This product is intended for installation only by expert users. Please consult with a qualified technician for installation. Improper installation may result in damage to your equipment. EK Water Blocks assumes no liability whatsoever, expressed or implied, for the use of these products, nor their installation. The following instructions are subject to change without notice. Please visit our web site at www.ekwb.com for updates. Before installation of this product please read important notice, disclosure and warranty conditions printed on the back of the box.
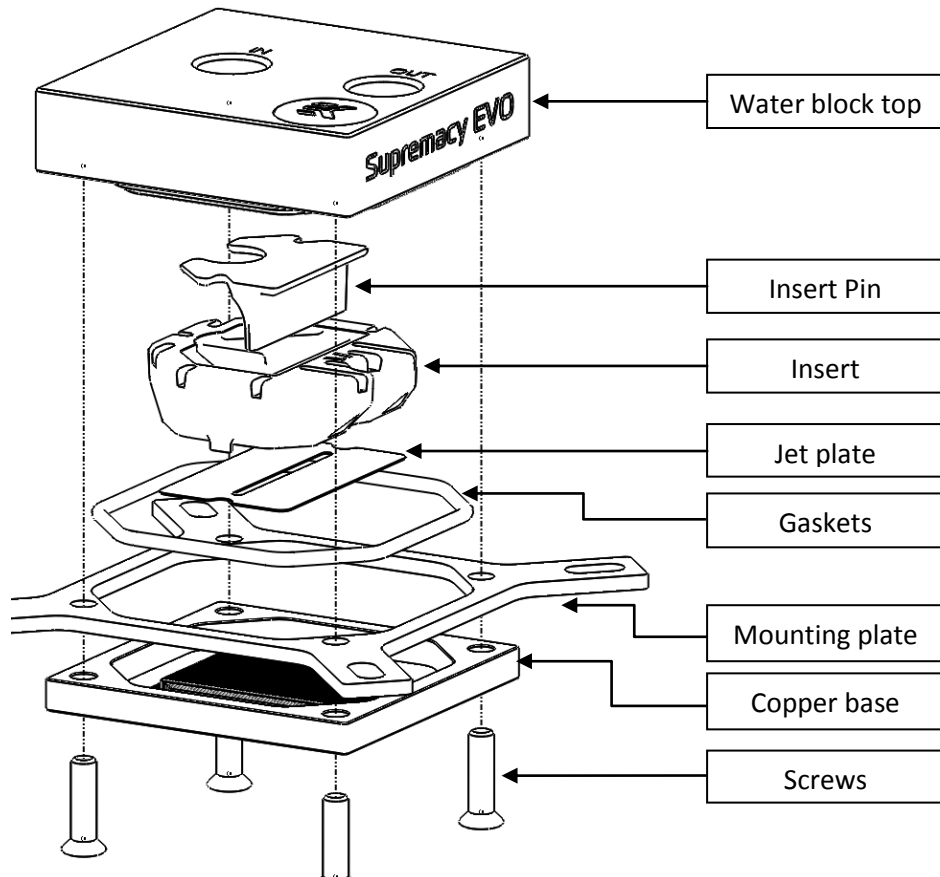
Before you start using this product please follow these basic guidelines:
1. **Please carefully read the manual before through before beginning with the installation process!**
2. **Please remove your motherboard from the computer to assure safest mounting process in order to prevent any possible damages to your CPU and/or motherboard's circuit board (PCB).**
3. **The EK High Flow and EK-CSQ type fittings require only a small amount of force to screw them firmly in place since the liquid seal is ensured by the rubber o-ring gaskets.**
4. **The use of corrosion inhibiting coolants is always recommended for any liquid cooling system.**

STEP 1: GENERAL INFORMATION ON PRODUCT

Congratulations on your purchase of EK-Supremacy EVO universal CPU water block. This water block is pre-assembled for use with modern Intel desktop socket type motherboards. By default this water block supports the following CPU sockets:

- Intel socket LGA-775, LGA-115x, LGA-1366 and LGA-2011(-3)
- AMD socket S754/939/940, AMD AMx and FM1

- Water block top
- Insert Pin
- Insert
- Jet plate
- Gaskets
- Mounting plate
- Copper base
- Screws

STEP 2: TABLE OF CONTENT

The following items are enclosed with each EK-Supremacy EVO water block:

- EK-Supremacy EVO universal CPU water block /w pre-installed Insert I1 and Jet J1 (0.25mm) (all around great performer)
- *PreciseMount EVO* universal CPU mounting mechanism:
  o M4 threaded thumb screws (4 pcs)
  o LGA-2011 M4 threaded mounting studs (4 pcs)
  o Springs (4 pcs)
  o M4 threaded thumb nuts (4 pcs)
  o Washers (4 pcs)
- AMD mounting plate
- EK-Supremacy Backplate
  o Backplate rubber gasket
  o Backplate for Intel LGA-1366 and AMD socket motherboards
  o Backplate for Intel LGA-115x socket motherboards
- Allen (hex) key 2.5mm
- Additional Inserts and Jet plates:
 o Jet J1 (0.3mm thick)
  o Jet J3 (0.1mm thick)
  o Insert I2

Optimal configuration:

Socket	Optimal Insert	Optimal Jet
AMD AMx / FMx	I2	J2
LGA-775	I1	J2
LGA-115x	I1	J2
LGA-1366	I1	J1
LGA-2011	I1	J1
LGA-2011-V3	I2	J3

I1	I2	J1	J2	J3
		d= 0.25mm	d=0.3mm	d=0.1mm
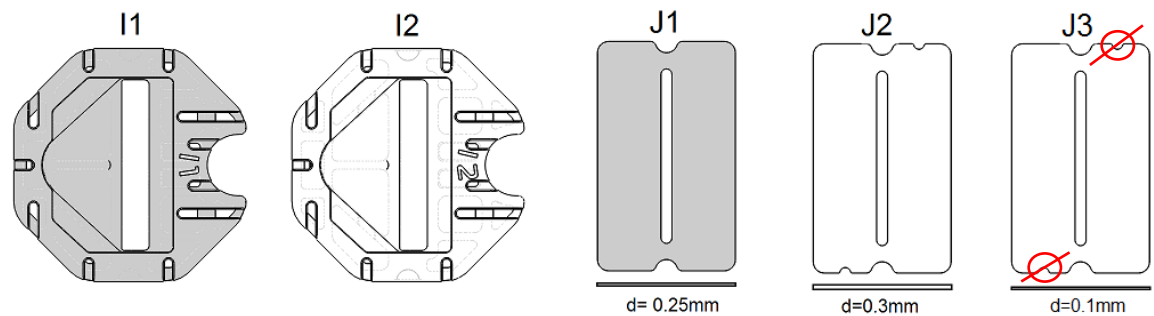
STEP 3.1 (optional): INSTALLING AMD MOUNTING PLATE AND REPLACING JET PLATE / INSERT PROCEDURE

1) Place water block on an even surface and remove the four M4x16 DIN7991 screws attaching the top to the copper base using the enclosed 2.5mm Allen key.
2) Replacing mounting plate:
2.1) Replace the Intel mounting plate with AMD one. You will feel the mounting plate locking into the position when placed correctly on to the top.
2.2) Reseat the larger o-ring gasket (57x2 mm) into the gap between the mounting plate and water block top.
3) Replacing jet plate (OPTIONAL):
3.1) Remove the default Jet J1 (0.25mm thick) and replace it with Jet J2 (0.30mm) or Jet J2 (0.1mm), depending on your CPU platform. You will feel the jet plate locking into the position when placed correctly to the water block Insert.
4) Replacing insert (OPTIONAL):
4.1) Remove the default Insert I1 and replace it with Insert I2, depending on your CPU platform. It is mandatory to install the Insert Pin and Insert in correct way, there is only one way to install it. You will feel the Insert assembly locking into the position when placed correctly to the water block.
5) Carefully place copper base to waterblock top assembly, make sure gaskets stay in place! **Beware of copper base orientation!**
6) Repeat step #5 if necassery. Screw in all four (4) M4x16 DIN7991 screws using the enclosed 2.5mm Allen (hex) key.

- Insert Pin
- Insert
- Jet plate
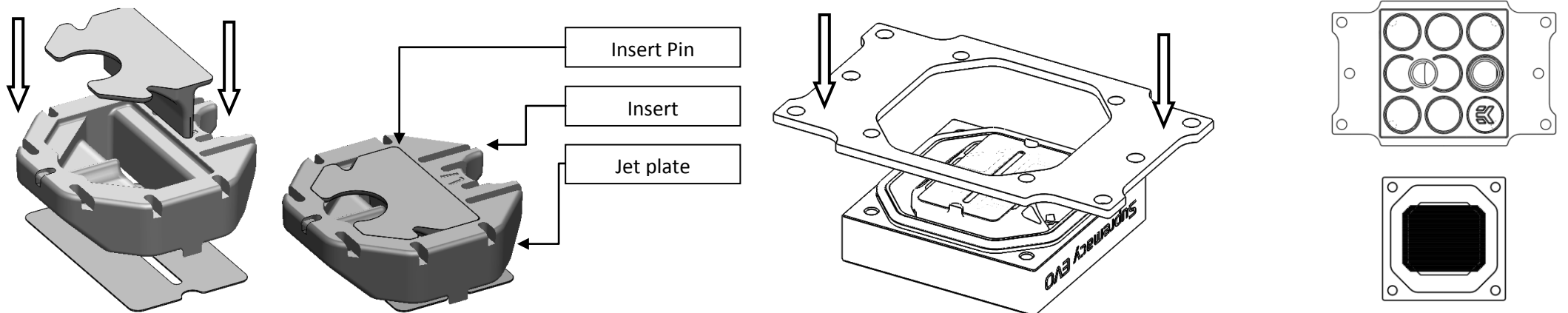
STEP 4: PREPARING BACKPLATE RUBBER GASKET (FOR INTEL LGA-2011 SKIP THIS STEP)

The enclosed rubber gasket is essential part of the backplate and mounting system and must be used every time you install this water block on any motherboard apart from LGA-2011(-3) socket type. The rubber backplate has a partially cut inner part which needs to be removed when installed on Intel LGA-115x and LGA-1366 motherboard. The rubber is held on four places and can be peeled away with hand. These two pieces can be reassembled later if needed.

Intel LGA-115x and LGA-1366 socket:
Remove the inner core of the rubber and use the outer part only.

AMD sockets:
Use the whole rubber backplate including the inner core.

- Outer part
- Inner core (removable)
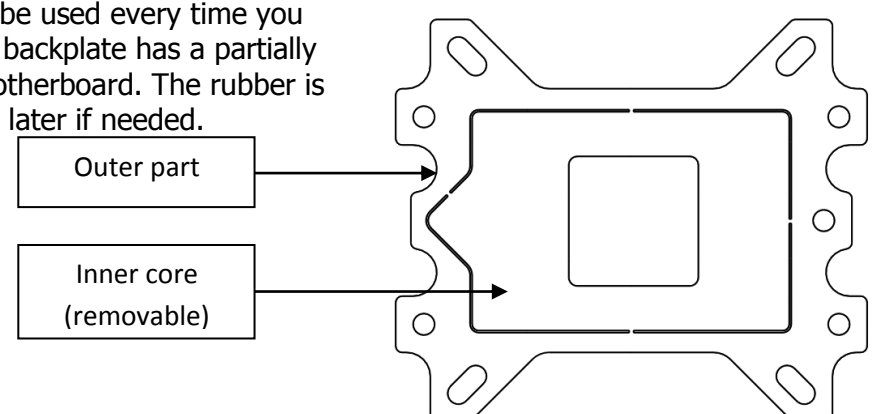
STEP 5: INSTALLING THE WATER BLOCK:

STEP 5a: Intel LGA-775/1366 and AMD socket motherboard:
1) Place motherboard on an even surface with front facing down.
2) Install backplate rubber gasket - depending on your CPU platform (see STEP 4) - and place metal backplate for Intel LGA-1366 and AMD socket to the back of your motherboard **RIBBED SIDE UP!** Align the holes on the motherboard with holes on rubber gasket and backplate.
3) Carefully rotate motherboard assembly with front side facing up with one hand while holding the backplate and rubber in place with the other hand.
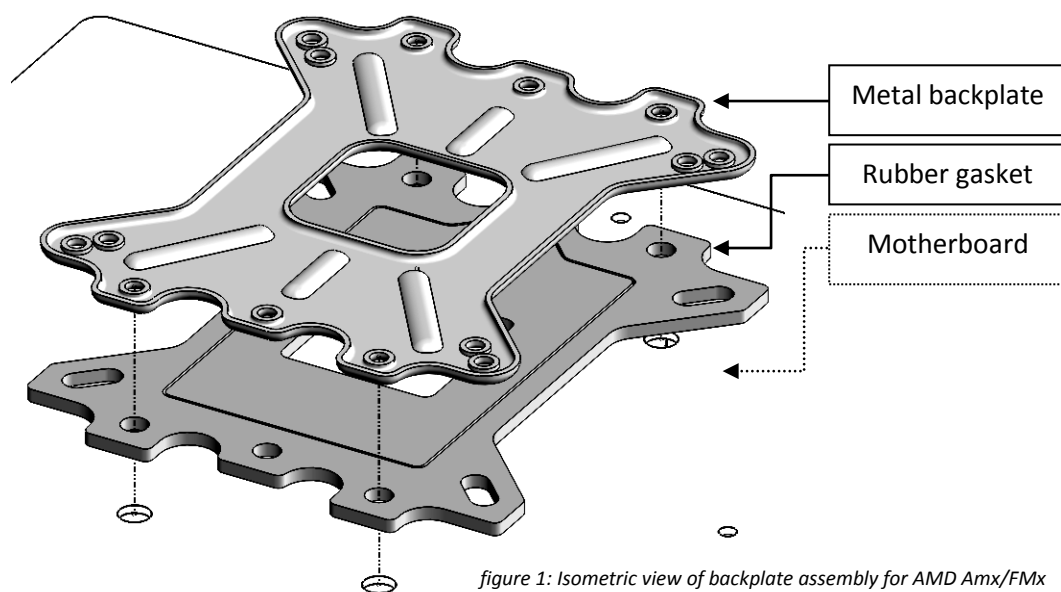4) Install the rest of mounting system as per installation manual (see STEP 6)

Metal backplate

Rubber gasket

Motherboard

figure 1: Isometric view of backplate assembly for AMD Amx/FMx

STEP 5b: Intel LGA-115x socket motherboard:
1) Place motherboard on an even surface with front facing down.
2) Install backplate rubber gasket depending on your CPU platform (see STEP 4) - and place metal backplate for Intel LGA-115x socket to the back of your motherboard **RIBBED SIDE UP!** Align the holes on the motherboard with holes on rubber gasket and backplate. **Make sure to orientate the rubber gasket to fit past the CPU socket ILM backplate.**
3) Carefully rotate motherboard assembly with front side facing up with one hand while holding the backplate and rubber in place with the other hand.
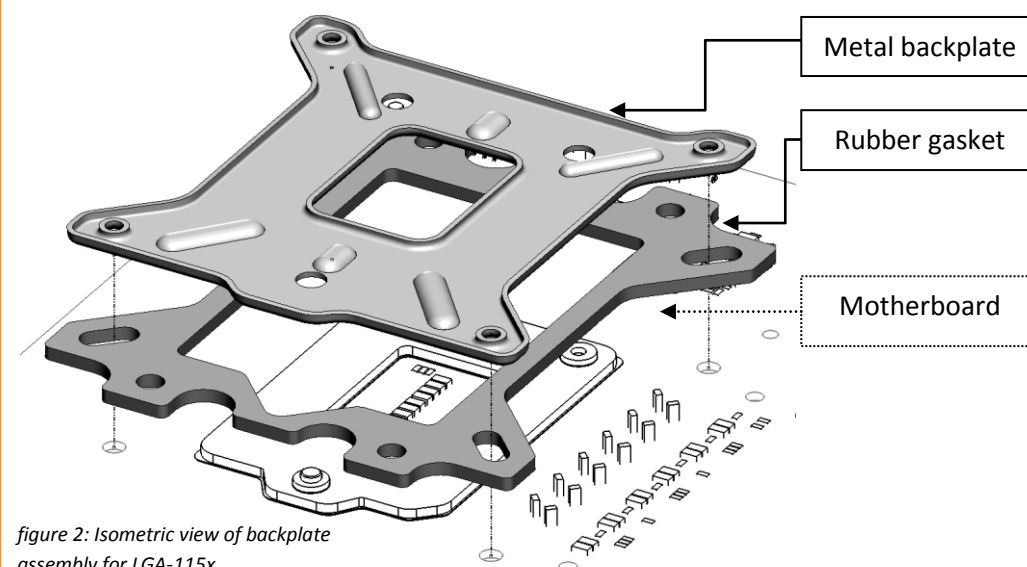4) Install the rest of mounting system as per installation manual (see STEP 6)

Metal backplate

Rubber gasket

Motherboard

figure 2: Isometric view of backplate assembly for LGA-115x
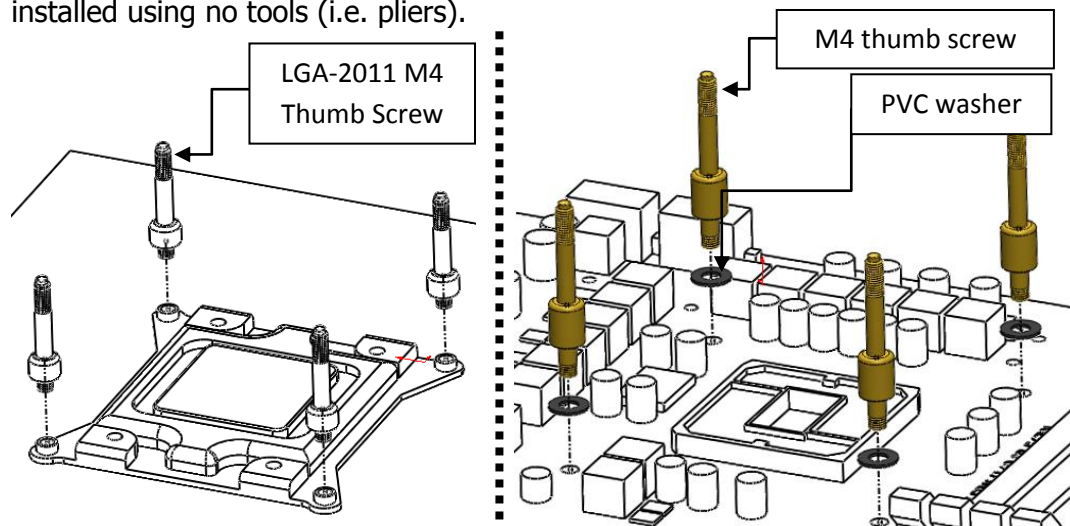
STEP 5c: Installing the mounting system:
Intel Socket LGA-775/115x/1366 and AMD sockets:
Install the M4 thumb screws of the PreciseMount mounting system onto your motherboard. It is mandatory to put 0.7mm plastic washer underneath each of the M4 thumb screws. Tighten the M4 thumb screw to the metal backplate with your hands until you reach the end of the thread. Using tools (such as pliers) is not recommended!
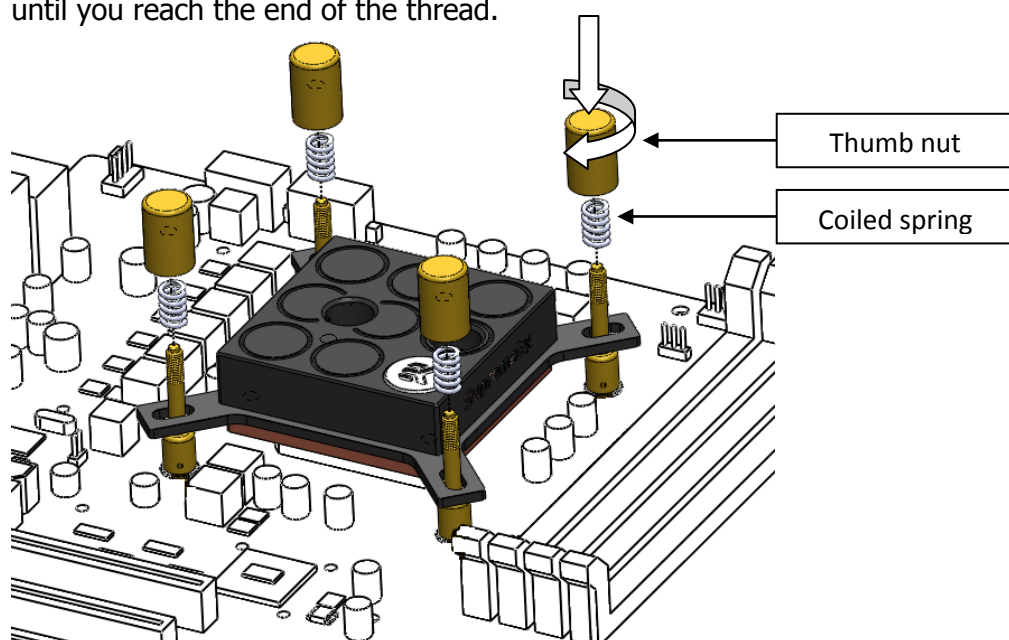
Intel Socket LGA-2011(-3):
Install four (4) specific LGA-2011 M4 thumb screws into four M4 threaded stubs on the LGA-2011 socket integrated latch mechanism (ILM). The screws are to be installed using no tools (i.e. pliers).

LGA-2011 M4 Thumb Screw

M4 thumb screw

PVC washer

STEP 5d: Preparing your CPU and applying TIM:

Cleaning the CPU: Once mounting mechanism is attached install the CPU into the socket. Wipe the CPU's contact surface (by using non–abrasive cloth or *Q-tip*, as shown on sample photo).

Applying thermal compound: EK recommends blob or line method of applying the enclosed Gelid GC-Extreme™ thermal compound to the CPU heatspreader (IHS) - see sample photo on right. The quantity of about two rice grains is just about right. There is no need to cover the whole IHS. Applying too much thermal grease will have negative impact on the cooling performance!

STEP 5e: Fastening the waterblock:
Install the waterblock on your CPU. Place an enclosed compression spring and thumb nut over each M4 thumb screw. Start fastening two thumb nuts at a time, preferably in cross pattern and do not tighten them fully until all of them are partially screwed in. Then - using your fingers only - screw in all four thumb nuts until you reach the end of the thread.
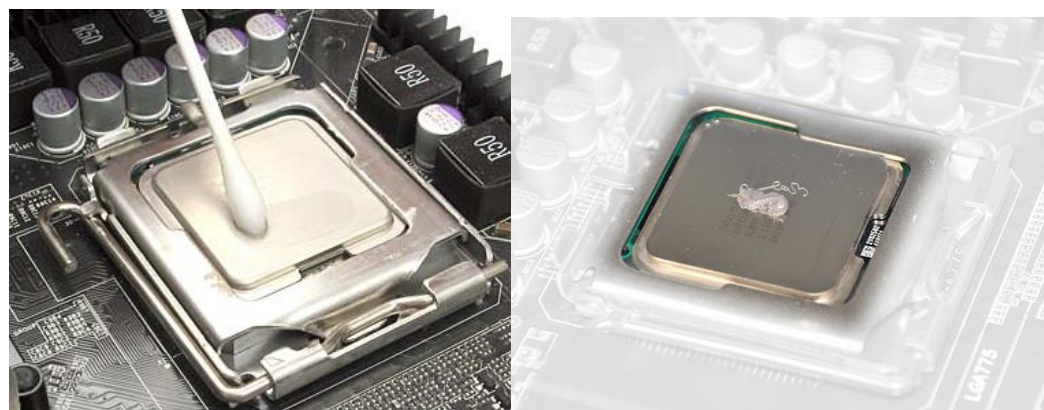
Thumb nut

Coiled spring

STEP 6: CONNECTING WATER BLOCK TO THE COOLING CIRCUIT
Carefully identify the direction of the flow in your circuit. For the EK-Supremacy series water block to operate properly the G1/4 port nearest to the center of the water block **MUST BE USED AS THE INLET PORT**. EK recommends the use of EK-CSQ Fittings. When using fittings other than EK-CSQ series please use hose clamps or appropriate substitute to secure the tubing to the barb. The use of biocide containing and corrosion inhibiting coolant is always recommended for any liquid cooling system.

EK-CSQ Fitting

Tubing

REQUIRED TOOLS
- allen key 2.5mm (enclosed)