



**Bigliani/Flatow<sup>®</sup>**  
**The Complete**  
**Shoulder Solution**  
**Cannulated**  
**Instruments**

Surgical Technique



Enhancing Glenoid Placement



**Bigliani/Flatow The  
Complete Shoulder  
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Technique****Table of Contents**

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## Create Central Drill Slot Opening

Attach the Glenoid Cannulated 6mm Drill to the Straight Driver. Drill the central hole by placing the drill until the stop bottoms out on the bone (Fig. 11 & 12).

Fig. 11



**NOTE: The Drill can be placed over the pin first, then slide the reamer shaft over the pin and engaging the drill as described in the reamer section.**

Reattach the Pin Driver/Chuck to the Pin and remove it from the glenoid.

Fig. 12



## Insert Glenoid Drill Guide

Insert the appropriate size and type Glenoid Drill Guide into the prepared 6mm hole and align to the glenoid face. Insert the 6mm Drill into the Guide and drill the second 6mm hole (Fig. 13).

The 6mm Drill, Drill Bushing, or the Anti Rotation Pin should be used to maintain alignment of the guide while the third hole is drilled (Fig. 14). Remove the Glenoid Drill Guide.

If the keeled glenoid guide is used, a burr will be used to remove the bone in between the drill holes.

Completion of the Glenoid Preparation and Insertion should continue as described in the *Bigliani/Flatow* Shoulder Surgical Technique.

Fig. 13

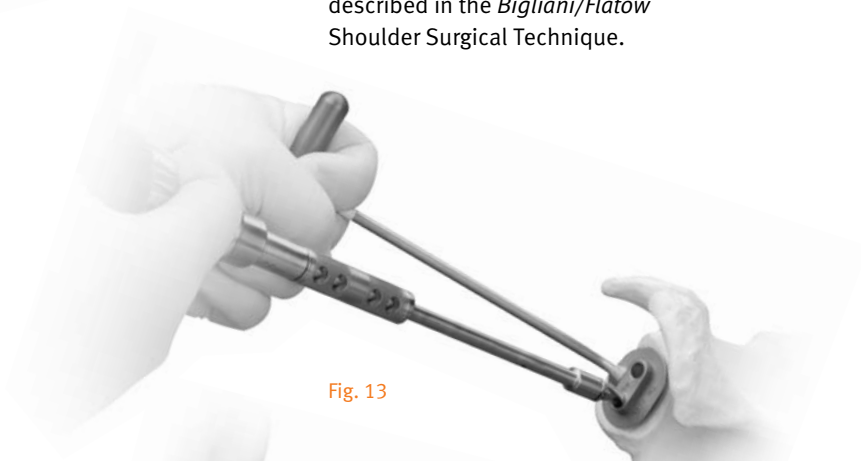
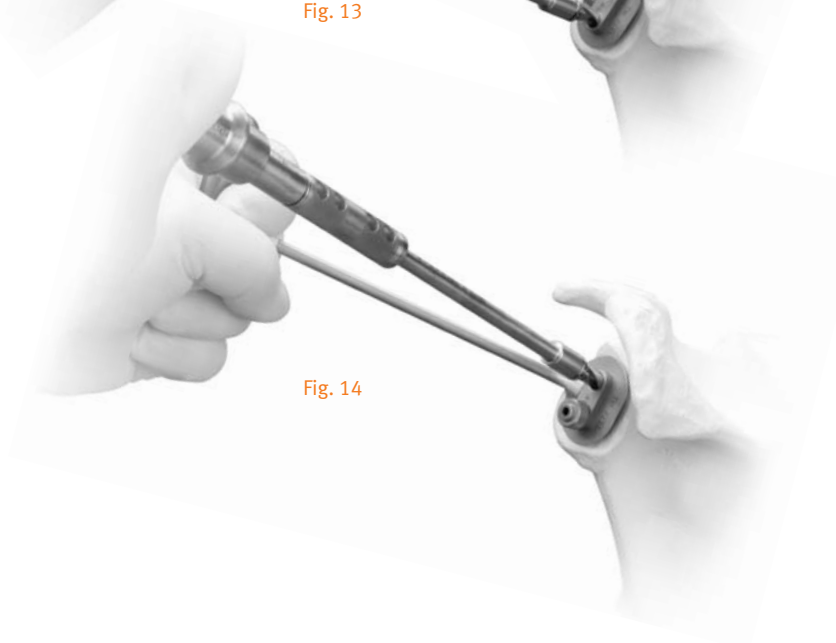


Fig. 14



## Cannulated Preparation (Optional)

A cannulated technique has been developed with specific instrumentation for surgeons who are more comfortable with an alternative surgical approach. This enhances the ability to reliably find the center of the glenoid vault and ream the glenoid surface relative to the centerline of the glenoid vault.

## Cannulated Guide Placement

Determine the center of the desired glenoid placement (see Glenoid Center Guide section if you need assistance with establishing the center of the glenoid placement). Mark the poles of the articular surface to aid with a cautery or surgical marker. Place the Cannulated Drill Guide along the anterior surface of the scapula so that the instrument arm is at 3 o'clock (right) / 9 o'clock (left) and the bushing hole is centered on the glenoid articular surface (Fig. 1).

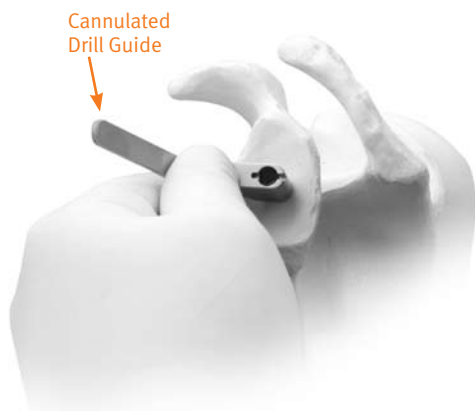


Fig. 1

The anterior surface of the instrument arm has a channel for holding with the index finger and a sharpened tip to aid positioning. The tip should be placed at the **medial aspect of the glenoid vault** along the transition to the scapula (Fig. 2).

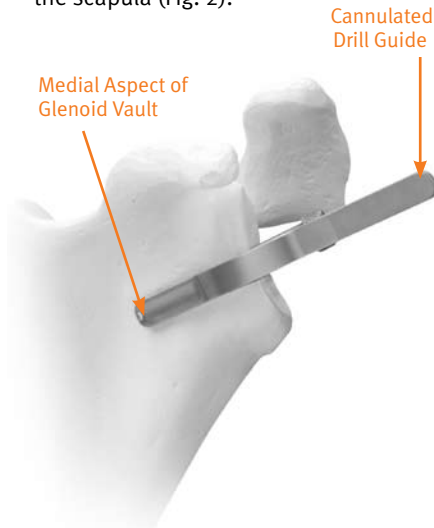


Fig. 2

## Glenoid Center Guide

The Glenoid Centering Guide can also be utilized to help determine the central location along with glenoid size and placement (Fig. 3).



Fig. 3

The 2mm drill should be used with the 2.5mm Drill Bushing held into the central hole of the centering guide with the Bushing Clip. Mark the center point by drilling a few millimeters into the subchondral bone. Do not drill completely into the bushing to avoid setting angular orientation for cannulated reaming at this time (Fig. 4).

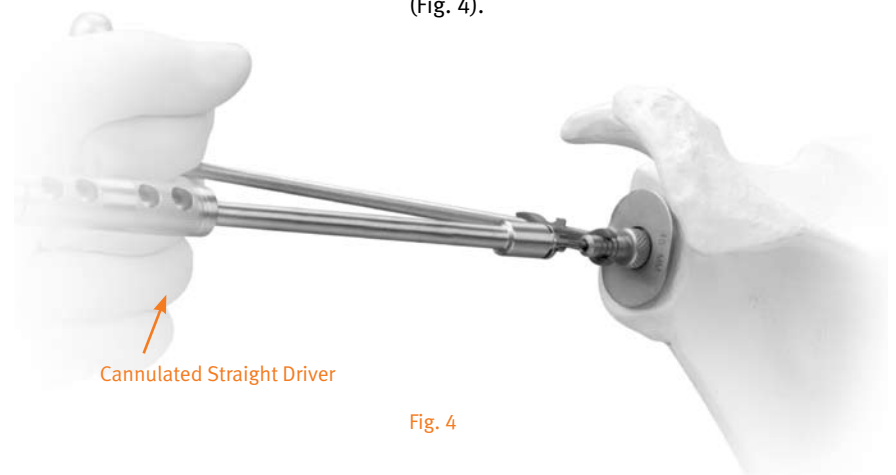


Fig. 4

## Insert Central Pin

Insert the 2.5mm Drill Bushing into the Cannulated Drill Guide and assess position on the glenoid face (Fig. 5).

The bushing targets to the tip of the guide and is to be located at the center of glenoid placement.



Fig. 5

If the position of the bushing is not centric with the center hole, the 2.5mm Offset Drill Bushing can be inserted to offset pin placement by 1mm in the anterior/posterior direction (Fig. 6). The alignment pin in the offset bushing is inserted into the anterior or posterior slot of the drill guide.



Fig. 6

Load one 2.5mm pin into a pin driver/chuck. The Pin is marked for the appropriate insertion depth. Insert the Pin through the Drill Bushing and drive (Fig. 7) until the depth mark indicated on the pin meets the top of the Drill Bushing.



Fig. 7

Release the Pin from the pin driver/chuck. Remove the Drill Bushing and then the Drill Guide and assess the pin position and alignment on the glenoid face (Fig. 8).



Fig. 8

## Ream

Glenoid reaming is performed to achieve intimate contact between the bone and the spherical undersurface of the glenoid implant as well as to establish glenoid version. To help minimize soft tissue damage, **do not use power for reaming**. Place the appropriate size Cannulated Glenoid Reamer over the central pin. Slide the Cannulated Straight Driver (Gold handle) over the pin and into the reamer by aligning the ears on the driver into the slots on the Reamer Head. Ream to the desired depth or proper version (Fig. 9).

**Avoid wobbling the reamer to maintain alignment with the pin.** The prepared surface should allow for full contact along the back side of the *Bigliani/Flatow* Glenoid (Fig. 10).

**NOTE: Overreaming will reduce the depth of the glenoid vault and should be avoided. It is important not to remove too much subcortical bone as this may affect glenoid stability.**

Remove the reamer.



Fig. 9



Fig. 10

Please refer to package insert for complete product information, including product information, contraindications, warnings, precautions, and adverse effects.

Contact your Zimmer representative or visit us at [www.zimmer.com](http://www.zimmer.com)

