

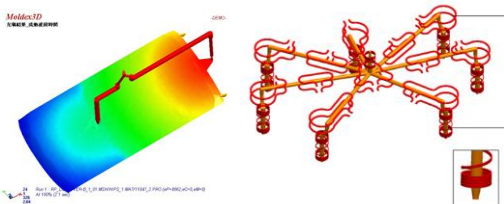
1. Technology that turns μ-MIM into reality.

Application of Plastic Injection Moulding technology to MIM.

As MIM is originally based on plastic injection moulding, many technologies in MIM come from those of the plastic injection moulding technology. Among those technologies, a hot-runner system is one of the many that we succeeded in applying to our μ-MIM.

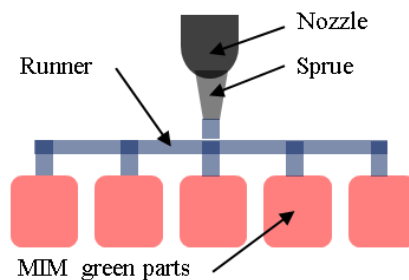
A runner is a melt-delivery channel that runs from the sprue to the mould cavity. The cold runner system, which is commonly used, has drawbacks: (1) longer processing time, due to the fact that ejection is only possible when solidification inside the sprue and runner is complete, (2) cost increase due to the solid inside being unwanted by-product, which turns out to be expensive waste in case of MIM.

In contrast with the cold-runner system, the temperature inside the sprue and the runner is kept hot to prevent the material from solidification with the hot-runner system. Consequently, the hot-runner system leads to large material reduction and costs saving, especially in volume production.



▲A simulation image of a running hot runner.

When the hot-runner system is applied to MIM, the system is more advantageous. One advantage to note is, besides saving material and money, to achieve an effect in lowering the troubles that may lead to substandard products. These troubles come about, not only because the MIM material is a mixture of metal powder and binder which tends to be mixed uneven, but also because the temperature and cooling timing in the runner tend to be distributed unevenly. The hot-runner system plays an important role to cope with such troubles.



2. Invitation to the exhibition of Taisei MIM

Taisei is always creative in the display of μ-MIM part samples. The photo shows a part of our display at Medical Device Development Expo (MEDIX) at Mechanical Components & Materials Technology Expo (M-TECH) in Japan. We thought of this idea with the best of our inventiveness to convey the high precision and high added value of our MIM parts. Please come to our booth and enjoy the display and discussion with us. An artistic display with various products of μ-MIM forms the image of the world, in which Taisei's μ-MIM is spreading to every corner of the world.



Example of Taisei's μ-MIM parts display with the image of our μ-MIM scattered all over the world.

Schedule of exhibitions

June 21-23, 2017

MEDIX (M-TECH) Japan

Location: Tokyo Big Site

3. We are available to show μ-MIM parts

"What do we need to know before designing MIM parts?", "We don't know of MIM yet", "Is the quality of MIM as reliable as machining?". In order to clarify these questions, Taisei members are available to come to you to explain our MIM technology and display our MIM samples. If you want to know more about MIM, please feel free to contact us.



Ms. Harumi Kori, Production control department

Hello. I am Harumi Kori, from the production control department. I am responsible for management of the production process. My hobby is playing in a band! I play the drums, especially hard rock after work and weekends. 6-7 times every year we put on a live performance, playing classic tunes by Deep Purple, Eagles, White Snake and even more maniac ones. If you like hard rock, let's have a chat!