

DEVILBISS

SB-E-2-510-B



Operation Manual
Devilbiss SRi – Gravity Spraygun



PATENTS PENDING

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DEVILBISS



Operation Manual

Devilbiss SRi – Gravity Spraygun



Important

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

Description

The Devilbiss SRi is a small Gravity fed Spraygun designed for spraying spot repairs and small areas. The Gun can spray from small round to 160mm fan (according to setup). This product is suitable for use with both waterbased and solvent based coating materials. The design uses EPA compliant and HVLP atomising technology to reduce overspray and improve coating efficiency.

Important: *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	
SRI-G210B-08	
Example:	
Air	Fluid nozzle size (08 = 0,8 mm)

Declaration of Conformity

We, ITW Finishing UK, Ringwood Road Bournemouth Dorset England declare under our sole responsibility that this Devilbiss SRi Spraygun is in conformity with BS EN 292: parts 1 and 2 :1991 and BS EN 1953:1999, following the provisions of the Machinery Directive 89/392/EEC. When tested with commercially available solvent and water based paints, the transfer efficiency is in excess of 65% which complies with the requirements of the EPA guidelines, PG6/20(97),PG6/22(97), PG6/23(97), PG6/33(97), PG6/34(97), PG6/40(97), PG6/41(97).

B. Holt, General Manager



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. To prevent such a risk, earth continuity to the spray equipment and the object being sprayed should be maintained.



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.



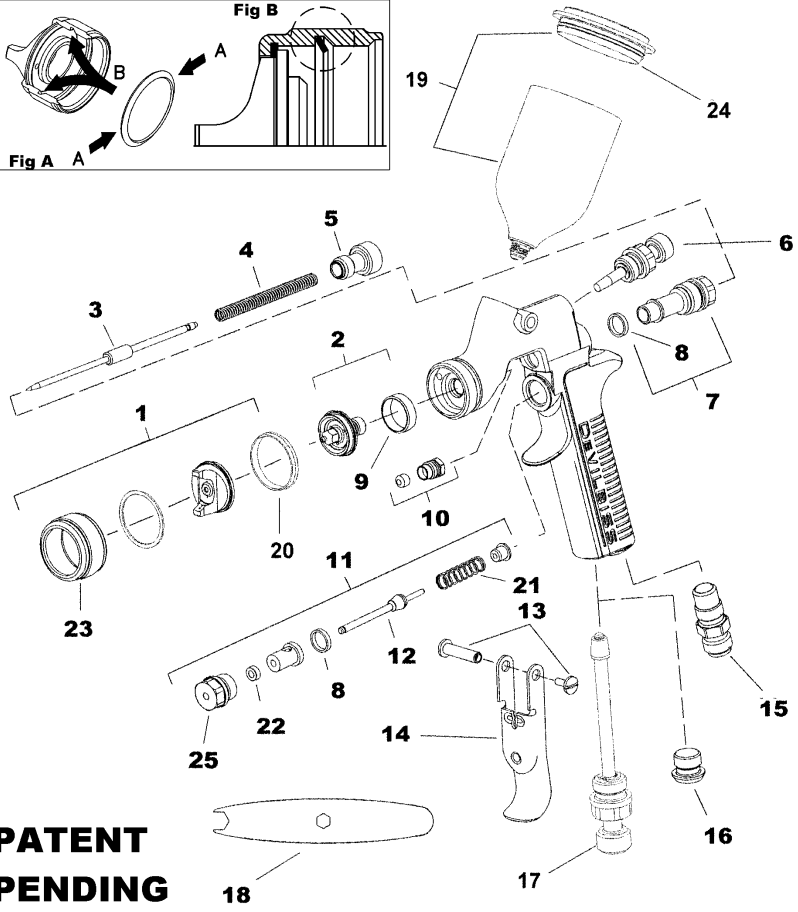
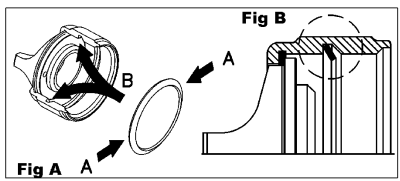
Operating

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.

E**Parts List**

Ref. No	Description	Part Number	Qty
1	Air Cap/Retaining ring HVLP	SRI-407-205	1
	Air Cap/Retaining ring Compliant	SRI-407-210	1
2	Nozzle 0.7 mm seal ,needle (SRI-37-K)	SRI-440-07-K	1
	Nozzle 0.8 mm seal ,needle (SRI-37-K) Kit	SRI-440-08-K	1
	Nozzle 1.0 mm seal ,needle (SRI-3-K) Kit	SRI-440-10-K	1
	Nozzle 1.2 mm seal ,needle (SRI-3-K) Kit	SRI-440-12-K	1
3	Needle for 1.0 and 1.2 mm Nozzle	SRI-3-K	1
	Needle for 0.7 and 0.8 mm Nozzle	SRI-37-K	1
*4	Needle Spring	SRI-18-K2	1
5	Needle Adjusting Knob	SRI-19-K2	1
6	Spreader Valve	SRI-401-K	1
7	Body Bushing and Seal Kit	SRI-17-K	1
*8	Seal	SRI-16-K5	1
*9	Separator	SRI-6-K5	1
*10	Needle Packing Kit of 3	SRI-411-K3	1
11	Air Valve Assembly	SRI-404-K	1
12	Air Valve Stem Assembly	-	1
13	Trigger Stud and Screw Kit	SRI-412-K	1
14	Trigger	SRI-9-K	1
15	Air Inlet Adaptor	SRI-20-K	1
16	Blanking Plug (to replace airflow valve)	SRI-21	1
17	Airflow Valve	SRI-402-K	1
*18	Spanner	SRI-50-K2	1
19	Cup and Lid Kit of 12	SRI-478-K12	1
*20	Aircap Seal	SRI-35-K5	1
*21	Airvalve Spring	SRI-23-K2	1
*22	Airvalve Seal	-	1
23	Retaining Ring	-	1
24	Lid—Kit of 6	SRI-8-K6	1
25	Airvalve Body	-	1

Parts marked with * are contained in the service Kit SRI-416



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Specification

Air supply connection -	Universal 1/4" BSP and NPS (M)
Maximum Static Air inlet pressure -	P ₁ = 7 bar (100 psi)
Nominal gun Air inlet pressure with gun triggered -	2 bar (29 psi)
Gun Weight (with Cup and Lid) -	390g
Max temperature -	40°

Materials of Construction for wetted parts

Gun body	-	Anodised Aluminium
Nozzle	-	Stainless steel
Needle	-	Stainless Steel
Cup	-	Nylon
Cup Lid	-	Polypropylene

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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 (15).
2. Air supply should be filtered and regulated.

Operation

1. Mix coating material to manufacturers instructions.
2. Screw Cup (19) to Gun. Tighten until the shoulder above the thread seats on the Gun body. Do not over tighten or the thread may strip.
3. Use SRI-51 Funnel for filling the Cup, using a paper filter if required. Replace Lid, making sure the lid is seated properly.
4. The lids are supplied in 3 colours, Green, Yellow and Red. This is to provide a means of identification of the type of paint in the Cup when using multiple guns eg for spot repair work. The colours have been chosen to follow a recognised sequence.
5. Turn needle adjusting screw (5) fully clockwise to shut off fluid (for setting up air supply pressure). Turn spreader valve (6) counter-clockwise to fully open.
6. Attach air supply to Gun and adjust inlet air pressure up to 2 bar (29psi) at the gun inlet with the gun triggered. *(pressure gauge attachments shown under Accessories are recommended for this).*
7. Turn Needle Adjusting Screw anti-clockwise 2 turns to find the mid position.
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 (5) 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 Spreader valve (6) clockwise.
 10. Hold gun perpendicular to surface being sprayed. Arcing or tilting may result in uneven coating.
 11. The recommended spray distance is 75-150 mm (3"-6").
 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 (17)

1. The airflow valve (17) is fitted to reduce the inlet pressure through the gun. Screw the Adjusting Knob clockwise to reduce pressure.

Preventative Maintenance

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1. Turn off air supply and relieve pressure in the airline, or if using QD system, disconnect from airline.
2. Empty coating material into a suitable container. Remove Cup (19). It is recommended that the cup be used only once and then disposed of according to the local rules and regulations. The Gun should be cleaned in a gun wash machine.
3. Remove air cap 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
4. Ensure the tip of the nozzle is clean and free from damage. Build up of dried paint can distort the spray pattern.
5. Lubrication – stud/screw (12/13), needle (3) and air valve (11) should be oiled each day.

Replacement of Parts

Spanner (18) - The spanner is provided for removal of the Nozzle (2) with the centre hex and the adjustment of the Needle Packing (10) with the open end.

Aircap (1) - Unscrew Aircap from the Spraygun. Remove seal (20). Remove Aircap from the Retaining Ring (23). Clean Aircap and Ring. Re-assemble Aircap to Retaining Ring (23). Fit new Seal (20) as in Fig A on exploded view, by lightly squeezing and inserting into the ring. Make sure the seal is fitted the correct way round as in Fig B.

Nozzle (2) and Needle (3) – Remove parts in the following order: (5), (4), (3), (1), (2) and (9). Replace any worn or damaged parts and re-assemble in reverse order. It is recommended that the Separator (9) is replaced whenever the Tip (2) is removed. Recommended tightening torque for nozzle (2) 9 Nm (80 lbf in).

Packing (10) – Remove parts (5), (4), (3). Unscrew cartridge (10). Fit new cartridge finger tight. Re-assemble parts (3), (4), and (5) and tighten cartridge (10) with spanner (18) sufficient to seal

but to allow free movement of needle. Lubricate with gun oil.

Air valve (11) – Remove trigger (14). Remove body (25) and withdraw complete valve. Remove rear bush, spring and Stem assembly. Remove the Airvalve Cage from the Valve body and remove seal (22). Replace new seal (22), making sure the seal is correctly fitted with the lip facing inwards. Remove old seal (8) from body if left in place. Place new seal (8) on the cage before replacement of the Valve assembly. Slide Stem assembly (12) into the cage assembly, fit the spring (21) on the valve head and fit collar. Fit complete assembly to Gunbody.

Spreader valve (6) – **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

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Accessories

Aircap, Tip and Needle set - SRI-450-*-**** (** = Aircap No, *** = Tip size)
Spanner – SRI-50-K2
Cleaning Brush – SRI-65-K2
Service Kit – SRI-416
1.2M Whip End Hose Kit - MPV-529
Gun Mounted Regulator with Mini QD– HAV-601
Lubricant - GL-1-K10

SRI-100 - Gun Carry tray
(Guns not included)



SRI-51-K12
Funnel kit of
12



SRI-410 - Carry case for
up to 3 Guns, with SRI-100
Tray



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