

# Operation Manual

## FLG-P5-14

### Transtech Pressure-feed Spray Gun



E

P 2 - 8



# DEVILBISS



## Operation Manual

FLG5 – Pressure-Feed Spray Gun

### Important

***Read and follow all instructions and Safety Precautions before using this equipment***

## Description

The FLG5 pressure feed Spraygun is fitted with a 1.4mm Nozzle for use with common coating materials. A 1.1mm Nozzle and Needle is available as an alternative. The FLG5 Spraygun is approved to ATEX regulations 94/9/EC, protection level;

### **II 2 G X. Suitable for use in Zones 1 and 2**

**Important:** *These spray guns are suitable for use with solvent-based coating materials. The design uses EPA compliant atomising (Devilbiss Trans-Tech®) technology to reduce overspray and improve coating efficiency. Nozzles and needles are manufactured in stainless steel. These guns are not designed for use with highly corrosive and/or abrasive materials and if used with such materials it must be expected that the need for cleaning and/or replacement of parts will be increased. If there is any doubt regarding the suitability of a specific material contact your local Distributor or ITW Finishing direct.*

### **EC Declaration of Conformity**

We, **ITW Finishing UK, Ringwood Rd, Bournemouth, Dorset, BH11 9LH, UK**, as the Authorised Representative of the manufacturer of the **Spray gun model FLG5**, declare, under our sole responsibility, that the equipment to which this document relates is in conformity with the following standards or other normative documents:

**BS EN 292-1 PARTS 1 & 2: 1991, BS EN 1953: 1999**; and thereby conform to the protection requirements of Council Directive **98/37/EC** relating to **Machinery Safety Directive**, and;

**EN 13463-1:2001**, council Directive **94/9/EC** relating to **Equipment and Protective Systems intended for use in Potentially Explosive Atmospheres protection level II 2 GX**.

**This product also complies with the requirements of the EPA guidelines, PG6/34.**

**Transfer efficiency certificates are available on request.**

**B. Holt**, General Manager

1st January 2006

## Specification

Air supply connection -	Universal ¼" BSP and NPS
Maximum static air inlet pressure -	P <sub>1</sub> = 12 bar (175 psi)
Nominal gun inlet pressure with gun triggered -	2.4 bar (35 psi)
Maximum service temperature -	40°C
Gun weight -	930 g
Air flow -	277 l/min (9.8 cfm)

### Materials of Construction

Gun body	-	Aluminium .Stainless steel fluid passages
Nozzle	-	Stainless steel
Needle	-	Stainless steel

ITW Finishing Systems and Products reserve the right to modify equipment specification without prior notice.

## Installation

**Important:** To ensure that this equipment reaches you in first class condition, protective coatings have been used. **Flush the equipment through with a suitable solvent before use.**

1. Attach air hose to connector (19). Recommended hose size 8 mm bore. The hose must be conductive and electrical bond from the spraygun to earth should be checked with an ohmmeter. A resistance of less than 10<sup>6</sup> Ohms is recommended.
2. Attach fluid supply hose to Fluid Inlet (28).

## Operation

1. Mix coating material to manufacturers instructions
2. Turn needle adjusting screw (18) clockwise to prevent movement.
3. Turn spreader valve (10) counter-clockwise to fully open.
4. Adjust inlet air pressure (For recommended figures see Specifications) at the gun inlet with the gun triggered. (*pressure gauge attachment shown under Accessories is recommended for this*).
5. Turn needle adjusting screw counter clockwise until first thread shows.
6. Test spray. If the finish is too dry reduce airflow by reducing air inlet pressure or by the Airflow Valve (22). Screw the Adjusting Knob in to reduce pressure.
7. If finish is too wet reduce fluid flow by turning needle screw (18) clockwise or reducing the fluid pressure. If atomisation is too coarse, increase inlet air pressure. If too fine reduce inlet pressure.
8. The pattern size can be reduced by turning adjusting valve (10) clockwise.
9. Hold gun perpendicular to surface being sprayed. Arcing or tilting may result in uneven coating.
10. The recommended spray distance is 150-200 mm (6"-8").
11. Spray edges first. Overlap each stroke a minimum of 50%. Move gun at a constant speed.
12. Always turn off air and fluid supply and relieve pressure when gun is not in use.

# SAFETY WARNINGS



## Fire and explosion

Solvents and coating materials can be highly flammable or combustible when sprayed. **ALWAYS refer to the coating material suppliers instructions and COSHH sheets before using this equipment.**



Users must comply with all local and national codes of practice and insurance company requirements governing ventilation, fire precautions, operation and house-keeping of working areas.



**This equipment, as supplied, is NOT suitable for use with Halogenated Hydrocarbons.**



Static electricity can be generated by fluid and/or air passing through hoses, by the spraying process and by cleaning non-conductive parts with cloths. To prevent ignition sources from static discharges, earth continuity must be maintained to the Spray gun and other metallic equipment used. It is essential to use conductive air and/or fluid hoses.



## Personal Protective Equipment



*Toxic vapours – When sprayed, certain materials may be poisonous, create irritation or be otherwise harmful to health. Always read all labels, safety data sheets and follow any recommendations for the material before spraying. **If in doubt, contact your material supplier.***



The use of respiratory protective equipment is recommended at all times. The type of equipment must be compatible with the material being sprayed.



Always wear eye protection when spraying or cleaning the Spray gun.



Gloves must be worn when spraying or cleaning the equipment.

**Training** – Personnel should be given adequate training in the safe use of spraying equipment.

## Misuse

Never aim a Spray gun at any part of the body.

Never exceed the max. recommended safe working pressure for the equipment.

The fitting of non-recommended or non-original spares may create hazards.

Before cleaning or maintenance, all pressure must be isolated and relieved from the equipment.

The product should be cleaned using a gun-washing machine. However, this equipment should not be left inside gun-washing machines for prolonged periods of time.

## Noise Levels



The A-weighted sound level of Spray guns may exceed 85 dB (A) depending on the set-up being used. Details of actual noise levels are available on request. It is recommended that ear protection is worn at all times when spraying.

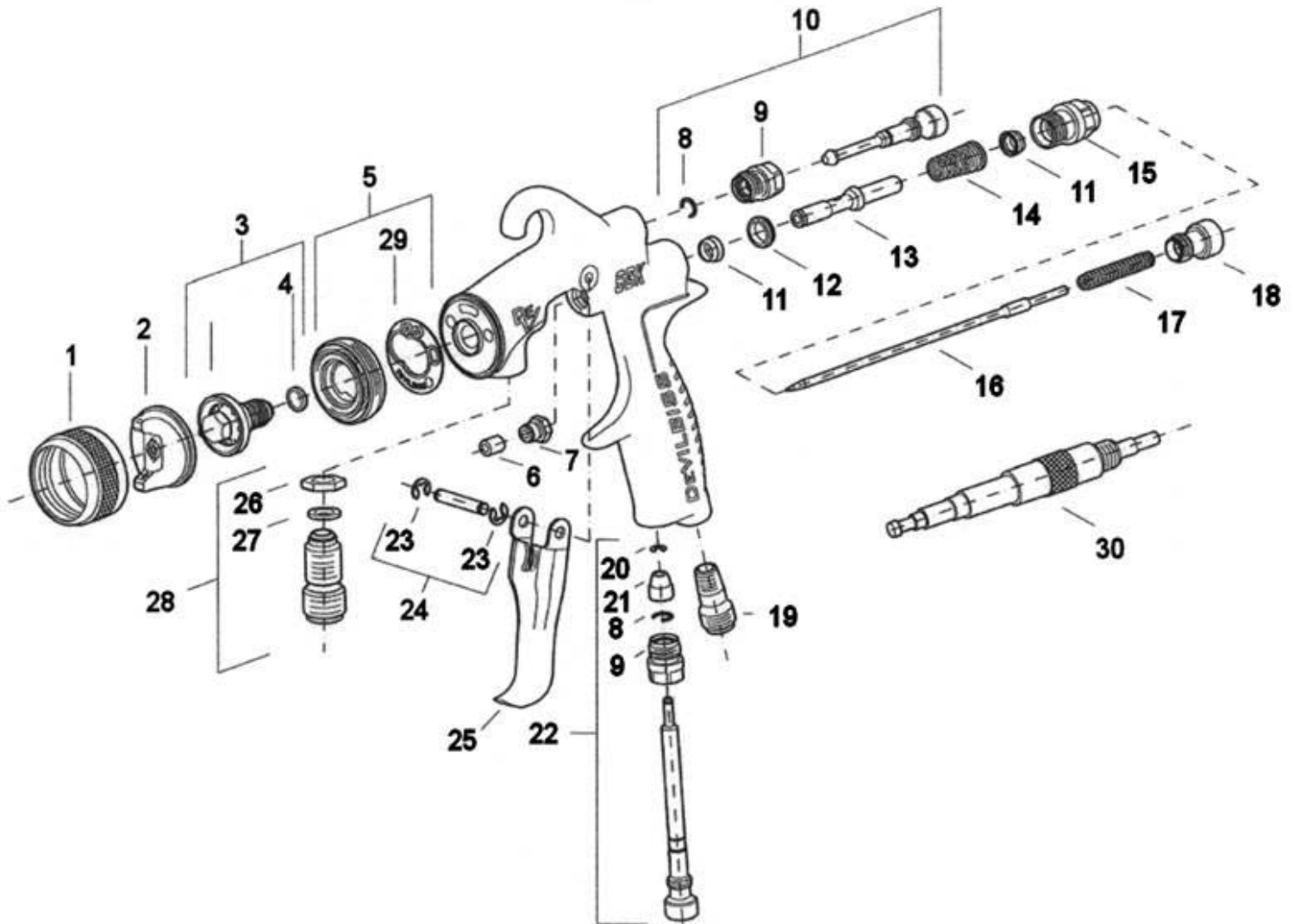
## Operating

Spray equipment using high pressures may be subject to recoil forces. Under certain circumstances, such forces could result in repetitive strain injury to the operator.

## Parts List

Ref. No	Part Number	Description	
1	SGK-0023	Retaining ring	1
2	FLG-0001-622	Air cap No 622	1
3	SGK-0012-14	Fluid tip 1.4mm	1
★● 4	-	Gasket	1
● 5	K-5032	Sprayhead Kit	1
★ 6	-	Packing	1
7	-	Packing gland nut	1
8	-	Circlip	1
9	-	Spray pattern adjustment valve bushing	1
10	-	Spray pattern valve	1
★ 11	-	U-cup seal	2
★ 12	-	Air-valve seat	1
★ 13	-	Air-valve stem	1
★ 14	-	Air-valve spring	1
15	-	Air-valve bushing	1
16	SGK-0402-14	Fluid needle 1.4mm	1
17	-	Fluid needle spring	1
18	-	Fluid adjustment knob	1
19	-	Nipple	1
20	-	Circlip	1
21	-	Air adjusting valve head	1
22	-	Air adjusting valve assembly	1
23	-	Circlip	1
24	-	Trigger pin assembly	1
25	-	Trigger	1
26	-	Nut	1
27	-	Washer	1
28	-	Nipple assembly fluid	1
★● 29	-	Gasket	1
★ 30	-	Assembly Tool	1

★	K-5044	Seal, baffle and gasket replacement kit, items 4, 6, 11, 12, 13, 14, 29 and 30
●	K-5032:	Baffle replacement kit, items 4, 5 and 29
+	SGK-13-11	Fluid tip 1.1mm
∞	SGK-402-11	Fluid needle 1.1mm



## Preventative Maintenance

1. Turn off air and coating supply and relieve pressure in the supply lines, or if using QD system, disconnect from airline and fluid line.
2. Remove air cap (1) & (2) and clean. If any of the holes in the cap are blocked with coating material use a toothpick to clean. Never use metal wire which could damage the cap and produce distorted spray patterns
3. Ensure the tip of the nozzle (3) is clean and free from damage. Build up of dried paint can distort the spray pattern.
4. Lubrication – stud (24), needle (16) and air valve (13) should be oiled each day.

## Replacement of Parts

**Nozzle (3) and needle (16)** – Remove parts in the following order: 18, 17, 16, 1, 2 and 3. Check condition of nozzle seal (4) and replace if necessary. Replace any worn or damaged parts and re-assemble in reverse order. Recommended tightening torque for nozzle (3) 16-20 Nm (150-180 lbf in).

**Packing** – Remove parts 18, 17, 16. Unscrew packing nut (7). Remove packing (6). Fit new packing (6) and nut (7). Re-assemble parts 16, 17, and 18 and tighten packing nut (7) with spanner sufficient to seal but to allow free movement of needle. Lubricate with gun oil.

### **Air-valve Seal Kit K-5040**

1. Remove adjusting knob (18), spring (17), and needle (16).
2. Loosen housing (15).
3. Remove housing (15) and air-valve spring (14).
4. Remove spindle (13).
5. Using service tool (40), engage groove behind the valve seat (12) and remove valve seat.
6. Push out the front air-valve seal (11).
7. Turn the gun upside down and let the seal fall out.
8. Fit new front seal (11) to service tool.
9. Fit new seal to gun body and press firmly to ensure seal is engaged.
10. Fit new valve seat (12) to service tool and fit valve seat into gun body.
11. Remove rear air-valve seal (11) from housing (15) with a hooked instrument.
12. Fit new seal to service tool and fit seal to housing (15).
13. Replace spindle (13).
14. Replace valve spring (14), screw in housing (15) and tighten.
15. Screw reverse end of service tool into housing until fully engaged. Tighten by hand to seat the valve seat. Remove tool.
16. Fit needle (16), spring (17) and knob (18).
17. Adjust needle packing (7) with spanner sufficient to seal but to allow free movement of needle. Lubricate with gun oil.

**Spreader valve (10)** – **Caution:** always ensure that the valve is in the fully open position by turning screw fully counter-clockwise before fitting to body.

### **Air cap / Nozzle selection**

Refer to coating material manufacturers recommendations or ITW Finishing UK Website:

[www.itweuropeanfinishing.com](http://www.itweuropeanfinishing.com)

## Accessories

**Cleaning brush** – order 4900-5-1-K3

**Air-adjusting valve and gauge** – order HAV-501-B

**Digital pressure gauge** – DGI-501-BAR

**Lubricant** – order GL-1-K10

**Spray gun cleaning kit** – KK-4584

**BINKS**  
DVP 1:1 RATIO  
DIAPHRAGM PUMP  
PACKAGES



- Rapid delivery of up to 17 litres per minute (max)
- Even material flow at up to 60 cycles/minute
- Economic air consumption at pressures up to 7 bar (100 psi)
- Corrosion resistant models for ceramic/abrasive materials
- Functions as a material transfer or delivery pump
- Choice of pail, wall, tripod or cart mounted outfits
- ATEX/CE approved.

**PRESSURE FEED  
TANKS & CUPS**

- Sizes to suit all applications
- 10, 40 & 60 litre capacity tanks complete with nylon inner container for easy colour changes and cleaning
- Stainless steel and mild steel options
- Compatible with your standard gun and hose connections
- Remote pressure cups – aluminium and stainless steel options
- 2 litre capacity
- ATEX/CE approved.



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