

## Air pressure gun

#### Designation

Beyer & Otto 2K-S SP-750.112

#### **Examples for Application**

• This dosing gun SP-750.112 is especially adapted to process 2 x 190 ml Weiss tandem cartridges with static mixers



## **Operating Instructions / CE Declaration of Conformity**

For Operating Instructions and CE Declaration of Conformity see Annex.

#### Hints for application

The dosing gun is not allowed to be integrated in plants.



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# **Operating Instructions**



## **Pneumatic Application Devices**

COSMO SP-750.112 COSMO SP-750.122

Revision level: 2019/06

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#### 1. General

Please read these operating instructions carefully and completely prior to the initial operation. Place particular importance on the safety instructions and read them attentively. These operating instructions must be kept at close hand and in readable form for every operator at any time.

## (1) Scope of Application

The pneumatic application devices of the SP line are quality products for the professional user and designed for extra durability and high-performance applications. They are intended to dispense and apply pasty compounds and media from containers (tandem cartridges). This is in keeping with the intended use of the product lines in general. These devices use compressed air as working medium thus reducing the working power required by the operator to a minimum. Nevertheless, it has to be pointed out that the improper use of compressed air may cause significant health risks and serious injuries. The devices are made particularly for sizes of 2x190ml and 2x310ml tandem cartridge systems and static mixers of company Weiss Chemie + Technik.

## (2) Technical Data

Model designation	SP-750.112	SP-750.122
Part number	see declaration of conformity	
Scope of supply	device, operating instructions	
Weight (g)	2160	2400
Length (mm)	475	615
Mode of operation	manual	manual
Type of actuation (conveyed medium)	compressed air (filtered)	
Inlet pressure (bar)	max. 15	
	compressed air must be free from condensate, dust, and acid	
Operating pressure (bar)	max. 8.0	
Working force (kN)	3.3	
Overpressure protection	yes	yes
Air consumption (at 5 bar operating pressure)	approx. 40 I/min (depending on application)	



## 2. Safety Instructions

#### **Operator's Duty to Exercise Diligence**

The pneumatic application devices of the SP line were designed and produced after careful choice in accordance with the harmonized standards which have to be kept as well as with other technical specifications. As a result, they correspond to the state of the art and guarantee the maximum degree of safety. However, this safety can only be achieved in the operational practice if all required measures have been taken to assure safety. It is the duty of the operator of the device / devices to exercise diligence in planning such measures and in making sure that they are applied.

#### In particular, the operator has to ensure that

- the device is / devices are only operated in perfect operative condition
- the required PPE (Personal Protective Equipment) is available for and used by the operating staff (protective gloves, safety goggles, etc.)
- only sufficiently qualified and trained staff is allowed to operate the device
- this staff is regularly instructed in all applicable matters of workplace safety and environmental protection and knows the operating instructions and in particular the safety instructions contained therein
- the operating instructions are available in a complete and easily readable version at the operating place of the device

## (1) Possible Hazards

Symbol	Hazard / Meaning
	<b>Danger!</b> Particular danger for persons but also for device and material; never aim the device at persons when it is ready for operation. Danger from high pressure.
	<b>Tripping Hazard, Risk of Falling!</b> Prevent accidents by laying connection and supply lines in such a way that there are no tripping points.
	<b>Explosion Hazard!</b> Hazard of explosion when operating with defective cylinders and components!

#### **IMPORTANT:** Please note the appropriate material safety data sheet of the adhesive.



#### (2) Guidelines for safe operation

The device may only be used by trained, instructed, and authorized stuff. These persons must know the operating instructions and be able to work as directed therein. Before every use, check the device for visible damages and ensure that it is used only in perfect condition. Report any detected defects immediately to the appropriate person in your company.

In addition to that, the following must be observed:

- The maximum permissible operating pressure must not be exceeded in any case.
- Never pull the trigger by force.
- It is recommended not to use static mixers if they are in a used condition.
- Protect the device against humidity and moisture.
- Read the data sheets of the compounds to be dispensed (protection against application errors).
- Prior to any intervention (cleaning, maintenance, changing containers), disconnect the device from any medium supply (compressed air).
- · After work, always disconnect the device from compressed air.
- If you notice any damages to the device or the supply lines, you are advised to let the device be checked immediately by a professional. The device must be properly repaired before it is allowed to use it again.
- Always wear eye protection.
- Never put the device in solvents.
- Never use damaged tandem cartridges.
- Never tamper with the device and never modify it.
- Do not use the device if pieces are missing or loose.



## 3. Start-up Procedure

## (1) Connecting

- 1. Screw the connection nipple (1/4") onto the front-end thread of the device.
- 2. Make sure that the connection is leakproof.
- 3. Now check the operating pressure which should not exceed 8 bar / 116 psi. Attention! The discharge capacity of the device may deviate at lower pressures. Ensure that the compressed air is free from condensate, dust, and acid.
- 4. Now connect the compressed air with the device.
- 5. Regulate the pressure to your personal requirements by means of the integrated pressure reducing valve.
- 6. The device is now ready for operation.
- 7. During work, pay particular attention to the containers, notably watch out if they deform or expand risk of injury by explosion!
- 8. It must be possible to easily push back the push rods by hand; if required oil or grease them (recommendation: technical white mineral oil).
- 9. Make sure that the push rods run parallel and that the pressure plates are screwed down at right angles to the push rods.

#### (2) Operating / Dispensing

#### 1. Trigger:

Pulling the trigger feeds compressed air into the device. This causes pressure to build up inside the device ensuring the flow of material. When the trigger is released, the air will abruptly escape through a quick exhaust valve thus stopping the material flow immediately. The device will only be depressurized now.

#### 2. Pressure Regulator:

The pressure regulator regulates the working pressure of the device and provides a constant and secure supply of compressed air to the device. In order to adjust the pressure, pull the control knob towards you (out of the device). This way, you release the locking and can set the desired working pressure. Turning the knob clockwise increases the pressure, and turning it anti-clockwise reduces the pressure. When you have set the working pressure to your requirement, push the knob back in. This will "save" your setting, so to speak, and protect it against accidental readjustment.

Note: Temperature and age of the adhesive will influence the dispensing output.

#### 3. Pull-back Rod / Filling Level Indicator

The pull-back rod (if included) has two functions. For one, it indicates how much material is left inside the container (filling level indicator) and for another, it is used to pull the plunger arms back into their initial position.

#### 4. Quick Exhaust Valve:

The quick exhaust valve provides quick air evacuation from the system, consequently the material leakage will be merely noticeable (dripless). Although it is silenced, there might be slight irritations with regard to sound level and airflow when taking up work for the first time.



## 4. Operation

#### Important:

- cut the cap of the tandem cartridge in a uniform way
- when restarting work again, ensure that the openings of both components are clear (for instance, free from cured adhesive)
- if the full device pressure is applied to only one adhesive component, the tandem cartridge might burst.

#### (1) Working Positions

With the SP-line, it is possible to work vertically, horizontally, from top downwards as well as overhead. This can only be done because tandem cartridges are exclusively used in these devices.

#### (2) Filling (Changing the Tandem Cartridge)

- a. Preparation of the tandem cartridge
  - 1. Open the tandem cartridge by cutting.
  - 2. Now screw the static mixer onto the tandem cartridge.

#### b. Inserting / changing containers

It is only allowed to insert new containers or change containers if the device is disconnected from the supply line (compressed air).

Now push back the push rods into their initial position, then remove the used container (if any) and insert the new one.

Connect device to the air supply again and continue working.

#### (3) Applying, Dispensing Material

For a proper dispensing, it is recommended that you make yourself familiar with the device and its properties. Also, carry out some trial applications on testing strips or cardboard. Operate the trigger to dispense material. To regulate the material flow, adjust the operating pressure on the pressure regulator. Usually, higher pressure means more material. However, please note that every system (such as tandem cartridge with static mixer) influences the dispensing to a large extent and that, for the most part, higher pressure does not always mean that more material is dispensed. Rather, there is the risk that the system will not be stable anymore and will be in danger of collapsing (risk of explosion).

#### (4) Work Breaks

During shorter work breaks, the device may remain connected. When taking longer breaks, it is recommended to always disconnect the device from the air supply and the supply lines and to store it safely. In addition, observe the instructions of the corresponding adhesive system.



## 5. Causes of failure

## (1) General Causes of failure and troubleshooting

Kind of Malfunction	Possible Cause	Remedy Procedures
	foreign substance in the static mixer	replace static mixer
	working pressure too low	check and adjust the pressure setting
None or not enough adhesive is emerging	material has the wrong temperature	check temperature
	the plungers of the tandem cartridge do not run correctly	change cartridge
	pot life in the static mixer has expired	change static mixer
Material dripping, leaking from	pressure setting too high	reduce pressure
nozzle	thrust rods are not lubricated	re-lubricate thrust rods
Air escapes from the device		
	seal defective	replace seal
rods can only be moved by	rods bent	replace rods
force or not at all	rods not sufficiently greased	oil or grease rods (recommendation: technical white mineral oil)

## 6. Maintenance and Servicing

## (2) Maintenance Interval

What?	When?	<u>Who?</u>
Check for tightness	weekly	trained professional
Check for damages	before starting work	trained professional
Check for completeness of all parts	before starting work	trained professional
tight fit of all parts and connections	daily	trained professional
Water trap of the maintenance unit	weekly	trained professional
Cleaning the device, in particular removing adhesive residues	weekly	trained professional



## (3) Cleaning

- Do not use any aggressive detergents for cleaning the device. They might damage the components of the device.
- Replace all parts completely which cannot be cleaned anymore. This should be done by the manufacturer.
- Remove material residues and other soiling solely by mechanical means, such as cloth, brush, scraper, etc.

#### 7. Repair

Only the manufacturer or qualified persons commissioned by the manufacturer are allowed to carry out repairs which intrude the device and are not described in these operating instructions. It is only permitted to carry out repairs with original spare parts.

## 8. Warranty

The device was developed and produced to the latest state of the art. In accordance with statutory regulations, we grant a warranty on performance, material, and workmanship to first-time buyers covering 12 months from the date of purchase. Wear usual to the device is exempt.

The warranty will be void if improper use, use of force, repair by third parties, and installation of non-genuine spare parts can be discerned.

Warranty applies to either restoration or replacement at our discretion. Any warranty extending beyond our scope of supply is excluded since we do not have any influence on the appropriate and workmanlike application of the device.

Please also pay particular attention to our terms and conditions of business.

#### 9. Disposal

Do not discard devices into the household waste! Dispose of the devices in an appropriate manner within a recycling system or return defective devices to the manufacturer who will take care of disposal. The devices should be collected and recycled in an ecologically responsible way.

All packing materials used can be completely recycled.

For instructions concerning the disposal of residual materials and their containers please consult the appropriate material safety data sheet of the manufacturer.



## **Manufacturer Details**

Do you have any questions, suggestions, or requests? We will be glad to assist you.



## 10. Spare Parts

Picture	Designation	Part number
) 	Pair of handle casings S-line	1047
	Pair of holding shells	1205
88	Set of spare bolts, complete	1206
<b>\$</b>	Quick exhaust valve 2K	1207
	Applicator frame for SP-750.122	1208
	Applicator frame for SP-750.112	1210
	Pressure plate	1209
	Handle, complete (! including new serial number)	1038

#### **!! ATTENTION !!**

Safety-related parts, such as:

- cylinders
- plunger rods
- plungers
- ▶ etc.

may only be replaced by the manufacturer!

This is for your own safety and to provide you with a safe product at all times.



#### EG-Konformitätserklärung EC Declaration of Conformity

im Sinne der EG-Richtlinie 2006/42/EG über Maschinen (Anhang II A) according to EC directive 2006/42/EC on machinery (annex II A)

Name und Anschrift des Herstellers Name and address of the manufacturer:

Beyer & Otto GmbH & Co.KG Kardinal-Faulhaber-Str. 10 a

#### D - 63801 Kleinostheim

Diese Erklärung bezieht sich nur auf die Maschine in dem Zustand, in dem sie in Verkehr gebracht wurde; vom Endnutzer nachträglich angebrachte Teile und/oder nachträglich vorgenommene Eingriffe bleiben unberücksichtigt. Die Erklärung verliert Ihre Gültigkeit, wenn das Produkt ohne Zustimmung umgebaut oder verändert wird.

This declaration relates exclusively to the machinery in the state in which it was placed on the market, and excludes components which are added and/or operations carried out subsequently by the final user. The declaration is no more valid, if the product is modified without agreement.

Hiermit erklären wir, dass die nachstehend beschriebene Maschine / Anlage Herewith we declare, that the machinery described below

Produktbezeichnung / product denomination:	2K-S-Typen
Serien-/ Typenbezeichnung / model/type:	S ; SP-750.122; SP-750.112
Maschinen-/ Seriennummer / machinery/serial number:	
Baujahr / Year of manufacture:	

folgenden Angewandten harmonisierte Normen / following harmonised standarts used:

89/336/EWG	DIN EN ISO 12100
97/23/EG	DIN EN 294

entspricht.

Bevollmächtigter für die Zusammenstellung der relevanten technischen Unterlagen The person authorized to compile the relevant technical documentation

Beyer & Otto GmbH & Co.KG Geschäftsführer: Julia Hoffmann; Marco Roth Kardinal-Faulhaber-Str. 10 a D - 63801 Kleinostheim				<u>tto.de</u> oder +49 (0) 6027 6044 <u>tto.de</u> or +49 (0) 6027 6044		
Kleinostheim, 06/2019 Marco Roth , Geschä   Ort, Datum Name, Vorname und Funkt   Place, Date surname, first name and function		ktion des Unterzeichners		terschrift gnature		
Achtung:			ch darauf hingewiesen, la r EU abweichen zu prüfel		ne Gesetze	

Attention: The importer must look into any country-specific directives deviating from EU regulations.