

## DOSING MACHINE FOR BULK MATERIALS

### „ DOZA-L “



Picture 1. Machine for dosing bulk materials

#### Main features of the device:

- *Input volume of 75 liters*
- *Transport and distribution of material by electric vibrator*
- *Transfer of material into packing bags*
- *Packaging of compressible materials due worm gear drive*
- *Possibility of adjusting the dosage weight*
- *Possibility of adjusting the dosing time*

## Device Components and Their Application:



Picture 2. Device components

### 1. The control parts

#### **Components:**

- PLC
- Power
- User panel
- Contactors
- Protective elements

#### **Description:**

- The operator over the panel defines the process parameters
- The PLC through its input and output signals manages the process

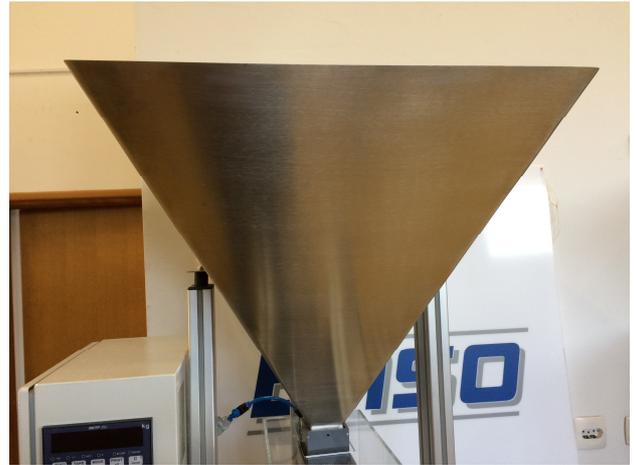
## 2. Input part

### **Components:**

- A funnel with a pneumatic vibrator
- Funnel holder with rubber bumpers
- Adjustable height extension of the material output

### **Description:**

- The operator puts the material into a vibration funnel
- The free-falling material comes into the transport and distribution system
- The height of the material at the outlet of the funnel is adjusted through an extension



Picture 3. Inlet funnel

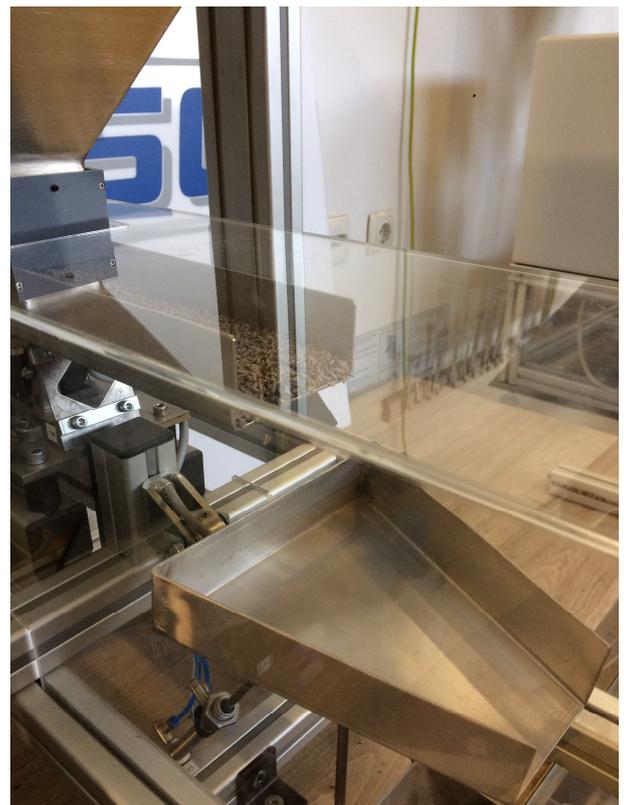
## 3. Transport and distribution system

### **Components:**

- Tray for transmission and distribution of materials
- Electric vibrator

### **Description:**

- Through the transporting tray, the material moves due vibration towards the dosing system
- At this stage, the material is uniformly distributed through the transport tray
- Transport takes place at two different speeds:
  1. Faster – to satisfy dosage cycle time
  2. Slower – to achieve weighing accuracy



Picture 4.  
Transport and distribution system

## 4. Dosage system

### **Components:**

- Outlet tray for the material
- Dosage scale
- Pneumatic discharge cylinder

### **Description:**

- The material is charged from the transport and distribution system into the output tray until the dosage scale registers the desired mass of material
- The outlet tray is rotated by the pneumatic cylinder and discharges the material into the outlet funnel



Picture 5. Outlet tray

## 5. Packaging system

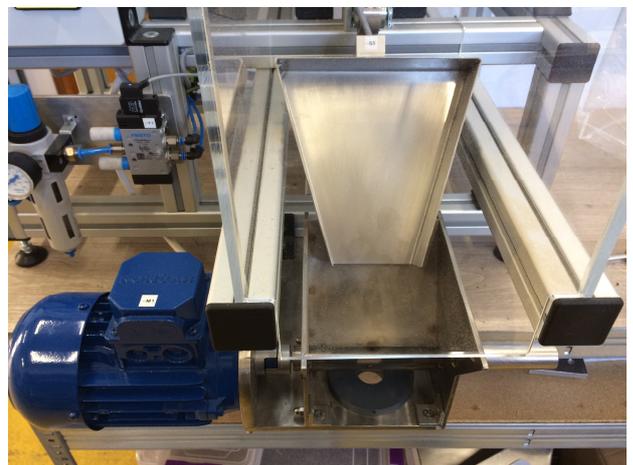
### Option A: Worm drive

### **Components:**

- Outlet funnel
- Worm drive for transport and compression
- Electric motor

### **Description:**

- The dosed amount of material is emitted from the output vessel into the output funnel
- Worm drive transports and compresses the material into the appropriate packaging (e.g. a bag)
- Application for filling the lavender flower



Picture 6. Outlet funnel with a worm drive

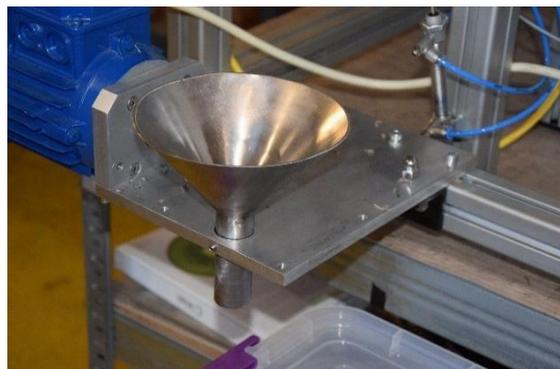
## Option B: Cylindrical funnel

### **Components:**

- Output cylindrical funnel

### **Description:**

- The dosed quantity of material is emitted from the output vessel into the output cylindrical funnel
- The free-falling material through the funnel falls into the appropriate packaging (e.g. a bag)
- Application for filling of flax seed, etc.



Picture 7. Cylindrical outlet funnel

## 6. Technical characteristics

Machine name	<b>DOZA L</b>
Connecting el. voltage	230VAC, 50 Hz
Connecting el. power	0,4 kW
Main fuses	6 A
Type el. connection	L / N / PE
The way of protection from indirect el. contact	grounding
Mass	50 kg
Dimensions [W x H x D]	780 x 1080 x 710 mm
Accuracy of weighing	+/- 0.5 g
Max weighing	0.5 kg
Capacity	50 l/h
Compressed air supply	4-7 bar
Compressed air consumption	max 20 l/min

## 7. Delivery and price

### **Delivery includes:**

- Complete machine with technical documentation
- Handling instruction
- Electro-pneumatic scheme
- One-year guarantee for a complete machine

### **Price:**

Price without VAT (ex works Enso): **6.707,77 Euro**

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