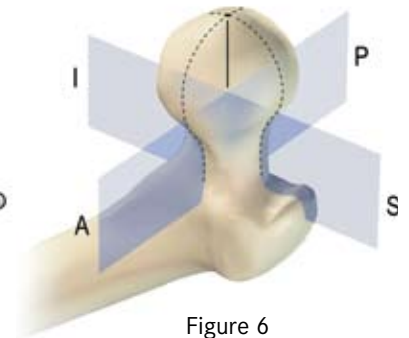


Figure 6

## 6a Guide Wire Placement - ReCap® KS Alignment Device

After correctly sizing the femoral component, it is important to make sure that the calcar is visible from the subcapital region to the lesser trochanter. Wagns forceps should be placed on the calcar and the central line of the inferior calcar marked with a surgical marker pen.

Visible neck osteophytes should be carefully removed to reveal the “true neck” to prevent malpositioning of the alignment device.

Place the device over the femoral neck so that the arm marked ‘inferior neck’ sits on the inferior side of the femoral neck, with the jaws centralised over the diathermy mark. Whilst securing the device with one hand, the black handle of the device should be turned clockwise until the device feels secure on the neck, making sure the jaws are still centralised over the diathermy mark. (Figure 7)



Figure 7

Select the 9" guide wire (the shorter of the two long guide wires) from the ReCap® general instrument tray.

Before inserting the 9" guide wire into the device, it is important to note that there are a number of hole options available, which allow placement of the wire in varying degrees of varus/valgus and anteversion (Figure 8).

The two options which will place the guide wire and ultimately the femoral component in the correct orientation relative to the patients natural anatomy are marked by a double headed arrow on top of the Jig. These will place the implant in slight Valgus with 5° anteversion. The remaining holes afford the surgeon the opportunity to overcome any mild deformities with the patients anatomical neck.

Before inserting the guide wire it is possible to check the valgus/varus placement of the guide wire with the target arm, which slides through the available slot on the anterior aspect of the device (Figure 9). Once satisfied with the position of the device, remove the target arm to proceed.

Advance the 9" guide wire through the chosen guide hole. The Jig can now be loosened and removed from the femoral neck. It is now possible to double check the position of the guide wire by using the appropriate ReCap® sizing gauge to verify the guide wire position. This confirms there will be enough bone stock to support the component and the neck will not be notched during preparation (see section 7).

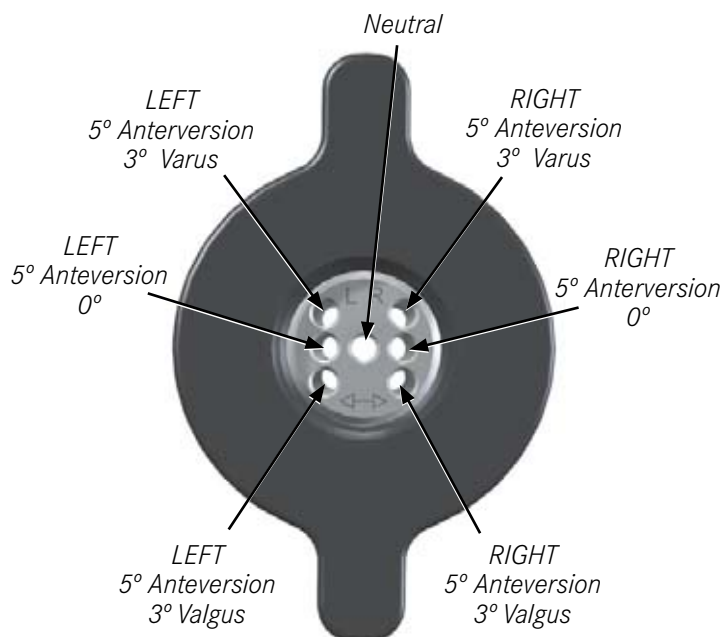


Figure 8

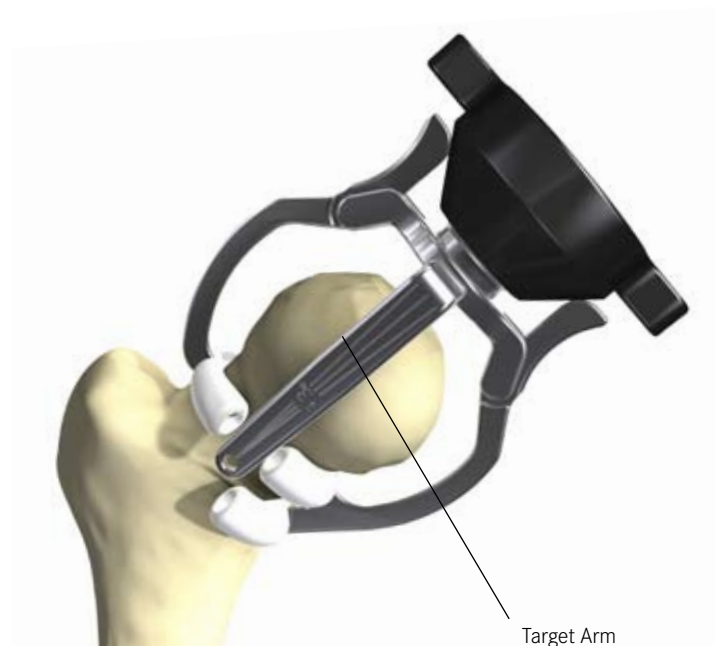


Figure 9

## 6b Guide Wire Placement – Alignment Frame with Lateral Pin

Before the guide wire alignment frame can be employed, the 4.0mm Steinman pin must be inserted into the lateral cortex. This pin is driven into the lateral cortex, parallel to the femoral neck and slightly posterior to the mid line of the femur. This slightly posterior location helps achieve the correct anteversion.

The desired position of the femoral alignment pin will be known from the preoperative templating. This measurement should be translated onto the lateral cortex measured down for the tip of the greater trochanter and the alignment pin inserted through the fibres of vastus lateralis. The jig can now be attached as shown (Figure 10).

Before advancement of the guide pin can take place, the stylus assembly is set to the diameter of the resurfacing head selected and rotated around the femoral neck and head/neck junction, in order to determine whether or not notching will occur (Figures 11 & 12). When the stylus can be passed around the femoral neck, then the central guide tube is locked into position. Any fine tuning can now take place. Once happy with the positioning of the guide tube, the guide wire is advanced through the guide tube.



Figure 10



Figure 11



Figure 12

## 7. Gauging Femoral Neck

As a final check prior to over drilling the guide wire, its correct positioning can be verified using the neck gauges. These gauges are size specific and designed to check the guide pin is centrally positioned within the femoral neck. (Figure 13)

Slide the appropriate size neck gauge over the guide wire and rotate it around the femoral neck. If at any position the point of the stylus touches the femoral neck, it may be necessary to reposition the guide or increase the size of the femoral resurfacing head. Be aware that if the second option is chosen, it will also be necessary to increase the size of the acetabular component. Once the placement of the guide wire has been verified, it can be advanced into the lateral cortex. (Figure 14)

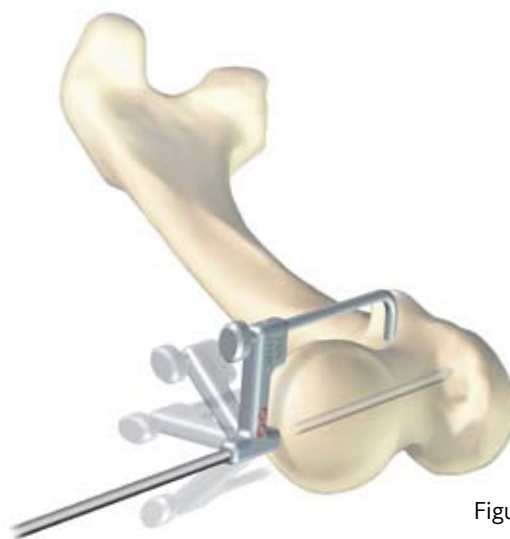


Figure 13



Figure 14

## 8. Drilling Femoral Head

The cannulated drill is placed over the guide wire and advanced until the correct depth is reached. The depth is determined by the colour code of the size of implant to be used. For example, if a 50mm ReCap® resurfacing component is to be implanted, the instrument colour code is two white rings. The depth to which the cannulated drill is advanced is, therefore, the second white ring. The cannulated drill and guide wire can then be removed. (Figure 15)

Note: Please refer to sizing chart on page 6

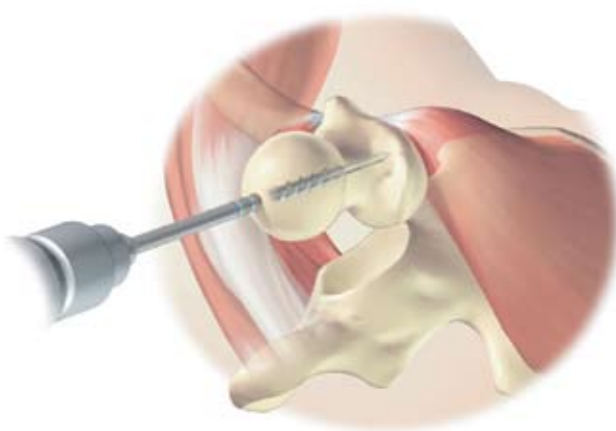


Figure 15

## 9. Guide Rod Placement

Prior to inserting the guide rod, it is important to understand the sizing rationale of the different length rods. The ReCap® guide rods are available in 6 different lengths. These lengths allow the surgeon to accurately resect predetermined amounts of bone from the top of the femoral head in order to restore the patient’s natural anatomy. (Figure 16)

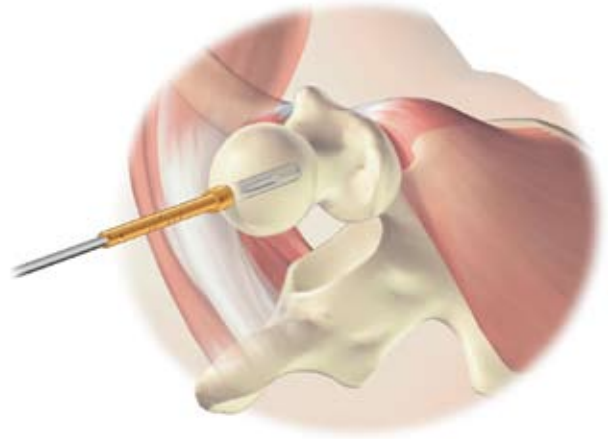


Figure 16

For example, if a STD guide rod is used, the spherical reamer will remove 6.5mm of bone from the top of the femoral head. This 6.5mm equates to the thickness of the ReCap® resurfacing head. The top of the prosthetic head is, therefore, at the same position as the anatomic head. A -3mm guide rod will permit the removal of only 3.5mm, (6.5mm - 3mm) therefore increasing the neck length by 3mm and a +3mm guide rod will permit the removal of 9.5mm (6.5mm + 3mm) and will therefore shorten the neck length by 3mm.

See table below for details of how much bone is resected for each of the guide rods.

It is important to note that, if after cylindrical reaming the desired cut depth is not achieved and additional bone needs to be removed, a “+” guide rod will allow the cylindrical reamer to further advance down the femoral head.

**During this procedure care must be taken to prevent notching of the femoral neck.**

Guide Rod	-3.0mm	STD	1.5mm	3mm	4.5mm	6mm
Bone Resected	3.5mm	6.5mm	8.0mm	9.5mm	11.0mm	12.5mm

## 10. Cylindrical Reaming - Femoral Head

Prior to commencing cylindrical reaming, it is important to understand the correlation between the ReCap® femoral and acetabular components. When standard acetabular components are used, there is a 6mm difference between the femoral and acetabular components (see chart page 6). For example, a 50mm ReCap® resurfacing component is designed to articulate within a 56mm diameter ReCap® acetabular component. ReCap® acetabular components require the acetabulum to be reamed either 1mm or 2mm smaller than the component, depending on the bone quality.

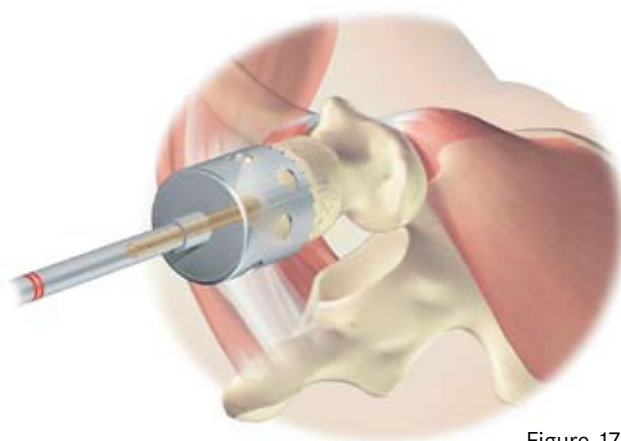


Figure 17

It is, therefore, recommended that the first cylindrical reamer used is at least one size larger than that selected at the femoral head/sizing stage of the operation. This provides the option to up size the femoral component to match that of a stable acetabular component, or remove bone from the femoral head, in order to ream the femoral head to the size of acetabular component originally selected.

Once the appropriately sized cylindrical reamer has been selected, it is placed over the guide rod and advanced, taking care not to notch the femoral neck. The cylindrical reamer will stop cutting when it reaches the guide rod stop. With a STD guide rod in place, the cutting teeth of the cylindrical reamer will extend 5mm beyond the outer edge of the implants articulating surface. (Figure 17)

**Should the femoral neck become notched during reaming, the resurfacing procedure should immediately change to a total hip procedure. (See stage 17)**

## 11. Acetabular Preparation and Implant Insertion

Prior to spherical reaming of the femoral head, it is recommended to prepare the acetabulum and implant the acetabular component. This provides the option to up size the acetabular component to achieve stable fixation, or implant the size of component originally selected during the pre-operative planning or sizing of the femoral head/neck.

### 11a. Acetabular Reaming

It is important to start reaming with the smallest diameter grater reamer available, perpendicular to the acetabulum, in order to find the true acetabular floor. Sequential reaming then follows, ensuring that the reamer handle is angled at the same orientation of the component to be implanted. (45 degrees of inclination and 20 degrees of anteversion) Care must be taken at this stage to ensure that the anterior and posterior columns of the acetabulum are not eroded, as this will affect the overall stability of the component. It is recommended that the acetabulum should be reamed either 1mm or 2mm smaller, depending on bone quality, than the acetabular component to be implanted. (Figure 18)

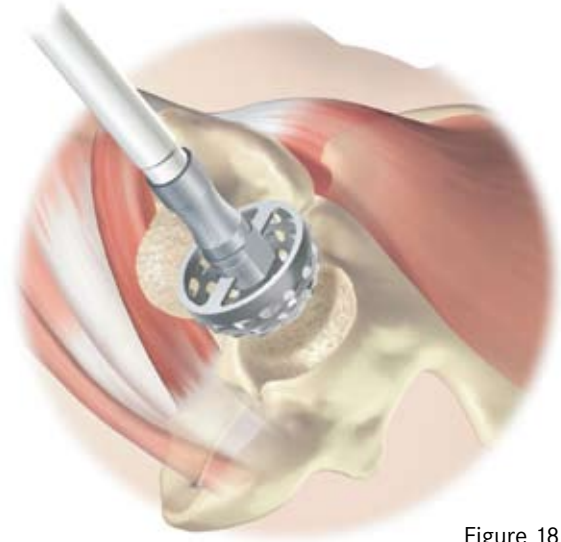


Figure 18

### 11b. Acetabular Gauging

After reaming, the acetabulum is gauged for sphericity and size, using the acetabular gauges provided. These gauges contain windows that allow direct visualisation of the acetabular floor and also test the stability of the acetabular component prior to implanting the actual acetabular component. The gauge selected should correlate directly with the size of acetabular component to be implanted. (For example, a 56mm acetabular implant requires the acetabulum to be reamed to 54mm diameter. This 54mm reamed acetabulum is then gauged with a 56mm gauge). (Figure 19)

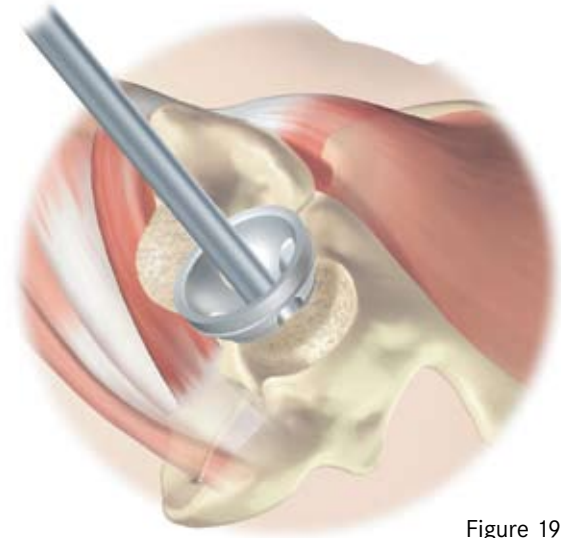


Figure 19

### 11c. Acetabular component impactor assembly

Once happy with the acetabular component size, the components corresponding impactation plate should be selected for assembly onto the impactation handle.

Before assembling the impactation handle to the impactation plate make sure the ball bearing bushing is visible at the tip of the handle. (Figure 20). If the ball bearings are not visible, unscrew the strike plate until resistance is felt and pull the bushing out. If the ball bearings are not completely visible, once assembled, the impactor plate will not engage with the cup.

Correct assembly of the impactation handle and impactation plate is achieved by aligning the impactation plate with the tip of the handle so that the slots are aligned. (Figure 21). Care should be taken not to push the ball bearings back into the shaft of the impactation handle. Engage the handle with the impactor plate by pushing the two parts together against a hard surface. Confirm that the two parts are flush together and therefore fully seated. (Figure 22).

The acetabular component is mounted onto the impactation plate and handle by aligning the fingers of the impactation plate over the cut outs on the peripheral edge of the acetabular component (Figure 23).

Once aligned the cup is secured to the handle by turning pulling the strike plate towards yourself and turning it in a clockwise direction until hand tight. (Figure 24). The cup is now ready to be impacted into the acetabulum.



Figure 20

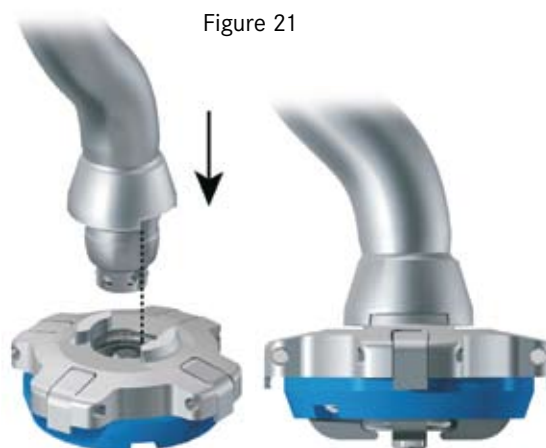


Figure 21

Figure 22



Figure 23



Figure 24

### 11d. Acetabular component insertion

Once the acetabular component has been securely locked onto the impaction handle, the ReCap acetabular component is impacted into the prepared acetabulum at an angle of 45 degrees of inclination and 20 degrees of anteversion. When correct component seating has been achieved, the impaction handle should be removed from the cup. This is achieved by turning the strike plate one-quarter turn anti-clockwise. (Figure 25).

Should there be the need to carry out additional impaction of the acetabular component, size specific cup impactors are available on the ReCap instrumentation tray (Figure 26).

To remove the strike plate from the impaction handle, unscrew the strike plate until you feel resistance. Lever the impactor plate from the inserter handle with the multi-tool. (Figure 27).



Figure 25

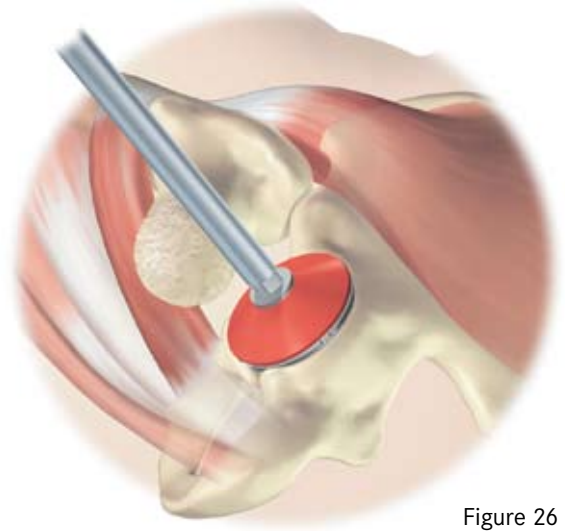


Figure 26

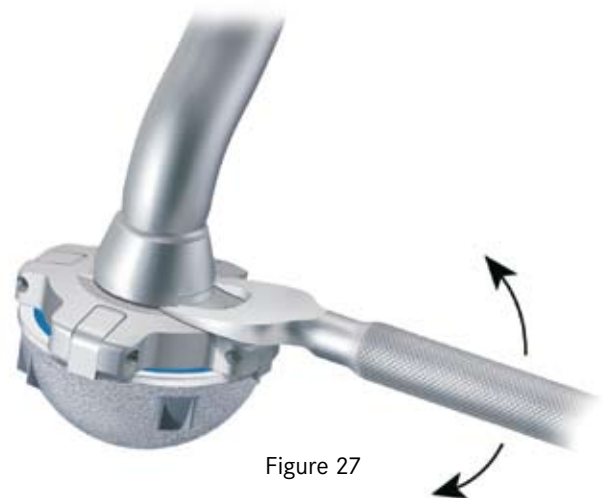


Figure 27

## 12. Spherical Reaming Femoral Head

Once the acetabular component has been successfully seated within the acetabulum, it is possible to complete the femoral head reaming. If the acetabular component implanted is the same as that selected during the pre-operative planning stage, the femoral head should first be cylindrically reamed to the correct size and then spherically reamed with the corresponding spherical reamer to match the femoral resurfacing component. If the acetabular implanted is larger than that originally selected during the pre-operative planning stage, the femoral head should be cylindrically and spherically reamed to match the corresponding femoral resurfacing component.

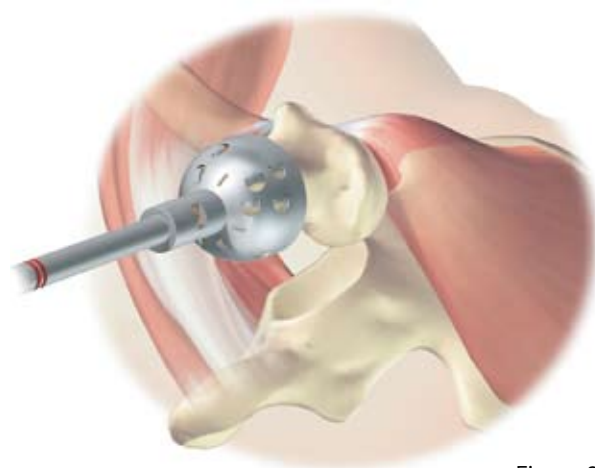


Figure 28

Spherical reaming utilises the same guide rod as the cylindrical reamer and it is important to ensure the same length of guide rod is now used. It is important to remember that a STD guide rod will permit the removal of 6.5mm of bone from the top of the femoral head. This 6.5mm equates to the thickness of material of the ReCap® femoral resurfacing component. The top of the prosthetic head is, therefore, at the same position as the anatomic head. A -3mm guide rod will permit the removal of only 3.5mm, (6.5mm - 3mm) therefore increasing the neck length by 3mm and a +3mm guide rod will permit the removal of 9.5mm (6.5mm + 3mm) and will therefore shorten the neck length by 3mm. (Figure 28)

Once the appropriately sized spherical reamer has been selected, it is placed over the guide rod and advanced. The spherical reamer will stop cutting when it reaches the guide rod stop. Each spherical reamer contains a window that permits visual confirmation that the reamer has reached the guide rod stop. (Figure 29)

When the spherical reamer stops cutting, a 6.5mm bone spigot will be present beneath the guide rod stop. This bone spigot will need to be removed with a rongeur prior to attaching the trial head. Care should be taken to thoroughly lavage the femoral head and ensure all bone debris is removed from the surrounding tissue.



Figure 29

*It is important to note that the rim of the spherical reamer correlates exactly with the rim of femoral resurfacing component. It is, therefore, recommended to use the rim of the spherical reamer as a visual gauge to highlight the final position of the resurfacing femoral component in relation to the head neck junction.*

### 13. Femoral Head Trial

The appropriately sized femoral head trial is positioned on the freshly prepared femoral head to check the fit of the implant and if necessary to perform a trial reduction. (Figure 30). It is possible, when necessary, to remove additional bone from the top of the femoral head. To carry out this procedure the standard guide rod must first be replaced into the drilled hole and the last spherical reamer used is positioned over the guide rod. The spherical reamer is then advanced over the guide rod until the desired amount of bone is removed.

**It is important to remember that the guide rod stop mechanism may no longer be used.**

The windows in the trial head permit visualisation of component coverage. It is recommended to mark the margin of the trial at this time, as this will help when seating the implant in position.

### 14. Final Preparation of Femoral Head

Prior to cementing the ReCap® resurfacing component in position, the femoral head must undergo final preparation. First, any cysts or defects must be removed, as these will negatively affect the longevity of the resurfacing component. Secondly, the femoral head surface is drilled with keyholes that aid cement interdigitation. Lastly, the femoral head must be thoroughly washed using pulse lavage and then dried. (Figure 31)

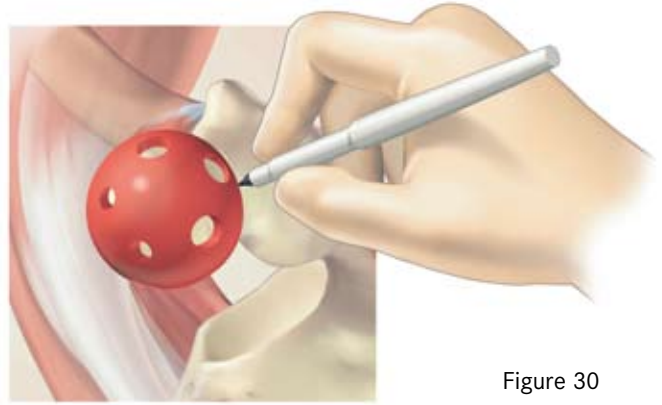


Figure 30

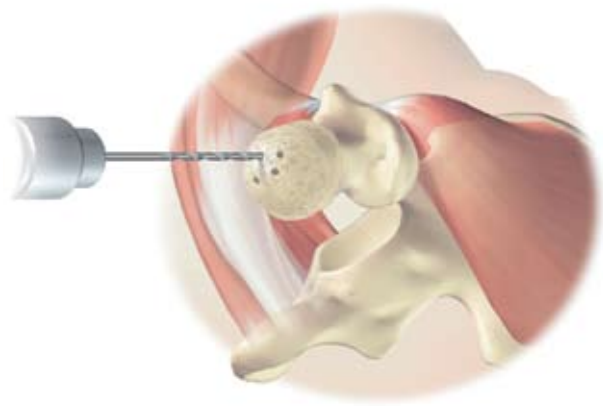


Figure 31

## 15. Placing the Resurfacing Component

Refobacin LV cement is mixed as per instructions and poured in the inverted resurfacing head. Care must be taken to prevent cement from attaching itself to the resurfacing component stem. The resurfacing component is then placed onto the prepared femoral head and impacted until fully seated. The margin marked in stage 13 of this procedure provides a visual confirmation that the resurfacing component has indeed been seated to the correct position. Care must now be taken to ensure all excess cement is removed. It is recommended that pulse lavage is again employed to remove any debris that may collect in the joint.

(Figure 32)



Figure 32

## 16. Reducing the Joint

Before reducing the ReCap<sup>®</sup> resurfacing component into the ReCap<sup>®</sup> acetabular component, it is recommended that a large swab be placed on the edge of the acetabular component. This will act as a slide and help prevent damage to the implant surfaces during reduction. When the joint has been reduced the swab is removed. The joint is then assessed for stability and leg length. (Figure 33)

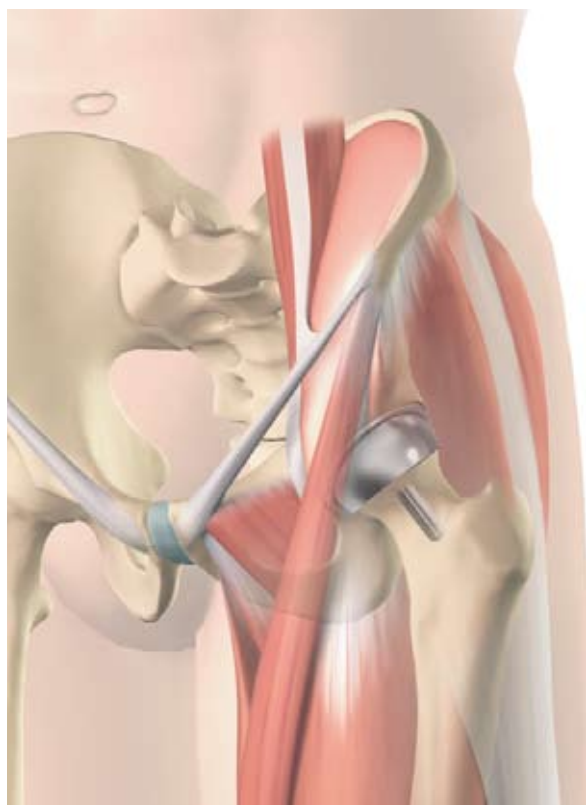


Figure 33

## 17. Conversion of Resurfacing Procedure to Total Hip Procedure

Should the femoral neck become notched or damaged during preparation, or the femoral anatomy be unsuitable for resurfacing, it will be necessary to convert the resurfacing procedure to a total joint procedure. If this is indeed the case, M2a-Magnum™ modular femoral heads and adaptors are available (Figure 34).

It is recommended that M2a-Magnum™ implants and a suitable femoral-stemmed component plus their instruments are always on hand when a resurfacing procedure is undertaken (Figure 35 & 36).

The M2a-Magnum™ femoral components are designed to articulate with the ReCap® acetabular component whilst the taper adaptors permit accurate leg length/tissue reconstruction. This allows the ReCap® acetabular component to remain in position whilst the femur is prepared for a stemmed femoral prosthesis. Please refer to the M2a-Magnum™ (FLH 171) operative techniques and appropriate femoral component such as the Bi-Metric® and Taperloc® operative techniques for relevant information. (Figure 37).



Figure 34

Figure 35



Figure 36

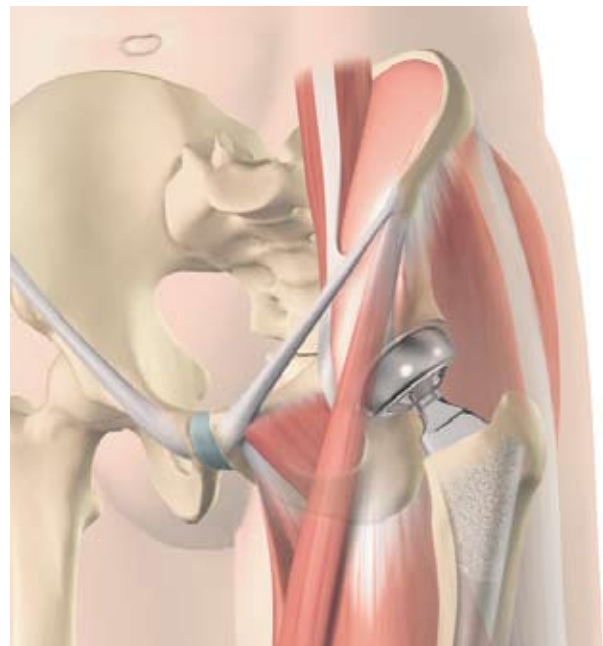


Figure 37

# Ordering Information

## ReCap® Resurfacing Heads

Cat. No.	Description
157238	ReCap Resurfacing Head Sz 38mm
157240	ReCap Resurfacing Head Sz 40mm
157242	ReCap Resurfacing Head Sz 42mm
157244	ReCap Resurfacing Head Sz 44mm
157246	ReCap Resurfacing Head Sz 46mm
157248	ReCap Resurfacing Head Sz 48mm
157250	ReCap Resurfacing Head Sz 50mm
157252	ReCap Resurfacing Head Sz 52mm
157254	ReCap Resurfacing Head Sz 54mm
157256	ReCap Resurfacing Head Sz 56mm
157258	ReCap Resurfacing Head Sz 58mm
157260	ReCap Resurfacing Head Sz 60mm

## ReCap® HA/Porous Coated Acetabular Components

Cat. No.	Description
157944	ReCap PF HA/PC Acetabular Comp Ø 44/38mm
157946	ReCap PF HA/PC Acetabular Comp Ø 46/40mm
157948	ReCap PF HA/PC Acetabular Comp Ø 48/42mm
157950	ReCap PF HA/PC Acetabular Comp Ø 50/44mm
157952	ReCap PF HA/PC Acetabular Comp Ø 52/46mm
157954	ReCap PF HA/PC Acetabular Comp Ø 54/48mm
157956	ReCap PF HA/PC Acetabular Comp Ø 56/50mm
157958	ReCap PF HA/PC Acetabular Comp Ø 58/52mm
157960	ReCap PF HA/PC Acetabular Comp Ø 60/54mm
157962	ReCap PF HA/PC Acetabular Comp Ø 62/56mm
157964	ReCap PF HA/PC Acetabular Comp Ø 64/58mm
157966	ReCap PF HA/PC Acetabular Comp Ø 66/60mm

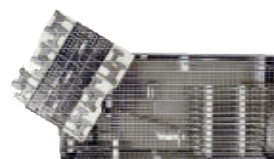
## ReCap® Porous Coated Acetabular Components

Cat. No.	Description
157844	ReCap PF PC Acetabular Comp Ø 44/38mm
157846	ReCap PF PC Acetabular Comp Ø 46/40mm
157848	ReCap PF PC Acetabular Comp Ø 48/42mm
157850	ReCap PF PC Acetabular Comp Ø 50/44mm
157852	ReCap PF PC Acetabular Comp Ø 52/46mm
157854	ReCap PF PC Acetabular Comp Ø 54/48mm
157856	ReCap PF PC Acetabular Comp Ø 56/50mm
157858	ReCap PF PC Acetabular Comp Ø 58/52mm
157860	ReCap PF PC Acetabular Comp Ø 60/54mm
157862	ReCap PF PC Acetabular Comp Ø 62/56mm
157864	ReCap PF PC Acetabular Comp Ø 64/58mm
157866	ReCap PF PC Acetabular Comp Ø 66/60mm

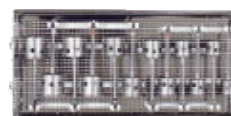
## ReCap® Femoral Instrument Tray Catalogue Number 31-600206



## ReCap® General Instrument Tray Catalogue Number 31-600201



## ReCap® Cylindrical Reamer Tray Catalogue Number 31-600203



## ReCap® Spherical Reamer Tray Catalogue Number 31-600204



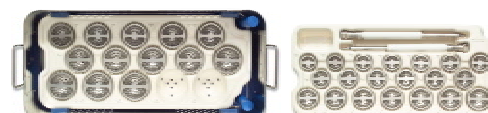
## ReCap® Impaction Instrument Tray Catalogue Number 31-600597



## ReCap® Auxiliary Tray Assembly Catalogue Number 31-601075



## ReCap® Acetabular Grater Reamer Tray Catalogue Number 31-600055



## Cementless Over-Size PC Acetabular Components

<b>Cat. No.</b>	<b>Descriptioners</b>
130846	ReCap OS PC Acetabular Comp 38/46mm
130848	ReCap OS PC Acetabular Comp 40/48mm
130850	ReCap OS PC Acetabular Comp 42/50mm
130852	ReCap OS PC Acetabular Comp 44/52mm
130854	ReCap OS PC Acetabular Comp 46/54mm
130856	ReCap OS PC Acetabular Comp 48/56mm
130858	ReCap OS PC Acetabular Comp 50/58mm
130860	ReCap OS PC Acetabular Comp 52/60mm
130862	ReCap OS PC Acetabular Comp 54/62mm
130864	ReCap OS PC Acetabular Comp 56/64mm
130866	ReCap OS PC Acetabular Comp 58/66mm
130868	ReCap OS PC Acetabular Comp 60/68mm

## Cementless Over-Size HA/PC Acetabular Components

<b>Cat. No.</b>	<b>Descriptioners</b>
130846HA	ReCap OS HA/PC Acetabular Comp 38/46mm
130848HA	ReCap OS HA/PC Acetabular Comp 40/48mm
130850HA	ReCap OS HA/PC Acetabular Comp 42/50mm
130852HA	ReCap OS HA/PC Acetabular Comp 44/52mm
130854HA	ReCap OS HA/PC Acetabular Comp 46/54mm
130856HA	ReCap OS HA/PC Acetabular Comp 48/56mm
130858HA	ReCap OS HA/PC Acetabular Comp 50/58mm
130860HA	ReCap OS HA/PC Acetabular Comp 52/60mm
130862HA	ReCap OS HA/PC Acetabular Comp 54/62mm
130864HA	ReCap OS HA/PC Acetabular Comp 56/64mm
130866HA	ReCap OS HA/PC Acetabular Comp 58/66mm
130868HA	ReCap OS HA/PC Acetabular Comp 60/68mm

## M2a-Magnum™ Modular Heads

Cat. No.	Description
157438	M2a-Magnum Modular Head Sz 38mm
157440	M2a-Magnum Modular Head Sz 40mm
157442	M2a-Magnum Modular Head Sz 42mm
157444	M2a-Magnum Modular Head Sz 44mm
157446	M2a-Magnum Modular Head Sz 46mm
157448	M2a-Magnum Modular Head Sz 48mm
157450	M2a-Magnum Modular Head Sz 50mm
157452	M2a-Magnum Modular Head Sz 52mm
157454	M2a-Magnum Modular Head Sz 54mm
157456	M2a-Magnum Modular Head Sz 56mm
157458	M2a-Magnum Modular Head Sz 58mm
157460	M2a-Magnum Modular Head Sz 60mm

## M2a-Magnum™ Modular Head

## 12/ 14 Taper Adaptors

Cat. No.	Descriptioners
130824	M2a-Magnum Tpr Adptr 38-40mm -2mm 12/14
130825	M2a-Magnum Tpr Adptr 38-40mm STD 12/14
130826	M2a-Magnum Tpr Adptr 38-40mm +4mm 12/14
130827	M2a-Magnum Tpr Adptr 38-40mm +8mm 12/14
130829	M2a-Magnum Tpr Adptr 42-50mm -2mm 12/14
130830	M2a-Magnum Tpr Adptr 42-50mm STD 12/14
130831	M2a-Magnum Tpr Adptr 42-50mm +4mm 12/14
130832	M2a-Magnum Tpr Adptr 42-50mm +8mm 12/14
130834	M2a-Magnum Tpr Adptr 52-60mm -2mm 12/14
130835	M2a-Magnum Tpr Adptr 52-60mm STD 12/14
130836	M2a-Magnum Tpr Adptr 52-60mm +4mm 12/14
130837	M2a-Magnum Tpr Adptr 52-60mm +8mm 12/14

## M2a-Magnum™ Modular Head

## Type 1 Taper Adaptors

Cat. No.	Description
130818	M2a-Magnum Tpr Adptr 38-40mm -6mm (T1)
130819	M2a-Magnum Tpr Adptr 38-40mm -3mm (T1)
130820	M2a-Magnum Tpr Adptr 38-40mm STD (T1)
130821	M2a-Magnum Tpr Adptr 38-40mm +3mm (T1)
130822	M2a-Magnum Tpr Adptr 38-40mm +6mm (T1)
130823	M2a-Magnum Tpr Adptr 38-40mm +9mm (T1)
139252	M2a-Magnum Tpr Adptr 42-50mm -6mm (T1)
139254	M2a-Magnum Tpr Adptr 42-50mm -3mm (T1)
139256	M2a-Magnum Tpr Adptr 42-50mm STD (T1)
139258	M2a-Magnum Tpr Adptr 42-50mm +3mm (T1)
139260	M2a-Magnum Tpr Adptr 42-50mm +6mm (T1)
139262	M2a-Magnum Tpr Adptr 42-50mm +9mm (T1)
139264	M2a-Magnum Tpr Adptr 52-60mm -6mm (T1)
139266	M2a-Magnum Tpr Adptr 52-60mm -3mm (T1)
139268	M2a-Magnum Tpr Adptr 52-60mm STD (T1)
139270	M2a-Magnum Tpr Adptr 52-60mm +3mm (T1)
139272	M2a-Magnum Tpr Adptr 52-60mm +6mm (T1)
139274	M2a-Magnum Tpr Adptr 52-60mm +9mm (T1)

## Instrumentation

ReCap®/M2a-Magnum™ Modular Head  
Tray - Catalogue Number 31-600199



(note: when ordering catalogue no. 31-600199  
please also order either 31-600386 or 31-600388)

M2a-Magnum™ Mod Head Trial Taper  
Adaptor Set (12-14)

Catalogue Number 31-600388



M2a-Magnum™ Mod Head Trial Taper  
Adaptor Set (T1)

Catalogue Number 31-600386

