Exeter™ Contemporary™
Flanged Cup

Exeter™
Providing Solutions
Design Benefits

Even Cement Mantle

Four polymethylmethacrylate (PMMA) cement spacers are attached to the cup to maintain a minimum thickness of cement mantle. The risk of bottoming out is reduced (Fig. 1). The cup has a flat non-hooded face.

Clinical Experience

The external profile of the Contemporary flanged cup, including its cement spacers, has been in use since 1991.

Pressurisation

The flange thickness allows for an adequate balance of flexibility versus stiffness, to contain the cement while efficiently pressurising it.

Some different flange shapes, because their posterior aspect is inclined in the opposite direction, can lead to either:-

• inefficient cement pressurisation
  or
• cup retroversion by trying to close the posterior gap

Trimming Reference

Four circular lines are incorporated into the implant flange to be used as trimming references.

O.D.: Outer diameter including cement spacer

O.D. (2 or 3 mm cement mantle according to cup size)

O.D. + 4 (5 mm cement mantle)

O.D. +14 (10 mm cement mantle)

O.D. +24 (15 mm cement mantle)
Selection of Implant size:
The acetabular cup size refers to the outer diameter of the cement spacers and therefore includes a 3 mm cement mantle.

Flange Trimming
The flange of the cup has reference lines corresponding to 2 or 3 mm, 5 mm, 10 mm and 15 mm of cement mantle. The lines are also marked to show the diameter of the flange. They may be used to trim the flange to the acetabulum size.

Flexibility
A trimming aid is provided for the surgeons who prefer to use a template.

Cup Introducer:
The lateral cup introducer presents the cup at 45 degrees inclination and neutral version.
Surgical Protocol

Pre-Operative Planning

Pre-operative templating will usually allow the surgeon to select the implant sizes appropriate for the hip to be reconstructed and to plan the position in which the cup should be placed.

**Acetabular preparation:**

The true acetabulum should be identified. In complex cases the position of the transverse acetabular ligament is useful in establishing the position of the true acetabulum.

Peripheral osteophytes should be removed. The true floor of the socket should be identified by removing any curtain osteophyte using either reamers or gouges.

Acetabular reamers are then used to remove articular cartilage and, where possible, subchondral bone. Cancellous surface should be exposed wherever possible with the exception of the true medial wall. Reamers should be used at 2mm increments ensuring that the anterior and posterior walls are not over reamed.
Multiple fixation pits are made using the acetabular step drill, smaller drill holes are made around the rim of the acetabulum using the distal end of the step drill. Care should be taken not to perforate the inner table of the acetabulum. The wall is thinnest medially and anteriorly. If the cortex is breached, then bone graft should be used to fill the hole.

A cup size 2 mm smaller than the acetabular reamer is usually appropriate. A trial cup is placed on the introducer and inserted into the prepared acetabulum in a position of 45° abduction and approximately 20-30° of flexion as indicated by the acetabular introducer in the correct position. There should be a small space around the trial socket for the flange.
The trial flange, like the implant flange, is marked with calibrations indicating the diameter of the flange and also the thickness of cement that will be established around the cup if the flange is trimmed to the calibration mark. In most cases the flange is trimmed to the diameter of the largest reamer used. The lateral portion of the flange may be cut to a slightly larger diameter.

The trial flange is now placed on the trial cup and both applied on to the introducer. The window on the trial flange should allow the posterior ‘marking’ on the trial cup to be read. The trial flange is now trimmed with scissors to fit the size and shape of the acetabulum.
Once trimming of the trial flange is complete, it is placed over the implant and the implant flange is then trimmed to match using scissors.

Avoid contact of the spacers against any surface during preparation of the socket as it is possible to detach them. If detached, the spacers can easily be reapplied.

Final minor modifications may be made at this point. It is important to rehearse cup insertion so that the trimmed flange positions the socket in an appropriate location with the edges of the flange lying just within the mouth of the acetabulum. The inferior edge of the socket should lie at the level of the transverse ligament.
If using Simplex® bone cement it should be mixed for 1 minute, left to stand for 2 minutes and inserted into the cavity between 3-4 minutes after mixing. A bolus of cement should be left in the acetabulum such that its surface is fractionally below the level of the mouth of the acetabulum. The acetabular pressuriser may then be applied. Over-filling of the acetabulum will result in cement being forced into the peri-acetabular soft tissues. The cement should then be pressurised with an acetabular pressuriser using full force until the cement viscosity has risen to a doughy state. The sucker aspirator may be used to aid cleaning and drying of the acetabulum. For further details please refer to retractor aspirator op-tech EXEFY04E01.
Acetabular implantation: The right angle introducer will position the cup face at 45° of abduction and the amount of flexion will be indicated by the angle between the long axis of the patient and the horizontal handle of the introducer when viewed from above.

Typically using surgical Simplex at a theatre temperature of 21°, 6-7 minutes should have elapsed after the commencement of mixing before the socket is pushed into place. A quantity of cement held in the surgeon’s hand will help indicate when the cup should be inserted. The viscosity should be chosen such that significant force is required to introduce the cup into the correct position in the acetabulum.
After the cup has been introduced to the pre-rehearsed position, it should be held in place under pressure with the pusher until the cement has fully polymerised. Firm pressure should be maintained on the flanged cup throughout this whole procedure until the cement has fully polymerised.

Final implantation
**Implants**

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* These cups have 2 mm high cement spacers. All the other sizes have 3 mm high cement spacers.

**Instruments**

**Acetabular step drill**
6781-8-750

**Cup introducer - lateral**
6304-4-060

**Trimming scissors**
6304-4-140

**Cup pusher - straight**
6304-4-110

**Cup pusher - curved**
6304-4-120

**Pusher head**
6304-4-122 • 22.2 mm diameter
6304-4-126 • 26 mm diameter
6304-4-128 • 28 mm diameter
6304-4-132 • 32 mm diameter

**Instruments tray**
6304-4-080 - One level
6304-4-090 - Two level
Incl. acetabular pressurisation handles
0935-0-001 • straight
0935-0-002 • curved

**Surgical template. 5 pack - Scale 1**
6309-4-000

**Surgical template. 5 pack - Scale 1.20**
6309-4-020

Surgical templates for the whole cup range
(I.D. 22.2 / 26 / 28 / 32)


