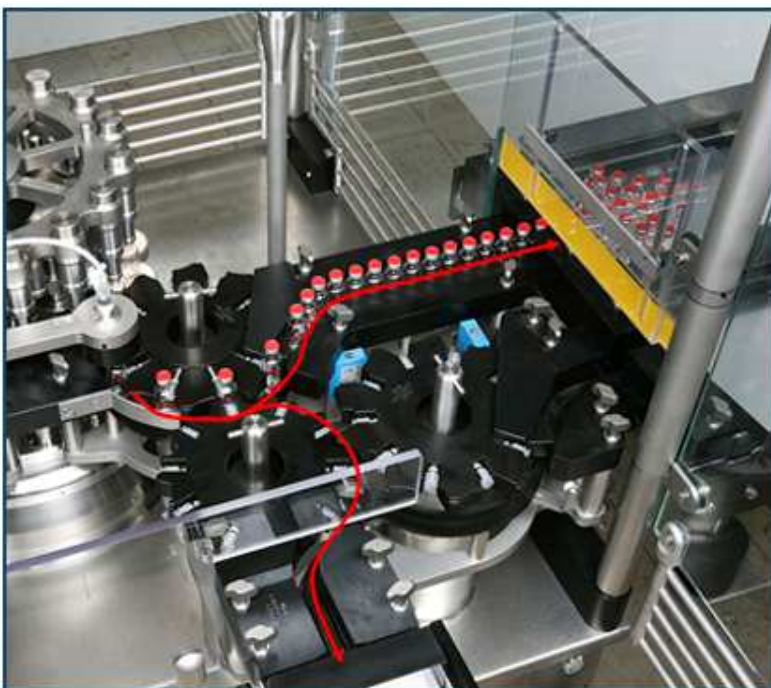




	<i>8 positions</i>	<i>16 positions</i>
Container diameter:	14 – 100 mm	14 – 53 mm
Container height:	30 – 240 mm	30 – 145 mm
Crimp cap diameter:	12 – 40 mm	12 – 24 mm
Crimp caps height:	6 – 18 mm	6 – 18 mm
Maximal capacity	18.000 / h	up to 36.000 / h
Machine weight:	700 kg	750 kg
Dimensions: (length x width x height)	2,75 x 1,35 x 2,0 m	2,6 x 1,35 x 2,0 m





Technical Specification

RVB4000/RVB8000

Closing machine for bottles

RVB4060



Machine type	RVB4000, RVB8000	Technical Specification RVB4060
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1. General

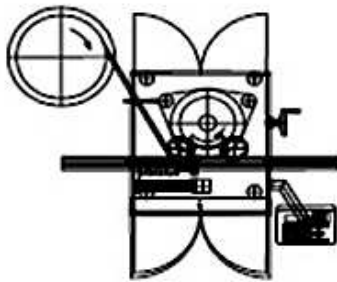
- This specification refers to the standard design of the machine.

1.1 Application

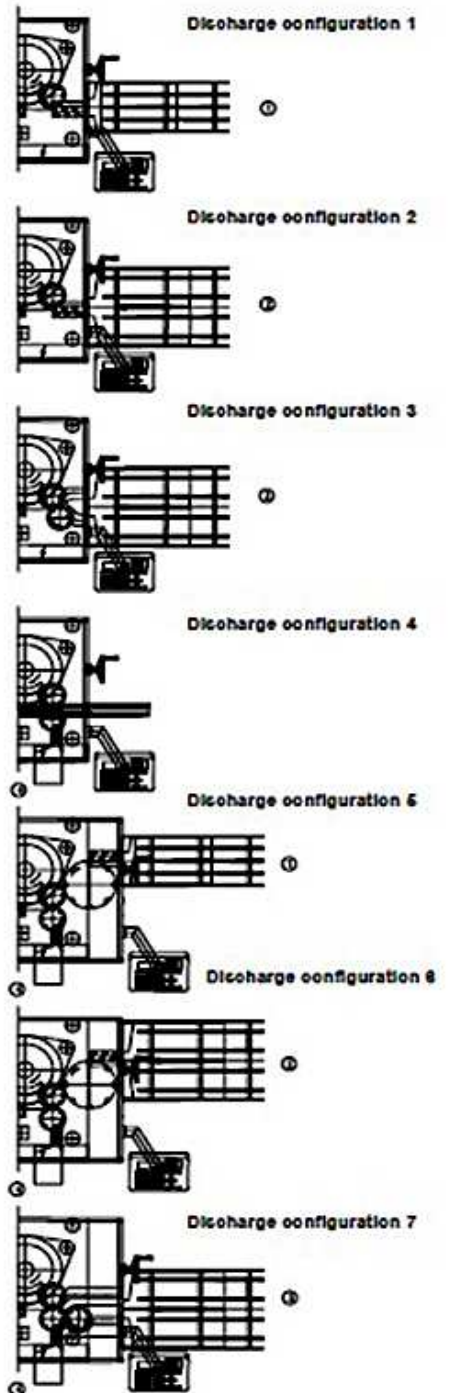
- The machine is designed for closing of stable cylindrical bottles with crimp caps.

2. Machine design

2.1 Machine RVB4000

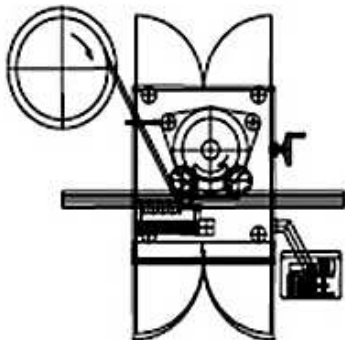


- ① Single tray loader
- ② Double tray loader
- ③ Double tray loader for loading fixed quantities of containers
- ⚡ Reject station

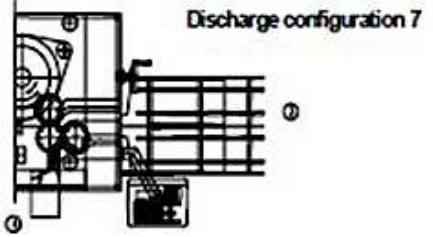
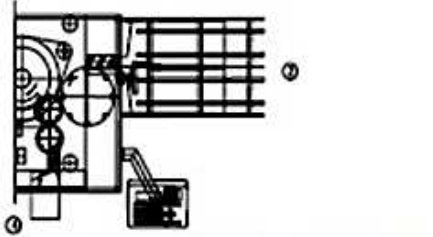
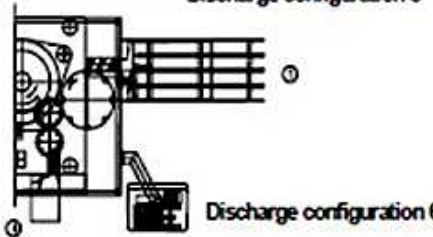
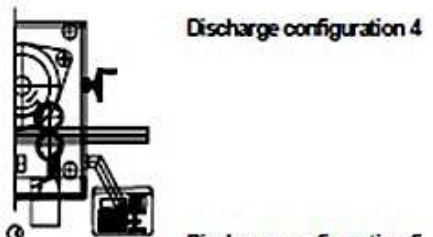
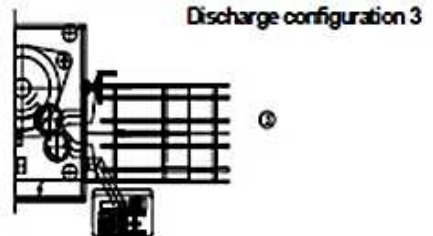
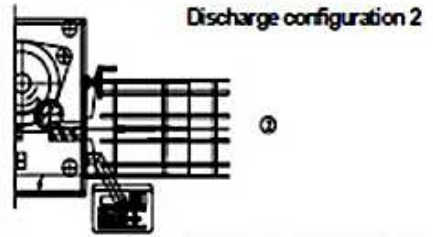
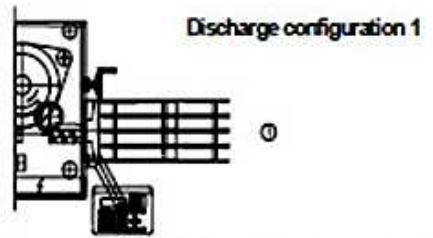


Machine type	RVB4000, RVB8000	Technical Specification RVB4060
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2.2 Machine RVB8000



- ⊙ Single tray loader
- ⊙ Double tray loader
- ⊙ Double tray loader for loading fixed quantities of containers
- ⊘ Reject station



Machine type	RVB4000, RVB8000	Technical Specification RVB4060
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2.3 Basic construction

- Base made of stainless steel 1.4404 - AISI 316L and aluminium AlMg3
- Top table plate made of aluminium with cover plate made of stainless steel
- Encasing made of stainless steel 1.4404 - AISI 316L, finely ground, surface finish $Ra \leq 1,6 \mu m$
- Infinitely variable drive by three-phase motor
- Checking system at the infeed with the function: "no container - no closure".
- Checking station with function machine stop if a stopper is not fully inserted
- Continuous container transport.
- Machine guard made of transparent plastic.

2.4 Transport system

- Return part with supporting leg made of stainless steel, 350 mm long.
- Conveyor with DELRIN slat belt, 2000 mm long and 100 mm wide. (RVB6000)
- Feed scroll
- Infeed wheel
- Transport wheel
- Discharge wheel
- Guide between infeed wheel and discharge wheel
- Driving part with supporting leg made of stainless steel, 350 mm long, and brushless d.c. motor.
- Sensors for detection of container shortage at the infeed and container build-up at the discharge, with function "machine stop" and automatic resumption of operation.
- Automatic adaptation of the belt speed to the currently adjusted machine speed.

2.5 Closing station

2.5.1 Electrical vertically adjustable closing system for crimp caps, comprising:

- Basic sorting unit to accommodate a sorting bowl, fastened by screws.
- Sorting bowl made of stainless steel, single welded, inside coated and cannot be sterilized.
- Sorting bowl diameter approx. 550 mm.
- Sorting bowl glass blasted.
- Fastening of the sorting bowl by screws.
- Single lane transfer from the sorting bowl to the feed track.
- Feed track conveying the continuously arriving closures to the containers.
- Sensor for detection of closure build-up in the feed track, with function "Stop of the sorting equipment", with automatic resumption of operation.
- Automatic withdrawal of the closures out of the transfer track by the containers during transport.
- Closing unit processing the closures already positioned on the containers.
- Adjustable closing head

Machine type	RVB4000, RVB8000	Technical Specification RVB4060
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2.6 Electrical installation

2.6.1 Programmable logic control

- Siemens, type S7

2.6.2 Operating terminal

- Siemens touchscreen, type MP377
- Size-related data for at least 100 sizes can be maintained on the memory card.
- Password administration with 9 access levels for max. 50 users
- Display of the operational data with capacity display in pcs/min., total number of processed containers (cannot be reset), unit counter by container photoelectric eye

2.6.3 Control cabinet

- Separate stainless steel control cabinet (material: 1.4404 - AISI 316L.)

3. Technical data

3.1 Controls and monitors

3.1.1 Monitors with display at the operating terminal (extract)

- Set-up operation
- Emergency switch actuated
- Cover open
- Safety circuit not activated
- Protection switch triggered
- Overload drive
- Container shortage at the infeed
- Checking system at the infeed: "no container - no closure"

3.1.2 Input of size dependent machine and process data (extract)

- Machine capacity
- Belt speed
- Output of sorting units
- Height adjustment for closing station

Machine type	RVB4000, RVB8000	Technical Specification RVB4060
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3.2 Machine data

		RVB4000	RVB8000
Stable cylindrical containers			
Min. container diameter	(mm)	15	15
Max. container diameter	(mm)	80	80
Min. container height	(mm)	35	35
Max. container height		240	240
Crimp caps / PP-caps			
Min. diameter	(mm)	12	12
Max. diameter	(mm)	36	36
Min. height	(mm)	6	6
Max. height	(mm)	35	35
Set output (Qest.) according to DIN 8743	(pc./h)	8.000	16.000
Working height	(mm)	~ 900 ± 30	~ 900 ± 30
Connected load machine	(kW)	~ 3	~ 3
Noise level ¹	dB(A)	~ 80	~ 78
Machine dimensions			
Length	(mm)	~ 2700	~ 2700
Width	(mm)	~ 1400	~ 1400
Height	(mm)	~ 2000	~ 2000
Net weight of machine	(kg)	~ 900	~ 1000
Dimensions of control cabinet			
Length	(mm)	~ 800	~ 800
Width	(mm)	~ 500	~ 500
Height	(mm)	~ 2060	~ 2060
Net weight of control cabinet	(kg)	~ 300	~ 300

¹ average value of the machine series, measured according to DIN 45635 Part 1 and part 28 during production conditions

Subject to technical modifications

4. Capacity

- The following capacity indications are approximate values and based on the use of DIN containers with product water.

RVB	4000	8000
Container size in ml	Max. capacity in pcs/h (infinitely variable)	
5	8.000	16.000
10	8.000	16.000
25	6.000	12.000
50	5.000	10.000
125	3.500	7.000
250	2.500	6.000

Machine type	RVB 4 0 0 0 , RVB 8 0 0 0	Technical Specification RVB4060
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5. Options

- Quick-action fastener for basic sorting unit and sorting bowl
- Level monitor for closures in the sorting bowl with audible signal
- Visual signal in addition to the audible signal
- Checking station "Closure on container"
- Reject station for faulty containers, rejection into a separate discharge channel
- Single tray loader
- Double tray loader
- Machine data logging system (MDE) for documentation of production data, incl. printer
- Remote access via modem to PLC of the machine (stand-alone machine)
- Connection of the PLC to a modem integrated in the line (inline machine)
- Wire numbering
- Adaptation of the supply voltage with mains isolation transformer to rated voltage 230/400 V
- Recommended spare parts
- Qualification package 1
- Qualification package 2
- Qualification package 3

6. Abbreviations

- AISI American Iron and Steel Institute
- DIN Deutsches Institut für Normung
(≅ German Institute for Standardization)
- EN Europäische Normung (≅ European Standardization)
- IEC International Electrotechnical Commission
- KS Combined closing machine
- LF Laminar Flow
- MDE Machine data logging system
- RVB Rotary closing machine for crimp caps

Subject of modifications