



Design for Manufacturability



Design for Manufacturability (DFM)

Designers and Manufacturers Working Together to get the best part, at the best price, on-time, every time.

At Plymouth Spring we encourage conversations with customer engineers early in the design process. Even though we do not design the finished part itself, we are able to offer value-added part design considerations that greatly enhance price, performance and delivery.

Here are 10 tips for maximizing part designs for manufacturability.

1

Plan a visit and shop tour of our facility. Gain insight into our various manufacturing processes. Allow our engineers and your engineers the opportunity to meet in person and start working together.

2

Consider bringing mating assembly components during your visit. Mating assemblies offer invaluable insight into the fit, function and intended use of the metal part that needs to be manufactured. Chances are we can also assemble the product for you.

3

Discuss ideas with Plymouth Spring engineers to incorporate mistake proofing features on the part to prevent orientation errors in the next process or assembly stage.

4

Discuss ideas with Plymouth Spring engineers to minimize handling. Examples include the potential of automatic packaging at the machine or adding a hole or bump for greater finishing efficiency.



5

If the part already has a history but requires a supplier change. Provide Plymouth Spring with past samples and inspection reports for the evaluation of potential process improvements.

6

Consider all raw material options. The current market price, availability, temper etc. of the selected raw material can greatly impact final product costs, performance and delivery.

7

Agree on inspection methods up front. Consider inspection fixtures for constraint replication of assemblies and agree on datum surfaces for free state inspection. Plymouth Spring operates non-contact video inspection systems that are suitable for most inspection requirements.

8

Discuss ideas with Plymouth Spring engineers to make the parts multi-functional.

Parts with multi-functional purposes reduce the number of parts needed to complete an assembled product.

9

Discuss ideas with Plymouth Spring engineers to make the parts have multiple uses. Parts designed with multi-uses can have a feature that satisfies one part and another feature that satisfies another. This reduces the number of parts needed to complete multi-component assembly projects

10

Conduct a complete review of expectations and future plans such as estimated volumes, approval processes, cleanliness, corrosion resistance and delivery requirements. Plymouth Spring can set up JIT/Kanban delivery programs so that you have the parts arrive ready to use, at the right time and at the right location.



Plymouth Spring is one such supplier that offers these critical resources and much more. Our skilled team has over 56 years' experience providing custom fourslide stamping, wire forming and spring manufacturing services to suit diverse applications. To learn more about these services and their specific capabilities, we invite you to download our latest eBooks.

Plymouth Spring is an ISO 9001:2008 certified company that also adheres to several other industrial standards; we aim to ensure customer satisfaction by providing the highest quality products. Visit our Portfolio Page to view examples of our completed work, and be sure to contact us if you have any questions.