

WPA GUIDELINES FOR PRESSURE SENSITIVE LABELS

Prepared by	Date of Issue
WPA Secretariat	13 April 2015

THE EQUIPMENT USED BY CONTRACT PACKAGERS CAN HAVE VARYING TOLERANCES, THEREFORE THESE GUIDELINES PROVIDE A GENERAL OVERVIEW OF REQUIREMENTS FOR LABELS TO BE APPLIED ON AUTOMATED BOTTLING LINES.

CUSTOMERS, PRINTERS AND SUPPLIERS OF LABELS, PLEASE CONTACT YOUR PACKAGING COMPANY FOR A COPY OF THEIR LABEL SPECIFICATION.

A. PURPOSE

To inform customers, label designers, printers and suppliers of the general requirements for supplied pressure sensitive labels to ensure they are of a size and quality capable of being applied mechanically on automated bottling lines.

B. GUIDANCE

Contract packagers have experienced staff available to answer any queries regarding the contents of this Guideline. They can also assist with design concepts and, where necessary, organise trials of labels to ensure satisfactory results prior to bottling.

The Label Size Graphs (attached as Appendix A) has been produced as a measurement guide for the seven most popular 750ml bottle styles (Super Premium Claret, Premium Claret, Lightweight Claret, Punted Burgundy, Sparkling, Premium Burgundy and Austral Skittle). With the exception of the Austral Skittle, these bottle styles are produced by both Orora and O-I glass manufacturers, and each bottle label panel dimensions differ by manufacturer.

The Label Size Graph uses the lesser dimensions for each bottle shown and should be used as a measurement aid when designing labels. In our experience, labels that fit within the sizes shown are the most appropriate for automated bottling lines. We encourage customers to contact their contract packager to ensure they receive the correct dimensions of any bottle they intend to use.

Contract Packagers understand that customers may prefer larger labels for particular products. To assess whether these can be applied successfully on automated bottling lines, we recommend that sizing is advised early in the design stage to assess and, where necessary, arrange for trials to be organised prior to the actual bottling date.

The Neck Labels Diagram (Attached as Appendix B) shows examples of neck label shapes. Label designers are responsible for shaping and sizing neck labels to fit the specified application height, bottle neck shape and closure being used (screw cap, crown seal or sparkling hood).

All queries regarding these requirements should be discussed with your contract packager.

Note: The scale of the graph and diagrams when printed is dependent on the accuracy of the printer being used.

C. RESPONSIBILITY

It is the responsibility of customers, their label designers and printers to:

Ensure labels provided to your contract packager are manufactured with reference to their own Pressure Sensitive Label Specification and be fit for purpose.

Collaborate, select and use the most suitable paper types, varnishes and adhesives for their intended label requirements and expectations. Labels must perform on automated bottling lines and successfully adhere with minimal lifting or bubbling when exposed to various temperatures and humidity from the warehouse to the ice bucket.

It is strongly recommended that customers check and approve labels at their printer's premises or receive samples for approval prior to delivery to your contract packager. Labels should be delivered at least 3 working days before the scheduled bottling date. All labels should be used within the suggested label expiry date.

D. RECOMMENDATIONS

This section sets out label recommendations for application on automated bottling lines. We understand that from time to time customers will have labels that do not meet all of these recommendations and your contract packagers will work with you to achieve best application results.

Printers or the suppliers of labels are required to issue an electronic copy of approved, final artwork in PDF format for each label supplied, displaying colour, label size, die gap, paper stock and adhesive used. This PDF must be sent to your contract packager well before the scheduled bottling date.

If paper stock and adhesive is not noted on the PDF a Quality Assurance report to state this information is required.

1. Automated Application Capabilities

(a) A maximum of 4 labels can be applied by automated application, eg:

- 3 x front labels (eg front, neck and medal) and 1 back label
- 2 x front labels (eg front, neck or medal) and 2 back labels

2. Paper Weight

- (a) Body labels require a minimum paper weight of 80gsm and a maximum of 135gsm. (grams per square meter).
- (b) Neck labels require a low memory, cast coated or machine coated face stock with a paper weight of 60-80gsm with an aggressive adhesive and high initial tack (80gsm cast gloss RP51 Raflatec neck is guaranteed by the supplier).

3. Label Design

- (a) Special care is required when choosing wine labeling papers, as some stocks can be thick and absorbent, or highly embossed making them stiff. If an open weave paper is to be used then we recommend one with a low COBB value to reduce the

risk of bubbling/lifting. It is also essential that the surface area of the paper stock is sufficiently sealed with moisture repelling varnish.

- (b) The use of under laminates is recommended for products that require refrigeration.
- (c) Heavy embellishment or embossing can reduce the adhesive bond area of a label to the glass.
- (d) Labels that have all over emboss/embellishment must have a minimum 3mm emboss free zone measured from each label edge to aid adhesion and help prevent label lifting from the glass post bottling. Emboss free zones do not apply to laid papers.
- (e) Foil stamping can stiffen the label and reduce adhesive contact with the glass, making the label lift from the bottle after it has been applied.
- (f) High glossed/reflective metallized labels will highlight all minor irregularities in the glass surface, e.g. bottle seams etc. Please discuss foiling or metalized labels with your contract packager before design work and print to ensure best results are obtained at time of bottling.
- (g) Permanent adhesives with high initial tack (bond) must be used and be compatible with condensation on glass.

Summary - The main causes of label lifting or bubbling/creasing of labels are:

- Paper stock over 135gsm
- Open weave paper (uncoated and matt)
- Excessive emboss/embellishment
- Foiling/metal finish

Note: Evidence of lifting or bubbling becomes apparent after bottling.

4. Label Size

4.1 Body labels

- (a) The Label Graphs (Appendix A) includes graphs for seven of the most popular 750 ml bottle styles (Super Premium Claret, Premium Claret, Lightweight Claret, Punted Burgundy, Sparkling, Premium Burgundy and Austral Skittle). These show an appropriate label size for each bottle and should be used as a measurement aid when designing labels. In our experience, labels that fit within the sizes shown are the most appropriate for automated bottling lines.

We encourage customers to contact their contract packager to ensure they receive the correct dimensions of any bottle they intend to use.

- (b) If your label does not fit into the dimensions shown in the Label Graphs we recommend that you advise your contract packager early in the design stage so that they can offer their assessment before print and/or organise trials well before the actual bottling date.
- (c) Minimum label height is 12mm.

- (d) The requirements for 375ml, 187ml and other size bottles are varied and therefore all labels must be assessed and, where necessary, undergo trials prior to the actual bottling date.

4.2 Neck labels

- (a) WPA Neck Labels Diagram (Appendix B) shows examples of neck label shapes. Label designers are responsible for shaping and sizing neck labels to fit the specific application height, bottle neck shape and closure being used (screw cap, crown seal or sparkling hood). A sample bottle with closure being used should be supplied to your designer. For sparkling wine, it is important to let the designer know what length of hood is to be used ie 122mm or 80mm).
- (b) A reverse glue flap (RGF) of 15mm minimum, free of varnish with a smaller non inked area on left hand side of the under lapped label area is required to aid adhesion.
- (c) Minimum label height is 12mm

5. Positioning of labels on bottles

5.1 Body labels

WPA guidelines for placement of standard size body labels on 750 ml bottles are:

- (a) Minimum 40mm gap between front and back label (20mm left and 20mm right).
- (b) Minimum 30mm gap for wrap-around labels. Due to the complexity of wrap around labels we suggest your contract packager is involved early in the design stage to assess and, where necessary, arrange for trials to be organised prior to the actual bottling date.
- (c) Bottom of the label must be no lower than 20mm from the base of 750 ml bottles. This allowance keeps labels above the area used by us to apply the laser code and other important bottling information. Note: Some bottles have a recessed label panel therefore customers should discuss their choice of bottle with their contract packager before designing a label.
- (d) The requirements for 375ml, 187ml and other size bottles are varied and therefore all labels must be assessed and, where necessary, undergo trials prior to the actual bottling date.

5.2 Neck labels

- (a) Placement of neck labels must be assessed individually to ensure that the size and shape are correct for the selected bottle

5.3 Medals and Buttons

- (a) Due to the diversity of where medals can be placed within the label panel, we recommend that positioning of these is discussed with your contract packager well before the due bottling date to ensure they can achieve the desired position and that it can be applied using their automated bottling line. They will

need a visual of the medal and the required position in relation to the body label and bottle. Hand labeling is an option where the position of a button or medal label cannot be placed automatically.

6. Label Roll Diagrams

The Label Roll Diagrams (Appendix C) provides a visual of dimensions, weight, die gap, and webbing information for both body and neck/medal labels. Common recommendations for both diagrams are as follows. However these should be checked with your own contract packager:

- (a) All label rolls to be supplied as industrial standard unwind left hand lead
- (b) PET webbing is recommended to reduce breaks during the labeling process..
- (c) The distance between labels (die gap) on the webbing must be consistent across all label rolls (minimum 3mm maximum 15mm) to assist with satisfactory label application on automated bottling lines.
- (d) Clear body label design should incorporate a block of solid colour to use for optically “spotting” the label gap. If the label design does not meet this requirement a solid block of colour must be applied to the webbing
- (e) The webbing height must be greater than the size of the label. We recommend a minimum 2mm and maximum 5mm (with a variation of no more than +/-0.25mm across the label run.) This webbing distance must be consistent across all label rolls.
- (f) Maximum label roll weight 8kg and individual carton weights no greater than 16kg
- (g) All label converting waste (eg matrix waste) must be removed from webbing ready for automated application.

6.1 Body Labels

- (a) Front and back labels must be supplied on separate label roll
- (b) Label roll size maximum 380mm. The minimum size is 2,000 labels per roll
- (c) Core width 76mm I.D – height to be 2mm less than the label roll ie core must not protrude

6.2 Neck and Medal Labels

- (a) Neck and medal labels can be supplied on the same roll
- (b) Label roll size maximum 300mm. The minimum size is 2,000 labels per roll
- (c) Core width 76mm I.D. – height to be 2mm less than the roll ie core must not protrude
- (d) The inside and outside of each label roll should contain the following information:

Label Printer's name	Production Date and use by Date
Contract Packager's Product Code	Barcode
Job/batch number	Quantity of labels per roll

E. QUALITY ASSURANCE

7. Scuff and Rub

- (a) Labels must pass a scuff test of 2,000 rubs using 1.8 kg load with cardboard divider or carton board as the test strip. For method refer to Australian Standard AS2313.4.3-2006 *Printing properties – determining abrasive resistance*.
- (b) Labels must pass bottle on bottle (label to label) rub test where labels must not scuff. This is to ensure that labels will not be compromised when travelling along the bottling line and during transportation in cartons with no dividers.
- (c) Labels must pass an adhesive tape peel test (refer FTM21-FINAT Test Method No 21 – ink adhesion) where neither ink nor varnish lifts from the label when pressing adhesive tape on to the label surface then removing it.

F. LABEL QUANTITY CALCULATION

The table below shows minimum number of labels (body, strip and medals) required based on bottling run size (eg 5,000 x 12.1 = 60,500 labels for a 5,00 dozen run size)

Bottling Run (doz)	No of Labels Required (per doz)
0 - 500	13 labels
501 - 1999	12.5 labels
2000 - 2999	12.20 labels
3000 - 3999	12.20 labels
4000 - 4999	12.13 labels
5000 plus	12.10 labels

Industry standards recommend an additional 100 sets of labels be provided for every new design or where a label design has changed (including size/shape). This is to cover expected set up requirements.

G. PACKING AND DELIVERY

Detailed information on the packing and delivery of dry goods should be discussed with your contract packager.

H. AUSTRALIAN PACKAGING COVENANT – SUSTAINABILITY

As part of Australia's sustainability objectives, we request that, where practical, dry goods are made with materials that are recyclable and packed using recyclable materials.

I. GLOSSARY

Term	Explanation
Pressure sensitive labels	Also known as self-adhesive, these labels form a bond when pressure is applied to marry the adhesive with the bottle surface
COBB value	Rate at which paper absorbs water from its surface. For best moisture protection the lowest possible COBB value is required
Matrix	Waste webbing that is stripped/removed by the label printer for label machine application
Die gap	The space between labels on the webbing
PET backing or film	Clear polyester material



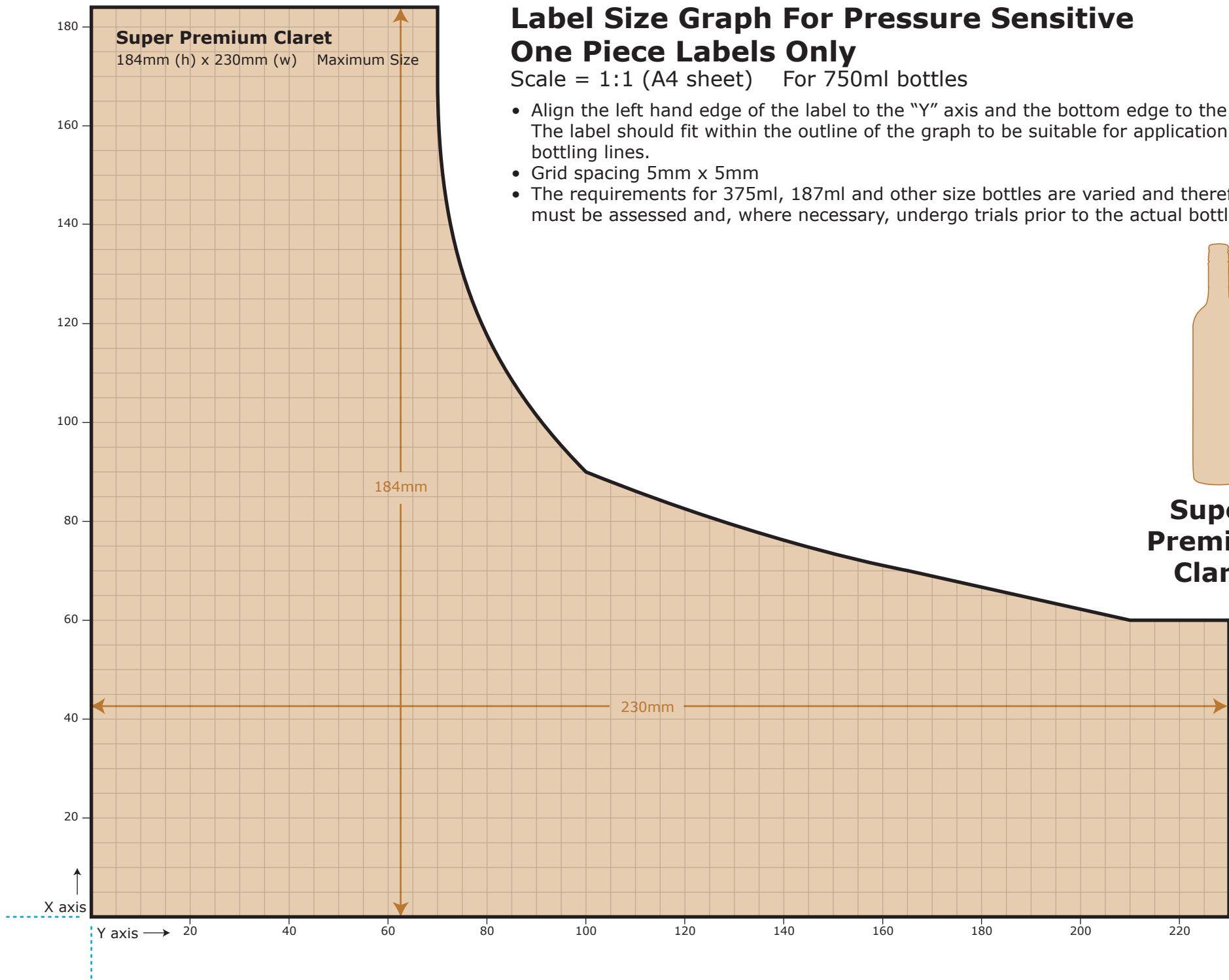
WINE PACKAGERS OF AUSTRALIA

APPENDIX A

Label Size Graph For Pressure Sensitive One Piece Labels Only

Scale = 1:1 (A4 sheet) For 750ml bottles

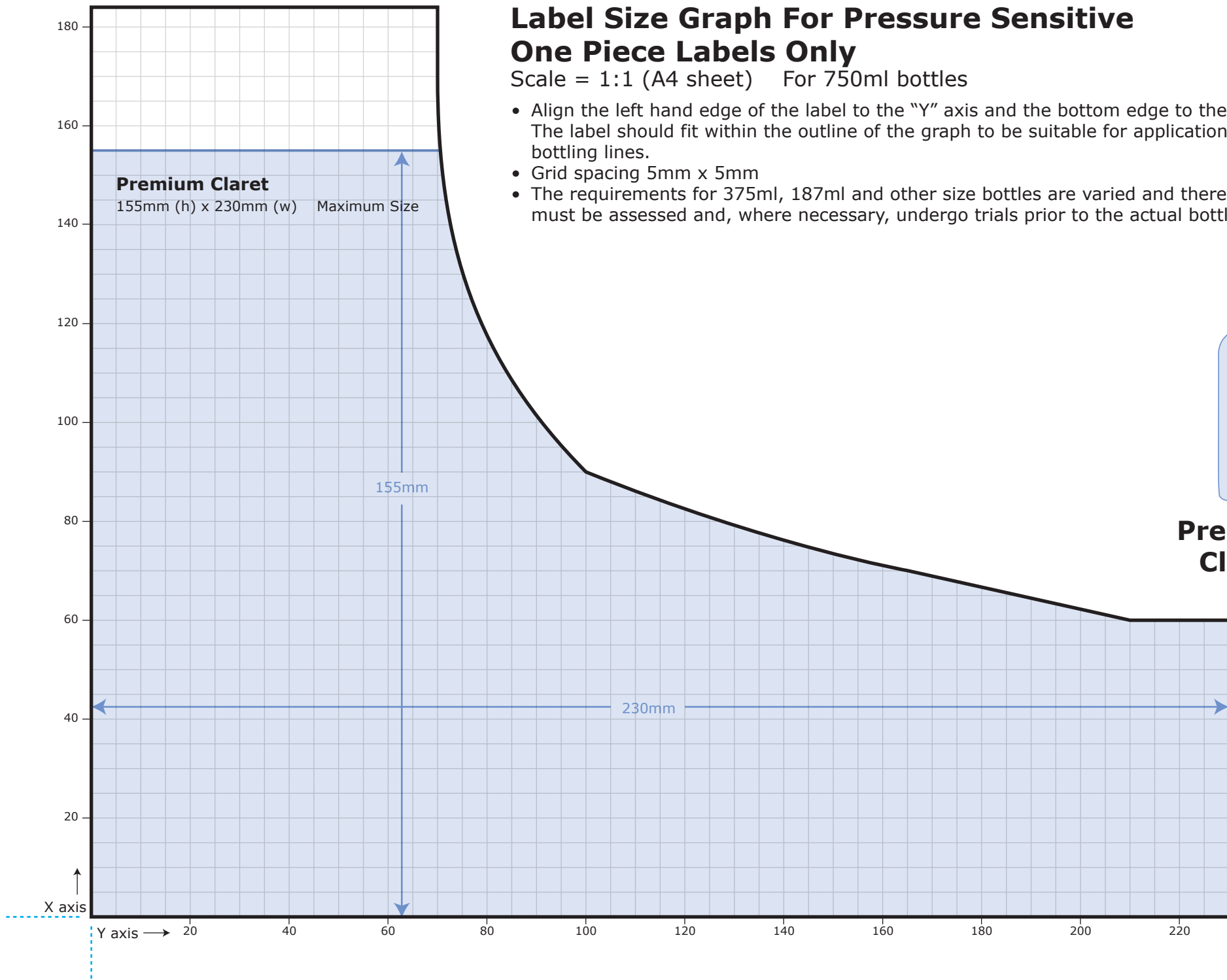
- Align the left hand edge of the label to the "Y" axis and the bottom edge to the "X" axis. The label should fit within the outline of the graph to be suitable for application on automated bottling lines.
- Grid spacing 5mm x 5mm
- The requirements for 375ml, 187ml and other size bottles are varied and therefore all labels must be assessed and, where necessary, undergo trials prior to the actual bottling date.



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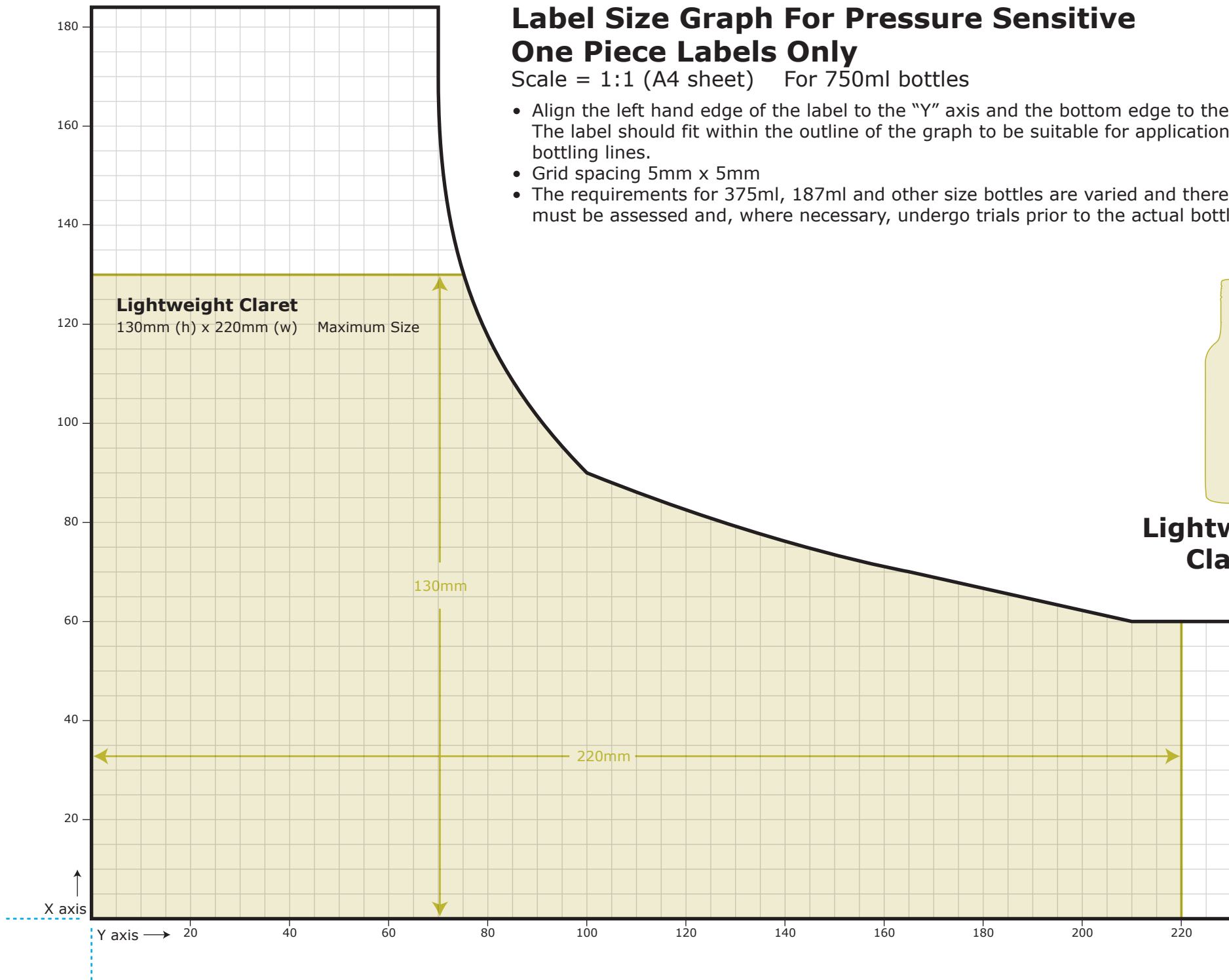


**Premium
Claret**

Label Size Graph For Pressure Sensitive One Piece Labels Only

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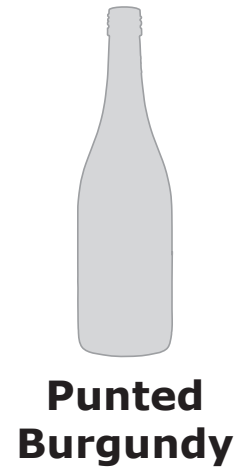
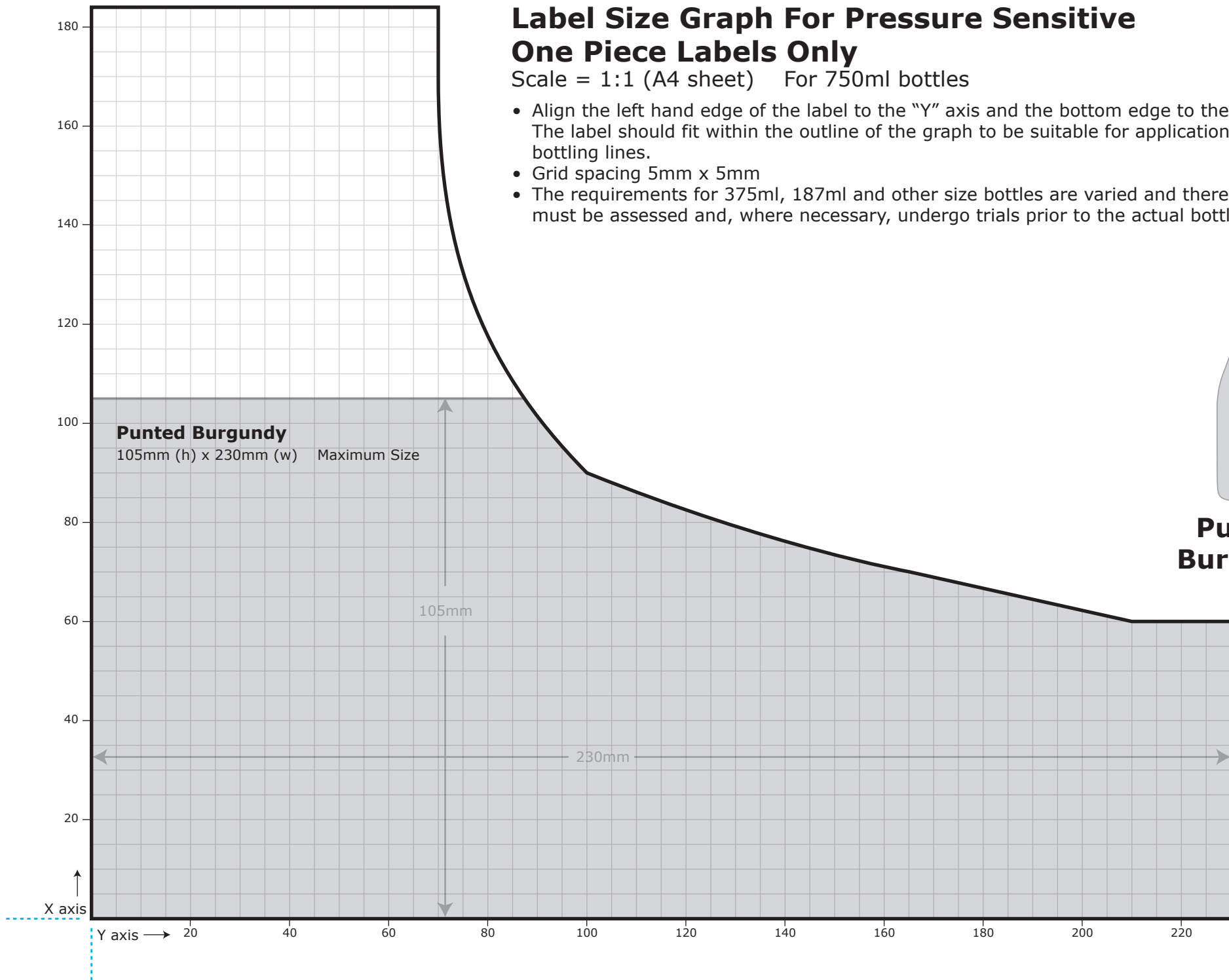
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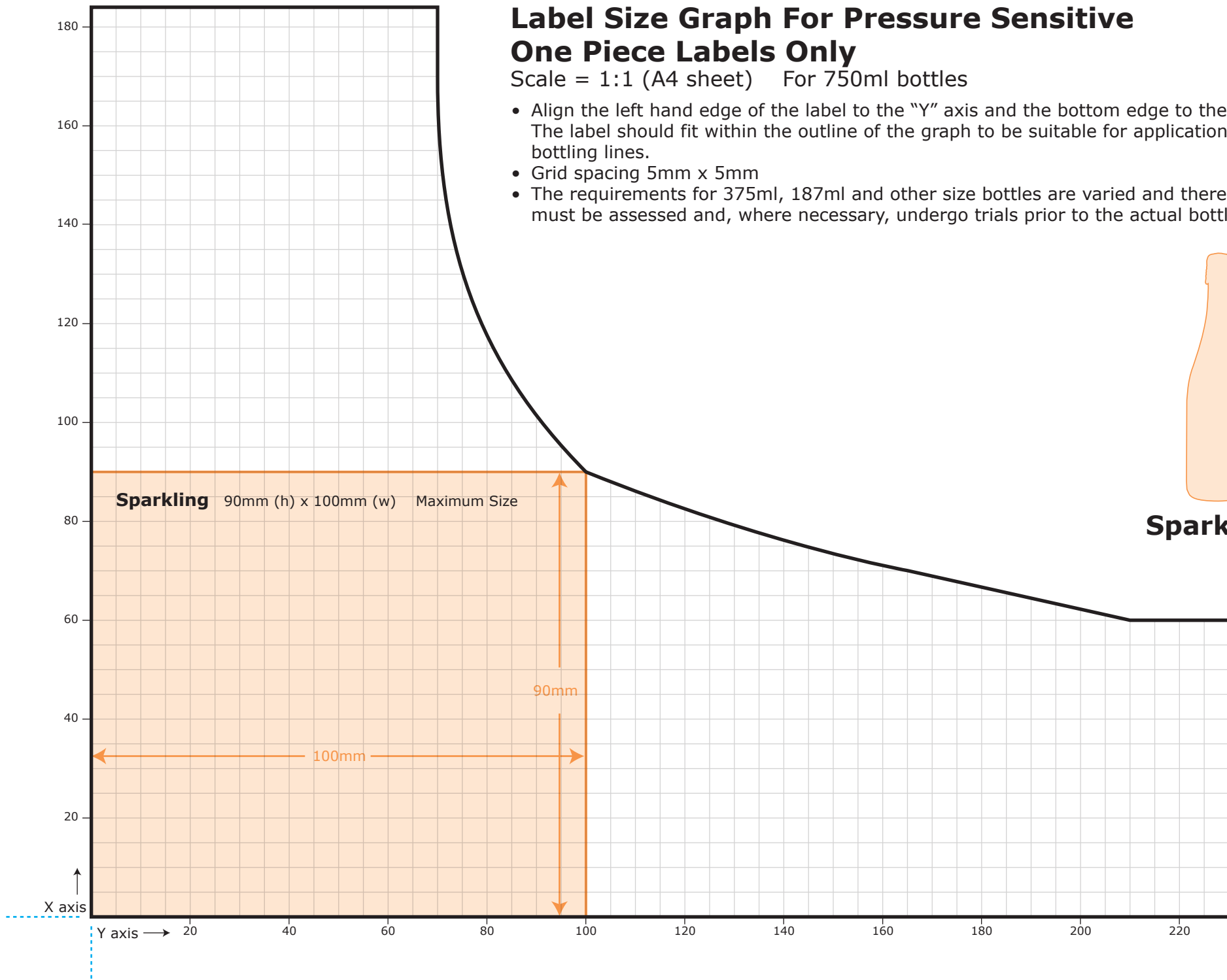
- Align the left hand edge of the label to the "Y" axis and the bottom edge to the "X" axis. The label should fit within the outline of the graph to be suitable for application on automated bottling lines.
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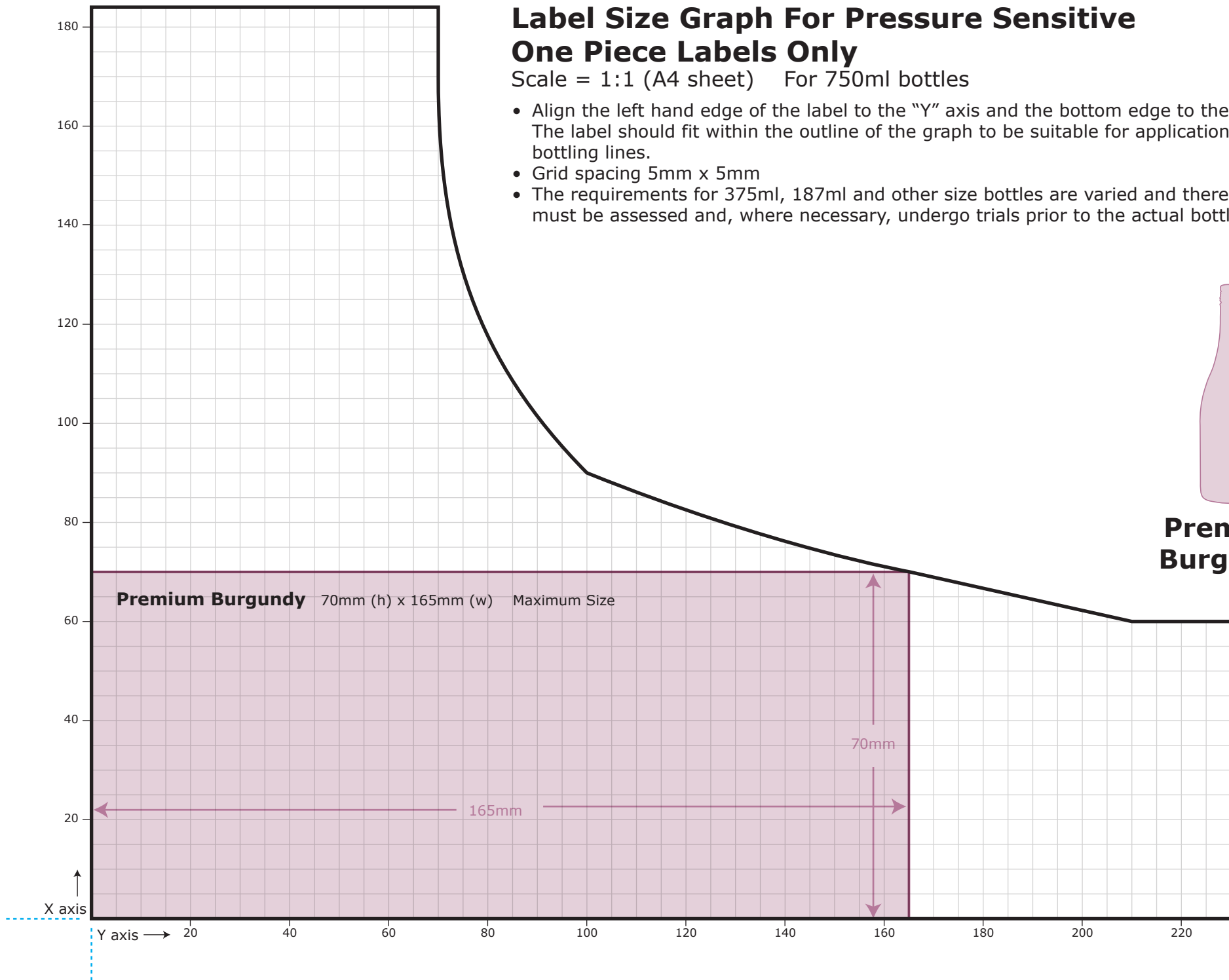
- Align the left hand edge of the label to the "Y" axis and the bottom edge to the "X" axis. The label should fit within the outline of the graph to be suitable for application on automated bottling lines.
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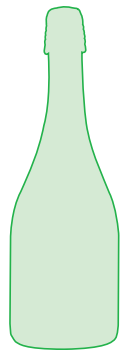
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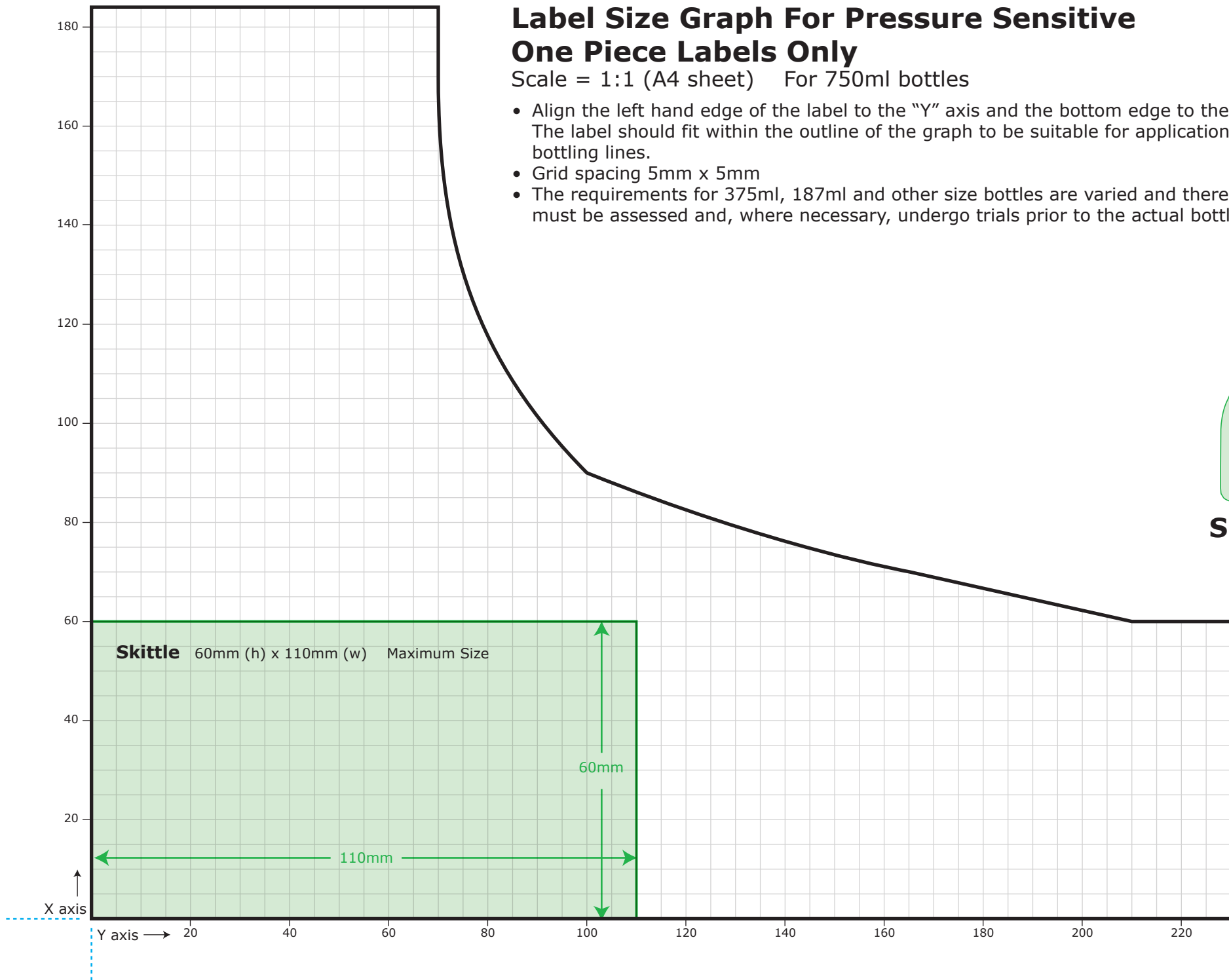
Label Size Graph For Pressure Sensitive One Piece Labels Only

Scale = 1:1 (A4 sheet) For 750ml bottles

- Align the left hand edge of the label to the "Y" axis and the bottom edge to the "X" axis. The label should fit within the outline of the graph to be suitable for application on automated bottling lines.
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Skittle





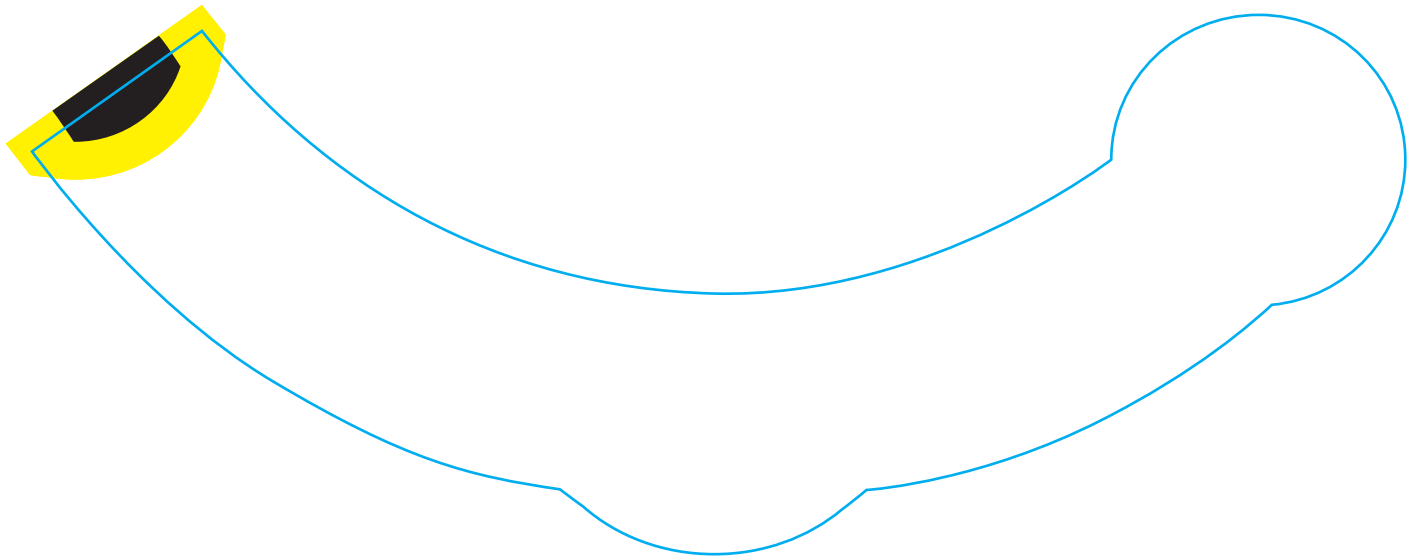
WINE PACKAGERS OF AUSTRALIA

APPENDIX B

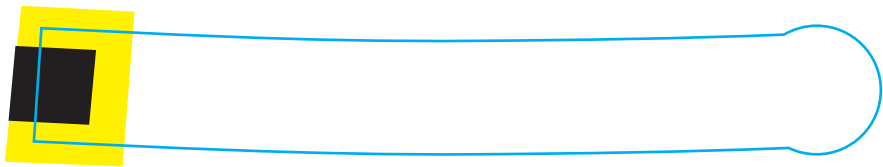
Examples Of Standard Neck Labels



Cigar Band - BVS Capsule



Sparkling Neck for 122mm hood



Neck Label for Cork Mouth



Sparkling Neck for 80mm Hood



Varnish Free Zone



Ink Free Zone



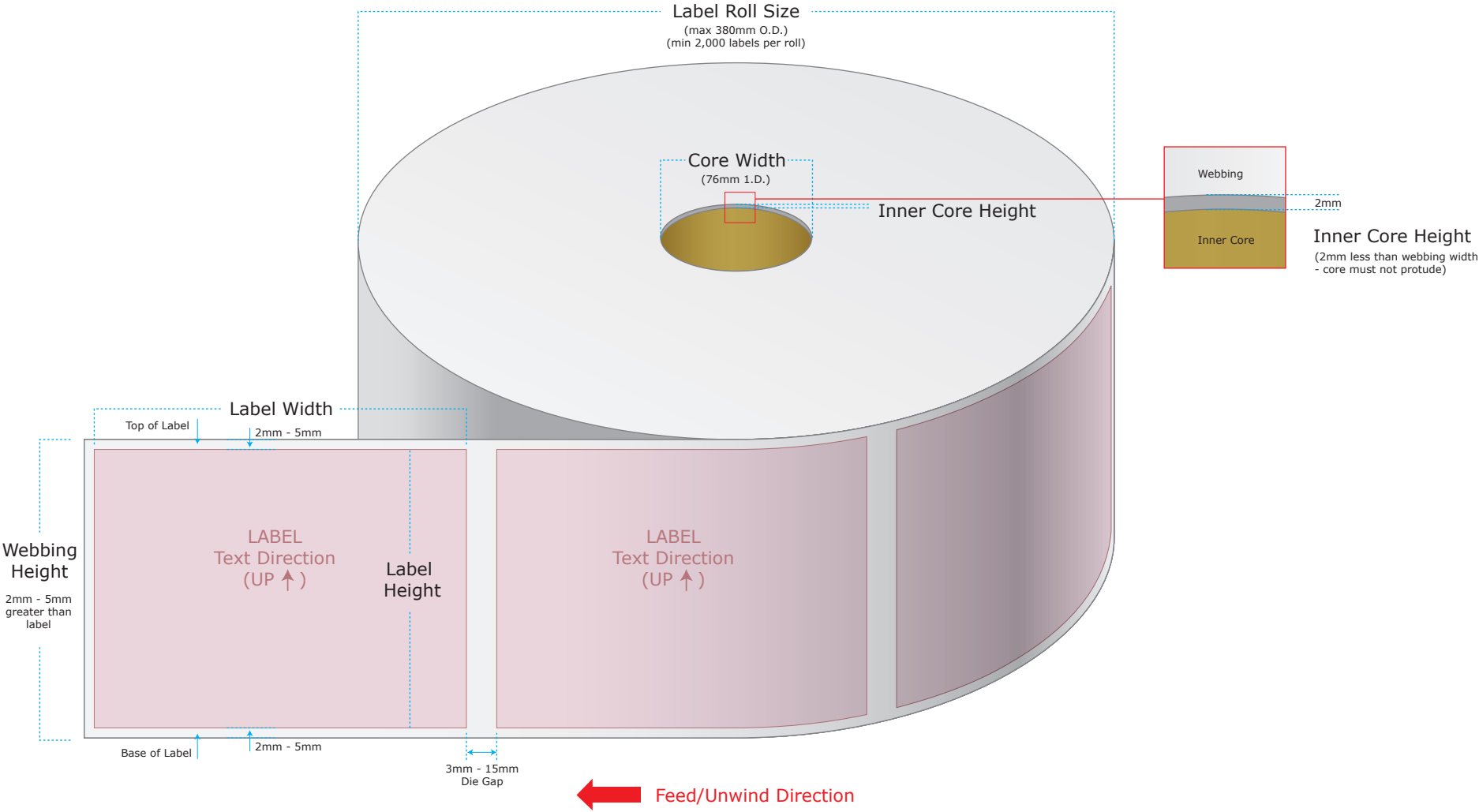
WINE PACKAGERS OF AUSTRALIA

APPENDIX C

Body Label Roll Specifications

Scale = 1:3 (A4 sheet)

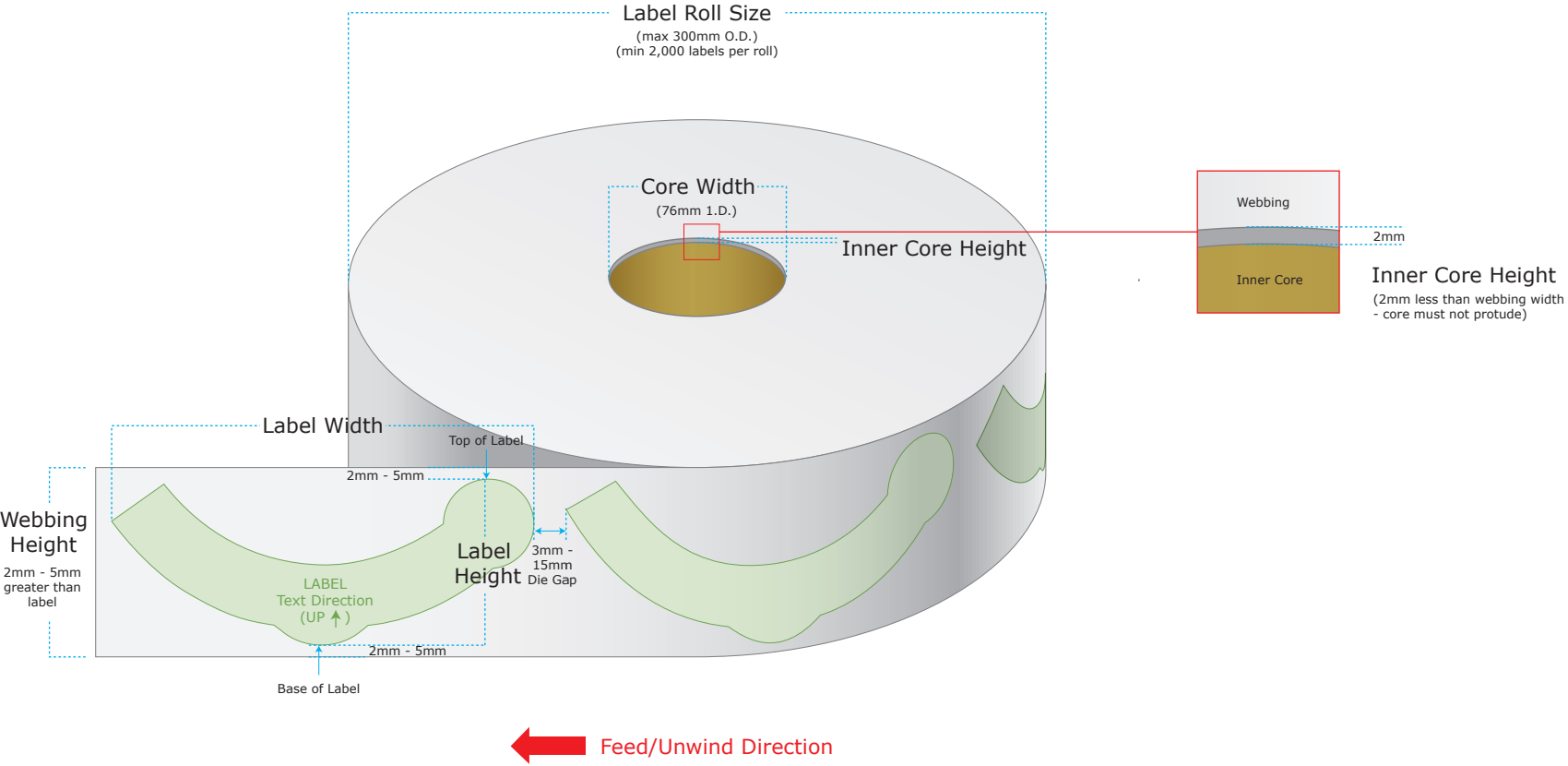
Maximum Weight of Label Roll = 8kg
Maximum Weight of Carton = 16kg



Neck & Medal Label Roll Specifications

Scale = 1:3 (A4 sheet)

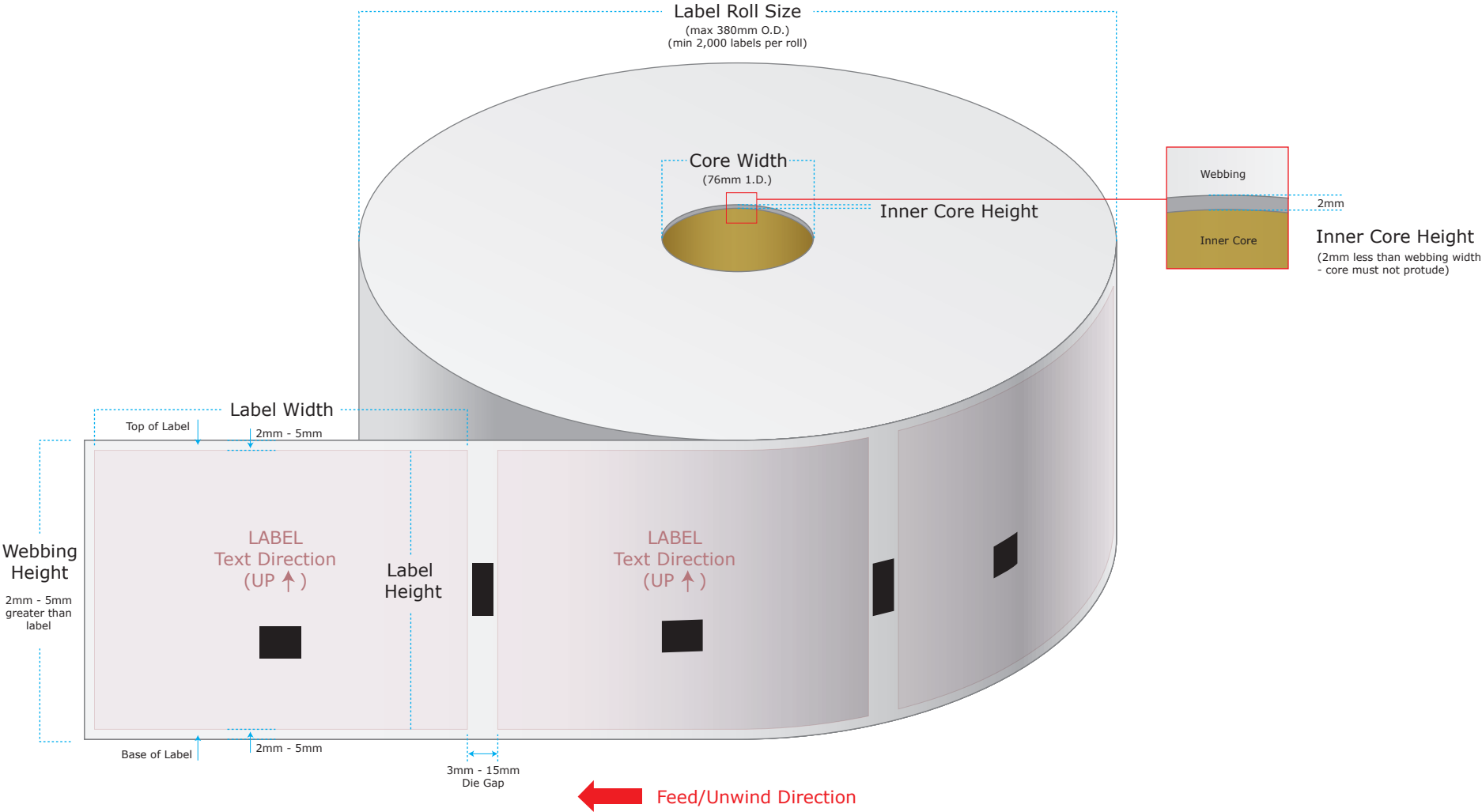
Maximum Weight of Label Roll = 8kg
Maximum Weight of Carton = 16kg



Clear Label Body Roll Specifications

Scale = 1:3 (A4 sheet)

Maximum Weight of Label Roll = 8kg
Maximum Weight of Carton = 16kg



Use a block of solid colour on the webbing or on body label (such as solid ink logo in a different colour to background) as a registration point for spotting on automated bottling lines