XL-1B

Mini Vial Filling Stoppering and Capping Machine

From . . .
$28,900
(Ex-GST)

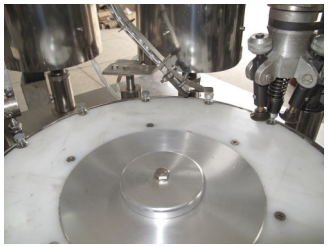
Max Output: 30-50 bottle/min
Applied bottle: 2-30ml vial, glass bottle or plastic bottle
Accuracy: 0-2% reject rate
Sealing rate: ≥99%
Power supply: 220V , 50Hz , one phrase
Power: 1 KW
Overall dimensions: 1250*1100*1200mm
Weight: 300kg

Automated ready-to-use filling, stoppering and capping system. Flexible in design for small batch pharma or liquid filling production.

Base Model and Price includes one set mould. Optional moulds accessories allow for filling a range of vials, stoppers and caps sizes.

** Sample of Vials, Caps and Stoppers needed prior to manufacturing of machine to create set moulds for optimized performance (at least 200ea)

NEW !* : *Peristaltic Pump liquid feed-in.
Display PLC integrated control system .



NO	Name	Model	Qty
1	Circuit breaker	16A	1pcs
2	Relay (with base)	LY2N-J. DC24V. 10A	5 pcs
3	Fuse	FS – 101	5 pcs
4	PLC	VB1 – 24MT or VB1 – 32MT	1 pcs
5	Touch screen	TK6070IP	1 pcs
6	Switching Mode Power Supply	S-35-24	1 pcs
7	Switching Mode Power Supply	S-350-48	1 pcs
8	Stepper motor	2S56q- 02976	1 pcs
9	Driver	2m560	1 pcs
10	Watson-Marlow peristaltic pump head	102R	1 pcs
11	Transducer (optional)	DELTA, VFD-L Series 0.75KW	1 pcs

Chromalytic
specialists in chromatography

Chromalytic Technology Pty Ltd
232 Forest Rd Boronia Vic 3155
Tel No : +61-3-9762-2034
Web : https://www.chromalytic.net.au
Email : sales@chromtech.net.au

XL-1B Upgrade from XL-1 2019+

Syringe Filling : Mechanical Cam Operated Glass Syringe / 2-way valve XL1

2019+ XL-1B upgrade >

: Peristaltic Pump > variable fill, speed, timing, sample volume via LED panel

: LED Power Control Panel

> integrated PLC electronic control > Peristaltic Pump

Options

XL1B-13

13mm Crimp Caps / Stoppers, 2ml, 3ml, 4 ml, 13ml
requiries :
Feed-in Platten adstment for different OD Vials (2, 3, 4, 13ml

Rotating Vial Platten *
Stopper Hopper > vibrating feed
Cap Hopper > vibrating feed 13mm caps (FO or Std Alum ?)

XL-1 Video /  **../videos/xl-1.mp4**

mpv4

13mm Auto Crimper

XL1B-20

20mm Crimp Caps / Stoppers, 7ml, 10ml, 20ml
requiries :

Feed-in Platten adustment for different OD Vials (7, 10, 20ml)

XL-1B Video 

Typical XL-Vial Filling/Stoppering/Capping Machine - SCHEMATIC

Rotating Vial Platten *
Stopper Hopper > vibrating feed >20mm stoppers
Cap Hopper > vibrating feed 20mm caps" (FO or Std Alum ?)
20mm Auto Crimper

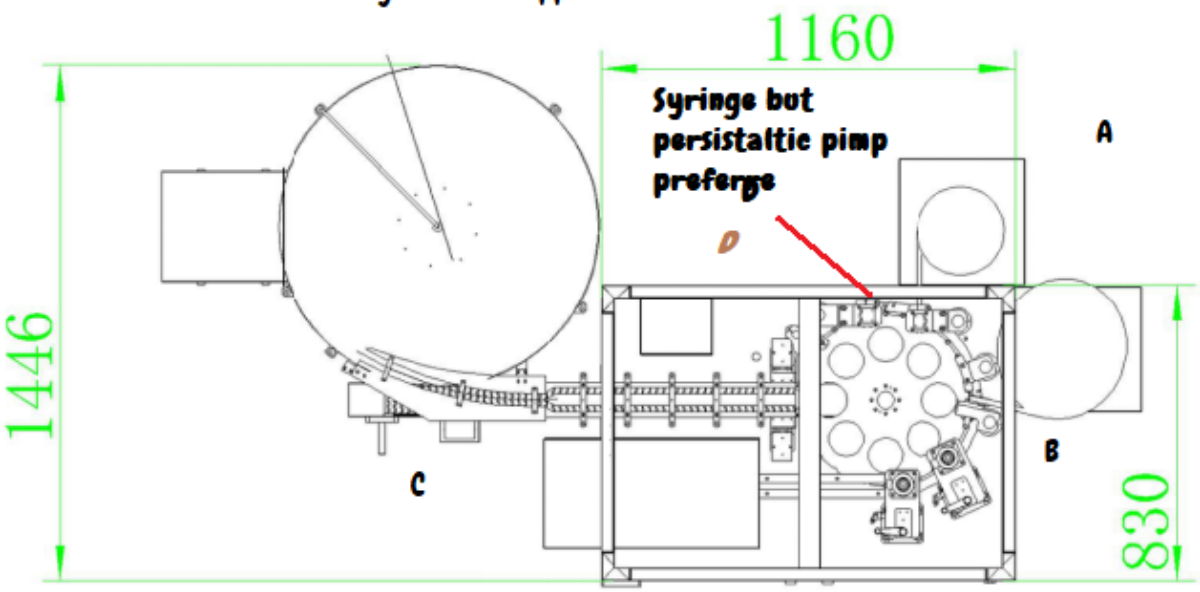
2020+ Future improvements ***AIM > to reduce size to a smaller lab version (TableTop ?)***

* > Fixed Hole D platten 30mm
- vial hole inserts to allow reduction of Vial OD to 22.4mm, 16.5mm
- adjustable input shute rails to allow 22.4, 16.5mm D vials
- 300kg > ***~150kg (?)*** compromise for MAX of 20ml vials and 20mmCaps (**Shipping Box XL-1 currently ~500kg & far too unwieldly to handle**)

Typical XL Vial Filling Stoppering CrimpCapping Machine - SCHEMATIC

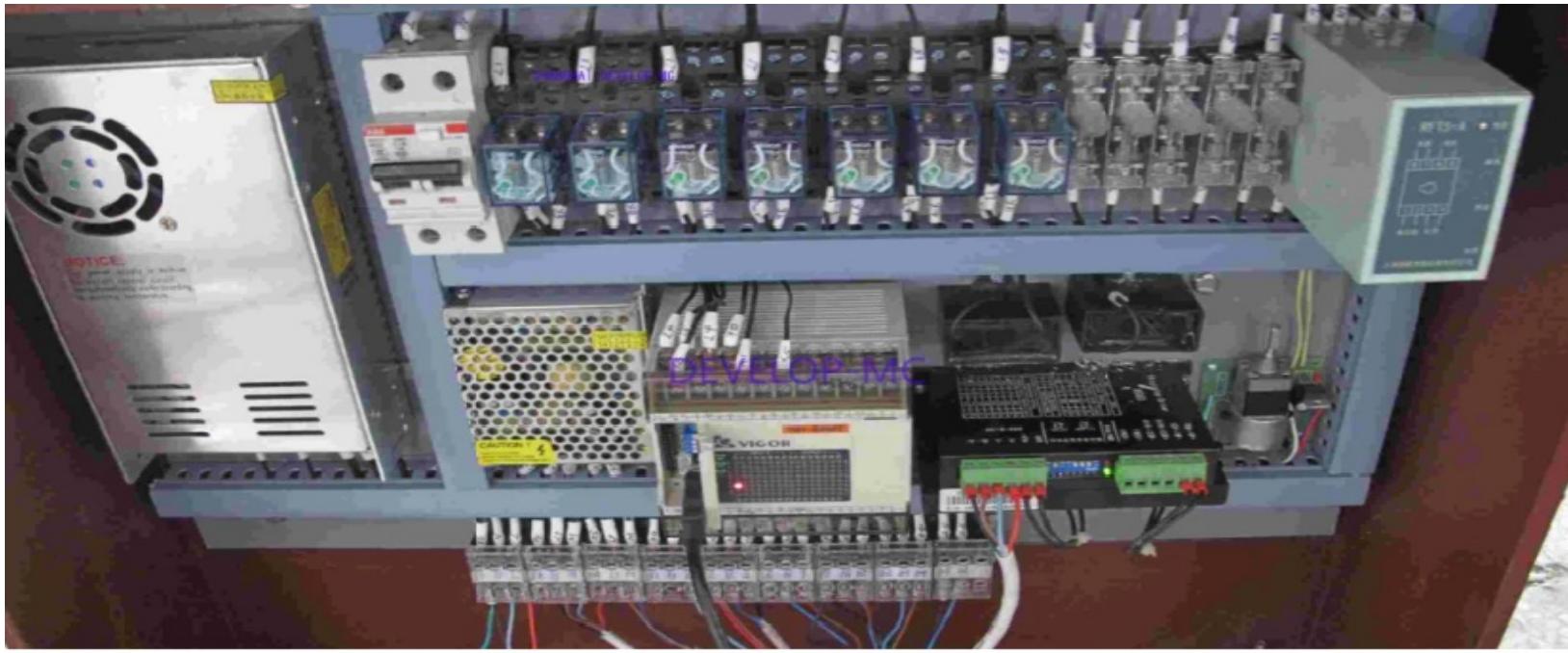
ideal **smaller** > benchtop machine
this macine ~ 600Kg Gross / 350kg
Net but too heavy for a Lab App

PLC Controml"Cam"
Mechanism IS OK 220VACe
single phase (AUSTRALIA)



A 20mm Stopper "hopper
B 20mm FlipCat "hopper"
C 10ml Vial Feed Turntable dual feed shown (ultra high speed but single feed OK and modest speed eg 1000each per hour is OK D multi Syringe but ONLY one required

XL-1B Upgrade PLC Control - Wiring Overall 2023



XL-1B Vial Filling Stoppering Capping Machine – PLC Comntrol Wiring
Simplicity ? 220VAC to Transformer to 24VAC / DC ?

XLm/watch?v=7dKSBgQzJo4

XL-1 Vial Filler : adjust from D22H45mm to D22H49mm

https://www.youtube.com/watch?v=3Z7D2Shg-z4

XL-1B 2023

Product Description

L-1B Economic Mini Vial Filling Stoppering And Capping Machine

escription : This machine is the filling apparatus in the oral liquor assembly line, which is mainly applied in the filling, lidding, screw sealing of 5-30 ml bottles.

he operation of filling and sealing is combined in this machine with its advanced design nd compact structure.

his machine is 2 filling point. Guarantee the filling is with smoothness.

he vials filling machine can be used for 5-30ml. and is The factory production of 5-30, transport ials filling machine is suitable for multi-use specifications of pharmaceutical, biological products, chemical, cosmetic and food industries small doses of liquid filling equipment.

achine adopts electromechanical integration technology, with high accuracy, easy to clean, on-polluting liquids, non-drip, can adapt to a variety of high-precision liquid filling, is currently advanced liquid filling equipment, the machine made of stainless steel casting, the machine an be completed bottle, bottle feeding, conveying.

an be mechanically connected with the previous process.

he machine is reliable, durable, easy maintenance, replacement specifications, simple operation, reasonable structure.

echnical parameters:

ax Output: 30 bottle/minApplied bottle: 5-30ml vial, glass bottle or plastic bottle

ackage: 0-2%Sealing rate: ≥ 99%Power supply: 220V, 50Hz, one phasePower : 1KW Overall. Dimensions: 1250*1100*1200mmW

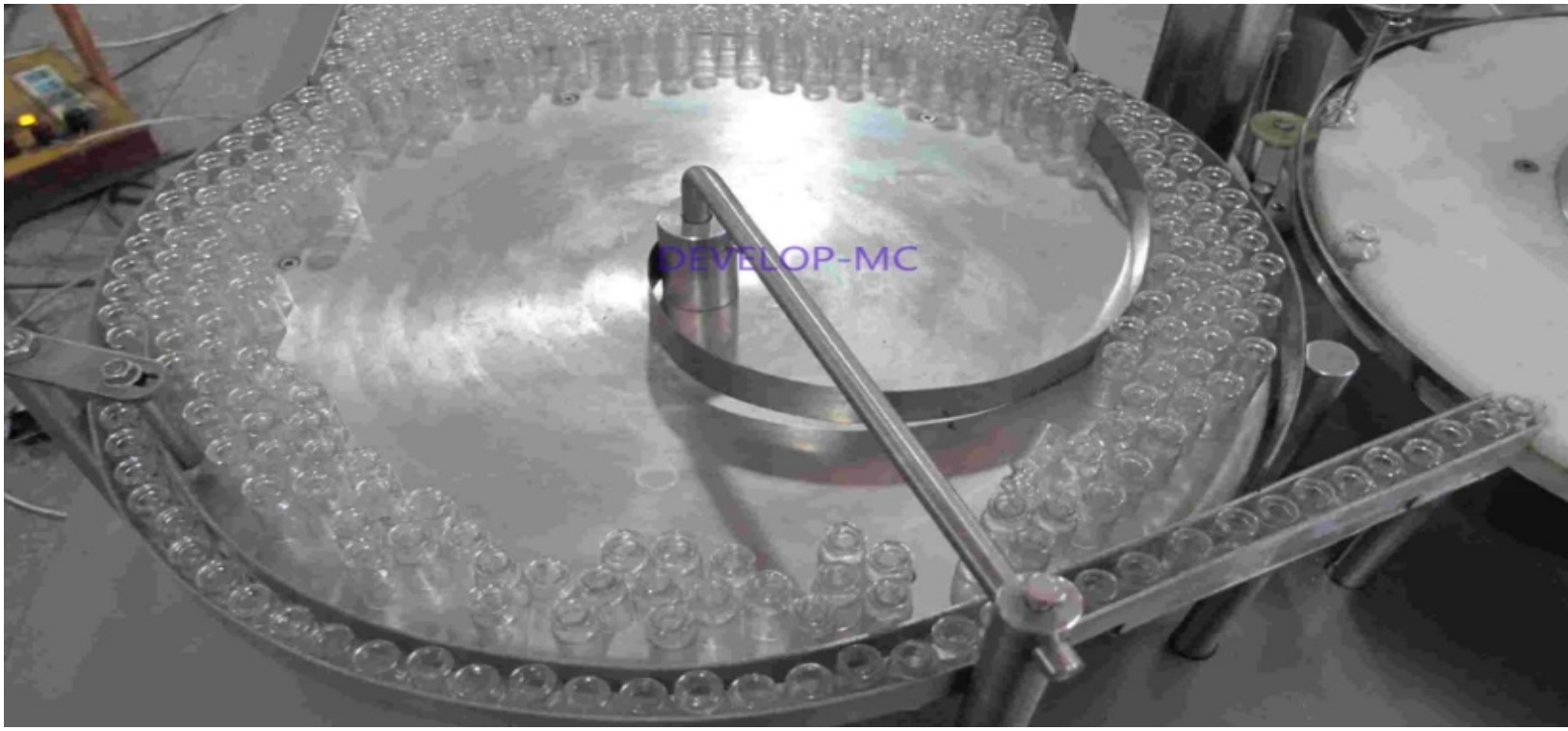
eight: 400kgNet; 550Kg Gross (in Wooden Crate in 3 to 4 parts).

One size Vials as Standard : 10ml 22D x 50mmH, FlipTopCaps 20mm

ifferent Sizes : require Different “Plattens”; and 13mm Stopper/Cap “Hoppers”

YOUR Vial “Set” required for “factory fine tuning” of this machine (100 of each) pre - production !

some Detail XL-1B > pics



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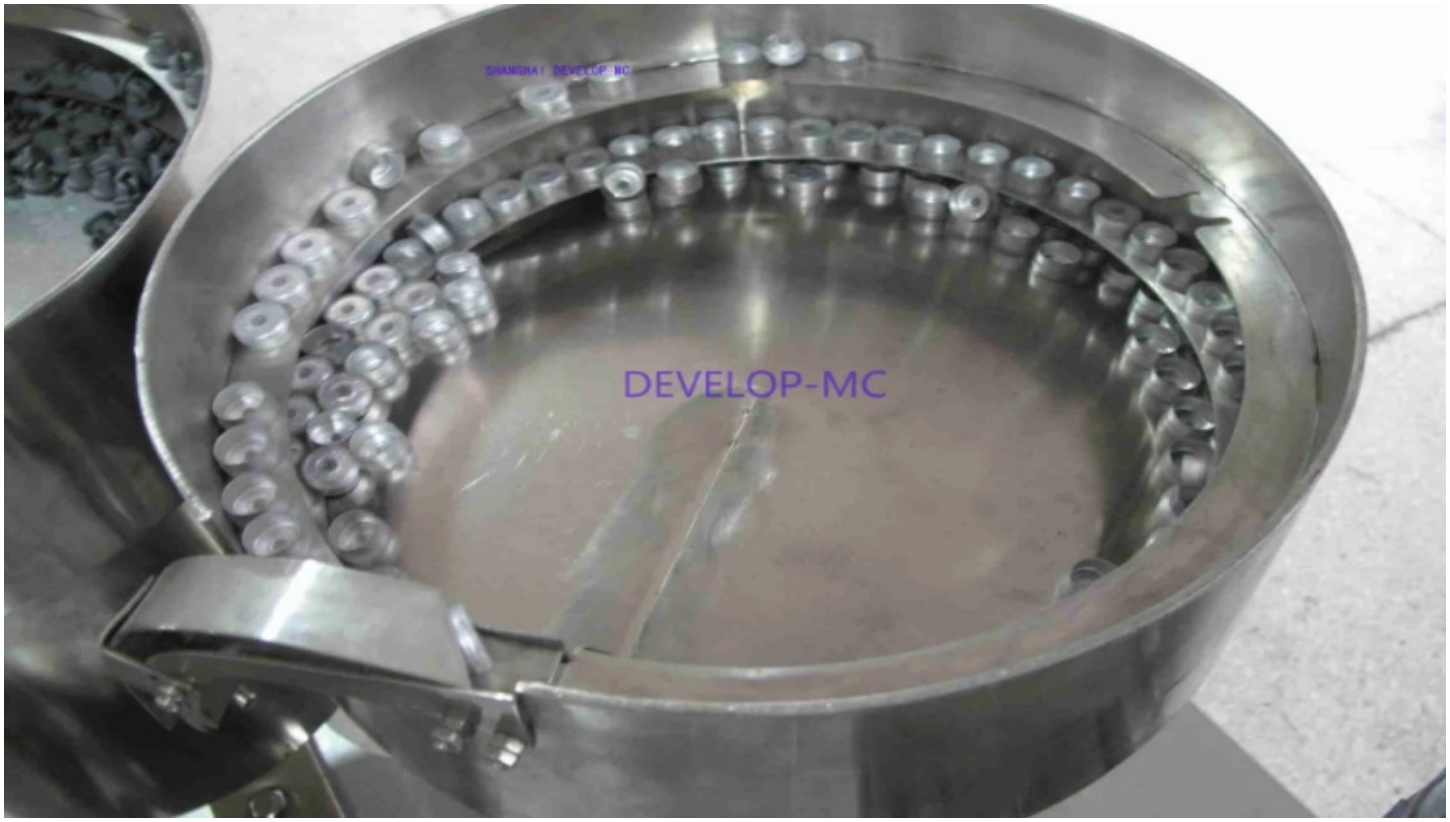

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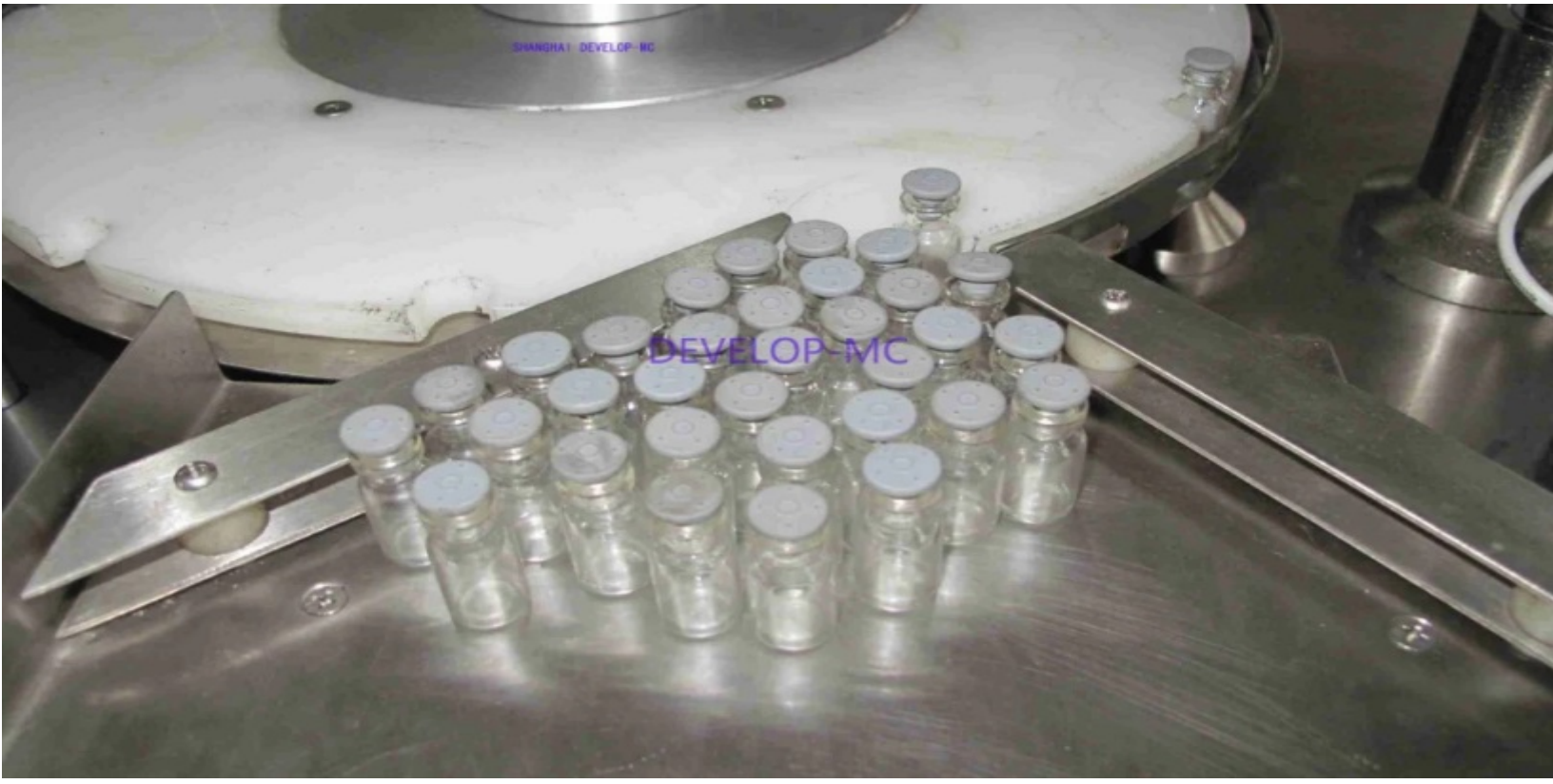


some Detail XL-1B > pics

XL-1 Liquid Filling and Sealing Machine

(5-30 50-250)

M A N U A L

I.Features:

The vials filling machine can be used for 5-30,50-250ml. and is The factory production of 5-30,50-250 transport vials filling machine is suitable for multi-use specifications of pharmaceutical, biological products, chemical, cosmetic and food industries small doses of liquid filling equipment.

Machine adopts electromechanical integration technology, with high accuracy, easy to clean, non-polluting liquids, non-drip, can adapt to a variety of high-precision liquid filling, is currently the advanced liquid filling equipment, the machine made of stainless steel casting, the machine can be completed bottle, bottle feeding, conveying. Can be mechanically connected with the previous process. The machine is reliable, durable, easy maintenance, replacement specifications, simple operation, reasonable structure.

II. Technical Parameters:

1. Scope 5ml - 30ml

2. Production capacity 5ml - 30ml 1500-2000pcs/h

50ml - 100ml 1200-1500pcs/h

100ml--200ml 900-1200pcs/h

Power consumption 1kw/h

Overall Size L x W x H 1350x1000x1150mm

Weight 250kg 1600x1200x1200mm

III. Operation and Adjustment

Before starting machine, do first preparatory work, turn the handle to adjust the position waving, and then try to run the boot, first put a few bottles on the platen, and then align the filling dose, check whether there is the role of the control device for bottles bottle with pressure if there was stuck phenomenon, if meet the requirements, you can normally start the machine. Let a sequence into the bottle, not have inverted bottle and neutral, otherwise it will roll bottles, bottles and causing damage to the machine or machine parts moving phenomenon. After the end of each shift, the machine should be cleaned, and finally to the machine transmission parts plus bits of each oil.

IV. Filling the oil

The needle moves up and down with the turntable drive coordination, but also compatible with the irrigation fluid movement components. When the host drive turntable just stopped, the needle drop (needle height position adjustable needle holder) that irrigation fluid begins. When the turntable has not yet started, the needle is rising, liquid filling ended. The needle will be damaged if uncoordinated, and perfusion liquid bottles.

In case the needle moves up and down with the turntable incoordination, do not adjust the master operation, the correct approach should be to adjust the needle on the location of the front and rear cams. After adjustment, motor coordination, and should have all the locking screws to prevent the loss of accuracy.

Machine in normal operating conditions, the case of missing bottles, the limit will be opened for the wrong device, filling the liquid glass solution for irrigation pump stops working.

The cam operated filling liquid filling liquid needed to serve the needle, the needle reached the lowest, the irrigation fluid begins. Method of adjusting the amount of irrigation fluid loading:

1, pull lever position changes

(1) A lever fulcrum I move to increase the amount loaded. Direction B fulcrum I reduce the amount of mobile equipment;

(2) adjusting nut II to the C-rotating equipment increases, adjusting nut II D rotation to reduce the amount of loading.

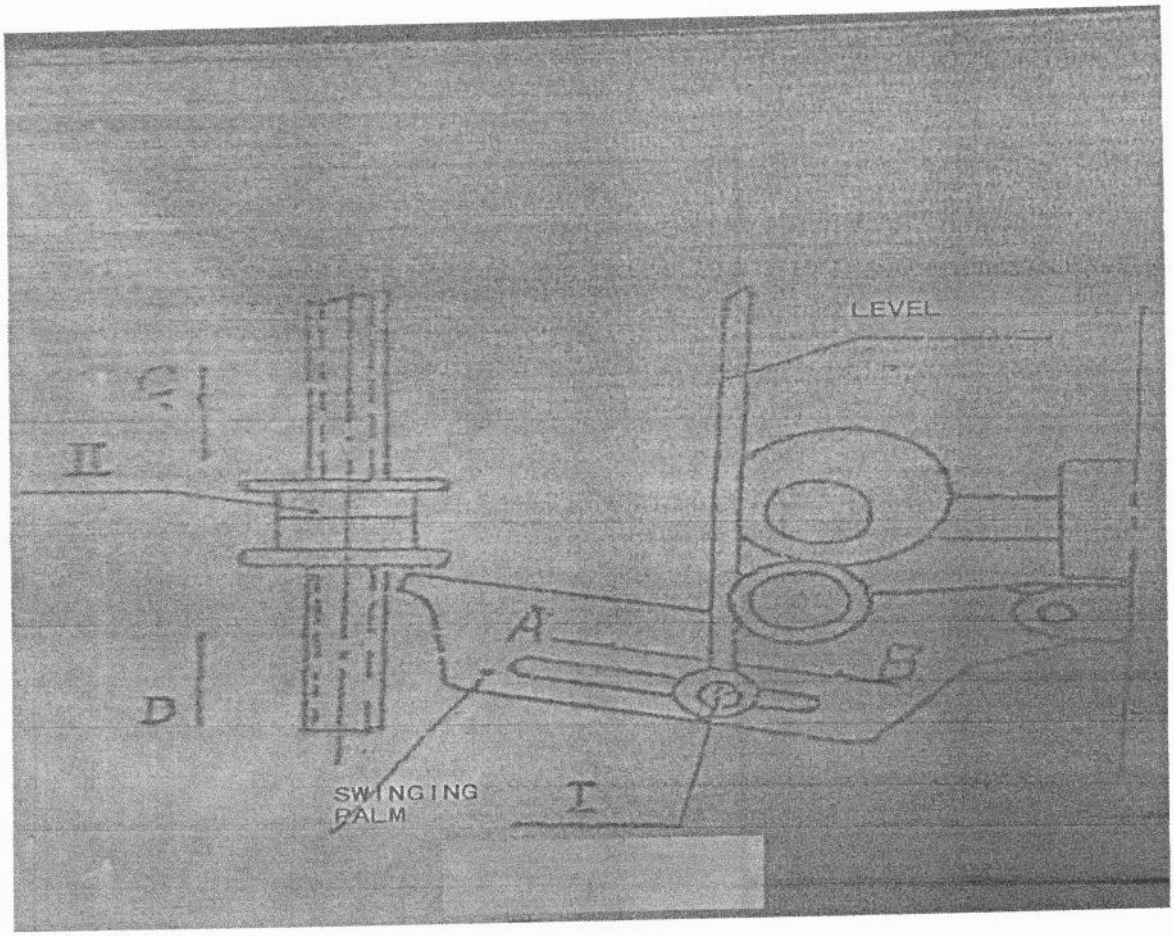


Diagram 6

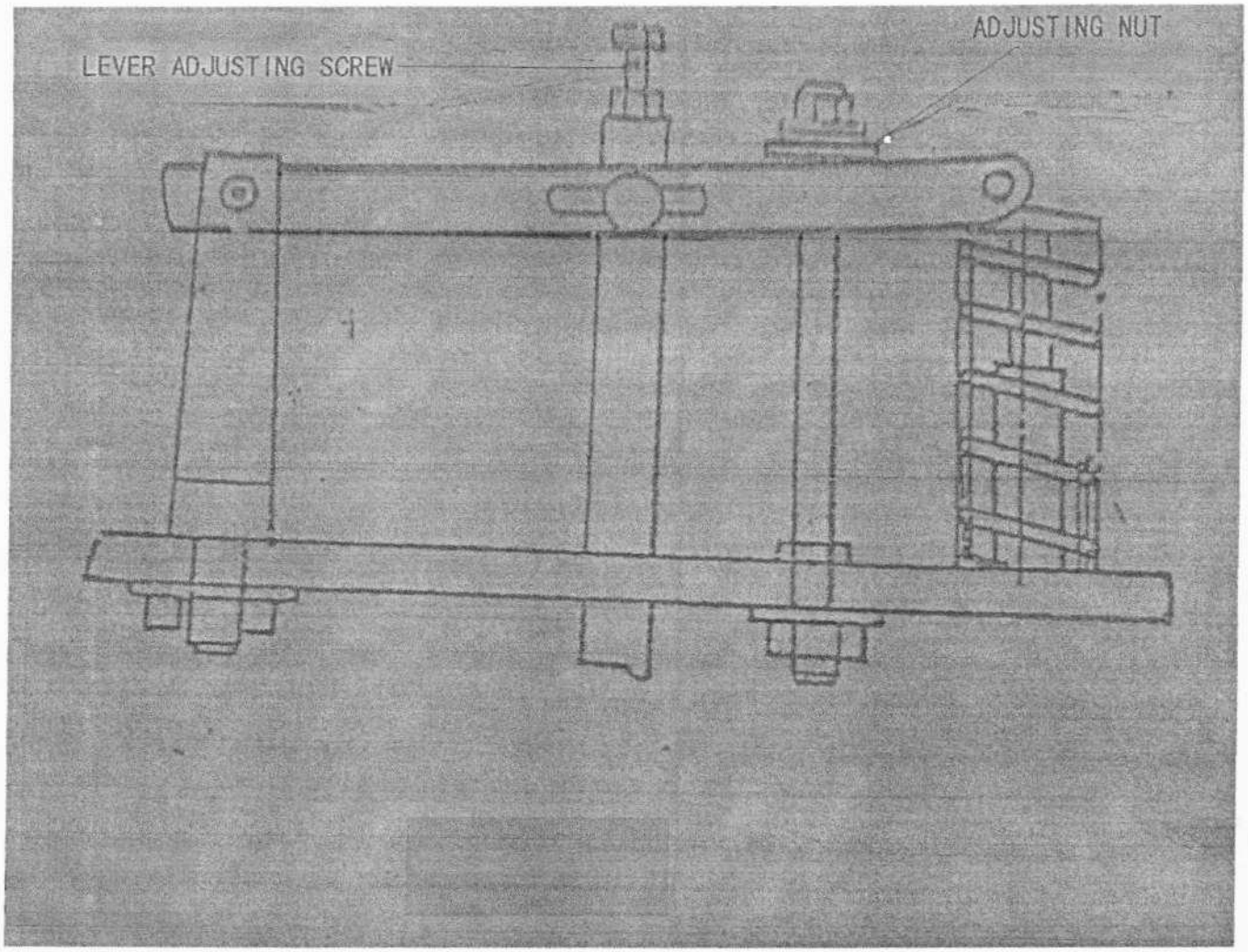


Diagram 7

1、 A glass pump stroke adjustment:

The adjusting nut is rotated downward stroke of the pump to reduce the glass, the liquid within the pump flow is reduced. On the contrary the adjusting nut is rotated upward with increasing liquid flow within the glass pump.

2, rod adjustment screw:

The lever adjusting screw adjusted upward or downward spin spin transfer may likewise affect the length of the glass of the pump stroke. Subject the glass pump stops working, adjustable unscrew all the screws, so that the lever to lose

efficiency. Regulate the flow size as much as possible so that the glass pump stroke is too long, because the machine speed faster, avoid lotions can not keep up. Glass pump before work and work of a little distilled water shall always be lubricated pump parts to prevent friction between the inner and outer glass tubing killed, broken.

Filling volume alignment after adjusting nut shall avoid QTY inaccurate.

Filling System :

Diagram 8

(1) Liquid (2) Glass Tube (3) Liquid Storage

(4) Latex tube (5) Adjust liquid dish clip

(6) One-way glass valve (nonporous)

(7) The outer glass tube pump

(8) The inner glass tube pump

(9) One-way glass valve (with pores)

(10) Needle seat

(11) Stainless steel needles

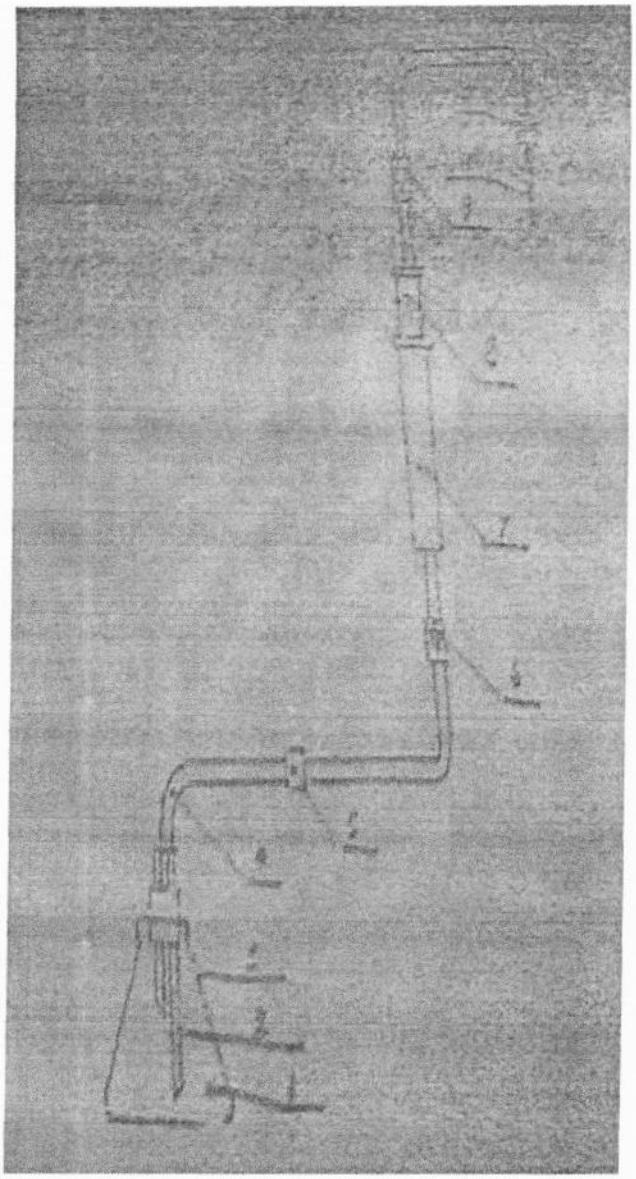


Diagram 8

V. Automatically Fall Aluminum Cap

Automatically add the aluminum cap works is that when the turntable tank bottle rotates with the host, the alignment falls within the aluminum cover flap diameter center, drag down potential pressure on the aluminum cap on the bottle. Aluminum is better loose fit tightly to prevent irregular off aluminum cap aluminum cap into orbit, causing the lid off the aluminum rail failure.

(1) oscillating conveyor aluminum cap> 16pcs / min. By the regulated current (voltage) to adjust the amplitude. To align the upper and lower core gap, the gap to four sides parallel gap of 0.3-0.5 mm is appropriate.

(2) fall on both sides of the aluminum lid and positive pressure spring shrapnel elastic stiffness to be appropriate. Meanwhile off the flap position (left, right, high, low) bottle tank with the turntable position to be adjusted appropriately, oscillating disc rotating seat height can be adjusted seat nut, rotating the nut seat, the first screw loosen the set screws until well after the adjustment, then tighten the screws

(3) The oscillation angle aluminum cover rail and the host table 45 degrees, the inner diameter of the cap into the mouth of the bottle 45 degrees to the vertical. Under this cover on the success rate is very high.

VI. Automatic Drop Rubber Stopper

Automatic turntable tank bottle rubber stopper is rotated aligned with the host off the rubber stopper inside flap diameter center drag pressure on the rubber stopper on the bottle falls prospective. Rubber stopper tight loose fit better, no rules to prevent the rubber plug into the plug off the track, causing the drop-Cypriot track failure.

(1) send oscillation rubber stopper> 16 / min. By the regulated current (voltage) to adjust the amplitude. To align the upper and lower core gap, the gap to four sides parallel gap of 0.3-0.5 mm is appropriate.

(2) off the plugs on both sides of the front springs and elastic stiffness

pressure shrapnel location should be suitable. Meanwhile off the flap position (left, right, high, low) bottle tank with the turntable position to be adjusted appropriately. The level of oscillation plate holder can be rotated to adjust the seat nut, rotating the nut seat when the first set screws loosen the screw until well after the adjustment, then tighten the screws.

(3) The oscillation angle of the rubber stopper and the host table rail 45 degrees, the inner diameter of the cap into the mouth of the bottle 45 degrees to the vertical. So the next plug high success rate.

VII. Capping

Capping Adjustment:

To ensure good sealing capping, not due to excessive pressure caused by broken bottles. Please adjust according to the following procedure:

(1) First. First rolling cutter head and upper mandrel axis position adjustment to a certain location. Is the nut on the plunger shaft to the vertical movement of the lever, transferred to a predetermined position after the locking nut with the other, in order to ensure a good bottle into the capping position.

(2) Whether the rolled tight cap, in addition to equipment technical performance, the glass height and diameter of the bottleneck and the aluminum lid diameter, depth, rubber pad thickness closely. According to special work experience described below:

Example: The following path with the size of the bottle, aluminum cap size is better.

Then rubber mat can also be used for the 1.5 mm 1.8 mm thick, the rubber pad should be produced and consumed rubber elasticity must be good. Market inferior recycled rubber production, which requires that unhygienic and poor flexibility. This capping will produce frilly, excessive height capping will produce rolled out of the lid flange so extremely beautiful.

(3) Check the adjustment of the bottle (with lid) into the upper position when the plunger shaft head, then top bottle lever position should be at the highest, which is the highest point on the cam cap edge inspection exposed when the upper plunger shaft head the size, generally 2.5-3 mm in order to expose as well. If not reach the size please adjust positioning sleeve gasket thickness, adjust the upper plunger shaft when you remove remove remove positioning pins to adjust the positioning sleeve gaskets, after a good tune-situ installed and maintained according to the original position.

(4) Then check the rolling cutter and the aluminum cover position, when the position of the blade closely rolling bottle, which is just in the aluminum rolling cutter edges along the edge of the cover, such as over the plunger shaft when the cover cap spend to align the limit screw. After adjustment screw with locking nut limit.

Note: If the limit screw to the downturn, said Minga broken bottle on the bottle pressure is too large, then the entire rolling head assembly should put up in order to reduce the pressure applied to the bottle, adjustment method is to first column two rolling Loosen tight set screw pieces make up the column to mention 2-3 mm, fixed

firmly and check the bottle when the bottle at the top center of the alignment of the center pole head, left and right lateral deviation can loosen the screw for fine adjustment board two, after a good tune center locking adjustment rolling cutter location along with aluminum cover, you can start rolling heads 1-2 seconds to check the quality of capping capping quality is mainly two things: a bottle whether to retract, this can be used to check the feel, generally by hand screw fixed aluminum cover as well (do not need a lot of force). Two rolled out of the cap is to check whether the edges neat. Please note: irregular edges rolled out along with the bottle mouth for good quality bottles along the mouth flute angle clear. Poor quality of the bottle along the mouth was a large fillet, the aluminum cover side Shoubu Zhu. Such as rolling out of the edge of acceptable quality and the aluminum cover wring their hands move out, indicating that the pressure exerted on bottle size, then still need to adjust the height of the column, please note that this time can be adjusted just move 0.5-1 mm. This adjustment should be repeated until no broken bottles and transferred capping sealing well so far.

VIII. Host Drive

Transmission part attention problems:

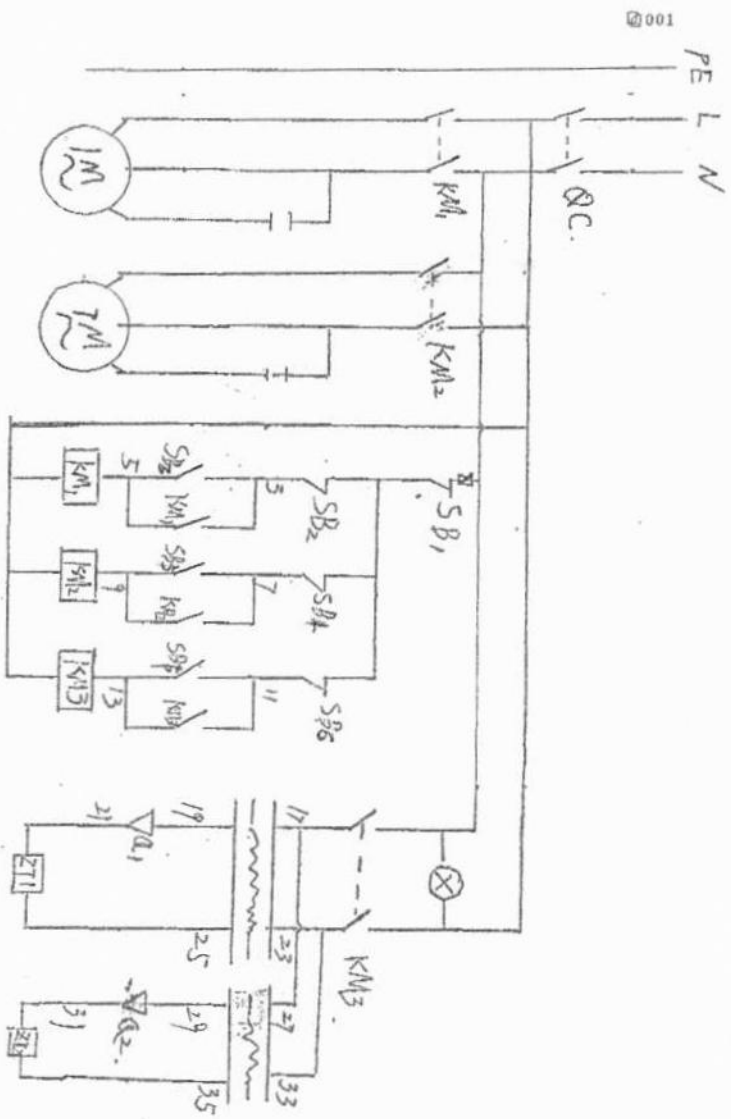
a) the spindle motor and drive chain, we must hold tight, because the spindle revolution has re-turn and idling, hold tight drive chain, to avoid the noise of machine operation.

b) each of the transmission gears, sprockets, cams, all set screws tightened (machine factory already secured) to prevent movement disorder.

c) by the scroll wheel drive, in case the machine fails, dial dislocation (dislocation other parts not) drive normally. You can scroll the fastening nut and lower decile plate on the two set screws loosen the dial is rotated to the correct position, tighten the nut and tighten set screw.

d) for all cam face and gears, sprockets often a little oil.

Electrical Circuit Diagram,



NO	NAME	ITEM NO.	QUANTITY	
1	AC CONTACTOR	10A	3	KM1 KM2 KM3
2	BUTTON SWITCH		4	SB1 SB2 SB3 SB4

3	REGULATOR	TDGC2-0.5R	2	TC
4	3H BREAKER	DZ47-63	1	
5	OSCILLATION COIL		2	ZT1 ZT2
6	DIODE	GUFA5A		