

In orthopaedics there are pins and there are pins,  
but there is only one C~Pin™. The King of Pins.



**C~Pin™ now with C-Lock™ Hex.**

The perfect way to insert and extract  
pins with the one device.



**C~Lock™**

**C~Pin™**

Three simple solutions one easy decision



***C~Pin™ and C~Pin™ threaded are a revolutionary range of highly accurate pins designed to interface with arthroplasty cutting blocks, reducing service costs from pins that cause scratching or shredding during the pinning procedure.***

## **Analysing the Needs**

Traditional type pins have been used in orthopaedic surgery for decades without any major design enhancements or improvements. This has lead to possible inaccuracy and misalignment of cutting blocks during the surgical procedure. Some pins designs, particularly threaded pin designs may cause shredding to cutting blocks leading to unwanted metallic particles in the surgical site and increased costs due to cutting block service and maintenance.

One solution is to flute a trocar design improving accuracy and the ability to cut through bone. However traditional sharp leading edge drill bits pose undesirable complications such as scratching of cutting block, jigs and guides. This damage caused may lead to the pin becoming jammed in the cutting block and may also leave the cutting block device rendered damaged. In addition the scratching of cutting blocks from traditional pins is more common since new technology cutting blocks may be manufactured from polymers.

Computer assisted or navigation systems were once considered an advanced medical technology. In the field of orthopaedics preoperative planning of a procedure using three-dimensional scanning equipment prior to operating is becoming much more widely used. Traditional two-fluted threaded pins do not offer a high level of accuracy which can lead to poor pin placement. This may have an effect on the planning of the procedure and ultimately the surgical outcome.

Today there are many pin designs in regular service however design technology and manufacturing techniques have evolved which sees the birth of a new range of arthroplasty pins.

## **Introducing C~Pin™**

C-Pins have been designed as an alternative to using traditional type pin designs. The environment of surgery requires high accuracy and perfect placement of cutting blocks and minimal device wear during instrument interface.

Current orthopaedic environment design technology offers a very high standard of specific design instrumentation. Pin designs have evolved very little over the years. When analyzing the needs important consideration needs to be placed on today's technological advancements and advancement in pin and thread designs.

## **C~Pin™ Solution**

C-Pins have been specifically designed for use where a jig or cutting block is fixated onto a patient. In most cases an oscillating saw performs cuts, shaping bone prior to implant deployment or in other applications an external fixator is applied or a navigation pin utilized.

Vibration from the oscillating saw can be significant, pin stability and fixation is required for best surgical accuracy and outcomes. It is well known that some pins vibrate loose during the saw cutting procedure.

Cingular Orthopaedics has designed a range of pins to meet surgeon requirements providing a safe and effective solution for pinning in all parts of the body.

C-Pin has been specifically engineered for orthopaedic surgeons providing first time results for best surgical outcomes.

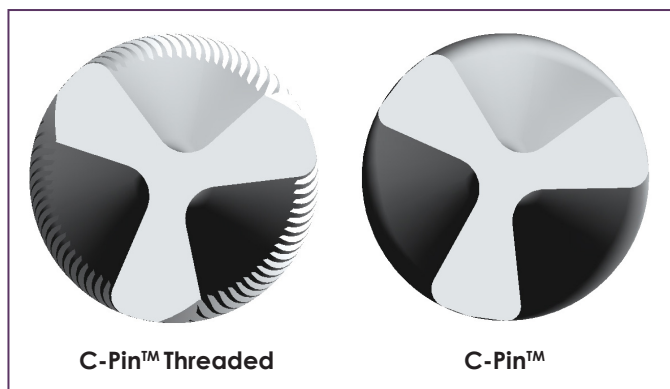
## Design

C-Pin has been specially designed to provide a greater surface contact area in the cutting block, improving stability. The C-Pin patented flute sections contain radii on the leading and trailing edges. The cutting tip edge does not extend to full OD. Thus eliminating any possibility of scratching or burring, in addition provides an increase in bone/pin contact interface. C-Pin threaded has a patented designed thread with the addition of a core taper eliminating scoring or scratching to cutting blocks resulting in less cutting block service and maintenance costs.

To maintain ultimate stability of a cylindrical instrument in a jig or guide 180 degrees contact is best-case scenario at any one time. The majority of force being applied to the side of the rod and cylinder is only at a fraction at any one time. The C-Pin has been mathematically engineered and optimised over many years to ensure sufficient contact is made in the jig to maintain stability of the pin at all times without damaging the internal surface area of the cutting block device.

## Applications

C-Pin has a non-threaded, threaded and threaded headed version for knee, hip and all types of arthroplasty. C-Pin is now utilized by major global orthopaedic companies and well recognized by surgeons as a superior arthroplasty pin product.



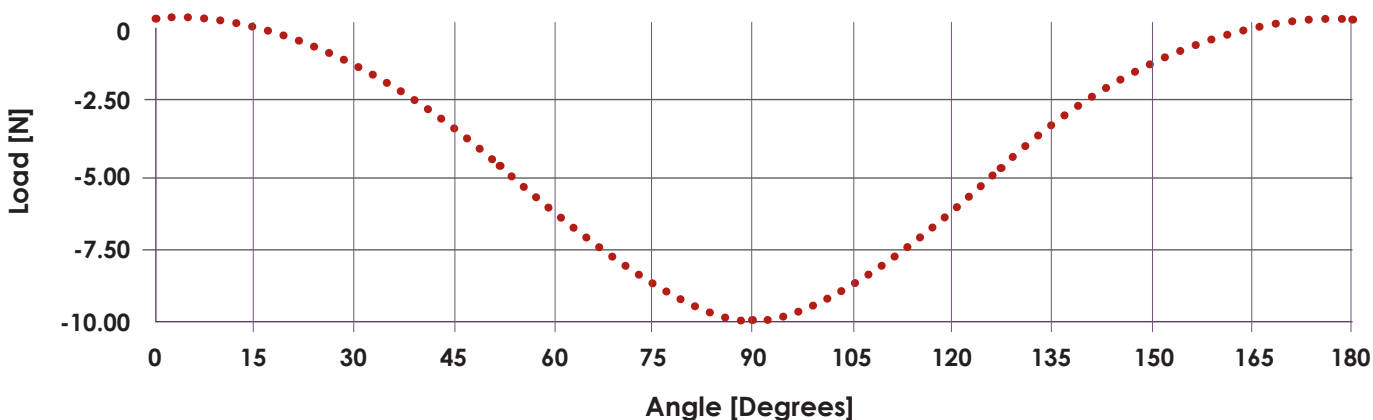
C-Pin's increased land margin surface is perfect for applying a thread providing purchase in the fluted portion on three sides opposed to two with traditional type fluted pins. In addition C-Pin can target an intended drill site up to 60 degrees off the perpendicular providing surgeons with superior pin placement and accurate pin deployment for superior surgical outcomes.

## Packaging and Sterilizing

C-Pins are manufactured in all diameters and lengths with any non-proprietary cup-link design. Non threaded – threaded or threaded headed. C-Pins are made to order or supplied in boxes sterile and non-sterile. C-Pins are CE marked and FDA approved and ready for use in most hospitals globally.

License opportunities also available.

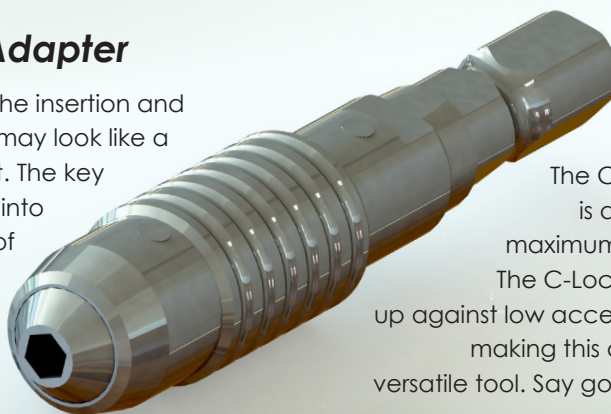
Load distribution for C-Pin™ based on a maximum applied force of 10N



## Introducing C-Lock™ Hex Adapter

C-Lock™ has been designed to facilitate the insertion and extraction of pins during arthroplasty. This may look like a traditional type hex driver however it is not. The key design feature is the ability to lock the pin into the C-Lock™ Hex driver 5mm from the tip of the device, allowing close up access to cutting blocks with minimal cup link protrusion.

This feature permits pin heads to be kept to a minimum and thus eliminating the risk of the oscillating saw contacting the pin head during cutting, particularly in cross locking holes.



The C-Lock™ Hex adapter is also low profile with a maximum diameter of 12mm. The C-Lock™ Hex can sneak in up against low access countersunk holes making this device a very handy versatile tool. Say goodbye to pin pullers.

**C~Lock™**

**The perfect way to insert and extract pins with the one device.**



# Why pay more for outdated technology.



The King of Pins, C-Pin™ is a highly accurate instrument that protects cutting blocks and guides and secures them firmly whilst maintaining a powerful bone-cutting tip.

Popular amongst surgeons  
and global orthopaedic companies.

Distributed by



PATENTS / USA 9,078,670 - AUS 2011334547 - CN 103313667 A - EU EP2642930 A4