Material



Process



Outside Source

Takt = 50 sec.
C/T = 45 sec.
C/O = 30 min.
Uptime = 95%
Scrap = 2%
3 Shifts
25200 s./Shift

Data Box



Cross-Dock



Warehouse



Truck Shipment



Plane Shipment



Train Shipment



Boat Shipment

Material



300 Pieces 1 Day Inventory

Movement of Production Material by Pushing



Movement of Finished Goods to the Customer



Milk Run



Supermarket



Material Pull or Withdrawal

Max. 20 Pieces



FIFO Transfer between processes (Controlled Quantities)



Information



Control Conten

Manual Information Flow



Information Flow

Weekly Schedule

Information



Production Kanban (Dotted line indicates kanban path)



Withdrawal Kanban



Signal Kanban



Kanban Card Post or Collection Box



Kanban Arriving in Batches



Load Leveling

Sequenced Pull Ball

Information







Fax





General



Operator



Kaizen Lightning Burst



Quality Problem

Time

15 sec.
Processing Time

2 days

Production Lead Time

Material

ASSEMBLY

One Process Box equals an area of flow. All processes should be labeled. Also used for departments, such as Production Control.

Process

XYZ Corporation

Used to show Customers, Suppliers, and outside Manufacturing Processes.

Outside Source

Takt = 50 sec. C/T = 45 sec. C/O = 30 min. Uptime = 95% Scrap = 2% 3 Shifts 25200 s./Shift

Used to record information concerning a Manufacturing Process, Department, Customer, etc.

Data Box



Materials are not stored but rather moved from In-Bound Trucks to shipping lanes for Out-Bound Trucks.

Cross-Dock



Materials are placed in Storage Locations (Binned) and then picked for Out-Bound shipment at some later point.

Warehouse



Note frequency of shipments.

Truck Shipment



Note frequency of shipments.

Plane Shipment



Note frequency of shipments.

2 x Day
Train Shipment



Note frequency of shipments.

2 x Month Boat Shipment

Material

300 Pieces 1 Day Inventory	Count and Time should be noted.
Movement of Production Material by Pushing	Material that is produced and moved forward before the next Process needs it, usually based on a Schedule.
Movement of Finished Goods to the Customer	
Milk Run	
3	A controlled Inventory of parts that is used to schedule production at an upstream Process. The open side faces the supplying Process.
Supermarket	
	Pull of Materials, usually from a Supermarket.
Material Pull or Withdrawal	
Max. 20 Pieces — FIFO ► FIFO Transfer between	Indicates a method to Limit Quantity and assure FIFO Flow of Material between Processes. Maximum quantity should be noted.
processes (Controlled Quantities)	
	"Buffer" or "Safety" Stock must be noted.
Buffer or Safety Stock	

Information

MRP Control Center

Often a Computerized System such as a Material Requirements Planning (MRP) System.

Manual Information

For example: Production or Shipping Schedule.

Electronic

For example : via Electronic Data Interchange (EDI).

Information Flow

Describes an Information Flow.



Information

⋖- 20 - -

Production Kanban (Dotted line indicates kanban path) The "One-per-Container" kanban. Card or device that tells a Process how many of what can be produced and gives permission to do so.



Withdrawal Kanban

Card or device that instructs the Material Handler to get and transfer parts (i.e. from a Supermarket to the Consuming Process).



Signal Kanban

The "One-per-Batch" kanban signals when a reorder point is reached and another batch needs to be produced. Used where Supplying Process must produce in batches because changeovers are required.



Kanban Card Post or Collection Box Place where kanban are collected and help for conveyance.



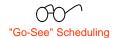
Kanban Arriving in Batches

OXOX Load Leveling Tool to intercept batches of kanban and level the volume and mix of them over a period of time (Pitch).



Gives instructions to immediately produce a pre-determined type and quantity, typically one unit. A pull system for subassembly processes without using a Supermarket.

Information



Adjusts Schedules based on checking inventory levels.



Usually for Expedited Information.





Orders

Often in Electronic form.

General



Represents a Person viewed from above.



Highlights Improvement needs on a Value Stream Map at specific processes that are critical to achieving the Value Stream Vision, can be used to plan Kaizen Workshops.

Kaizen Lightning Burst



Quality Problem

Time



2 days **Production Lead** Time

Under processes & inventories icons, they are used to calculate Total Flow Process Lead Time (FPLT) and Total Product Cycle Time, to bring a product from order to delivery.