

UNIVERSITY OF TWENTE.

Faculty of Mechanical Engineering, Production Management

Optimization of Warehouse Processes & Automation of packing line

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Internship Report
April 2016**

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Packing line**

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UNIVERSITY OF TWENTE.

Production Management
Mechanical Engineering

ASSA ABLOY

Operations –Warehousing
Assa Abloy Netherlands B.V.

“The capacity to learn is a gift; the ability to learn is a skill; the willingness to learn is choice.”

-Brian Herbert

Acknowledgement

This internship is a part of the Masters programme in Mechanical Engineering with specialization in Production Management at the University of Twente.

The internship opportunity I had with ASSA ABLOY Netherlands B.V. was a great chance for learning and professional development. Therefore, I consider myself as a very lucky individual as I was provided with an opportunity to be a part of it. I am also grateful for having a chance to meet so many wonderful people and professionals who led me through this internship period.

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It is my radiant sentiment to place on record my best regards, deepest sense of gratitude to Professor Ir. S. Hoekstra for his careful and precious guidance which were extremely valuable for my study both theoretically and practically.

I perceive this opportunity as a big milestone in my career development. I will strive to use gained skills and knowledge in the best possible way, and I will continue to work on their improvement, in order to attain desired career objectives. Hope to continue cooperation with all of you in the future.

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List of Abbreviations

ADA	Automatic Document Applicator
AX 2012	Microsoft AXAPTA 2012
COO	Chief Operations Officer
ERP	Enterprise Resource Planning
FTE	Full Time Employment
LPA	Label and Print Applicator
PPG	Power Pick Global
SKU	Stock Keeping Unit
VLM	Vertical Lift Module
WIP	Work-In Process

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1. Introduction

1.1 About the Company

ASSA ABLOY was formed by the merger of ASSA in Sweden and ABLOY in Finland in the year 1994. Since then the company has had a continuous growth, hence becoming an international group from a regional company. The company is divided into three regional and two global divisions.

The global divisions are:

1. Global Technologies which is a leading supplier of electronic security solutions worldwide.
2. Entrance Systems is a global leader in entrance automation products, components and services.

The three regional divisions are namely:

1. Americas-This division manufactures and sells mechanical and electromechanical locks, cylinders, security doors and door frames. Some of America's industry leading brands include Corbin Russwin, Curries, Medeco, Sargent and Yale.
2. The Asia Pacific division manufactures and sells mechanical and electromechanical locks, digital door locks, high security doors and hardware. Some of APAC's industry leading brands include Guli, Pan Pan, King, Lockwood and Yale.
3. The EMEA division manufactures and sells mechanical, electro-mechanical and electronic locks, cylinders, security doors and fittings. The brands include some of the most respected in the industry such as Yale, Nemef, Lips and ABLOY, amongst others.

ASSA ABLOY Nederland BV, part of the ASSA ABLOY Group comes under EMEA division which stands for Europe, Middle East and Africa, is the specialist in locking and unlocking of doors for residential and non-residential construction.

With the vast range of mechanical and electromechanical quality products, Assa Abloy holds all ingredients to realize the ideal security solution. Within ASSA ABLOY Nederland many trusted players bundle their forces. This results in a convincing service, based on seven quality brands who have proven themselves many times: Nemef, LIPS, YALE, ASSA ABLOY, IKON, Eff Eff and ABLOY. Assa Abloy has two offices located in Apeldoorn and Ramsdonksveer. The Apeldoorn site is a manufacturing facility as well as warehouse in order to cater the need of clients in the region. Ramsdonksveer facility is mainly for the manufacture cylinder assemblies and keys.

1.2 Executive Summary

The project deals with the redesigning of the warehouse processes. The company has recently invested in automation of the warehouse by purchasing 6 Kardex Shuttle systems and barcoding. The layout of the warehouse was also redefined in order to improve all the warehouse processes to reduce lead times and labor content to benefit from the investment and redesign. The assignment deals with the end-to end flow in the warehouse which includes moving trolleys to the kardex clusters, moving between the clusters and moving to the packing area up to packing and shipping. The incoming stream of supply was also taken into consideration.

The redesign of packing process encompasses exploring the possibilities for layout improvement and automation.

In order to achieve the goals of the assignment, the assignment was divided into two parts:

1. Optimization of warehouse flow and efficiency.
2. Automation of packing process.

The steps in order to reach the solution for each of the two parts were:

1. Gain more knowledge about the process
2. Identify the problems in the process
3. Measure delays caused by the Identified problems
4. Find the causes to the delays
5. Find the solution to the problem and reach an optimum solution that reduces the time and improves efficiency

First the processes as done in the company were identified in order to get better understanding of the system as well as the processes. During this observations were made about the problems and their causes in the processes. Once the problems were identified and a measurement of the delays caused by them was taken. Then the reasons for the delays were identified and a solution to solve the causes was given. With which we could generate solution which benefit the company with higher efficiency and reduced cycle times.

In the part to automate the packing line, a number of scenarios were generated after which the best one with maximum improvement was found. Having reduced time for packing per order. Cost analysis for all the option was carried out in order to have a general idea about the investment for the scenarios and quotation for each of the machines were received from various supplier in the field. And then the best scenario with maximum time reduction and cost effective was found out.

In order to improve the flow of trolleys from each cluster, within the cluster to the packing table was timed and WIP and throughput through the Kardex system were calculated. During this, process time on Kardex was found out and steps were taken to find the delays in the process. A new working method was devised such that the operator does the order picking from the system most efficiently.

In order to reduce the time taken by the operators on the packing line to put back the empty trolleys a new location was found near the Kardex system such that the walking distance was reduced from 60m to 30m which also reduces the time taken by the operator to put the trolley in storage area and take a new trolley with orders

Once all the improvements were decided upon, a final layout of the packing line and Kardex system was designed.

2. Optimization of Warehouse Flow and Efficiency

2.1 Processes in a Warehouse

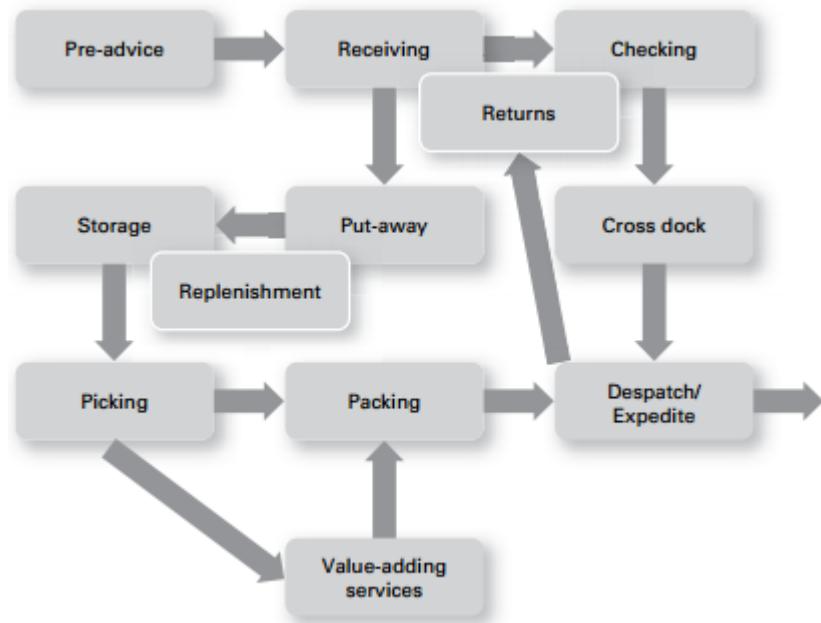


Figure 1 Processes in a warehouse

As shown in the above figure, a warehouse has a lot of simultaneous activities going on. In order to get the maximum output from the operations in a warehouse. The operations have to be precise and fast so that maximum customer demand can be met in a single day. The activities in a warehouse start from receiving the orders from suppliers in order to stock the warehouse, and finish one the customer order is packed and ready to be dispatched. In between the starting and the end process of a warehouse their lies a complex operation to get the orders in and out of the warehouse to the customer. The operations at ASSA ABLOY are not very different from the general operation of any warehouse. We would discuss the following process w.r.t ASSA ABLOY B.V. Warehouse at Apeldoorn, The Netherlands.

- Inbound
- Order Picking
- Packing
- Dispatch

The above mentioned process are explained below with the problem faced in different part of the above processes.

2.1.1 Inbound/Receiving

It is one of the most vital of all the processes in the warehouse. Making sure that the correct amount and product have been received. The goods for the warehouse are received from various suppliers. This is done by using the 3 inbound door in the front and 1 on the side to unload longer products. Speed is also an important factor here the goods should not be in inbound for more than 24 hours. The amount of WIP in inbound should be less.

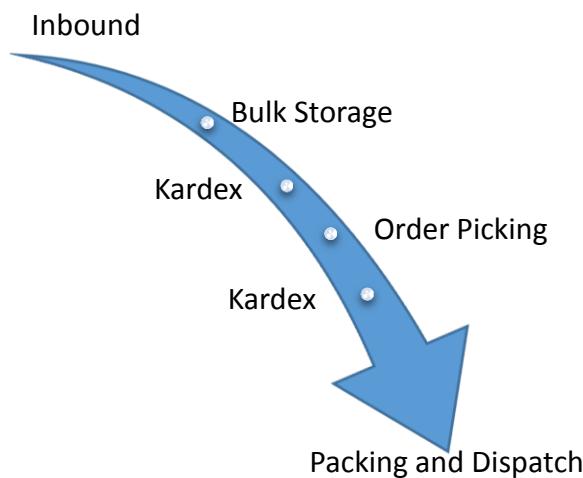


Figure 2 Stepwise flow of SKU's in a warehouse

The company has various vendors which are namely from China, Romania, Italy, Germany and Assa Abloy Finland, these vendors inform the inbound about the pre-receipt of the incoming goods. This practice is not followed by the others. Order from other vendors are only known once they have arrived. The order from the above mentioned vendors comes in once or twice a week.

Once the goods are received then they have to undergo inspection which involves a random check of a sample from the whole consignment. The inspection is done within the area allocated for inbound goods. This is also done in the case if there are new products coming in or if there has been a defect in the specification from the vendor's side. The quality control is called once the next consignment from the same vendor comes in to check the specifications of the arrived parts.

The goods once received and processed through the system are to be moved inside the warehouse within 24 hours of their arrival with the exception to the large consignments. The goods can be put in either of the two locations which include either picking location or bulk location. Once received the articles are placed at system defined locations. Only when the item has been scanned and confirmed that order is correct.

In order to store the goods. Barcodes are put on the articles and specifying to the ERP system about the articles or SKU on a particular barcode label as well as the number of SKU's.

Once the sku are put in the system, it finds an appropriate location for storing the sku in the warehouse. This is done by searching for the free locations within the warehouse and comparing it with the dimensions of the SKU and its quantity which is to be stored. The system then allocates different location for the SKU's to be stored in which are High Racks or Pick Location or kardex system. Once this is done the sku's are in the system and lets the operator know the quantity of SKU to be stored at different locations. Now by scanning the label, location for the specific sku is given to the operator on the hand-held scanners in order to put the specified quantity in the location assigned by the system. Different kinds of labels are used due to difference in the dimensions and weights of the articles. Some are mentioned below with their purpose.

Label Type	Use
PA	Small Boxes
PB	Pallets
PM	Long Articles

Table 1 Types of barcode labels

The operator once on the location for storing the articles. Scans the location code, place the articles on the location and then confirms to the ERP that a specific SKU and a specific quantity of the SKU is kept at the location and the location is not free anymore.

- Storing SKU's in Kardex System

The process for storing SKU's is almost the same. But it slightly differs when the articles are to be stored in the Kardex system. The ERP tells the operator to put a specific SKU in certain quantity into the kardex System. And at the same time, ERP updates the kardex management software "Power Pick Global (PPG)" about the SKU and the quantity which has to be stored within the kardex system. From here on the PPG software takes over and finds the location for the SKU's within the kardex System with depends on the material data predefined with in the PPG software and once the SKU's are at the kardex inbound buffer the operator selects the put-in option on the screen through which he can see all the SKU's that have to be stored in the kardex. Once he selects to start the process of storing the SKU's in the kardex. Kardex system with the help of its put-to-light system helps the operator to store a specific quantity of the SKU in the location.

2.1.2 Order Picking

Order picking is the most important activity in a warehouse. It is the costliest and labor intensive of all the activities of all the activities in a warehouse. Targeting the picking operations as the area to improve its productivity can make considerable difference to the total operating cost of a warehouse.

In order for the order picking to be done efficiently and accurately. As the orders are received from the sales in the warehouse the first step is to sort the orders as some of the order are a pallet load whereas others can be picked in totes or boxes. Depending on the number of articles in an order they are sorted into three different categories namely:

- Multipick
- Single Pick
- Pallet Load

Once the order has been sorted the system know the priority of the order as mentioned by the sales at the time of forwarding the order to the warehouse. The sorting of the orders is done by the supervisor of outbound. In which he streamlines the smaller order into Multipick or Single order based on the number of articles in the given orders. Once the order is sorted into their respective categories the ERP system defines the number of lines/order based on the inventory of the article and its location in the warehouse.

Once the operator logs in to the system on the scanner the system assigns a multipick or single picking operation to the order picker. High priority or Urgent orders picking are also given in the same way.

Once the order has been assigned the picker scans the cart through which system knows the exact Blue Boxes (BB) or PK containers (multipick containers barcode) in which the current orders are being collected. The pick location in the warehouse is given by the system through the hand-held scanners, once on the location the operator is asked to scan the location barcode, followed by the item code after which the system tells the number of articles to be collected. Then system says in which box the picked articles are to be placed. Then the operator is asked to scan the corresponding box barcode and location code on the cart. Once this is done the system leads the person to the next pick location. After all the picks are completed by walking in the high rack pick locations of the warehouse. If the order is completed with the high rack picking the operator drop the cart to the packing buffer. If the order is still incomplete and need more item that are stored in the Kardex system, the system instructs the operator to drop the carts at the kardex Buffer.

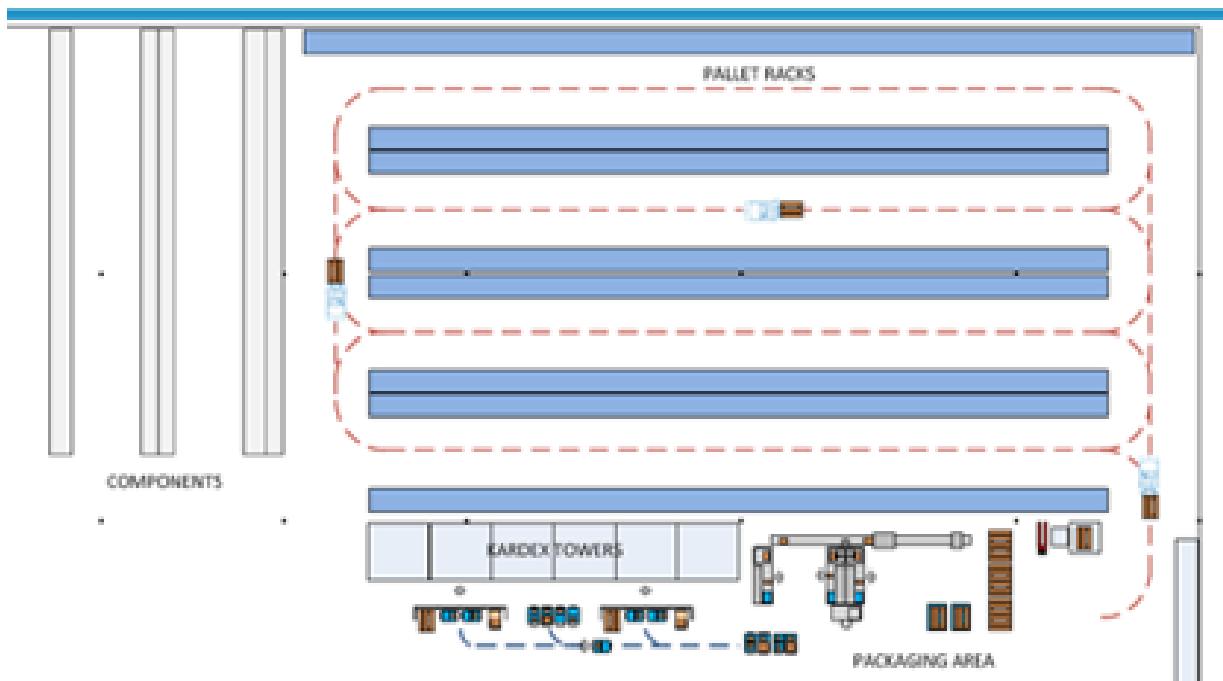


Figure 3: Order picking layout

The route for picking the articles for an order is decided by the ERP system. Which lets the operator start picking articles from the first Lane of the high racks to the last lane high racks then through the cross dock and then finally ending at the kardex system at which point the operator on the kardex takes over. The order picker after handing over the cart to the operator at the kardex station can start to pick another order.

Once the carts are at the kardex buffer. In order to process the cart, the operator aligns the cart to the Racks which has 4 different sections. 2 out of the 4 sections are to process multipick carts whereas the remaining 2 sections are to process the Single order which can be on a cart or on a pallet. As shown in the figure below.

Drop to Light solution (racks)

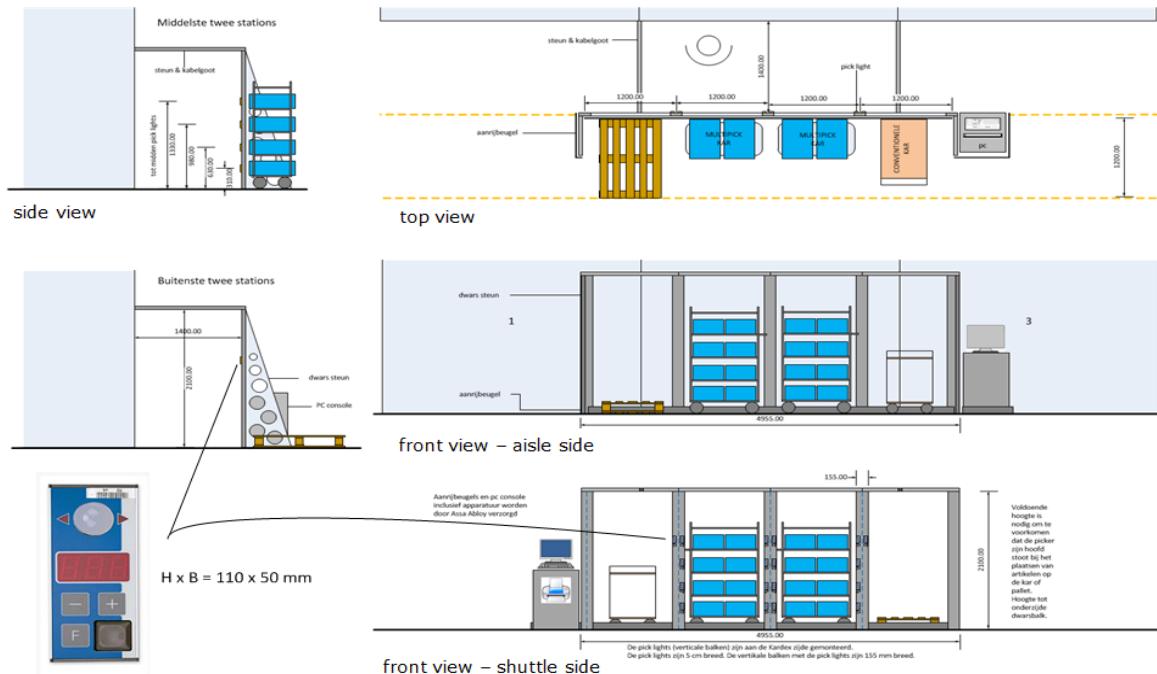


Figure 4: Drop to light frame with specification

The operator assigns each of the cart to the specific sections on the system so that the system knows the location of the order on the carts. Once the operator starts to process the orders on the carts. With the Help of Pick-to-Light and Put-to-Light operations of the kardex. The operator is able to process each of the orders with a high accuracy and effectively. Once the order picking is finished on the first zone of the Kardex the carts are passed on to the next zone. If they require articles from the other zone also. Else the carts are signed out of picking and passed onto the packing Buffer.

2.2 Vertical Lift Module (VLM)

The system being used is from the company Kardex Remstar Shuttle XP 500 VLM (Vertical Lift Module). The system run by the software called “Power Pick Global (PPG)” which is also from Kardex Remstar. The system can store material in trays. The number of trays in one system would depend on the height of the boxes in the tray. The system has 6 individual towers which are divided into 2 groups of 3 each tower. Each tray can hold a load up to 460Kgs. Currently the system has 54 trays per kardex tower. The system can be operated from the PPG software. It takes about 40 seconds on an average for one operation. Operation being either getting a new tray or retracting the tray and exchanging it with a new one according to the order.

Each Kardex has 54 trays which are then divided into individual location based on the box sizes being used. There are three different types of cardboard boxes being used to store the articles which are of the following dimensions (dimensions in cm):

- 200x150x100
- 300x200x100
- 400x300x120

Each box has a specific number of articles that can be stored in it. Depending on the dimensions of the articles. There are 1920 boxes of the first size, 3600 for the second box and 4200 for the third type of box which makes 9720 unique locations within the system. The system has two more types of boxes which are just defined in the system but are not present in the system which are:

- 400x300x170
- 400x300x220

The locations are divided equally in all the Kardex towers and hence each tower has 1620 location in each tower which are a mix of the above mentioned three cardboard boxes.

The cost analysis of the Kardex system is done below:

		Cost/hour		Avg.no. Of hours	cost/day
Personal Cost	4 people	€ 23,19		7,4	€ 686
Relevant Costs			Yearly	Monthly	Daily
48030 Afschr. Prod. Machines	depreciation	vast	€ 11.022,24	€ 918,52	€ 45,93
48050 Afschr. Kantoor Inventaris	Depreciation Office inventory	vast	€ 11.880,52	€ 990,04	€ 49,50
48060 Afschr.Computer Apparaten	depreciation	vast	€ 202,00	€ 16,83	€ 0,84
Overhead Cost			Yearly	Monthly	Daily
Premises(825m2)			€ 121.563,75	€ 10.130,31	€ 337,68
Equipment, consumables and supplies			€ 86.482,40	€ 7.206,87	€ 360,34
Repairs and maintenance			€ 1.919,13	€ 159,93	€ 8,00
Depreciation, amortisation, impairment/write-downs			€ 23.104,76	€ 1.925,40	€ 96,27
Other			€ 357,87	€ 29,82	€ 1,49
			Total cost of picking/day		€ 1.586
			Total cost of picking/month		€ 47.577
			Total cost of picking/year		€ 570.921

Table 2 Cost Analysis of Warehouse without Kardex

From the above table, we can see that the number of people order picking in the warehouse was 4 which meant the cost of €686 euros per day plus additional incentives to the employee. The cost of 825m² of area of the warehouse was about €121563, 75 per year. These costs and some other operational cost made the yearly expenditure of order picking about € 570921.

		Cost/hour		Avg.no. Of hours	cost/day
Personal Cost	2 people	€ 23,19		€ 7,39	€ 342,92
Relevant Costs			Yearly	Monthly	Daily
48030 Afschr. Prod. Machines	depreciation	vast	€ 11.022,24	€ 918,52	€ 45,93
48050 Afschr. Kantoor Inventaris	Depreciation Office inventory	vast	€ 11.880,52	€ 990,04	€ 49,50
Kardex System		€ 453.000,00			
	Depreciation		€ 90.600,00	€ 7.550,00	€ 251,67
Barcode Scanners		€ 19.900,00			
	Depreciation		€ 3.980,00	€ 331,67	€ 11,06
Carts		€ 7.500,00			
	Depreciation		€ 1.500,00	€ 125,00	€ 4,17
48060 Afschr.Computer Apparaten	Depreciation	vast	€ 202,00	€ 16,83	€ 0,84
Overhead Cost			Yearly	Monthly	Daily
Premises (75m2)			€ 11.051,25	€ 920,94	€ 30,70
Equipment, consumables and supplies			€ 86.482,40	€ 7.206,87	€ 360,34
Repairs and maintenance			€ 1.919,13	€ 159,93	€ 8,00
Depreciation, amortisation, impairment/write-downs			€ 23.104,76	€ 1.925,40	€ 96,27
Other			€ 357,87	€ 29,82	€ 1,49
			Total cost of picking/day		€ 1.202,88
			Total cost of picking/month		€ 36.086,38
			Total cost of picking/year		€ 433.036,60

Table 3 Cost Analysis of Warehouse with Kardex

With the induction of kardex in the warehouse, the area has reduced from 825m² to 75m². Thus reducing the cost drastically. The number of employee has also been reduced from 4 to 2 on the kardex. Thus bringing down the total operational cost from € 570921 to € 433036 per year, which is a 24% reduction in cost.

2.3 Working Method

- Current Method of Picking

The order pickers bring the cart to the inbound buffer at kardex1 and then update the ERP system that the cart has been dropped at the location of 'KARDEX1'. Then ERP updates the PPG and the PA or BB code of the order pop ups on the screen. Then the operator by looking at the screen locates the cart with the specified PA or BB code. Once found he aligns the carts to either multi pick location or single pick location on the frame.

The operator then scans the PA or BB code from his hand held scanner through which the system selects the PA or BB code on the screen. And assigns the section to the cart on the frame. Once this is done in order to start the process the person scans the PROCESS code in order to start the picking process. The required trays are brought out of the system then using pick by light the operator picks the required no. of articles as shown on the screen on the Kardex. After making the pick he confirms the number that have been picked after which the system again through drop to light system on the frame shows the location on the cart in which the articles have to go. After placing it there he again confirms with a button next to the light system. Once the operator has finished all the picks from the first cluster the system tells the operator if there are any more picks from the second cluster if so the system shows a message to continue with the other cluster. Else tell the operator which order have been finished and by showing a green light on the drop to light frame with a message END. Then the operator can check out the order and send it to the packing Buffer.

If the order has to be processed on the other cluster as well the operator repeats the same process on cluster 2 and then finally places the carts in packing buffer. But if the order has to be processed only on the cluster 2 it keeps on waiting till the operator checks the PA or BB codes on the screen.

The operator on the station keeps on processing the even if there is one single cart in the buffer for kardex. Which is not the efficient way to process orders.

The other thing that happens is that the operators leave the trays in the access opening and not store them back in the kardex system. Which again increases the time for tray retrieval.

During all these processes the time for storing the SKU in the kardex system is not defined. So the operator just starts to store in SKU's in the system as he sees the number of orders on kardex are less. Which is sometimes leads to a bottle neck on the kardex system as order keep on coming for processing at the station. The two processes of picking and Put-In cannot be done simultaneously due to which we would have to assign specific time or slots for doing the two tasks.

- Time for Inbound

The time for storing in the SKU's has to be defined. For this the average time was measured in order to find out what is the optimum time allotment for this process. The results of this measurement are shown in the table below:

sr no.	No. Of articles	Time
1	198	561
2	758	473
3	44	180
4	527	765
5	80	182
6	78	258
7	15	80
8	36	100
9	12	62
10	25	38
11	10	114
12	650	414
13	70	84
14	122	702
15	51	287
Average	178	287

Table 4 Inbound time

As shown in the table 4, the average time taken for storing in article is 4.8 minutes for 178 articles. Assuming that it takes about 5 minutes to store 200 articles and the average amount of articles to be stored in Kardex in is 1000 we require 25mins to store these articles. The average number of SKU's stored in Kardex per day is 2900 going by the same assumption above it would take 1:15 hours per day for the storing in of articles. But this may vary as the volume of inbound coming into kardex vary with the arrival of SKU's from the Suppliers.

Serial No.	Date	Numer of Articles
1	18-4-2016	2780
2	16-4-2016	3403
3	15-4-2016	5223
4	14-4-2016	2241
5	13-4-2016	1843
6	12-4-2016	1636
7	11-4-2016	1093
8	8-4-2016	3160
9	7-4-2016	2160
10	6-4-2016	5531
Average number of SKU		2907

Table 5 Inbound article pieces per day

There are two option for doing the storing task for the kardex:

- Allotment of specific time in the day – In this option, a certain time would be allotted for just storing in SKU's in the Kardex. This time can be sometime in the afternoon as the amount of orders to be processed at that time are comparatively less than in the morning time.
- In between Order Picking- In this option, we would do the storing in between the time when picking is also being done. For example: while waiting for order carts to come in buffer.

Both the Strategies, can be applied and the optimum can be found out.

- Optimized method of Picking

In this section we would discuss the optimized way of picking with the kardex. The process of picking would remain the same as there is not much change required in that and as it is operator friendly. The Major change should be the number of orders being processed at a time. The operator just processes one order at a time if there is nothing else in the buffer or the orders are still being picked. The frame with drop to light system is built to process 18 orders at a time i.e. 2 multipick carts (16 orders), 1 Pallet load and 1 single order cart. From the order picking time in the warehouse we know that average time per order takes about 8 minutes for a single order and 9 minutes for a multipick order. The operator should wait till the time he gets at least 4 orders in the buffer before starting to process the orders. That is the minimum number of order after which he should start processing the orders.

The second improvement in the working that has to be done is reduction in tray timing. This can be done by double tray system which has been discussed later. But on the system level, the operator of kardex station can send the tray back into the system once the orders have been picked from it or the Kardex show the process has finished. This would lead to reduction of 20 seconds as and when the new orders are starting to be processed.

2.4 Issues in Kardex Operation

In this section we would be discussing the hindrances to the smooth operation of order picking through the Kardex. It has to be kept in mind that the system has been recently incorporated into the warehouse operations. These issue greatly effects the working of the operator as well as the efficiency of the process.

- Inbound to Kardex

The problem faced by the operator here is when the operator starts to store SKU's in the kardex. The location sometime is already filled with another SKU and the system wants to store in another article in the same box. Second problem that is faced by the operator is sometime there is an inconsistency with the quantity of SKU's that have to be put in the kardex which come from inbound and quantity that the Kardex lets the operator store inside the kardex, which leaves some articles outside the kardex system which creates discrepancy in the actual count of articles and count in the system.

In order to solve the above problems mentioned above. The first issues occur due to the reason that when the order is being picked the operator entered zero quantity in the system where as there was still an article left in the box. Once the zero quantity is entered in the system for any location the PPG software assumes that the location is free to store other articles as they would come. This problem can be avoided by checking the location correctly before entering a zero count in the system.

The second problem is solved by using a count order in Kardex. With this the system allows the operator to count the number of same article in all the location in kardex and then finally enter the final number in the system. This is done by counting number of specific SKU in the location and then entering it in the system with this the discrepancy of article stored can be removed.

- Order Location on Cluster

The Kardex system has 6 individual towers side by side, which are divided into 2 clusters of 3 towers each. Kardex 1, 2, 3 belong to Cluster 1 and Kardex 4, 5, 6 belong to Cluster 2

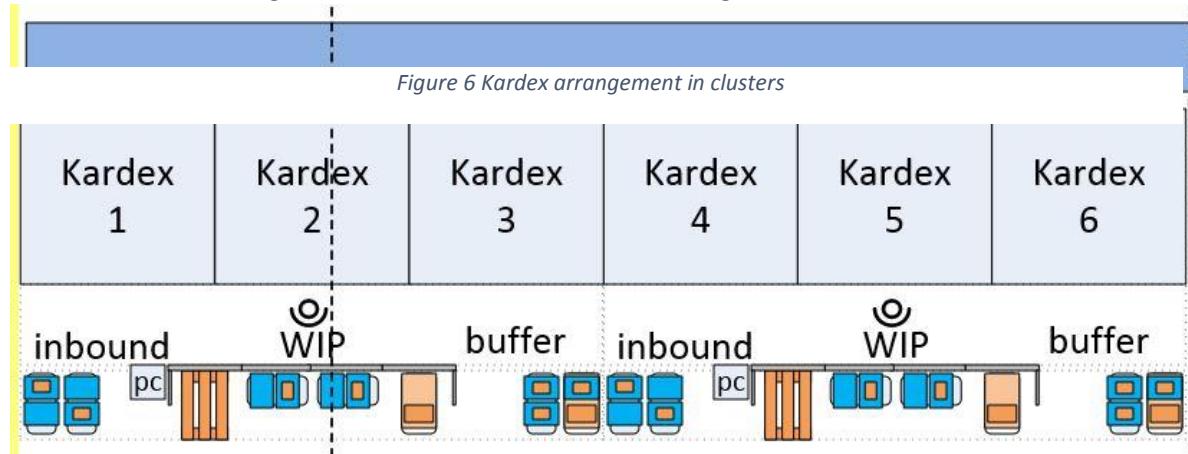


Figure 5 Kardex arrangement in clusters

When the order pickers have to drop the carts for the kardex they do so at the Inbound at Kardex1 and move on to start picking the next order. But sometimes the articles have to be picked only from cluster 2 and not from cluster 1. But the order pickers are not aware of this as the system leads them to KARDEX1 and lets them drop off the trolleys at kardex1 inbound. But when the operator at kardex is starting to process the next batch of orders he is able to check which carts belong to the Cluster 1 and which are not being shown in the software for Batch Picking Option on that cluster. Then operator takes the cart and move it forward to the next cluster. This process takes times as the order which need to be processed on cluster 2 are waiting in the inbound buffer for Cluster 1. The carts are not moved to the next cluster till the time the operator on cluster 1 checks and shifts it to the inbound buffer for cluster 2.

The probable Solution for this issue was found by looking into how the kardex system has been integrated into the ERP system.

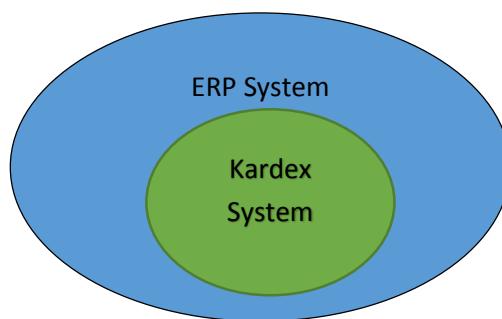


Figure 7 Integration of PPG in ERP

The 6 individual Kardex are one location within the ERP system. And kardex is denoted by "KARDEX1". When the orders are to be processed, the control is given to PPG from the ERP system. PPG controls the kardex and processes order based on the details by the ERP. This process is working well but the problem occurs when the carts are to be dropped on the clusters of kardex. As both the clusters are referred as KARDEX1 by the ERP system. The operators do not know which cluster to drop the carts at. Which cause delays in the process as cart which has to be processed at only cluster2 is waiting at cluster 1 inbound buffer.

In order to solve the problem, the idea is to divide the Kardex, into two locations as "KARDEX1" and "KARDEX2". With this the ERP would let the operator know the exact station the cart has to be processed on i.e. cluster 1 or cluster 2. Although the flow in the warehouse is such that most of the orders are processed at cluster 1 and then move on to cluster 2. With this the operators on kardex know which are to be processed at their stations. This way the time can also be reduced on the orders that are waiting in the buffer to move to cluster 2.

The other possibility that has to be considered and explored is that of PPG requiring the setup of kardex as 1 kardex. If PPG requires to be independent for both the clusters or it can operate both the clusters once they are divided into "KARDEX 1" and "KARDEX2"

- Checking-out (Finishing) order

Once the order picking is finished from the Kardex. The system require the orders to be checked out of picking and moved to the outbound into the packing Buffer. The problem that occurs is when the operator finishes the order and goes to move the cart from picking to outbound and tries to check it out. The system gives an error and does not let the operator to check it out of picking or the system asks to scan kardex again and confirms if some of the SKU's have been put in the order.

With further investigation into this the problem occurs due to the lag between PPG and ERP software. Once the orders are picked and finished the PPG has to update ERP with the information but due to some lags in this process the ERP is not updates quick enough and when the operator wants to check the order out the System gives an error that the order isn't ready and asks to confirm again the articles and their quantity.

This issue can be solved with looking into the lag or update timing between the two systems. Or if the systems are not able to be modified at present then to add in additional time after the order are picked and the operator checks them out to packing buffer. Another solution to this problem will be done with the implementation of AX2012 which uses an online data exchange software.

2.5 Timing and Calculations

In this section we would discuss the timings of the kardex and the calculation of throughput and WIP in the kardex system. We would first start with the time taken by the order picker to pick the orders from the warehouse. The timing was taken for both the Single Pick as well as for Multipick cart.

- Order Picking Timing

An operator is assigned a single pick or a multi- picking by the system based on the picking he has received form the system. The operator selects based on the number of articles to be picked if to choose a pallet or a cart or a blue box to perform the task. The timing mentioned below includes picking pallet loads as well. As it is also considered to be a single picking order.

Serial No.	Time	Time (Sec)
1	3:27	207
2	3:36	216
3	3:11	191
4	17:55	1075
5	1:10	70
6	3:19	199
7	10:10	610
8	8:32	512
9	3:51	231
10	16:40	1000
Average Time(Sec)		431
Average Time(Min)		7,2

Table 6 Timing for single picking

As from the above table. It takes about 7.2 minutes for an order picker to pick order from the warehouse pick locations. The delays in this process are caused due to the location of the articles in the warehouse as some of the articles are placed on high locations and require a forklift to be used in order to pick those articles.

When the operator is assigned a multi pick by the system. He uses a multipick order which has 8 boxes to pick orders simultaneously. Most of the multipick orders are small order containing up to 60-70 articles. The orders are picked from kardex system as well as the warehouse picking locations. The timings are taken as the operator picks the cart from the cart storage and till the time he drops the cart to the Kardex buffer to be processed further. The timing for the operation are given below.

Serial No.	Time	Time (Sec)
1	2:15	135
2	6:25	385
3	4:09	249
4	3:42	222
5	11:10	670
6	1:20	80
7	11:53	713
8	17:31	1051
9	13:54	834
10	12:46	766
Average Time(Sec)		511
Average Time(Min)		9

Table 7 Timing for Multipick

The time as shown above is the average time it takes an operator to pick the articles from the warehouse and drop the cart to the kardex buffer. It takes about 9 minutes for a multipick to be done by the operator in the warehouse as he is picking for 8 different orders at a time. One case in the above measurement is the observation 6 in which it takes only 1.2 minutes as the operator only has to drop the cart from cart storage to the Kardex buffer as the picking would only be done from the Kardex system.

- Picking from Kardex

In this section we would discuss the process and time of picking articles from kardex. The figure below shows the setup of kardex vertical lift modules in the warehouse.

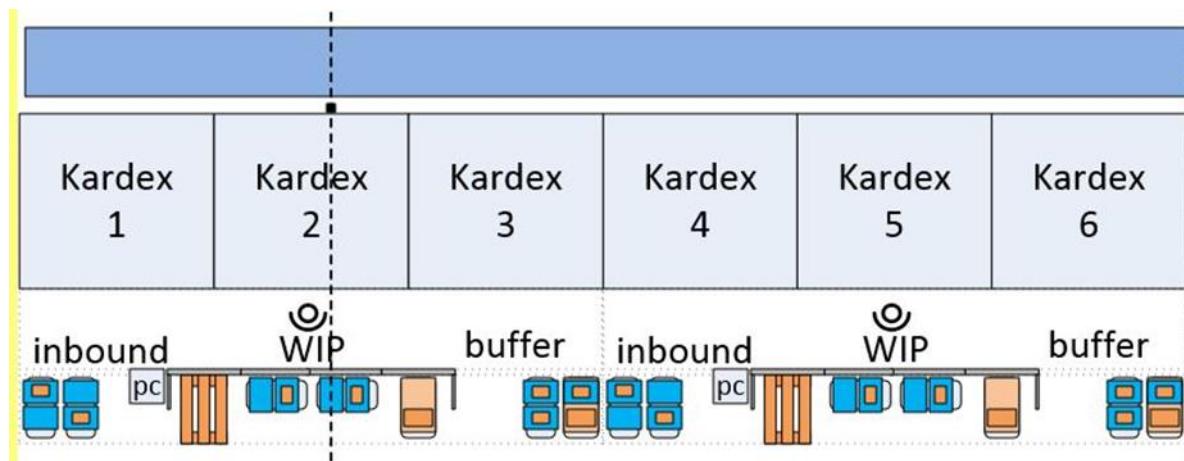


Figure 7 Kardex arrangement in clusters

The process of picking from the Kardex happens in the following steps.

- The carts are dropped in the first inbound buffer near kardex 1 by the order pickers from the warehouse.
- The operator then takes the cart from the buffer and aligns it to the Drop to light frame.
- The operator then scans the barcodes on the carts and assigns them to the section on the drop to light frames for the PPG software.
- The next step in this is to press the “Process” option on the PC and the Kardex starts to operate and retrieves the required trays and shows the article and the number of it to be picked
- Once the item is picked the operator confirms the pick on the Kardex access opening. Then he is asked to Drop the articles by using drop to light corresponding to the cart or order.
- Once the picking has been done from the first cluster of kardex. If the orders on a particular cart are finished, the system asks the operator to drop the cart in outbound buffer else it continues to the next buffer for second cluster of kardex and then finally moves to the outbound/packing buffer.

The timings for picking on both the clusters were taking and are shown in the table below.

Serial No.	Orders	Lines	Time	Time (Sec)
1	18	25	20:26	1067
2	17	9	7:09	1226
3	16	20	9:12	370
4	8	9	7:38	429
5	2	2	2:12	349
6	11	23	13:40	552
7	3	8	8:35	458
8	9	10	10:48	130
9	11	14	8:55	270
10	2	7	9:04	820
Average	10	13		567
				9

Table 8 Timing Order Processing Kardex 123

Serial No.	Orders	Lines	Time	Time (Sec)
1	18	7	5:59	359
2	9	3	5:23	323
3	10	11	9:20	560
4	10	10	11:34	694
5	9	4	3:54	234
6	2	3	2:56	176
7	18	1	1:06	66
8	8	3	1:12	72
9	11	11	7:55	475
10	4	9	5:37	337
Average	10	6		330
				5

Table 9 Timing Order Processing Kardex 456

In the above tables, you can see the number of orders that were processed at one time and the number of Lines or tasks were done on the clusters and the time taken do to the operation. The Timing for the picking operation in the first cluster is higher than the second cluster this is due to the fact the number of lines or tasks to be processed on the first cluster are higher than the second cluster.

- Picks per Hour

The picks per hour for the kardex system is calculated and the calculation is done for both the clusters of kardex systems. The values were found to be 756 picks per hour for the first cluster and 761 picks per hour for the second cluster. The average value for picks per hour for Kardex is found to be 759 picks per hour.

Serial No.	# of picks	Time	Orders	picks/hour
1	17	156	8	392
2	41	648	16	228
3	32	565	16	204
4	131	260	17	1814
5	27	734	4	132
6	103	736	18	504
7	1038	928	11	4027
8	35	545	18	231
9	101	571	4	637
10	19	528	10	130
11	9	221	4	147
12	67	379	8	636
13	175	145	8	4345
14	10	172	8	209
15	12	243	8	178
16	20	295	8	244
17	50	331	1	544
18	1	72	1	50
19	19	184	1	372
20	21	132	1	573
21	9	115	1	282
		Average	8	756

Table 10 Picks/hour cluster 1

Serial No.	# of picks	Time	Orders	picks/hour
1	20	52	1	1385
2	156	544	4	1032
3	5	72	8	250
4	97	447	8	781
5	103	379	10	978
6	117	313	18	1346
7	32	479	11	241
8	109	155	2	2532
9	14	157	8	321
10	146	350	9	1502
11	53	254	8	751
12	41	216	2	683
13	12	92	8	470
14	43	369	11	420
15	121	440	11	990
16	28	327	4	308
17	27	349	10	279
18	30	285	9	379
19	80	600	17	480
20	3	126	1	86
		Average	8	761

Table 11 Picks/hour cluster 2

- Waiting time for Tray

Serial No.	Time(seconds)
1	28
2	37
3	38
4	39
5	42
6	35
7	41
8	46
9	36
10	41
11	42
12	43
13	20
14	41
15	40
16	47
17	46
18	45
19	41
20	43
Average Time	40

Table 12 Waiting Time for Trays

The above table shows the time it takes for a tray to be retrieved and stored in its location to a new tray being retrieved and brought to the access door opening. This time is the same for all the 6 individual kardex. The operator has to wait for the time in case the articles have to be picked from the kardex which in rotating its trays.

- Throughput and WIP

Based on the above waiting time and processing time. The WIP and throughput was calculated for the Kardex system. The WIP is based only on the number of orders present in the inbound buffers for both the clusters. The table below will show the calculation for WIP and Throughput of the system:

Serial No.	Buffer 1	Time	On System	Buffer 2	Time	On System	Buffer 3/Packing Buffer
1	2	83	11	10	390	18	18
2	2	130	3	11	444	11	11
3	2	184	2	4	960	4	4
4	5	300	4	3	387	3	3
5	2	92	2	2	713	11	11
6	33	348	17	17	204	16	16
7	16	622	16	16	1762	8	8
8	2	184	2	8	2362	8	10
9	8	384	8	8	231	8	8
10	11	326	11	10	0	10	11
11	10	1195	8	2	0	2	10
12	18	603	18	8	285	9	10
13	9	704	9	8	0	16	17
14	2	664	2	1	0	1	2
15	4	151	2	4	560	4	4
16	1	723	1	1	0	1	1
17	14	1842	11	17	256	17	17
18	5	224	2	3	262	3	7
19	2	204	1	10	120	10	11
20	2	348	2	5	256	4	6
Average	8	466	7	7	460	8	9
Total WIP		30					
Buffer Time		463	8				
Order Processing Time		449	7				
Total C.T		912	15				
Throughput		2,0					

Table 13 WIP and Throughput

2.5 Power Pick Global for Optimization

- Zoning in PPG

Here by Zoning we are referring to arranging the articles in the kardex system based on the ABC analysis. Through which we can put in the fast moving articles into the kardex. The company aims to keep most of the fast moving articles from the warehouse into the kardex system. Which will allow it to process orders faster with shorter cycle time. Although the kardex system uses the random storage strategy in order to store the articles based on their dimensions and quantity. Keeping the articles based on the ABC analysis is also possible. Power Pick Global software has an optional module called the “Zones” through which the system allocates some of the trays in order to store the fast moving articles.

			High frequency	Low frequency	
Higher sales		AA	AB	AC	
Lower sales		BA	BB	BC	
		CA	CB	CC	

Figure 8 ABC Analysis

But the disadvantage associated with the zones module is they tray which would be allocated to store the fast moving articles would then not be used in the normal operation of storing articles based on random storage. Which would reduce the number of trays in the system which can be used by applying random storage.

- Double tray system

This system is an optional module to the kardex system. With double tray system the waiting time between the consecutive trays cans be reduced. The system allows the operator to use two working levels in the access opening. The access opening with the option is divided into two work levels. A tray is transported into the first work level in the access opening and the shutter door is closed. While the operator picks the articles from the first tray, the next tray is being retrieved and kept in a waiting position behind the access opening. Once the picking or storing is done on the first level and confirmed the second tray is placed onto the second working level and the first trays is retrieved and stored on its location.

In the present operation of the kardex system it takes the 40 seconds between the two trays which is a big waiting time for the operator while he is waiting for the tray to be replaced in the access opening. It takes about 20 seconds per tray to be retrieved and stored into its location inside the system. Although this time can vary with the location of the tray in the system. It is advised to use the double tray system in order to reduce the waiting time of the operator which in turn increases the picking time for the articles. With the double tray system, the operator waiting time can be reduced to 20 seconds or less.

2.6 ABCXYZ Analysis

ABC analysis is an inventory categorization technique. In this technique the inventory of the company is divided into three different categories namely:

- A items - Very important articles
- B items- Average Importance
- C items- Relatively Unimportant.

Once the items were categorized by the above method then the XYZ analysis of the articles was done in order to find the item which are highly stocked. In this analysis the items are also categorized into three categories namely

- X – Articles which are critically important and require tight control.
- Y – Items with lower criticality and requiring standard control.
- Z – Items requiring the least control.

	A	B	C
X	AX Class	BX Class	CX Class
	<ul style="list-style-type: none"> • High consumption value. • Even demand. • Reliable forecasts. 	<ul style="list-style-type: none"> • Medium consumption value. • Even demand. • Reliable forecasts. 	<ul style="list-style-type: none"> • Low consumption value. • Even demand. • Reliable forecasts.
Y	AY Class	BY Class	CY Class
	<ul style="list-style-type: none"> • High consumption value. • Predictably variable demand. • Less reliable forecasts. 	<ul style="list-style-type: none"> • Medium consumption value. • Predictably variable demand. • Less reliable forecasts. 	<ul style="list-style-type: none"> • Low consumption value. • Predictably variable demand. • Less reliable forecasts.
Z	AZ Class	BZ Class	CZ Class
	<ul style="list-style-type: none"> • High consumption value. • Sporadic, variable demand. • Forecasting unreliable or impossible. 	<ul style="list-style-type: none"> • Medium consumption value. • Sporadic, variable demand. • Forecasting unreliable or impossible. 	<ul style="list-style-type: none"> • Low consumption value. • Sporadic, variable demand. • Forecasting unreliable or impossible.

Figure 9 ABCXYZ Classification

Based on the basis of the above analysis, items in the warehouse were categorized into fast movers, medium speed movers and slow movers. As the aim of the company is to stock most of the fast movers in the kardex system. Based on the data obtained, we could compare the ABCXYZ data of the warehouse and kardex system and found out that about 12 items out of 181 items which are fast movers in the warehouse are stored in the kardex.

As the items vary in dimensions not all the items can be stored in the kardex due to constraints on kardex, we then found out the articles that can be stored in the kardex based on the dimensions and found that out of 181 fast movers in the warehouse 162 articles can be stored inside the kardex. Quantity of these articles that will be stored in Kardex is a decision that has to be taken.

From the analysis of the items in kardex, we found that out of 4280 articles currently stored or assigned to be stored in Kardex, 856 are A articles 1289 are B articles and 2139 are C category articles. As one can see that category C articles are in a high number inside kardex. And kardex has only 12 articles from the warehouse that are 'A' movers. Based on this it was decided that the slow movers from the Kardex would be taken out and the fast movers will be stored inside Kardex. Which would mean to replace a large number of articles from the kardex. But the advantage of this would be a reduction in the time for picking an article which is a fast mover. Although the stocks of these articles to be stored inside the kardex would have to be decided on. Kardex currently has a capacity of 247136 articles that can be stored in based on the configuration the company selected. Out of 247136 quantities that it can store, 182478 quantities are already in the system, so currently Kardex system is currently has 26% free space.

The results of these analysis are given in the Appendix A (ABCXYZ Analysis)

3. Automation of Packaging Line

3.1 Current Process

The layout of the packing process is as shown below.

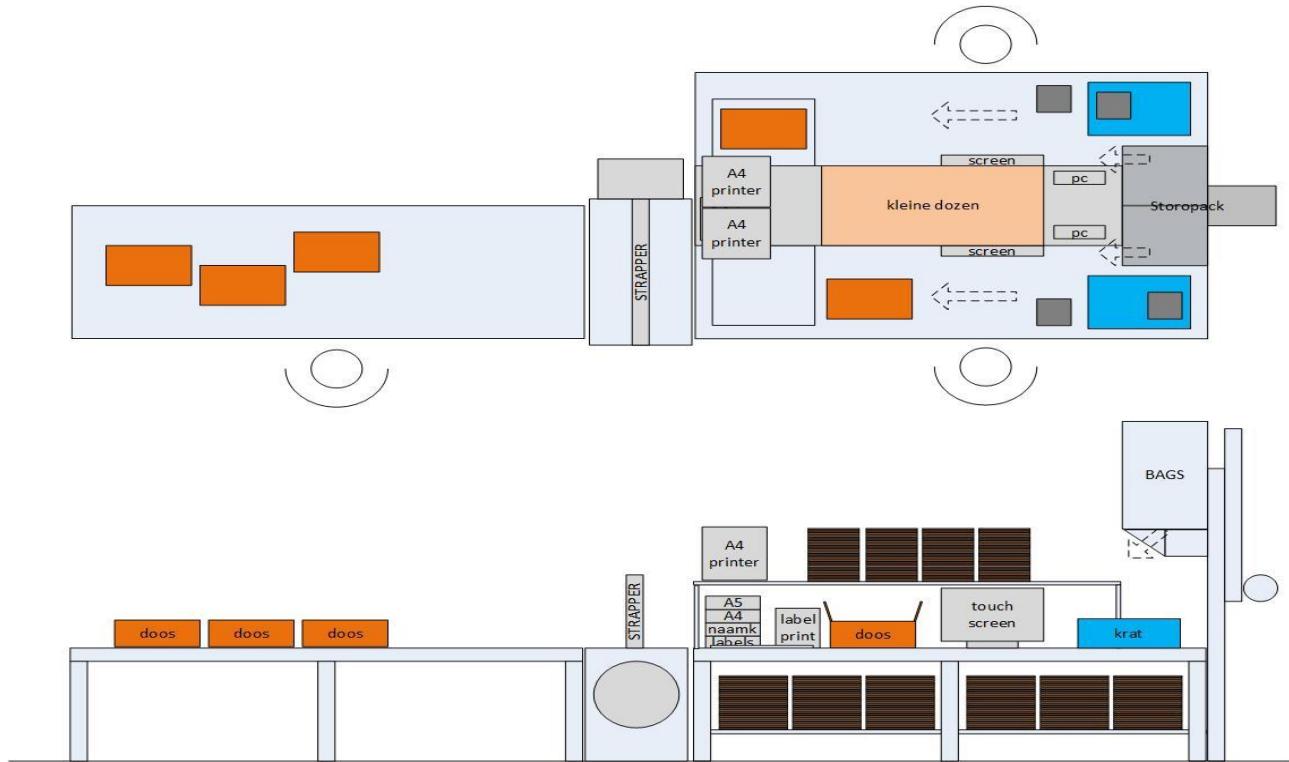


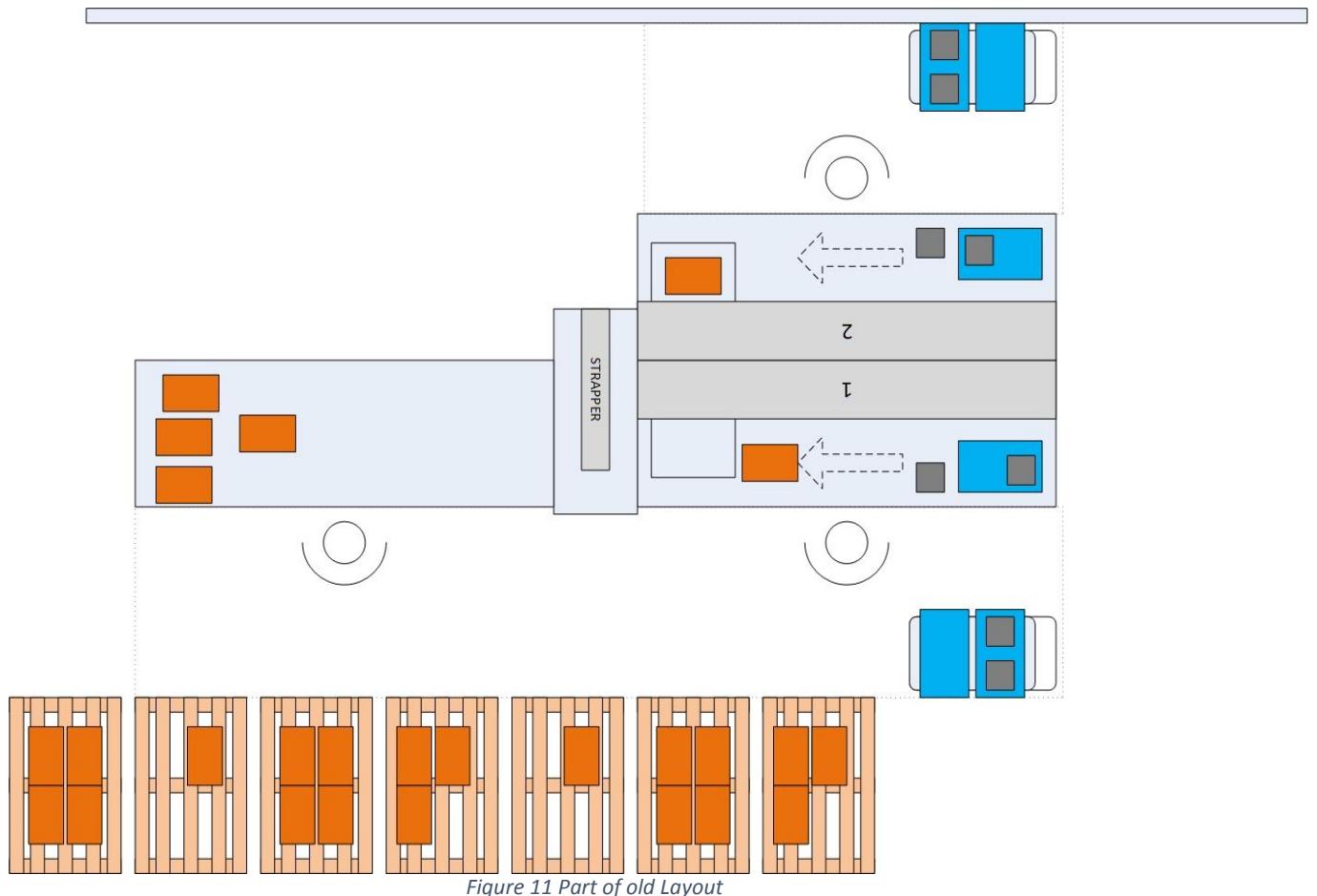
Figure 10 Old layout of packing table (Top and Side View)

The above figure shows the arrangement of the items on the packing table. It also shows the various machines used in packing. The process of packing takes place in a sequence of steps which are as follows.

The steps in packing the order are as follows

1. Collecting the order from cart buffer.
2. Scanning the BB barcode in order to see the order.
3. Once the bar code is scanned, the details of the order come on the screen and it is asked to pack the order or get weight. Click on pack.
4. The screen displays the article details and no. of articles to be packed.
5. In the meantime, the box is made, by trial to see which box will fit the whole order. If one box will not be sufficient then the second box is used.
6. Then the article code is scanned, and no of articles are put in the box and new container code is scanned in which is put by the operator using a PA, PB, PM labels.

7. Once the whole order is packed, the weight of the container is taken.
8. Then the manifest and dispatch label is printed.
9. Then the manifest is put inside and box closed with tape, dispatch label is put on top of the box.
10. The box is put on buffer table.
11. The boxes are later picked and kept on pallets depending upon the shipping company



The figure shows the arrangement on the packing table as well as the location of the pallets on which the order is to be kept for shipping.

3.2 Procedure

In order to start with the improvement of the packing line to a more automated line. First we had to find out the parts in the process which cause delays in the process and make it a bottleneck of the whole warehouse operation. The major steps in the packing process were identified and are mentioned below. These operations were timed in order to get an understanding of the process time.

The operations that were timed are:

1. Average waiting time before order is packed.
2. Order packing.
3. Printing of labels.

These processes are in sequence as each of them occurs in the packing process. For getting a correct timing of each of the steps. 10 observations were recorded in order to get the mean time for a single process. The order packing process has a lot of variables which include:-

1. Number of articles in the order

The order varies from one to another. Some of the orders have only one article whereas the other might have 10 to 15 different articles to be packed before shipping it to the customers. This difference in number of articles per order makes the packing time variable with each order.

2. Box sizes and types

In order to pack the article cardboard boxes are used. Currently there are 9 different types of boxes being used to pack the orders. The dimensions of the boxes are given below:

Box Types	Length	Width	Height(Without Flaps)
300	54	20	19
302	52	26	22
307	54	31	16
315	15	15	15
316	31	15	16
320	43	19	20
327	39	26	20
361	22	20	12
364	36	18	12

Table 14 Box Dimension

1. Single Layered- for storage after production or to supply the whole box in the order.
2. Double Layered- these are used when the order is to be shipped from the company as the orders are heavy and these boxes can take the load of the order.

The orders are picked in carts which are of two types:

1. Single pick Order cart
2. Multipick Order Cart

The multipick order cart has the capacity to pick up to 8 different order at a time. Once the order has been picked by the order pickers using carts. They are kept in the Buffer for the orders to be packed. The time the cart stay in this buffer was also measured is given in the table below.

Order	Start time	End time	Time in buffer(h:m)
1	8:15	9:12	0:57
2	8:15	9:12	0:57
3	8:15	9:12	0:57
4	8:15	9:12	0:57
5	8:15	9:12	0:57
6	8:15	9:12	0:57
7	8:15	9:12	0:57
8	8:15	9:12	0:57
9	8:26	9:45	1:19
10	8:50	9:46	0:56
11	8:56	10:11	1:15
12	9:02	10:11	1:09
13	9:07	10:58	1:51
14	9:08	10:23	1:15
15	9:13	10:30	1:17
16	9:22	9:42	0:20
17	9:32	10:12	0:40
18	9:35	10:22	0:47
19	9:49	11:25	1:36
20	9:56	11:39	1:43
21	9:56	11:39	1:43
22	9:56	11:39	1:43
23	9:56	11:39	1:43
24	9:56	11:39	1:43
25	9:56	11:39	1:43
26	9:56	11:39	1:43
27	9:56	11:39	1:43
28	9:56	10:01	0:05
29	10:02	13:08	3:06
30	10:02	13:08	3:06
31	10:02	13:08	3:06
32	10:02	13:08	3:06
33	10:02	13:08	3:06
34	10:02	13:08	3:06
35	10:02	13:08	3:06
36	10:02	13:08	3:06
37	10:08	13:21	3:13
38	10:08	13:21	3:13
39	10:08	13:21	3:13
40	10:08	13:21	3:13
41	10:08	13:21	3:13
42	10:08	13:21	3:13
43	10:08	13:21	3:13
44	10:08	13:21	3:13
45	10:11	11:46	1:35
46	10:25	10:48	0:23
47	10:25	10:48	0:23
48	10:25	10:48	0:23
49	10:25	10:48	0:23
50	10:25	10:48	0:23
51	10:25	10:48	0:23
52	10:25	10:48	0:23
53	10:25	10:48	0:23
54	10:30	10:44	0:14
Average Time in buffer/order			1:39

Table 15 Cart waiting time

Once the carts are picked from the buffer they go through the process of packing, which is done by hand packing with no automation

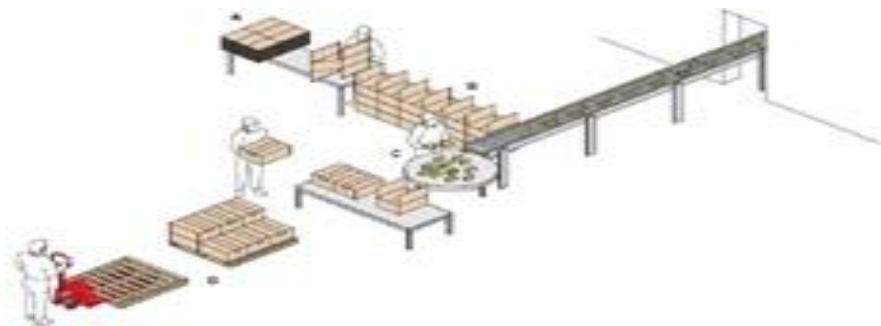


Figure 12 Manual Packing

Operators are hand erecting cases, loading products by hand then sealing cases and loading them on to the pallet. The process can be improved with automation which can reduce the time the process takes and increase the throughput of the line.

The time taken to pack one order was taken and the timing for packing one order was about 3 minutes. Which is a huge number when it comes to packing orders that have a single item to be shipped. 10 observations of the packing process were taken and the average time for packing an order was found out. These are given in the table below

Sr. No.	time(s)
1	165
2	280
3	88
4	246
5	152
6	224
7	325
8	173
9	94
10	127
mean time(s)	187
mean time(m)	3:07 sec

Table 16 Timing for Old Packing Process

3.3 Issues with packing process

While measuring the time of the packing process, we could find out the individual parts of the process this we were able to find out the process within the packaging process that are causing a delay. These processes or part are mentioned below.

1. Delay in Printing Labels
2. Delays while changing the shipping company
3. Delays in walking to Drop and Picking up Carts

To find out the causes of these delays the process was looked in more closely in order to have the root causes of the delays which make the packing process the bottle neck in the whole process of warehouse. These factors are discussed below:

1. Delay in Printing Labels

There are two types of label being printed with the use of the thermal printers. The two labels are in different from one another in a way that one labels are for the orders that are directly picked up by the customers from the warehouse. The second type of labels are for the orders that have to be delivered to the customer's home.

Another difference in between the labels is that of software being used for printing the labels. The first one uses the ERP system to print the labels for the clients who will be picking the orders from the Warehouse itself. The orders that are to be delivered to the customers' homes are done by using DPD, the labels for this are printed by client software of DPD.

The labels are printed with the customer's information like Name, Delivery Address and etc. the other details on the label are weight of the box and a barcode that is generated by the DPD software which is used for delivery purpose by them. The delay in the process comes when the label is printed using the DPD client. It takes on average time of 33 seconds per label. Which adds up to a long delay in the whole process increasing the total time required for packing one order.

Sr. No	time(s)
1	45
2	15
3	37
4	46
5	33
6	41
7	34
8	30
9	20
10	27
Mean time (s)	33

Table 17 label printing

2. Delay in changing the Shipping Client

As the company has 2 major shipping clients which are used to deliver the orders. Van de Schreur is used heavy weights which are mostly whole pallets they have about 8 Pallets of loads every day. DPD is the second major shipping client it has 1 pallet of load every day, this pallet contains many single order which are then processed at DPD facility and sent for delivery to the customers. Hence what happens is when an order from sales is entered in to the Enterprise Resource Planning (ERP) system it is defined as a whole pallet or box depending on the size of the order but when the actual order is about to be packed it is seen that it can be sent in a box. Therefore, in order to save money on the transportation of the order the shipping client is changed. This is also done due to backorders. Once this problem is encountered, the operator on the packing workstation has to go to the ERP system and change the shipping client. This process delays the process and this delays can be easily removed for the process.

3. Delay in walking to Cart Buffers

In order for the order to start the carts are to be picked from the input buffer for the packing process. This buffer is about 2.5 m from the packing station. Once the packing of all the orders on the carts has been done the cart is to be placed in the empty cart buffer which is at a distance of 30m from the packing workstation. The operator has to walk about 60m in order to pick up a cart full of orders and then place it back in the empty cart buffer and picking up a new full cart. This distance which takes a 1 minute to travel can be reduced.

Time for Walking from packing table to cart holding and from buffer to Packing table		
	Time to putback Cart in holding	Time to get Cart from Buffer
1	38	15
2	47	8
3	34	13
4	28	13
5	37	12
6	39	6
7	40	15
8	44	17
9	44	10
10	44	7
Average Time	39	12
time to drop one cart and pick up another		51 seconds

Table 18 walking time between trolley storage and packing buffer

3.4 Evaluation for Automation Opportunities

After encountering the problems that occur in the packing process. The main aim of the analysis being the reduction of man-hours being reduced on the packing line. In order to do this the process has to include a number of automation which can reduce the workload on the workstation operator which will in turn improve the efficiency and reduce the time for packing per order.

The process below is based on how the current process is for packaging at Assa Abloy. Such that manual work will be replaced by machines. The machines can be used to reduce the manual labor and increase the throughput of the line.

1. Variable Box Erector and Bottom Sealer – This machine is used to Erect/Form the boxes, as the name suggests the machine would be able to form different sizes of boxes. This is required as ASSA ABLOY is currently using 9 different kinds of boxes and it would be beneficial to have box erector so that the process time can go down.

Bottom Sealers are the machine that are able to seal the boxes as the box are being formed with the help of Box Forming machine. It can be used as an attachment which can be attached with the Box forming machines or just as a single entity to close the boxes. As for the use of the machine, the boxes being used are unstable on the conveyor belt and tumble once put on the conveyor belt as the bottom of the box is not properly closed and makes the box stable.

Box Types	Length	Width	Height(Without Flaps)
300	54	20	19
302	52	26	22
307	54	31	16
315	15	15	15
316	31	15	16
320	43	19	20
327	39	26	20
361	22	20	12
364	36	18	12

Table 19 Dimension of box

2. Bar Code Printer – Once the box has been erected, bar code needs to be printed on the box in order for the system to know which order is going in which container/box. It will be more efficient to put the bar code printing in line after the box erection because it will reduce the time it takes the operator to put the label on the box and which are manually printed and rolled in order to be easily available at the time of packing.
3. Case filling with Order and Order manifest insertion - The next step in the process is to fill the container with the ordered articles. By this time the system knows the order which is being put in it and the container code as the bar code has been fed in to the system by scanning. The scanning can be done by either hand held scanner or by scanner built in the table. Once the order has been completely filled in the box the order manifest can be put inside the box.

4. Void Filling and Case Closing- As the box is not full all the time, empty space in the box has to be filled with packing material which can be air filled bags. Which don't add much to the weight as well as prevent the articles from damage during transportation. Once this is done the final step is to close the box. These two processes can be combined together. The equipment for this is given below in the report.
5. Printing Shipping Label – In order for the items to reach the client the shipping label is required which includes information about the address of the client, barcode, weight of the box, and the shipping company with which the shipment has to go. These details are important for the shipper as well as the company to check the order at a later stage if a need arises. The current Zebra Thermal printing printer is slow which slows down the process of packaging and once the print is received it has to be manually put on the shipping box. This process can be fully automated where the shipping label can be printed and put on the shipping box.
6. Palletizing/Order Sorting – once the order has been packed, they need to be put on pallets for the shipper to load them on the trucks. Palletizing can be done manually or automated. As the boxes are of different sizes I'm not sure automated palletizing would be a good idea. Although more research is required in the area. Once palletizing is done the pallet need to be wrapped with plastic so that the orders do not fall off the pallet while transportation.

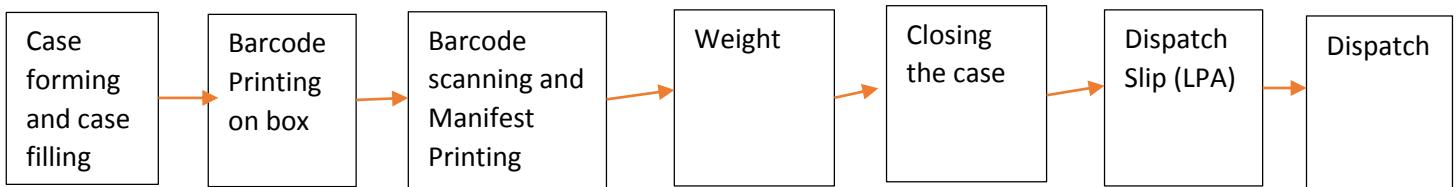


Figure 13 General Process steps in Packing

3.5 Comparison with Ramsdonksveer Packing Process

The packing process is divided into parts. As the order are to be manufactured once they are received, so before packing the first step is to finish the Production Booking – “Productie Boeking”. In the AX environment. As this process continues the orders are being packed in the respective packaging either in envelopes (if keys are less than 11) or boxes. The second step in the process is to make the order ready to pack by this time the barcodes have been put on the boxes and they are sealed with tape.

Once this finishes the boxes and envelopes are taken for dispatch. Where the order is checked in with the AX and then with DPD software the label and manifests are printed.

The cylinder from the APS line are already packed in the box. And are put in the packing table with the order request from the customer. Which is then taken and goes through the same process as the above.

Although the printing time for the label is lesser in this process the total time taking for the packing process is almost equal if not greater than the packing time of an order in Apeldoorn.

The major difference between the two locations in the packing line is majorly how the order are packed and the steps involved in it. Some of the orders are already packed on different stations and brought to the dispatch table for dispatch note and manifest and for palletization.

RDV Packing Process Times (seconds)			
Production Booking Timing	Weight and Labeling	Label Printing	
78	46		72
35	70		12
172	79		12
55	85		12
56	74		11
84	80		11
53	79		11
59	80		10
57	85		7
54	80		12
109	86		13
148	74		15
107	49		15
124	60		12
93	71		10
74	96		16
92	82		11
110	80		15
120	67		12
83	81		16
Averages	88	75	15
Average Total Packaging Time		163	2.43 sec

Table 20 RDV packing process timing

3.6 Automation Scenarios

The machines above can be used in different scenarios in order to get the optimized packaging process which can reduce the man hours for packing the orders. The different scenarios will be discussed below. These scenarios are defined based on the machines that can be used for automation of the process

Scenario 1

With Case former and void filler

In this case, we would be using a case former along with a case sealer and void Filling machine. Case Former is the machine that is used to form boxes. This machine is able to erect boxes of variable sizes, and seals the bottom of the boxes such that material can be packed inside them. These machines are designed to reduce the time and effort taken to manually erect a case, at a low capital cost. The machines fold the lower flaps and then seal the bottom in order to make the proper box. The machines can be either semi-automatic or fully automatic. There is a large variety of these machines available from different equipment manufacturers. Some of these manufacturers of these machine is listed below with the machines being offered by them.

1. Endoline offers 1/2/3H CASE FORMERS
2. Loveshaw offers CF-25 its semi-automatic case former.
3. Wexxer BEL offers Automatic Case Sealer (Hot Melt Version) BEL 290H

The specifications of the machines are mentioned in the Appendix-B Dimensions of machines

Void Filler - These are the machines used to fill the empty space in the box such that during transportation the articles inside the boxes are not damaged due to the motion. These machine basically use plastic bags filled with air to fill the boxes and appropriate filling such that the packed article in the box are transported safely. Some of these manufacturers of these machine is listed below with the machines being offered by them

1. Endoline offers 719 fully automated void filling system.

The specifications of the machines are mentioned in the Appendix- B Dimensions of machines

The important point to be noted here is that both the above mentioned machines will be used at the starting of the packing process and the second in between the conveyor line after the packing of the order has been finished.

Case 1

Semi-Automatic Case Former

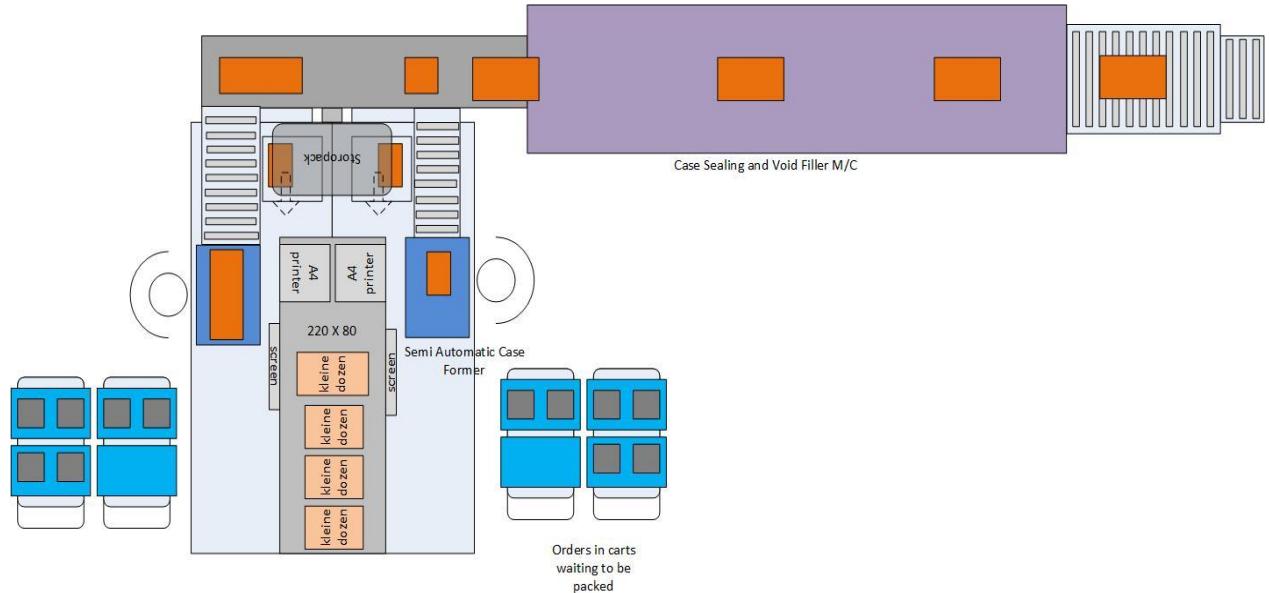


Figure 14 Layout Scenario 1 case 1

The above figure shows the layout of the packing line when we would be using semi-automatic case erectors. In this case, we would use two different case formers. As there would be two packing tables in one for the normal orders and the other for export orders. Here the operator would pick up the box from their assigned places and then would put the lower end of the box in the case former, which would then be triggered and close the bottom of the box. Thus forming the space to fill the box with articles. The machine can be used as dual purpose first as to make the box and second as to fill the order which are referred as case forming and packing station. Once the articles are packed inside the box, the operator adds a preformed void filling plastic bag which would be filled with air as the box passes through the void filling and sealing machine. The other operations at the packing table would remain the same.

The cost analysis of the above system is shown below.

			Cost/hour	Avg.no. Of hours	cost/day
Personal Cost	2x people		€ 23,19	€ 7,39	€ 342,92
relevant cost			Yearly	Monthly	Daily
44090	Verpakkingskosten	Packaging costs	€ 32.901,01	€ 2.741,75	€ 137,09
48030	Afschr. Prod. Machines	Depreciation	€ 11.022,24	€ 918,52	€ 45,93
48050	Afschr. Kantoor Inventaris	Depreciation Office inventory	€ 11.880,52	€ 990,04	€ 49,50
48060	Afschr.Computer Apparaten	Depreciation	€ 202,00	€ 16,83	€ 0,84
Overhead Cost			Yearly	Monthly	Daily
	Premises (94,5m2)		€ 13.925,00	€ 1.160,42	€ 38,68
	Equipment, consumables and supplies		€ 86.482,40	€ 7.206,87	€ 360,34
	Repairs and maintenance		€ 1.919,13	€ 159,93	€ 8,00
	Depreciation, amortisation, impairment/write-downs		€ 23.104,76	€ 1.925,40	€ 96,27
	Other		€ 357,87	€ 29,82	€ 1,49
New Machines		Single Unit			
	Case Erectors (x2)		€ 6.500,00	€ 13.000,00	€ 1.083,33
		Depreciation		2600	€ 216,67
					€ 10,83
					€ 1.091,89
					€ 21.837,88
					€ 262.054,57

Table 21 Cost Analysis Scenario 1 case 1

Case 2

Automatic Case Former

In this case we make the use of automatic case former. In this machine the cases are loaded on to a magazine of variable length which then feeds the machine which form the cases and formed cases come out of the machine. The machine can form cases at a wide range of speed depending on the requirement of the packaging line. Next to the automatic case former there will be a storage space in order to store the already formed boxes. This would be required as the speed of the box forming will be higher than that of the packing process. Different size of boxes will have to be formed as packing for different articles has to be done in different boxes. The formed boxes will be kept according to their sizes and shapes. The boxes from here will be taken and kept near the packing station and refilled as the need arises. There will be space for keeping the boxes near the packing station and operator will pick up the box as he chooses the articles would fit in which box. The packing process would have the same steps in the original process.



Figure 15 Layout Scenario 1 case 2

The cost analysis of this scenario has been done with the following results.

			Cost/hour	Avg.no. Of hours	cost/day
Personal Cost	2x people		23,2	7,4	342,9
Relevant cost		Yearly	Monthly	Daily	
44090 Verpakingskosten	Packaging costs	€ 32.901,01	€ 2.741,75	€ 137,09	
48030 Afschr. Prod. Machines	Depreciation	€ 11.022,24	€ 918,52	€ 45,93	
48050 Afschr. Kantoor Inventaris	Depreciation Office inventory	€ 11.880,52	€ 990,04	€ 49,50	
48060 Afschr.Computer Apparaten	Depreciation	€ 202,00	€ 16,83	€ 0,84	
Overhead Cost		Yearly	Monthly	Daily	
Premises (94,5m ²)		€ 13.925,00	€ 1.160,42	€ 38,68	
Equipment, consumables and supplies		€ 86.482,40	€ 7.206,87	€ 360,34	
Repairs and maintenance		€ 1.919,13	€ 159,93	€ 8,00	
Depreciation, amortisation, impairment/write-downs		€ 23.104,76	€ 1.925,40	€ 96,27	
Other		€ 357,87	€ 29,82	€ 1,49	
New Machines	Single Unit				
Automatic Box Erector	€ 30.500,00	€ 30.500,00	€ 2.541,67	€ 127,08	
	Depreciation	€ 6.100,00	€ 508,33	€ 25,42	
total cost of packaging/day					€ 1.106,48
total cost of packaging/month					€ 22.129,55
total cost of packaging/year					€ 265.554,57

Table 22 Cost Analysis Scenario 1 case 2

The problems with the above scenario is that there are 9 different kinds of boxes being used in order to ship the orders to customers. The case formers can be used for this purpose but most of the case formers available in the market are not capable of forming random size boxes.

The Horizontal as well as vertical belts will have to be changed every time a different size box will have to be formed. This part makes the process of using the case formers very inefficient. Thus making the process take longer without any improvements in the process. As for the automatic case formers they are able to form boxes only of one set dimensions. The machine will have to be calibrated every time a different size of boxes needs to be erected.

Due to the above mentioned reason the process changes mentioned would not be the most optimized ones. Hence we investigate with other scenarios as well.

But Using a single size or variable case erector would be not optimum because it will make the cases and then they'll have to be stored which can lead to higher process time. We could use a semi-automatic case erector such that the operator can build the case and the bottom get sealed and then he can fill the order at the same place.

Scenario 2
In line label printing



Figure 16 Layout Scenario 2

In this scenario, we would not be using the case formers but introduce an Inline label print and applicator machine. The choice of not using a case former was based on the basis that it would make the process more complicated which is not the aim that we started the project. As the printing of address label is the process which takes about 33 seconds per order per station which is a long time that delays the process. Thus in order to reduces the time that the operator takes to pack on single order we could move the printing and application of the address label on the conveyor line. For this process to work we would be using two bar-code readers placed one before the LPA and one after the LPA. It is order to print and apply the correct label as the packed cases comes in the machine and to verify that the label is put on the package and the label put is a correct one. This can be done using the PA labels which are used for cases. The bar code scanners can read the PA labels in order to verify and read the correct case labels.

Label Printer and applicator – is a basic machine that automatically prints and applies the labels to the products. The LPA has 3 major parts which make up the machine.

These parts are:

- Print Engine- It is basically an industrial table top printer. The primary function of the print engine is to accept the data from the system and print the data onto a label. The Printer uses either Thermal method or thermal transfer method. In both of these methods heat up very fine element on a print head. Direct Thermal burns the image on to the label. The thermal transfer process utilizes a ribbon coated with wax, resin, or a hybrid of the two. It is then heated and melted onto the surface of the label substrate. The printer knows what to print via data communication from an outside software package, much like common inkjet printers. The software delivers data formatted in a specific layout and the printer reads the format based on its own driver.
- Applicator- The applicator is the part of the machine that is used in order to deliver the label to the product. This is achieved by various methods which can be pneumatic or electric cylinder with a label application pad. The cylinder extends out and touch the adhesive side of the label to the product. Another method which can be used is Blow-on system that delivers the label with a burst of air.
- Media- Media handling controls how the label roll are delivered to the print engine. It performs the separation of the label from its backing and spools back the waste label side.

The cost analysis of the system mentioned above was done with the following results:

			Cost/hour	Avg.no. Of hours	cost/day
Personal Cost	2x people		€ 23,19	€ 7,39	€ 342,92
relevant cost			Yearly	Monthly	Daily
44090	Verpakkingskosten	Packaging costs	€ 32.901,01	€ 2.741,75	€ 137,09
48030	Afschr. Prod. Machines	Depreciation	€ 11.022,24	€ 918,52	€ 45,93
48050	Afschr. Kantoor Inventaris	Depreciation Office inventory	€ 11.880,52	€ 990,04	€ 49,50
48060	Afschr.Computer Apparaten	Depreciation	€ 202,00	€ 16,83	€ 0,84
Overhead Cost			Yearly	Monthly	Daily
	Premises (94,5m2)		€ 13.925,00	€ 1.160,42	€ 38,68
	Equipment, consumables and supplies		€ 86.482,40	€ 7.206,87	€ 360,34
	Repairs and maintenance		€ 1.919,13	€ 159,93	€ 8,00
	Depreciation, amortisation, impairment/write-downs		€ 23.104,76	€ 1.925,40	€ 96,27
	Other		€ 357,87	€ 29,82	€ 1,49
New Machines			Sinlge Unit		
	Label Printer		€ 3.300,00	€ 333,33	€ 16,67
	Label Applicator		€ 11.000,00		
	Total Cost LPA		€ 14.300,00		
	Depreciation		€ 2.860,00	€ 238,33	€ 11,92
	total cost of packaging/day				€ 1.109,64
	total cost of packaging/month				€ 22.192,88
	total cost of packaging/year				€ 266.314,57

Table 23 Cost Analysis Scenario 2

Scenario 3

In-line weighing, sealing and label printing

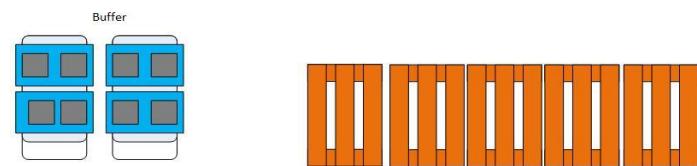
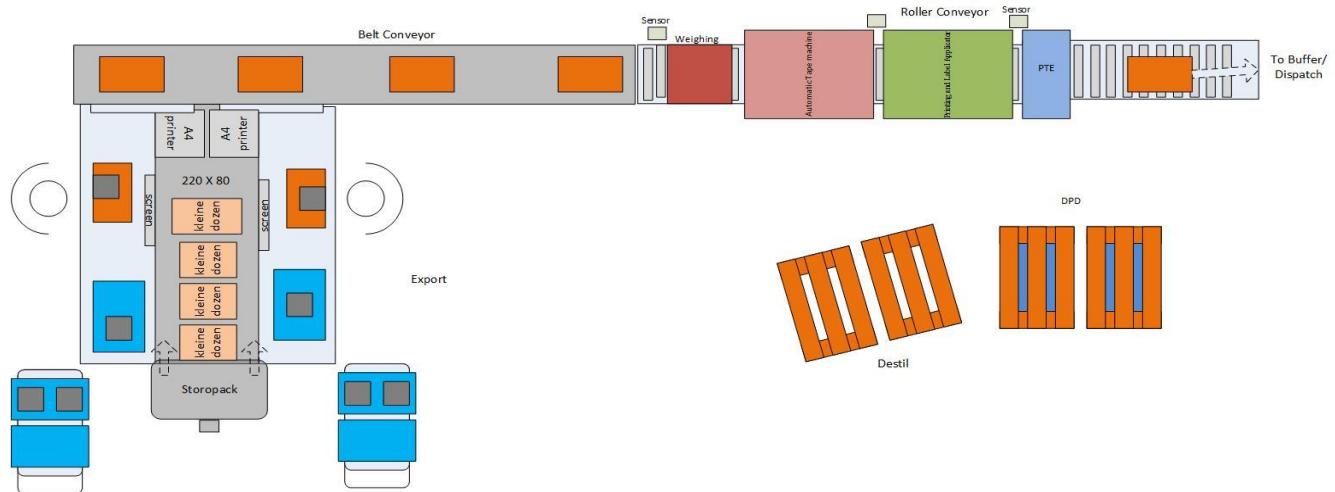


Figure 17 Layout Scenario 3

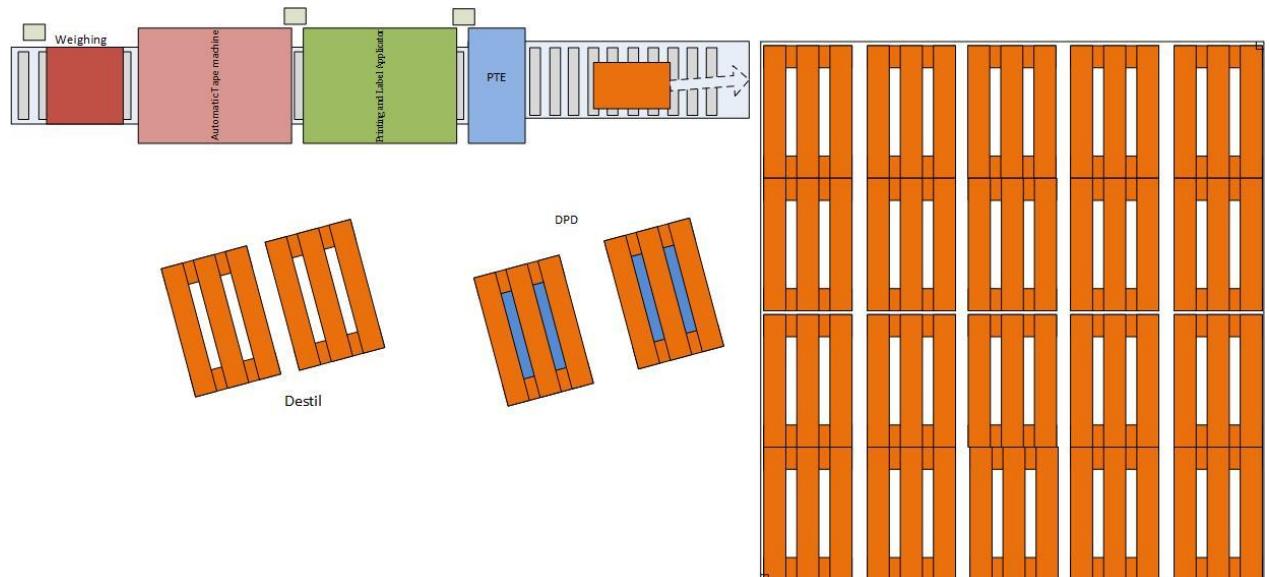


Figure 18 Layout Scenario 3

In this scenario, we would be adding three different kinds of machines, which include a weighing machine, label print and apply machine as discussed above and the third one automatic random box Sealer. The three machines would be in-line as shown in the layout above with pallets at the end of the line to stock the orders till they are shipped with the transport company. The operator can place the box filled with article with the manifest inside the box and places the box on the conveyor as depicted in the figure above. Once the box is on the conveyor it will be inducted into the line it will be conveyed first through the Barcode reader that identifies the box based on the Label put on the box while packing the order. Once the box and order are identified as the box passes through the In-line weighing machine which gets the weight of the box. This data is then transferred to the ERP. Once weighed, the products are tracked along the conveyor as they head towards the label applicator. A sensor will detect the presence of the box near the label applicator which in turn triggers a query to the ERP for the label data. As the data is received from the ERP the label would be generated with the help of the Print Engine. As the box passes underneath the label applicator. The label would be stuck onto the box. Then the product would be subject to a scan after the label application to confirm the correct label has been applied to the box. If the Label data or placement of the label is wrong the system would give a warning to the operator which would then through manual operation check the error and rectify it. And then put it back on the pallet.

This process would reduce the amount of work that the operator does while packing the box. This process would have the optimum level of automation which is optimum for the packaging process with regards to the customer demand per day. The cost analysis of this system, is shown below.

		Cost/hour	Avg.no. Of hours	cost/day
Personal Cost	2x people	€ 23,19	€ 7,39	€ 342,92
relevant cost		Yearly	Monthly	Daily
44090 Verpakkingskosten	Packaging costs	€ 32.901,01	€ 2.741,75	€ 137,09
48030 Afschr. Prod. Machines	Depreciation	€ 11.022,24	€ 918,52	€ 45,93
48050 Afschr. Kantoor Inventaris	Depreciation Office inventory	€ 11.880,52	€ 990,04	€ 49,50
48060 Afschr.Computer Apparaten	Depreciation	€ 202,00	€ 16,83	€ 0,84
Overhead Cost		Yearly	Monthly	Daily
Premises (94,5m2)		€ 13.925,00	€ 1.160,42	€ 38,68
Equipment, consumables and supplies		€ 86.482,40	€ 7.206,87	€ 360,34
Repairs and maintenance		€ 1.919,13	€ 159,93	€ 8,00
Depreciation, amortisation, impairment/write-downs		€ 23.104,76	€ 1.925,40	€ 96,27
Other		€ 357,87	€ 29,82	€ 1,49
New Machines		Sinlge Unit		
PLA		€ 14.300,00		
	Deprciation	€ 2.860,00	€ 238,33	€ 11,92
Weighing		€ 22.690,00		
	Deprciation	€ 4.538,00	€ 378,17	€ 18,91
Barcode Readers		Deprciation	€ 500,00	€ 41,67
				€ 2,08
total cost of packaging/day				€ 1.113,97
total cost of packaging/month				€ 22.279,38
total cost of packaging/year				€ 267.352,57

Table 24 Cost analysis scenario 3

From this we find that we can reduce at least one FTE from the packaging line which now operates with 3 operators, one being for the export order.

The process would reduce the time of packaging a single order from 3.07 Minutes to 1.30 minutes per order which is a huge reduction in time and improvement of the process. With this the company can process more order in a single day.

Sr. No.	time(s)	Serial No.	time(s)
1	165	1	89
2	280	2	62
3	88	3	66
4	246	4	69
5	152	5	80
6	224	6	49
7	325	7	79
8	173	8	40
9	94	9	130
10	127	10	68
mean time(s)	187	mean time(s)	73
mean time(m)	3:07 sec	mean time(m)	1:13 sec

Table 25 Timing for old packaging layout and the new one.

Scenario 4

Fully Automated Packing Line

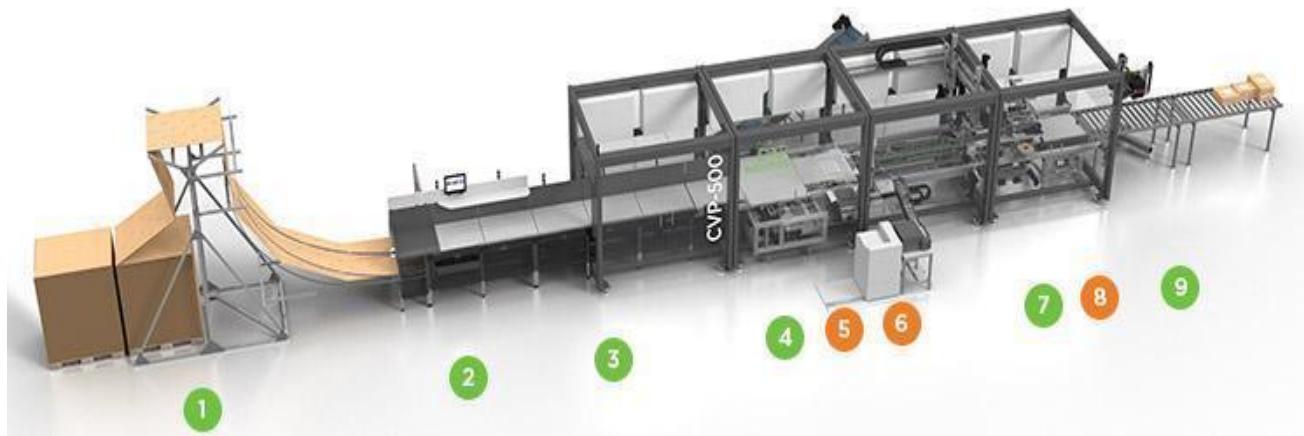


Figure 19 Layout Scenario 4

In this system as the name suggest the whole process will be completely automated. The machine shown in the image above is the CVP-500 from Neopost. The machine is currently being used by BOL and Amazon for their e-commerce businesses with higher level of accuracy and efficiency and cost saving.

In this machine the article is placed on one side of the machine. Then they undergo packaging with the corrugated cardboard. The machine automatically after determining the dimensions of the machine with the help of item scanner form the box around the items which fits the exact dimensions of the articles being packed. Then the box moves on to the taping unit which seals the box. Then the box is weighed in order to get the weight for shipping the box. Then the box moves on to the Print and apply

machine which applies the address label to the box. The machine also comes with the option to print and place the order manifest inside the formed box.

The cost analysis for this machine was also done and the results are shown below.

			Cost/hour	Avg.no. Of hours	cost/day
Personal Cost	No FTE's required		€ -	€ -	€ -
relevant cost			Yearly	Monthly	Daily
44090	Verpakkingskosten	Packaging costs	€ 17.398,01	€ 1.449,83	€ 72,49
48030	Afschr. Prod. Machines	Depreciation	€ 11.022,24	€ 918,52	€ 45,93
48050	Afschr. Kantoor Inventaris	Depreciation Office inventory	€ 11.880,52	€ 990,04	€ 49,50
48060	Afschr.Computer Apparaten	Depreciation	€ 202,00	€ 16,83	€ 0,84
Overhead Cost			Yearly	Monthly	Daily
	Premises (94,5m2)		€ 13.925,00	€ 1.160,42	€ 38,68
	Equipment, consumables and supplies		€ 86.482,40	€ 7.206,87	€ 360,34
	Repairs and maintenance		€ 1.919,13	€ 159,93	€ 8,00
	Depreciation, amortisation, impairment/write-downs		€ 23.104,76	€ 1.925,40	€ 96,27
	Other		€ 357,87	€ 29,82	€ 1,49
New Machines		Sinlge Unit			
	CVP 500		€ 725.000,00	€ 60.416,67	
		Depreciation	€ 145.000,00	€ 12.083,33	€ 604,17
	total cost of packaging/day				€ 1.277,71
	total cost of packaging/month				€ 25.554,19
	total cost of packaging/year				€ 306.650,26

Table 26 Cost analysis Scenario 4

3.7 Solutions and Improvements

After gaining more knowledge about the processes and the machines mentioned above, it would not be an efficient process if we use the automatic case formers or semi-automatic case formers because if we use the automatic case former we would have to make each kind of box and then store them till they are required at the packing station. As for semi-automatic case former, they can be set at different box sizes manually but this increases the time for packing process as each order requires a different box and the operator has to change the machine size every time. The void filler would be an advantage to the process as it would reduce the work of the operator of filling the box with filler material but would not offer a great improvement in the time improvement as compared to the cost of the machine. So it would not be an option to make the improvement as mentioned in the first scenario.

Using the case 2 of scenario 1 with automatic box forming machine, automatic taping and void filler machine, the scenario although highly automated in forming, sealing and filling the cases but would require extra area to store the ready cases once they are formed by the machine. It would increase the work done by the operator which would have to form different kinds of cases depending on the orders. The cases will have to be stored and taken by the operator as and when the box is needed. This process would delay the process of packing as the cases will be retrieved from the storing area or if they are replenished by another operator would increase the number of FTE's.

Using Scenario 2, which has a label print and applicator. The process would improve by a maximum of 33 seconds which is the maximum delay in printing the label and applying the label would take another 4 seconds while keeping the rest of the packing process the same and just transferring the print and apply function to the machine. The print and apply system is not much different from the one being used presently. Hence this scenario would not be a preferable option.

Using Scenario 3, which include the machines in line weighing, label print applicator and automatic sealing. This process would greatly improve the process as well as improving the time per order to pack. The process initially took about 187 seconds (3:07 minutes) which can be reduced to about 73 seconds (1:13 minutes) to pack the order. Considering the time taken for the cases to go through the in line process and adding about 20 seconds to the reduced time would give a time of 93 seconds (1:33 minutes) which is a 50% reduction of time as compared to the present process. The work done by the operator would also be reduced which allows him to pack more order in the same time as earlier. The process would greatly improve the throughput as well as increase the efficiency. The waiting time per order would also be reduced.

Using Scenario 4, this option having a totally automated packing machine. This machine just requires the operator to put the articles to be placed on the machine and then the machine takes over the whole packing process from forming the box to sealing and applying the label on the box. This machine would require only one operator or this can be done by the order pickers once the order picking is finished. Although the gains from this machine are high although the investment cost is very high for the machine. The machine costs about € 700,000. Due to the very high initial investment and with a reduction of 3 FTE's from the packing process. This would not be an optimum option to take into consideration. Although this option can be looked into the future when the number of orders processed per day increases significantly.

Further the Delays which affect the pacing process can be reduced in the following ways:

1. Delay in Printing Labels: - The delay in the printing label is due the interface timing between the ERP and the DPD client software which uses the file generated by the ERP system and the prints the label. The file is stored in a predefined folder from where the DPD software picks up the file to print. If this delay is reduced the printing of the label would be quicker. To solve this problem, DPD was contacted and to solve this problem they suggested to compress the database. Hence after compressing the database the timing was taken and there was a reduction of time the file stays in the folder before being picked up the DPD client software.

Interface Timing Between System and DPD software					
Apeldoorn		3			
WS001		WS003			
DN Number	Time(s)	DN Number	Time(s)	DN Number	Time(s)
943101	22			943062	32
943113	7			943064	22
943114	4			943066	9
943115	12			943067	11
943121	20			943075	17
943122	11			943087	5
943132	11			943088	21
943142	8			943091	15
943147	15			943092	17
943155	19			943099	7
943158	33			943100	5
943159	12			943102	27
943161	16			943112	7
943163	28			943140	22
943165	7			943141	17
943235	34			943154	12
943236	7			943156	28
943237	4			943160	15
943248	11			943227	19
943252	33			943254	8
Average Time/WS		16		16	
Total Average	16				

Table 27 Interface timing between ERP and DPD software

2. Delays in walking to Drop and Picking up Carts: - In order to reduce this delay, the location of the empty cart buffer will have to be changed. Currently, the cart holding area is about 60 m from the packing table which take about 1 minute to walk. This time can be reduced by moving the empty cart buffer nearer to the packaging table.

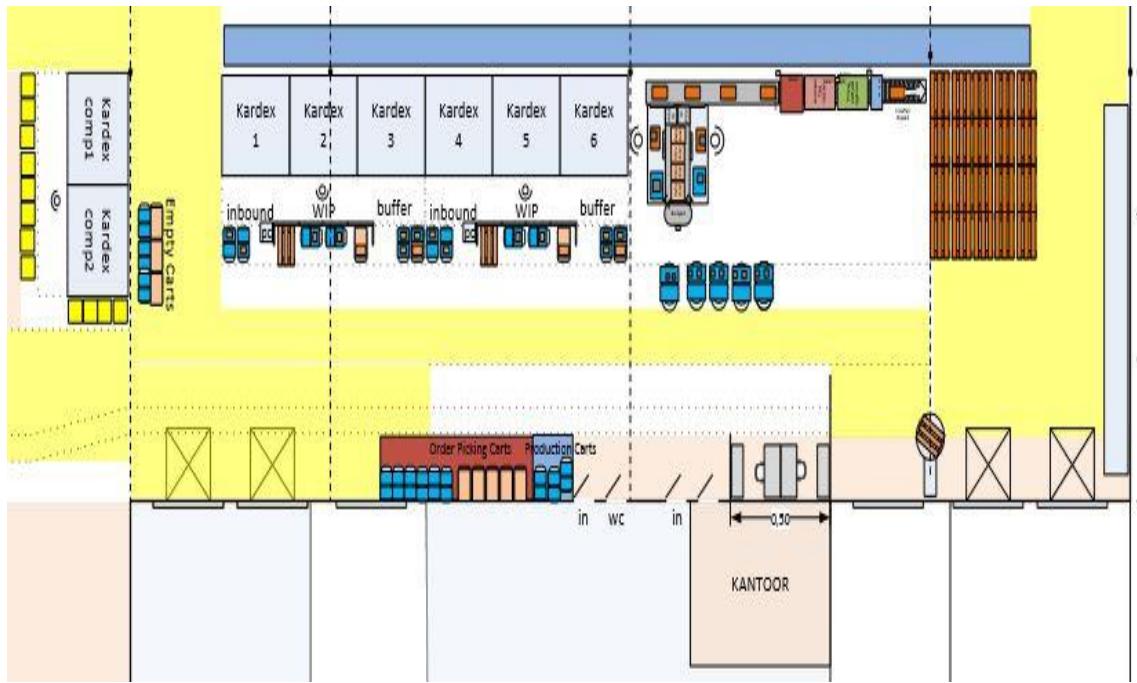


Figure 20 Old and New location for cart storage

3.8 Final Layout



Figure 21Final Layout

APPENDICES

A. ABCXYZ Analysis

	Current quantity	Expected quantity	Dedicated quantity	Bin	Max. stock/bin	Required capacity	Sales	Purchase	Total	ABC
10013732	249	0	0	DOOS 400X30 0X120	100	100	646	22	668	A
9125590550	1162	0	0	DOOS 400X30 0X120	500	100	526	18	544	A
10025469				DOOS 400X30 0X170	7	100	521	0	521	A
10025468	1	0	0	DOOS 400X30 0X170	7	100	513	0	513	A
10013728							453	21	474	A
9491890000	6	0	0	DOOS 300X20 0X120	50	100	397	0	397	A
9869114401	77	0	0	DOOS 400X30 0X120	20	100	365	19	384	A
9260004500							354	15	369	A
9869114402	73	0	0	DOOS 400X30 0X120	20	100	335	19	354	A
10003663	162	0	1	DOOS 300X20 0X120	20	100	284	60	344	A
10013769							295	31	326	A
9421917601	3	0	0	DOOS 400X30 0X120	13	100	284	19	303	A
9126690275	3962	0	50	DOOS 400X30 0X120	750	100	296	6	302	A
9302300000	70	0	0	DOOS 400X30 0X120	10	100	302	0	302	A
10001788	9	0	6	DOOS 400X30 0X120	44	100	296	0	296	A
7302287	159	0	0	DOOS 400X30 0X220	60	100	268	25	293	A
10013841	46	0	3	DOOS 400X30 0X120	12	100	256	36	292	A
7302289	144	0	0	DOOS 400X30 0X220	60	100	264	26	290	A
9416918251	10	0	0	DOOS 400X30 0X120	20	100	255	24	279	A
9869114251	53	0	1	DOOS 400X30 0X120	20	100	267	8	275	A
7225014	69	0	10	DOOS 400X30 0X220	60	100	239	33	272	A
7381555	24	0	0	DOOS 400X30 0X170	50	100	270	0	270	A

1004652 0	85	1	0	DOOS 400X30 0X120	12	100	242	19	261	A
1000182 1	1	0	0	DOOS 300X20 0X120	37	100	251	0	251	A
1001062 9	38	0	5	DOOS 400X30 0X120	200	100	240	11	251	A
7225013	132	0	0	DOOS 400X30 0X220	60	100	228	23	251	A
9068800 550	44	0	0	DOOS 400X30 0X120	15	100	245	0	245	A
1001373 5	144	0	0	DOOS 400X30 0X120	100	100	211	22	233	A
9869114 252	24	0	3	DOOS 400X30 0X120	20	100	225	6	231	A
9960090 170	1435	0	0	DOOS 400X30 0X120	250	100	224	7	231	A
1000159 3	58	0	6	DOOS 300X20 0X120	20	100	188	37	225	A
7268572	34	0	0	DOOS 400X30 0X120	15	100	192	31	223	A
7326052	38	0	0	DOOS 200X15 0X100	7	100	216	0	216	A
7328201	111	0	0	DOOS 400X30 0X220	60	100	187	24	211	A
1001374 3	99	0	0	DOOS 400X30 0X120	6	100	204	6	210	A
9416918 351	66	0	12	DOOS 400X30 0X120	20	100	195	15	210	A
9260390 000	1135	0	0	DOOS 400X30 0X120	500	100	202	6	208	A
9869114 351	142	0	0	DOOS 400X30 0X120	18	100	202	6	208	A
7268570	38	0	2	DOOS 400X30 0X120	15	100	176	28	204	A
9064990 182							184	20	204	A
1000366 5							168	34	202	A
9869114 352	125	0	0	DOOS 400X30 0X120	20	100	195	6	201	A
9143600 550	255	0	10	DOOS 400X30 0X170	50	100	185	12	197	A
1004651 8	443	1	0	DOOS 300X20 0X120	50	100	185	11	196	A
9020200 225	466	0	0	DOOS 400X30 0X120	240	100	182	14	196	A
9020200 200	189	0	0	DOOS 400X30 0X120	240	100	178	13	191	A
9858022	119	0	0	DOOS 400X30 0X120	20	100	191	0	191	A

9422817 600	48	0	0	DOOS 400X30 0X120	25	100	190	0	190	A
9511590 030	47	0	0	DOOS 400X30 0X120	100	100	190	0	190	A
1001535 5	52	0	0	DOOS 400X30 0X120	18	100	180	6	186	A
7266445	149	0	0	DOOS 400X30 0X120	15	100	174	10	184	A
9000790 200	596	0	0	DOOS 300X20 0X120	800	100	179	4	183	A
9325302 000				DOOS 400X30 0X120	8	100	165	17	182	A
7225016	108	0	0	DOOS 400X30 0X120	20	100	154	25	179	A
9064904 652							154	25	179	A
9416918 301	106	0	6	DOOS 400X30 0X120	20	100	167	12	179	A
9869114 301	90	0	2	DOOS 400X30 0X120	20	100	172	7	179	A
9304104 606	138	0	0	DOOS 400X30 0X120	120	100	178	0	178	A
9006602 501	8	0	0	DOOS 400X30 0X120	25	100	176	0	176	A
9869114 302	90	0	0	DOOS 400X30 0X120	20	100	166	7	173	A
9005500 600	26	0	0	DOOS 400X30 0X120	40	100	170	0	170	A
9060805 400	38	0	1	DOOS 400X30 0X120	25	100	170	0	170	A
9127990 171	93	0	0	DOOS 400X30 0X120	500	100	169	0	169	A
9857023	50	0	0	DOOS 400X30 0X120	20	100	169	0	169	A
1000369 8	62	0	0	DOOS 300X20 0X120	20	100	145	23	168	A
9283009 010	4	0	0	DOOS 400X30 0X120	50	100	167	0	167	A
9422817 500	11	0	0	DOOS 400X30 0X120	28	100	167	0	167	A
7170389							164	2	166	A
7275535	51	0	0	DOOS 400X30 0X120	15	100	150	16	166	A
7170234	197	0	0	DOOS 400X30 0X120	350	100	162	2	164	A
7962057							152	12	164	A
9062917 650	43	0	0	DOOS 400X30 0X120	15	100	156	6	162	A
9127990 172	681	0	0	DOOS 400X30 0X120	500	100	162	0	162	A

9062977 650				DOOS 400X30 0X120	15	100	153	8	161	A
1001029 5							147	13	160	A
9422827 500	31	0	0	DOOS 400X30 0X120	25	100	160	0	160	A
1001096 3	110	0	0	DOOS 400X30 0X120	26	100	136	23	159	A
1000330 2	227	0	0	DOOS 400X30 0X120	15	100	120	38	158	A
7262435	24	0	1	DOOS 400X30 0X120	15	100	149	9	158	A
7273215							145	13	158	A
7262531	101	0	0	DOOS 400X30 0X120	15	100	138	19	157	A
9858023	81	0	0	DOOS 400X30 0X120	20	100	157	0	157	A
9006602 502	5	0	0	DOOS 400X30 0X120	25	100	156	0	156	A
9125590 270				DOOS 300X20 0X120	200	100	155	0	155	A
1000369 7	13	0	0	DOOS 400X30 0X120	50	100	154	0	154	A
1000371 6	26	0	0	DOOS 200X15 0X100	7	100	127	27	154	A
1003788 7	182	0	0	DOOS 400X30 0X120	22	100	148	6	154	A
9054904 501							150	4	154	A
9857024	50	0	0	DOOS 400X30 0X120	20	100	153	0	153	A
1000176 8	33	0	0	DOOS 400X30 0X120	44	100	152	0	152	A
1001734 3	589	0	0	DOOS 400X30 0X120	200	100	147	5	152	A
1004651 9	21	0	0	DOOS 300X20 0X120	6	100	137	15	152	A
1000368 5	27	0	0	DOOS 300X20 0X120	12	100	124	27	151	A
1001374 2	35	0	0	DOOS 400X30 0X120	5	100	124	27	151	A
7273535	22	0	0	DOOS 400X30 0X120	15	100	138	13	151	A
9069931 002				DOOS 400X30 0X120	13	100	140	7	147	A
9120092 000	348	0	0	DOOS 300X20 0X120	300	100	147	0	147	A
9325216 720	13	0	0	DOOS 400X30 0X170	8	100	140	7	147	A
9412818 250				DOOS 300X20 0X120	9	100	139	8	147	A

9024800 090	208	0	0	DOOS 400X30 0X120	180	100		146	0	146	A
9280900 000	16	0	0	DOOS 400X30 0X120	20	100		146	0	146	A
9069800 550	35	0	1	DOOS 400X30 0X120	15	100		144	0	144	A
9432817 600	16	0	0	DOOS 400X30 0X120	18	100		137	7	144	A
1001384 5	32	0	0	DOOS 400X30 0X120	12	100		116	26	142	A
9416918 401	10	0	0	DOOS 400X30 0X120	20	100		130	12	142	A
9420817 500				DOOS 400X30 0X120	28	100		141	0	141	A
9030000 500	80	0	0	DOOS 400X30 0X120	21	100		131	9	140	A
9061800 250				DOOS 400X30 0X120	25	100		140	0	140	A
9125690 550	367	0	0	DOOS 400X30 0X120	500	100		132	5	137	A
9144400 551	146	0	0	DOOS 400X30 0X170	50	100		126	11	137	A
7170345	469	0	0	DOOS 300X20 0X120	200	100		125	11	136	A
9064946 652				DOOS 300X20 0X120	7	100		121	15	136	A
9879114 251	82	0	0	DOOS 400X30 0X120	20	100		130	5	135	A
1000449 0	38	0	0	DOOS 400X30 0X120	50	100		130	4	134	A
9040452 000	77	0	0	DOOS 400X30 0X120	50	100		134	0	134	A
1000449 1	68	0	0	DOOS 400X30 0X120	50	100		128	4	132	A
7962016	215	0	10	DOOS 400X30 0X120	15	100		120	12	132	A
9064946 651								117	15	132	A
9282909 010	38	0	0	DOOS 400X30 0X120	40	100		132	0	132	A
9410927 502	13	0	0	DOOS 400X30 0X120	19	100		132	0	132	A
1001387 9	14	0	0	DOOS 400X30 0X120	12	100		93	38	131	A
9100800 452	0	0	0	DOOS 400X30 0X120	15	100		131	0	131	A
9341790 000	324	0	0	DOOS 400X30 0X120	25	100		126	5	131	A
1003788 9	84	0	0	DOOS 300X20 0X120	75	100		119	11	130	A

1001028 0							119	10	129	A
9020200 230	9	0	0	DOOS 400X30 0X120	240	100		112	17	129 A
9126690 270							129	0	129	A
9200117 000	379	0	0	DOOS 400X30 0X120	100	100		125	3	128 A
9491890 010	51	0	0	DOOS 400X30 0X120	150	100		128	0	128 A
9730402 000	69	0	0	DOOS 400X30 0X120	12	100		118	10	128 A
9967207 001	172	0	0	DOOS 400X30 0X120	20	100		120	8	128 A
9066904 652	3	0	0	DOOS 300X20 0X120	7	100		118	9	127 A
9307222 506	35	0	0	DOOS 400X30 0X120	30	100		127	0	127 A
9011107 260	240	0	0	DOOS 400X30 0X120	92	100		108	18	126 A
9100800 450	17	0	0	DOOS 300X20 0X120	13	100		126	0	126 A
1001360 6	331	0	0	DOOS 400X30 0X120	50	100		102	19	121 A
1004161 5	85	0	3	DOOS 400X30 0X120	36	100		121	0	121 A
1004679 4								115	5	120 A
1001381 5	4	0	0	DOOS 400X30 0X120	2	100		90	29	119 A
9062490 010	569	0	0	DOOS 300X20 0X120	300	100		118	1	119 A
9400090 000							108	11	119	A
3466725	181	0	0	DOOS 200X15 0X100	100	100		108	10	118 A
7348433	137	0	0	DOOS 400X30 0X220	60	100		104	13	117 A
1001388 5	17	0	0	DOOS 400X30 0X120	13	100		99	17	116 A
9009911 600	169	0	0	DOOS 400X30 0X120	19	100		113	3	116 A
1000035 6	29	0	0	DOOS 400X30 0X120	16	100		87	28	115 A
9100800 483							114	1	115	A
7382002	30	0	0	DOOS 400X30 0X120	56	100		114	0	114 A
9062417 650				DOOS 400X30 0X120	15	100		103	10	113 A
9738001 720							111	2	113	A
1000127 8	59	0	0	DOOS 300X20 0X120	25	100		84	28	112 A

1001028 2	56	0	0	DOOS 400X30 0X120	25	100	102	10	112	A
1001098 2	82	0	3	DOOS 400X30 0X120	50	100	95	17	112	A
9144900 551	105	0	0	DOOS 400X30 0X120	20	100	105	7	112	A
9340700 580							111	1	112	A
1001375 5	22	0	0	DOOS 400X30 0X120	11	100	91	20	111	A
9000790 100	219	0	0	DOOS 300X20 0X120	500	100	111	0	111	A
9014209 293							110	1	111	A
9064990 451	561	0	0	DOOS 400X30 0X120	250	100	103	8	111	A
9125690 530	40	0	0	DOOS 300X20 0X120	250	100	106	5	111	A
1000159 5	55	0	0	DOOS 300X20 0X120	20	100	86	24	110	A
1001063 7							95	15	110	A
9066904 651	6	0	0	DOOS 300X20 0X120	15	100	103	6	109	A
7267535	53	0	0	DOOS 400X30 0X120	15	100	99	9	108	A
9144400 552	113	0	0	DOOS 300X20 0X120	20	100	100	8	108	A
1000267 5	4	0	0	DOOS 300X20 0X120	6	100	74	33	107	A
9020203 210	185	0	0	DOOS 400X30 0X120	125	100	89	18	107	A
9730301 000	187	0	0	DOOS 400X30 0X120	12	100	97	10	107	A
7263535	93	0	0	DOOS 400X30 0X120	15	100	97	9	106	A
7962003	20	0	0	DOOS 400X30 0X120	15	100	95	11	106	A
9422827 600							106	0	106	A
1001029 3	75	0	20	DOOS 400X30 0X120	20	100	95	10	105	A
7170222	611	0	0	DOOS 400X30 0X120	560	100	105	0	105	A
7272215							93	12	105	A
9064990 452	303	0	0	DOOS 400X30 0X120	300	100	101	4	105	A
9066946 651							98	7	105	A
1000182 3	78	0	0	DOOS 300X20 0X120	30	100	80	24	104	A
9060500 400	25	0	0	DOOS 400X30 0X120	25	100	104	0	104	A

9260090 050	223	0	0	DOOS 400X30 0X120	100	100	98	6	104	A
1002880 6	100	0	24	DOOS 300X20 0X120	75	100	85	18	103	A
1003098 7							103	0	103	A
9125517 521	45	0	0	DOOS 400X30 0X120	20	100	103	0	103	A
9879114 252				DOOS 400X30 0X120	14	100	101	2	103	A
1001385 8	3	0	0	DOOS 400X30 0X120	3	100	86	16	102	A
1004652 1	58	0	0	DOOS 400X30 0X120	18	100	96	6	102	A
9750240 000	105	0	0	DOOS 400X30 0X120	23	100	97	5	102	A
9068990 170	627	0	0	DOOS 400X30 0X120	200	100	100	1	101	A
9101300 000	44	0	0	DOOS 400X30 0X170	60	100	101	0	101	A
9410927 501	34	0	0	DOOS 400X30 0X120	15	100	101	0	101	A
7170373	507	0	0	DOOS 400X30 0X120	500	100	94	5	99	A
7266546							92	7	99	A
9013209 260	440	0	0	DOOS 400X30 0X120	68	100	92	7	99	A
9016390 950	592	0	0	DOOS 400X30 0X120	2000	100	99	0	99	A
9064404 671	73	0	0	DOOS 400X30 0X120	14	100	91	8	99	A
9731801 000	859	0	0	DOOS 400X30 0X120	600	100	94	5	99	A
1001377 2	6	0	0	DOOS 400X30 0X120	14	100	75	23	98	A
7355075	5	0	0	DOOS 200X15 0X100	6	100	98	0	98	A
9006602 602							98	0	98	A
9125531 507							98	0	98	A
1001122 2	4	0	0	DOOS 400X30 0X120	18	100	61	36	97	A
9011507 260	35	0	0	DOOS 400X30 0X120	32	100	90	7	97	A
9180200 020	104	0	0	DOOS 400X30 0X220	50	100	90	7	97	A
7387715	11	0	0	DOOS 400X30 0X120	3	100	96	0	96	A
9066604 652	9	0	0	DOOS 300X20 0X120	7	100	90	6	96	A

1000213 0	22	0	0	DOOS 400X30 0X120	26	100	77	18	95	A
9000790 000	201	0	0	DOOS 300X20 0X120	200	100	95	0	95	A
9020390 112	37	0	0	DOOS 200X15 0X100	200	100	95	0	95	A
9064404 672	2	0	0	DOOS 400X30 0X120	15	100	86	9	95	A
1001384 0	3	0	0	DOOS 400X30 0X120	10	100	67	27	94	A
1003887 1	72	0	0	DOOS 400X30 0X120	55	100	76	18	94	A
9011107 302	174	0	0	DOOS 400X30 0X120	50	100	74	20	94	A
7226453							93	0	93	A
9000734 053	182	0	0	DOOS 400X30 0X120	20	100	82	11	93	A
9412818 300	94	0	0	DOOS 400X30 0X120	20	100	87	6	93	A
1000341 8	26	0	0	DOOS 200X15 0X100	12	100	75	17	92	A
9413990 177	52	0	0	DOOS 400X30 0X120	250	100	92	0	92	A
1000330 3							76	15	91	A
1000367 9	32	0	0	DOOS 300X20 0X120	30	100	74	17	91	A
9030000 600	55	0	0	DOOS 400X30 0X120	17	100	84	7	91	A
9325322 721	112	0	0	DOOS 400X30 0X120	8	100	79	12	91	A
9416918 451				DOOS 400X30 0X120	14	100	83	8	91	A
1000178 9	23	0	0	DOOS 400X30 0X120	40	100	76	14	90	A
7225015							81	9	90	A
9020390 116	10	0	0	DOOS 200X15 0X100	100	100	90	0	90	A
9271004 500	290	0	0	DOOS 400X30 0X170	30	100	80	10	90	A
9413990 172	149	0	0	DOOS 400X30 0X120	250	100	90	0	90	A
1003403 6	28	0	0	DOOS 400X30 0X120	7	100	71	18	89	A
9011407 261	56	0	0	DOOS 400X30 0X120	62	100	79	10	89	A
9064990 172							88	1	89	A
9411990 172	104	0	0	DOOS 400X30 0X120	150	100	89	0	89	A

9001387 220	86	0	0	DOOS 400X30 0X170	15	100	79	9	88	A
9045390 120	6321	0	300	DOOS 400X30 0X120	1600	100	80	8	88	A
9415402 501							88	0	88	A
1000182 2	27	0	0	DOOS 300X20 0X120	25	100	51	36	87	A
7266805	80	0	0	DOOS 400X30 0X120	20	100	77	10	87	A
9020390 012	2757	0	0	DOOS 300X20 0X120	1000	100	86	1	87	A
9060500 500	3	0	0	DOOS 300X20 0X120	10	100	87	0	87	A
9064990 171	215	0	0	DOOS 400X30 0X120	250	100	81	6	87	A
9211012 180	366	0	0	DOOS 400X30 0X120	75	100	82	5	87	A
9344200 100	16	0	0	DOOS 400X30 0X120	45	100	69	18	87	A
9422890 001	15	0	0	DOOS 400X30 0X120	150	100	87	0	87	A
1000027 4	4	0	0	DOOS 400X30 0X120	44	100	86	0	86	A
1001376 7	19	0	0	DOOS 400X30 0X120	12	100	64	22	86	A
1000368 4	34	0	0	DOOS 400X30 0X120	45	100	68	17	85	A
9011407 262	35	0	0	DOOS 300X20 0X120	35	100	77	8	85	A
9063890 190	2976	0	0	DOOS 400X30 0X120	1000	100	84	1	85	A
9091200 633							84	1	85	A
9279004 000	18	0	0	DOOS 300X20 0X120	200	100	85	0	85	A
9413990 171	147	0	0	DOOS 300X20 0X120	150	100	85	0	85	A
1000179 0	72	0	0	DOOS 400X30 0X120	44	100	67	17	84	A
9180800 020	130	0	0	DOOS 400X30 0X220	60	100	79	5	84	A
1000090 8	5	0	0	DOOS 400X30 0X120	15	100	54	29	83	A
1001066 4	90	0	0	DOOS 400X30 0X120	50	100	82	1	83	A
1001734 4	607	0	0				80	3	83	A
1002753 9							72	11	83	A
1002957 7	11	0	0	DOOS 400X30 0X120	100	100	72	11	83	A

9126937 501	184	0	0	DOOS 400X30 0X120	50	100	79	4	83	A
1000124 0	31	0	0	DOOS 400X30 0X120	40	100	71	11	82	A
1000457 5	7	0	0	DOOS 400X30 0X170	3	100	82	0	82	A
9002290 100	1190	0	0	DOOS 400X30 0X120	1000	100	80	2	82	A
9125617 500				DOOS 400X30 0X120	20	100	82	0	82	A
9732101 000	56	0	0	DOOS 200X15 0X100	250	100	78	4	82	A
1003860 3							59	22	81	A
9064990 082	855	0	0	DOOS 400X30 0X120	250	100	78	3	81	A
9144600 552	121	0	0	DOOS 400X30 0X170	50	100	77	4	81	A
9176903 002							67	14	81	A
9205012 180	1825	0	0	DOOS 400X30 0X120	350	100	75	6	81	A
9962107 001	292	0	0	DOOS 400X30 0X120	19	100	70	11	81	A
1000368 0	36	0	0	DOOS 200X15 0X100	12	100	63	17	80	A
9000190 000	119	0	0	DOOS 300X20 0X120	250	100	80	0	80	A
9063590 180	861	0	0	DOOS 400X30 0X120	500	100	79	1	80	A
9064997 620	38	0	3	DOOS 400X30 0X120	14	100	80	0	80	A
9064998 620	4	0	0	DOOS 400X30 0X120	15	100	80	0	80	A
9566100 000	198	0	0	DOOS 400X30 0X120	16	100	75	5	80	A
1000091 2	10	0	0	DOOS 200X15 0X100	3	100	48	31	79	A
9010507 260	19	0	5	DOOS 400X30 0X120	91	100	56	23	79	A
9066604 651	1	0	0	DOOS 400X30 0X120	15	100	75	4	79	A
9125502 521	13	0	0	DOOS 400X30 0X170	20	100	79	0	79	A
9280900 110	18	0	0	DOOS 400X30 0X120	20	100	79	0	79	A
1004651 4	62	0	0	DOOS 400X30 0X120	25	100	64	14	78	A
9063590 210	1167	0	0	DOOS 300X20 0X120	400	100	74	4	78	A

9064990 121	85	0	0	DOOS 400X30 0X120	250	100	75	3	78	A
9964207 000	7	0	0	DOOS 300X20 0X120	10	100	75	3	78	A
9967307 202	130	0	0	DOOS 300X20 0X120	10	100	62	16	78	A
7266551	27	0	0	DOOS 400X30 0X120	9	100	70	7	77	A
7962006	14	0	0	DOOS 400X30 0X120	15	100	71	6	77	A
9064990 202	485	0	0	DOOS 300X20 0X120	250	100	76	1	77	A
9400490 003	4	0	0	DOOS 400X30 0X120	50	100	77	0	77	A
1000459 0	3	0	0	DOOS 400X30 0X170	3	100	76	0	76	A
1004650 9	51	0	0	DOOS 400X30 0X120	25	100	72	4	76	A
3467803							66	10	76	A
7326050	16	0	0	DOOS 200X15 0X100	6	100	76	0	76	A
9006602 601	2	0	0	DOOS 400X30 0X120	25	100	76	0	76	A
9074917 091							76	0	76	A
9969207 000	28	0	0	DOOS 400X30 0X120	15	100	75	1	76	A
1000337 2	10	0	0	DOOS 300X20 0X120	14	100	48	27	75	A
1000371 5	10	0	0	DOOS 200X15 0X100	12	100	75	0	75	A
9012607 260	88	0	0	DOOS 400X30 0X120	32	100	63	12	75	A
9126917 533				DOOS 400X30 0X120	20	100	75	0	75	A
9184602 010				DOOS 400X30 0X220	25	100	75	0	75	A
9400990 006							63	12	75	A
9411990 187	2127	0	0	DOOS 400X30 0X120	250	100	74	1	75	A
9020202 210	87	0	0	DOOS 400X30 0X170	240	100	63	11	74	A
9054990 010	24	0	0	DOOS 300X20 0X120	200	100	74	0	74	A
9064946 653				DOOS 400X30 0X120	14	100	74	0	74	A
9362290 000	2254	0	0	DOOS 400X30 0X120	250	100	70	4	74	A
1001085 6				DOOS 300X20 0X120	1	100	56	17	73	A

7225106	33	0	0	DOOS 400X30 0X120	10	100	73	0	73	A
7394725	4	0	0	DOOS 400X30 0X120	20	100	73	0	73	A
9283090 090	1	0	0	DOOS 300X20 0X120	50	100	73	0	73	A
9967307 201	100	0	0	DOOS 300X20 0X120	9	100	57	16	73	A
9413990 176	171	0	0	DOOS 300X20 0X120	150	100	72	0	72	A
1000025 1							48	23	71	A
9010607 260	115	0	0	DOOS 400X30 0X120	78	100	62	9	71	A
9064946 654	3	0	0	DOOS 400X30 0X120	15	100	71	0	71	A
9276304 000	42	0	0	DOOS 300X20 0X120	400	100	71	0	71	A
9341500 720							64	7	71	A
9351700 700	46	0	0	DOOS 400X30 0X120	5	100	68	3	71	A
9731802 000	1175	0	0	DOOS 400X30 0X120	600	100	59	12	71	A
1000372 2							46	24	70	A
1001062 8	87	0	0	DOOS 200X15 0X100	50	100	68	2	70	A
7170233	116	0	0	DOOS 400X30 0X120	960	100	68	2	70	A
7170344	46	0	0	DOOS 300X20 0X120	300	100	67	3	70	A
9011107 303	110	0	0	DOOS 400X30 0X120	48	100	55	15	70	A
9069935 002							63	7	70	A
1000267 8							47	22	69	A
1000339 7	7	0	0	DOOS 300X20 0X120	12	100	42	27	69	A
7266905	28	0	0	DOOS 400X30 0X120	22	100	67	2	69	A
9857021	9	0	0	DOOS 300X20 0X120	8	100	69	0	69	A
1001977 0	34	0	0	DOOS 300X20 0X120	12	100	48	20	68	A
9091200 302	206	0	0	DOOS 400X30 0X120	91	100	53	15	68	A
9120080 010	84	0	0	DOOS 200X15 0X100	100	100	68	0	68	A
9341590 010	105	0	0	DOOS 400X30 0X120	60	100	63	5	68	A

9490090 235	7	0	0	DOOS 400X30 0X120	25	100		68	0	68	A
1001347 3	36	0	0	DOOS 400X30 0X120	10	100		62	5	67	A
7962001	22	0	0	DOOS 400X30 0X120	15	100		63	4	67	A
9064990 081	608	0	0	DOOS 400X30 0X120	250	100		64	3	67	A
9069935 001	2	0	0	DOOS 400X30 0X120	15	100		58	9	67	A
9126404 533	100	0	0	DOOS 400X30 0X120	20	100		67	0	67	A
9260299 250	62	0	0	DOOS 400X30 0X120	24	100		67	0	67	A
1000339 5	7	0	0	DOOS 300X20 0X120	14	100		41	25	66	A
1003403 5	23	0	0	DOOS 400X30 0X120	10	100		54	12	66	A
9001390 200				DOOS 300X20 0X120	250	100		65	1	66	A
9011107 051	48	0	0	DOOS 300X20 0X120	45	100		41	25	66	A
9020390 113	6	0	0	DOOS 300X20 0X120	200	100		66	0	66	A
9411990 186	327	0	0	DOOS 400X30 0X120	250	100		62	4	66	A
9431917 602	11	0	0	DOOS 300X20 0X120	6	100		66	0	66	A
1000340 9	1	0	0	DOOS 300X20 0X120	12	100		45	20	65	A
1001976 6								40	25	65	A
9064604 652	4	0	0	DOOS 300X20 0X120	7	100		59	6	65	A
9126917 521	23	0	0	DOOS 400X30 0X170	50	100		65	0	65	A
9260304 180	59	0	0	DOOS 400X30 0X120	20	100		57	8	65	A
9963207 001				DOOS 300X20 0X120	9	100		61	4	65	A
9964127 000								34	31	65	A
1002125 5	26	0	0	DOOS 400X30 0X120	4	100		42	22	64	A
9063890 180	440	0	0	DOOS 400X30 0X120	500	100		63	1	64	A
9064990 201	249	0	0	DOOS 300X20 0X120	150	100		64	0	64	A
1000505 3	50	0	0	DOOS 400X30 0X120	20	100		50	13	63	A
1001065 7								38	25	63	A

1001375 4							50	13	63	A
1001985 4	8	0	0	DOOS 400X30 0X120	20	100	42	21	63	A
9064990 092	375	0	0	DOOS 400X30 0X120	250	100	61	2	63	A
9066977 652	3	0	0	DOOS 300X20 0X120	7	100	58	5	63	A
9095200 390	54	0	0	DOOS 400X30 0X120	84	100	52	11	63	A
9125817 500	82	0	0	DOOS 400X30 0X170	50	100	59	4	63	A
9260090 055	72	0	0	DOOS 300X20 0X120	50	100	60	3	63	A
9344100 500	33	0	0	DOOS 400X30 0X120	50	100	51	12	63	A
9879114 301	61	0	0	DOOS 300X20 0X120	10	100	60	3	63	A
7972003							62	0	62	A
9013209 302	126	0	0	DOOS 400X30 0X120	48	100	56	6	62	A
9020204 210	84	0	0	DOOS 300X20 0X120	48	100	50	12	62	A
9126617 501	14	0	0	DOOS 300X20 0X120	18	100	62	0	62	A
9136600 501	12	0	0	DOOS 400X30 0X170	50	100	62	0	62	A
9440217 552	1	0	0	DOOS 300X20 0X120	5	100	58	4	62	A
9442917 551	25	0	0	DOOS 400X30 0X120	13	100	59	3	62	A
7264615							56	5	61	A
9011007 260	114	0	0	DOOS 300X20 0X120	45	100	47	14	61	A
9064604 651	2	0	0	DOOS 400X30 0X120	15	100	55	6	61	A
9064990 091	91	0	0	DOOS 400X30 0X120	250	100	56	5	61	A
9967308 001	284	0	0	DOOS 300X20 0X120	9	100	52	9	61	A
1000529 3	85	0	0	DOOS 300X20 0X120	50	100	41	19	60	A
1001028 1				DOOS 400X30 0X120	24	100	60	0	60	A
1003621 1	34	0	0	DOOS 400X30 0X170	16	100	43	17	60	A
9120080 040				DOOS 200X15 0X100	100	100	60	0	60	A
9250001 900	131	0	0	DOOS 400X30 0X120	30	100	55	5	60	A

9562500 000	169	0	0	DOOS 300X20 0X120	500	100	49	11	60	A
9967207 201	16	0	0	DOOS 400X30 0X120	20	100	54	6	60	A
1000336 2							38	21	59	A
1000337 5	27	0	0	DOOS 400X30 0X120	32	100	38	21	59	A
1001388 9	4	0	0	DOOS 400X30 0X120	12	100	51	8	59	A
1003452 9	14	0	0	DOOS 400X30 0X120	2	100	48	11	59	A
3466040	68	0	0	DOOS 400X30 0X120	35	100	47	12	59	A
7268500	37	0	0	DOOS 400X30 0X120	15	100	55	4	59	A
7396206	15	0	0	DOOS 300X20 0X120	9	100	59	0	59	A
7962026	105	0	0	DOOS 400X30 0X120	15	100	53	6	59	A
9001390 000	1	0	0	DOOS 300X20 0X120	200	100	59	0	59	A
9002500 000							58	1	59	A
9016390 820	1280	0	0	DOOS 400X30 0X120	1000	100	44	15	59	A
9064990 122	136	0	0	DOOS 300X20 0X120	260	100	57	2	59	A
9120090 000							56	3	59	A
9305104 005	14	0	0	DOOS 400X30 0X120	64	100	59	0	59	A
9325216 550	61	0	0	DOOS 400X30 0X120	8	100	54	5	59	A
9491590 145	65	0	0	DOOS 300X20 0X120	200	100	59	0	59	A
1000161 1	3	0	0	DOOS 300X20 0X120	20	100	39	19	58	A
1000178 7	14	0	0	DOOS 300X20 0X120	20	100	44	14	58	A
1001396 0							58	0	58	A
7221363	14	0	0	DOOS 400X30 0X120	15	100	58	0	58	A
7266544	11	0	0	DOOS 400X30 0X120	15	100	52	6	58	A
7396210	5	0	0	DOOS 300X20 0X120	8	100	58	0	58	A
7972001	39	0	0	DOOS 400X30 0X120	26	100	58	0	58	A
9066977 651	4	0	0	DOOS 300X20 0X120	7	100	50	8	58	A

9091200 041	171	0	0	DOOS 400X30 0X120	91	100	39	19	58	A
9256601 030							57	1	58	A
9325116 720	9	0	0	DOOS 400X30 0X120	8	100	48	10	58	A
9325222 721	49	0	0	DOOS 400X30 0X170	8	100	53	5	58	A
9410990 176	120	0	0	DOOS 400X30 0X120	250	100	58	0	58	A
1000341 7	6	0	0	DOOS 300X20 0X120	30	100	46	11	57	A
1000460 1	21	0	0	DOOS 400X30 0X120	20	100	46	11	57	A
1003404 0							39	18	57	A
1003826 0	14	0	0	DOOS 400X30 0X120	50	100	57	0	57	A
9011090 001	10	0	0	DOOS 300X20 0X120	30	100	57	0	57	A
9125690 510	100	0	0	DOOS 200X15 0X100	150	100	57	0	57	A
9205012 160	2009	0	0	DOOS 300X20 0X120	150	100	54	3	57	A
9968307 000				DOOS 300X20 0X120	9	100	52	5	57	A
1000050 3	27	0	0	DOOS 300X20 0X120	14	100	37	19	56	A
1000341 1	5	0	0	DOOS 300X20 0X120	12	100	37	19	56	A
3467805	50	0	0	DOOS 300X20 0X120	20	100	38	18	56	A
7381670	3	0	0	DOOS 200X15 0X100	10	100	56	0	56	A
9011407 271	8	0	0	DOOS 300X20 0X120	25	100	56	0	56	A
9200190 000	136	0	0	DOOS 300X20 0X120	400	100	55	1	56	A
9342700 900	29	0	0	DOOS 400X30 0X120	5	100	52	4	56	A
1000025 8							38	17	55	A
1001360 3	11	0	0	DOOS 400X30 0X120	50	100	41	14	55	A
1001384 3	13	0	0	DOOS 400X30 0X120	12	100	42	13	55	A
1002751 4							42	13	55	A
9011090 000				DOOS 400X30 0X120	130	100	55	0	55	A
9064617 652	10	0	1	DOOS 400X30 0X120	14	100	52	3	55	A

9073517 091	11	0	0	DOOS 400X30 0X120	15	100		55	0	55	A
9126417 521	10	0	0	DOOS 400X30 0X120	20	100		55	0	55	A
9282600 000	135	0	10	DOOS 400X30 0X120	50	100		55	0	55	A
9410990 186	292	0	0	DOOS 400X30 0X120	350	100		47	8	55	A
9857025	15	0	0	DOOS 400X30 0X120	20	100		55	0	55	A
9879114 302	18	0	0	DOOS 400X30 0X120	20	100		54	1	55	A
9879114 352	143	0	0	DOOS 400X30 0X120	20	100		54	1	55	A
1001359 5								46	8	54	A
1002134 5								35	19	54	A
1002753 0	158	0	0	DOOS 400X30 0X120	80	100		50	4	54	A
1003403 9								41	13	54	A
7262013	69	0	0	DOOS 400X30 0X120	9	100		54	0	54	A
9011107 304	84	0	0	DOOS 300X20 0X120	12	100		40	14	54	A
9012609 260	88	0	0	DOOS 300X20 0X120	24	100		49	5	54	A
9120080 050	45	0	0	DOOS 200X15 0X100	100	100		54	0	54	A
9325112 000	18	0	0	DOOS 400X30 0X120	60	100		46	8	54	A
9411990 182	140	0	0	DOOS 400X30 0X120	250	100		53	1	54	A
9567800 000	408	0	0	DOOS 400X30 0X120	150	100		49	5	54	A
9011109 303	7	0	0	DOOS 400X30 0X120	48	100		50	3	53	A
9120590 270	306	0	0	DOOS 400X30 0X120	350	100		53	0	53	A
9325122 632	5	0	0	DOOS 400X30 0X120	10	100		45	8	53	A
9440117 551				DOOS 400X30 0X120	13	100		50	3	53	A
9967308 202	93	0	0	DOOS 400X30 0X120	20	100		45	8	53	A
1001390 3	5	0	0	DOOS 400X30 0X120	14	100		38	14	52	A
1002847 3	250	0	0	DOOS 400X30 0X120	100	100		49	3	52	A
1002893 7	24	0	0	DOOS 300X20 0X120	20	100		36	16	52	A

1003452 5							38	14	52	A
7264614	28	0	0	DOOS 400X30 0X120	15	100	45	7	52	A
9001390 100	219	0	0	DOOS 300X20 0X120	240	100	50	2	52	A
9020390 013	769	0	0	DOOS 300X20 0X120	800	100	52	0	52	A
9091200 051	4	0	0	DOOS 300X20 0X120	91	100	43	9	52	A
9172321 001	110	0	0	DOOS 400X30 0X120	45	100	47	5	52	A
9205012 181							52	0	52	A
9420827 500	77	0	0	DOOS 400X30 0X120	26	100	51	1	52	A
9440217 551	8	0	0	DOOS 400X30 0X120	13	100	48	4	52	A
9732802 000	2164	0	0	DOOS 400X30 0X120	1400	100	52	0	52	A
9879114 351	55	0	0	DOOS 400X30 0X120	20	100	51	1	52	A
9967207 202							48	4	52	A
1003621 2	29	0	0	DOOS 400X30 0X170	12	100	41	10	51	A
7268502	23	0	0	DOOS 400X30 0X120	16	100	42	9	51	A
7277535	32	0	0	DOOS 400X30 0X120	15	100	47	4	51	A
9120080 020	50	0	0	DOOS 200X15 0X100	100	100	51	0	51	A
9176977 652	50	0	0	DOOS 300X20 0X120	7	100	49	2	51	A
9325122 631	15	0	0	DOOS 400X30 0X120	8	100	44	7	51	A
9341900 721	35	0	0	DOOS 400X30 0X120	5	100	46	5	51	A
9431917 601	5	0	0	DOOS 400X30 0X120	12	100	51	0	51	A
9731701 000	4	0	0	DOOS 200X15 0X100	25	100	51	0	51	A
1000157 9	485	0	0	DOOS 400X30 0X120	120	100	17	33	50	A
1001384 4	9	0	0	DOOS 400X30 0X120	12	100	32	18	50	A
9020290 010	310	0	0	DOOS 200X15 0X100	50	100	42	8	50	A
9091200 031	85	0	0	DOOS 400X30 0X120	91	100	41	9	50	A
9100800 454	2	0	0	DOOS 400X30 0X120	2	100	50	0	50	A

9325107 000	57	0	0	DOOS 400X30 0X120	34	100		43	7	50	A
9325307 720								44	6	50	A
9730302 000	42	0	0	DOOS 400X30 0X120	72	100		46	4	50	A
9879114 401	51	0	0	DOOS 400X30 0X120	20	100		50	0	50	A
9967308 201	62	0	0	DOOS 400X30 0X120	20	100		43	7	50	A
1000034 4								33	16	49	A
9014209 304	12	0	0	DOOS 400X30 0X120	18	100		47	2	49	A
9030100 500				DOOS 400X30 0X120	15	100		39	10	49	A
9073517 092								49	0	49	A
9074417 091	23	0	0	DOOS 400X30 0X120	15	100		49	0	49	A
9344100 000	94	0	0	DOOS 400X30 0X120	50	100		38	11	49	A
1000182 0	9	0	0	DOOS 300X20 0X120	25	100		30	18	48	A
1000240 1	53	0	0	DOOS 400X30 0X120	10	100		47	1	48	A
1000336 0	7	0	0	DOOS 300X20 0X120	12	100		34	14	48	A
1001418 8	499	0	0	DOOS 400X30 0X120	400	100		23	25	48	A
1003237 9								32	16	48	A
9014209 303	50	0	0	DOOS 400X30 0X120	18	100		46	2	48	A
9126404 521	2	0	0					48	0	48	A
9176977 651				DOOS 400X30 0X120	15	100		43	5	48	A
9260890 040	319	0	0	DOOS 400X30 0X120	365	100		48	0	48	A
9965107 000	111	0	0	DOOS 400X30 0X120	18	100		48	0	48	A
1000357 5	1	0	0	DOOS 300X20 0X120	20	100		32	15	47	A
7396228	4	1	0	DOOS 300X20 0X120	9	100		47	0	47	A
9011407 272	9	0	0	DOOS 200X15 0X100	12	100		47	0	47	A
9176990 900	409	0	20	DOOS 400X30 0X120	3000	100		47	0	47	A
9325312 000								46	1	47	A
9325322 632								42	5	47	A

9421990 172	1171	0	0	DOOS 300X20 0X120	200	100	46	1	47	A
9442927 702	18	0	0	DOOS 400X30 0X120	13	100	45	2	47	A
9736001 720							47	0	47	A
9753010 007	26	0	0	DOOS 400X30 0X120	20	100	43	4	47	A
9968107 000	15	0	0	DOOS 400X30 0X120	20	100	46	1	47	A
1000345 6	12	0	0	DOOS 300X20 0X120	20	100	29	17	46	A
1000599 3	18	0	0	DOOS 300X20 0X120	32	100	37	9	46	A
1001096 8	14	0	0	DOOS 400X30 0X120	26	100	31	15	46	A
1004651 6	11	0	0	DOOS 300X20 0X120	10	100	35	11	46	A
7382003							46	0	46	A
7394724							46	0	46	A
9011609 260	39	0	0	DOOS 300X20 0X120	24	100	42	4	46	A
9062477 650	18	0	0	DOOS 400X30 0X120	15	100	43	3	46	A
9100800 456	15	0	0	DOOS 400X30 0X120	2	100	46	0	46	A
9176957 651				DOOS 300X20 0X120	6	100	34	12	46	A
9412818 350	31	0	0	DOOS 400X30 0X120	20	100	44	2	46	A
9413990 187	325	0	0	DOOS 400X30 0X120	250	100	42	4	46	A
9750240 001	19	0	0	DOOS 400X30 0X120	23	100	45	1	46	A
9751500 003	28	0	0	DOOS 400X30 0X120	21	100	32	14	46	A
9751500 007	42	0	0	DOOS 400X30 0X120	20	100	34	12	46	A
9857026	15	0	0	DOOS 300X20 0X120	5	100	46	0	46	A
9962507 001	57	0	0	DOOS 400X30 0X120	20	100	45	1	46	A
9967208 001	89	0	0	DOOS 400X30 0X120	20	100	44	2	46	A
1000601 0	1	0	0	DOOS 200X15 0X100	10	100	34	11	45	A
1001489 7	487	0	0	DOOS 300X20 0X120	300	100	24	21	45	A
1003575 7	53	0	0	DOOS 400X30 0X170	7	100	36	9	45	A

1003719 7							34	11	45	A
3711255 026							0	45	45	A
7273435	34	0	0	DOOS 400X30 0X120	14	100	43	2	45	A
9063590 090	293	0	0	DOOS 300X20 0X120	250	100	43	2	45	A
9127690 120	1142	0	0	DOOS 400X30 0X120	250	100	45	0	45	A
9304104 106	37	0	0	DOOS 300X20 0X120	30	100	37	8	45	A
9344200 000	44	0	0	DOOS 400X30 0X120	50	100	32	13	45	A
9410990 177	387	0	0	DOOS 300X20 0X120	150	100	45	0	45	A
9440117 552	39	0	0	DOOS 400X30 0X120	13	100	43	2	45	A
9967208 202	75	0	0	DOOS 400X30 0X120	19	100	34	11	45	A
1000025 3							26	18	44	A
1000341 9	10	0	0	DOOS 200X15 0X100	12	100	32	12	44	A
1000489 5	205	0	0	DOOS 400X30 0X120	50	100	39	5	44	A
1001418 9	10	0	0	DOOS 300X20 0X120	120	100	31	13	44	A
1001533 6	33	0	0	DOOS 300X20 0X120	75	100	34	10	44	A
1002660 6	4	0	0	DOOS 300X20 0X120	12	100	33	11	44	A
1003405 5	10	0	0	DOOS 400X30 0X120	3	100	36	8	44	A
3466248	137	0	0	DOOS 400X30 0X120	50	100	35	9	44	A
3467801	48	0	0	DOOS 400X30 0X120	30	100	40	4	44	A
9014209 260	74	0	0	DOOS 300X20 0X120	25	100	38	6	44	A
9063590 080	1105	0	0	DOOS 400X30 0X120	500	100	44	0	44	A
9064990 470	49	0	0	DOOS 200X15 0X100	200	100	44	0	44	A
9066990 170	339	0	0	DOOS 400X30 0X120	250	100	36	8	44	A
9091200 310	24	0	0	DOOS 400X30 0X120	8	100	37	7	44	A
9120080 030	93	0	0	DOOS 300X20 0X120	200	100	44	0	44	A
9126617 533	89	0	0	DOOS 400X30 0X120	25	100	44	0	44	A

9136400 501							44	0	44	A
9256601 000	77	0	0	DOOS 400X30 0X170	16	100		35	9	44 A
9400090 001	32	0	0	DOOS 400X30 0X120	50	100		44	0	44 A
9422890 175	42	0	0	DOOS 200X15 0X100	100	100		44	0	44 A
9442927 701	30	0	0	DOOS 400X30 0X120	13	100		44	0	44 A
9963107 001				DOOS 400X30 0X120	26	100		44	0	44 A
1000025 9							33	10	43	A
1000137 9	52	0	0	DOOS 200X15 0X100	20	100		23	20	43 A
1002804 6	25	0	0	DOOS 400X30 0X120	50	100		32	11	43 A
7962053	68	0	0	DOOS 400X30 0X120	15	100		39	4	43 A
9064617 651				DOOS 400X30 0X120	15	100		41	2	43 A
9074417 092							43	0	43	A
9080200 300	22	0	0	DOOS 300X20 0X120	30	100		27	16	43 A
9250004 900	95	0	0	DOOS 300X20 0X120	30	100		37	6	43 A
9413990 173	24	0	0	DOOS 300X20 0X120	100	100		43	0	43 A
9413990 182	247	0	0	DOOS 400X30 0X120	300	100		40	3	43 A
9421990 176	1762	0	0	DOOS 400X30 0X120	250	100		43	0	43 A
1001978 0				DOOS 200X15 0X100	1	100		27	15	42 A
1002121 6								25	17	42 A
1004092 4								40	2	42 A
3467809								37	5	42 A
7170059								42	0	42 A
7170379	605	0	0	DOOS 300X20 0X120	750	100		42	0	42 A
9001387 270	36	0	0	DOOS 400X30 0X170	15	100		35	7	42 A
9081107 260	43	0	0	DOOS 400X30 0X120	78	100		33	9	42 A
9304104 608								42	0	42 A
9410990 006	197	0	0	DOOS 300X20 0X120	44	100		42	0	42 A
9410990 007	61	0	0	DOOS 300X20 0X120	25	100		42	0	42 A

9660090 000	67	0	0	DOOS 300X20 0X120	200	100	42	0	42	A
9962207 001	7	0	0	DOOS 400X30 0X120	20	100	40	2	42	A
1001831 7	266	0	0	DOOS 200X15 0X100	250	100	40	1	41	A
7170382	417	0	0	DOOS 300X20 0X120	300	100	41	0	41	A
9013209 305	24	0	0	DOOS 300X20 0X120	8	100	37	4	41	A
9064966 652	79	0	0	DOOS 400X30 0X120	15	100	37	4	41	A
9126617 502	1	0	0	DOOS 400X30 0X170	50	100	41	0	41	A
9270504 530							41	0	41	A
9325306 721							33	8	41	A
9410990 187	660	0	0	DOOS 400X30 0X120	250	100	39	2	41	A
9411990 181	403	0	0	DOOS 400X30 0X120	200	100	40	1	41	A
9412818 400							38	3	41	A
9751500 000	112	0	0	DOOS 400X30 0X120	22	100	32	9	41	A
7269572	6	0	0	DOOS 400X30 0X120	15	100	37	3	40	A
7270535	66	0	0	DOOS 400X30 0X120	15	100	38	2	40	A
9020390 016	1093	0	150	DOOS 400X30 0X120	1500	100	39	1	40	A
9126904 521	30	0	0	DOOS 400X30 0X170	50	100	40	0	40	A
9127990 702	665	0	0	DOOS 400X30 0X120	350	100	39	1	40	A
9162255 021	20	0	0	DOOS 400X30 0X120	20	100	40	0	40	A
9176908 652							24	16	40	A
9176957 652				DOOS 400X30 0X120	15	100	30	10	40	A
9413990 186	554	0	0	DOOS 400X30 0X120	500	100	40	0	40	A
1000369 3	11	0	0	DOOS 200X15 0X100	12	100	26	13	39	A
1000457 3	20	0	0	DOOS 400X30 0X170	3	100	8	31	39	A
3714923 055							12	27	39	A
7226833				DOOS 200X15 0X100	4	100	39	0	39	A

7382001	94	0	0	DOOS 400X30 0X120	55	100					
7385509							39	0	39	A	
7396208	13	0	0	DOOS 300X20 0X120	9	100			39	0	39 A
7396212	25	0	0	DOOS 300X20 0X120	12	100			39	0	39 A
9001690 100	357	0	0	DOOS 400X30 0X120	500	100			39	0	39 A
9016390 860	1697	0	0	DOOS 200X15 0X100	350	100			26	13	39 A
9063566 652	91	0	0	DOOS 400X30 0X120	15	100			36	3	39 A
9173955 650									39	0	39 A
9340500 550	26	0	0	DOOS 400X30 0X120	5	100			31	8	39 A
9341900 502	10	0	0	DOOS 400X30 0X120	5	100			36	3	39 A
9413990 181	33	0	0	DOOS 400X30 0X120	500	100			37	2	39 A
9492690 010	5	0	0	DOOS 200X15 0X100	250	100			39	0	39 A
9730200 000	15	0	0	DOOS 400X30 0X120	4	100			36	3	39 A
9967507 001	10	0	0	DOOS 400X30 0X120	20	100			32	7	39 A
1000050 0	6	0	0	DOOS 200X15 0X100	6	100			22	16	38 A
1000331 0	2	0	1	DOOS 400X30 0X120	13	100			28	10	38 A
1000354 5	8	0	0	DOOS 300X20 0X120	20	100			22	16	38 A
1000372 1	8	0	0	DOOS 300X20 0X120	20	100			20	18	38 A
1000458 8	18	0	0	DOOS 400X30 0X170	3	100			10	28	38 A
1000508 7	11	0	0	DOOS 400X30 0X120	3	100			29	9	38 A
1001406 9									21	17	38 A
7266608	5	0	0	DOOS 400X30 0X120	9	100			36	2	38 A
9021000 435				DOOS 300X20 0X120	20	100			38	0	38 A
9063566 651	79	0	0	DOOS 400X30 0X120	15	100			32	6	38 A
9091000 632				DOOS 300X20 0X120	6	100			38	0	38 A
9135590 051	956	0	0	DOOS 400X30 0X120	250	100			35	3	38 A

9136690 074	1936	0	0	DOOS 400X30 0X120	500	100	36	2	38	A
9172321 002							33	5	38	A
9325306 722	35	0	0	DOOS 400X30 0X120	10	100	30	8	38	A
9967208 201	75	0	0	DOOS 400X30 0X120	19	100	30	8	38	A
9967507 201	9	0	0	DOOS 400X30 0X120	20	100	33	5	38	A
1000158 5							7	30	37	A
1000365 5	106	0	0	DOOS 300X20 0X120	50	100	18	19	37	A
1001119 2	6	0	0	DOOS 400X30 0X120	12	100	37	0	37	A
1001119 4							37	0	37	A
1001384 7	5	0	0	DOOS 400X30 0X120	10	100	22	15	37	A
1002749 7	29	0	0	DOOS 400X30 0X170	6	100	30	7	37	A
9100890 030	391	0	0	DOOS 400X30 0X120	500	100	37	0	37	A
9144900 552	141	0	4	DOOS 400X30 0X220	50	100	37	0	37	A
9174937 001	5	0	0	DOOS 300X20 0X120	10	100	36	1	37	A
9200112 001	9	0	4	DOOS 400X30 0X120	50	100	37	0	37	A
9411990 174	11	0	0	DOOS 300X20 0X120	50	100	37	0	37	A
9491190 236	5	0	0	DOOS 400X30 0X120	25	100	37	0	37	A
9751500 004	48	0	0	DOOS 400X30 0X120	19	100	28	9	37	A
9753010 006	16	0	0	DOOS 400X30 0X120	21	100	35	2	37	A
1000035 8	5	0	0	DOOS 300X20 0X120	5	100	24	12	36	A
1000351 5	7	0	0	DOOS 200X15 0X100	10	100	18	18	36	A
1000367 1							18	18	36	A
1000454 0	40	0	0	DOOS 400X30 0X120	50	100	9	27	36	A
1001360 1	45	0	0	DOOS 400X30 0X120	50	100	26	10	36	A
1003408 5	13	0	0	DOOS 400X30 0X120	17	100	22	14	36	A
3714913 005							3	33	36	A

7263435	48	0	0	DOOS 400X30 0X120	15	100	35	1	36	A
7326118				DOOS 300X20 0X120	12	100	36	0	36	A
9064996 652	6	0	0	DOOS 400X30 0X120	15	100	34	2	36	A
9091200 399	2	0	0	DOOS 400X30 0X220	1	100	22	14	36	A
9125590 170	55	0	0	DOOS 200X15 0X100	50	100	36	0	36	A
9180400 020							33	3	36	A
9304104 826	15	0	1	DOOS 300X20 0X120	25	100	36	0	36	A
9879114 402	49	0	0	DOOS 400X30 0X120	15	100	35	1	36	A
9962407 001	143	0	0	DOOS 400X30 0X120	20	100	36	0	36	A
1000026 8	8	0	0	DOOS 300X20 0X120	15	100	35	0	35	A
1000099 2	2	0	0	DOOS 400X30 0X120	24	100	20	15	35	A
1000267 3	1	0	0	DOOS 400X30 0X120	11	100	22	13	35	A
1000337 1	4	0	0	DOOS 300X20 0X120	14	100	24	11	35	A
1000337 4	8	0	0	DOOS 300X20 0X120	14	100	23	12	35	A
1001054 9	11	0	0	DOOS 300X20 0X120	16	100	24	11	35	A
1001379 5	10	0	0	DOOS 400X30 0X120	13	100	26	9	35	A
1001934 4	336	0	0	DOOS 400X30 0X170	60	100	34	1	35	A
1003405 4	13	0	0	DOOS 400X30 0X120	3	100	33	2	35	A
1004651 1	83	0	0	DOOS 400X30 0X120	25	100	24	11	35	A
1004651 5	6	0	0	DOOS 300X20 0X120	10	100	24	11	35	A
3670000 327							1	34	35	A
7221042	10	0	0	DOOS 400X30 0X120	15	100	35	0	35	A
7269570	13	0	0	DOOS 400X30 0X120	15	100	33	2	35	A
9005500 535							35	0	35	A
9020202 250	79	0	0	DOOS 400X30 0X170	240	100	26	9	35	A
9064990 462	253	0	0	DOOS 300X20 0X120	250	100	34	1	35	A

9125592 700							35	0	35	A
9152355 002				DOOS 400X30 0X120	5	100		35	0	35 A
9174947 001				DOOS 400X30 0X120	25	100		27	8	35 A
9174947 002	52	0	0	DOOS 400X30 0X120	25	100		27	8	35 A
9491890 030	22	0	0	DOOS 300X20 0X120	100	100		35	0	35 A
9874114 251								30	5	35 A
1000160 9	4	0	0	DOOS 300X20 0X120	30	100		34	0	34 A
1000267 4								20	14	34 A
1000529 2								24	10	34 A
1001389 8								27	7	34 A
1001978 2	6	0	0	DOOS 300X20 0X120	14	100		22	12	34 A
1002750 7	29	0	0	DOOS 400X30 0X120	21	100		27	7	34 A
1002758 7	4	0	0	DOOS 200X15 0X100	14	100		22	12	34 A
3466011	63	0	0	DOOS 400X30 0X120	40	100		30	4	34 A
3467701	59	0	0	DOOS 400X30 0X120	50	100		30	4	34 A
3467703								28	6	34 A
7266446								34	0	34 A
9091200 011	73	0	0	DOOS 400X30 0X120	84	100		25	9	34 A
9091200 021	172	0	0	DOOS 400X30 0X120	96	100		25	9	34 A
9127990 701	116	0	0	DOOS 300X20 0X120	250	100		34	0	34 A
9176908 651								20	14	34 A
9204117 030				DOOS 200X15 0X100	10	100		34	0	34 A
9280700 000	35	0	0	DOOS 400X30 0X120	24	100		34	0	34 A
9422890 170	63	0	0	DOOS 200X15 0X100	150	100		34	0	34 A
9554100 000	118	0	0	DOOS 300X20 0X120	21	100		34	0	34 A
9751500 002	10	0	0	DOOS 400X30 0X120	20	100		26	8	34 A
9967507 202	131	0	0	DOOS 400X30 0X120	20	100		31	3	34 A
1000445 7	115	0	0	DOOS 300X20 0X120	50	100		30	3	33 A

1002848 4	68	0	0	DOOS 400X30 0X120	6	100	28	5	33	A
1003676 9							18	15	33	A
1004805 4	228	0	0	DOOS 400X30 0X120	25	100	28	5	33	A
7395692	35	0	0	DOOS 400X30 0X120	14	100	23	10	33	A
7962044	54	0	0	DOOS 400X30 0X120	15	100	31	2	33	A
9010609 260	130	0	0	DOOS 400X30 0X120	68	100	29	4	33	A
9020203 220	52	0	0	DOOS 400X30 0X120	100	100	23	10	33	A
9091200 061	45	0	0	DOOS 300X20 0X120	42	100	24	9	33	A
9152255 001	24	0	0	DOOS 400X30 0X120	20	100	33	0	33	A
9344300 000	51	0	0	DOOS 300X20 0X120	20	100	31	2	33	A
9411990 173	65	0	0	DOOS 300X20 0X120	100	100	33	0	33	A
1000103 2	3	0	0	DOOS 300X20 0X120	25	100	18	14	32	A
1000231 1							32	0	32	A
1000335 9	7	0	0	DOOS 300X20 0X120	12	100	20	12	32	A
1001361 8	4	0	0	DOOS 300X20 0X120	30	100	29	3	32	A
1001489 8							22	10	32	A
1002095 7	33	0	0	DOOS 400X30 0X120	24	100	21	11	32	A
1004092 7	208	0	0	DOOS 400X30 0X120	300	100	32	0	32	A
7262320	13	0	0	DOOS 400X30 0X120	15	100	26	6	32	A
7262660							29	3	32	A
9013109 260	363	0	0	DOOS 400X30 0X120	71	100	30	2	32	A
9153355 001	1	0	0	DOOS 400X30 0X120	10	100	32	0	32	A
9266104 000	103	0	0	DOOS 400X30 0X170	30	100	29	3	32	A
9270504 600	9	0	0	DOOS 400X30 0X120	20	100	30	2	32	A
9413990 179				DOOS 300X20 0X120	200	100	32	0	32	A
9421990 177	295	0	0	DOOS 300X20 0X120	150	100	32	0	32	A
9491390 020							32	0	32	A

9700000 100	122	0	0	DOOS 400X30 0X120	100	100	32	0	32	A
9751530 002	32	0	0	DOOS 400X30 0X120	14	100	26	6	32	A
1000274 5							31	0	31	A
1000336 1	3	0	0	DOOS 300X20 0X120	9	100	23	8	31	A
1000425 4	3	0	0	DOOS 300X20 0X120	2	100	19	12	31	A
1000458 0	3	0	0	DOOS 400X30 0X120	1	100	31	0	31	A
1002134 8	2	0	0	DOOS 400X30 0X120	4	100	22	9	31	A
1002753 8	65	0	0	DOOS 300X20 0X120	50	100	28	3	31	A
1003091 5							24	7	31	A
1003826 1							31	0	31	A
1003860 2	57	0	0	DOOS 200X15 0X100	250	100	25	6	31	A
3590111 900							0	31	31	A
7262011	30	0	0	DOOS 400X30 0X120	15	100	29	2	31	A
7262661	45	0	0	DOOS 400X30 0X120	15	100	26	5	31	A
7390431	1	0	0	DOOS 400X30 0X170	3	100	17	14	31	A
9011190 111	45	0	0	DOOS 400X30 0X120	1000	100	31	0	31	A
9064990 461	489	0	0	DOOS 300X20 0X120	150	100	30	1	31	A
9125617 535	38	0	0	DOOS 400X30 0X120	20	100	31	0	31	A
9176990 660	1170	0	0	DOOS 300X20 0X120	250	100	31	0	31	A
9341900 551	1	0	0	DOOS 400X30 0X120	5	100	27	4	31	A
9342700 700	21	0	0	DOOS 400X30 0X120	5	100	28	3	31	A
9700131 001	57	0	0	DOOS 400X30 0X120	19	100	22	9	31	A
9753010 004	137	0	0	DOOS 400X30 0X120	20	100	31	0	31	A
9874114 252				DOOS 400X30 0X120	20	100	25	6	31	A
9963507 001	33	0	0	DOOS 400X30 0X120	20	100	29	2	31	A
1000017 2							20	10	30	A

1000312 0				DOOS 200X15 0X100	4	100	30	0	30	A
1000337 9	2	0	0	DOOS 300X20 0X120	15	100	21	9	30	A
1000364 2				DOOS 300X20 0X120	8	100	22	8	30	A
1001058 8				DOOS 200X15 0X100	8	100	23	7	30	A
1001384 2				DOOS 400X30 0X120	12	100	20	10	30	A
1002498 5	3	0	0	DOOS 300X20 0X120	18	100	21	9	30	A
1002743 8							1	29	30	A
1002766 8	33	0	0	DOOS 400X30 0X170	5	100	23	7	30	A
1003575 8	31	0	0	DOOS 400X30 0X170	7	100	30	0	30	A
1004651 3	10	0	0	DOOS 400X30 0X120	25	100	18	12	30	A
1004652 2	12	0	0	DOOS 300X20 0X120	12	100	27	3	30	A
3700210 040							0	30	30	A
9011107 031	27	0	0	DOOS 400X30 0X120	50	100	24	6	30	A
9066990 000	77	0	0	DOOS 300X20 0X120	200	100	29	1	30	A
9081607 260	29	0	0	DOOS 300X20 0X120	18	100	25	5	30	A
9256604 000							26	4	30	A
9317006 060	148	0	0	DOOS 400X30 0X120	30	100	29	1	30	A
9325206 721	8	0	0	DOOS 400X30 0X170	6	100	26	4	30	A
9356900 701	4	0	0	DOOS 400X30 0X120	5	100	26	4	30	A
9400090 187	939	0	0	DOOS 400X30 0X120	420	100	28	2	30	A
9410917 501	9	0	0	DOOS 400X30 0X120	15	100	30	0	30	A
9413990 174				DOOS 300X20 0X120	250	100	30	0	30	A
9751620 001	26	0	0	DOOS 400X30 0X120	24	100	19	11	30	A
9964407 000	99	0	0	DOOS 400X30 0X120	20	100	30	0	30	A
9968207 000	33	0	0	DOOS 400X30 0X120	20	100	30	0	30	A
1000178 6	5	0	0	DOOS 300X20 0X120	20	100	15	14	29	A

1000236 6	273	0	0	DOOS 300X20 0X120	100	100	28	1	29	A
1000351 6	6	0	0	DOOS 200X15 0X100	12	100	15	14	29	A
1000459 4				DOOS 400X30 0X120	1	100	29	0	29	A
1000494 9	5	0	0	DOOS 400X30 0X170	5	100	19	10	29	A
1001385 6							18	11	29	A
1002648 6							23	6	29	A
1002659 9	2	0	0	DOOS 200X15 0X100	16	100	18	11	29	A
1002752 5							27	2	29	A
1003408 2	11	0	0	DOOS 400X30 0X120	11	100	14	15	29	A
1003757 0	285	0	0	DOOS 300X20 0X120	300	100	29	0	29	A
1003839 6				DOOS 400X30 0X120	12	100	22	7	29	A
3466242	26	0	0	DOOS 400X30 0X120	40	100	20	9	29	A
9011109 051	25	0	0	DOOS 300X20 0X120	32	100	27	2	29	A
9125690 270	22	0	0	DOOS 200X15 0X100	500	100	29	0	29	A
9325222 631	13	0	0	DOOS 400X30 0X120	7	100	26	3	29	A
9410917 502	18	0	0	DOOS 300X20 0X120	7	100	29	0	29	A
9869190 111	80	0	0	DOOS 300X20 0X120	250	100	29	0	29	A
1000099 7	1	0	0	DOOS 300X20 0X120	14	100	16	12	28	A
1000161 2							18	10	28	A
1000624 2	25	0	0	DOOS 400X30 0X120	15	100	26	2	28	A
1001084 2	8	0	0	DOOS 400X30 0X120	12	100	22	6	28	A
1002767 4							22	6	28	A
1003404 5							16	12	28	A
7225124	50	0	0	DOOS 400X30 0X120	50	100	25	3	28	A
7226450							0	28	28	A
7272435	21	0	0	DOOS 400X30 0X120	15	100	27	1	28	A
7272660							27	1	28	A
7272661							27	1	28	A

9000734 051	25	0	0	DOOS 400X30 0X120	40	100	28	0	28	A
9063890 090	102	0	0	DOOS 300X20 0X120	300	100	27	1	28	A
9091200 304	11	0	0	DOOS 400X30 0X120	27	100	24	4	28	A
9100800 460							28	0	28	A
9125505 533							28	0	28	A
9127690 220	237	0	0	DOOS 400X30 0X120	300	100	28	0	28	A
9127990 181	161	0	0	DOOS 300X20 0X120	250	100	28	0	28	A
9136690 073	922	0	0	DOOS 400X30 0X220	500	100	26	2	28	A
9293002 720	16	0	0	DOOS 400X30 0X120	20	100	28	0	28	A
9492090 136	75	0	0	DOOS 300X20 0X120	200	100	28	0	28	A
9967407 202	30	0	0	DOOS 400X30 0X120	19	100	27	1	28	A
1000024 7	114	0	0	DOOS 300X20 0X120	350	100	13	14	27	A
1000176 5							3	24	27	A
1001360 0	36	0	0	DOOS 400X30 0X120	50	100	26	1	27	A
1002145 0							21	6	27	A
1002659 8	10	0	0	DOOS 200X15 0X100	16	100	13	14	27	A
1002753 6							24	3	27	A
1002984 6							19	8	27	A
1003886 9	17	0	0	DOOS 400X30 0X120	18	100	20	7	27	A
3466070							21	6	27	A
3467705	23	0	0	DOOS 300X20 0X120	26	100	23	4	27	A
3590116 900							0	27	27	B
7276535	32	0	0	DOOS 400X30 0X120	15	100	26	1	27	B
7326119	2	0	0	DOOS 300X20 0X120	9	100	27	0	27	B
7962014	10	0	0	DOOS 400X30 0X120	19	100	25	2	27	B
9011109 305				DOOS 400X30 0X120	20	100	26	1	27	B
9063890 080	202	0	0	DOOS 400X30 0X120	500	100	25	2	27	B
9066404 671							27	0	27	B

9068700 550	23	0	0				27	0	27	B
9091200 071	19	0	0	DOOS 300X20 0X120	50	100	22	5	27	B
9127990 182	61	0	0	DOOS 300X20 0X120	250	100	26	1	27	B
9175926 656							21	6	27	B
9175926 657	62	0	0	DOOS 300X20 0X120	12	100	26	1	27	B
9267004 000	26	0	0	DOOS 400X30 0X120	20	100	26	1	27	B
9283006 010	21	0	0	DOOS 300X20 0X120	25	100	27	0	27	B
9341700 580				DOOS 400X30 0X120	5	100	26	1	27	B
9700235 002	55	0	0	DOOS 400X30 0X120	16	100	24	3	27	B
9748601 002	12	0	0				25	2	27	B
9751500 001	40	0	0	DOOS 400X30 0X120	21	100	23	4	27	B
9751530 012	6	0	0	DOOS 400X30 0X120	13	100	25	2	27	B
9751620 004	43	0	0	DOOS 400X30 0X120	24	100	19	8	27	B
9751710 001	122	0	0	DOOS 400X30 0X120	16	100	19	8	27	B
1000031 6	1	0	0	DOOS 300X20 0X120	3	100	15	11	26	B
1000160 8	4	0	0	DOOS 200X15 0X100	10	100	15	11	26	B
1000273 8	11	0	0	DOOS 300X20 0X120	20	100	26	0	26	B
1000354 3	5	0	0	DOOS 300X20 0X120	20	100	18	8	26	B
1000369 2	2	0	0	DOOS 200X15 0X100	12	100	14	12	26	B
1000494 8	9	0	0	DOOS 400X30 0X170	4	100	20	6	26	B
1001045 3	20	0	0	DOOS 200X15 0X100	20	100	18	8	26	B
1003967 2	10	0	0	DOOS 400X30 0X120	12	100	14	12	26	B
7225683							15	11	26	B
7262016	51	0	0	DOOS 400X30 0X120	15	100	18	8	26	B
7348408	3	0	0	DOOS 300X20 0X120	12	100	26	0	26	B
7396305	2	0	0	DOOS 300X20 0X120	9	100	26	0	26	B
7962070							14	12	26	B

9005404 491	2	0	0	DOOS 400X30 0X120	5	100	26	0	26	B
9011107 011	25	0	0	DOOS 400X30 0X120	50	100	15	11	26	B
9011109 041	18	0	0	DOOS 300X20 0X120	34	100	25	1	26	B
9174937 002	13	0	0	DOOS 400X30 0X120	25	100	25	1	26	B
9176925 652	38	0	0	DOOS 400X30 0X120	15	100	18	8	26	B
9260006 530							26	0	26	B
9307100 000	749	0	0	DOOS 400X30 0X120	200	100	23	3	26	B
9315300 000	28	0	0	DOOS 400X30 0X120	35	100	25	1	26	B
9317105 000	44	0	0	DOOS 400X30 0X120	45	100	21	5	26	B
9351700 720	27	0	0	DOOS 400X30 0X120	5	100	23	3	26	B
9362490 010	54	0	0	DOOS 300X20 0X120	120	100	26	0	26	B
9564090 000	175	0	0	DOOS 300X20 0X120	1000	100	18	8	26	B
9751620 013	38	0	0	DOOS 300X20 0X120	12	100	14	12	26	B
9969207 100	31	0	0	DOOS 400X30 0X120	21	100	24	2	26	B
1000158 6	3	0	0	DOOS 300X20 0X120	21	100	13	12	25	B
1000228 2	2	0	0	DOOS 400X30 0X120	5	100	25	0	25	B
1000313 2	3	0	0	DOOS 400X30 0X120	5	100	19	6	25	B
1000339 4				DOOS 300X20 0X120	12	100	16	9	25	B
1000356 2	2	0	0	DOOS 200X15 0X100	10	100	16	9	25	B
1001372 2							25	0	25	B
1001381 4							18	7	25	B
1001540 4	5	0	0	DOOS 400X30 0X120	3	100	20	5	25	B
1002607 3	3	0	0	DOOS 400X30 0X120	10	100	21	4	25	B
1003861 1	3	0	0	DOOS 400X30 0X120	5	100	24	1	25	B
1004092 5							25	0	25	B
1004651 0	18	0	0	DOOS 400X30 0X120	25	100	18	7	25	B
3467800							21	4	25	B

3700055 050							0	25	25	B
7226832	5	0	0	DOOS 400X30 0X120	20	100				
7262053	110	0	0	DOOS 400X30 0X120	9	100	25	0	25	B
7962048	47	0	0	DOOS 400X30 0X120	15	100	19	6	25	B
9001690 200	420	0	0	DOOS 400X30 0X120	500	100	25	0	25	B
9011107 305	46	0	0	DOOS 400X30 0X120	27	100	24	1	25	B
9013209 010							20	5	25	B
9126690 170	37	0	0	DOOS 300X20 0X120	200	100	25	0	25	B
9130090 000	29	0	0	DOOS 200X15 0X100	100	100	25	0	25	B
9135500 502	46	0	0	DOOS 400X30 0X170	50	100	25	0	25	B
9152355 001	3	0	0	DOOS 400X30 0X120	12	100	25	0	25	B
9190117 655				DOOS 400X30 0X120	25	100	21	4	25	B
9250006 900	42	0	0	DOOS 300X20 0X120	15	100	21	4	25	B
9260390 040	280	0	0	DOOS 300X20 0X120	500	100	25	0	25	B
9341900 722	50	0	0	DOOS 400X30 0X120	5	100	24	1	25	B
9413990 184	265	0	0	DOOS 400X30 0X120	250	100	24	1	25	B
9421990 187	48	0	0	DOOS 200X15 0X100	100	100	23	2	25	B
9753050 002	100	0	0	DOOS 400X30 0X120	46	100	18	7	25	B
9965307 000	67	0	0	DOOS 400X30 0X120	18	100	25	0	25	B
1000090 5				DOOS 200X15 0X100	50	100	23	1	24	B
1000113 9	13	0	0	DOOS 200X15 0X100	100	100	15	9	24	B
1001358 4	7	0	0	DOOS 400X30 0X120	1	100	21	3	24	B
1001541 0							10	14	24	B
1001545 1	12	0	0	DOOS 400X30 0X120	3	100	17	7	24	B
1002660 7				DOOS 300X20 0X120	12	100	15	9	24	B
1002990 3							16	8	24	B

1003103 6	6	0	0	DOOS 300X20 0X120	200	100	12	12	24	B
3593419 790							0	24	24	B
3670000 302							2	22	24	B
3704154 022							0	24	24	B
7170400	60	0	0	DOOS 200X15 0X100	200	100	24	0	24	B
7262093	40	0	0	DOOS 400X30 0X120	9	100	23	1	24	B
7266556	33	0	0	DOOS 400X30 0X120	10	100	18	6	24	B
7266604	2	0	0	DOOS 400X30 0X120	9	100	23	1	24	B
7396218	3	0	0	DOOS 300X20 0X120	14	100	24	0	24	B
7396792	12	0	0	DOOS 200X15 0X100	25	100	24	0	24	B
7962050							24	0	24	B
9013209 030	153	0	0	DOOS 300X20 0X120	20	100	24	0	24	B
9064940 652	20	0	0	DOOS 400X30 0X120	15	100	24	0	24	B
9081107 051	34	0	0	DOOS 300X20 0X120	48	100	19	5	24	B
9100800 453							24	0	24	B
9101400 000	68	0	0	DOOS 400X30 0X120	36	100	21	3	24	B
9103623 152	11	0	0	DOOS 400X30 0X120	15	100	23	1	24	B
9193600 000	564	0	0	DOOS 300X20 0X120	200	100	19	5	24	B
9325307 000	11	0	0	DOOS 400X30 0X120	20	100	18	6	24	B
9330000 000	92	0	0	DOOS 400X30 0X120	20	100	23	1	24	B
9341700 850	22	0	0	DOOS 400X30 0X120	5	100	22	2	24	B
9341700 920	19	0	0	DOOS 400X30 0X120	5	100	21	3	24	B
9341900 552	13	0	0	DOOS 400X30 0X120	5	100	20	4	24	B
9356900 702	20	0	0	DOOS 400X30 0X120	5	100	20	4	24	B
9362490 000	22	0	0	DOOS 200X15 0X100	50	100	24	0	24	B
9413990 178	37	0	0	DOOS 300X20 0X120	200	100	24	0	24	B
9421990 181	115	0	0	DOOS 300X20 0X120	150	100	24	0	24	B

9562700 000	141	0	0	DOOS 300X20 0X120	500	100	17	7	24	B
9700131 002	38	0	0	DOOS 400X30 0X120	17	100	21	3	24	B
9751500 005	47	0	0	DOOS 300X20 0X120	12	100	22	2	24	B
9965207 000	3	0	0	DOOS 400X30 0X120	20	100	23	1	24	B
1000465 2							13	10	23	B
1001118 8	1	0	0	DOOS 300X20 0X120	25	100	6	17	23	B
1001373 9				DOOS 400X30 0X120	10	100	17	6	23	B
1001381 8	7	0	0	DOOS 400X30 0X120	3	100	14	9	23	B
1002499 7	8	0	1	DOOS 200X15 0X100	24	100	15	8	23	B
1003407 3	7	0	0	DOOS 400X30 0X120	8	100	13	10	23	B
1003859 6	7	0	0	DOOS 400X30 0X120	5	100	18	5	23	B
1004651 7	160	0	0	DOOS 400X30 0X120	20	100	18	5	23	B
3466353	34	0	0	DOOS 200X15 0X100	50	100	21	2	23	B
3590132 920							1	22	23	B
3670000 364							1	22	23	B
3713893 055							0	23	23	B
7264604	31	0	0	DOOS 400X30 0X120	15	100	20	3	23	B
7264605	7	0	0	DOOS 400X30 0X120	15	100	21	2	23	B
7348409	3	0	0	DOOS 300X20 0X120	9	100	23	0	23	B
7972005	5	0	0	DOOS 200X15 0X100	20	100	23	0	23	B
9000490 010	108	0	0	DOOS 300X20 0X120	350	100	22	1	23	B
9011107 041	18	0	0	DOOS 300X20 0X120	40	100	16	7	23	B
9064990 191	206	0	0	DOOS 300X20 0X120	220	100	22	1	23	B
9064996 651	70	0	0	DOOS 400X30 0X120	15	100	19	4	23	B
9103624 151	10	0	0	DOOS 400X30 0X120	15	100	18	5	23	B
9126692 700	8	0	0	DOOS 200X15 0X100	50	100	23	0	23	B

9136400 502	4	0	0	DOOS 400X30 0X170	50	100	23	0	23	B
9176902 021				DOOS 400X30 0X120	25	100	19	4	23	B
9342900 922	13	0	0	DOOS 400X30 0X120	5	100	19	4	23	B
9751530 003	26	0	0	DOOS 400X30 0X120	14	100	20	3	23	B
9869190 112	125	0	0	DOOS 300X20 0X120	150	100	23	0	23	B
1000123 9	2	0	0	DOOS 300X20 0X120	20	100	12	10	22	B
1000273 6							13	9	22	B
1000331 3							18	4	22	B
1002660 1				DOOS 200X15 0X100	16	100	14	8	22	B
1002752 3							14	8	22	B
1002990 4	24	0	0	DOOS 300X20 0X120	100	100	14	8	22	B
3467811							17	5	22	B
7225605	18	0	0	DOOS 400X30 0X120	10	100	19	3	22	B
9011007 303	35	0	0	DOOS 300X20 0X120	24	100	12	10	22	B
9011109 031	34	0	0	DOOS 400X30 0X120	68	100	20	2	22	B
9011109 071							21	1	22	B
9016390 760	822	0	0	DOOS 300X20 0X120	1000	100	14	8	22	B
9063590 122	189	0	0	DOOS 300X20 0X120	250	100	20	2	22	B
9064990 900	77	0	0	DOOS 400X30 0X120	250	100	22	0	22	B
9081107 302	10	0	0	DOOS 200X15 0X100	8	100	15	7	22	B
9135690 051	259	0	0	DOOS 300X20 0X120	150	100	20	2	22	B
9153355 002				DOOS 400X30 0X120	10	100	22	0	22	B
9204517 000	22	0	0	DOOS 400X30 0X120	30	100	22	0	22	B
9325219 550	14	0	0	DOOS 400X30 0X120	8	100	12	10	22	B
9346900 721	45	0	0	DOOS 400X30 0X120	5	100	17	5	22	B
9412818 450	27	0	0	DOOS 400X30 0X120	20	100	20	2	22	B
9418518 300	16	0	0	DOOS 300X20 0X120	9	100	22	0	22	B

9421990 182	186	0	0	DOOS 300X20 0X120	195	100	21	1	22	B
9491090 137	8	0	0	DOOS 200X15 0X100	100	100	22	0	22	B
9748601 001	23	0	0	DOOS 400X30 0X120	10	100	20	2	22	B
9950090 120	565	0	0	DOOS 300X20 0X120	150	100	20	2	22	B
1000047 6	1	0	0	DOOS 200X15 0X100	12	100	13	8	21	B
1000464 6							14	7	21	B
1001082 6	4	0	0	DOOS 200X15 0X100	5	100	11	10	21	B
1001119 0	11	0	0	DOOS 200X15 0X100	7	100	5	16	21	B
1001545 6							15	6	21	B
1003859 7	7	0	0	DOOS 200X15 0X100	40	100	19	2	21	B
3467815	19	0	0	DOOS 300X20 0X120	20	100	16	5	21	B
3590132 900							0	21	21	B
3704228 250							0	21	21	B
7170057							21	0	21	B
7170200							21	0	21	B
7381558							0	21	21	B
7962036	22	0	0	DOOS 400X30 0X120	15	100	19	2	21	B
9020203 230	51	0	0	DOOS 200X15 0X100	40	100	13	8	21	B
9060590 010				DOOS 200X15 0X100	200	100	21	0	21	B
9064466 652							19	2	21	B
9126604 581				DOOS 400X30 0X170	50	100	21	0	21	B
9176902 022	128	0	0	DOOS 400X30 0X120	25	100	16	5	21	B
9190521 407	42	0	0	DOOS 400X30 0X120	20	100	18	3	21	B
9193500 000	157	0	0	DOOS 300X20 0X120	80	100	15	6	21	B
9256641 030							21	0	21	B
9280700 110				DOOS 300X20 0X120	10	100	21	0	21	B
9317005 000	119	0	0	DOOS 400X30 0X120	45	100	20	1	21	B
9325206 722	7	0	0	DOOS 400X30 0X170	8	100	16	5	21	B

9331000 000	62	0	0	DOOS 400X30 0X120	50	100	19	2	21	B
9410990 172				DOOS 300X20 0X120	250	100	21	0	21	B
9413990 188	405	0	0	DOOS 300X20 0X120	100	100	18	3	21	B
9439047 601				DOOS 400X30 0X120	12	100	21	0	21	B
9439047 602				DOOS 400X30 0X120	12	100	21	0	21	B
9491090 136	8	0	0	DOOS 300X20 0X120	100	100	21	0	21	B
9730401 000	86	0	0	DOOS 400X30 0X120	12	100	21	0	21	B
9751530 004	57	0	0	DOOS 400X30 0X120	14	100	19	2	21	B
9751620 007	12	0	0	DOOS 400X30 0X120	24	100	21	0	21	B
9964507 000	47	0	0	DOOS 400X30 0X120	19	100	20	1	21	B
9967407 201	40	0	0	DOOS 400X30 0X120	20	100	19	2	21	B
1000095 9	2	0	0	DOOS 300X20 0X120	12	100	10	10	20	B
1000116 7	2	0	0	DOOS 300X20 0X120	20	100	11	9	20	B
1000313 8	8	0	0	DOOS 400X30 0X120	5	100	13	7	20	B
1000330 5	2	0	0	DOOS 400X30 0X120	6	100	17	3	20	B
1000341 0				DOOS 300X20 0X120	16	100	11	9	20	B
1000352 5	2	0	0	DOOS 300X20 0X120	20	100	13	7	20	B
1000461 1				DOOS 200X15 0X100	2	100	11	9	20	B
1000465 5							11	9	20	B
1001924 8							20	0	20	B
1001976 7							13	7	20	B
1003004 0				DOOS 400X30 0X120	2	100	16	4	20	B
1003237 8							14	6	20	B
1004247 4	362	0	0	DOOS 400X30 0X120	180	100	15	5	20	B
1004651 2	21	0	0	DOOS 400X30 0X120	25	100	14	6	20	B
3590111 930							0	20	20	B
3670000 316							1	19	20	B

3683891 020							0	20	20	B
3704154 021							0	20	20	B
3706602 310							0	20	20	B
7170378							20	0	20	B
7227685	6	0	0	DOOS 200X15 0X100	12	100		20	0	20 B
7265615	27	0	0	DOOS 400X30 0X120	15	100		19	1	20 B
7273658	8	0	0	DOOS 400X30 0X120	15	100		18	2	20 B
7348406							20	0	20	B
7348407	4	0	0	DOOS 400X30 0X120	4	100		20	0	20 B
7396227	15	0	0	DOOS 300X20 0X120	12	100		19	1	20 B
7962045	20	0	0	DOOS 400X30 0X120	15	100		18	2	20 B
9003804 492	3	0	0	DOOS 400X30 0X120	5	100		19	1	20 B
9011109 304	64	0	0	DOOS 400X30 0X120	18	100		18	2	20 B
9013209 020	28	0	0	DOOS 300X20 0X120	34	100		16	4	20 B
9040107 533	21	0	0	DOOS 400X30 0X120	14	100		20	0	20 B
9045390 110	1209	0	0	DOOS 400X30 0X120	1400	100		14	6	20 B
9063577 651	4	0	0	DOOS 400X30 0X120	14	100		19	1	20 B
9066404 672	2	0	0	DOOS 400X30 0X120	13	100		20	0	20 B
9081107 011							14	6	20	B
9091200 306	16	0	0	DOOS 400X30 0X120	16	100		14	6	20 B
9091270 011	159	0	0	DOOS 400X30 0X120	72	100		11	9	20 B
9095200 302	17	0	0	DOOS 200X15 0X100	20	100		13	7	20 B
9103423 151	49	0	0					18	2	20 B
9125587 501								20	0	20 B
9152255 002								20	0	20 B
9186100 000	8	0	0	DOOS 400X30 0X120	30	100		19	1	20 B
9325107 720	37	0	0	DOOS 400X30 0X120	16	100		20	0	20 B
9342900 902	13	0	0	DOOS 400X30 0X120	5	100		20	0	20 B

9492090 137	40	0	2	DOOS 300X20 0X120	200	100	20	0	20	B
9560600 000				DOOS 200X15 0X100	10000	100	18	2	20	B
9660290 175	77	0	0	DOOS 300X20 0X120	200	100	20	0	20	B
9751500 006							16	4	20	B
9960308 001							16	4	20	B
9969307 100							19	1	20	B
9969507 000							19	1	20	B
1000023 9	12	0	0	DOOS 300X20 0X120	15	100	12	7	19	B
1000139 1	4	0	0	DOOS 400X30 0X120	4	100	13	6	19	B
1000228 3	37	0	0	DOOS 400X30 0X120	5	100	14	5	19	B
1000262 3							14	5	19	B
1000353 1	2	0	0	DOOS 200X15 0X100	12	100	11	8	19	B
1001407 5							9	10	19	B
1001545 0	9	0	0	DOOS 400X30 0X120	3	100	15	4	19	B
1002081 2	2	0	0	DOOS 300X20 0X120	8	100	11	8	19	B
1002498 9	8	0	0	DOOS 300X20 0X120	12	100	12	7	19	B
1002501 5							14	5	19	B
1002640 2							15	4	19	B
1002750 6	15	0	0	DOOS 400X30 0X120	21	100	12	7	19	B
1002767 6							13	6	19	B
1003405 8							14	5	19	B
3462779							15	4	19	B
3593417 590							1	18	19	B
3593417 790							0	19	19	B
3684923 030							0	19	19	B
3704228 260							0	19	19	B
3711256 025							0	19	19	B
3711264 046							0	19	19	B
3714109 271							0	19	19	B
7170372	210	0	0	DOOS 400X30 0X120	500	100	16	3	19	B
7348412	1	0	0	DOOS 300X20 0X120	12	100	19	0	19	B

7390330							17	2	19	B
7396225	10	0	0	DOOS 400X30 0X120	20	100				
7398366							17	2	19	B
9004990 350	88	0	0	DOOS 400X30 0X120	200	100				
9005390 020	117	0	0	DOOS 200X15 0X100	500	100				
9013309 260	174	0	0	DOOS 400X30 0X120	48	100				
9063590 121	252	0	0	DOOS 300X20 0X120	300	100				
9063602 650	68	0	0	DOOS 400X30 0X120	15	100				
9064990 192	44	0	0	DOOS 400X30 0X120	100	100				
9091200 305	20	0	0	DOOS 400X30 0X120	37	100				
9103623 112	60	0	0	DOOS 400X30 0X120	15	100				
9106937 011	5	0	0	DOOS 400X30 0X120	15	100				
9173990 005							16	3	19	B
9180600 010							18	1	19	B
9200105 000	139	0	0	DOOS 400X30 0X120	100	100				
9346900 701	1	0	0	DOOS 400X30 0X120	5	100				
9347701 720							18	1	19	B
9362190 000	171	0	0	DOOS 200X15 0X100	150	100				
9491090 006	17	0	0	DOOS 300X20 0X120	44	100				
9492090 007	50	0	0	DOOS 300X20 0X120	50	100				
9660236 001							19	0	19	B
9751180 002	56	0	0	DOOS 400X30 0X120	24	100				
9751260 002	48	0	0	DOOS 400X30 0X120	23	100				
9751530 013	12	0	0	DOOS 400X30 0X120	14	100				
9751610 002	42	0	0	DOOS 400X30 0X170	14	100				
1000096 2	2	0	0	DOOS 200X15 0X100	7	100				
1000230 6							9	9	18	B
							13	5	18	B

1000231 8	5	0	0	DOOS 400X30 0X120	5	100	18	0	18	B
1000327 0	2	0	0	DOOS 200X15 0X100	3	100	12	6	18	B
1000343 1	5	0	0	DOOS 300X20 0X120	20	100	12	6	18	B
1000425 5				DOOS 300X20 0X120	6	100	11	7	18	B
1000462 2				DOOS 400X30 0X120	1	100	11	7	18	B
1000487 3							14	4	18	B
1001035 0	1	0	0	DOOS 300X20 0X120	6	100	11	7	18	B
1001081 1	1	0	0	DOOS 400X30 0X120	3	100	9	9	18	B
1001373 8	9	0	0	DOOS 400X30 0X120	100	100	17	1	18	B
1001540 1	6	0	0	DOOS 400X30 0X170	3	100	13	5	18	B
1001544 8	10	0	0	DOOS 400X30 0X120	3	100	14	4	18	B
1001907 3	16	0	0	DOOS 400X30 0X120	5	100	10	8	18	B
1002145 2	147	0	0	DOOS 400X30 0X120	30	100	14	4	18	B
1002149 0	49	0	0	DOOS 400X30 0X120	15	100	13	5	18	B
1002498 7	20	0	0	DOOS 300X20 0X120	36	100	12	6	18	B
1004092 6							18	0	18	B
1004210 5							13	5	18	B
3466030							16	2	18	B
3590111 920							0	18	18	B
3590688 550							0	18	18	B
3590912 600							0	18	18	B
3670000 315							0	18	18	B
3704228 160							0	18	18	B
3710569 046							0	18	18	B
7266601	10	0	0	DOOS 300X20 0X120	7	100	17	1	18	B
7267435	33	0	0	DOOS 400X30 0X120	15	100	17	1	18	B
7273659	24	0	0	DOOS 200X15 0X100	15	100	16	2	18	B
7962021							15	3	18	B
7962058	26	0	0	DOOS 400X30 0X120	15	100	16	2	18	B

7962063							9	9	18	B
9001690 000	76	0	0	DOOS 300X20 0X120	120	100				
9011109 011	14	0	0	DOOS 200X15 0X100	12	100	17	1	18	B
9014209 051	7	0	0	DOOS 300X20 0X120	22	100	17	1	18	B
9081107 041	1	0	0	DOOS 200X15 0X100	16	100	17	1	18	B
9126604 521	20	0	0	DOOS 400X30 0X170	50	100				
9162255 022	20	0	0	DOOS 400X30 0X120	20	100				
9173990 010	43	0	0	DOOS 200X15 0X100	200	100	18	0	18	B
9193900 000	148	0	0	DOOS 400X30 0X120	100	100	10	8	18	B
9347790 000	18	0	0	DOOS 300X20 0X120	50	100				
9351900 722	14	0	0	DOOS 400X30 0X120	5	100				
9411990 179	184	0	0	DOOS 300X20 0X120	100	100	17	1	18	B
9491090 007	43	0	0	DOOS 300X20 0X120	50	100				
9492090 006	54	0	0	DOOS 300X20 0X120	44	100	18	0	18	B
9732000 000	124	0	0	DOOS 200X15 0X100	250	100				
9751410 034	3	0	0	DOOS 400X30 0X120	15	100	17	1	18	B
9968407 000	35	0	0	DOOS 300X20 0X120	10	100	16	2	18	B
1000038 1	3	0	0	DOOS 300X20 0X120	10	100				
1000177 6	7	0	0	DOOS 300X20 0X120	30	100	9	8	17	B
1000240 8							17	0	17	B
1000350 2							15	2	17	B
1000461 8							10	7	17	B
1000462 1							12	5	17	B
1001051 5				DOOS 200X15 0X100	100	100	13	4	17	B
1001075 3							15	2	17	B
1001386 2				DOOS 400X30 0X120	3	100	16	1	17	B
1001424 2							10	7	17	B
							14	3	17	B

1001540 3	6	0	0	DOOS 400X30 0X170	3	100		12	5	17	B
1001874 3								17	0	17	B
1002121 4	7	0	0	DOOS 400X30 0X120	4	100		10	7	17	B
1002501 7				DOOS 200X15 0X100	12	100		10	7	17	B
1002657 1	7	0	0	DOOS 200X15 0X100	20	100		13	4	17	B
1002660 3	4	0	0	DOOS 200X15 0X100	14	100		10	7	17	B
1002751 1	10	0	0	DOOS 300X20 0X120	10	100		14	3	17	B
1002766 6	21	0	0	DOOS 400X30 0X170	5	100		10	7	17	B
1002922 5	18	0	0	DOOS 400X30 0X120	10	100		10	7	17	B
1003404 3	4	0	0	DOOS 300X20 0X120	6	100		12	5	17	B
1003404 4								7	10	17	B
1003422 5								12	5	17	B
1003468 6	3	0	0	DOOS 200X15 0X100	20	100		11	6	17	B
1003621 6								16	1	17	B
1003688 6	304	0	0	DOOS 400X30 0X120	48	100		16	1	17	B
1004799 5								11	6	17	B
3593419 590								0	17	17	B
3711255 176								0	17	17	B
3711269 046								0	17	17	B
7227678	25	0	0	DOOS 400X30 0X120	50	100		17	0	17	B
7272320	47	0	0	DOOS 400X30 0X120	15	100		16	1	17	B
7274006	74	0	0	DOOS 400X30 0X120	11	100		12	5	17	B
7962054	15	0	0	DOOS 400X30 0X120	18	100		17	0	17	B
9005404 461	39	0	0	DOOS 300X20 0X120	4	100		15	2	17	B
9011109 021	13	0	0	DOOS 300X20 0X120	32	100		16	1	17	B
9069990 171	29	0	0	DOOS 300X20 0X120	150	100		17	0	17	B
9081107 021	33	0	1	DOOS 300X20 0X120	43	100		15	2	17	B

9103623 111	157	0	0	DOOS 400X30 0X120	15	100	11	6	17	B
9106933 011	37	0	0	DOOS 400X30 0X120	17	100	16	1	17	B
9135590 120	135	0	0	DOOS 300X20 0X120	250	100	16	1	17	B
9180301 000	4	0	0	DOOS 300X20 0X120	16	100	15	2	17	B
9180709 000	128	0	0	DOOS 400X30 0X220	50	100	10	7	17	B
9184605 005							17	0	17	B
9317002 070	10	0	0	DOOS 300X20 0X120	24	100	15	2	17	B
9325106 721				DOOS 400X30 0X120	13	100	12	5	17	B
9342700 500	18	0	0	DOOS 400X30 0X120	5	100	16	1	17	B
9346900 702							17	0	17	B
9347701 700	15	0	0	DOOS 400X30 0X120	5	100	16	1	17	B
9356700 720	43	0	0	DOOS 400X30 0X120	5	100	13	4	17	B
9438997 600							17	0	17	B
9550000 722							17	0	17	B
9563000 000	115	0	0				14	3	17	B
9633311 035							17	0	17	B
9700090 176	488	0	0	DOOS 400X30 0X120	600	100	17	0	17	B
9751410 033	26	0	0	DOOS 400X30 0X120	15	100	16	1	17	B
9751530 000	25	0	0	DOOS 400X30 0X120	15	100	16	1	17	B
9751620 009	43	0	0	DOOS 400X30 0X120	24	100	15	2	17	B
9751660 006	53	0	0	DOOS 400X30 0X120	19	100	10	7	17	B
9960408 001	1	0	0	DOOS 300X20 0X120	9	100	12	5	17	B
9965507 000	31	0	0	DOOS 400X30 0X120	20	100	15	2	17	B
1000103 9	4	0	0	DOOS 200X15 0X100	20	100	11	5	16	B
1000179 6				DOOS 300X20 0X120	8	100	16	0	16	B
1000231 9							10	6	16	B
1000272 0	55	0	0	DOOS 300X20 0X120	25	100	0	16	16	B

1000350 5	3	0	0	DOOS 300X20 0X120	20	100	8	8	16	B
1000365 9	5	0	0	DOOS 200X15 0X100	24	100	10	6	16	B
1000459 2							2	14	16	B
1001122 5	2	0	0	DOOS 200X15 0X100	12	100	10	6	16	B
1001384 8	2	0	0	DOOS 400X30 0X120	12	100	8	8	16	B
1001393 4	7	0	0	DOOS 400X30 0X120	6	100	13	3	16	B
1001420 9	31	0	0	DOOS 400X30 0X120	200	100	9	7	16	B
1001874 4							9	7	16	B
1002076 4	37	0	0	DOOS 300X20 0X120	37	100	15	1	16	B
1002096 9	27	0	0	DOOS 400X30 0X120	3	100	14	2	16	B
1002505 4	5	0	0	DOOS 400X30 0X120	10	100	11	5	16	B
1002715 3							8	8	16	B
1003407 2	6	0	0	DOOS 400X30 0X120	8	100	11	5	16	B
1003789 1	2	0	0	DOOS 300X20 0X120	50	100	9	7	16	B
1003860 1	5	0	0	DOOS 400X30 0X120	3	100	12	4	16	B
3670000 338							8	8	16	B
3704915 520							0	16	16	B
3711269 176							0	16	16	B
3714926 055							5	11	16	B
7170347	18	0	0	DOOS 300X20 0X120	400	100	15	1	16	B
7266553							13	3	16	B
7267805							15	1	16	B
7962002							15	1	16	B
7962072							9	7	16	B
7985096							16	0	16	B
9005390 010	1	0	0	DOOS 200X15 0X100	20	100	11	5	16	B
9005404 462	23	0	0	DOOS 400X30 0X120	9	100	13	3	16	B
9011509 260	70	0	0	DOOS 400X30 0X120	48	100	10	6	16	B
9013209 025							16	0	16	B
9013209 306	10	0	0	DOOS 300X20 0X120	8	100	13	3	16	B

9015007 260	89	0	0	DOOS 400X30 0X120	72	100	11	5	16	B
9063617 650	8	0	0	DOOS 400X30 0X120	15	100	15	1	16	B
9069930 001				DOOS 400X30 0X120	15	100	13	3	16	B
9095200 021	97	0	0	DOOS 400X30 0X120	91	100	15	1	16	B
9125587 502							16	0	16	B
9126605 533	45	0	0	DOOS 400X30 0X120	30	100	16	0	16	B
9173951 000	37	0	0	DOOS 400X30 0X120	16	100	13	3	16	B
9176926 652	8	0	0	DOOS 400X30 0X120	17	100	10	6	16	B
9180206 000							13	3	16	B
9204017 030							16	0	16	B
9283090 060							16	0	16	B
9317001 050	28	0	0	DOOS 400X30 0X120	45	100	15	1	16	B
9317031 000	43	0	0	DOOS 300X20 0X120	43	100	14	2	16	B
9320090 000	23	0	0	DOOS 200X15 0X100	300	100	16	0	16	B
9325122 722	5	0	0	DOOS 400X30 0X120	10	100	12	4	16	B
9339501 000							11	5	16	B
9340600 780							15	1	16	B
9342700 720	15	0	0	DOOS 400X30 0X120	5	100	13	3	16	B
9351900 721	26	0	0	DOOS 400X30 0X120	5	100	14	2	16	B
9356700 700	6	0	0	DOOS 400X30 0X120	5	100	14	2	16	B
9362490 020	34	0	0	DOOS 200X15 0X100	50	100	16	0	16	B
9411990 178	384	0	0	DOOS 400X30 0X120	210	100	16	0	16	B
9700331 001	32	0	0	DOOS 400X30 0X120	17	100	15	1	16	B
1000122 2	2	0	0	DOOS 300X20 0X120	30	100	7	8	15	B
1000158 4	25	0	0	DOOS 200X15 0X100	24	100	2	13	15	B
1000183 0	1	0	0	DOOS 300X20 0X120	18	100	9	6	15	B
1000338 0	4	0	0	DOOS 200X15 0X100	7	100	10	5	15	B

1000345 3	3	0	0	DOOS 200X15 0X100	12	100	7	8	15	B
1000352 6	2	0	0	DOOS 300X20 0X120	20	100	7	8	15	B
1000364 3							14	1	15	B
1000462 3							8	7	15	B
1000522 8							8	7	15	B
1000539 5	9	0	0	DOOS 300X20 0X120	14	100	13	2	15	B
1001085 3							7	8	15	B
1001155 0	14	0	0	DOOS 200X15 0X100	8	100	1	14	15	B
1001378 3	2	0	0	DOOS 400X30 0X120	10	100	12	3	15	B
1001422 8							13	2	15	B
1002143 0							15	0	15	B
1002660 2	3	0	0	DOOS 200X15 0X100	12	100	9	6	15	B
1003126 7	15	0	0	DOOS 400X30 0X120	100	100	9	6	15	B
1003404 1							10	5	15	B
1003406 8	3	0	0	DOOS 400X30 0X120	3	100	9	6	15	B
1003422 7	79	0	0	DOOS 400X30 0X120	40	100	11	4	15	B
1003776 4	1	0	0	DOOS 400X30 0X120	3	100	9	6	15	B
3670000 307							0	15	15	B
7262667	43	0	0	DOOS 400X30 0X120	15	100	14	1	15	B
7264611	16	0	0	DOOS 400X30 0X120	15	100	14	1	15	B
9009190 010	9	0	0	DOOS 200X15 0X100	100	100	15	0	15	B
9063890 121	467	0	0	DOOS 300X20 0X120	250	100	14	1	15	B
9081107 303	4	0	0	DOOS 300X20 0X120	21	100	9	6	15	B
9091200 111	53	0	0	DOOS 400X30 0X120	84	100	11	4	15	B
9091270 302							10	5	15	B
9091290 606	997	0	0	DOOS 200X15 0X100	20000	100	14	1	15	B
9096270 600	47	0	0	DOOS 400X30 0X120	45	100	8	7	15	B
9106913 012	50	0	0	DOOS 300X20 0X120	10	100	12	3	15	B

9106933 012	119	0	0	DOOS 400X30 0X120	17	100	14	1	15	B
9106937 012	61	0	0	DOOS 300X20 0X120	9	100	13	2	15	B
9126617 521	2	0	0	DOOS 300X20 0X120	10	100	15	0	15	B
9180608 000	101	0	0	DOOS 400X30 0X120	15	100	12	3	15	B
9186400 005				DOOS 400X30 0X120	34	100	15	0	15	B
9325208 720	19	0	0	DOOS 400X30 0X120	20	100	15	0	15	B
9325322 782	61	0	0	DOOS 400X30 0X120	8	100	10	5	15	B
9341500 550	9	0	0	DOOS 400X30 0X120	5	100	13	2	15	B
9410990 171	7	0	0	DOOS 300X20 0X120	250	100	15	0	15	B
9413990 183				DOOS 300X20 0X120	50	100	15	0	15	B
9421990 186							15	0	15	B
9422817 960							8	7	15	B
9440267 901	40	0	0	DOOS 400X30 0X120	15	100	7	8	15	B
9700090 177	1406	0	0	DOOS 400X30 0X120	350	100	15	0	15	B
9751180 005	62	0	0	DOOS 400X30 0X120	24	100	9	6	15	B
9963407 001							15	0	15	B
1000030 1							12	2	14	B
1000051 8	1	0	0	DOOS 300X20 0X120	8	100	8	6	14	B
1000099 0	1	0	0	DOOS 300X20 0X120	10	100	14	0	14	B
1000102 9	4	0	0	DOOS 300X20 0X120	12	100	9	5	14	B
1000267 6	1	0	0	DOOS 300X20 0X120	6	100	7	7	14	B
1000337 8	2	0	0	DOOS 200X15 0X100	10	100	7	7	14	B
1000360 5							13	1	14	B
1000365 7	11	0	0	DOOS 200X15 0X100	18	100	5	9	14	B
1000487 4							9	5	14	B
1000489 8	3	0	0	DOOS 300X20 0X120	8	100	9	5	14	B
1000495 0							7	7	14	B

1001082 2	3	0	0	DOOS 300X20 0X120	20	100	7	7	14	B
1001377 8	1	0	0	DOOS 400X30 0X120	12	100				
1001686 1							12	2	14	B
1002144 2							8	6	14	B
1002752 8							12	2	14	B
1002878 8				DOOS 300X20 0X120	8	100				
1003688 3	701	0	0	DOOS 400X30 0X120	48	100	10	4	14	B
1003697 5							11	3	14	B
3590106 900							13	1	14	B
3700007 340							0	14	14	B
3701446 006							0	14	14	B
3704469 616							0	14	14	B
3711255 500							0	14	14	B
7170014	882	0	0	DOOS 400X30 0X120	200	100				
7170015	9	0	0	DOOS 300X20 0X120	200	100	13	1	14	B
7227679	9	0	0	DOOS 300X20 0X120	25	100				
7227681	6	0	0	DOOS 200X15 0X100	7	100	14	0	14	B
7264624							14	0	14	B
7348413	1	0	0	DOOS 300X20 0X120	12	100				
7962049	9	0	0	DOOS 400X30 0X120	15	100	14	0	14	B
9005090 345							13	1	14	B
9010190 040	30	0	0	DOOS 200X15 0X100	30	100				
9011007 051	5	0	0	DOOS 200X15 0X100	18	100	12	2	14	B
9011090 080	600	0	0	DOOS 200X15 0X100	2000	100				
9011107 025	3	0	0	DOOS 200X15 0X100	18	100	6	8	14	B
9011107 071							14	0	14	B
9012707 260							12	2	14	B
9063577 652	1	0	0	DOOS 300X20 0X120	7	100				
9066946 653				DOOS 400X30 0X120	15	100	13	1	14	B
							14	0	14	B

9081107 031	7	0	0	DOOS 300X20 0X120	36	100	8	6	14	B
9091270 031				DOOS 300X20 0X120	8	100	9	5	14	B
9103423 157							9	5	14	B
9125590 540	170	0	0	DOOS 200X15 0X100	200	100	14	0	14	B
9126604 541	5	0	0	DOOS 400X30 0X170	50	100	14	0	14	B
9176990 172	146	0	0	DOOS 400X30 0X120	250	100	14	0	14	B
9190521 406							14	0	14	B
9192921 656	38	0	0	DOOS 400X30 0X120	20	100	11	3	14	B
9204090 010							14	0	14	B
9204190 010	12	0	0	DOOS 200X15 0X100	250	100	14	0	14	B
9325119 550	34	0	0	DOOS 400X30 0X120	11	100	8	6	14	B
9325122 721							12	2	14	B
9340600 550	14	0	0	DOOS 300X20 0X120	5	100	12	2	14	B
9342900 701	16	0	0	DOOS 400X30 0X120	5	100	14	0	14	B
9346900 722	91	0	0	DOOS 400X30 0X120	4	100	9	5	14	B
9357702 720	11	0	0	DOOS 400X30 0X120	5	100	9	5	14	B
9414607 300	46	0	0	DOOS 300X20 0X120	14	100	14	0	14	B
9490090 135	50	0	0	DOOS 300X20 0X120	60	100	14	0	14	B
9560800 000	2	0	0	DOOS 200X15 0X100	15	100	10	4	14	B
9700090 277	66	0	0	DOOS 300X20 0X120	300	100	11	3	14	B
9700331 002	20	0	0	DOOS 400X30 0X120	15	100	12	2	14	B
9704235 001	26	0	0	DOOS 400X30 0X120	16	100	13	1	14	B
9751620 010	71	0	0	DOOS 400X30 0X120	25	100	11	3	14	B
9967508 001	2	0	0	DOOS 300X20 0X120	8	100	13	1	14	B
1000117 1							11	2	13	B
1000127 6	5	0	0	DOOS 200X15 0X100	12	100	8	5	13	B
1000157 8							4	9	13	B

1000273 3							11	2	13	B
1000344 5	2	0	0	DOOS 200X15 0X100	12	100	7	6	13	B
1000357 4	5	0	0	DOOS 300X20 0X120	12	100	9	4	13	B
1000358 6	4	0	0	DOOS 200X15 0X100	12	100	7	6	13	B
1000457 8	3	0	0	DOOS 400X30 0X120	1	100	0	13	13	B
1000483 1	4	0	0	DOOS 200X15 0X100	10	100	10	3	13	B
1001075 2	3	0	0	DOOS 400X30 0X120	10	100	11	2	13	B
1001164 7				DOOS 200X15 0X100	5	100	8	5	13	B
1001308 3	242	0	0	DOOS 300X20 0X120	200	100	12	1	13	B
1001419 8							7	6	13	B
1001535 7							13	0	13	B
1001541 1							9	4	13	B
1001749 8							9	4	13	B
1001976 2							8	5	13	B
1001977 6	6	0	0	DOOS 200X15 0X100	20	100	7	6	13	B
1002147 7	41	0	0	DOOS 400X30 0X120	15	100	13	0	13	B
1002164 9							13	0	13	B
1002562 8	45	0	0	DOOS 400X30 0X120	15	100	10	3	13	B
1002725 0	2	0	0	DOOS 300X20 0X120	5	100	7	6	13	B
1002753 4	21	0	0	DOOS 300X20 0X120	50	100	12	1	13	B
1003402 9	36	0	0	DOOS 400X30 0X120	11	100	8	5	13	B
1003697 4	1	0	0	DOOS 300X20 0X120	4	100	8	5	13	B
1003719 9	35	0	0	DOOS 400X30 0X120	16	100	9	4	13	B
1003788 6	16	0	0	DOOS 400X30 0X120	24	100	12	1	13	B
1004123 5				DOOS 200X15 0X100	1000	100	9	4	13	B
3590111 940							0	13	13	B
3591008 400							1	12	13	B
3591264 940							0	13	13	B

3593407 720							0	13	13	B
3700001 340							0	13	13	B
3701355 006							0	13	13	B
3701435 006							0	13	13	B
3711255 307							0	13	13	B
3713893 015							0	13	13	B
7170397	871	0	0	DOOS 300X20 0X120	500	100		13	0	13 B
7225614	8	0	0	DOOS 300X20 0X120	5	100		12	1	13 B
7264625	31	0	0	DOOS 400X30 0X120	19	100		9	4	13 B
7266550	7	0	0	DOOS 400X30 0X120	20	100		12	1	13 B
7267905	22	0	0	DOOS 400X30 0X120	25	100		12	1	13 B
7396222				DOOS 300X20 0X120	9	100		13	0	13 B
7396306	5	0	0	DOOS 300X20 0X120	9	100		13	0	13 B
7962039								13	0	13 B
7985098								13	0	13 B
9003804 491	3	0	0	DOOS 400X30 0X120	6	100		13	0	13 B
9013208 260	1	0	0	DOOS 200X15 0X100	8	100		12	1	13 B
9064466 651	33	0	0	DOOS 300X20 0X120	7	100		13	0	13 B
9064939 651	12	0	0	DOOS 400X30 0X120	14	100		13	0	13 B
9091270 021								7	6	13 B
9091270 071								7	6	13 B
9103624 152	95	0	0	DOOS 400X30 0X120	14	100		9	4	13 B
9125590 500	50	0	0	DOOS 200X15 0X100	100	100		13	0	13 B
9180200 200								8	5	13 B
9200122 000	206	0	0	DOOS 300X20 0X120	50	100		9	4	13 B
9325106 552								11	2	13 B
9325307 721	3	0	0	DOOS 400X30 0X120	8	100		10	3	13 B
9334002 060	96	0	0	DOOS 400X30 0X120	28	100		11	2	13 B
9341600 550	9	0	0	DOOS 400X30 0X120	5	100		12	1	13 B

9342900 901							13	0	13	B
9344500 000	5	0	0	DOOS 300X20 0X120	20	100	9	4	13	B
9440267 902	4	0	0	DOOS 400X30 0X120	14	100	7	6	13	B
9490090 000	109	0	0	DOOS 400X30 0X120	80	100	13	0	13	B
9751410 029				DOOS 300X20 0X120	8	100	12	1	13	B
9751660 008	69	0	0	DOOS 400X30 0X120	19	100	10	3	13	B
9751710 000							9	4	13	B
9753010 000	11	0	0	DOOS 300X20 0X120	9	100	12	1	13	B
9960208 001	25	0	0	DOOS 400X30 0X120	20	100	11	2	13	B
9966307 000	21	0	0	DOOS 400X30 0X120	20	100	13	0	13	B
1000091 0	4	0	0	DOOS 300X20 0X120	7	100	7	5	12	B
1000095 5	1	0	0	DOOS 300X20 0X120	6	100	8	4	12	B
1000109 9	3	0	0	DOOS 300X20 0X120	12	100	7	5	12	B
1000182 9	1	0	0	DOOS 300X20 0X120	15	100	6	6	12	B
1000183 1				DOOS 300X20 0X120	15	100	8	4	12	B
1000330 4	3	0	0	DOOS 400X30 0X120	10	100	12	0	12	B
1000372 4				DOOS 200X15 0X100	16	100	6	6	12	B
1000461 2							8	4	12	B
1000461 9							9	3	12	B
1000496 0	2	0	0	DOOS 400X30 0X170	5	100	6	6	12	B
1001157 5	2	0	0	DOOS 200X15 0X100	6	100	8	4	12	B
1001351 4							8	4	12	B
1001377 3	6	0	0	DOOS 400X30 0X120	12	100	6	6	12	B
1001382 0				DOOS 400X30 0X120	3	100	7	5	12	B
1001384 6				DOOS 400X30 0X120	12	100	8	4	12	B
1001394 2							8	4	12	B
1001419 1	37	0	0	DOOS 300X20 0X120	150	100	5	7	12	B

1001491 2	7	0	0	DOOS 200X15 0X100	200	100	9	3	12	B
1001491 4							5	7	12	B
1001535 3	26	0	0	DOOS 400X30 0X120	16	100	12	0	12	B
1001545 8				DOOS 200X15 0X100	12	100	10	2	12	B
1002498 6	2	0	0	DOOS 400X30 0X120	16	100	9	3	12	B
1002596 7	49	0	0	DOOS 400X30 0X120	15	100	12	0	12	B
1002660 9	2	0	0	DOOS 300X20 0X120	21	100	8	4	12	B
1002738 3	4	0	0	DOOS 400X30 0X120	4	100	6	6	12	B
1002862 9	10	0	0	DOOS 400X30 0X170	4	100	11	1	12	B
1002947 6	4	0	0	DOOS 400X30 0X120	4	100	7	5	12	B
1003103 5	8	0	0	DOOS 300X20 0X120	50	100	8	4	12	B
1003392 1	3	0	0	DOOS 200X15 0X100	14	100	6	6	12	B
1003719 8	35	0	0	DOOS 400X30 0X120	7	100	7	5	12	B
3462835	9	0	0	DOOS 200X15 0X100	20	100	9	3	12	B
3467700							10	2	12	B
3467819	9	0	0	DOOS 400X30 0X120	20	100	9	3	12	B
3590142 900							0	12	12	B
3590912 603							0	12	12	B
3593041 000							0	12	12	B
3670000 333							2	10	12	B
3700066 056							0	12	12	B
3701364 006							0	12	12	B
3704920 536							0	12	12	B
3706105 010							0	12	12	B
3710749 171							3	9	12	B
3711256 500							0	12	12	B
3711266 046							0	12	12	B
3711266 500							0	12	12	B
3713893 005							0	12	12	B
7265614	29	0	0	DOOS 400X30 0X120	15	100	12	0	12	B

7266558	22	0	0	DOOS 400X30 0X120	9	100	9	3	12	B
7266603	17	0	0	DOOS 400X30 0X120	8	100	10	2	12	B
7962011	16	0	0	DOOS 400X30 0X120	15	100	10	2	12	B
9003804 462	22	0	0	DOOS 400X30 0X120	30	100	8	4	12	B
9009111 701	9	0	0	DOOS 400X30 0X120	30	100	12	0	12	B
9010090 045							10	2	12	B
9010607 031	8	0	0	DOOS 200X15 0X100	20	100	8	4	12	B
9012607 030	15	0	0	DOOS 300X20 0X120	15	100	9	3	12	B
9054990 120	98	0	0	DOOS 300X20 0X120	150	100	12	0	12	B
9064940 651	10	0	0	DOOS 400X30 0X120	16	100	12	0	12	B
9066477 672	9	0	0	DOOS 300X20 0X120	7	100	10	2	12	B
9073517 011							8	4	12	B
9091000 600	273	0	0	DOOS 400X30 0X120	91	100	12	0	12	B
9091200 141				DOOS 200X15 0X100	12	100	7	5	12	B
9091270 041							7	5	12	B
9091270 051							7	5	12	B
9091290 604	1900	0	0	DOOS 200X15 0X100	20000	100	10	2	12	B
9103423 152							11	1	12	B
9103423 156							9	3	12	B
9103621 111	46	0	0	DOOS 400X30 0X120	15	100	8	4	12	B
9136600 502	4	0	0	DOOS 400X30 0X120	50	100	12	0	12	B
9164055 002	5	0	0	DOOS 400X30 0X120	5	100	12	0	12	B
9176990 171	166	0	0	DOOS 400X30 0X120	200	100	12	0	12	B
9192021 956	82	0	0	DOOS 400X30 0X220	25	100	8	4	12	B
9325206 552	6	0	0	DOOS 400X30 0X120	9	100	9	3	12	B
9339201 000							9	3	12	B
9340600 720	15	0	0	DOOS 400X30 0X120	5	100	11	1	12	B

9422827 630	4	0	0	DOOS 400X30 0X120	10	100		12	0	12	B
9510501 000	44	0	0	DOOS 400X30 0X120	60	100		12	0	12	B
9580831 000	25	0	0	DOOS 400X30 0X120	40	100		10	2	12	B
9700090 276	1	0	0	DOOS 300X20 0X120	250	100		9	3	12	B
9704235 002	16	0	0	DOOS 400X30 0X120	16	100		11	1	12	B
9751410 030	47	0	0	DOOS 400X30 0X120	15	100		10	2	12	B
9751410 038	22	0	0	DOOS 300X20 0X120	8	100		8	4	12	B
9751660 007	45	0	0	DOOS 300X20 0X120	7	100		11	1	12	B
9753070 003	107	0	0	DOOS 400X30 0X120	46	100		8	4	12	B
9966407 000	20	0	0	DOOS 300X20 0X120	9	100		11	1	12	B
9968507 000	8	0	0	DOOS 300X20 0X120	9	100		12	0	12	B
1000026 2	52	0	0	DOOS 400X30 0X120	50	100		10	1	11	B
1000031 2	2	0	0	DOOS 300X20 0X120	6	100		5	6	11	B
1000101 7								10	1	11	B
1000108 6	3	0	0	DOOS 200X15 0X100	20	100		1	10	11	B
1000158 1	6	0	0	DOOS 200X15 0X100	24	100		3	8	11	B

The above table shows the data about the articles in kardex and the ABCXYZ analysis done on it. The data in the file is limited due to the large length. The whole data would be in the Excel file given with the report. The highlighted articles are in kardex as well as in the warehouse pick locations All data has been received by the company.

The data below shows the ABCXYZ analysis of articles in warehouse.

Article Number	Location	ABC Location	AB C	Sal es	Purcha se	Total	X Y Z	Change	ABC XYZ
10013725	BA 2900	X	A	789	15	804	X	Do not change	AX
10013881	BA 2100	X	A	613	40	653	X	Do not change	AX
9126690530	BB 6400	X	A	420	18	438	X	Do not change	AX

	BC										
9960107001	1100	Y	B	387	19	406	X	Changes	BX		
	BA							Do not			
9125590530	5504	X	A	401	4	405	X	change	AX		
	BB							Do not			
9136690071	4002	X	A	391	13	404	X	change	AX		
	BA							Do not			
9136690072	6100	X	A	387	16	403	X	change	AX		
	BA							Do not			
9135590050	6300	X	A	387	15	402	X	change	AX		
	BC										
9869114401	6700	Y	A	365	19	384	X	Changes	AX		
	BC										
10013729	2002	Y	B	354	25	379	X	Changes	BX		
	BC										
9175929000	0800	Y	B	376	0	376	X	Changes	BX		
	BC										
9173929000	4400	Y	B	376	0	376	X	Changes	BX		
	BB							Do not			
9000134050	0900	X	A	349	26	375	X	change	AX		
	BA							Do not			
10013726	4702	X	A	358	12	370	X	change	AX		
	BA							Do not			
9260004500	1500	X	A	354	15	369	X	change	AX		
	BC										
9200112000	0200	Y	A	342	21	363	X	Changes	AX		
	BA							Do not			
9000734050	3102	X	A	324	30	354	X	change	AX		
	BA							Do not			
10013892	1700	X	A	314	22	336	X	change	AX		
	BB							Do not			
9421917602	2402	X	A	305	17	322	X	change	AX		
	BC										
9960207001	1002	Y	A	306	13	319	X	Changes	AX		
	BA							Do not			
7262535	0700	X	A	294	23	317	X	change	AX		
	BA							Do not			
9126904501	0100	X	A	275	37	312	X	change	AX		
	BB							Do not			
10046506	1500	X	A	291	16	307	X	change	AX		
	BA							Do not			
9009111700	2300	X	A	295	9	304	X	change	AX		
	BA							Do not			
9421917601	4700	X	A	284	19	303	X	change	AX		
	BA							Do not			
7266545	2102	X	A	270	30	300	X	change	AX		
	BA							Do not			
7302287	0102	X	A	268	25	293	X	change	AX		
	BC										
9001383220	1200	Y	A	271	18	289	X	Changes	AX		
	BA							Do not			
9005500500	3902	X	A	280	0	280	X	change	AX		
	BC										
9960307001	4402	Y	C	263	17	280	X	Changes	CX		
	BA							Do not			
9856049	3302	X	A	228	39	267	X	change	AX		
	BA							Do not			
9341700700	1902	X	B	236	26	262	X	change	BX		

9856050	BA 1702	X	A	224	37	261	X	Do not change	AX
9125502501	BC 3900	Y	A	195	66	261	X	Changes	AX
7262215	BA 3900	X	A	242	17	259	X	Do not change	AX
9064947651	BC 0600	Y	A	239	18	257	X	Changes	AX
9068917650	BC 5402	Y	B	239	18	257	X	Changes	BX
9261004500	BA 0500	X	A	240	11	251	X	Do not change	AX
9064947652	BC 5600	Y	C	222	27	249	X	Changes	CX
7326122	BA 1502	X	A	232	16	248	X	Do not change	AX
9180700020	BA 0300	X	A	227	16	243	X	Do not change	AX
10027499	BA 0302	X	A	213	27	240	X	Do not change	AX
9180602000	BA 0702	X	A	231	8	239	X	Do not change	AX
9021000400	BA 0902	X	A	233	0	233	X	Do not change	AX
9960407001	BA 4102	X	B	218	15	233	X	Do not change	BX
9064917651	BA 4500	X	A	205	27	232	X	Do not change	AX
9869114252	BE 6502	Z	A	225	6	231	X	Changes	AX
9126404501	BB 3600	X	A	185	43	228	X	Do not change	AX
9270504500	BA 2702	X	B	212	8	220	X	Do not change	BX
9064917652	BC 1000	Y	A	196	24	220	X	Changes	AX
10027513	BA 3100	X	B	195	19	214	X	Do not change	BX
10046505	BB 6200	X	A	192	20	212	X	Do not change	AX
9260004350	BA 0502	X	A	197	10	207	X	Do not change	AX
9064990181	BB 1400	X	A	183	23	206	X	Do not change	AX
9056904501	BA 1300	X	A	198	4	202	X	Do not change	AX
9127917501	BC 4500	Y	A	193	7	200	X	Changes	AX
10031252	BA 2700	X	B	168	29	197	X	Do not change	BX
9091200630	BB 2200	X	B	196	1	197	X	Do not change	BX
9341700500	BC 5202	Y	A	179	17	196	X	Changes	AX
9001683220	BA 1302	X	A	171	23	194	X	Do not change	AX
9856097	BA 1102	X	A	174	18	192	X	Do not change	AX

9856098	BA 2902	X	A	172	19	191	X	Do not change	AX
7225120	BA 2302	X	A	170	16	186	X	Do not change	AX
9135690050	BA 5902	X	B	184	1	185	X	Do not change	BX
9325302000	BB 0702	X	B	165	17	182	X	Do not change	BX
9126604501	BC 1302	Y	A	163	19	182	X	Changes	AX
9325316720	BA 3300	X	B	160	21	181	X	Do not change	BX
9421927602	BC 2000	Y	A	168	11	179	X	Changes	AX
9421927601	BC 2802	Y	B	155	24	179	X	Changes	BX
9260304250	BA 5904	X	B	169	7	176	X	Do not change	BX
9127917502	BB 3900	X	A	168	8	176	X	Do not change	AX
9091200600	BA 3700	X	A	160	15	175	X	Do not change	AX
9964107000	BD 2102	Y	B	170	5	175	X	Changes	BX
9125517501	BD 5502	Y	A	161	14	175	X	Changes	AX
9126994531	BB 2504	Z	B	173	1	174	X	Changes	BX
9282809030	BB 3802	X	B	172	1	173	X	Do not change	BX
9291602000	BA 3702	X	B	159	13	172	X	Do not change	BX
9143500551	BB 2800	X	B	159	11	170	X	Do not change	BX
9190121655	BB 4400	X	A	119	51	170	X	Do not change	AX
9126494531	BB 5202	X	C	169	1	170	X	Do not change	CX
9064904651	BC 4000	Y	A	155	14	169	X	Changes	AX
9063590190	BA 5500	X	B	155	12	167	X	Do not change	BX
9960507001	BC 3100	Y	A	149	16	165	X	Changes	AX
10031259	BB 0304	Z	B	134	30	164	X	Changes	BX
7225122	BE 5800	Z	A	143	20	163	X	Changes	AX
9174209005	BD 5400	Y	A	140	21	161	X	Changes	AX
9856053	BE 4100	Z	A	142	19	161	X	Changes	AX
9125502502	BB 6100	X	A	133	27	160	X	Do not change	AX
9173936000	BD 1902	Y	B	153	7	160	X	Changes	BX
10027498	BA 3502	X	A	124	35	159	X	Do not change	AX

9856054	BE 0202	Y	A	137	21	158	X	Changes	AX
7273215	BE 0400	Y	B	145	13	158	X	Changes	BX
9411927501	BD 3502	Y	A	146	8	154	X	Changes	AX
9126904502	BA 0900	X	A	137	16	153	X	Do not change	AX
9144600551	BB 5702	X	B	136	17	153	X	Do not change	BX
9126417501	BD 0100	Y	A	144	9	153	X	Changes	AX
9069931001	BD 0402	Y	A	148	5	153	X	Changes	AX
9056904531	BB 1302	X	A	151	1	152	X	Do not change	AX
9260004530	BB 3300	X	B	151	1	152	X	Do not change	BX
9341900701	BB 3604	Z	B	140	12	152	X	Changes	BX
9411917501	BD 0500	Y	A	142	9	151	X	Changes	AX
10035839	BE 0200	Y	A	139	12	151	X	Changes	AX
10027500	BE 2900	Z	A	129	22	151	X	Changes	AX
10031263	BE 4302	Z	A	115	35	150	X	Changes	AX
9063517652	BC 1600	Y	A	131	18	149	X	Changes	AX
9325202000	BC 3700	Y	B	140	7	147	X	Changes	BX
7225123	BE 3400	Z	A	135	12	147	X	Changes	AX
9176946651	BC 3300	Y	A	130	16	146	X	Changes	AX
9125602500	BB 1700	X	A	129	16	145	X	Do not change	AX
9411917502	BC 0100	Y	A	135	9	144	X	Changes	AX
9364001000	BD 2302	Y	A	76	68	144	X	Changes	AX
9126917501	BC 2702	Y	A	134	9	143	X	Changes	AX
7225121	BE 1902	Z	A	132	11	143	X	Changes	AX
9009812000	BA 1900	X	B	130	12	142	X	Do not change	BX
10027505	BE 3602	Z	A	132	10	142	X	Changes	AX
10004643	BE 1800	Z	A	120	20	140	X	Changes	AX
9125590510	BA 5502	X	B	139	0	139	X	Do not change	BX
9413917501	BC 0900	Y	A	133	6	139	X	Changes	AX
9173946000	BC 3302	Y	B	127	12	139	X	Changes	BX

9056904502	BB 2000	X	B	134	4	138	X	Do not change	BX
9126694531	BB 5700	X	C	137	1	138	X	Do not change	CX
9064417672	BC 0102	Y	A	122	16	138	X	Changes	AX
10031251	BE 2104	Z	B	130	7	137	X	Changes	BX
9411990177	BA 6302	X	B	136	0	136	X	Do not change	BX
9064937651	BD 2402	Y	A	120	16	136	X	Changes	AX
9200712000	BD 2902	Y	B	133	3	136	X	Changes	BX
9064937652	BB 2702	X	A	123	12	135	X	Do not change	AX
7272535	BE 2402	Z	A	124	9	133	X	Changes	AX
9442927552	BC 6704	Z	C	124	8	132	X	Changes	CX
9750290000	BC 5200	Y	B	120	10	130	X	Changes	BX
9260004250	BB 3002	X	B	123	6	129	X	Do not change	BX
9011609290	BB 6202	X	A	127	1	128	X	Do not change	AX
9064417671	BC 1702	Y	A	116	12	128	X	Changes	AX
9011109290	BB 0102	X	B	126	1	127	X	Do not change	BX
9011107260	BD 6402	Y	B	108	18	126	X	Changes	BX
10031254	BE 1602	Z	C	103	23	126	X	Changes	CX
10004608	BE 3100	Z	A	95	30	125	X	Changes	AX
9411927502	BC 1800	Y	A	115	9	124	X	Changes	AX
9125802500	BD 3400	Y	A	115	9	124	X	Changes	AX
9091200632	BB 5900	X	C	122	1	123	X	Do not change	CX
9063517651	BC 0300	Y	A	111	12	123	X	Changes	AX
9184200100	BD 4004	Z	A	110	13	123	X	Changes	AX
10027512	BE 4602	Z	B	108	15	123	X	Changes	BX
9066946652	BC 0602	Y	B	116	6	122	X	Changes	BX
9174909002	BD 1700	Y	B	106	16	122	X	Changes	BX
9054904502	BD 6000	Y	B	115	6	121	X	Changes	BX
9100800480	BB 2400	X	B	119	1	120	X	Do not change	BX
9413917531	BB 3100	X	B	119	1	120	X	Do not change	BX

9413917502	BC 4602	Y	A	114	6	120	X	Changes	AX
9174909001	BC 5102	Y	A	102	18	120	X	Changes	AX
9180900020	BC 5302	Y	B	103	17	120	X	Changes	BX
9442927551	BD 2900	Y	B	114	6	120	X	Changes	BX
9400090000	BB 2902	X	A	108	11	119	X	Do not change	AX
10031253	BE 6102	Z	B	104	15	119	X	Changes	BX
9261004530	BB 1600	X	B	117	1	118	X	Do not change	BX
10035840	BC 2300	Y	B	108	10	118	X	Changes	BX
10002419	BE 2002	Z	B	116	2	118	X	Changes	BX
9126904531	BB 0300	X	B	116	1	117	X	Do not change	BX
9411990176	BA 6102	X	B	116	0	116	X	Do not change	BX
9126417502	BD 2800	Y	A	109	7	116	X	Changes	AX
9100800483	BB 2300	X	B	114	1	115	X	Do not change	BX
9411917531	BB 3902	X	A	113	1	114	X	Do not change	AX
9176946652	BD 2400	Y	A	97	17	114	X	Changes	AX
7225100	BE 2000	Z	B	112	2	114	X	Changes	BX
9421990000	BA 4100	X	B	111	2	113	X	Do not change	BX
9013209290	BB 5102	X	B	112	1	113	X	Do not change	BX
9125517502	BC 6002	Y	A	103	10	113	X	Changes	AX
9738001720	BD 0302	Y	A	111	2	113	X	Changes	AX
9340700580	BB 1300	X	A	111	1	112	X	Do not change	AX
10027518	BE 1202	Y	B	94	18	112	X	Changes	BX
9126404502	BB 4700	X	A	95	16	111	X	Do not change	AX
9413927501	BB 5000	X	A	103	8	111	X	Do not change	AX
9013209303	BC 3000	Y	B	96	15	111	X	Changes	BX
9260004280	BB 4702	X	B	109	1	110	X	Do not change	BX
9005500530	BB 1900	X	B	108	1	109	X	Do not change	BX
9400490002	BB 1602	X	A	107	0	107	X	Do not change	AX
7962059	BE 4000	Z	B	100	7	107	X	Changes	BX

9000134080	BB 4200	X	B	104	1	105	X	Do not change	BX
9341900501	BC 3600	Y	B	95	10	105	X	Changes	BX
9056904533	BD 1704	Z	B	105	0	105	X	Changes	BX
9963307001	BD 3602	Y	A	90	15	105	Y	Do not change	AY
9967307001	BB 4600	X	B	90	14	104	Y	Changes	BY
9127917531	BB 5802	X	A	103	1	104	Y	Changes	AY
9096200600	BD 4200	Y	B	91	13	104	Y	Do not change	BY
9125531506	BD 5800	Y	A	103	0	103	Y	Do not change	AY
9492190236	BB 3102	X	A	102	0	102	Y	Changes	AY
9125502531	BB 4302	X	A	101	1	102	Y	Changes	AY
10035838	BE 3000	Z	C	90	12	102	Y	Changes	CY
9126904533	BB 1702	X	A	101	0	101	Y	Changes	AY
9340700780	BB 3402	X	B	100	1	101	Y	Changes	BY
3466010	BE 5100	Z	B	86	15	101	Y	Changes	BY
9176936652	BC 1102	Y	A	84	16	100	Y	Do not change	AY
10021315	BF 3202	Z	B	88	12	100	Y	Changes	BY
9143500552	BC 0500	Y	B	88	11	99	Y	Do not change	BY
9009111730	BC 3802	Y	B	98	1	99	Y	Do not change	BY
9125596531	BB 3800	X	B	97	1	98	Y	Changes	BY
9006602532	BB 6002	X	B	97	1	98	Y	Changes	BY
9125531507	BD 4800	Y	A	98	0	98	Y	Do not change	AY
9411927506	BD 1802	Y	A	90	7	97	Y	Do not change	AY
10031255	BE 0904	Z	B	76	21	97	Y	Changes	BY
10027493	BE 6402	Z	A	77	20	97	Y	Changes	AY
9341900702	BC 6100	Y	B	87	9	96	Y	Do not change	BY
10035837	BE 6500	Z	C	84	11	95	Y	Changes	CY
9011109293	BB 0502	X	B	93	1	94	Y	Changes	BY
9260004380	BB 0902	X	B	93	1	94	Y	Changes	BY
9013209304	BC 4002	Y	B	69	25	94	Y	Do not change	BY

9125502533	BC 5502	Y	A	94	0	94	Y	Do not change	AY
10031264	BE 4502	Z	B	71	23	94	Y	Changes	BY
10021213	BE 4804	Z	B	70	24	94	Y	Changes	BY
9176936651	BC 4302	Y	A	76	17	93	Y	Do not change	AY
9174290040	BC 4702	Y	B	93	0	93	Y	Do not change	BY
9006602531	BB 4402	X	C	91	1	92	Y	Changes	CY
9000734080	BB 3702	X	B	90	1	91	Y	Changes	BY
9341700720	BE 2802	Z	B	88	3	91	Y	Changes	BY
7262018	BE 2804	Z	A	57	34	91	Y	Changes	AY
9126404531	BB 1502	X	A	89	1	90	Y	Changes	AY
9013209293	BB 6102	X	B	89	1	90	Y	Changes	BY
7225979	BE 2800	Z	A	80	10	90	Y	Changes	AY
9400490001	BA 6504	X	B	89	0	89	Y	Changes	BY
9126417533	BB 1800	X	B	89	0	89	Y	Changes	BY
9200212000	BA 4302	X	B	76	12	88	Y	Changes	BY
9011109296	BB 1902	X	C	87	1	88	Y	Changes	CY
9063502651	BC 0502	Y	B	79	9	88	Y	Do not change	BY
9185160010	BC 1704	Z	B	86	2	88	Y	Changes	BY
9415402501	BC 4700	Y	C	88	0	88	Y	Do not change	CY
9176923651	BC 1900	Y	B	84	3	87	Y	Do not change	BY
10027494	BE 2700	Z	A	79	8	87	Y	Changes	AY
9325102000	BC 5902	Y	B	72	14	86	Y	Do not change	BY
9126604531	BB 0500	X	B	84	1	85	Y	Changes	BY
9014209290	BB 3502	X	B	84	1	85	Y	Changes	BY
9091200633	BB 4102	X	B	84	1	85	Y	Changes	BY
9063502652	BC 3702	Y	B	78	7	85	Y	Do not change	BY
10034526	BE 3202	Z	C	82	3	85	Y	Changes	CY
9325322722	BB 3602	X	B	74	10	84	Y	Changes	BY
9125594531	BB 5100	X	B	83	1	84	Y	Changes	BY

9422817630	BB 6302	X	B	83	1	84	Y	Changes	BY
9964307000	BC 3202	Y	B	79	5	84	Y	Do not change	BY
9962307001	BD 3902	Y	B	82	2	84	Y	Do not change	BY
9186000000	BD 3504	Z	B	81	2	83	Y	Changes	BY
9325316550	BD 5102	Y	B	75	8	83	Y	Do not change	BY
9126917502	BD 6002	Y	A	76	7	83	Y	Do not change	AY
9173903000	BD 6304	Z	C	38	45	83	Y	Changes	CY
9960308301	BB 0704	Z	A	58	24	82	Y	Changes	AY
9413927502	BB 3500	X	A	73	9	82	Y	Changes	AY
9063817650	BC 0700	Y	A	75	6	81	Y	Do not change	AY
9180200080	BC 4600	Y	B	74	7	81	Y	Do not change	BY
9176903002	BD 2104	Z	B	67	14	81	Y	Changes	BY
9510701000	BA 6704	X	B	80	0	80	Y	Changes	BY
9411927507	BC 1300	Y	A	75	5	80	Y	Do not change	AY
9176923652	BD 4102	Y	B	75	5	80	Y	Do not change	BY
9260006500	BA 3500	X	B	74	3	77	Y	Changes	BY
9176903001	BD 4400	Y	B	54	22	76	Y	Do not change	BY
10027496	BE 3002	Z	B	69	7	76	Y	Changes	BY
9126917533	BB 1504	Z	B	75	0	75	Y	Changes	BY
9340700550	BB 5004	Z	B	63	12	75	Y	Changes	BY
9400990006	BC 0202	Y	A	63	12	75	Y	Do not change	AY
9011109260	BC 0902	Y	B	65	10	75	Y	Do not change	BY
7225107	BE 0402	Y	C	74	1	75	Y	Do not change	CY
10031262	BE 2202	Z	B	56	19	75	Y	Changes	BY
10031260	BE 1904	Z	B	62	12	74	Y	Changes	BY
9126604502	BA 4300	X	A	66	7	73	Y	Changes	AY
9204117000	BB 3200	X	B	69	4	73	Y	Changes	BY
9021000430	BB 4202	X	B	72	1	73	Y	Changes	BY
9415402502	BC 4300	Y	B	73	0	73	Y	Do not change	BY

9011109297	BB 1102	X	A	70	1	71	Y	Changes	AY
10036122	BD 3800	Y	B	62	9	71	Y	Do not change	BY
9341900791	BE 5700	Z	B	71	0	71	Y	Changes	BY
9010609290	BC 2102	Y	B	69	1	70	Y	Do not change	BY
9750130000	BC 3902	Y	C	62	8	70	Y	Do not change	CY
9126690510	BA 5302	X	B	69	0	69	Y	Changes	BY
9009812030	BB 4500	X	C	68	1	69	Y	Changes	CY
9126917531	BB 1904	Z	B	68	0	68	Y	Changes	BY
9291902000	BD 1000	Y	C	67	1	68	Y	Do not change	CY
9204017000	BD 1800	Y	B	68	0	68	Y	Do not change	BY
9282600031	BB 4602	X	B	66	1	67	Y	Changes	BY
9341700790	BB 6700	Y	A	67	0	67	Y	Do not change	AY
10021189	BE 5302	Z	C	50	17	67	Y	Changes	CY
9280900140	BB 5402	X	C	65	1	66	Y	Changes	CY
9095200630	BB 5600	X	C	65	1	66	Y	Changes	CY
9125517531	BB 5800	X	B	66	0	66	Y	Changes	BY
9126431506	BD 5200	Y	A	66	0	66	Y	Do not change	AY
9342700920	BD 6202	Y	B	60	6	66	Y	Do not change	BY
7962062	BE 1600	Z	A	50	16	66	Y	Changes	AY
9442917552	BC 5800	Y	B	61	4	65	Y	Do not change	BY
9006602534	BC 6004	Z	B	65	0	65	Y	Changes	BY
9964127000	BD 1600	Y	A	34	31	65	Y	Do not change	AY
9325222722	BD 2700	Y	B	59	5	64	Y	Do not change	BY
9011109302	BD 4300	Y	B	57	7	64	Y	Do not change	BY
9126431507	BD 5202	Y	A	64	0	64	Y	Do not change	AY
10034527	BE 2902	Z	C	61	3	64	Y	Changes	CY
9410917531	BB 1402	X	B	62	1	63	Y	Changes	BY
10031256	BE 0504	Z	B	53	10	63	Y	Changes	BY
9340500780	BB 3000	X	C	61	1	62	Y	Changes	CY

9125502506	BD 0200	Y	A	62	0	62	Y	Do not change	AY
10021318	BE 1204	Z	C	52	10	62	Y	Changes	CY
9751410011	BD 0300	Y	B	52	9	61	Y	Do not change	BY
9014209302	BC 5802	Y	B	33	27	60	Y	Do not change	BY
10034528	BE 0602	Y	C	58	2	60	Y	Do not change	CY
9340500580	BB 0100	X	B	58	1	59	Y	Changes	BY
9325322631	BC 1204	Z	B	50	9	59	Y	Changes	BY
9125602530	BC 6102	Y	B	59	0	59	Y	Do not change	BY
9120090000	BD 1100	Y	B	56	3	59	Y	Do not change	BY
7225102	BE 1000	Y	B	53	5	58	Y	Do not change	BY
9260304280	BB 0302	X	B	56	1	57	Y	Changes	BY
9091200303	BC 1902	Y	B	48	9	57	Y	Do not change	BY
9173903005	BC 3002	Y	B	57	0	57	Y	Do not change	BY
10041418	BC 4800	Y	C	55	2	57	Y	Do not change	CY
10031258	BE 1402	Y	B	49	8	57	Y	Do not change	BY
7225108	BE 5702	Z	B	57	0	57	Y	Changes	BY
9125517533	BA 4502	X	B	56	0	56	Y	Changes	BY
9200190000	BB 3204	Z	B	55	1	56	Y	Changes	BY
9126604533	BC 2100	Y	B	56	0	56	Y	Do not change	BY
9340700720	BC 3604	Z	C	44	12	56	Y	Changes	CY
9363004090	BC 5500	Y	B	37	19	56	Y	Do not change	BY
9492190246	BD 5900	Y	B	56	0	56	Y	Do not change	BY
10031257	BF 1804	Z	B	42	14	56	Y	Changes	BY
9344100030	BB 2202	X	B	54	1	55	Y	Changes	BY
9176956651	BB 4404	Z	A	48	7	55	Y	Changes	AY
9172921650	BD 1402	Y	C	49	6	55	Y	Do not change	CY
9144400583	BC 4102	Y	B	53	0	53	Y	Do not change	BY
9567303000	BB 0604	Z	A	52	0	52	Y	Changes	AY
9135500531	BB 2002	X	C	52	0	52	Y	Changes	CY

9091000630	BB 4604	Z	C	52	0	52	Y	Changes	CY
9006602533	BB 5200	X	B	52	0	52	Y	Changes	BY
9091200325	BB 6702	Y	B	33	19	52	Y	Do not change	BY
9341900591	BD 1500	Y	B	52	0	52	Y	Do not change	BY
10032063	BF 4002	Z	C	50	2	52	Y	Changes	CY
9400990007	BB 4502	X	A	40	11	51	Y	Changes	AY
9751410012	BC 1502	Y	B	45	6	51	Y	Do not change	BY
9125602535	BD 0700	Y	A	51	0	51	Y	Do not change	AY
9176956652	BD 1202	Y	A	48	3	51	Y	Do not change	AY
10036123	BE 5900	Z	B	50	1	51	Y	Changes	BY
9351900701	BB 1004	Z	B	50	0	50	Y	Changes	BY
9260204530	BB 1802	X	B	49	1	50	Y	Changes	BY
9126417531	BB 3202	X	B	50	0	50	Y	Changes	BY
9204317000	BB 3304	Z	C	41	9	50	Y	Changes	CY
10031265	BE 3004	Z	A	33	17	50	Y	Changes	AY
10031261	BE 3700	Z	B	36	14	50	Y	Changes	BY
9013209296	BB 6204	Z	C	49	0	49	Y	Changes	CY
9125631505	BD 2200	Y	A	49	0	49	Y	Do not change	AY
9325116550	BE 0600	Y	B	45	4	49	Y	Do not change	BY
9256601033	BB 4300	X	C	47	1	48	Y	Changes	CY
9344200030	BB 5602	X	C	47	1	48	Y	Changes	CY
9341700590	BC 1202	Y	B	48	0	48	Y	Do not change	BY
9144600583	BD 3702	Y	C	48	0	48	Y	Do not change	CY
9176924651	BD 4600	Y	B	40	8	48	Y	Do not change	BY
9340500720	BB 6502	X	C	46	1	47	Y	Changes	CY
9292402000	BC 3402	Y	C	45	2	47	Y	Do not change	CY
9491590005	BD 0602	Y	B	47	0	47	Y	Do not change	BY
9736001720	BE 6400	Z	B	47	0	47	Y	Changes	BY
9125505531	BB 4204	Z	C	46	0	46	Y	Changes	CY

9064966651	BC 3800	Y	B	41	5	46	Y	Do not change	BY
9143500583	BD 0202	Y	B	46	0	46	Y	Do not change	BY
9341700550	BD 4802	Y	C	46	0	46	Y	Do not change	CY
9415402002	BE 1802	Z	C	35	11	46	Y	Changes	CY
9063802650	BB 2004	Z	C	44	1	45	Y	Changes	CY
9011509290	BB 6402	X	B	44	1	45	Y	Changes	BY
9126905531	BC 6202	Y	B	44	1	45	Y	Do not change	BY
9420817530	BB 2302	X	B	42	1	43	Y	Changes	BY
9172990030	BB 6600	X	C	41	2	43	Y	Changes	CY
9126904506	BD 3200	Y	A	43	0	43	Y	Do not change	AY
9753010020	BD 4304	Z	C	25	18	43	Y	Changes	CY
7225109	BE 5902	Z	B	42	1	43	Y	Changes	BY
9005304491	BB 2802	X	C	42	0	42	Y	Changes	CY
9415402001	BB 5804	Z	C	37	5	42	Y	Changes	CY
9410927506	BC 6702	Y	A	42	0	42	Y	Do not change	AY
9103623157	BD 1300	Y	B	29	13	42	Y	Do not change	BY
10021438	BE 6000	Z	C	37	5	42	Y	Changes	CY
9126617531	BB 3302	X	C	41	0	41	Y	Changes	CY
9174909022	BB 3504	Z	A	21	20	41	Y	Changes	AY
9315000000	BC 1700	Y	C	34	7	41	Y	Do not change	CY
9363004120	BC 3200	Y	B	40	1	41	Y	Do not change	BY
9126404506	BC 4100	Y	C	41	0	41	Y	Do not change	CY
9412818400	BD 0702	Y	C	38	3	41	Y	Do not change	CY
9282806030	BB 5302	X	B	40	0	40	Y	Changes	BY
9300011750	BC 1602	Y	B	40	0	40	Y	Do not change	BY
9967407001	BC 2902	Y	B	38	2	40	Y	Do not change	BY
9960407011	BC 6302	Y	B	32	8	40	Y	Do not change	BY
9421990171	BA 6702	X	B	39	0	39	Y	Changes	BY
9091200634	BB 5704	Z	C	38	1	39	Y	Changes	CY

9282600030	BC 5002	Y	B	39	0	39	Y	Do not change	BY
10036435	BD 6702	Y	B	26	13	39	Y	Do not change	BY
9256604033	BB 1404	Z	C	37	1	38	Y	Changes	CY
9189923000	BB 3004	Z	C	37	1	38	Y	Changes	CY
9103623156	BC 1402	Y	B	27	11	38	Y	Do not change	BY
9127917507	BC 5000	Y	A	38	0	38	Y	Do not change	AY
9411927531	BC 6600	Y	B	38	0	38	Y	Do not change	BY
7395236	BD 0102	Y	B	36	2	38	Y	Do not change	BY
9176935652	BD 0600	Y	B	34	4	38	Y	Do not change	BY
9422890000	BE 3102	Z	C	36	1	37	Y	Changes	CY
9005304492	BB 5002	X	B	36	0	36	Y	Changes	BY
9282600034	BB 6602	Y	C	36	0	36	Y	Do not change	CY
9176924652	BD 3304	Z	A	36	0	36	Y	Changes	AY
10030813	BF 1802	Z	B	36	0	36	Y	Changes	BY
9013209297	BB 4802	X	C	35	0	35	Y	Changes	CY
9106937021	BD 3002	Y	A	25	10	35	Y	Do not change	AY
9192121005	BB 4100	X	A	30	4	34	Y	Changes	AY
9091270300	BD 4000	Y	A	19	15	34	Y	Do not change	AY
9125590511	BE 1502	Y	B	34	0	34	Y	Do not change	BY
9126937502	BB 2100	X	C	33	0	33	Y	Changes	CY
9351900501	BB 2904	Z	C	33	0	33	Y	Changes	CY
9176902007	BB 5404	Z	C	8	25	33	Y	Changes	CY
9183642000	BC 5900	Y	B	33	0	33	Y	Do not change	BY
9969307000	BD 4604	Z	B	32	1	33	Y	Changes	BY
10020060	BE 3902	Z	C	27	6	33	Y	Changes	CY
9176902002	BD 5504	Z	B	32	0	32	Y	Changes	BY
9005304462	BD 6400	Y	B	32	0	32	Y	Do not change	BY
9005304461	BD 6600	Y	B	32	0	32	Y	Do not change	BY
9013109260	BF 1604	Z	B	30	2	32	Y	Changes	BY

9400090177	BA 6500	X	B	31	0	31	Y	Changes	BY
9341700780	BB 6300	X	C	30	1	31	Y	Changes	CY
9753010009	BC 6400	Y	B	31	0	31	Y	Do not change	BY
9364017000	BD 1900	Y	A	18	13	31	Y	Do not change	AY
10046507	BE 3204	Z	C	25	6	31	Y	Changes	CY
9325222632	BA 5100	X	B	27	3	30	Y	Changes	BY
9413927531	BB 5902	X	A	30	0	30	Y	Changes	AY
10027439	BD 3000	Y	C	3	27	30	Y	Do not change	CY
9964227000	BD 3402	Y	C	18	12	30	Y	Do not change	CY
9127917506	BD 5500	Y	C	30	0	30	Y	Do not change	CY
9110010030	BD 6700	Y	C	18	12	30	Y	Do not change	CY
10027438	BE 3300	Z	C	1	29	30	Y	Changes	CY
10032064	BF 4202	Z	C	29	1	30	Y	Changes	CY
9400090176	BA 6502	X	B	29	0	29	Y	Changes	BY
9346700720	BC 5602	Y	C	22	7	29	Y	Do not change	CY
9341900781	BD 0900	Y	C	28	1	29	Y	Do not change	CY
9126631506	BD 4404	Z	B	29	0	29	Y	Changes	BY
9751530007	BC 2800	Y	B	26	2	28	Y	Do not change	BY
9960208301	BD 1602	Y	B	20	8	28	Y	Do not change	BY
10046508	BE 1004	Z	C	23	5	28	Y	Changes	CY
10020047	BE 1700	Z	C	23	5	28	Y	Changes	CY
10020064	BE 6202	Z	B	23	5	28	Y	Changes	BY
10030909	BF 2204	Z	C	18	10	28	Y	Changes	CY
10020045	BF 2302	Z	B	22	6	28	Y	Changes	BY
10038615	BF 3002	Z	C	20	8	28	Y	Changes	CY
9341700580	BB 3700	X	B	26	1	27	Y	Changes	BY
9125522502	BB 4104	Z	C	13	14	27	Y	Changes	CY
9341900581	BC 2704	Z	C	26	1	27	Y	Changes	CY
9176935651	BC 5702	Y	B	26	1	27	Y	Do not change	BY

9364001010	BD 5002	Y	C	18	9	27	Y	Do not change	CY
10020057	BE 5402	Z	B	23	4	27	Y	Changes	BY
10021432	BF 5002	Z	C	24	3	27	Y	Changes	CY
9091200350	BB 2102	X	A	19	7	26	Y	Changes	AY
9340600580	BB 6500	X	B	25	1	26	Y	Changes	BY
9103423111	BC 4104	Z	C	23	3	26	Y	Changes	CY
9351700500	BC 5504	Z	C	26	0	26	Y	Changes	CY
7225682	BC 5604	Z	C	16	10	26	Y	Changes	CY
9411987507	BD 4702	Y	C	23	3	26	Y	Do not change	CY
9176925652	BE 5102	Z	B	18	8	26	Y	Changes	BY
9362290100	BE 6100	Z	C	20	6	26	Y	Changes	CY
9256604030	BB 4800	X	C	25	0	25	Y	Changes	CY
9283117000	BC 3004	Z	B	16	9	25	Y	Changes	BY
9103623151	BC 4502	Y	C	23	2	25	Y	Do not change	CY
9173927000	BC 5300	Y	B	21	4	25	Y	Do not change	BY
9411986506	BC 6500	Y	C	19	6	25	Y	Do not change	CY
9176902001	BD 1404	Z	B	25	0	25	Y	Changes	BY
9110020030	BD 4402	Y	C	15	10	25	Y	Do not change	CY
10020051	BE 4400	Z	C	17	8	25	Y	Changes	CY
9400090186	BA 5900	X	B	22	2	24	Y	Changes	BY
9074917012	BB 6404	Z	A	15	9	24	Y	Changes	AY
9184604010	BB 6604	Z	C	5	19	24	Y	Changes	CY
9103423112	BC 0404	Z	C	22	2	24	Y	Changes	CY
9293102720	BC 0802	Y	B	22	2	24	Y	Do not change	BY
9325319550	BC 2404	Z	B	17	7	24	Y	Changes	BY
9410927507	BC 3102	Y	A	24	0	24	Y	Do not change	AY
9351900702	BC 5400	Y	B	24	0	24	Y	Do not change	BY
9610917200	BD 1502	Y	A	24	0	24	Y	Do not change	AY
9351700550	BD 3600	Y	C	19	5	24	Y	Do not change	CY

9113340030	BD 6500	Y	C	18	6	24	Z	Changes	CZ
9964427000	BE 4200	Z	C	15	9	24	Z	Do not change	CZ
10020046	BE 4700	Z	C	18	6	24	Z	Do not change	CZ
10020058	BE 5600	Z	B	18	6	24	Z	Do not change	BZ
10020048	BF 2202	Z	B	19	5	24	Z	Do not change	BZ
9176902006	BB 3704	Z	C	10	13	23	Z	Do not change	CZ
9295902000	BC 2402	Y	B	23	0	23	Z	Changes	BZ
9011607260	BC 3500	Y	B	23	0	23	Z	Changes	BZ
9700231002	BC 3904	Z	B	16	7	23	Z	Do not change	BZ
9101300030	BC 6104	Z	B	23	0	23	Z	Do not change	BZ
9753010001	BD 3300	Y	B	23	0	23	Z	Changes	BZ
9291402000	BD 3302	Y	C	21	2	23	Z	Changes	CZ
9180300020	BD 3802	Y	C	22	1	23	Z	Changes	CZ
9126924502	BE 1300	Y	C	16	7	23	Z	Changes	CZ
9365001000	BE 1302	Y	C	18	5	23	Z	Changes	CZ
10027510	BE 4402	Z	C	21	2	23	Z	Do not change	CZ
7225164	BE 4404	Z	C	23	0	23	Z	Do not change	CZ
9111010030	BE 6602	Z	C	17	6	23	Z	Do not change	CZ
9442927557	BC 0400	Y	B	20	2	22	Z	Changes	BZ
9126484501	BC 6304	Z	A	22	0	22	Z	Do not change	AZ
9073817090	BD 1604	Z	B	22	0	22	Z	Do not change	BZ
9411927962	BD 4302	Y	A	16	6	22	Z	Changes	AZ
9341500700	BE 5200	Z	B	22	0	22	Z	Do not change	BZ
9154355002	BF 1604	Z	C	22	0	22	Z	Do not change	CZ
9751690001	BA 6104	X	A	11	10	21	Z	Changes	AZ
9136400531	BC 3502	Y	C	21	0	21	Z	Changes	CZ
10046400	BC 4704	Z	C	15	6	21	Z	Do not change	CZ
9126404507	BC 6000	Y	C	21	0	21	Z	Changes	CZ
7225512	BE 1304	Z	C	17	4	21	Z	Do not change	CZ

9126605531	BE 2400	Z	C	21	0	21	Z	Do not change	CZ
9126690511	BE 3502	Z	B	21	0	21	Z	Do not change	BZ
10004957	BF 6202	Z	B	11	10	21	Z	Do not change	BZ
9136600531	BB 6000	X	B	20	0	20	Z	Changes	BZ
9736003720	BC 1004	Z	C	17	3	20	Z	Do not change	CZ
9700231001	BC 3704	Z	B	14	6	20	Z	Do not change	BZ
9700235001	BC 4604	Z	B	17	3	20	Z	Do not change	BZ
9040107534	BC 5204	Z	C	20	0	20	Z	Do not change	CZ
9106937022	BC 6402	Y	B	17	3	20	Z	Changes	BZ
9291605000	BD 0400	Y	B	15	5	20	Z	Changes	BZ
9034936031	BD 2702	Y	B	19	1	20	Z	Changes	BZ
9442927556	BD 3904	Z	C	16	4	20	Z	Do not change	CZ
9964327000	BD 5602	Y	C	14	6	20	Z	Changes	CZ
9126424502	BD 5902	Y	C	13	7	20	Z	Changes	CZ
9005404492	BE 3200	Z	C	20	0	20	Z	Do not change	CZ
10020041	BE 4104	Z	C	13	7	20	Z	Do not change	CZ
9111002030	BE 6702	Z	C	13	7	20	Z	Do not change	CZ
9180600020	BF 2608	Z	C	20	0	20	Z	Do not change	CZ
7225540	BF 6502	Z	C	16	4	20	Z	Do not change	CZ
9125822500	BC 2004	Z	C	15	4	19	Z	Do not change	CZ
9091270325	BC 2200	Y	A	16	3	19	Z	Changes	AZ
9411986507	BC 2204	Z	A	14	5	19	Z	Do not change	AZ
9566000000	BC 2304	Z	B	17	2	19	Z	Do not change	BZ
9126624502	BC 2604	Z	C	15	4	19	Z	Do not change	CZ
10046401	BC 4504	Z	C	15	4	19	Z	Do not change	CZ
9074417012	BC 4802	Y	C	12	7	19	Z	Changes	CZ
9103623119	BC 5304	Z	A	9	10	19	Z	Do not change	AZ
9413927506	BD 2000	Y	C	13	6	19	Z	Changes	CZ
9411927961	BD 2802	Y	A	15	4	19	Z	Changes	AZ

9172990040	BD 4104	Z	C	19	0	19	Z	Do not change	CZ
9103623118	BD 5104	Z	C	9	10	19	Z	Do not change	CZ
9073517012	BD 5704	Z	C	15	4	19	Z	Do not change	CZ
9173990005	BE 0304	Z	B	18	1	19	Z	Do not change	BZ
9110010033	BB 1100	X	C	14	4	18	Z	Changes	CZ
9011009260	BB 2104	Z	A	14	4	18	Z	Do not change	AZ
9400090110	BB 5500	X	C	17	1	18	Z	Changes	CZ
9192122000	BC 0104	Z	C	11	7	18	Z	Do not change	CZ
9411928507	BC 2900	Y	C	10	8	18	Z	Changes	CZ
9363017090	BD 1804	Z	A	9	9	18	Z	Do not change	AZ
9174909011	BD 4100	Y	A	8	10	18	Z	Changes	AZ
9633211035	BD 5302	Y	B	18	0	18	Z	Changes	BZ
9074917056	BD 6300	Y	B	16	2	18	Z	Changes	BZ
10020040	BE 4500	Z	C	12	6	18	Z	Do not change	CZ
10041549	BE 5304	Z	B	9	9	18	Z	Do not change	BZ
10020053	BE 6002	Z	C	14	4	18	Z	Do not change	CZ
9110020330	BE 6200	Z	C	14	4	18	Z	Do not change	CZ
9074917011	BE 6302	Z	C	12	6	18	Z	Do not change	CZ
9364501000	BE 6700	Z	C	17	1	18	Z	Do not change	CZ
10030817	BF 1402	Z	C	18	0	18	Z	Do not change	CZ
10013756	BF 6202	Z	B	11	7	18	Z	Do not change	BZ
9193290010	BC 2804	Z	C	13	4	17	Z	Do not change	CZ
9411917962	BC 3104	Z	A	11	6	17	Z	Do not change	AZ
9633311035	BD 3202	Y	C	17	0	17	Z	Changes	CZ
10047995	BD 4502	Y	C	11	6	17	Z	Changes	CZ
10042183	BE 0204	Z	C	7	10	17	Z	Do not change	CZ
7225524	BE 4702	Z	C	13	4	17	Z	Do not change	CZ
10019067	BE 5400	Z	C	11	6	17	Z	Do not change	CZ
10021441	BF 2408	Z	C	14	3	17	Z	Do not change	CZ

9125622500	BD 2704	Z	C	13	3	16	Z	Do not change	CZ
7225532	BE 1104	Z	C	13	3	16	Z	Do not change	CZ
10020043	BE 1900	Z	C	13	3	16	Z	Do not change	CZ
9110035030	BE 3302	Z	C	14	2	16	Z	Do not change	CZ
10030818	BE 4004	Z	C	16	0	16	Z	Do not change	CZ
9567302000	BE 4102	Z	C	16	0	16	Z	Do not change	CZ
9110030030	BE 6600	Z	C	13	3	16	Z	Do not change	CZ
9112036030	BB 2700	X	C	15	0	15	Z	Changes	CZ
9110230430	BC 0302	Y	C	13	2	15	Z	Changes	CZ
9080607260	BC 0304	Z	B	15	0	15	Z	Do not change	BZ
9110020033	BC 1400	Y	C	12	3	15	Z	Changes	CZ
9110001030	BC 3204	Z	C	13	2	15	Z	Do not change	CZ
9325322781	BC 6204	Z	C	10	5	15	Z	Do not change	CZ
9411917961	BC 6604	Z	C	9	6	15	Z	Do not change	CZ
9964527000	BD 0204	Z	C	10	5	15	Z	Do not change	CZ
9126904536	BD 0404	Z	C	15	0	15	Z	Do not change	CZ
9174909012	BD 1002	Y	A	8	7	15	Z	Changes	AZ
9660235001	BD 1904	Z	C	15	0	15	Z	Do not change	CZ
9413927507	BD 3900	Y	C	13	2	15	Z	Changes	CZ
10026546	BF 4004	Z	C	9	6	15	Z	Do not change	CZ
10011137	BF 4204	Z	C	6	9	15	Z	Do not change	CZ
10030801	BF 4806	Z	C	9	6	15	Z	Do not change	CZ
9040107502	BA 5104	X	B	13	1	14	Z	Changes	BZ
9101002000	BB 0404	Z	B	6	8	14	Z	Do not change	BZ
3700379251	BB 1304	Z	C	0	14	14	Z	Do not change	CZ
9100001754	BC 0402	Y	C	14	0	14	Z	Changes	CZ
9110010037	BC 1802	Y	C	9	5	14	Z	Changes	CZ
9411927977	BC 1804	Z	A	9	5	14	Z	Do not change	AZ
9633811035	BC 4304	Z	C	14	0	14	Z	Do not change	CZ

9073517056	BC 5804	Z	C	12	2	14	Z	Do not change	CZ
9400090910	BD 5004	Z	C	12	2	14	Z	Do not change	CZ
7225556	BE 2704	Z	C	11	3	14	Z	Do not change	CZ
9340600550	BE 3800	Z	B	12	2	14	Z	Do not change	BZ
9175902550	BF 6406	Z	C	14	0	14	Z	Do not change	CZ
9411987506	BA 5704	X	B	9	4	13	Z	Changes	BZ
9112031030	BC 6504	Z	C	12	1	13	Z	Do not change	CZ
9413917961	BD 0104	Z	A	9	4	13	Z	Do not change	AZ
9411928506	BD 1102	Y	A	8	5	13	Z	Changes	AZ
9176922652	BD 1702	Y	C	6	7	13	Z	Changes	CZ
7171051	BD 3604	Z	B	13	0	13	Z	Do not change	BZ
9114570030	BE 1500	Y	C	8	5	13	Z	Changes	CZ
10021436	BE 1604	Z	C	7	6	13	Z	Do not change	CZ
10021431	BE 3702	Z	C	13	0	13	Z	Do not change	CZ
7225548	BE 4800	Z	C	11	2	13	Z	Do not change	CZ
10020039	BF 5202	Z	C	12	1	13	Z	Do not change	CZ
10013517	BB 2704	Z	C	10	2	12	Z	Do not change	CZ
9291905000	BB 3400	X	B	11	1	12	Z	Changes	BZ
9176922651	BB 5104	Z	C	6	6	12	Z	Do not change	CZ
9341500500	BB 5204	Z	B	12	0	12	Z	Do not change	BZ
7370046	BB 6504	Z	B	12	0	12	Z	Do not change	BZ
9413927971	BC 1104	Z	C	10	2	12	Z	Do not change	CZ
9413927962	BC 3400	Y	A	9	3	12	Z	Changes	AZ
9960408301	BD 0304	Z	B	9	3	12	Z	Do not change	BZ
9180608010	BD 1004	Z	C	6	6	12	Z	Do not change	CZ
9413917962	BD 3100	Y	A	10	2	12	Z	Changes	AZ
9114585030	BD 5000	Y	C	10	2	12	Z	Changes	CZ
10021435	BE 5002	Z	B	11	1	12	Z	Do not change	BZ
7170380	BF 5004	Z	C	12	0	12	Z	Do not change	CZ

9110001037	BB 0700	X	B	11	0	11	Z	Changes	BZ
9291603000	BB 2900	X	C	8	3	11	Z	Changes	CZ
9351700780	BB 5502	X	C	11	0	11	Z	Changes	CZ
9176932651	BC 0704	Z	C	11	0	11	Z	Do not change	CZ
9411917972	BC 1304	Z	B	11	0	11	Z	Do not change	BZ
9340700530	BC 2202	Y	C	11	0	11	Z	Changes	CZ
10036436	BD 1104	Z	B	11	0	11	Z	Do not change	BZ
9411927976	BD 1204	Z	C	8	3	11	Z	Do not change	CZ
9175908000	BD 2002	Y	B	11	0	11	Z	Changes	BZ
9110337030	BD 2004	Z	C	9	2	11	Z	Do not change	CZ
9413927961	BD 2300	Y	A	7	4	11	Z	Changes	AZ
9125505502	BD 3700	Y	C	11	0	11	Z	Changes	CZ
10021479	BE 1400	Y	C	6	5	11	Z	Changes	CZ
10021478	BE 2200	Z	C	10	1	11	Z	Do not change	CZ
10032243	BE 5204	Z	C	11	0	11	Z	Do not change	CZ
9074417056	BE 6104	Z	C	10	1	11	Z	Do not change	CZ
9700090175	BE 6704	Z	C	8	3	11	Z	Do not change	CZ
10016782	BF 3402	Z	C	9	2	11	Z	Do not change	CZ
10000339	BF 6002	Z	C	5	6	11	Z	Do not change	CZ
7225500	BF 6202	Z	C	9	2	11	Z	Do not change	CZ
9411917971	BB 0204	Z	B	8	2	10	Z	Do not change	BZ
9184605000	BB 5304	Z	C	4	6	10	Z	Do not change	CZ
9413927972	BC 3504	Z	C	9	1	10	Z	Do not change	CZ
9411927972	BC 6200	Y	C	8	2	10	Z	Changes	CZ
9388190005	BD 2100	Y	A	8	2	10	Z	Changes	AZ
9040107501	BD 5304	Z	C	10	0	10	Z	Do not change	CZ
9176926651	BD 5402	Y	C	8	2	10	Z	Changes	CZ
9110220430	BD 5600	Y	C	9	1	10	Z	Changes	CZ
10029262	BE 5500	Z	C	10	0	10	Z	Do not change	CZ

9340700730	BE 6004	Z	C	10	0	10	Z	Do not change	CZ
9388190015	BE 6304	Z	B	9	1	10	Z	Do not change	BZ
10013938	BF 4404	Z	C	7	3	10	Z	Do not change	CZ
7170016	BF 5004	Z	C	9	1	10	Z	Do not change	CZ
3711256005	BB 2604	Z	C	0	9	9	Z	Do not change	CZ
9411927971	BC 1500	Y	C	8	1	9	Z	Changes	CZ
9074917057	BC 3602	Y	C	7	2	9	Z	Changes	CZ
9422827950	BC 5104	Z	C	5	4	9	Z	Do not change	CZ
9534100000	BC 5704	Z	C	9	0	9	Z	Do not change	CZ
9541602070	BD 1304	Z	C	8	1	9	Z	Do not change	CZ
9413917536	BD 4804	Z	C	9	0	9	Z	Do not change	CZ
9074417011	BE 2302	Z	C	6	3	9	Z	Do not change	CZ
9103423117	BE 3900	Z	B	7	2	9	Z	Do not change	BZ
10032244	BE 5004	Z	C	9	0	9	Z	Do not change	CZ
9340500530	BE 5404	Z	C	9	0	9	Z	Do not change	CZ
10020400	BE 5502	Z	C	9	0	9	Z	Do not change	CZ
10020062	BF 0804	Z	C	5	4	9	Z	Do not change	CZ
9106590176	BF 2604	Z	C	4	5	9	Z	Do not change	CZ
3680001150	BF 4600	Z	C	0	9	9	Z	Do not change	CZ
7185751	BF 4806	Z	C	9	0	9	Z	Do not change	CZ
7394678	BF 5204	Z	C	9	0	9	Z	Do not change	CZ
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9341500850	BF 5402	Z	C	7	2	9	Z	Do not change	CZ
10028910	BF 6002	Z	C	6	3	9	Z	Do not change	CZ
9351700580	BB 1204	Z	C	8	0	8	Z	Do not change	CZ
3597380000	BB 2404	Z	C	8	0	8	Z	Do not change	CZ
9184606000	BB 3404	Z	C	4	4	8	Z	Do not change	CZ
9293402000	BC 1404	Z	C	6	2	8	Z	Do not change	CZ
9103423116	BC 4200	Y	C	7	1	8	Z	Changes	CZ

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9351900781	BC 5700	Y	C	8	0	8	Z	Changes	CZ
3701759020	BC 6404	Z	C	0	8	8	Z	Do not change	CZ
9422890910	BC 6602	Y	C	8	0	8	Z	Changes	CZ
9034935031	BD 0502	Y	C	7	1	8	Z	Changes	CZ
9633711035	BD 2202	Y	C	8	0	8	Z	Changes	CZ
9364017010	BD 2604	Z	C	4	4	8	Z	Do not change	CZ
7225568	BE 0404	Z	C	6	2	8	Z	Do not change	CZ
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9340500730	BE 5604	Z	C	8	0	8	Z	Do not change	CZ
9291613000	BE 6300	Z	C	7	1	8	Z	Do not change	CZ
9014209031	BF 0604	Z	C	8	0	8	Z	Do not change	CZ
10021503	BF 4204	Z	C	8	0	8	Z	Do not change	CZ
9751410028	BF 4402	Z	B	7	1	8	Z	Do not change	BZ
10021429	BF 4406	Z	C	8	0	8	Z	Do not change	CZ
10021123	BF 4804	Z	C	7	1	8	Z	Do not change	CZ
3466246	BF 5402	Z	C	6	2	8	Z	Do not change	CZ
10011480	BF 5408	Z	C	5	3	8	Z	Do not change	CZ
10013768	BF 6202	Z	B	7	1	8	Z	Do not change	BZ
9751410037	BB 6304	Z	B	6	1	7	Z	Do not change	BZ
9530100000	BC 0604	Z	C	7	0	7	Z	Do not change	CZ
9751710002	BC 2104	Z	C	4	3	7	Z	Do not change	CZ
9400090900	BC 4004	Z	C	6	1	7	Z	Do not change	CZ
9103624111	BD 2504	Z	C	7	0	7	Z	Do not change	CZ
9351900502	BD 5604	Z	B	7	0	7	Z	Do not change	BZ
9633217035	BD 5702	Y	B	7	0	7	Z	Changes	BZ
10030815	BE 3804	Z	C	7	0	7	Z	Do not change	CZ
N5140000000 0000	BE 5504	Z	B	7	0	7	Z	Do not change	BZ

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9106933031	6204	Z	C	4	3	7	Z	Do not change	CZ
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		BF						Do not change	
10011059	4006	Z	C	6	1	7	Z	Do not change	CZ
		BF						Do not change	
10029252	4606	Z	C	7	0	7	Z	Do not change	CZ
		BF						Do not change	
7264606	5402	Z	C	5	2	7	Z	Do not change	CZ
		BF						Do not change	
9341900852	5402	Z	C	6	1	7	Z	Do not change	CZ
		BF						Do not change	
9341600720	5402	Z	C	6	1	7	Z	Do not change	CZ
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10026074	6408	Z	C	6	1	7	Z	Do not change	CZ
		BF						Do not change	
10036490	6504	Z	C	7	0	7	Z	Do not change	CZ
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9554000722	0804	Z	B	3	3	6	Z	BB	BZ
		BB						Do not change	
9634211032	3904	Z	C	6	0	6	Z	Do not change	CZ
		BB						Do not change	
9176901007	4004	Z	C	4	2	6	Z	Do not change	CZ
		BB						Do not change	
9103421112	5604	Z	C	5	1	6	Z	Do not change	CZ
		BB						Do not change	
9736004720	6104	Z	C	6	0	6	Z	Do not change	CZ
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9207017030	3804	Z	C	5	1	6	Z	Do not change	CZ
		BD						Do not change	
9034933021	0504	Z	C	6	0	6	Z	Do not change	CZ
		BD						Do not change	
9180904000	0802	Y	A	3	3	6	Z	Changes	AZ
		BD						Changes	
9738003720	4500	Y	C	6	0	6	Z	Changes	CZ
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10020052	0704	Z	C	4	2	6	Z	Do not change	CZ
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10041479	2004	Z	C	1	5	6	Z	Do not change	CZ
		BE						Do not change	
9120080000	2604	Z	C	5	1	6	Z	Do not change	CZ
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10030814	3304	Z	C	6	0	6	Z	Do not change	CZ
		BE						Do not change	
7225516	3402	Z	C	5	1	6	Z	Do not change	CZ
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9063567652	1606	Z	C	6	0	6	Z	Do not change	CZ
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10003880	2306	Z	C	6	0	6	Z	Do not change	CZ
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10001220	4606	Z	C	3	3	6	Z	Do not change	CZ
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10002737	6202	Z	B	3	3	6	Z	Do not change	BZ
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3706642360	0504	Z	C	0	5	5	Z	Do not change	CZ
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3706622310	0804	Z	C	0	5	5	Z	Do not change	CZ
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10005525	2700	Y	C	3	2	5	Z	Changes	CZ
	BC								
9751410001	6300	Y	C	5	0	5	Z	Changes	CZ
	BC								
9751410000	6502	Y	B	5	0	5	Z	Changes	BZ
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9960407016	1302	Y	B	4	1	5	Z	Changes	BZ
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9103624112	2804	Z	C	5	0	5	Z	Do not change	CZ
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10011064	1404	Z	C	3	2	5	Z	Do not change	CZ
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7225504	3802	Z	C	4	1	5	Z	Do not change	CZ
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	BF								
9073817035	0808	Z	A	5	0	5	Z	Do not change	AZ
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9317003050	3206	Z	C	4	1	5	Z	Do not change	CZ
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10014922	BF 4206	Z	C	3	2	5	Z	Do not change	CZ
9351900552	BF 4402	Z	C	3	2	5	Z	Do not change	CZ
7225925	BF 4404	Z	C	5	0	5	Z	Do not change	CZ
10000323	BF 4606	Z	C	5	0	5	Z	Do not change	CZ
10034049	BF 4606	Z	C	5	0	5	Z	Do not change	CZ
10021491	BF 5004	Z	C	4	1	5	Z	Do not change	CZ
10021481	BF 5206	Z	B	5	0	5	Z	Do not change	BZ
9325308720	BF 5402	Z	C	3	2	5	Z	Do not change	CZ
10010913	BF 5602	Z	C	5	0	5	Z	Do not change	CZ
7273655	BF 5808	Z	C	5	0	5	Z	Do not change	CZ
10047925	BF 6002	Z	C	4	1	5	Z	Do not change	CZ
10021342	BF 6202	Z	C	2	3	5	Z	Do not change	CZ
10013604	BF 6202	Z	C	3	2	5	Z	Do not change	CZ
10021437	BB 0504	Z	B	4	0	4	Z	Do not change	BZ
9176999652	BB 2804	Z	C	2	2	4	Z	Do not change	CZ
9363017120	BB 4504	Z	C	4	0	4	Z	Do not change	CZ
9340500785	BB 4804	Z	C	4	0	4	Z	Do not change	CZ
9738004720	BB 6004	Z	C	4	0	4	Z	Do not change	CZ
9412818310	BC 0702	Y	C	2	2	4	Z	Changes	CZ
9184642005	BC 1904	Z	C	4	0	4	Z	Do not change	CZ
3592566410	BC 5904	Z	C	0	4	4	Z	Do not change	CZ
9176901061	BD 0902	Y	C	4	0	4	Z	Changes	CZ
9176986652	BD 0904	Z	C	3	1	4	Z	Do not change	CZ
9074417036	BD 3804	Z	C	4	0	4	Z	Do not change	CZ
9174935001	BD 4002	Y	C	4	0	4	Z	Changes	CZ
9999990010	BD 6200	Y	B	4	0	4	Z	Changes	BZ
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10020054	BE 5104	Z	C	3	1	4	Z	Do not change	CZ
10020055	BE 5802	Z	C	4	0	4	Z	Do not change	CZ
9411990332	BF 0408	Z	B	4	0	4	Z	Do not change	BZ
9106433022	BF 3604	Z	C	2	2	4	Z	Do not change	CZ
10011139	BF 4204	Z	C	2	2	4	Z	Do not change	CZ
9750019005	BF 4402	Z	C	3	1	4	Z	Do not change	CZ
7225933	BF 4802	Z	C	4	0	4	Z	Do not change	CZ
10013810	BF 4808	Z	C	4	0	4	Z	Do not change	CZ
7273657	BF 5004	Z	C	4	0	4	Z	Do not change	CZ
10002296	BF 5008	Z	C	4	0	4	Z	Do not change	CZ
10005990	BF 5206	Z	C	2	2	4	Z	Do not change	CZ
9334137000	BF 5402	Z	C	3	1	4	Z	Do not change	CZ
10021316	BF 6202	Z	C	2	2	4	Z	Do not change	CZ
7264608	BF 6408	Z	C	3	1	4	Z	Do not change	CZ
7262127	BF 6408	Z	C	4	0	4	Z	Do not change	CZ
3706632310	BB 0904	Z	B	0	3	3	Z	Do not change	BZ
9306000760	BC 2504	Z	C	1	2	3	Z	Do not change	CZ
9173928000	BC 3304	Z	C	3	0	3	Z	Do not change	CZ
9066947852	BD 0800	Y	C	3	0	3	Z	Changes	CZ
9751410065	BD 2304	Z	C	3	0	3	Z	Do not change	CZ
9176993002	BD 4704	Z	C	2	1	3	Z	Do not change	CZ
9736005720	BD 5204	Z	C	3	0	3	Z	Do not change	CZ
9073817010	BD 5802	Y	C	3	0	3	Z	Changes	CZ
7225580	BE 0604	Z	C	2	1	3	Z	Do not change	CZ
3673419550	BE 1200	Y	C	0	3	3	Z	Changes	CZ
10021440	BE 5202	Z	C	3	0	3	Z	Do not change	CZ
10021427	BE 5300	Z	C	3	0	3	Z	Do not change	CZ
9541502070	BE 6404	Z	C	2	1	3	Z	Do not change	CZ

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10020065	1602	Z	C	3	0	3	Z	Do not change	CZ
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10011681	1604	Z	C	2	1	3	Z	Do not change	CZ
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9011106260	1606	Z	B	3	0	3	Z	Do not change	BZ
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9106433211	1606	Z	B	3	0	3	Z	Do not change	BZ
	BF								
9341900556	2404	Z	C	2	1	3	Z	Do not change	CZ
	BF								
9176901022	2406	Z	C	3	0	3	Z	Do not change	CZ
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9341900557	2604	Z	C	2	1	3	Z	Do not change	CZ
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9750159001	2604	Z	C	3	0	3	Z	Do not change	CZ
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9095200011	3408	Z	B	3	0	3	Z	Do not change	BZ
	BF								
9320090010	3408	Z	C	3	0	3	Z	Do not change	CZ
	BF								
7262029	3804	Z	C	3	0	3	Z	Do not change	CZ
	BF								
10024988	4004	Z	C	2	1	3	Z	Do not change	CZ
	BF								
9106433021	4008	Z	B	2	1	3	Z	Do not change	BZ
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9740109001	4402	Z	C	1	2	3	Z	Do not change	CZ
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10004867	4808	Z	C	3	0	3	Z	Do not change	CZ
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7264627	5402	Z	C	1	2	3	Z	Do not change	CZ
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10020998	5808	Z	C	2	1	3	Z	Do not change	CZ
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10026576	6202	Z	C	1	2	3	Z	Do not change	CZ
	BF								
10000911	6202	Z	C	1	2	3	Z	Do not change	CZ
	BF								
10001952	6202	Z	C	0	3	3	Z	Do not change	CZ

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10004472	BF 6202	Z	C	2	1	3	Z	Do not change	CZ	
10013798	BF 6202	Z	C	1	2	3	Z	Do not change	CZ	
10013878	BF 6202	Z	C	2	1	3	Z	Do not change	CZ	
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10025196	BF 6504	Z	C	3	0	3	Z	Do not change	CZ	
9738005720	BB 0104	Z	B	2	0	2	Z	Do not change	BZ	
3701759060	BB 3104	Z	C	0	2	2	Z	Do not change	CZ	
9400090182	BB 5300	X	C	2	0	2	Z	Changes	CZ	
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9180703000	BC 1604	Z	C	2	0	2	Z	Do not change	CZ	
9291903000	BC 4404	Z	C	2	0	2	Z	Do not change	CZ	
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9106917022	BD 1400	Y	C	2	0	2	Z	Changes	CZ	
3711264007	BD 2904	Z	C	0	2	2	Z	Do not change	CZ	
9031913006	BD 3704	Z	C	1	1	2	Z	Do not change	CZ	
10048532	BD 4700	Y	C	1	1	2	Z	Changes	CZ	
9074937056	BD 5700	Y	C	1	1	2	Z	Changes	CZ	
9293202000	BD 6102	Y	C	2	0	2	Z	Changes	CZ	
10047988	BD 6104	Z	C	1	1	2	Z	Do not change	CZ	
10046764	BD 6204	Z	C	1	1	2	Z	Do not change	CZ	
9074937012	BD 6302	Y	C	2	0	2	Z	Changes	CZ	
3712603425	BD 6504	Z	C	0	2	2	Z	Do not change	CZ	
N1050300917	BD 000M	6602	Y	C	0	2	2	Z	Changes	CZ
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10020049	BE 4002	Z	C	2	0	2	Z	Do not change	CZ	

10046909	BE 4504	Z	C	0	2	2	Z	Do not change	CZ
10021451	BE 4802	Z	C	2	0	2	Z	Do not change	CZ
9176901062	BF 0204	Z	C	2	0	2	Z	Do not change	CZ
9536002070	BF 1404	Z	C	2	0	2	Z	Do not change	CZ
10011680	BF 1606	Z	C	2	0	2	Z	Do not change	CZ
9176901021	BF 2404	Z	C	2	0	2	Z	Do not change	CZ
9559000200	BF 2604	Z	B	2	0	2	Z	Do not change	BZ
9106433212	BF 2604	Z	B	1	1	2	Z	Do not change	BZ
9533134000	BF 3406	Z	C	2	0	2	Z	Do not change	CZ
9091290600	BF 3604	Z	C	2	0	2	Z	Do not change	CZ
10000241	BF 3804	Z	C	2	0	2	Z	Do not change	CZ
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9751530022	BF 3808	Z	C	2	0	2	Z	Do not change	CZ
9095200295	BF 3808	Z	C	1	1	2	Z	Do not change	CZ
10026604	BF 4004	Z	C	2	0	2	Z	Do not change	CZ
10001215	BF 4004	Z	C	1	1	2	Z	Do not change	CZ
10015916	BF 4004	Z	C	1	1	2	Z	Do not change	CZ
9702235001	BF 4008	Z	C	1	1	2	Z	Do not change	CZ
3466714	BF 4204	Z	C	2	0	2	Z	Do not change	CZ
9543535000	BF 4402	Z	C	1	1	2	Z	Do not change	CZ
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10027540	BF 4404	Z	B	2	0	2	Z	Do not change	BZ
10002043	BF 4406	Z	C	2	0	2	Z	Do not change	CZ
10010953	BF 4806	Z	C	2	0	2	Z	Do not change	CZ
10019003	BF 4808	Z	C	2	0	2	Z	Do not change	CZ
7262054	BF 5004	Z	C	2	0	2	Z	Do not change	CZ
7262125	BF 5004	Z	C	2	0	2	Z	Do not change	CZ
10003683	BF 5208	Z	C	2	0	2	Z	Do not change	CZ

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	BF								
7264630	5402	Z	C	1	1	2	Z	Do not change	CZ
	BF								
9010090030	5402	Z	C	1	1	2	Z	Do not change	CZ
	BF								
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	BF								
3466371	5608	Z	C	2	0	2	Z	Do not change	CZ
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	BB								
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10046910	1604	Z	C	0	1	1	Z	Do not change	CZ
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7171049	2400	Y	C	1	0	1	Z	Changes	CZ
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9074937011	4202	Y	C	1	0	1	Z	Changes	CZ
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	BF								
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	BF								
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10002281	BF 6202	Z	C	0	1	1	Z	Do not change	CZ
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10013904	BF 6202	Z	C	0	1	1	Z	Do not change	CZ
10021201	BF 6408	Z	C	1	0	1	Z	Do not change	CZ
10025055	BF 6504	Z	C	1	0	1	Z	Do not change	CZ
10042520	BA 6304	X	B	0	0	0	Z	Changes	BZ
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7184491	BB 1804	Z	C	0	0	0	Z	Do not change	CZ
9176902046	BB 2204	Z	C	0	0	0	Z	Do not change	CZ
10029856	BB 2304	Z	C	0	0	0	Z	Do not change	CZ
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3700744170	BC 0204	Z	C	0	0	0	Z	Do not change	CZ
3701769272	BC 1504	Z	C	0	0	0	Z	Do not change	CZ
9634311032	BC 2904	Z	C	0	0	0	Z	Do not change	CZ

9634311031	BC 3404	Z	C	0	0	0	Z	Do not change	CZ
7225487	BC 4804	Z	C	0	0	0	Z	Do not change	CZ
7184492	BC 5404	Z	C	0	0	0	Z	Do not change	CZ
3711846020	BD 0604	Z	C	0	0	0	Z	Do not change	CZ
3711266007	BD 0704	Z	C	0	0	0	Z	Do not change	CZ
9550001000	BD 0804	Z	C	0	0	0	Z	Do not change	CZ
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9103625151	BD 3204	Z	C	0	0	0	Z	Do not change	CZ
9126632506	BD 3500	Y	C	0	0	0	Z	Changes	CZ
9964129000	BD 4202	Y	C	0	0	0	Z	Changes	CZ
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10011092	BE 1504	Z	C	0	0	0	Z	Do not change	CZ
7574203	BE 1804	Z	C	0	0	0	Z	Do not change	CZ
9553100721	BE 2300	Z	C	0	0	0	Z	Do not change	CZ
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10002562	BE 3104	Z	C	0	0	0	Z	Do not change	CZ
9553100722	BE 3904	Z	C	0	0	0	Z	Do not change	CZ
9964429000	BE 4202	Z	C	0	0	0	Z	Do not change	CZ
9125522501	BE 5000	Z	C	0	0	0	Z	Do not change	CZ
10040568	BE 5704	Z	C	0	0	0	Z	Do not change	CZ
N1050300913 000M	BE 6604	Z	C	0	0	0	Z	Do not change	CZ
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9731803000	BF 0208	Z	C	0	0	0	Z	Do not change	CZ
9731900000	BF 0208	Z	C	0	0	0	Z	Do not change	CZ

9530000700	BF 0208	Z	C	0	0	0	Z	Do not change	CZ
9555100000	BF 0604	Z	C	0	0	0	Z	Do not change	CZ
9541702070	BF 0606	Z	C	0	0	0	Z	Do not change	CZ
7394664	BF 0608	Z	C	0	0	0	Z	Do not change	CZ
9541711071	BF 0806	Z	C	0	0	0	Z	Do not change	CZ
7184495	BF 1208	Z	C	0	0	0	Z	Do not change	CZ
10027180	BF 1406	Z	C	0	0	0	Z	Do not change	CZ
10011287	BF 1604	Z	C	0	0	0	Z	Do not change	CZ
10011288	BF 1604	Z	C	0	0	0	Z	Do not change	CZ
10011686	BF 1604	Z	C	0	0	0	Z	Do not change	CZ
9356700725	BF 1604	Z	C	0	0	0	Z	Do not change	CZ
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9751420005	BF 1606	Z	C	0	0	0	Z	Do not change	CZ
7394660	BF 2204	Z	C	0	0	0	Z	Do not change	CZ
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10016820	BF 2206	Z	C	0	0	0	Z	Do not change	CZ
9549101000	BF 2404	Z	C	0	0	0	Z	Do not change	CZ
9541701050	BF 2404	Z	C	0	0	0	Z	Do not change	CZ
9541713072	BF 2406	Z	C	0	0	0	Z	Do not change	CZ
9063567651	BF 2406	Z	C	0	0	0	Z	Do not change	CZ
9285600000	BF 2604	Z	C	0	0	0	Z	Do not change	CZ
9011009071	BF 3004	Z	C	0	0	0	Z	Do not change	CZ
9530000300	BF 3004	Z	C	0	0	0	Z	Do not change	CZ
9532007070	BF 3006	Z	C	0	0	0	Z	Do not change	CZ
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7272223	BF 3008	Z	C	0	0	0	Z	Do not change	CZ
9541704070	BF 3008	Z	C	0	0	0	Z	Do not change	CZ

9530000500	BF 3008	Z	C	0	0	0	Z	Do not change	CZ
9530000400	BF 3008	Z	C	0	0	0	Z	Do not change	CZ
9751470000	BF 3204	Z	C	0	0	0	Z	Do not change	CZ
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9011009305	BF 3404	Z	C	0	0	0	Z	Do not change	CZ
9333100000	BF 3408	Z	C	0	0	0	Z	Do not change	CZ
10004305	BF 3602	Z	C	0	0	0	Z	Do not change	CZ
10012862	BF 3804	Z	C	0	0	0	Z	Do not change	CZ
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9011007305	BF 3804	Z	C	0	0	0	Z	Do not change	CZ
9010907302	BF 3806	Z	C	0	0	0	Z	Do not change	CZ
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9530000600	BF 3808	Z	C	0	0	0	Z	Do not change	CZ
10000250	BF 4004	Z	C	0	0	0	Z	Do not change	CZ
10024990	BF 4004	Z	C	0	0	0	Z	Do not change	CZ
10003366	BF 4004	Z	C	0	0	0	Z	Do not change	CZ
10003707	BF 4004	Z	C	0	0	0	Z	Do not change	CZ
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10022543	BF 4004	Z	C	0	0	0	Z	Do not change	CZ
3462816	BF 4004	Z	C	0	0	0	Z	Do not change	CZ
10022561	BF 4004	Z	C	0	0	0	Z	Do not change	CZ
10022562	BF 4004	Z	C	0	0	0	Z	Do not change	CZ
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10014900	BF 4004	Z	C	0	0	0	Z	Do not change	CZ
10025222	BF 4004	Z	C	0	0	0	Z	Do not change	CZ
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10017475	BF 4004	Z	C	0	0	0	Z	Do not change	CZ
10010630	BF 4004	Z	C	0	0	0	Z	Do not change	CZ
10002564	BF 4006	Z	C	0	0	0	Z	Do not change	CZ
10004481	BF 4006	Z	C	0	0	0	Z	Do not change	CZ
10010460	BF 4006	Z	C	0	0	0	Z	Do not change	CZ
10025801	BF 4006	Z	C	0	0	0	Z	Do not change	CZ
9751960007	BF 4008	Z	C	0	0	0	Z	Do not change	CZ
10003805	BF 4204	Z	C	0	0	0	Z	Do not change	CZ
10021502	BF 4204	Z	C	0	0	0	Z	Do not change	CZ
10005194	BF 4204	Z	C	0	0	0	Z	Do not change	CZ
10010071	BF 4204	Z	C	0	0	0	Z	Do not change	CZ
10013554	BF 4204	Z	C	0	0	0	Z	Do not change	CZ
10014899	BF 4204	Z	C	0	0	0	Z	Do not change	CZ
10017605	BF 4204	Z	C	0	0	0	Z	Do not change	CZ
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10003312	BF 4206	Z	C	0	0	0	Z	Do not change	CZ
10004454	BF 4206	Z	C	0	0	0	Z	Do not change	CZ
10010301	BF 4206	Z	C	0	0	0	Z	Do not change	CZ
10013463	BF 4206	Z	C	0	0	0	Z	Do not change	CZ
10014217	BF 4206	Z	C	0	0	0	Z	Do not change	CZ
10014230	BF 4206	Z	C	0	0	0	Z	Do not change	CZ
10014895	BF 4206	Z	C	0	0	0	Z	Do not change	CZ
10015337	BF 4206	Z	C	0	0	0	Z	Do not change	CZ
10017604	BF 4206	Z	C	0	0	0	Z	Do not change	CZ
7395749	BF 4206	Z	C	0	0	0	Z	Do not change	CZ
7395716	BF 4206	Z	C	0	0	0	Z	Do not change	CZ
9751960006	BF 4208	Z	C	0	0	0	Z	Do not change	CZ

9536317070	BF 4208	Z	C	0	0	0	Z	Do not change	CZ
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10034383	BF 4404	Z	C	0	0	0	Z	Do not change	CZ
7972009	BF 4404	Z	C	0	0	0	Z	Do not change	CZ
10006126	BF 4404	Z	C	0	0	0	Z	Do not change	CZ
10012436	BF 4404	Z	C	0	0	0	Z	Do not change	CZ
10012438	BF 4404	Z	C	0	0	0	Z	Do not change	CZ
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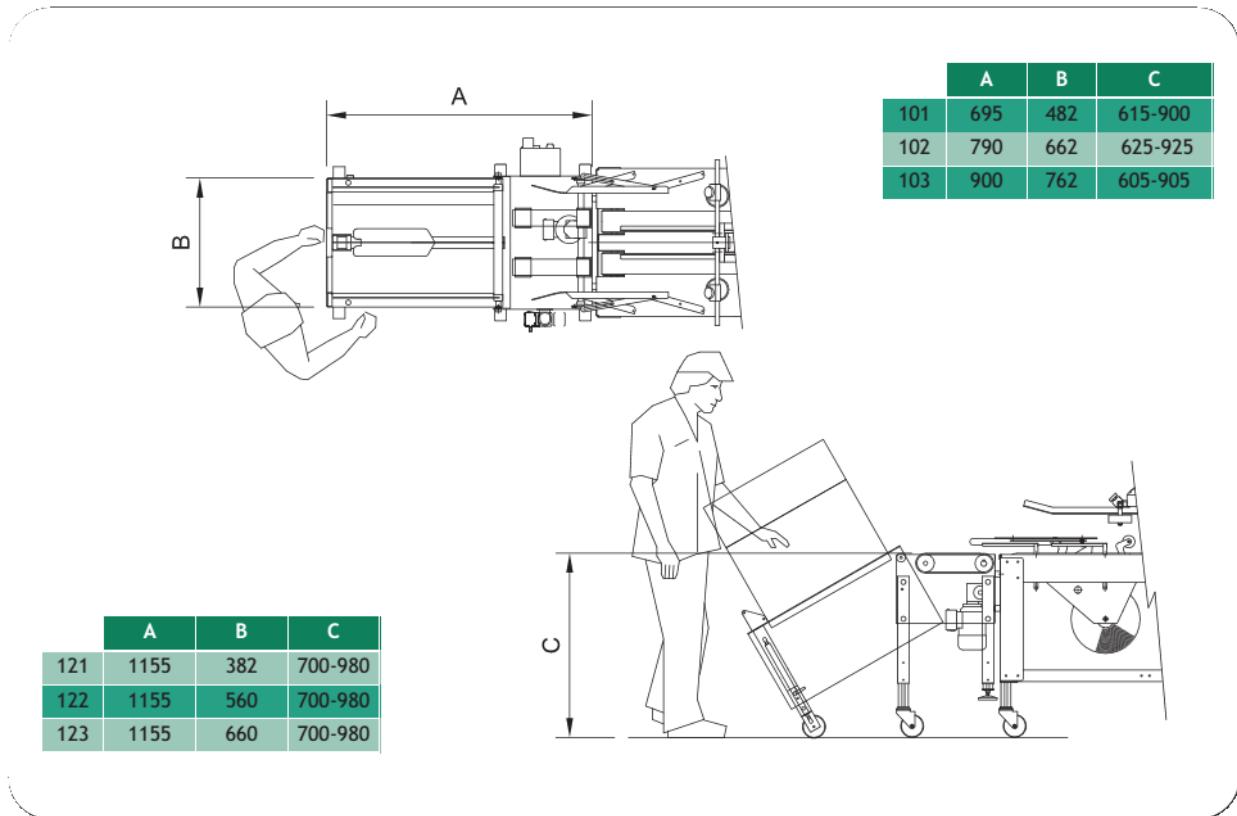
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B. Dimensions of Machines

1. Endoline offers 1/2/3H CASE FORMERS



2. Loveshaw CF-5 its semi-automatic case former.



Power Requirements: 110 VAC, 60Hz, single phase, 2 Amp motor.

Air Requirements: 6.5 SCFM

Production Rate: Up to 6 cases per minute, depending on operator dexterity

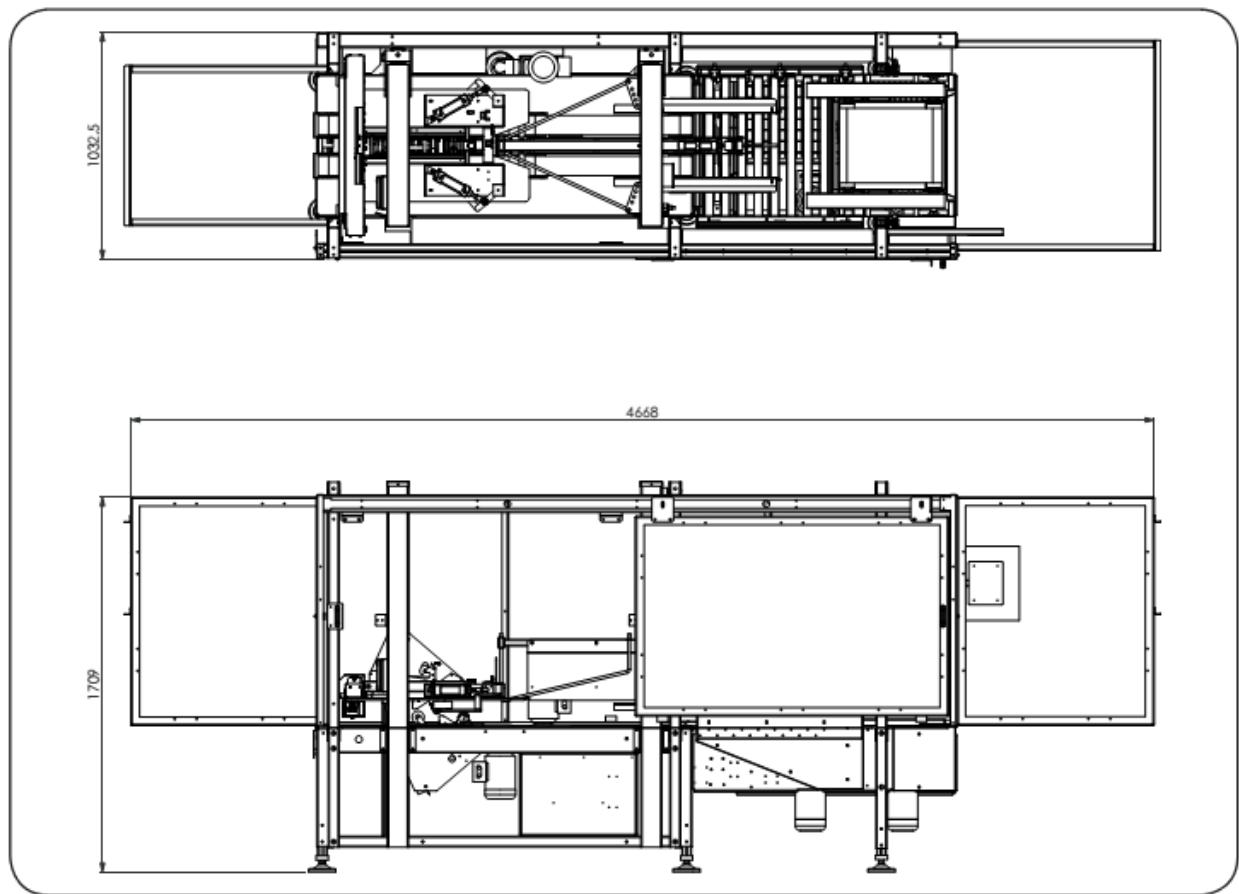
Case Dimensions:

Length: 8" - 25" (203mm - 635mm)

Width: 5.5" - 20" (140mm - 508mm)

Height: 3.5" - infinite (89mm - infinite)

3. Endoline offers 719 fully automated void filling system



4. Label printer- Panther 2000 Print and Labelling System



Panther 2000 Print and Apply Labeling System
with 8" Pneumatic Tamp Applicator Assembly

Specifications

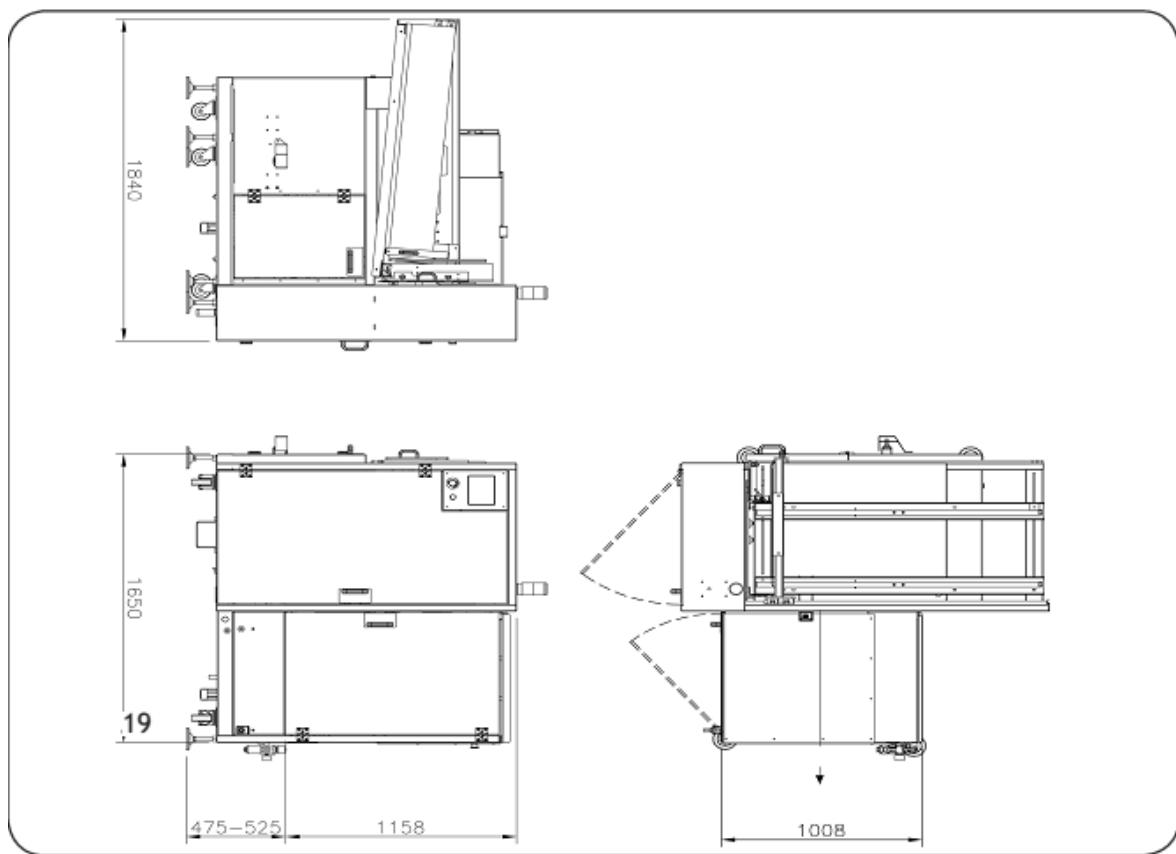
Electrical

Input: 115AC@5.0 AMPS 50/60Hz single phase

Output: 24VDC@2.0AMPS

Pneumatic	40- 60PSI @2.0 AMPS OSHA Approved Lockable shut-off
Printer	Print Method: Thermal Transfer or Direct Thermal Print width:6,6" Max, .500" Min Print Length: 14" Max Print Resolution: 203,300 and 600 DPI Media Supply: 14" O.D. on 3" core Communication: Serial, Parallel, E-Net, Wireless E-Net, USB
Applicator	Placement Accuracy: Within 1/32" Maximum Reach: Up to 24" Speed: 140+ LPM

5. Automatic case former –Endoline 227 and 228 case former

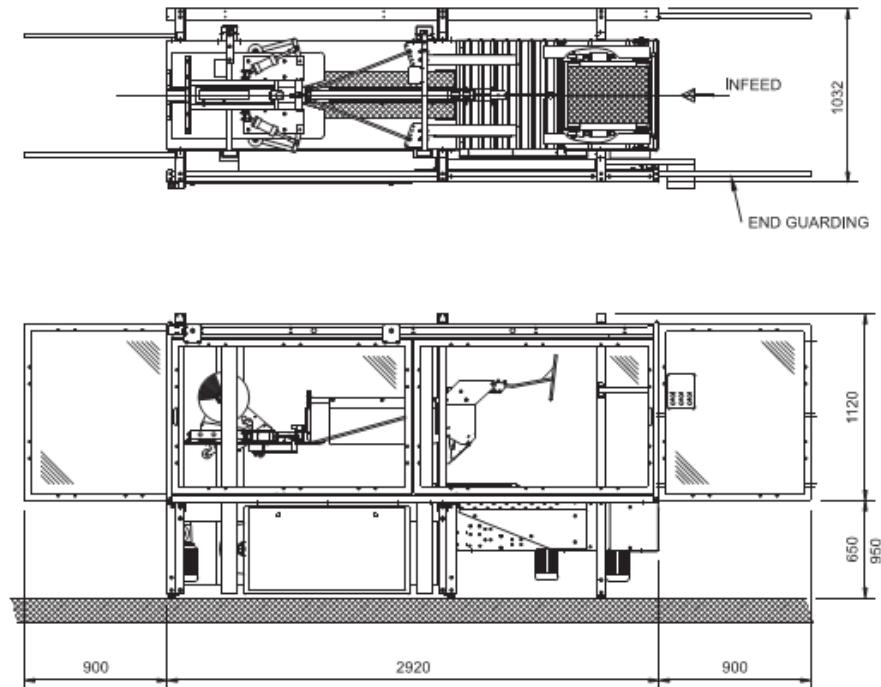


6. In line weighing- XE40/100 Cargo by Mettler Toledo

**Specifications - XE40/100 Cargo**

Weighing range	250 g - 60 kg
Accuracy	From ± 50 g
Speed	120 m/min / 180 m/min
Roller centers, weighing conveyor (A-A)	600, 800, 1000 mm / 1000, 1200, 1500, 1700 mm
Belt width, weighing conveyor (B-B)	300, 400, 500, 600 mm / 500, 600, 700, 800, 900 mm
Voltage	115/230V AC, 50/60 Hz, single-phase, 400/480 V AC, 50/60 Hz, triple phase ≥750 VA (XE40) / ≥ 1200 VA (XE100)
Standard Protocols	Mettler-Multi Range, Weight 8C
Interfacing	Ethernet , Serial, Profibus DB, Profi Net, Modbus
Load cells	EMFR (standard) /DMS
Technology	Digital / Analogue
Accuracy	±2g (XE40) ±5g (XE100) / ±5g (XE40) ±20g (XE100)
Certifications	MID, NTEP, NMI, RUS
Throughput	Up to 18 000 pcs/h

7. Random Size Box Sealer- 704 Fully Automatic Random Case Tape



C. Quotations from Suppliers

1. This Quotation is for Print and label applicator was received from Tilabels was received on 7th March 2016

please see the offer below, if it will be interesting for You I will tell You more about the whole project,

Zebra engine ZE 500 - 3300 EURO

Label applicator - 11000 EURO

transport applicator + zebra engine, installation, training, gas, accommodation - 2000 EURO

2. This Quotation is from Neopost about CVP-500, the automatic packaging machine was received on 25th February 2016

Dear Mr. Sinha,

Thank you for your interest in the CVP-500 and the telephone conversation we had last Monday.

I hereby send you more information on our company and on the CVP-500 automated packing machine.

About Neopost

Neopost Shipping in Drachten is part of the stock exchange-listed Neopost Group, with its headquarters in Paris. With products and services marketed in 90 countries, international presence in 31 countries and over 6,000 employees, Neopost is a world leader in mail processing solutions and a major player in digital communication and shipping solutions.

About CVP-500

Neopost Shipping in Drachten is the 'Center of Excellence' for developing and producing innovative parcel shipping solutions, like the CVP-500: a fully automatic packing machine that enables real time creation of fit-to-size packaging for each order. The CVP integrates all steps in the fulfillment process after picking a product: from box creation and filling of the box, to closing with an automatic taper and labeling the shipping address on the box. The CVP is capable of replacing 8-10 packing stations in a DC. Unlike other "fit-to-size" box systems, the CVP actually builds the perfect size box around the items. One operator can generate a perfect-sized, labeled parcel every 7 seconds.

Key benefits of the CVP-500

SAVING SPACE AND MAKING SPACE

- Significant optimization in your operation process (10 times faster than manual packing)
- Eliminates backfill material with custom fit parcels
- Saves up to 20% on cardboard material
- Minimize storage by eliminating a vast number of standard boxes

REDUCTION OF SHIPPING VOLUME UPTO 50%

- Savings on shipping costs when volume is a component of shipping price (Dim Weight)
- GROWING BUSINESSES BY REDUCING WORKING SPACE**

- Higher output using the same floor space
- Later cut-off times, enabling same day delivery
- Speeding up to stay ahead, more flexibility for peaks and future growth
- Create more working space for revenue driven activities

MANAGE CUSTOMER EXPECTATIONS & IMPROVE BRAND IDENTITY

- Acknowledging end customers environmental awareness: less packaging, no back fill material
- Automated fulfillment minimizes risk on unnecessary return shipments
- Fit to size parcel improves goods protection
- Using the box for communication with the customer: customization of enclosures
- Environmental friendly parcel which supports your brand perception for you and your end customer

Price and Subsidy

The final investment is related to the customization part, but as an indication you can calculate with approximately 700K-750K list price, including transportation, installation, training and service. What seems more important is the savings you can achieve with the machine and the ROI. Neopost created a tool for data analysis (determining the match with your current process and the savings in cardboard and volume) and can help with the ROI calculation.

The CVP-500 is registered on the Environmental List 2016 and therefore the MIA subsidy as well as the Vamil subsidy apply to the investment. Through the MIA, you can deduct up to 36% of the investment costs for an environmentally friendly investment from the fiscal profit on the regular depreciation and with the Vamil you can yourself decide when to write off these investment costs. You decide how fast or slowly. That provides an advantage in liquidity and interest.

I look forward to talking to you again next week. Should you have any questions beforehand, please do not hesitate to contact me.

Hartelijke groet,

Best regards,

Wendi Bosma

Business development manager

3. This quotation is from Mettler Toledo about the in line weigh machine was received on 10th March 2016.

4. This Quotation is from Cubiscan about the 3rd March 2016.

Quotation 3 and 4 are attached in the internship report

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