DEVILBISS

SB-E-2-252-I

CE

Operation Manual

JGA – Suction Feed Spraygun

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DeVILBISS

Operation Manual

JGA – Suction Feed Spraygun

Important

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

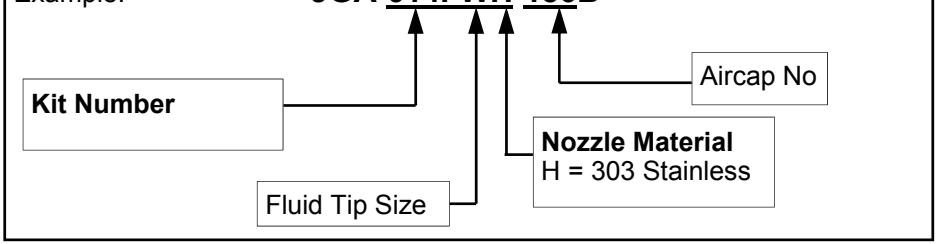
Description

The JGA Suction Feed Spraygun Kit is suitable for use with most solvent based coating materials. Nozzles and Needles are available in Stainless Steel.

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

Example: **JGA-614FWH-186B**



Declaration of Conformity

We, ITW Finishing UK, Ringwood Road Bournemouth Dorset England declare under our sole responsibility that this product 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.

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 though 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

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Parts List

Ref. No	Description	Part Number	Qty
1	Air Cap/Retaining ring	See Chart 1	1
1a	Spring Clip - Kit of 5	JGA-156-K5	1
+*2	Nozzle	AV-645-**	1
3	Baffle & Seal	JGD-402-K	1
+3a	Baffle seal - Kit of 5	GTI-33-K5	1
+4	Packing	GTI-439-K2	1
5	Spreader Valve	GTI-405-K	1
6	Stud and Screw	GTI-408-K5	1
+7	Needle	See Chart 2	1
+8	Spring - Kit of 5	GTI-409-K5	1
9	Bushing	JGA-17	1
10	Needle Adjusting Screw	GTI-414-K	1
11	Valve Assembly	JGK-449	1
12	Trigger	JGS-108-1	1
13	Connector	JGA-158	1
14	Airflow Valve	GTI-415-K	1
15	Lock Nut - Kit of 5	JGA-51-K5	1
16	Seal	23165-001	1
17	Fluid Inlet Connector and seal	JGA-159-K	1
18	Fluid Tube	KR-456-B	1
19	Yoke	KR-77-1	1
20	Washer - kit of 5	KS-48-K5	2
21	Cam	KR-130	1
22	Washer - Kit of 5	KR-40-K5	1
23	Lid Gasket - kit of 3	KR-11-K3	1
24	Nut - kit of 5	KR-94-K5	1
25	Drip free diaphragm—kit of 5	KR-115-K5	1
26	Cup	KR-466-K	1
27	Cup lid assembly	KR-4001-B	1
28	Cup and Lid assembly Kit	KR-566-1-B	1
29	Seal + Pin Kit (+ SST-8434-K5)	GTI-428-K5	2
30	Circlip - Kit of 5	SST-8434-K5	2
31	Circlip - Kit of 5	25746-007-K5	1
+32	Seal - Kit of 5	JGS-72-K5	2
33	Spanner	SPN-5	1
34	Air valve stem assembly	JGS-431-1	1
35	Spring	JGV-262-K5	1

* - ** Denotes Nozzle Size - see chart 1 below for available sizes

\+ - Parts included in service Kit KK-4502 (see accessories)

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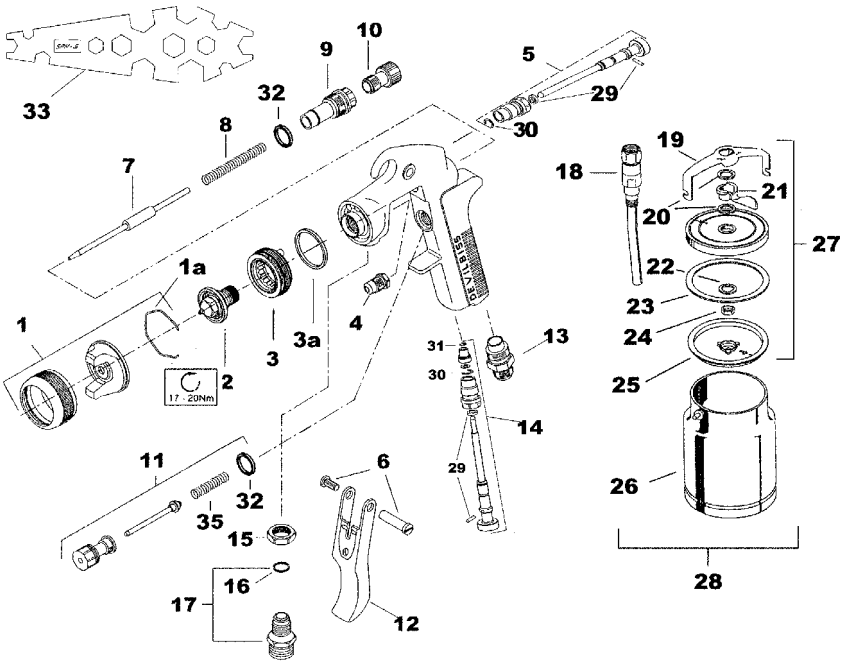

Chart 1. Aircap and Nozzle Size combinations

Aircap No	Aircap Part Number	FW 1.6	FF 1.4	EX 1.8
30	AV-4239-30	X	X	X
43	AV-4239-43	X	X	X
80	MB-4039-80	X	X	X
186	AV-4239-186	X	X	X

Chart 2. Nozzle and Needle Combinations

Nozzle Size	Nozzle Order Number	Needle Order Number
FW	AV-645 FW	JGA-421-FF
FF	AV-645-FF	JGA-421-FF
EX	AV-645-EX	JGA-421-EX

Specification

Air supply connection -		Universal $^1/_4$ BSP and NPS
Fluid Supply Connection -		Universal $^3/_8$ BSP and NPS
Maximum static inlet pressure -		P_1 = 9 bar (130 psi)
Maximum static fluid pressure -		P_1 = 14 bar (203 psi)
Gun Weight -		695 g
Cup Weight -		460g
Materials of Construction		
Gun body -		Polished Aluminium
Nozzle	-	Stainless Steel
Needle	-	Stainless Steel
Cup	-	Aluminium with Brass Nickel plated pins
Lid Assembly	-	Aluminium, Brass and Steel 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 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 air supply should be filtered and regulated.
2. Attach the Cup Lid assembly (27) to the Fluid Inlet connector (17).
3. 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 3.5 bar (50psi) 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

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1. Turn off air 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.
4. 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
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.

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.

Accessories

Cleaning Brush – order 4900-5-1-K3
Service Kit – order KK-4502 add nozzle size as required-
(i.e. KK-4502-FF-H)
Seal Kit - order KK-4558. Contains 3a, 4, 29, 30, 32
Pressure gauge Attachment – order GA-515
Gun Mounted Regulator – order DVR-501
Lubricant - order GL-1-K10

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