DEVILBISS

Compact by DEVILBISS

SB-E-2-530 **ISS.04**

CE Ex II 2 G X

Operation Manual

HVLP and Trans-Tech® Pressure Feed Spraygun

E	P 1 - 12

Operation Manual

COMPACT – Pressure Feed Spraygun

Important

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

Description

The Compact pressure feed Spraygun Kit complies 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 (Devilbiss Trans-Tech®) and HVLP atomising technology to reduce overspray and improve coating efficiency. 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.*

Model Part Number

Example: **COM-P522B-14**

Aircap

Gunbody Finish
B= Blue Anodised

Fluid nozzle size
(14 = 1,4 mm)

EC Declaration of Conformity

We: **ITW Finishing UK, Ringwood Rd, Bournemouth, Dorset, BH11 9LH, UK**, as the manufacturer of the **Spraygun model Compact**, 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 G X***.

This product complies with the requirements of the EPA guidelines, PG6/34,PG6/20 and PG6/23. Achieving transfer efficiency in excess of 65%.

B. Holt, General Manager
30th June 2003

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

SAFETY WARNINGS

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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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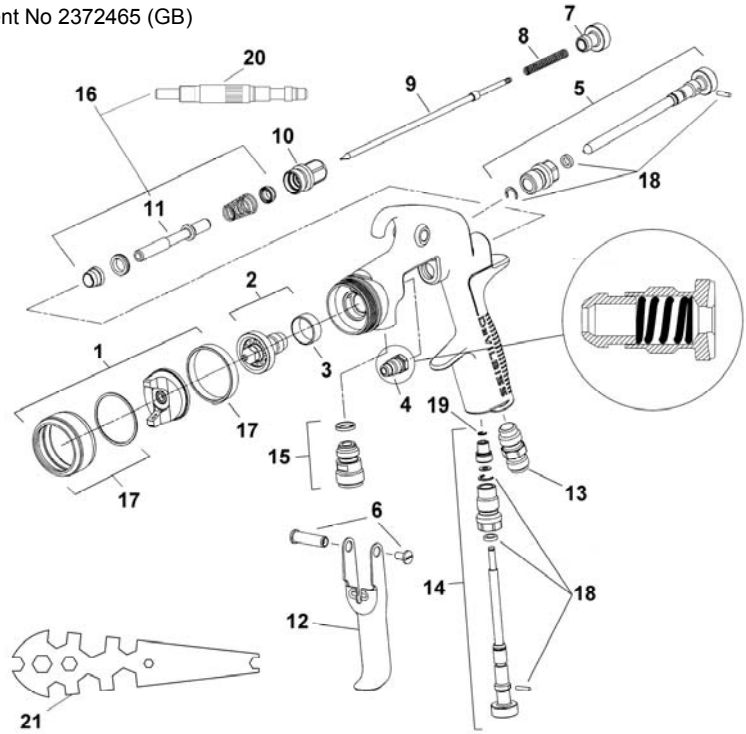
Parts List

	Ref. No	Description	Part Number	Qty	Options
	1	Air Cap/Retaining ring COM-522 or COM-510	SP-100-***-K	1	522, 510, 505,523 e.g *** = 522
+	2	Nozzle	SP-200S-**-K	1	085,10,11,12,13,14, 16,18,20,22 e.g ** =14 =1.4 mm
+	3	Separator	SP-623-K5	5	
+	4	Packing	GTI-445-K2	2	
	5	Spreader Valve	SP-401-K	1	
	6	Stud and Screw	GTI-408-K5	5	
	7	Needle Adjusting Screw	SP-614-K	1	
+	8	Spring	SP-622-K5	1	
+	9	Needle	SP-300S-**-K	1	085,10,11,12,13,14, 16,18,20,22 e.g ** =14 =1.4 mm
		Needle—Plastic tipped	SP-300P-**-K		10, 12, 14 e.g ** =14 =1.4mm
	10	Airvalve housing + seal	SP-612-K	1	
+	11	Spindle		1	
	12	Trigger	SP-617-K	1	
	13	Connector	SP-611-K	1	
	14	Airflow Valve	SP-402-K	1	
	15	Fluid Inlet Connector and seal	SP-610–K	1	
+	16	Air Valve Service Kit	SPK-101-K	1	
	17	Retaining Ring and Seals	SPK-102-K	1	
+	18	Spreader/ Cheater Service Kit	Gti-428-K5	5	
	19	Circlip	25746-007-K5	5	
+	20	Air valve assembly Tool	-	1	
	21	Spanner	SPN-5	1	
		Spraygun Service Kit (parts included marked +)	SPK-401-**	1	085,10,11,12,13,14, 16,18,20,22 e.g ** =14 =1.4 mm



Specification

Air supply connection -	Universal $^{1}/_{4}$“ BSP and NPS
Fluid Supply Connection -	Universal $^{3}/_{8}$“ BSP and NPS
Maximum static Air inlet pressure -	P_1 = 12 bar (175 psi)
Maximum static Fluid inlet pressure -	P_2 = 15 bar (218 psi)
Nominal gun Air inlet pressure - with gun triggered	2.5 bar (36 psi) 523 Trans-Tech Air Cap 2. bar (29 psi) 522 & 510 Trans-Tech Air Cap 1.4 bar (20 psi) 505 HVLP Air Cap
Maximum Service temperature	40°C
Gun Weight -	435 g
Materials of Construction	
Gun body	Anodised Aluminium
Nozzle	Stainless Steel
Needle	Stainless Steel
Fluid Inlet	Stainless Steel / PTFE
Trigger	Nickel Plated Steel

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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 (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 Ohms is recommended.
2 Attach fluid supply hose to Fluid Inlet (15).

Operation

1. Mix coating material to manufacturers instructions
2. Turn needle adjusting screw (7) clockwise to prevent movement.
3. Turn spreader valve (5) 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 (14). Screw the Adjusting Knob (14) in to reduce pressure.
7. If finish is too wet reduce fluid flow by turning needle screw (7) 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 (5) 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.

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) 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 (2) is clean and free from damage. Build up of dried paint can distort the spray pattern.
4. Lubrication – stud/screw (6), needle (9) and air valve (11) should be oiled each day.

Replacement of Parts

Nozzle (2) and Needle (9) – Remove parts in the following order: 7, 8, 9, 1 and 2. Replace any worn or damaged parts and re-assemble in reverse order. Recommended tightening torque for nozzle (2) 9.5-12 Nm (80-100 lbf in).

Packing – Remove parts 7, 8, 9. Unscrew cartridge (4). Fit new cartridge finger tight. Re-assemble parts 9, 8, and 7 and tighten cartridge (4) with spanner sufficient to seal but to allow free movement of needle. Lubricate with gun oil.

Air Valve Seal Kit (16) - (Refer to photos 1 to 28 and fig 2)

1. Remove Adjusting Knob (7), Spring (8), and Needle (9).
2. Loosen Housing (10).
3. Remove Housing (10) and Airvalve Spring.
4. Remove Valve (11).
5. Using Service Tool SPN-7, engage groove behind the Valve Seat.
6. Remove Valve Seat.
7. Push out the Front Airvalve Seal with a finger.
8. Turn the Gun upside down and let the Seal fall out.
9. Fit New Front Seal to Service Tool.
10. Fit new Seal to gunbody and press firmly to ensure Seal is engaged.
11. Fit New Valve Seat to Service Tool. Groove must face outwards.
12. Fit Valve Seat to Gunbody.
13. Remove Rear Airvalve Seal from housing (10) with a hooked instrument.
14. Fit new Seal to Service Tool.
15. Fit Seal to Housing (10).
16. Replace Valve (11).
17. Replace Valve Spring and screw in Housing (10).
18. Tighten Housing.
19. Fit Needle (9).
20. Fit Spring (8) and Knob (7).
21. Adjust Needle Packing (4) with Spanner sufficient to seal but to allow free movement of needle. Lubricate with gun oil.

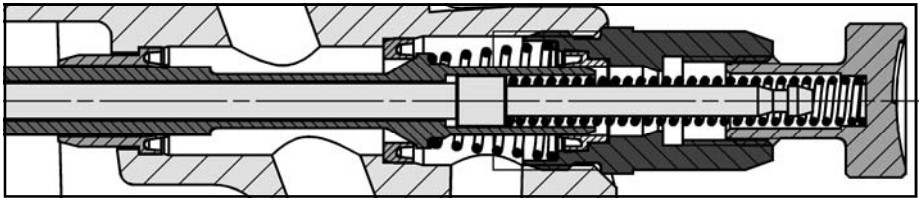
Spreader valve (5) – Caution: always ensure that the valve is in the fully open position by turning screw fully counter-clockwise before fitting to body.

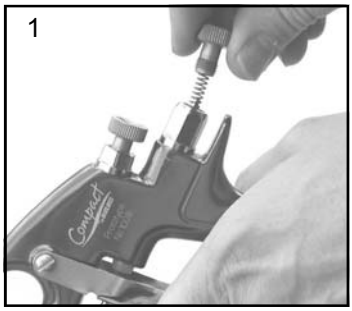
Air cap / Nozzle Selection

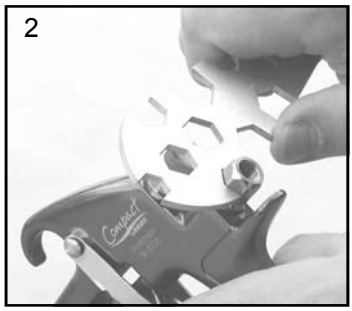
Refer to coating material manufacturers recommendations or ITW Finishing UK Website:

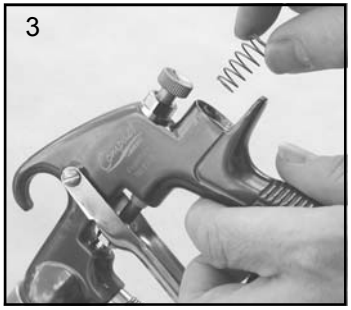
www.itweuropeanfinishing.com

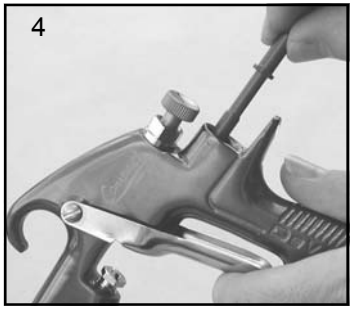
FIG 2

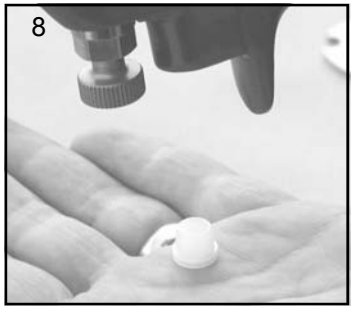


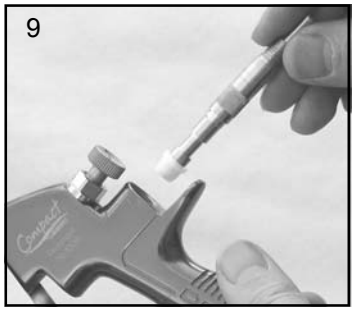


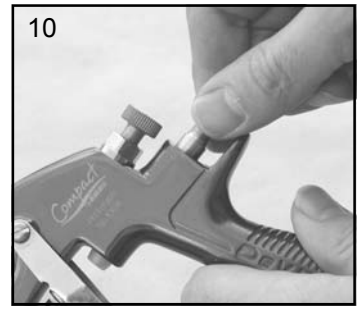


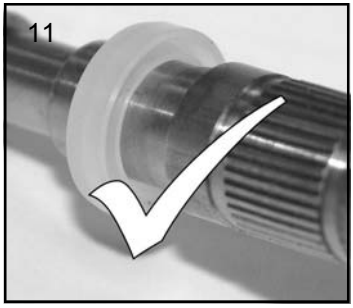


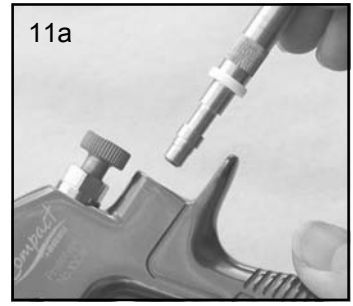


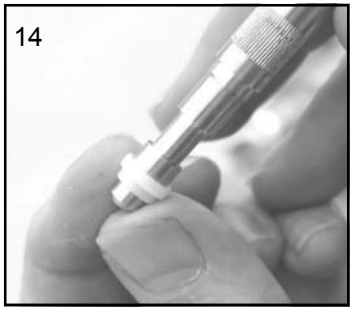


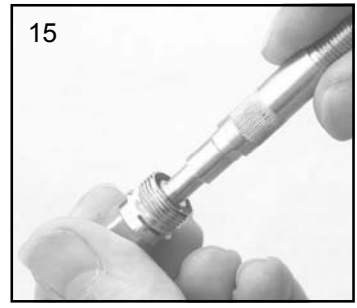












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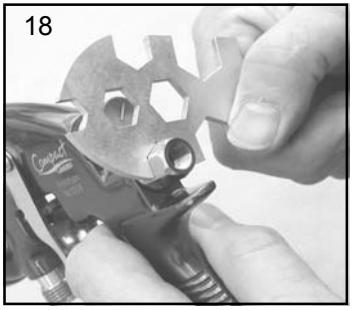

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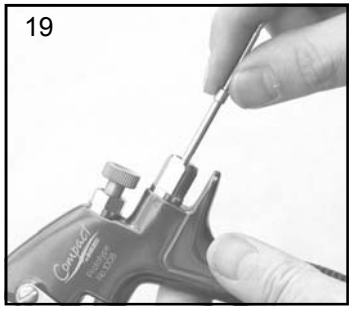

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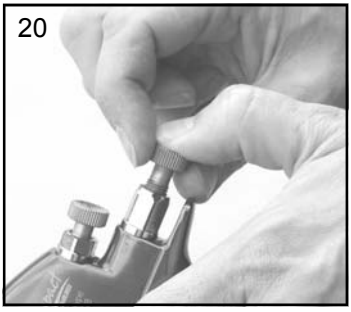

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Accessories

Spanner – order SPN-5
Cleaning Brush – order 4900-5-1-K3
Regulator/Gauge Attachment - order HAV-501-B
Pressure gauge Attachment – order GA-515
Gun Mounted Regulator – order DVR-501
Spraygun Lubricant - order GL-1-K10

Roundspray Aircap - COM-500R
HVLP Mode - Air Inlet Pressure = 1.0 Bar (14.5 PSI)
Tans-tech Mode – Air Inlet Pressure = 2 bar (29 PSI)
Approx Spot Size = Ø50mm

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