

TRANSPORT KANBAN IMPLEMENTATION FOR KITTING DEPARTMENT

WHY KANBAN?

- ▶ Kanban is a scheduling device that authorizes the production line to produce.
- ▶ Main goal of the Kanban system is to limit the buildup of excess inventory at production line.
- ▶ Kanban will standardize the production with respect to material flow and increase the productivity.
- ▶ Kanban will increase production efficiency by rhythmic material flow.

IMPLEMENTATION OF KANBAN

- ▶ Observed the current workflow.
- ▶ Noted the types of packing in the process.
- ▶ Since there are many varieties in each type it is further classified into runners & exotic types.
- ▶ The main four types of A-Pump spares packing in WW7700 dept.. Are
 - HAND PRIMER KITTING
 - OH KITTING
 - PF KITTING
 - COMPONENT KITTING





COVERAGE CALCULATION

- ▶ Runners are identified based on the demand (month on month).
- ▶ As this material is C class, RELOWISA calculation was not considered (as per BPS standards)
- ▶ Coverage of materials is considered for 7.25 hr. approx. one shift.
- ▶ Example of coverage for Hand primer :
 - ▶ Hand primer SNP -768 pc
 - ▶ Target /shift per person -800 pc/shift
 - ▶ Target / hr. per person -106 pc packing
 - ▶ Cycle time =34sec/ pc
 - ▶ $768 * 34 / 3600 * 3 = \dots 2.417$...Coverage in hr.
 - ▶ Min Kanban – 1 = ...2.417...Coverage in hr.
 - ▶ Max Kanban - 3 = ...7.25.... Coverage in hr.

STANDARD FOR PRIMARY PACKING MATERIAL OF HAND PRIMER

Primary Packing material	SI NO.	Type number	HAND PRIMER	SN P	Plastic Bag 1	Pre Part Qty	Plastic Bag 2	Pre Part Qty	Cardboard box	Pre Part Qty	label 1	Pre Part Qty	label 2	Pre Part Qty	VCI papers	Pre Part Qty	Corrugated box	Pre Part Qty	
	1	F002.A50.013-079	F002.A50.013	768					6000767118	1400 Nos	N/A		6099940122	70*50 mm			6000738890	50 Pcs	
	2	2447.222.099-770	2447.222.099	768	6000801832	25 Kg	6099801049	25 Kg		12.200 Kg				100*25					
	3	F002.A50.013-770	F002.A50.013	768	6099801049		6099801014				6000449574	100/roll							
	4	2447.222.126-770	2447.222.126	768												100/roll	6099814024	500 Pcs	6000738970
	5	2447.010.038-772	2447.222.126	768														6000738918	50 Pcs
	6	2447.010.020-770	2447.222.098	768					6000801832							6099814024	500 Pcs	6099770023	

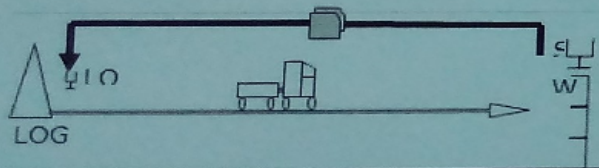
COVERAGE FOR HAND PRIMER WITH PHOTO

PART NUMBER	Description	SNP/ Dolley	PER SHIFT PER PERSON SHOP TARGET	PER HR PER PERSON	Per Piece (In Seconds)	Coverage in Hrs	For kanban Card(Min)	Coverage in Hrs	Max..	DOLLEY	BOX	No.. Pieces /TRAY	PHOTOS
F002.A50.013	Hand Primer	768	800	106	34	7.2	1.0	21.7	3.0	2	N/A	32	
6000.767.118	CARDBOARD BOX	1400	800	106	34	13.2	1.0	39.6	3.0	N/A	1	N/A	
6099.940.122	LABEL Roll	1000	800	106	34	9.4	1.0	28.3	3.0	N/A	1	N/A	
6000.738.890	CORRUGATED BOX	50	30 (1 BOX=30)	4	900	12.5	1.0	37.5	3.0	N/A	1	N/A	
PART NUMBER	Description	SNP/ Dolley	PER SHIFT PER PERSON SHOP TARGET	PER HR PER PERSON	Per Piece (In Seconds)	Coverage in Hrs	For kanban Card	Coverage in Hrs	Max..	DOLLEY	BOX	No.. Pieces /TRAY	PHOTOS
2447.222.099	Hand primer	768	800	106	34	7.2	1.0	21.7	3.0	2	N/A	32	
6000.801.832	Plastic bag 1 (KG)	25	800	106	34	0.2	1.0	0.5	2.0	N/A	1	N/A	
6099.801.049	Plastic bag 2 (KG)	25	800	106	34	0.2	1.0	0.5	2.0	N/A	1	N/A	
6099.940.122	LABEL Roll	1000	800	106	34	9.4	1.0	28.3	3.0	N/A	1	N/A	
PART NUMBER	Description	SNP/ Dolley	PER SHIFT PER PERSON SHOP TARGET	PER HR PER PERSON	Per Piece (In Seconds)	Coverage in Hrs	For kanban Card	Coverage in Hrs	Max..	DOLLEY	BOX	No.. Pieces /TRAY	PHOTOS
F002.A50.013	Hand Primer	768	800	106	34	7.2	1.0	21.7	3.0	2	N/A	32	
6099.801.014	Plastic bag 1 (KG)	25	800	106	34	0.2	1.0	0.5	2.0	N/A	1	N/A	
6099.801.049	Plastic bag 2 (KG)	25	800	106	34	0.2	1.0	0.5	2.0	N/A	1	N/A	
6099.940.122	LABEL Roll	1000	800	106	34	9.4	1.0	28.3	3.0	N/A	1	N/A	
6099.814.024	VCI Paper	500	800	106	34	4.7	1.0	14.2	3.0	N/A	1	N/A	
6000.449.574	LABEL Roll	1000	800	106	34	9.4	1.0	28.3	3.0	N/A	1	N/A	
PART NUMBER	Description	SNP/ Dolley	PER SHIFT PER PERSON SHOP TARGET	PER HR PER PERSON	Per Piece (In Seconds)	Coverage in Hrs	For kanban Card	Coverage in Hrs	Max..	DOLLEY	BOX	No.. Pieces /TRAY	PHOTOS
2447.222.126	Hand Primer	768	800	106	34	7.2	1.0	21.7	3.0	2	N/A	32	
6099.801.049	Plastic bag 1 (KG)	25	800	106	34	0.2	1.0	0.5	2.0	N/A	1	N/A	
6099.801.014	Plastic bag 2 (KG)	25	800	106	34	0.2	1.0	0.5	2.0	N/A	1	N/A	
6099.940.122	LABEL Roll	1000	800	106	34	9.4	1.0	28.3	3.0	N/A	1	N/A	
6099.814.024	VCI Paper	500	800	106	34	4.7	1.0	9.4	2.0	N/A	1	N/A	
6000.738.970	CORRUGATED BOX	25	30 (1 BOX=30)	4	900	6.3	1.0	18.8	3.0	N/A	1	N/A	

TOTAL NUMBER OF STANDARDS CREATED :

Type	Packing material standard	Components standard	Total
HAND PRIMER	1	NA	1
PF KIT	1	1	2
COMPONENT KIT	1	1	2
OH KIT	1	1	2

TRANSPORT KANBAN CARD SAMPLE FOR MATERIAL SUPPLY

BOSCH		IMR TRANSPORT KANBAN				BOSCH			
<1> part number	6099 770 023		<2> Description	CORRUGATED BOX		<11> Milkrun code	6099 770 023	<1> part number	
<3> Supplier	LOG1		<4> Customer	WW7700		<12> Symbol			
<5> Quantity	50	<6> Unit	PCS	<7> Pack type	PLASTIC BAG				<9> Kanban position :
<16> Supplier DATA/Local use			<15>Barcode						KIT PACKING 102 HANGER FOR HAND PRIMER
			<17> Delivery Schedule	<8> Kanban number	<10> Kanban Quantity	<13> Issuer	<14> Date of issue		
				2	3	WW7700	6.08.2019		



LOCATION IDENTIFICATION FOR MATERIAL IDENTIFICATION



SUPER MARKET



DOLLEY LINE

5S IMPROVEMENT ACTIVITY

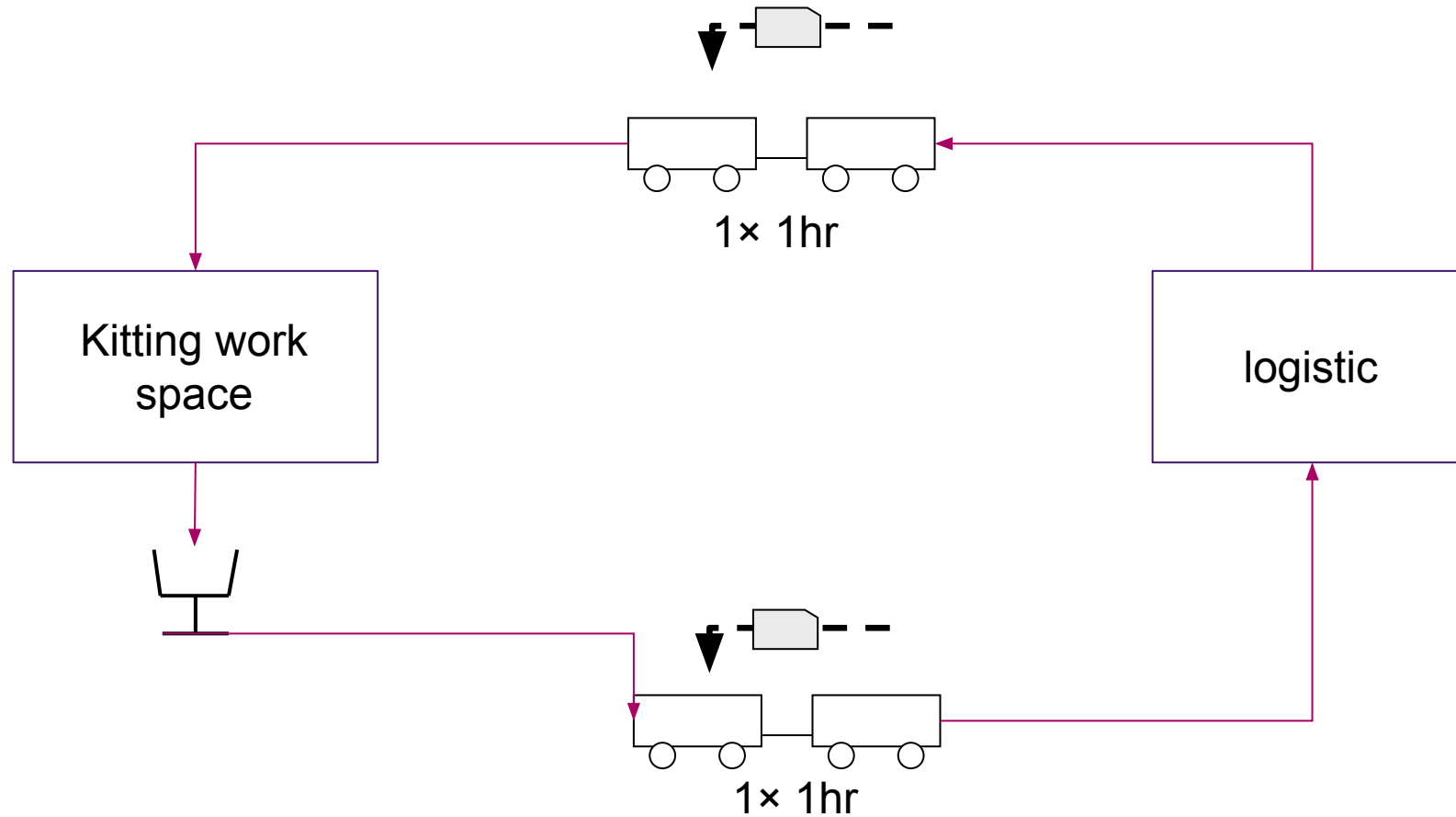
BEFORE



AFTER



TRANSPORT KANBAN MOVEMENT LOOP



RESULT

- ▶ Quantity, part type ,and part number data is collected.
- ▶ Coverage for all types is taken and standard is prepared accordingly.
- ▶ Kanban card for hand primer, PF and component kits are prepared.
- ▶ Kanban are made for avg. 6 types in each family
- ▶ Location is given in the super market for every packing material

TOTAL NUMBER OF KANBAN CREATED

Type	Number of Packing material	Total Number of Kanban cards prepared
HAND PRIMER	15	$15 \times 3 = 45$
PF KIT	08	$8 \times 3 = 24$
COMPONENT KIT	13	$13 \times 3 = 39$
OH KIT	13	Yet to be done

FUTURE ACTIVITY

- ▶ Transport Kanban card of packing material for all types in each family.
- ▶ Hardware for RFID to be installed.
- ▶ Milk run and shop associates must be trained about the Kanban system and its use.