



Labelling Machine Buyers Guide

Features	Premier		
Conveyor/Body			
Rigid stainless steel frame	√		
Variable speed conveyor	√		
Food quality slat chain/belt	√		
Easy clean	√		
Labelling Head			
Fully adjustable label head mount	√		
Variable speed stepper motor drive	√		
Electrical/mechanically braked off-wind	√		
Driven rewind	√		
Placement accuracy	+/-0.5mm		
Max/min label height	15mm-260mm		
Controls			
Siemens PLC Control	√		
Simple "Plain English" menu system	√		
Operator/Supervisor Security levels	√		
Touchscreen interface	√		
500 product database recall	√		
Container Control			
Bottle stop/pitching device	√		
Chain alignment mechanism	√		
Top hold stabilizer belt	√		
Other Considerations			
Change parts	None required		
CE standard	√		
IQ/OQ Validation	√		
Placement accuracy	+/- 0.5mm		
English language manuals	√		
Customised integrated system design	√		

Labelling Machinery – Considerations

Fundamental to any labelling system design is its ability to accurately, consistently and reliably index a reel of labels around a separator beak and fed out onto a container travelling past at any speed. At the heart of this process is the label head drive system, usually powered by a stepper motor or a servo motor. In conjunction with a pinch or nip roller, the drive roller pulls the web backing, starting and stopping with each labelling sequence. These are very similar on all machines. The difference in quality of labellers is not so much determined by the drive roller itself but by the means by which the roller is driven and stopped. It is worth taking some time to go over the types of drive systems available and their advantages or disadvantages

Stepper motors

Stepper motors are relatively inexpensive, and provide the same or greater accuracy as servo motors. Sufficiently powerful stepper motors for a given application do not lose steps. Stepper motors are no more likely to lose steps than a servo encoder is to pass bad information back to the controller. This hoax is pure hype generated by manufacturers who are either unfamiliar with stepper motors, or who are distorting facts to market their particular product. If for some reason a stepper motor does encounter an obstacle it can't overcome, such as a tipped up plate, it will simply skip steps, hurting nothing. If a servo motor encounters the same obstacle, it will sit there and fight itself until it breaks a gear tooth or burns out.

If a stepper motor fails replacement cost is negligible. No elaborate tuning process is needed to keep it functioning accurately. Best of all, its excellent low rpm torque lends itself perfectly labelling applications.

Servo motors

Servo motors are somewhat more expensive than steppers -- perhaps double the price, or more. They are generally just as accurate, if maintained in a proper state of tune, however they rely on encoders to provide positioning information back to the computer. Thus the complexity of the system is at least doubled, with no accuracy advantage, greater initial cost, and more maintenance issues. The "closed loop" rhetoric sounds convincing to the uninitiated, but provides no benefit over a simpler and more reliable stepper system.

Versatility

Furthermore, a labelling system must be flexible in today's FMCG environment. Packaging design is ever changing and developing and therefore labelling machinery has to be able to cope with these changes. A system designed in a modular way whereby bottle/label handling components can be added or subtracted with minimum of expense and downtime will greatly allow you to achieve the right level of versatility you require. All Premier machines are designed in this modular fashion which allows them to grow and adapt to the environment they are working in.