

How to make a manual beer bottle filling machine

I'm not robot!

The BFMP-500FCL Set for manual filling beverages into bottles includes three devices necessary to the manual isobaric filling beverages into bottles, the capping of the bottles and the labelling and printing bottles. Operation capacity is from 250 pcs up to 500 pcs bottles per hour according to type of beverage, temperature, type of bottles and coordination of human work. The pack consists of : BFm4-500S FourMan for the manual filling bottles – four positions to filling bottles CRW-M1 Manual pneumatic capping machine for the closing of bottles by crown caps BLM-BM1201 One-side or BLM-BM1201 Two-side semiautomatic bottle labelling machine The pack does not include : Plastic hoses and hose connectors – We recommend use the food-friendly plastic hoses JohnGuest 9.5 x 12.7 mm (JGFH-95-127) that are compatible with the John Guest system. Air compressor – A source of the pressure air needed for operation with the bottle capping machine – it is possible to use any air compressor. Reducing valve for connection between the pressure bottle with carbondioxide and the bottle filling machine. I. BFm4-500S FourMan for the manual filling 300-500 pcs bottles per hour A simple manual isobaric filling mechanism for easy filling of bottles: The FourMan contains of four filling valves and has a simple design. It is suitable for filling sparkling wines, soft drinks, beer, etc., (any kind of bottle such as glass or PET). It is made from stainless steel AISI 304 and an acetal food grade plastic. Filling capacity (maximum) : up to 300 pcs of bottles per hour (for bottles with volume 0.65 liters) up to 400 pcs of bottles per hour (for bottles with volume 0.50 liters) up to 500 pcs of bottles per hour (for bottles with volume 0.35 liters) The bottles filling capacity depends on: the quality and pressure of beverage, size of bottles, the ambient temperature, the beverage temperature, the pressure of carbon dioxide, and on user’s experiences. CHARACTERISTICS: Manual isobaric system for the filling of bottles with four universal stainless steel filling heads. Stainless steel valves (with three possible positions) to filling bottles with carbon dioxide, to filling bottles with a beverage and the close. Stainless steel adjustable pressure valves for fine-tuning fill speeds. Easily removable drip tray made of stainless steel with drain pipe for pipe fastening Fixing points that allow the unit to be clamped or bolted to the desired surface. Beverage and carbon dioxide gas piping with resistant stainless steel forging. Attachable to any source of carbonated liquid, gas and cleaning solution that uses many standard fittings. Fully adjustable height control to accommodate many different bottle sizes. All parts of the unit can be easily disassembled for maintenance work or cleaning. Hose connections : The equipment is terminated with two hoses with inner diameter of 3/8” (9.5 mm) and outer diameter of 1/2” (12.7 mm) for connection with the feed hose lines. One for gas and one for liquid. A user has to connect the piping, clamps and fittings with the output from a pressure tank with a beverage and also with the carbon dioxide bottle. Easy connectable to PE beverage hoses with inner diameter of 3/8” (9.5 mm) and outer diameter of 1/2” (12.7 mm) using John Guest couplers or the hose adapter. No connection material is delivered with the filling unit. Recommended dimensions of bottles : The system can easily handle bottles of 230 mm high and more. Filling of very large bottles, where the needle does not reach the bottom, will require adding a short plastic hose to the end of the needle to get to the bottom of the bottle. This reduces the turbidity during filling and the foaming of the beverage. Filling of bottles smaller than 200 mm height requires the shortening the end of the filling needle. Dimensions of the filling equipment : Width : 720 mm Depth : 230 mm Height : 670 mm Weight : 12 kg How the filling equipment works : Operation manual to download II. CRW-P1 Manual capping machine for bottles A pneumatic capping machine (manual, with a single head) for crown caps. Standard type Model CRW-P1 – Pneumatic machine to closing of bottles by crown caps with effortless operation • Cap hundreds of bottles per hour • Includes quick release pneumatic fittings • Hinged safety shield for ease of use • Twin levers prevent operator injury • A massive steel body of the machine This heavy duty commercial pneumatic capping machine is ideal when you have an air supply and a need to close a lot of bottles of the same height. The machine is able to close bottles from 5½” to 16” in height, and features two capping heads, one for the American standard 26mm crimp beer bottle cap, and the other for the European 29-31mm crimp bottle cap (which fits many kinds of European beer bottles). The 29-31mm cap may also be used for inserting plastic champagne corks into wine bottles. It fits bottles from 1¼” to 6” in diameter. A unique hinged safety shield is easier to use than other models with fixed safety shields. This machine is featured with dual air valves, so both black air valve levers must be always pressed at once to be activated capping of the bottle (which prevents an operators hand from getting crushed by the capping head). An adjustable bottom bracket makes it easy to set up your chosen bottle size so your bottles will be always properly under the capping head, saving a lot of time when you have a lot of bottles to closing. Requires 4-5 bar of air pressure (max 125psi) . Includes a quick disconnect air fitting that will screw onto a male 1/4” NPT air inlet for attaching your pressure air hose. Production capacity : from 500 up to 600 bph (depends on operator’s ability). CHARACTERISTICS: Product description: Semiautomatic, pneumatic machine for crowning of bottles by steel or plastic cap plugs. Adaptable for 26mm and 29mm crown caps. Adaptable for plastic shampoo plugs. Pneumatic actuator (an external air compressor is required for the function). Adjustable height. Two control levers. Operator protection. Practical handle for movement. Working pressure: from 4 to 5bar. (According to the European safety directive: the operator must keep pressing two buttons at least until the process has been completed. If you release one of the buttons, the piston returns into the safety upper position). III. Semiautomatic bottle labelling machine for applying one self-adhesive labels : Model BLM-BM1201 / or two self-adhesive labels : Model BLM-BM1202 The BLM-BM1201 Label Applicator enables the user to label all kinds of cylindrical bottles by simply inserting the bottle and pressing a foot switch. Once the foot switch is activated the label is applied within 4.5 second, most bottles are labeled in less than 2 seconds! This allows the user to quickly remove the bottle and insert another to start the procedure again. Once a rhythm is established bottles are labeling very quickly. Therefore this bottle labeller can label bottles at speeds up to 1200 Pieces an hour! The basic version includes one position for rollers with paper labels. But the machine may be upgraded later to the BLM-BM1202 model which is able to apply two labels on bottle whin one cycle. Product details and characteristics: The machine labels cylindrical bottles from 0.5” to 6” diameter (from 13 mm to 152 mm). Accuration: The machine holds very high side-side accuracy on most bottle types. Labeling bottles with length of the cylidric part up to 15” (381 mm) The machine is able to handle most tapered bottles by simply adjusting the idle roller position. The machine labels over 1200 pcs per hour with average dexterity of the human operator. (Or more if you have a fast employee) Physical trigger into optical sensor activated, will work on all kinds of labels. Side frames are cutted by laser from the quality steel which was be formed, cutted and inspected one at a time by our producer. Dispensing tables: They are formed out of 6061-T6 Aluminum. The peel edge is hand milled using a special hand-made cutting tool to get that perfect peeling edge needed to dispense labels without tearing the backing paper. Polished with ultra-fine polishing compound so paper flows freely around the plate. Motors: The machine uses dual shaded pole gear motors, made in the USA, to our specifications. Optional accessories : Upgrade kit to double-side labeller ... +500 Eur Upgrade kit to the BLM-BM-1202 model – two side labelling machine This model is able to glue both front and back label to cylindrical bottles in one cycle Dwindler of the waste paper ... +500 Eur This option part automatically rewinds the waste paper that is produced after labeling your product. Without this option part the waste paper is simply fallen over the back of the machine into a waste bin. Automatic activator ... +250 Eur This labeling option allows you to just insert your bottle and start of the labeling cycle is automatically activated. Foot switch is still included, but not needed to operation! Only logged in customers who have purchased this product may leave a review.

1. **Introduction**
This document provides a comprehensive overview of the current state of research in the field of artificial intelligence (AI) and its applications. It covers the historical context, key milestones, and the latest advancements in various sub-fields, including machine learning, natural language processing, and robotics. The goal is to provide a clear and concise summary of the progress made in this rapidly evolving domain.

2. **Historical Context**
The history of AI dates back to the mid-20th century, when pioneers like Alan Turing and John McCarthy laid the foundation for the field. Early work focused on symbolic reasoning and expert systems. The 1950s and 1960s saw the development of the first AI programs, such as the Logic Theorist and the General Problem Solver. The 1970s and 1980s were characterized by the rise of expert systems and the application of AI in various domains, including medicine and finance.

3. **Current State of Research**
In recent years, AI has experienced a significant resurgence, driven by advances in machine learning and deep learning. The introduction of convolutional neural networks (CNNs) and recurrent neural networks (RNNs) has led to breakthroughs in image recognition, speech recognition, and natural language processing. The field of reinforcement learning has also seen major progress, with the development of algorithms like Q-learning and Deep Q-Networks (DQNs). These advances have enabled AI systems to perform tasks that were previously considered impossible for machines.

4. **Applications of AI**
AI has found numerous applications across various industries. In healthcare, AI is used for medical diagnosis, drug discovery, and patient care. In finance, AI is employed for risk management, fraud detection, and algorithmic trading. In manufacturing, AI is used for quality control, predictive maintenance, and process optimization. In transportation, AI is being used to develop self-driving cars and optimize traffic flow. The potential applications of AI are vast and continue to expand as the technology advances.

5. **Challenges and Future Prospects**
Despite the remarkable progress in AI, there are still several challenges that need to be addressed. These include the need for more data, the development of more robust and interpretable models, and the ethical implications of AI. As AI continues to advance, it is important to ensure that the technology is used responsibly and for the benefit of humanity. The future of AI is bright, and we can expect to see even more groundbreaking developments in the years to come.

6. **Conclusion**
Artificial intelligence has come a long way since its inception, and it is poised to continue its rapid growth. The current state of research in AI is exciting, with new breakthroughs being made every day. As the field continues to evolve, it is important to stay informed and engaged with the latest developments. The potential of AI is vast, and it has the potential to revolutionize many aspects of our lives. We look forward to seeing the continued progress and innovation in this field.

7. **References**
The following references provide a list of key sources used in this document. These include academic papers, books, and other relevant publications in the field of AI. The references are listed in alphabetical order and provide a starting point for further research on the topics discussed in the document.

8. **Appendix**
This appendix contains additional information related to the main text of the document. It includes a list of key terms and definitions, as well as a glossary of abbreviations. The appendix is intended to provide a comprehensive overview of the terminology used in the document and to ensure that the reader has a clear understanding of the concepts discussed.

9. **Index**
The index provides a quick and easy way to find specific information within the document. It lists the page numbers for each topic discussed in the document, allowing the reader to navigate to the relevant sections quickly and efficiently. The index is an essential tool for anyone looking for specific information in this document.

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