

SKL News Bulletin

No 8 - December 2008

The year 2008 bow out soon. It will leave behind many memories. We are pleased to share them with you in this little special bulletin.

The SKL Company has continued its impetus for now 5 years, with a significant annual growth. We even doubled our space of manufacture in 2008; and this in order to meet the special needs of our customers

In order to maximize our productivity and thus offer more flexibility to you in the resolution of your problems of design of cooling system; we acquired in 2008 a **Hydraulic Press Folding machine (CNC bending)** and a Laser Cutting machine. These two instruments substantially improve our capacity of innovation and development of products: for your first benefit.



We are particularly proud to have received in our installations several of you at the time of a seminar on last October 18. This activity of training was a success from start to finish. The present professionals share their competences and experiments. They also visited the installations of SKL Aluminium and exchange their points of view with all our team.



In addition, you probably noticed our new corporate image which is proudly represented by polar animals in the desert. This icon reflects the problems between the **heat** and the **cold**, which expresses well the challenges which are posed in thermal transfer.



The year 2009 will be primarily centered on the development of products in order to diversify our supply and thus meet your requirements.

*We wish you daring for 2009.
Audacity and creativity are often out of
the beaten tracks.
Let us, in 2009, be your partners
of creation.*



Aluminum Radiators

Aluminum is commonly used to make car radiators and today's industrial machinery. However, we tend to think that aluminum radiators are a fairly recent thing, but it is not, we have to go back as far as 1913, where it was used for the first time by Rolls Royce.

Back then, copper radiators were used, and they had the advantage to be sturdy and resistant to corrosion, but they had the disadvantage to be large and heavy.

In 1960, General Motors installed aluminum radiators in the Corvette to reduce its weight. A typical radiator weights 7 kg (15 pounds) and an aluminum one is 2.5 kg (5.5 pounds). Later in the 1970s, European auto makers began to use it. During the 1980s crisis, manufacturers (OEM) were forced to save on gas consumption, which made the use of aluminum radiators a common thing on account of the weight issue. In 1985, only 24% of the vehicles were equipped with aluminum radiators. Today, most of them are equipped with them.

In 1990, steelworkers developed an aluminum alloy that had good mechanical and corrosion properties. Today's endurance tests established that aluminum radiators have a lifespan of about 4 to 5 years longer than copper radiators. It explains the widespread use of aluminum radiators in the automotive industry today.

Radiators and cooling systems maintenance

The lack of proper maintenance is a determining factor for aluminum radiator breakage and for other components of the cooling system. **The corrosion deterrent found in the "ethylene-glycol" coolant has a tendency to deteriorate over time; it is most important to do the maintenance regularly as recommended by the manufacturers.**

Aluminum is more vulnerable to galvanic corrosion than copper or cast iron due to its high reactivity properties. Therefore, when the corrosion deterrent is consumed over time, and the Ph of the cooling liquid sinks under the 7 mark, aluminum becomes sacrificial, explaining its degradation. The same type of corrosion can happen when the engine is not properly grounded.

During the cooling system maintenance, the Ph rate of the Glycol-Water mix has to be checked with the specially made test strips, which determines when it should be replaced. The coolant alkalinity diluted in water in a proportion of 50/50 should be between 8 and 11. The long lasting coolants have a Ph rate of about 8.3.

Whatever the type of coolant you use, make sure that it is meant to be used in an aluminum radiator.

Choose a coolant recommended or meeting the manufacturer (OEM) specifications, this will increase the life span of the components in your cooling system.

To maintain the outside of the radiator, simply rinse with tap water. Avoid using pressured water since it can bend the fins or powerful cleaning agents that can increase corrosion and reduce the lifespan of aluminum radiators.

