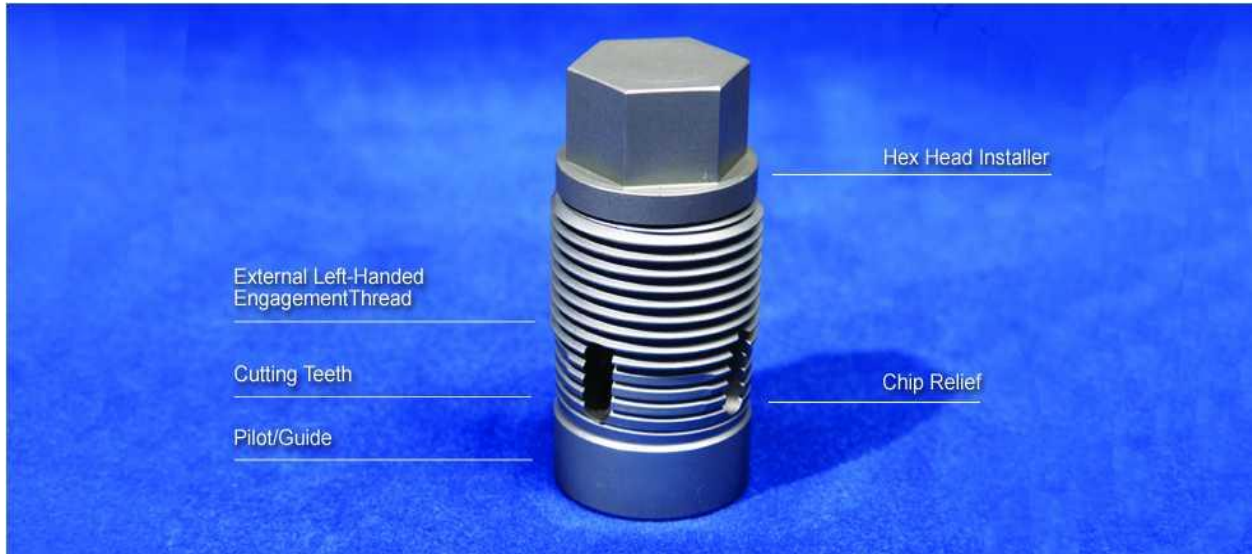


# C-SERT™ MANUFACTURING



## **FAST and PERMANENT Thread Repair**

### **The C-Sert System**

The patented C-Sert system gives you quick and permanent repair of damaged threads, and prevents damage to OEM threads. C-Serts' main characteristics are:

#### **1) Self-tapping**

C-Serts require no tap because they are a tap. You can think of them as a precision cutting tool that you use just once, and that ends up staying in the part to provide you with new, permanent threads.

#### **2) Self-aligning**

C-Serts automatically align themselves to the axis of the hole, so they always go in straight.

#### **3) Low-torque Installation**

Because they are taps, C-Serts have cutting teeth with chip relief. Chip relief reduces the torque needed to install them, so that even the largest C-Sert can be driven in with hand tools.

#### **4) High Hardness**

C-Serts have a Rockwell hardness of RC 54 to RC57, far harder than the toughest fastener. This means that a C-Sert's threads cannot be damaged by cross-threading or over-torqueing.

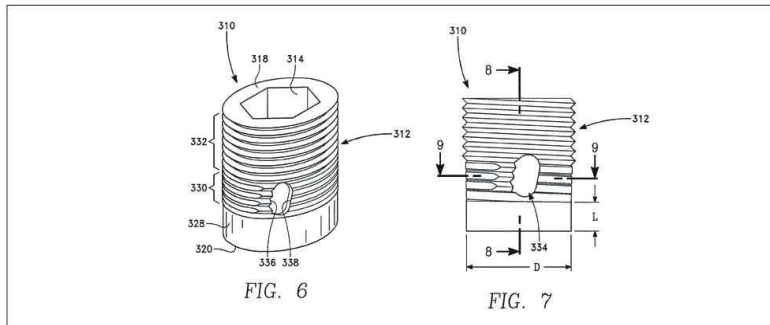
#### **5) Left-handed External Threads**

A C-Sert's external cutting threads are left-handed. When a frozen bolt needs to be broken free from a C-Sert, this patented feature prevents the insert from backing out – instead, the C-Sert digs even tighter into the base metal until the bolt breaks free.

#### **6) Internal "Die Slots"**

C-Serts have internal die slots, which act exactly like the slots in a die. If a damaged or defective fastener is installed in the C-Sert, these slots re-cut and true up the fastener.

These features combine to produce a thread-repair insert that lasts the life of the equipment, and will not back out, pull out, wear out, or vibrate free. And C-Serts can be field installed without tapping or welding, with the absolute minimum of downtime.



#### **Standard**

1/4 - 20	6mm x 1.0
5/16 - 18	8mm x 1.25
3/8 - 16	10mm x 1.50
1/2 - 13	12mm x 1.75
5/8 - 11	14mm x 2.0
5/8 - 18	16mm x 2.0
3/4 - 10	18mm x 2.5
3/4 - 16	20mm x 2.5
7/8 - 9	24mm x 3.0
1 - 8	30mm x 3.5
1 - 14	36mm x 4.0
1 1/8 - 7	42mm x 3.0
1 1/4 - 7	
1 1/2 - 6	
1 3/4 - 5	

#### **Metric**

## Product Specifications

Thread I.D. and Pitch	Socket Size	Pilot Hole Diameter	C-Sert Length	C-Sert Diameter
1/4 - 20	7/16	23/64 (0.359)	0.487	0.375
5/16 - 18	1/2	29/64 (0.453)	0.557	0.469
3/8 - 16	9/16	17/32 (0.531)	0.687	0.563
1/2 - 13	3/4	45/64 (0.703)	0.745	0.734
5/8 - 11	23mm	1 (1.000)	1.249	1.052
*5/8 - 11 (HW)	23mm	1 5/16 (1.312)	1.495	1.357
5/8 - 18	23mm	1 (1.000)	1.249	1.052
3/4 - 10	23mm	1 1/8 (1.125)	1.495	1.176
*3/4 - 10 (HW)	23mm	1 5/16 (1.312)	1.495	1.357
3/4 - 16	23mm	1 1/8 (1.125)	1.495	1.176
7/8 - 9	27mm	1 3/8 (1.375)	1.875	1.437
1 - 8	27mm	1 1/2 (1.500)	2.103	1.562
1 - 14	27mm	1 1/2 (1.500)	2.103	1.562
1 1/8 - 7	33mm	1 3/4 (1.750)	2.437	1.804
1 1/4 - 7	33mm	1 3/4 (1.750)	2.437	1.804
1 1/2 - 6	40mm	2 1/4 (2.250)	2.750	2.312
1 3/4 - 5	60mm	2 3/4 (2.750)	3.464	2.812
6mm x 1.0	10mm	23/64 (0.359)	0.487	0.375
8mm x 1.25	13mm	29/64 (0.453)	0.557	0.469
10mm x 1.50	17mm	17/32 (0.531)	0.687	0.563
12mm x 1.75	19mm	45/64 (0.703)	0.745	0.734
14mm x 2.0	23mm	1 (1.000)	1.249	1.052
16mm x 2.0	23mm	1 (1.000)	1.249	1.052
*16mm x 2.0 (HW)	23mm	1 5/16 (1.312)	1.495	1.357
18mm x 2.5	23mm	1 1/8 (1.125)	1.495	1.176
20mm x 2.5	27mm	1 3/8 (1.375)	1.875	1.437
24mm x 3.0	27mm	1 1/2 (1.500)	2.103	1.562
30mm x 3.5	33mm	1 3/4 (1.750)	2.437	1.750
36mm x 4.0	40mm	2 (2.000)	2.700	2.058
42mm x 3.0	60mm	2 3/4 (2.750)	3.464	2.812

**\*NOTE: Indicates Heavy-wall product with oversized O.D.**