

Preparatory Stage G: Construct a flow diagram

A process flow diagram shows all the steps involved in the process outlined in the scope of the study. The scope is defined in [Preparatory Stage C](#) [1].

Making a process flow diagram

The HACCP team or the person leading the development of the HACCP study should construct a flow diagram. Whatever format you choose, all steps in the process outlined in the scope of the study should be included.

You may wish to use a schematic layout of the factory to help you. Knowledge of what actually occurs in your processes is essential.

Listing the steps in the process

List each step in the process or module. You should consider what happens all the way from receiving the raw materials, through to at least the point of despatch or up to the point of final consumption of the product.

Think about:

- Preparation
- Packing
- Storage
- Distribution
- You could also consider the following:
 - Raw material addition (including water)
 - Services (air, water, steam)
 - Any temporary product storage or hold periods (particularly during peak production times)
 - Recycle or rework loops
 - Process delays

You can use a linear or modular format for your process flow diagrams. This might depend on how complex your processes are, and whether parts of a process are the same for several products.

View '[Process flow diagrams](#) [2]' for some examples of linear and modular diagrams and when you would use them.

Draw a rough paper sketch of the product flow. Consider how the process is managed and what could realistically happen while it's in progress. For example, consider optional and intermittent activities.

Including technical data

The inclusion of relevant technical data will depend on the complexity of the operation. This data is useful at the Critical Control Points that you will identify later.

Technical data could include:

- Time for process or process element (e.g. fry for 2 minutes at 190°C or cool to <5°C in 4 hours)
- Temperature at different parts of the process (e.g. fry at 190°C for 2 minutes or cool to <5°C in four hours)
- Line speed
- Floor plan, equipment and services layout
- Segregation of low/high risk operations
- Personnel routes
- Flow conditions for liquids and solids (psi=pounds per square inch or temperature in °C)
- Waste flows
- Movement routes for raw materials/ingredients

A piece of equipment may have several functions (e.g. a bottle filling machine including rinsing, volumetric/gravity/vacuum/hot fill and capping functions). All functions should either be included in the description at the process step OR each function entered as a different process step.

Source URL: <https://myhaccp.food.gov.uk/help/guidance/preparatory-stage-g-construct-a-flow-diagram>

Links

[1] <https://myhaccp.food.gov.uk/help/guidance/preparatory-stage-c-define-scope-study>

[2] <https://myhaccp.food.gov.uk/help/guidance/process-flow-diagrams>