

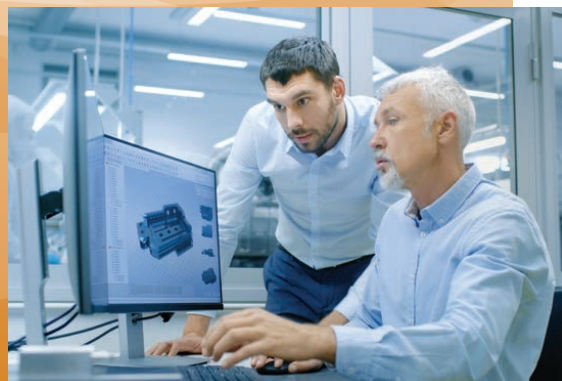
Product Development & Manufacturing

PROCESS CHECKLISTS

STAGE 6

Post-Manufacturing

Installation, Service and Support





STAGE 6
Post-Manufacturing

- STAGE 1 – Planning
- STAGE 2 – Design
- STAGE 3 – Prototype
- STAGE 4 – Design for Manufacturing
- STAGE 5 – Manufacturing
- ▶ **STAGE 6 – Post-Manufacturing**

About these Process Checklists

Launching a new product is a major commitment. No matter what size your business, creating a product from scratch requires a significant allocation of time, money and resources.

A successful new product development project also calls for a process – along with a full understanding and acceptance of that process by everyone involved.

We have broken down the product development and manufacturing process into six stages – from requirements and prototype to manufacturing and distribution.

We developed this series of Process Checklists to help you and your team plan, execute and monitor these six stages. We invite you to use these checklists as you plan your own product development and manufacturing project.

About Product Resources

Product Resources is a product design, engineering and manufacturing company with 35+ years of experience developing complex, technically advanced products and instruments for the medical device, biotech/life sciences and pharmaceutical industries.

We provide a full-service approach to product development meaning we handle all aspects of the product development process.

STAGE 6 – Post-Manufacturing

Once manufacturing is up and running – and finished products are being shipped to your customers, you must offer the customer support so that the customer will have a good experience with your product. At this stage, your focus is on customer service – providing everything the customer needs to make full use of your product.

Depending on the product, this may include a field service technician for installation, setup, and commissioning, maintenance, a repair depot and metrology lab for factory service and calibration, and factory training for your service personnel.

Product Resources can provide all this service.

▶ IQ / OQ / PQ Services

Many products require a documented and validated Installation Qualification (IQ) and Operational Qualification (OQ) process to install and commission a product. Those products may also need a Performance Qualification (PQ), showing the product qualified for operation in the customer's process. For products that need this more formal installation process, IQ/OQ/PQ documents detail the process, and trained technicians perform the procedures on new equipment.

▶ Installation / Preventative Maintenance / Field Service

Product installation/setup doesn't always have to follow a formal process, but still may require Field Service technicians. If your product cannot be set up by a minimally capable end user without referring to a manual, you need to consider other means of setting up the equipment.

Also consider that many products require maintenance (and calibration) on a periodic basis to keep the product functioning properly. It isn't always practical to return the product to the factory for maintenance and calibration; field service may be the best option.

▶ Depot Repair Service

For those products that may be returned, a Depot Repair service can be the answer. This repair center will be using the same parts/documentation/equipment as the manufacturing plant and ideally would be co-located. Obtaining spare parts is also easier as the production schedule should tolerate the shifting of material for spare parts and service.

Depot Repair Service should be able to handle all the warranty service, out-of-warranty service, preventative maintenance, and calibration for the product.

STAGE 6 – Post-Manufacturing

▶ Spare Parts Supply

Spare parts are necessary for the continued life of almost any product. The source of these parts is generally the manufacturing plant, diverting some of the production flow to supply spares. Consumables can also be handled through the factory, but the volumes are much higher than the spares and there is usually a dedicated path for consumables to keep the cost low.

▶ Training Service

Whether the training need is for Customers, Field Service personnel, Depot Repair personnel or Customer Service, it is important that these personnel are trained in the design, manufacture, calibration and testing of the product. Product Resources has held training seminars for our customers and their worldwide service personnel on the manufacture and test of products we build for them.

We can provide this service to you as well.

STAGE 6 – Final Deliverable should be a complete installation, service and support operation in the field



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