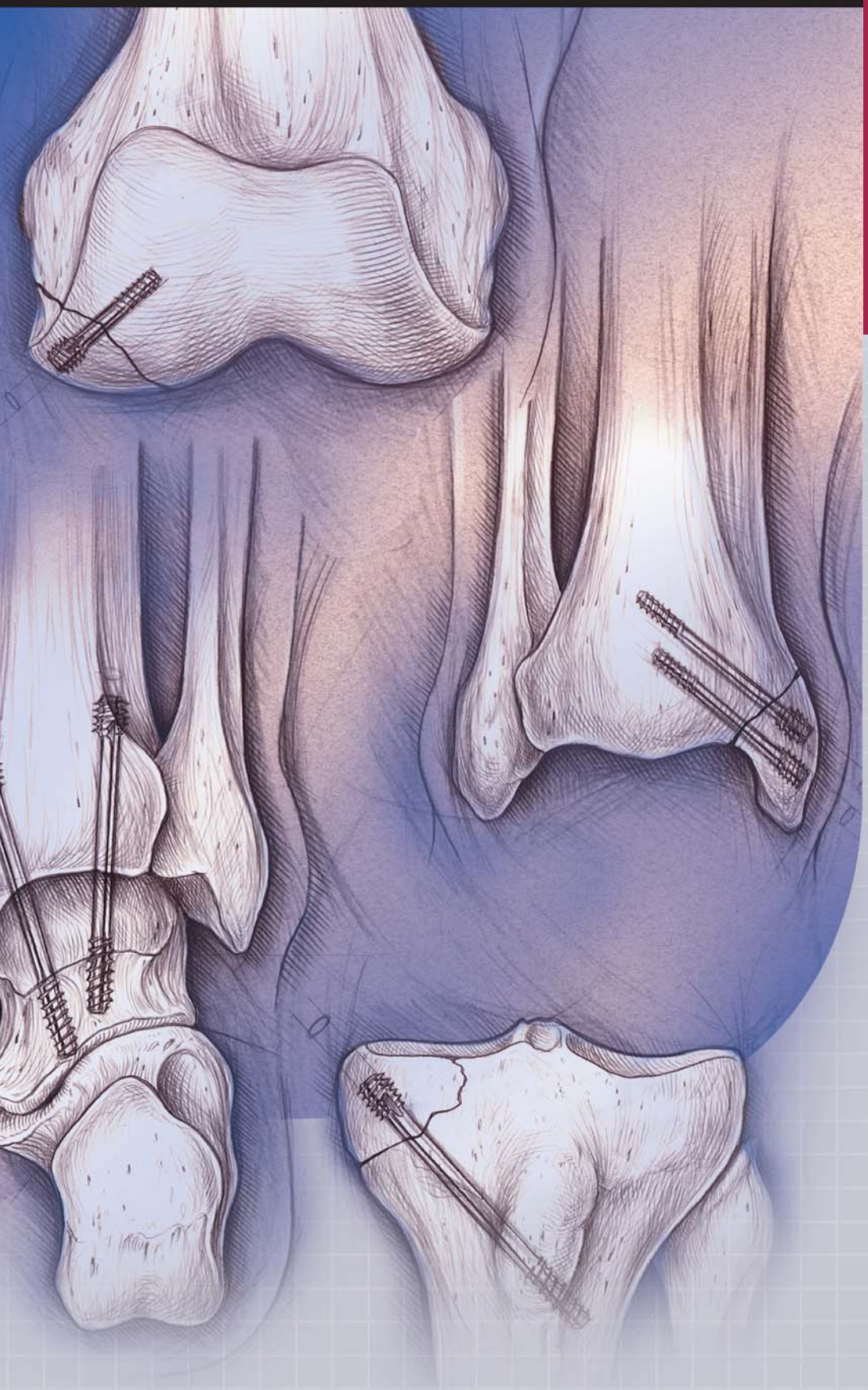


ZIMMER® HERBERT™ CANNULATED BONE SCREW

AN INNOVATIVE OPTION FOR MANAGING THE REDUCTION AND FIXATION OF DIFFICULT FRACTURES

The *Herbert*™ Cannulated Bone Screw is designed for the management of fractures where minimal tissue coverage makes standard screw use inappropriate or where extreme precision in fragment alignment is imperative. Such locations might include fractures of the:

Olecranon and malleolar region
Distal femur
Proximal tibia
Distal tibia

4.5mm and 6.5mm
Herbert Cannulated Bone Screws

Specifically Designed for Problem Internal Fixation

The headless design of the *Herbert* Screw means that the screw is completely embedded in the bone, without any protrusions to cause tissue irritation even in intra-articular placement.

Cannulation helps ensure precise placement of the screw.

Herbert Cannulated Guide Pins hold the fragment and act as guides for drilling, tapping, and screw placement.

The *Tivanium*® Ti-6A1-4V Alloy used in fabricating these screws is highly biocompatible and corrosion resistant.

The thread design of the *Herbert* Screw creates compression and provides fracture stability. As the proximal threads engage the bone, the fracture is drawn together, helping to create and maintain stability of the fracture site.

4.5mm *Herbert* Cannulated Bone Screw

6.5mm *Herbert* Cannulated Bone Screw

The *Herbert* Cannulated Bone Screw is designed for the management of fractures where minimal tissue coverage makes a standard screw inappropriate or where extreme precision in fragment alignment is imperative. These locations might include fractures of the olecranon and malleolar region or at the distal femur.

1

After initial reduction of the fracture fragments is obtained, the specifically designed *Herbert* Cannulated Guide Pin is placed through the fragments to act as a Guide Wire for the rest of the placement operation. The Guide Pin should not perforate the opposite cortex.

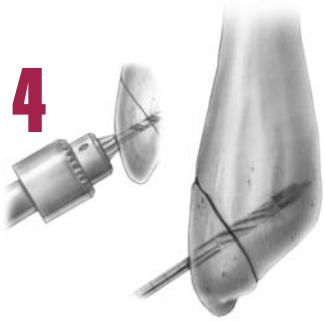
2

Use the Depth Gauge to measure the length of the Guide Pin in the bone. If the Guide perforates the opposite cortex, corresponding compensation must be made when selecting the implant length.

3

Insert the Proximal Drill Bit over the Guide Pin to drill the cortex. The Drill Bit should be advanced until the built-in stop contacts the cortex of the bone.

4



Insert the Distal Drill Bit over the Guide Pin and drill to the desired depth. At this time the surgeon may choose to drill 5mm less than the pilot length.

Option: The Distal Drill Bit may be inserted into a Jacob's Chuck to the appropriate calibration, thus allowing the surgeon to utilize the Chuck as an automatic stop.

5

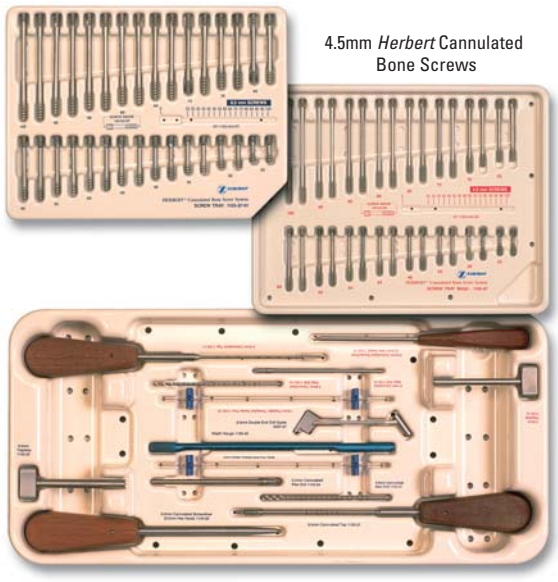
Insert the Cannulated Tap over the Guide Pin and tap the channel to prepare for the leading screw threads of the implant. Tap depth should be equal to the depth created by the Distal Drill Bit.

6

In determining screw length, the surgeon may wish to choose an implant 5mm to 10mm shorter than the measured pilot length. Using the Cannulated Screwdriver, insert the *Herbert* Cannulated Screw. As the trailing threads engage the bone, reduction is achieved. These trailing threads should be seated approximately 1mm below the cortex of the bone to ensure that there is no intra-articular protrusion or interference with the joint function.

6.5mm *Herbert* Cannulated Bone Screws

4.5mm *Herbert* Cannulated Bone Screws



Herbert Cannulated Bone Screw Instruments

HERBERT CANNULATED BONE SCREW

4.5mm Diameter
Leading Thread Major Diameter 4.5mm
Trailing Thread Major Diameter 5.8mm

Length	Leading Thread Length	Trailing Thread Length	Pitch Difference Potential†	Flush Reduction Potential††	Flush 1 Turn Reduction
25-35mm	8.2mm	5.8mm	.41mm	1.23mm	1.64mm
40-70mm	12.0mm	6.4mm	.41mm	1.42mm	1.85mm
75-100mm	16.0mm	6.4mm	.41mm	1.42mm	1.85mm

6.5mm Diameter
Leading Thread Major Diameter 6.5mm
Trailing Thread Major Diameter 8.1mm

Length	Leading Thread Length	Trailing Thread Length	Pitch Difference Potential	Flush Reduction Potential	Flush 1 Turn Reduction
25-35mm	8.2mm	5.8mm	.41mm	1.23mm	1.64mm
40-70mm	12.0mm	6.4mm	.41mm	1.42mm	1.85mm
75-100mm	16.0mm	6.4mm	.41mm	1.42mm	1.85mm

† Amount of fracture reduction potential with screw tightened flush with bone surface
†† Amount of fracture reduction potential with screw tightened 1mm below bone surface

ORDER INFORMATION

Cat. No.	Description	Qty. in Set
1155-01	***Herbert* Cannulated Bone Screw Set** (Includes the following implants, instruments and case components)	
4.5mm Implants		
47-1155-25-05	25mm	2
47-1155-30-05	30mm	2
47-1155-35-05	35mm	2
47-1155-40-05	40mm	2
47-1155-45-05	45mm	2
47-1155-50-05	50mm	2
47-1155-55-05	55mm	2
47-1155-60-05	60mm	2
47-1155-65-05	65mm	2
47-1155-70-05	70mm	2
47-1155-75-05	75mm	2
47-1155-80-05	80mm	2
47-1155-85-05	85mm	2
47-1155-90-05	90mm	2
47-1155-95-05	95mm	2
47-1155-100-05	100mm	2
6.5mm Implants		
47-1155-25-07	25mm	2
47-1155-30-07	30mm	2
47-1155-35-07	35mm	2
47-1155-40-07	40mm	2
47-1155-45-07	45mm	2
47-1155-50-07	50mm	2
47-1155-55-07	55mm	2
47-1155-60-07	60mm	2
47-1155-65-07	65mm	2
47-1155-70-07	70mm	2
47-1155-75-07	75mm	2
47-1155-80-07	80mm	2
47-1155-85-07	85mm	2
47-1155-90-07	90mm	2
47-1155-95-07	95mm	2
47-1155-100-07	100mm	2

CE 0123

Instrumentation

• 1155-11	Cannulated Tap, 4.5mm	1
• 1155-12	Cannulated Screwdriver, 4.5mm	1
• 1155-13	Trephine, 4.5mm	1
• 1155-14	Pilot Drill Bit, 3.8mm	1
• 1155-15	Main Drill Bit, 3.1mm	1
• 1155-16	Guide Pin, Partially Threaded, 1.6mm	1
1155-21	Cannulated Tap, 6.5mm	1
1155-22	Cannulated Screwdriver, 6.5mm	1
1155-23	Trephine	1
1155-24	Pilot Drill Bit, 5.5mm	1
1155-26	Guide Pin, Partially Threaded, 2.0mm	1
1155-27	Main Drill Bit, 4.6mm	1
• 1180-40	Depth Guide	1
• 2307-47	Double End Drill Guide, 2.0mm	1
• 1155-85	Cannulated Tap, 4.5mm	1

Sets

1155-11	Herbert Cannulated Bone Screw Instrumentation Set (Includes all instrumentation and case listed above)
• 1155-94	Herbert Cannulated 4.5mm Bone Screw instrumentation used for the 4.5mm bone screw and all case components (Denoted above with a •)
1155-99	Herbert Cannulated Bone Screw Implant Set (Includes two each of every size bone screw)

Warning: This device is not approved by the U.S. FDA for screw attachment or fixation to the posterior elements (pedicles) of clavical, thoracic, or lumbar spine.

Contact your Zimmer representative, or visit us at www.zimmer.com.

97-1155-401 15MM Printed in the USA

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