

DEVILBISS

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CE $\text{\textcircled{Ex}}$ II 2 G X

OPERATION MANUAL

GTi —Suction Feed Spraygun



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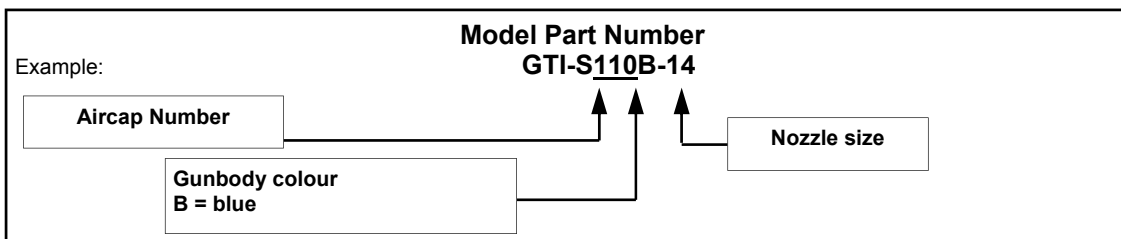
Important

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

Description

The GTi Suction Feed Spraygun Kit is approved to ATEX regulations **94/9/EC**, protection level; **II 2 G X, Suitable for use in Zones 1 and 2**

Important: *These Sprayguns are suitable for use with both waterbased and 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 manufacturer of the **Spraygun model GTI-S**, 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 **89/392/EEC** 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 G X**.

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

Transfer efficiency certificates are available on request.

B. Holt, General Manager 30th
June 2003

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



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 spraygun 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 and safety data sheets for the material before spraying and follow any recommendations. 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 spraygun



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 spraygun 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 sprayguns 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.

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Parts List

Ref. No	Description	Part Number	Qty
1	Air Cap/Retaining ring	GTI-407-	1
1a	Spring Clip	JGA-156-K5	1
+**2	Nozzle (up to 1.5 mm)	GTI-213-**-K	1
	Nozzle (1.6 mm to 2.2 mm)	GTI-214-**-K	1
3	Baffle & Seal	GTI-425-K	1
	Baffle seal—Kit of 5	GTI-33-K5	1
+4	Spring Adjusted Needle Packing	Gti-445-K2	1
5	Spreader Valve	GTI-405-K	1
6	Stud and Screw	GTI-408-K5	1
+7	Needle (for GTI-214 Tip)	GTI-420-K	1
	Needle (for GTI-213 Tip)	GTI-413-K	1
+8	Spring and Pad	GTI-409-K5	1
9	Bushing	GTI-402-K	1
9a	Seal kit of 5	JGS-72-K5	1
10	Needle Adjusting Screw	GTI-414-K	1
11	Valve Assembly	JGK-449	1
12	Trigger	GTI-108	1
13	Connector	JGA-158	1
14	Airflow Valve	GTI-415-K	1
15	Lock Nut	JGA-51-K5	1
16	Seal	23165-001	1
17	Fluid Inlet Connector and seal	JGA-159-K	1
18	Cup lid assembly	KR-4001-B	1
19	Lid Gasket - kit of 3	KR-11-K3	1
20	Drip free diaphragm—kit of 5	KR-115-K5	1
21	Cup - Blue anodised	KRW-401-K	1
22	Cup - Blue anodised	KRW-502-B	1
23	Circlip	25746-007-K5	1
24	Circlip		2
25	Seal & Pin Kit	GTI-428-K5	2
26	Air valve stem assembly		1
27	Spring	JGV-262-K5	1
28	Spanner	SPN-5	1

* - * Denotes Aircap Number - Available Aircaps No's 105 and 110

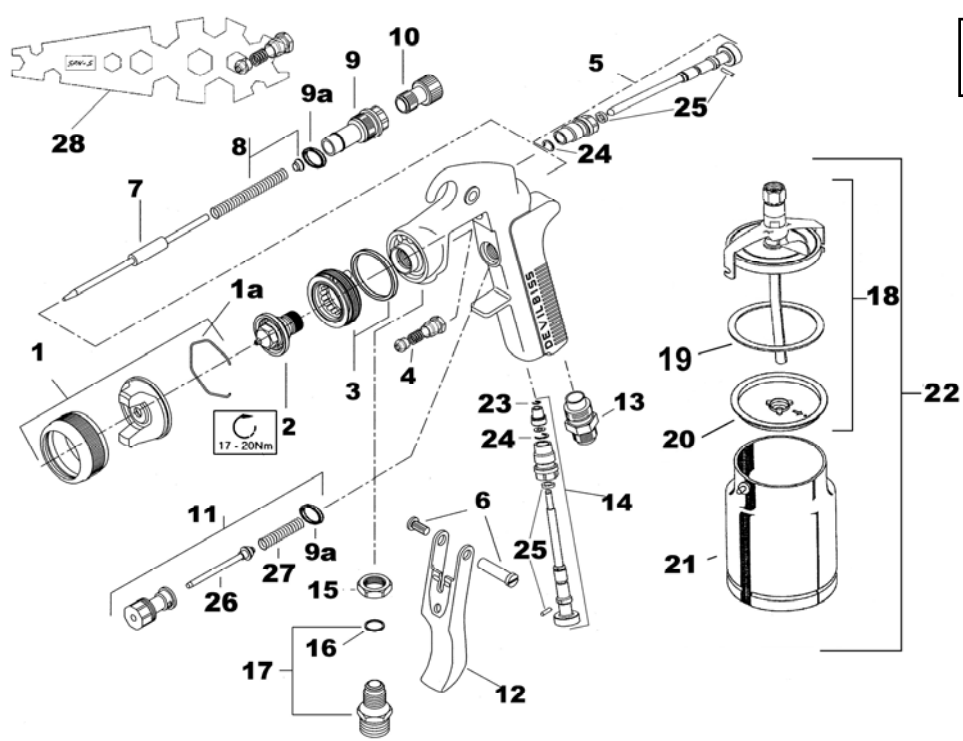
** - ** Denotes Fluid Tip Size -

Available Sizes; GTI-213 0.85, 1.0, 1.1, 1.2, 1.3,1.4,1.5 mm

GTI-214 1.6, 1.8, 2.0 and 2.2 mm

+ - Parts included in service Kit (see accessories)

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Specification

Air supply connection -	Universal $\frac{1}{4}$ BSP and NPS
Fluid Supply Connection -	Universal $\frac{3}{8}$ BSP and NPS
Maximum static inlet pressure -	$P_1 = 9 \text{ bar (130 psi)}$
Maximum static fluid pressure -	$P_2 = 9 \text{ bar (130 psi)}$
Nominal gun inlet pressure with gun triggered -	2 bar (29 psi)
Maximum Service temperature -	40°C
Gun Weight -	500 g
Cup Weight -	460g

Materials of Construction

Gun body	-	Anodised or Nickel Plated Aluminium
Nozzle	-	Stainless steel
Needle	-	Stainless Steel
Cup (KR-494-1)	-	Aluminium, internally coated with PTFE, SS pins
Cup (KRW-401-K)	-	Anodised Aluminium with Brass Nickel plated pins
Lid Assembly	-	Aluminium and Brass Nickel plated
Cup Lid Gasket	-	Polyethylene
Diaphragm	-	Polyethylene

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Installation

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

1. Attach air hose to connector (13). Recommended hose size 8 mm bore. The hose must be conductive and electrical bond from the spraygun to earth should be checked with an ohmeter. A resistance of less than $10^6\Omega$ is recommended.

2. Air supply should be filtered and regulated.
3. Attach the Cup Lid assembly m(27) to the Fluid Inlet connector (17).
4. Position the Yoke at right angles to the Gun with the Cam lever to the front (see picture). Make sure the vent hole in the lid is positioned under the Yoke and the hole in the diaphragm is 180° to the Lid vent hole.

Operation

1. Mix coating material to manufacturers instructions.
2. Fill the cup with the required amount of material. Fill to no more than 25mm (1") from the top of the cup. DO NOT OVERFILL.
3. Attach Cup to the Lid assembly.
4. Turn needle adjusting screw (10) on the spraygun clockwise to prevent movement.
5. Turn pattern valve (5) counter-clockwise to fully open
6. Adjust inlet air pressure to give 2 bar (29psi) at the gun inlet with the gun triggered. (*pressure gauge attachment shown under Accessories is recommended for this*).
7. Turn needle adjusting screw counter clockwise until first thread shows.
8. Test spray. If the finish is too dry reduce airflow by reducing inlet pressure. If finish is too wet reduce

fluid flow by turning needle screw (10) clockwise. If atomisation is too coarse, increase inlet air pressure. If too fine reduce inlet pressure.

9. The pattern size can be reduced by turning adjusting valve (5) clockwise.
10. Hold gun perpendicular to surface being sprayed. Arcing or tilting may result in uneven coating.
11. The recommended spray distance is 150-200 mm (6"-8").
12. Spray edges first. Overlap each stroke a minimum of 50%. Move gun at a constant speed.
13. Always turn off air supply and relieve pressure when gun is not in use.

Air Flow Valve (14)

1. If the airflow valve (14) is fitted this can be used to reduce the inlet pressure through the gun. Screw the Adjusting Knob in to reduce pressure.

Preventative Maintenance

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Turn off air and coating supply and relieve pressure in the supply lines, or if using QD system, disconnect from airline. 2. Release Cup and raise the tube out of the material. Trigger the Gun and allow material to drain back into the cup. 3. Dispose of the surplus material and clean the cup. Do not use sharp metallic tools to clean the cup they will damage the PTFE/anodising surface. 4. Remove air cap (1) and clean. If any of the holes in the cap are blocked | <p>with coating material use a toothpick to clean. Never use metal wire which could damage the cap and produce distorted spray patterns</p> <ol style="list-style-type: none"> 5. Ensure the tip of the nozzle (2) is clean and free from damage. Build up of dried paint can distort the spray pattern. 6. Lubrication – stud/screw (6), needle (7) and air valve (11) should be oiled each day. |
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Replacement of Parts

Nozzle (2) and Needle (7) – Remove parts in the following order: 10, 8, 7, 1 and 2. Replace any worn or damaged parts and re-assemble in reverse order. Recommended tightening torque for nozzle (2) 17-20 Nm (150-180 lbf in)

Packing – Remove parts 10, 8, 7. Unscrew cartridge (4). Fit new cartridge finger tight. Re-assemble parts 7, 8, and 10 and tighten cartridge (4) with spanner sufficient to seal but to allow free movement of needle. Lubricate with gun oil.

Air valve (11) – Remove Trigger, parts 6 and 12. Unscrew valve assembly. Re-

assemble, fitting spring to valve head before fitting valve.

Spreader valve (5) – **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

Accessories

Spanner – order SPN-5

Cleaning Brush – order 4900-5-1-K3

Service Kit – order GTi-416 add nozzle size as required (i.e. GTi-416-14)

Pressure gauge Attachment – order GA-515

Gun Mounted Regulator – order DVR-501

Lubricant - order GL-1-K10

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