

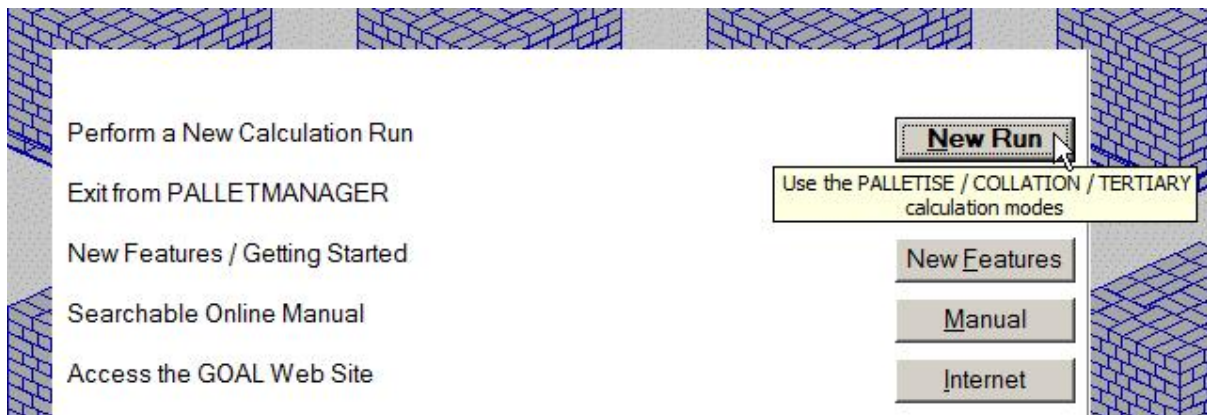
PALLETMANAGER – Pallet Comparison Mode used to compare load efficiency on different pallets.

Most PALLETMANAGER users know in advance the pallet size that they wish to use for a given product and are ‘simply’ concerned with determining optimal stable pallet stacks for the given case size. PALLETMANAGER has for some time allowed users to compare the efficiency achieved for a given case size against 2 different pallet sizes and recent minor changes have made to make this process even easier. The description that follows illustrates on a screen by screen basis this process. Before doing so we should emphasize that PALLETMANAGER has many other operating modes including the design of cases from collations of product and sensitivity analysis on case sizes for efficient palletisation.

Example.

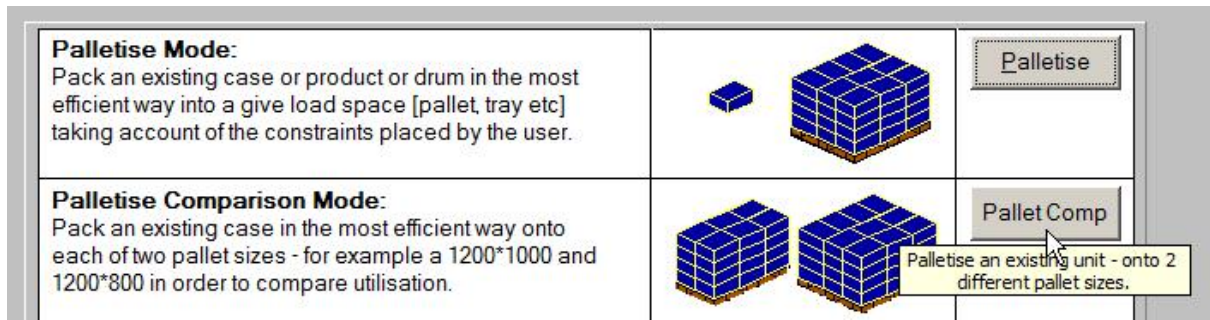
In this example we will assume we have a case for product Code P6954-9674 which has dimensions 150mm * 215mm * 160mm. For simplicity we will assume that the 160mm dimension must be vertical and that loading onto either 1200*1000 or 1200*800 pallets is to be considered using a loading height of product of 1940mm.

On the Opening Screen we select **New Run**



The additional buttons (manual etc) will also function to provide access to both the manual and to Help. In addition Full manuals are always available online at: <http://www.goweralg.co.uk/manuals/index.htm> .

On the screen that follows various modes of operation are offered. Where the focus is on the ability to effectively palletise using one of the 2 available pallet sizes the **Pallet Comparison Mode** mode is the mode that should be selected.



Having selected Palletise Comparison Mode we are then invited to enter Case details – information on our case has been entered into the screen below:

Please enter CASE / Product details:
 (Use Tab or Enter or the Mouse to move between entries - once entry complete select the Continue button)

Code (14 characters):

Description (30 characters):

External Dimensions : Dimn.1 Dimn.2 Dimn.3
 mm mm mm

Permitted orientations -
 Must this dimension be vertical? Yes Yes Yes

Weight: kg

Primaries per Case:

Annual Case Volume 000s:

Most of the details are fairly obvious – on this occasion we have used the tick box to indicate that the case must be placed vertically – but we could if we wished allow any of the 3 case dimensions to be placed vertical. The values of primaries / case and annual case volume have been left at their default values of 1 – these are used in more advanced modes for costing operations.

Having completed details of the product to be packed we then need to define the pallet size(s) to be used. As discussed earlier most users decide this in advance but as we will see on the next screen we can define 2 pallet sizes for consideration.

Pallet/Load Space Details: [Edit as required or select Database]

Pallet 1 - Pallet/Load Space longer side	<input type="text" value="1200"/>	mm.
Pallet 1 - Pallet/Load Space shorter side	<input type="text" value="1000"/>	mm.
Max. Product loading height (Excluding pallet board ht.)	<input type="text" value="1940"/>	mm.
Pallet board height (Typically 145-165mm)	<input type="text" value="160"/>	mm.
Max. Total Height (Sum of Product + Pallet as entered above)	2100	mm.
Max. loading weight (Excluding pallet board wt.)	<input type="text" value="965"/>	Kg.
Pallet 2 - Pallet/Load Space longer side	<input type="text" value="1200"/>	mm.
Pallet 2 - Pallet/Load Space shorter side	<input type="text" value="800"/>	mm.
Gap between each unit	<input type="text" value="0"/>	mm.
Tick here if you are packing a cylinder	<input type="checkbox"/> Yes	

The above load space details may be used
or edited for this run or alternatively
the Pallet/Load Space Database can be accessed here:

With the settings set up in advance on the 'Pallet Database' the above screen will be shown already completed. As you can see two pallet sizes are shown.

The top 5 entries are the pallet size and loading height for 'Pallet 1', whilst 'Pallet 2' dimensions are shown below. These can be changed on this screen, or the default values displayed can be modified for subsequent runs by selecting the Pallet Database. The two default sizes are in fact held in the first 2 records of the Pallet Database that can be accessed and edited from this screen.

Having entered these we select Pack to see how well this product palletises on the 2 pallet sizes. The results are shown overleaf.

This screen displays the 2 results ranked in order for Code:P6954-9674

Primary Pallet Load Space: 1200 * 1000 * 1940 ht.

Alternate Pallet Load Space: 1200 * 800 * 1940 ht.

Solutions with a < marker to the right of the line are for the Primary Pallet size.

Please highlight any line of the result you are interested in and then select the appropriate button.

Ref No	Extnl Dimensions	Case	Colln	CASE Matl	Wt.	TOTAL Cases	Layer	% Fill Area	+Layer Vol	Cost	
1	215 150 160		N/A	N/A	0.9	408	12x 34	91	90 140	0.074	<
2	215 150 160		N/A	N/A	0.9	348	12x 29	97	96 140	0.086	

As the height of the case is on this occasion fixed we have just 2 results (If the case could be placed on any face in the stack then we would have 6 results – 3 for each pallet size). As described on screen the result for a 1200*1000 pallet (the top in the list marked on the right with a <), and the result for the 1200*800 pallet are shown. Given the larger size of the 1200*1000 pallet this will always be the **topmost** of the 2 entries (i.e. fitting more cases/pallet.)

The result for the 1200*1000 pallet fits 408 cases with 12 layers each of 34 cases. It only fills 91% of the pallet base area and thus the overall volume efficiency (in the cubic space available) is only 90%.

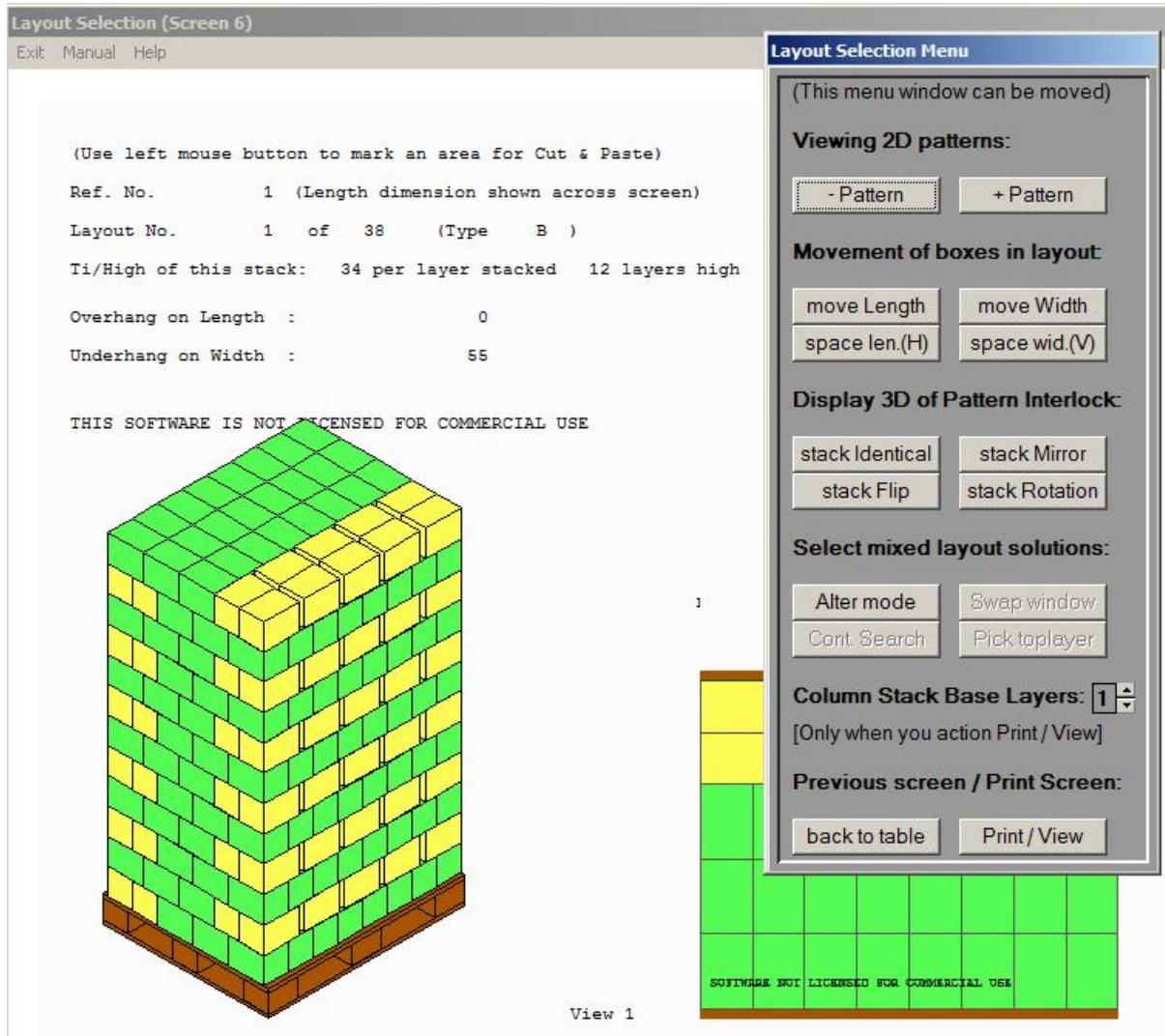
The result for the 1200*800 pallet fits 348 cases with 12 layers each of 29 cases. It fills 97% of the pallet base area and achieved a good 96% volumetric fill.

We can now select either of these results and see what type of pallet stacks can be constructed by highlighting the entry of interest and selecting the **Layout** button.

For **the larger pallet size** there are 38 different arrangements each of which will fit the optimal 34/layer (See the screen capture shown on the next page – Layout 1 of 38 shown as described on Line 3 of the screen) - and we are able to construct a reasonably stable stack by selecting a suitable layout, ‘spreading out’ cases (using the Space Length button) and rotating alternate layers (using here the Stack Rotation button). As the best solution only fills 91% of the pallet the arrangement is not that ideal. Various reports can then be produced and the Ti/High report for this 1200*1000 pallet using a layout we selected from the 38 is shown on **Page 6**.

For **the smaller pallet size** – with a much better pallet fill – there are 5 possible patterns that can be used to build up the optimal stack. We have chosen 2 of these to illustrate possible solutions (**on the last 2 pages of this document – Pages 7 and 8**) but as ever those familiar with the product / case design are in the best position to choose which might be most appropriate for stability and to prevent product damage.

We would stress that in such a short document we have only been able to give you a glimpse of the features of a software product that has been developed and refined over 30 years. The full manual will provide further information and we are always happy to answer email questions on any aspects.



[Note that you can view the various 2D layouts – all of which fit the same number / layer – by selecting the + Pattern / - Pattern buttons.

Individual cases can be moved to form a more stable stack using the various ‘Movement’ buttons.

Alternate layers can be rotated etc to avoid, if required, a column stack.

Once the basic stack construction has been decided upon you select Print / View to see the various screen / printer reports.]

packyourpallet.com

Example for DHL

P6954-9674

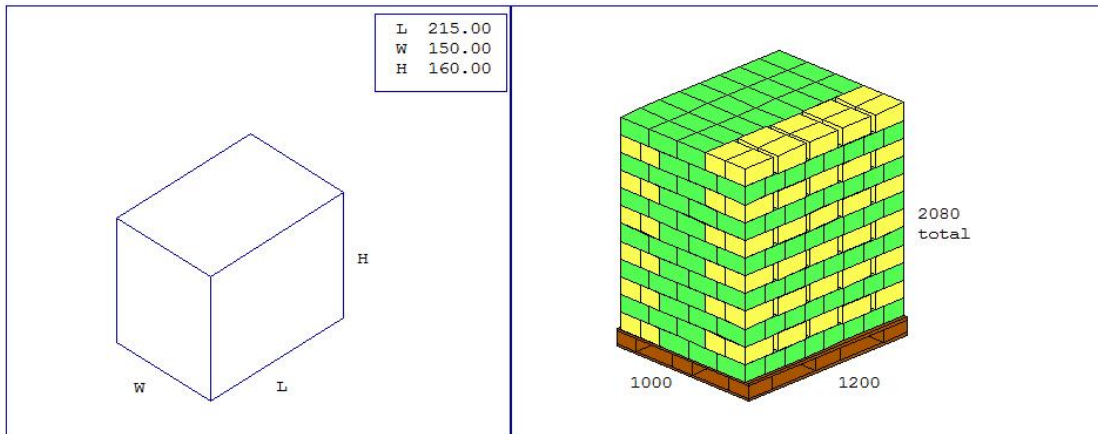
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piracy@goweralg.co.uk

SUMMARY

Ext. Dims. 215.0 x 150.0 x 160.0 (Ht)
Ti/High: 34 per layer x 12 layers

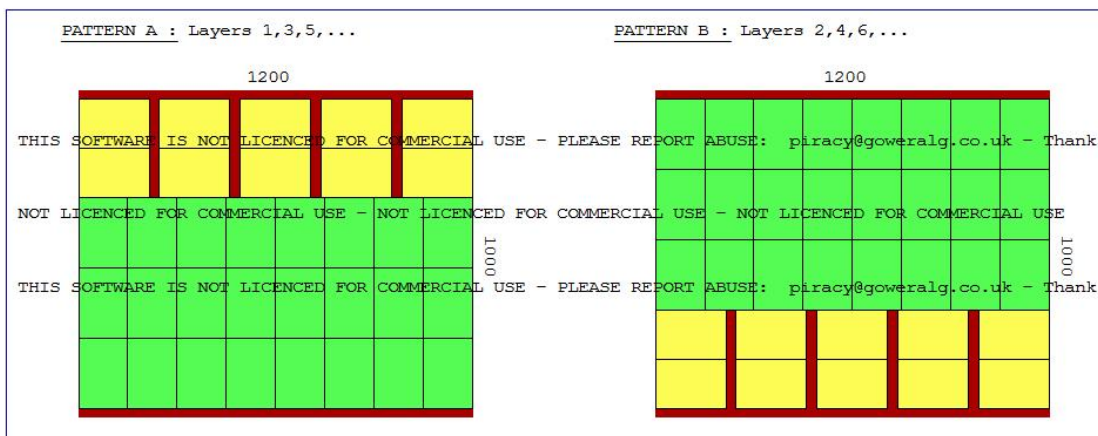
Gross Weight (kg) 0.900
No. of Cases per Pallet 408



LOADED DETAILS

Overall Length/Width 1200 x 1000
No. of Cases per Pallet 408
No. of Primaries per Pallet 408
Product Volume (cu.m.) 2.1053
Height excluding pallet 1920
Weight excluding pallet (kg) 367

Overhang of Stack (L/W) 0 / -55
No. of Primaries per Case 1
Notional Gap between items 0
Volume Utilisation of Stack (%) 90.4
Height including pallet 2080
Weight including pallet (kg) 402



SPECIAL NOTES:

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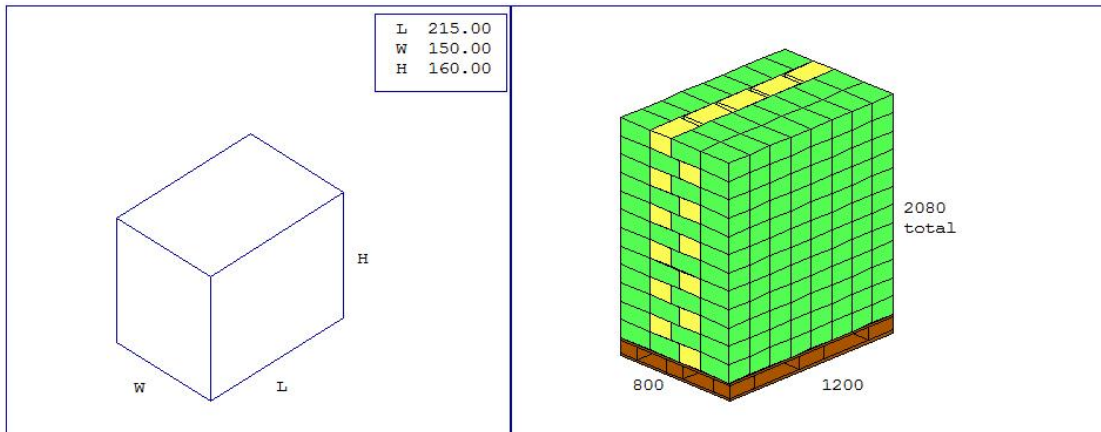
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SUMMARY

Ext. Dims. 215.0 x 150.0 x 160.0 (Ht)
Ti/High: 29 per layer x 12 layers

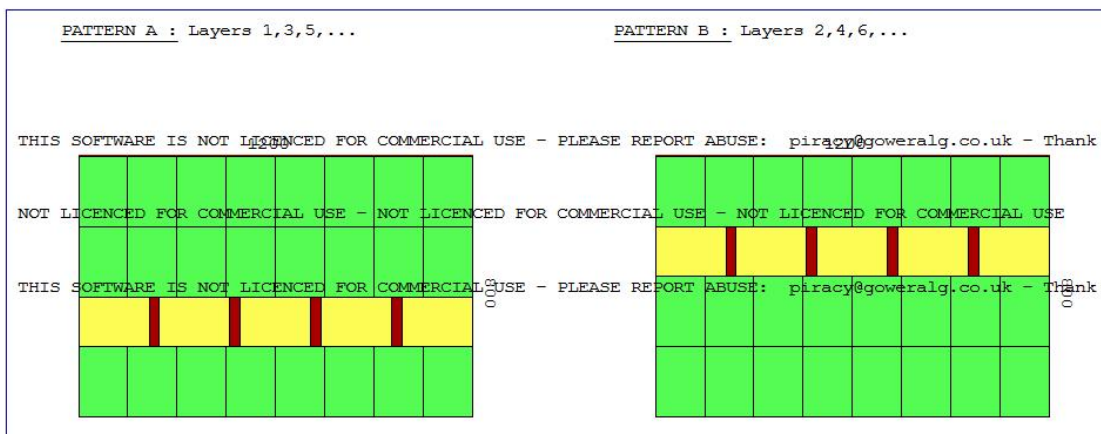
Gross Weight (kg) 0.900
No. of Cases per Pallet 348



LOADED DETAILS

Overall Length/Width 1200 x 800
No. of Cases per Pallet 348
No. of Primaries per Pallet 348
Product Volume (cu.m.) 1.7957
Height excluding pallet 1920
Weight excluding pallet (kg) 313

Overhang of Stack (L/W) 0 / -5
No. of Primaries per Case 1
Notional Gap between items 0
Volume Utilisation of Stack (%) 96.4
Height including pallet 2080
Weight including pallet (kg) 348



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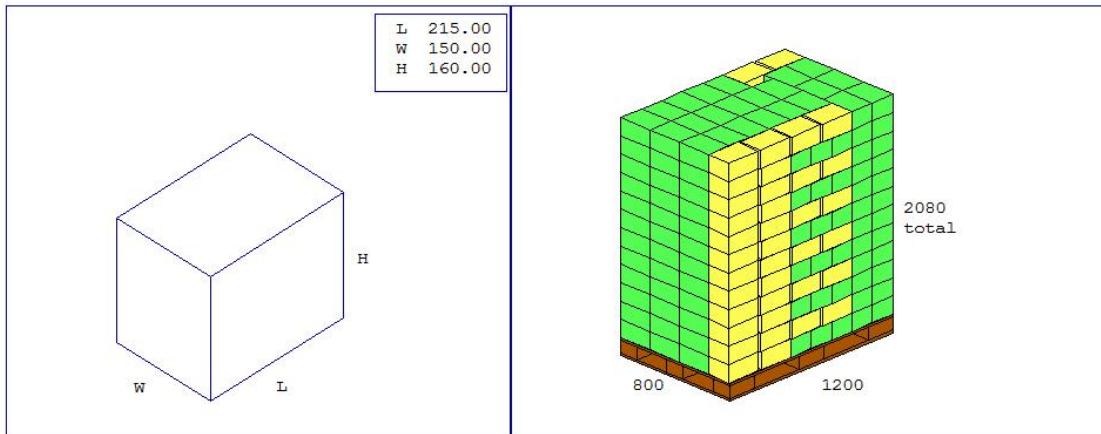
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SUMMARY

Ext. Dims. 215.0 x 150.0 x 160.0 (Ht)
Ti/High: 29 per layer x 12 layers

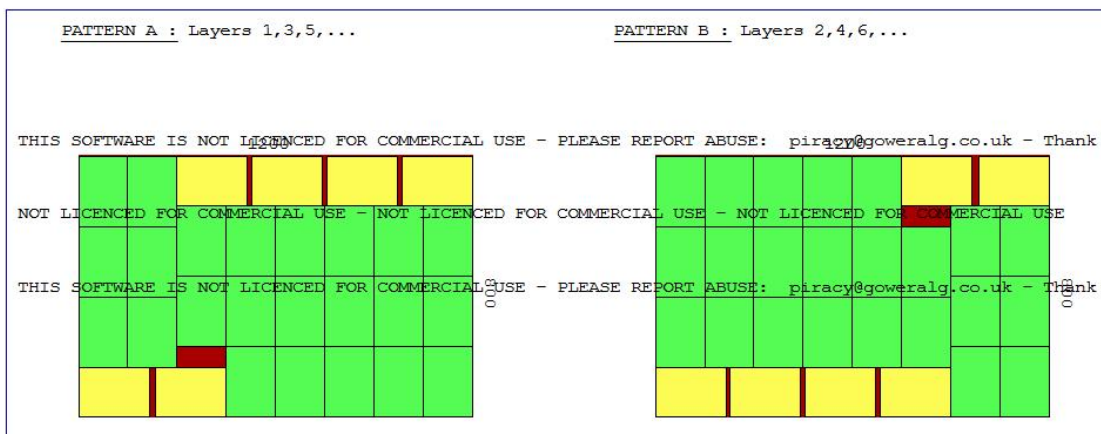
Gross Weight (kg) 0.900
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