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# ONE-PAGE INFORMATION - KAIZEN No.13

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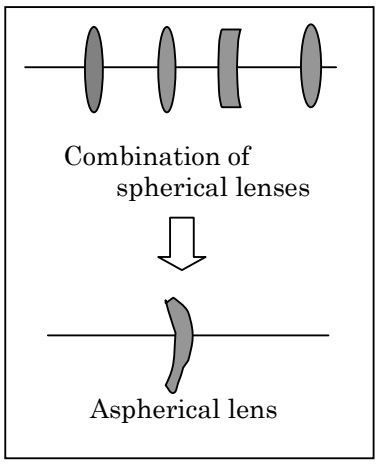
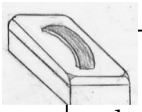
## ■ Small is Beautiful

A German-born British philosopher, Dr. Kurt S. Schumacher wrote a book "Small is Beautiful" many years ago. In those days many people admired only greatness : Gigantic buildings, big cars, big machines ----etc… The result of greatness is over-engineering, fat production system, and pollution.

Last week as a part of the 5 day Japan Industry Study Mission designed by GTR, an interesting small company, Konica Opto Production Co. was visited. This company is supplying a small aspherical plastics lenses to 2/3of the world market!! This aspherical lens is installed in many electronics devices such as small CD players, digital cameras as the indispensable photo-sensing components. The conventional spherical glass lenses need to be assembled in a large combination of lenses to avoid chromatic aberrations (a defect in a lens system caused by the variations of refractive index with the wavelength of light).




The aspherical lens compensates for this defect. The research team headed by Mr. T. Kojima, a friend of mine, succeeded in developing the aspherical lens about 10 years ago at Konica, for the first time in the world. It is a small (2-3 m/m in diameter) mass-produced plastic lens. It is also cheap. One of the Japanese traditional skills is the miniaturization process to make things smaller and smaller. "Small is Beautiful " is the key word for the 21 century.



### KAIZEN TOOL BOX #8-----Straight OK Rates

In Automobile manufacturing, for example, there are several inspection points along the entire production processes : stamping, body assembly, painting and final assembly.

At each point, a certain number of vehicles are rejected (NG) requiring some sorts of reworks (heavy and light) while only a small number of vehicles go to the next station without any rework. This is called straight OK rates. The Overall Straight OK Rates through-out the entire production line is expressed by the following formula.

Overall Straight OK Rate = P1 x P2 x P3 x P4 = 0.8x0.6.0.2x0.1=0.96 = 9,600 p.p.m.

Many Japanese auto company have improved P4 to more than 90%