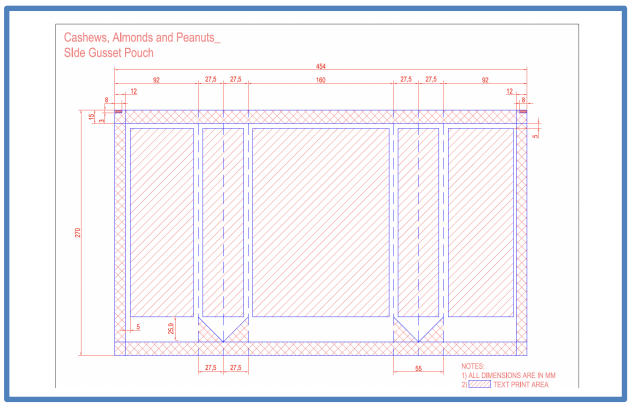
How Dimensions Translate into Structure

A Practical Guide to Reading a Side Gusset Pouch Drawing

Why This Guide Matters

A side gusset pouch drawing is not a visual sketch. It is a structural instruction sheet. Every dimension controls how the pouch forms on machine, fills with product, seals, and performs on shelf.



Start with the Pack Architecture

The first step is identifying the pack type. A side gusset pouch is designed with flat front and back panels for branding, and expandable sides to accommodate volume and improve stability.

Overall Width = Shelf Presence + Volume Capacity

Total Width = Front Panel + Back Panel + (2 × Side Gusset). This dimension controls shelf footprint, expansion behaviour, and material usage.

Overall Height = Filling Logic + Seal Safety

Total Height = Fill Height + Top Seal + Bottom Seal. Seal zones ensure strength while fill height determines usable volume.

Panel Break-up = Pack Behaviour

Front panel provides visual stability, side gussets absorb expansion stress during filling, and the back panel adds rigidity and balance.

INPUT PARAMETERS		CALCULATED OUTPUTS	
Front Panel Width (Wf) mm	160	Total Pouch Width (mm)	375
Back Panel Width (Wb) mm	160	Total Pouch Height (mm)	312.5
Side Gusset Width (G) mm	27.5	Printable Height (mm)	270
Pouch Height (H) mm	270		
Top Seal (Ts) mm	15		
Bottom Seal (Bs) mm	27.5		

Print Area vs Sealing Area

Print areas are reserved for artwork. Sealing areas must remain ink-free to ensure heat-seal integrity and prevent leakage.

Why Small Dimensions Matter

Small values such as 5 mm or 12 mm define sealing strength, fold accuracy, machine tolerance, and cutting precision.

Eye Mark

Eye marks—also known as registration or printer marks—are small, precisely placed indicators on packaging materials. They act as essential reference points that enable printing and converting machinery to detect, align, and process packaging accurately and consistently. Always choose them in contrast colors.

Key Takeaway

A pouch drawing is a mathematical description of structure. Dimensions translate into structure, and structure determines packaging performance.

Example Drawing