

Guide to Mold Manufacturing in China

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Now days developing a new product overseas has become easier specially in China where the possibilities of Manufacturing are endless and the process is cost effective compared to manufacturing costs in the western world.

Developing a new product would normally involve the design and manufacture of a custom made mold; in China 2 West we have a decade of experience Manufacturing goods in China and shipping them to the world, time we've developed and manufactured thousands of molds for a wide variety of goods. In C2W, we have an in-house team of experienced mold and tooling designers and we use some of the very best mold and tooling manufacturers in China.

As a result of our long term partnerships with these manufacturers we can often beat the prices of going directly to a manufacturer and in this case our superior communications, project management, quality control and reliability are free!

According to your requirements and budget, we can manufacture lower quality short run molds all the way to high quality auto-grade EU/US certified molds. Furthermore we have the capability and experience to manage the production of specialist molds rarely produced in China.

In the next pages we share some of our expertise and experience for Mold Manufacturing in China..

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What is a mold and why do I need one?

In simple words an injection mold is a metallic box with an internal cavity in which liquid plastic, glass or metal is injected and out comes as a new product.

If you aren't intending to produce a customised product, then you don't really need to care about creating a new mold. It's not because off the shelf products don't require molds, because they do. However, when you are purchasing an existing design, the supplier has already assembled a mold for manufacturing it.

While you're not expected to ever pay any kind of fee for using an existing mold, you are expected to pay for tooling costs related to the development of a new mold for your manufacturing project.

What do you need to know for Create and manufacture molds in China?



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The process has become easier as years pass by due the level of improvement of the manufacturing processes in China, but if not taken several measures some pitfalls can occur and turn into poor quality products.

Below we review the possible problems and how to avoid them to have a successful production in China.

Potential Issues during Set-up

- Incorrect Settings

Each part of a product has its own set-up configuration and production parameters, for having a successful run each time is key to set everything accurately each time a mold is going to be used. One of the best ways to ensure this is by filling a checklist of all the setting and parameters previously mentioned.

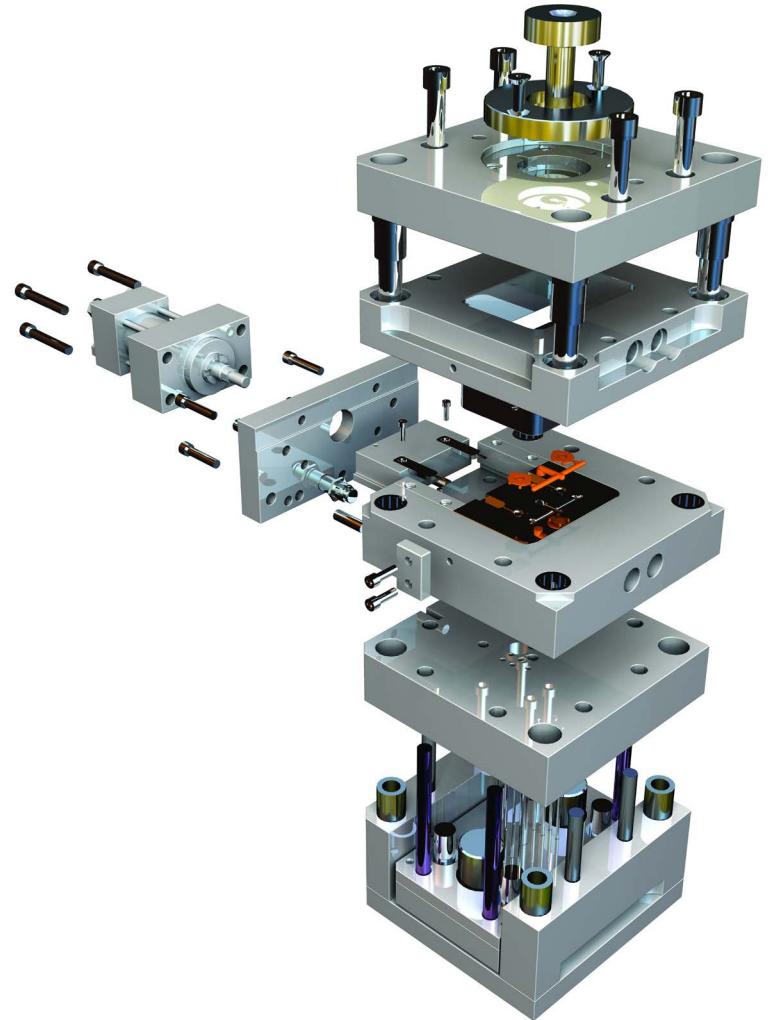
If not given a series of values to the operator, this will result in multiple adjustments and different set ups until all the parts are being produced in an acceptable quality level. Not having a preset of parameters would result not only in increased costs for running the machinery but also in a series of inconsistencies in all the batches.

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- Using the Wrong Machine Size

Each part has its own specifications which will determine the size of the injection mold machine it will be produced on. The injection mold machine size should have been established during the tool design stage and theoretically that size machine should always be used for manufacturing your products. Under the given circumstances that the machine that its normally used for your mold is occupied, for avoiding waiting times a different machine can be used setting the size up or down to fit your mold.

Typical symptoms of running a tool on the wrong size machine are: inconsistent part weights or short shots, yield issues, excessive material waste, parting line flash. All are serious problems and will have a negative effect on your part quality and delivery times and quantities.



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- Quality Inconsistencies

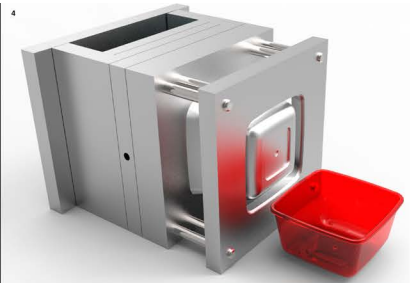
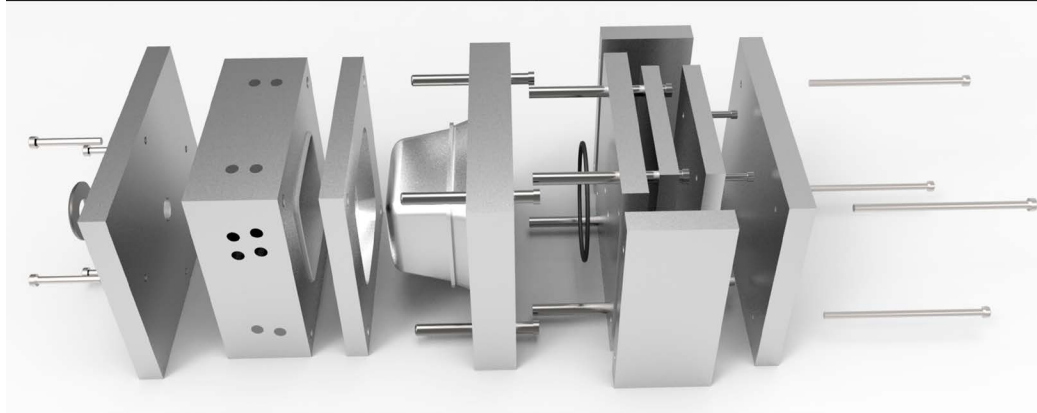
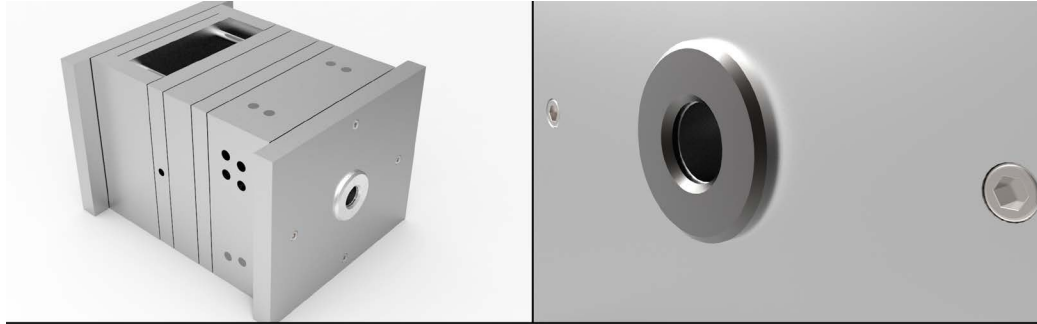
If you find that there are differences between batches, different dimensions are within specification one batch and out the next and back in the following delivery.

At the manufacturing facility keep the machines always working is a metric to ensure more profits, therefore, once one job has been completed, they want to keep the changeover time to the next job as short as possible.

Due to the pressure of keeping the machines up and running and keeping the changeover time down to a minimum, there are occasions where set-ups are poorly executed and managed, which results in errors during the set-up. This brings as result malformations in the products and quality inconsistencies.

For avoiding this you need to establish an adequate QC regime that will ensure that the products will comply with all the given specifications, one of the best options to do it so is to set a series of QC reviews, from the First Product Inspection, to mid production QC visits and pre shipping, all this as mentioned before to make sure that all the production will be done according to all the specifications, and all the items will look the same.

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About the ownership of the mold

Since your production is made in China, the mold is staying there unless you've purchased the mold for manufacturing in another country. As the mold is staying at the factory, in some cases the manufacturer might opt to use it to manufacture more of your designs without thinking on paying you any kind of usage rights.

For avoiding this kind of issues we advice to create a Terms and Conditions agreement between your and your manufacturing partner, as it will protect you and your invention against any kind of counterfeit or piracy. The agreement would normally include the next items:

1. Ownership terms
2. Maintenance costs & terms
3. Number of units that the mold shall be able to produce
4. Compensation terms (in case the mold would break or damage compromising the production before a certain number of units has been produced)

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Mold Tolerances

Manufacturing in china has improved massively in the recent years, result of this is the capability of hundreds of suppliers to achieve products that comply with almost any required norm. Although no matter if you manufacture in China, or in the western world all the machines or even the operators tend to have discrepancies in the production process.

For which when manufacturing molds in China and using them to run your production, you ought to have in mind to hand over to the supplier a list of tolerances for the batches

all you need to do is to ask a number of suppliers which tolerances they feel comfortable with on a legally binding Sales Agreement.

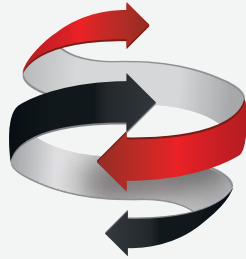
A common mistake committed by many importers is that they try to “negotiate a better tolerance” with the supplier. This is not only a complete waste of time, but also very dangerous. If you’re lucky, the supplier will tell you to get lost. If you are not so lucky, the supplier may actually say “yes, we can do it”, only to let you discover that mold is not matching your tolerance limits when it’s too late.

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Final Word

Since molds and tools are generally labour intensive products, manufacturing them in China makes very good financial sense. You can sometimes expect savings of up to 100-300% over western manufactured tools of an equivalent quality when Manufacturing in China.

If taken in count all the considerations previously mentioned you can ensure that your Mold and as consequence your product either manufactured in China or in your country of origin will be made according all the specifications and will comply with all the regulations needed in your final market.



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