

# WALTHER PILOT

## Das WALTHER PILOT-Programm

- Hand-Spritzpistolen
- Automatik-Spritzpistolen
- Niederdruck-Spritzpistolen (System HVLP)
- Zweikomponenten-Spritzpistolen
- Materialdruckbehälter
- Drucklose Behälter
- Rührwerk-Systeme
- Airless-Geräte und Flüssigkeitspumpen
- Materialumlaufsysteme
- Kombinierte Spritz- und Trockenboxen
- Absaugsysteme mit Trockenabscheidung
- Absaugsysteme mit Naßabscheidung
- Pulversprühstände
- Trockner
- Zuluft-Systeme
- Atemschutzsysteme und Zubehör

Betriebsanleitung, Operating Instructions  
Mode d'emploi, Instrucciones de Servicio  
Bedieningshandleiding, Betjeningsvejledning

**D GB F E NL DK**

Spritzpistole / Spray gun / Pistolet de pulvérisation  
Pistola de pulverización / Smitpistool / Sprøjtepistoler

## PILOT SIL XXII/XXIII

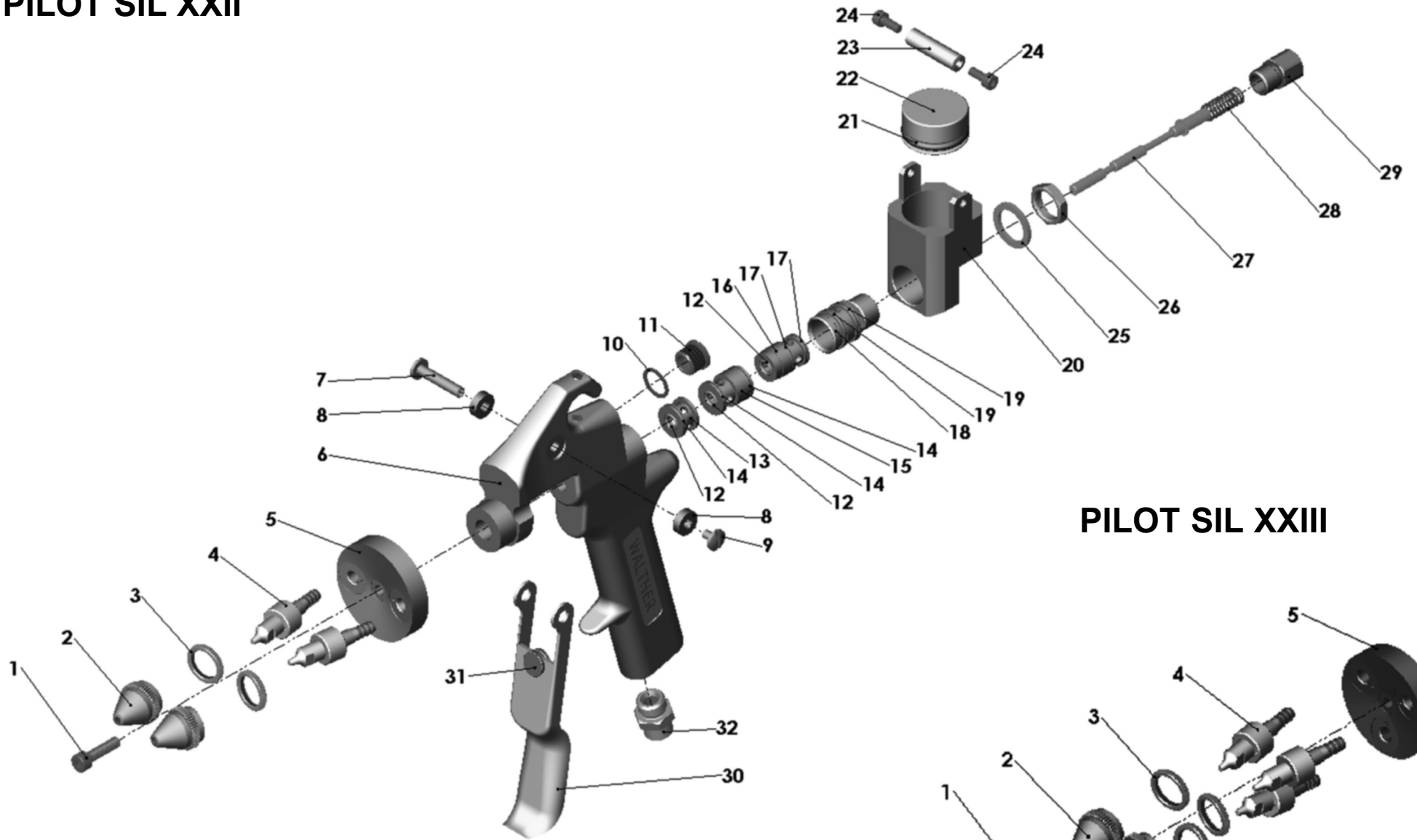


Die Beschichtungs-Experten

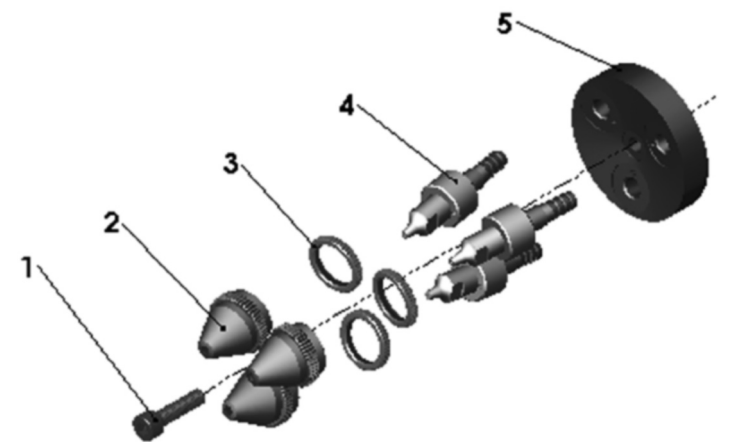
WALTHER Spritz- und Lackiersysteme GmbH  
Kärntner Str. 18-30 • D-42327 Wuppertal  
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# PILOT SIL XXII



# PILOT SIL XXIII




## EG-Konformitätserklärung

D

Wir, der Gerätehersteller, erklären in alleiniger Verantwortung, daß das Produkt in der untenstehenden Beschreibung den einschlägigen grundlegenden Sicherheits- und Gesundheitsanforderungen entspricht. Bei einer nicht mit uns abgestimmten Änderung an dem Gerät oder bei einer unsachgemäßen Verwendung verliert diese Erklärung ihre Gültigkeit.

<b>Hersteller</b>	WALTHER Spritz-und Lackiersysteme GmbH Kärntner Str. 18-30 D-42327 Wuppertal Tel.: 0202 / 787-0 Fax: 0202 / 787-217 www.walther-pilot.de Email: info@walther-pilot.de
<b>Typenbezeichnung</b>	Modelle: Handspritzpistolen PILOT SIL XXII / XXIII  SIL XXII V 24 233 SIL XXIII V 24 232
<b>Verwendungszweck</b>	Verarbeitung spritzbarer Materialien
<b>Angewandte Normen und Richtlinien</b>	
EG-Maschinenrichtlinien 98 / 37 EG EN ISO 12100-1 EN ISO 12100-2	
<b>Besondere Hinweise :</b> Das Produkt ist zum Einbau in ein anderes Gerät bestimmt. Die Inbetriebnahme ist so lange untersagt, bis die Konformität des Endproduktes mit der Richtlinie 98 / 37 / EG festgestellt ist.	

Wuppertal, den 7. Juli 2003

i.V. 

Name: Torsten Bröker

Stellung im Betrieb: Leiter der Konstruktion und Entwicklung

Diese Erklärung ist keine Zusicherung von Eigenschaften im Sinne der Produkthaftung. Die Sicherheitshinweise der Produktdokumentation sind zu beachten.

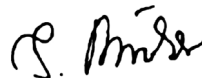
## Declaration of CE-Conformity

GB

We, the manufacturers of the equipment, hereby declare under our sole responsibility that the product(s) described below conform to the essential safety requirements. This declaration will be rendered invalid if any changes are made to the equipment without prior consultation with us.

<b>Manufacturer</b>	WALTHER Spritz-und Lackiersysteme GmbH Kärntner Str. 18-30 D-42327 Wuppertal Tel.: 0202 / 787-0 Fax: 0202 / 787-217 www.walther-pilot.de Email: info@walther-pilot.de
<b>Type Designation</b>	Manual spray guns PILOT SIL XXII / XXIII  SIL XXII V 24 233 SIL XXIII V 24 232
<b>Intended purpose</b>	Processing of sprayable media
<b>Applied Standards and Directives</b>	
EU-Machinery Directive 98 / 37 CE EN ISO 12100-1 EN ISO 12100-2	
<b>special remarks :</b> The named product is intended for installation in other equipment. Commissioning is prohibited until such time as the end product has been proved to conform to the provision of the Directives 98 / 37 / CE.	

Wuppertal, July 7th 2003

i.V. 

Name: Torsten Bröker

Position: Manager, Design and Development

This Declaration does not give assurance of properties in the sense of product liability. The safety instructions provided in the product documentation must be observed at all times.

## Déclaration de conformité CE

F

En tant que fabricant de cet appareil, nous déclarons en toute responsabilité que le produit décrit ci-dessous est conforme aux exigences de sécurité et de protection de la santé actuellement en vigueur. Toute modification sans autorisation de notre part ou utilisation inadéquate de l'appareil, annulent la validité de cette déclaration.

<b>Fabricant</b>	WALTHER Spritz-und Lackiersysteme GmbH Kärntner Str. 18-30 D-42327 Wuppertal Tel.: 0202 / 787-0 Fax: 0202 / 787-217 www.walther-pilot.de Email: info@walther-pilot.de
<b>Dénomination du modèle</b>	Pistolets de pulvérisation manuels PILOT SIL XXII / XXIII  SIL XXII V 24 233 SIL XXIII V 24 232
<b>Utilisation</b>	Application de matières pulvérisables
<b>Normes et directives appliquées</b>	
Directive UE sur les machines 98 / 37 UE EN ISO 12100-1 EN ISO 12100-2	
<b>Indications particulières:</b> Le produit est conçu pour être intégré à un autre équipement. La mise en service n'est pas autorisée avant l'établissement de la conformité du produit final avec la directive 98 / 37 / UE.	

Wuppertal, le 7 juillet 2003

i.v.



Nom: Torsten Bröker

Position dans l'entreprise: chef de l'exécution et du développement

Cette déclaration ne constitue pas un engagement de responsabilité dans le sens de la garantie du produit. Les consignes de sécurité contenues dans les instructions de service devront être respectées.

## Declaración de conformidad CE

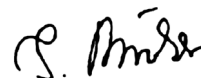
E

Como fabricante de este aparato, certificamos bajo nuestra plena responsabilidad que el producto descrito más abajo cumple con los requisitos de seguridad y protección de la salud en vigor. Cualquier modificación sin autorización previa o uso inadecuado del aparato anulan la validez de esta declaración.

<b>Fabricante</b>	WALTHER Spritz-und Lackiersysteme GmbH Kärntner Str. 18-30 D-42327 Wuppertal Tel.: 0202 / 787-0 Fax: 0202 / 787-217 www.walther-pilot.de Email: info@walther-pilot.de
<b>Denominación del modelo</b>	Pistolas de pulverización manuales PILOT SIL XXII / XXIII  SIL XXII V 24 233 SIL XXIII V 24 232
<b>Uso</b>	aplicación de materiales pulverizables
<b>Normas y directivas aplicadas</b>	
Directiva EU sobre las máquinas 98 / 37 CE EN ISO 12100-1 EN ISO 12100-2	
<b>Indicaciones particulares:</b> Este aparato está diseñado para integrarse a otro equipo. La puesta en marcha no se autoriza hasta que la conformidad del producto final con los requisitos de la directiva 98 / 37 / CE no haya sido establecida.	

Wuppertal, el 7 de julio 2003

i.v.



Nombre: Torsten Bröker

Puesto: Jefe de la construcción y del desarrollo

Esta declaración no constituye una declaración de responsabilidad en cuanto a las características estipuladas en la garantía del aparato. Las consignas de seguridad de las instrucciones de uso deben seguirse.

## 10 Technische Daten

<b>Gewicht:</b>	740 g
<b>Düsenausstattung nach Wahl:</b>	0,5 • 0,8 • 1,0 • 1,2 • 1,5 • 2,0 mm ø
<b>Luftköpfe:</b>	Rundstrahlluftkopf V1010901053 (für Düsengrösse 0,5 - 1,5 mm)
	Rundstrahlluftkopf V1010901203 (für Düsengrösse 2,0 mm)
<b>Druckbereiche:</b>	
min. Zerstäuberluftdruck	2 bar
max. Zerstäuberluftdruck	6 bar
max. Materialdruck	2 bar
<b>max. Betriebstemperatur der Spritzpistole:</b>	43°C
<b>Der Schallpegel,</b> gemessen in 1 m Abstand, beträgt:	85 dB(A)
<b>Luftverbrauch:</b>	

Zerstäuberluftdruck	SIL XXII	SIL XXIII
2 bar	90 l/min	135 l/min
3 bar	130 l/min	195 l/min
4 bar	170 l/min	255 l/min
5 bar	200 l/min	300 l/min
6 bar	230 l/min	345 l/min

Technische Änderungen vorbehalten.

## Replacement parts PILOT SIL XXII

V 24 233

Item	Art. No.	Description
1	V2423213103	Socket screw
2	<b>V1010901053*</b> <b>V1010901203*</b>	<b>Aircap (for Nozzle-size 0,5 - 1,5 mm)</b> <b>Aircap (for Nozzle-size 2,0 mm)</b>
3	V1010902003	Adjusting Collar
4	<b>V2410901 .. 3*</b>	<b>Material Nozzle</b>
5	V2413012000	Support Plate (for two material nozzles)
6	V2423201000	Gun Body
7	V1130108000	Lever shank screw
8	V1135102000	Spacer
9	V1030109000	Lever screw
10	V0900106000	Fibre-seal
11	V1150103000	Threaded closing cap
12	V0910238001	O-ring
13	V2423202100	Front piston hub
14	V0910385001	O - ring
15	V2423203100	Middle piston hub
16	V2423204100	Rear piston hub
17	V0910384001	O - ring
18	V2423206100	Spring hub
19	V0910386001	O - ring
20	V2423211100	Squeeze cylinder
21	V0910210000	O-ring
22	V2413204000	Squeeze piston
23	V2413206000	Clamping part
24	V2413210003	Socket screw
25	V2423209105	Spacing Washer
26	V2423208105	Nut
27	V2423210100	Piston
28	V1015153000	Needle spring
29	V2423207100	Piston hub
30	V1150107000	Trigger lever
31	V2423212100	Lever press piece
32	V0010101000	Double nipple G1/4 / G1/4

## Replacement parts (other than PILOT SIL XXII)

### Replacement parts: PILOT SIL XXIII

V 24 232

5	V2413112003	Support Plate (for three material nozzles)
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\*Please indicate size when ordering.

( Nozzle sizes available: 0,5 • 0,8 • 1,0 • 1,2 • 1,5 • 2,0 mm ø )



Note:

The materialhoses are not content of delivery

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### 1 General

#### 1.1 Identification of model version

<b>Models:</b>	Manual spray gun PILOT SIL XXII	V24233
	Manual spray gun PILOT SIL XXIII	V24232

**Manufacturer:** WALTHER Spritz- und Lackiersysteme GmbH  
Kärntner Str. 18-30  
D-42327 Wuppertal  
Phone: 00 49 / 2 02 / 787-0  
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www.walther-pilot.de  
Email: info@walther-pilot.de

### 1.2 Normal use

The manual spray guns of the series PILOT SIL XXII / XXIII are designed to be used exclusively for sprayable media, such as:

- paints and lacquers
- greases, oils and corrosion preventives
- ceramic glazes
- stains

Since all wetted parts are made of stainless specialty steel, the spray guns can also be used for spraying aqueous materials.

If the material you intend to spray is not included in the above list, please contact WALTHER Spritz- und Lackiersysteme GmbH, Wuppertal, for further information. Please note that sprayable materials may only be applied to workpieces and/or similar objects.

The temperature of the spraying material must not exceed 43 °C.

The term "normal use" also implies that all safety warnings, operating handling details, etc., as stated in these operating instructions are carefully read, understood and duly complied with.

When using the equipment, the requirements specified in these Operating Instructions must be observed at all times.

The technical data indicated on the equipment rating plates and the specifications in the chapter "Technical Data" must be complied with at all times and must not be exceeded. An overloading of the equipment must be ruled out.

The operator must check and ensure that all technical data and the marking of the equipment are compliant with the necessary requirements.

The operator must provide corresponding safety measures for all applications in which the breakdown of the equipment might lead to danger to persons.

If any irregularities are observed while the equipment is in operation, the equipment must be put out of operation immediately and WALTHER PILOT must be consulted.

#### Grounding / Equipotential Bonding

Adequate grounding of the spray gun must be ensured.

**(max resistance 10 $\Omega$ ).**

Preferably using a conducting air hose of Walther Pilot (Item No. V 20 008 30 144)

### 1.3 Improper use

The spray gun cannot be used for any application not included in the instructions.

Any other use is improper, e. g.:

- Spraying in direction of people or animals
- Spraying liquid nitrogen

## 2 Technical description

### PILOT SIL XXII/XXIII: Spray gun for conventional spraying.

When actuating the trigger lever (item 30), the piston (item 27) is moved and first releases the spray air.

Subsequently, pressure is removed from the squeeze piston (item 22) and the material in the material hoses (not included in scope of delivery) is released.

Closing takes place in the reverse sequence.

The spray cone is adjusted by screwing the air cap (item 2) forward or backward.

Once the desired spray size has been set, the air cap is locked with the adjusting collar (item 3).

The material flow volume depends on the nozzle diameter and the setting of the material pressure at the pressure tank or material pressure regulator.

## 3 General safety instructions

All applicable accident prevention rules and regulations as well as other recognised industrial safety and health rules and regulations must be observed at all times.

Use the spray gun only in well-ventilated rooms. Fire, naked flames and smoking are strictly prohibited within the working area. WARNING – during the spraying of flammable materials (e.g. lacquers, adhesives, cleaning agents, etc.), there is an increased risk to health as well as an increased risk of explosion and fire.

Adequate grounding of the spray gun must be ensured.

(max resistance 10<sup>6</sup>Ω).

Preferably using a conducting air hose of Walther Pilot (item No. V 20 008 30 144).

Before carrying out maintenance or servicing work, always ensure that the air and material feed to the spray gun have been de-pressurised. Risk of injury!

When spraying materials, do not place your hands or other parts of the body in front of the pressurised nozzle or the spray gun. Risk of injury!

Never point the spray gun at persons or animals. Risk of injury!

Exhaust air containing particles (overspray) must be kept away from the working area and personnel. In spite of these measures, always wear the regulation breathing masks and protective overalls when using the gun. Airborne particles represent a serious health hazard!

Always observe the spraying and safety instructions given by the manufacturers of the spraying material and the cleaning agent. Aggressive and corrosive materials in particular can be harmful to health. Always wear hearing protection when using the gun or when in the vicinity of a gun that is in use. The noise level generated by the spray gun is approx. 85 dB (A)

After carrying out assembly or maintenance work, always ensure that all nuts, bolts and screw connections have been fully tightened before the gun is used. Use only original replacement parts, since WALTHER can only guarantee safe and fault-free operation for original parts.

For further information on the safe use of the spray gun and the spraying materials, please contact:

WALTHER Spritz- und Lackiersysteme GmbH, D-42327 Wuppertal, Germany.

## 4 Connect supply lines



### Note

Please refer to the explosion drawing (folded sheet) in the front of these operating instructions to perform the work steps listed below.



### Warning

The air pressure at the gun must range between **min. 2 bar** and **max. 6 bar** since proper functioning of the spray gun can otherwise not be ensured.



### Warning

Material and air hoses mounted on a hose nipple must be secured with a hose clamp in addition.

### Material supply through pressure tank

1. Attach the compressed air hose to the air line (cleaned compressed air) and to the air connection of the spray gun (item 32).
2. Attach the material supply hoses to the material pressure tanks or material pressure regulators of a pump system and to the material connections (item 4) of the spray gun.
3. Fill the material into the material pressure tanks and close the lids.
4. Set the desired material pressures at the compressed air reducing valves; if the material is supplied via pump systems, the material pressures are set at the material pressure regulators.
5. Switch on the compressed air and set the desired spray air pressure pressure reducing valve - **min. 2 bar**
6. Open the material cocks at the pressure tanks.
7. To allow the air in the material hoses to escape, actuate the trigger level (item 30) until uniform material jets exit the nozzles; the gun can now be closed again.

The gun is now ready to be operated.

## 5 Operation startup / Handling

The following requirements must have been met before you can operate the spray gun:

- The spray air pressure must always first be available at the spray gun
- Only then may the material pressures be available at the spray gun



### Attention

The material pressure may not be set higher than 2 bar since proper functioning of the spray gun may otherwise not be ensured.



### Warning

Always relieve the pressure from the spray gun after work is completed. The pressurized lines may rupture and persons standing nearby may be injured by the escaping material.

### Spray pattern test

A spray pattern test should always be generated when:

- the spray gun is used for the first time.
- the spray material is replaced.
- the gun has been disassembled for maintenance or repair.

The spray pattern test can be made on a sample work piece, sheet metal, cardboard or paper.

### Changing the spray pattern:

You can change the spray pattern at the PILOT SIL by making the following settings :

#### a) adjust the spray cone

The spray cone is adjusted by screwing the air cap (item 2) forward or backward. Once the desired jet size has been set, the air cap is locked with the adjusting collar (item 3).

#### b) adjust the material flow volume

The material flow volume depends on the nozzle diameter and the setting of the material pressure at the pressure tank or material pressure regulator.

#### c) adjust the spray air

The spray air pressure is adjusted at the compressed air reduction valve of the compressed air system. Please follow the directions and safety instructions of the manufacturer. If you want to change the spray pattern beyond the options already mentioned, the spray gun must be retrofitted. WALTHER offers a variety of different air cap / material nozzle combinations.



## 6 Retooling and repairs



### Warning

Prior to any repairs or replacements: Make sure that the spray gun is in depressurized condition, i.e. all air and material inputs must be shut off - if not, imminent Risk of Injury.



### Note

In order to perform the following procedures, please refer to the exploded diagram at the beginning of these operating instructions.

### Replacement of the material nozzle and the air cap

1. Unscrew the air cap (item 2) from the material nozzle (item 4).
2. Unscrew the material nozzle (item 4) with a wrench (7 mm) from the support plate.

The installation of the new nozzle insert assembly and of the remaining parts in reverse order.



### Note

All sliding and moveable parts must be lubricated with a non-acidic, non-resinogenic grease prior to installation.

## 7 Cleaning



### Warning

Do not use any hard, sharp or pointed objects when cleaning the spray gun. Never immerse the spray gun in solvent or any other cleaning solution. The functional reliability and efficiency of the gun can otherwise not be guaranteed. WALTHER PILOT is not responsible for any damage resulting from improper cleaning.

The gun does not need to be dismantled for cleaning.

1. Fill the cleaned material container with a cleaning fluid compatible with the sprayed material.
2. Operate the spray gun.
3. Do not stop the spray gun until clear cleaning fluid emerges from the nozzle.

The entire system should then be depressurised until the gun is used again. Clean the spray gun only with cleaning agents which have been recommended by the manufacturer of the sprayed material and which do not contain the following constituents:

- halogenated hydrocarbons (e.g. 1,1,1-trichloroethan, methylene chloride, etc.)
- acids and acidic cleaning fluids
- regenerated solvents (so-called cleaning thinners)
- paint removers

The above-mentioned constituents cause chemical reactions on electroplated components, resulting in corrosion damage.

### Clean the spray gun

- before each change of spraying material
- at least once a week or
- several times a week if required by the spraying medium and depending on the degree of fouling.

### Detailed Cleaning

1. Disassemble the spray gun
2. Clean the air cap (Pos. 2) and the material nozzle (Pos. 4) with a soft brush and cleaning fluid.
3. Clean all other components and the gun body with a soft cloth and cleaning fluid.
4. Coat the following parts with a thin layer of grease:
  - needle spring (Pos. 28)
  - all sliding parts and bearing points.

The moving internal parts must be greased at least once a week.

The springs should always be coated with a thin layer of grease. For this, always use a non-acidic, non-resinogenic grease and a soft brush. Assemble the gun again in reverse order.

## 8 Trouble shooting



### Warning

Prior to any retooling the spray gun should be depressurized state, i. e. atomising air as well as the material pressure - risk of injury.

Error	Cause	Troubleshooting
Gun drips/sprays when not in use	Air pressure too low	Increase air pressure to at least 2 bar
	Material hose too hard	use softer hose
Pulsating or shim-ming spray jet	Material volume too low	Fill in material
	Wrong air cap position	Adjust air cap position

## 9 Disposal of cleaning and servicing substances

Waste spraying media and waste material from cleaning and servicing must be disposed of in accordance with all applicable local and national regulations.



### Warning

Observe the instructions issued by the manufacturers of the spraying and cleaning material at all times. The improper disposal of waste material endangers the health of human beings and animals!

## 10 Technical data

<b>Net weight:</b>	740 g
<b>Material nozzles available:</b>	0,5 • 0,8 • 1,0 • 1,2 • 1,5 • 2,0 mm ø
<b>Aircaps:</b>	Round-jet aircap V1010901053 (for material-nozzle sizes 0,5-1,5 mm)  Round-jet aircap V1010901203 (for material-nozzle sizes 2,0 mm)
<b>Pressure ranges:</b>	
Min. input air pressure	2 bar
Max. input air pressure	6 bar
Max. material pressure	2 bar
<b>Max. operating temperature of the Spraygun:</b>	<b>43°C</b>
<b>Noise level</b> (measured at approx. 1 m from the spray gun):	<b>83 dB(A)</b>

### Air consumption:

Atomising air pressure	SIL XXII	SIL XXIII
2 bar	90 l/min	82,5 l/min
3 bar	130 l/min	135 l/min
4 bar	170 l/min	195 l/min
5 bar	200 l/min	255 l/min
6 bar	230 l/min	345 l/min

Right to effect technical changes reserved.