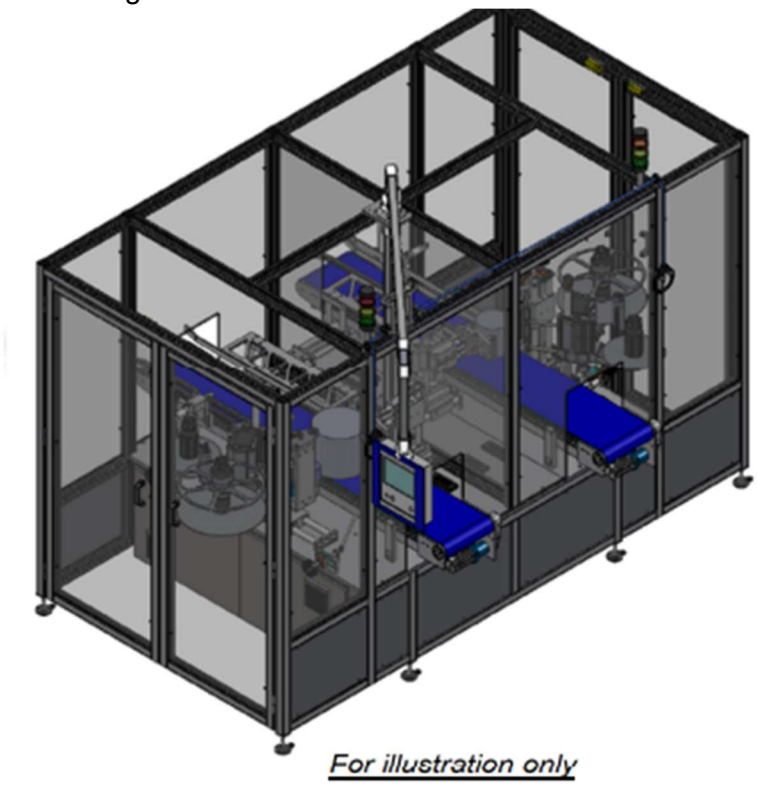
Wrap-around labeller 152M LC 1

1. Machine capabilities Wrap-around labelling
   The products are labelled when filled and closed
   Estimated capacity wrap-around labelling: Up to 90 - 100 ppm (45 – 50 ppm/ lane)
   Estimated tolerances wrap-around labelling: ± 1 mm between the ends of the labels (alignment) ± 1 mm in the width Estimated tolerances are excluding product tolerances
   The stated capacity and tolerance has to be confirmed. The confirmation can only be done with the original products and labels on a reel. Furthermore, the shape of the original products and labels has to be verified to be sure the label can be applied without bubbles and wrinkles.

1.1 Product description Empty cylindrical plastic products The surface must be smooth, clean, dry and suitable for the attachment of commercially available self-adhesive labels. Format Product Diameter [mm] Product Height [mm] Product Image 1 55 134 2 58 134 3 66 134 1.2. Label specification Label size: See table below Label width: 20 – 82 mm Label length: 20 – 100 mm Label thickness: 50 µm – 2 mm Gap between labels: 2 – 5 mm Label web thickness: 30 – 120 µm Label material: Paper or plastic Single layer Suitable for inner deflection with diameter of 25 mm and outer deflection with diameter of 45 mm. Backing paper material: Paper or plastic Without die-cuts in the surface. Storage: Lying rolls, not exposed to sun or heat Temperature: 22 ± 2°C Relative humidity: 45 ± 5% The use-by date of the labels from the label supplier has to maintained Core diameter: 76 mm Reel diameter: 400 mm Winding: Outside Orientation: Lengthwise on the web Format Length [mm] Width [mm] 1 TBC TBC Label samples are not provided to HERMA UK Ltd.

2. Machine capabilities The products are transferred from upstream conveyors onto the HERMA parallel twin conveyors in upright position by customer. It is customers responsibility to divert the products to the conveyors according to the labelling requirement. A product gapping station on each conveyor will ensure that the product have sufficient gap between each product for labelling. Each conveyor includes one labelling station. In the labelling station the products are fixed and spun between a motor-powered application roller and a roller prism. The products will be orientated by means of a camera system. The camera will looks for a unique 2D (ECC200) code on the product for the labels to get applied in orientation to the code. (The minimum recommended ECC200 code size is 10x10 mm square with each module of 0.5 mm. The code is made up of small squares called modules and the more modules allows more data inside. A code with 10x10 modules (actually 12x12 as the outside edges) can contain up to 6 numbers or just 3 alphanumeric,12x12 modules can encrypt 10 numbers or 6 alphanumeric, 14x14 modules can encrypt 16 numbers or 10 alphanumeric, 16x16 module can encrypt 24 numbers or 16 alpha numeric.) The pre-printed label is then transferred between the rotating product and the application roller and get applied onto the product in the correct position. The labelled products are delivered in upright position to the conveyor of the downstream machine by means of end transfer. Customer is responsible for merging the cans back to a single lane in the downstream. The machine can also be used for product passage

only. For that purpose the applicators can be switched off. Format changeover between different products takes approx. 5 min. The machine efficiency is 99% according to DIN 8743.



For illustration only

3. Machine construction
   Wrap-around labeller 152M S Running direction of left to right (TBC) as seen from operating side Working height: Approx. 900 ± 50 mm Overall approx. dimensions: Length: 2,000 mm, Width: 3,000 mm 3.1. Basic machine construction

   3.1.1. Machine base of Aluminium frame
   With aluminium mounting plate ± 50 mm height adjustable feet Web path drawings
   3.1.2. 2 Slat conveyors with modular belts Overall length approx. 2,000 mm, width 100 mm Brushless motor driven
   3.1.3. 2 Product gapping stations With a pair of cylinders Pneumatically driven
   3.1.4. 2 Product side guides Height and cross tool-less adjustable with scales
   3.1.5. 2 Attachment holders for aligned wrap-around labelling The camera will looks for a unique 2D code on the product for the labels to get applied in orientation to the code. Height and cross tool-less adjustable
   3.1.6. 2 Attachment holders for label start sensors Height and cross tool-less adjustable
   3.1.7. 2 Attachment holders for applicators Height tool-less fine adjustable with position indicators Manual driven linear unit with handle and lock to move the applicator from home position to working position. Working position monitored with proximity switch
   3.1.8. 2 Wrap-around labelling stations Application roller height approx. 160 mm Height tool-less adjustable with position indicator Servo motor driven Vertical roller prism Width tool-less adjustable to product diameter Height tool less adjustable with

position indicators Cross central tool less adjustable with position indicators Pneumatically driven
3.1.9. HERMA HMI control panel Mounted on pivot arm at outfeed the of the machine
3.1.10. Control cabinet Stainless steel control box for HERMA controls Mounted in the machine frame base
3.1.11. Pneumatic basic equipment Switch-on valve Maintenance unit Pressure build-up valve Compressed air monitoring Marked with working pressure

3.2. Machine guard
3.2.1. Transparent safety guard Complete transparent guard with doors on the front and back of the machine
3.2.2. Safety switches To avoid the start of the machine when the safety guard door is open

3.3. Format parts Without

3.4. Applicator
3.4.1. 2 Unwinders Mechanical Maximum backing paper width 82 mm Maximum reel diameter 400 mm Core diameter 76 mm Mounted at base unit HERMA 500
3.4.2. 2 Base units HERMA 500 4.3 inch colour touchscreen Manual feed button for dispensing a single label Label web brake Orientation left & right Horizontal mounting position Maximum backing paper width 82 mm Maximum labelling speed 50 m/min Connections: I/O-interface, start signal Connection cable: Power cable length 5m without power plug Servo motor driven
3.4.3. 2 Peel systems Clear span carrier system Peel plate holder attachment angle 15 degree Peel plate with maximum backing paper width 82 mm
3.4.4. 2 Label sensors Fork sensor on clear span carrier system Height and length tool-less adjustable
3.4.5. 2 Rewinders Mechanical Maximum backing paper width 82 mm Maximum wrap diameter 290 mm Mounted at base unit HERMA 500 3.5. Checking units
3.5.1. Machine checks Label start Diminishing label reel, External End of label reel, External Applicator error including web break
3.5.2. 2 Aligned wrap-around labelling Sensopart camera sensor for detecting the 2D barcode on the product.
3.5.3. Fault treatment Machine stops in case of: Errors

4. Electronic control and programming

4.1. Control
4.1.1. HERMA operator panel 7 inch color touchscreen Siemens TP 700 Automatic start / stop function button white illuminated Reset function button blue illuminated Emergency stop switch Marked in English language
4.1.2. Signal lamp at operator panel to indicate machine status Red (error), yellow (warning), green (in production)
4.1.3. Additional Emergency Stop switch At the outside of the both lanes
4.1.4. PLC Siemens S7-1200
4.1.5. Remote maintenance Via internet connection with eWON router Integrated WiFi function, deactivated in the hardware

4.1.6. Lockable main switch At control cabinet in red/yellow
4.1.7. Use of HERMA standard components
4.1.8. Use of HERMA standard wiring colours
4.1.9. Numbering of electrical components, cables and wires According with HERMA wiring diagram

4.2. Programming
4.2.1. Messages Malfunctions and machine conditions are displayed in plain English
4.2.2. User administration With user identification and password 4 user levels: Level “0” – Operator (no password) Start and stop the machine, acknowledge error messages Level “2” – Shift leader Level “0” access and call up of formats Level “4” – Technician Level “2” access and creating and altering of new formats, change formats and accessing error lists Level “7” – HERMA maintenance Level “4” access and access to all necessary information for servicing and maintaining the system
4.2.3. Serial fault Adjustable with machine stop Standard setting: 3
4.2.4. Mechanical format settings Stored in the HMI
4.2.5. Format storage Formats stored in the HMI
4.2.6. Counters Labels dispensed
The operating hours shall be recorded by a counter in the PLC which may not be deleted. The counter shall be visible on the HMI during automatic operation.