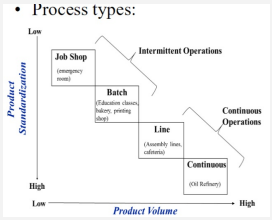
Process Types

Decision	Intermittent Operations	Continuous Operations
Product Variety	Great	Small
Degree of Standardization	Low	High
Organization of Resources	Grouped by function	Line flow to accommodate processing needs
Path of products through facility	In a varied pattern, depending on product needs	Line flow
Factors driving production	Customer orders	Forecast of future demand
Critical Resource	Labor-intensive (worker skills important)	Capital intensive (equipment, automation, technology support)
Type of Equipment	General purpose	Specialized
Degree of Automation	Low	High

Intermittent vs Continous Operations

Process Types



Fixed-Position Layout

reduced material movement	increased movement of personnel and equipment
highly flexible	higher skill req
	supervision needed
	expensive
	low equipment usage

Product Layout

smooth, logical flow lines	single machine failure stops whole line
small in-process invent-ories	changing product design requires major layout change
total prod time per unit is short	pace of production depends on slowest machine
reduced material handling	identical machines not fully ultilised, so high investment required

Process Layout

better utilization of machines	expensive material handling
highly flexible	production planning and control systems more involved
reduced investment on machiens as they are general purpose	higher prod time as WIP travels alot for machines
	skill diversity required

Group Technology Layout

shorter travel distance than process layout	reduced flexibility
reduced material handling	higher skill level required
reduced setup time	lower machine usage than process layout
reduced in process inventory and tooling	

Service Layouts

Office Layouts	Retail Layouts
provide comfort, safety, and movement of information	maximise net profit per square space

Must be aesthetically pleasing as well as functional