Prototypes in China: When does it pay off, and what do you need to know before you start?

By NewTracks AS

A good prototype is more than a technical tool – it is a sales tool, a quality reference and proof that you can deliver. Here we explain why we think China is an excellent place to make prototypes, and what you should know before you start.

Why make prototypes in China?

It is fast

We normally deliver prototypes in one week. There are suppliers in Europe that are also fast – and sometimes just as affordable. But China combines speed with a wide range of production methods and finishing options that are hard to match.

The quality impresses

We have suppliers who polish and paint the products so they look series-produced. A prototype from China does not have to look like a prototype.

You get a packaging prototype too

In China we can make prototypes not only of the product itself, but also of the packaging. You can arrive at the meeting with a complete impression of the end product – from the first time the box is opened.

Good prototypes shift the focus of the meeting

If you start your presentation by opening professional packaging and lifting out a product that looks mass-produced, something happens in the room. The focus shifts from *whether* you can deliver – to *when* you can deliver. That is a big difference!

Several production methods under one roof

We can 3D print in aluminium, stainless steel or plastic, or use CNC machining – depending on what the product requires. The prototype then gets the strength and weight your finished product will have. You don't have to choose one method and hope for the best.

Extruded aluminium profiles? Also possible

For products with extruded aluminium profiles, making a new tool is often not expensive. We can produce a few metres of profile and actually extrude prototypes – something that is rare outside China.

From prototype to small series

In the early phase the market may not be ready for large volumes. Small production runs mean either a high unit price or a lot of tied-up capital. Here are two smart moves:

Produce more first-article samples

When the moulding tool is ready, the factory normally produces one first-article sample. But it costs little to increase the number while the tool is mounted in the machine anyway. 20 units may be enough to cover the need in an early phase.

Be aware, however, that first-article samples are primarily meant to verify the tool. There is no warranty on first-article samples. If there is a defect, the factory corrects the tool, but you do not get 20 new samples.

Order the annual volume, split the delivery

Many factories accept an order for a larger quantity with delivery split into 2–3 batches. You get a better production price and save on storage and tied-up capital. This usually requires a long-term relationship with the factory.

Vacuum casting – well suited to small series

In vacuum casting a silicone mould is made, often based on a 3D-printed model. The material is a 2- or 3-component plastic that is mixed and poured into the mould under vacuum. This gives a high level of detail and good tolerances. A mould lasts 5–10 castings, but the moulds are inexpensive, and if you need 50 units, more moulds are made.

Because thermosets are used rather than thermoplastics, the materials do not have quite the same properties as the thermoplastics used in injection moulding, but a wide range of materials has been developed that resemble them.

Want to know what a prototype would cost for your product? Contact us at NewTracks – we will give you a quick assessment.

NewTracks has 10 years of experience manufacturing in China and helps European companies with product development and manufacturing.

Our team in Shenzhen, NewTracks China Co. Ltd., supports project management, engineering, quality assurance and logistics, while commercial responsibility lies with the Norwegian company NewTracks AS.