

FLOW PATTERN

For any manufacturing process, there are three basic inputs, namely

- Men
- Machines
- Materials

Out of these Men and machines are static inputs but materials are dynamic inputs.

The materials pass from one point to another point during manufacturing or processing till they are converted into final product.

For designing a new plant layout, the flow pattern for the movement of materials are decided earlier.

The flow pattern is the system for movement of raw materials from the beginning to the end where it is converted into finished or final product.

Characteristics of Flow Pattern:

1. It depends on the type of layout whether product layout or process layout.
2. It depends on the material handling equipment and the material handling cost.
3. It helps in reducing bottlenecks, backtracking and rushing etc.
4. Good supervision and control is essential.
5. It helps in reducing operation time and results in profit.

TYPES OF FLOW PATTERN

The types of Flow Pattern are:

- Horizontal Flow Pattern
- Vertical Flow Pattern

The types of Horizontal Flow Pattern are-

- Line Flow
- L Type Flow
- U Flow
- S Flow
- Circular Flow
- Combination of U and line flow pattern
- Combination of line flow and S type of pattern
- Combination of line flow and circular type

The types of Vertical Flow Pattern are:

- Processing upward
- Processing downward
- Retraction type of flow
- Inclined Flow

HORIZONTAL FLOW

- Line Flow



Simplest, Preferred in building with long length.

- L Type Flow



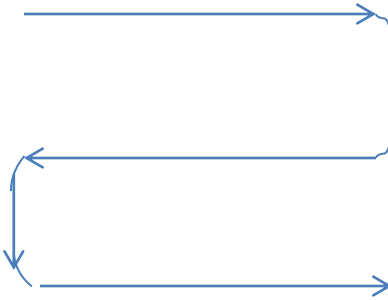
Used for more wide and less long.

- U Flow



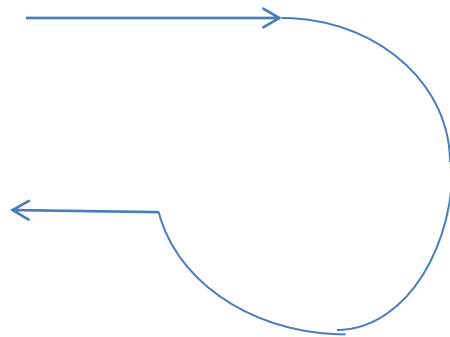
Suitable for longer production lines and preferred in square shapes building. Can be adopted in electric motor Industry

- S Flow



Preferred in square type building and longer production life.

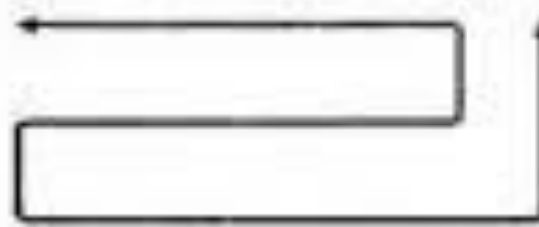
- Circular Flow



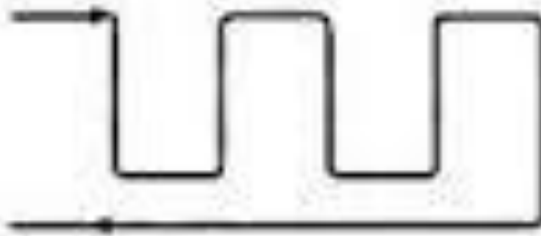
Suitable for longer production line where work are performed on rotary table, adopted by electric bulbs manufacturing industry.



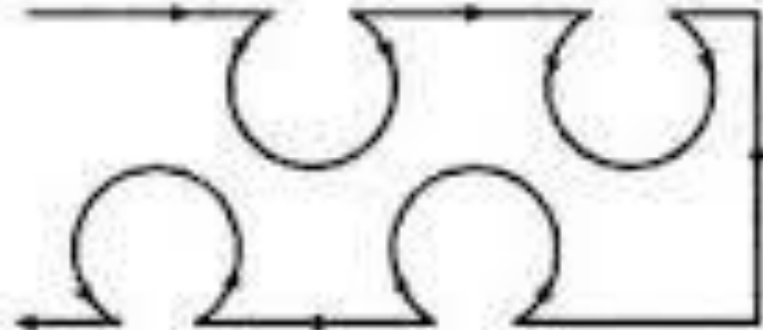
I + U (or L + L) Flow System



(S + L) Flow System



(S + L) Flow System



(O + U) Flow System

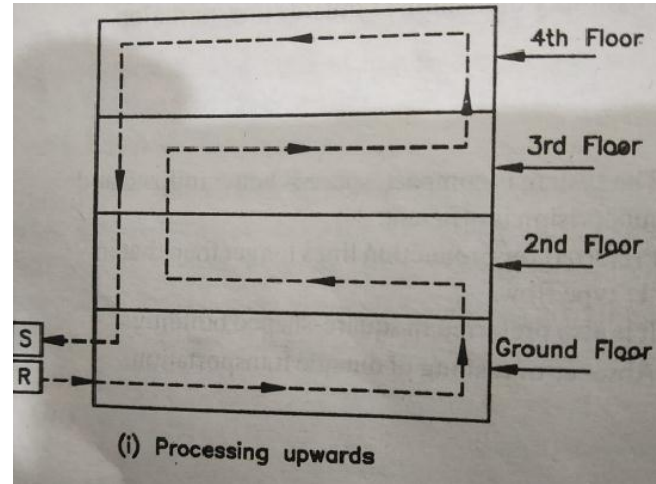
Fig. 32.7. Combinations of basic horizontal flow system.

These Systems (Combination) need smaller building lengths.

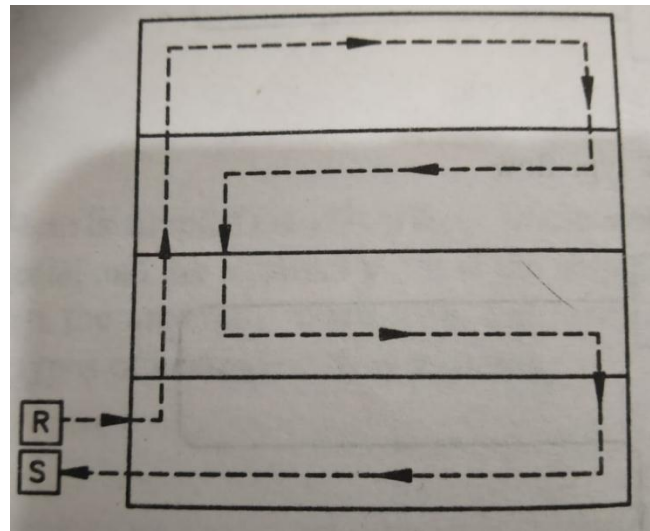
VERTICAL FLOW

Used in Multi-storey buildings where limited area is available. Processing is done on light materials. It uses the benefit of gravity flow.

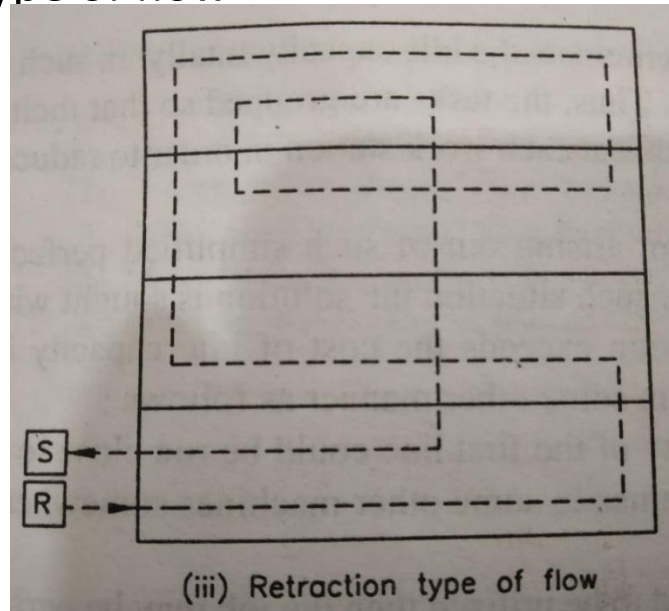
- PROCESSING UPWARD



- Processing downward



- Retraction type of flow



- Inclined Flow

