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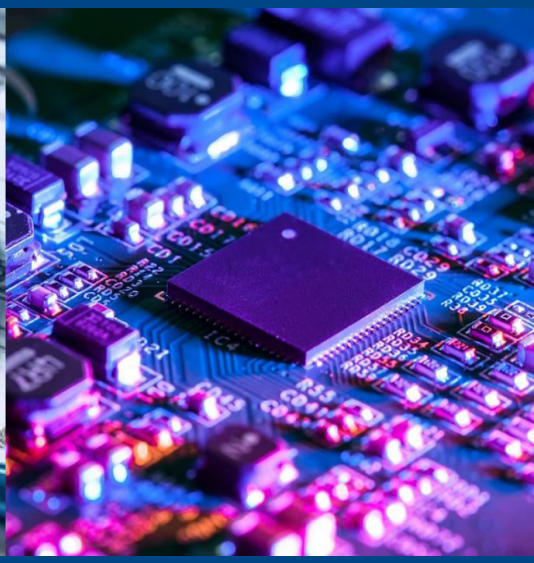

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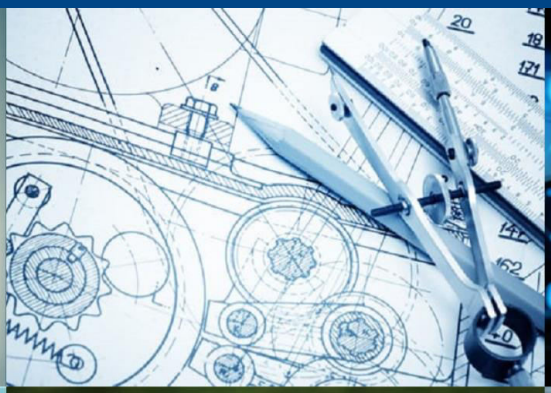

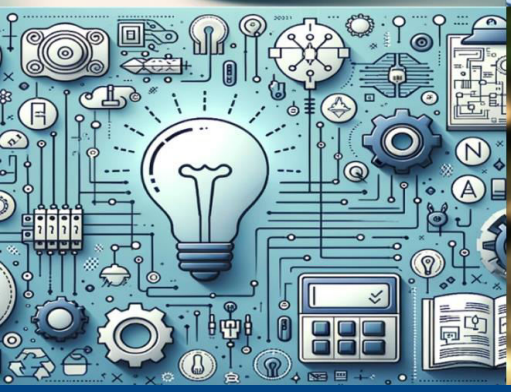

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Design and Fabrication of Blister Strip Tablet Extractor Machine

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ABSTRACT: The aim Of this project is to develop a bending machine which is useful to bend a grill in workshop or in Fabrication shop. This project is to design and construct a portable bending machine. This machine is used to bend grill or rod into curve and the Other curvature shapes. The size of machine is very convenient for portable work. It is fully made by Mild steel. Moreover, it is easy to be carry and use at any time and any place. It reduces human effort and also required low less skill to operate this machine. We are designing manually operated bending machine with the use Of bearings, sprockets, chain and support (frame). The bending machine is manually operated. Therefore, our objective is to increase accuracy at low prize without affecting the bending productivity. This machine works on simple kinematic system instead Of complicated design. This machine can bend up-to 8 mm thickness Of grill or 2 mm Of rod. Due to its portability it can be used by small workshop or fabrication shop. Bending machine is a common tool in machine shop that is used to bend a metal. It is widely used in various industrial operations such as bending a pipe in required shape & size. In this project, designing Of bending machine for bending a pipe machine is specifically for portable bending machine.

KEYWORDS: manually operated, defoil tablet,portable

I. INTRODUCTION

Different product having different size and shape, according to that the pack size of blister is varying. When the batch start it is necessary to check the set the packaging machine according to pack size. While setting this machine many strips are carried out as the rejected strips. Some strip is rejected while printing mistake and packaging mistake. So, these strips are not through it must defoiled and come to back in line. For this defoiling purpose the manual defoiling is not a correct solution. So defoiling machine is used for defoiling the tablets and capsules from the blister. Blister packages for pharmaceuticals consist of two basic packaging. Component lidding materials and forming films. The lidding materials consist of a supporting material, e.g. aluminum that has a heat seal lacquer on own sides to act as a sealing agent, and on the other side an assortment of other layers depending on the end requirements of the blister package (tamper-evident, child resistance, or simple unit does delivery). The side coated with the sealing agent faces products and forming films. The forming film can be a monolayer sheet of pvc or a composite of other materials or coating to increase the water vapor barrier effect. The forming film of composite is the packaging component that receives the dosage form in deep-dram pockets. Plastic forming film such as PVC, polypropylene (PP)and polyester (PTE) can be Thermoformed, but other formable structure containing aluminum and cold light resistance is required, light-protective or opaque forming films can be employed.

Rigid PVC is currently the most widely used forming film because of its ideal thermoforming characteristics. A typical thickness before thermoforming is 250 micrometer (10mil).PVC does not provide a good barrier for moisture-sensitive product. When better barrier properties are required in a thermoform able blister. PVC is laminated or coated with other materials.

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II. METHODOLOGY

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III. CONSTRUCTION & WORKING

Construction

3.1. Bearing:

A bearing machine is a machine element that constraints relative motion and reduces friction between moving parts to only the desired motion.

3.2.Shaft Bearing:

The shaft bearing is use to transmit power from one place to another place. In this mechanism two shafts used that are fitted in bearing act as roller. The shaft is subjected to axial load, bending moment or tensional moment or their combination.

3.1.1 Rubber roller

A rubber roller is a cylindrical component made of rubber or elastomeric materials. It's used in various industries like printing, textile, paper, and food processing for handling, transporting, and processing materials. Rubber rollers provide shock absorption, grip, and traction, while being resistant to corrosion and wear.

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3.3. Circular plate

I Circular plate is a flat, round plate with a continuous curved boundary, commonly used in various engineering applications. It has radial symmetry and is a two-dimensional shape with no beginning or end.

3.4.Nut and Bolts

A nut is a type of fastener with a threaded hole. Bolts are often used to make a bolted joint. Nuts are almost always used in conjunction with a mating bolt to fasten multiple parts together

3.5. 12VDC Transformers .

A 12VDC transformer is an electrical device that converts an alternating current (AC) input voltage to a direct current (DC) output voltage of 12 volts. These transformers are commonly used in power supplies for electronic devices, LED lighting systems, industrial control systems, and automotive systems. They come in various types, including step-down, isolation, and switchmode transformers, each with its own

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Working

Two spacers are provided to upper plate to adjust the spacing as per width of the tablet . At the time of feeding of blister between the rubber shaft and disc through the feeder plate, we will have to adjust the disc. For this purpose the upper shaft should have to provide to support the tablet strip. Material used for this mechanism is Mild Steel. We know that blister various from size to size and the company to company. If our adjustment for feeding the blister is only for the one particular size then its use is also limited. For this purpose, we provide and adjustment in which blister size will adjust. We have provided geared motor with belt dive as a transmission system. The defoiling machine can be consists of following components given below,

1. Pedestal bearing
2. Rubber roller
3. Geared motor.
4. Motor pulley
5. Shaft pulley
6. Belt
7. Rubber foundation

IV. ADVANTAGES

1. This machine can be used for any shape of trip size.
2. This machine has compact size.
3. This machine is easy to handle.
4. Cost of machining is low.
5. Skilled person are not required.
6. Production rate can be easily changed by changing motor speed
7. Maintenance cost is less.
8. Easy to assemble and disassemble.
9. Initial investment & maintenance is low.
10. Less floor space is required.
11. Design & fabrication is easy.

V. CONCLUSION

While concluding this stage-I report, we feel quite fulfil in having completed the project assignment well on time which is literature stage-I, we had enormous practical experience on fulfilment of the report writing of the literature survey & working project model. We are therefore, happy to state that the in calculation of mechanical field proved to be a very

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useful purpose in future fabrication parts. Although the design criterions imposed challenging problems which, however were overcome by us due to availability of good reference books which work had already done by us in this stsge-l report. In future we will do the selection of raw materials as per design specifications given in stage-I report which will help us in machining of the various project parts & components. In next stage-2 our work is to develop, fabricate & test the project by giving our potential efforts during machining, fabrication and assembly work of the project model to our entire satisfaction to solve the problem in field for social welfare in next stsge-2. It gives us immense pleasure to have completed our project Semi-Automatic Defoiling Machine as per project analysis and time estimate that is in 5 months.

ur project Semi-Automatic Defoiling Machine was designed on experimental basic and so adopted and chooses all channels that assure quality. After the successful completion of the complete model it is now for sure that the model can will be employed on large scale with machine increase in cost of around Rs.11000/- of

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