

BINKS

Operation Manual: MODEL BBR PRESSURE/SIPHON FEED HAND GUN

SB-E-A1-21-1



Important:

Read and follow all instructions and SAFETY PRECAUTIONS
before using this equipment

DESCRIPTION

This is a production hand spray gun suitable for use with solvent and water based coating materials. The performance of this gun is achieved by a range of air nozzles combined with large, smooth flowing air passages and an oversize air valve which gives a lower pressure drop. The gun is designed to be used with a siphon cup or material feed hose. Fluid passages are all stainless steel as an option.

IMPORTANT: These guns are not designed for use with highly corrosive or highly abrasive coating material and if used with such materials it must be expected that the need for thorough cleaning and/or the necessity for replacement parts will be increased. If there is any doubt regarding the suitability of a specific material, advise what material is to be used and/or submit a sample for test.

Chart 1 Ordering Information :

SPRAYGUN		MATERIAL NOZZLE			NEEDLE		AIR NOZZLE			
PART NO	THREAD	PART NO	CODE	BORE	PART NO	MATL	PART NO	CODE	AIR CONSUM	GRP
102506	BSP	200500	A047	0.046",1.15mm	188318	ST ST/DELRIN	200607	AP21	(23.0) [38.6]	A
102507	BSP	200500	A047	0.046",1.15mm	188318	ST ST/DELRIN	200604	AP19	(21.0) [35.3]	A
102516	BSP	200501	A061	0.059",1.5mm	188318	ST ST/DELRIN	200604	AP19	(21.0) [35.3]	A
102517	BSP	200501	A061	0.059",1.5mm	188318	ST ST/DELRIN	200613	AS20	(21.0) [35.3]	A
102520	BSP	200502	A072	0.073",1.85mm	188318	ST ST/DELRIN	200601	AS17	(17) [28.6]	A
102526	BSP	200502	A072	0.073",1.85mm	188318	ST ST/DELRIN	200613	AS20	(21) [35.3]	A
102853	NPS	200501	A061	0.059",1.5mm	188318	ST ST/DELRIN	NO AIR CAP			A

GROUP A

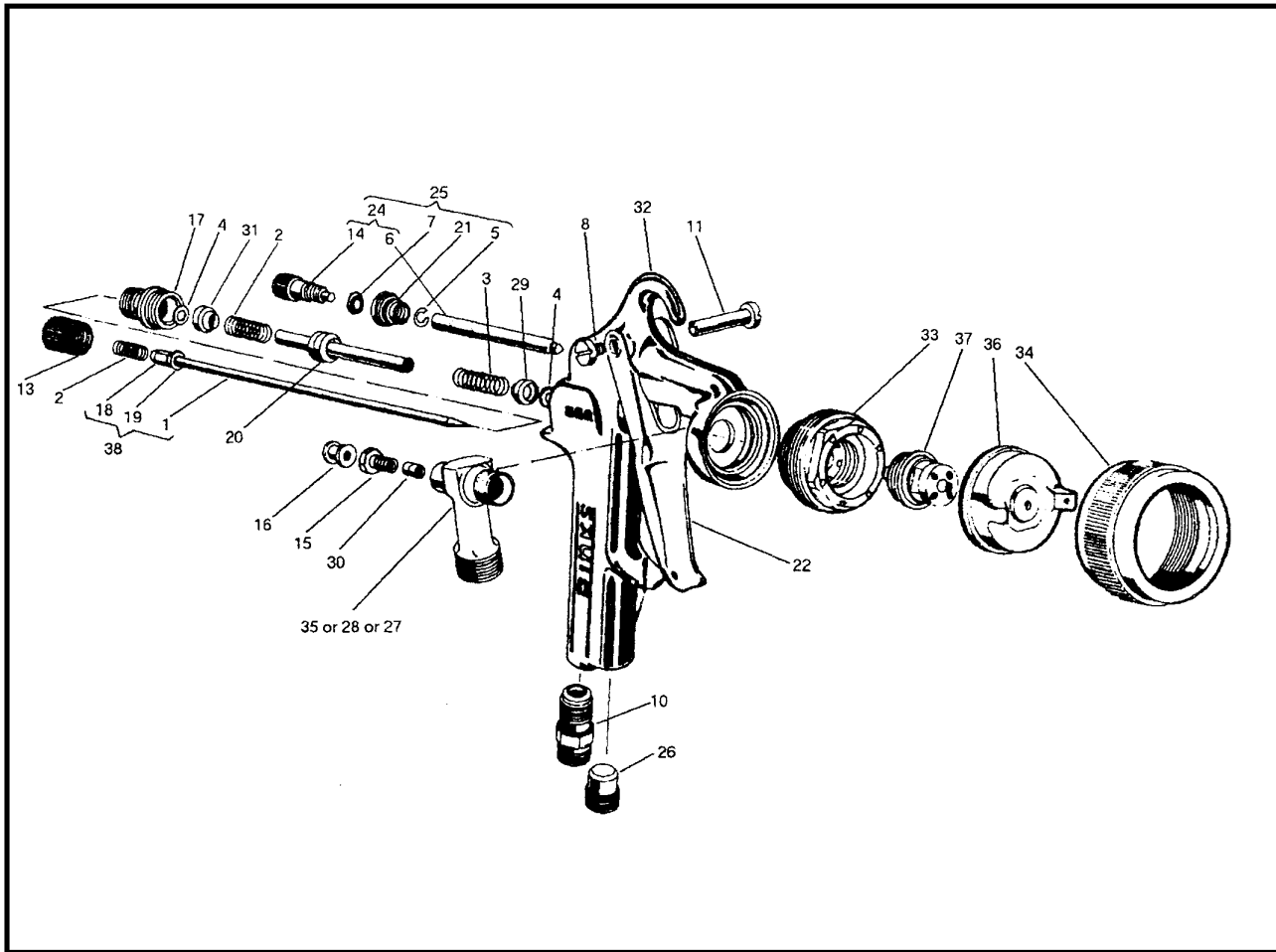
Normal range of finishing materials from thin spirits to heavy enamels.

Figure in () brackets is air consumption in c.f.m at 4.8 bar (70 psi).

Figure in [] brackets is air consumption in m³/ hr at 4.8 bar (70 psi).

SPECIFICATIONS

Body:	Aluminium alloy polished and anodised.
Air Nozzle:	Brass Nickel Plated with taper location on material nozzle to ensure concentricity.
Material Nozzle:	Stainless steel, located in body and in air nozzle by tapers.
Needle Valve:	Stainless Steel / Delrin adjustable .
Trigger:	Pressed steel for durability & polished
Air Valve:	PTFE
Springs:	All springs are stainless steel.
Connections:	Air inlet connection is 1/4" BSP and fluid connection is 3/8" BSP (NPS available)(All 60° Cone).
Finish:	Gun body red anodised. All brass parts are nickel plated.
Weight:	0.57 kg (1lb. 4 oz).
Dimensions:	Less Cup (17.5 X 3.65 X 19 cm) (7 long X 1 1/2 wide x 7 1/2" high).
Max Working Pressure:	Air & Fluid 10 bar (145 psi)
Max Fluid Temp:	50°C (122° F)



Parts list

Ref. No.	Order No.	Description	Qty.
1	18 00 80	NEEDLE STEM	1
2*	16 02 85	SPRING (33 mm)	2
3*	16 03 20	SPRING (27 mm)	1
4*	16 16 07	O -RING	2
5*	16 60 00	CIRCLIP	1
6	18 02 07	AIR CONTROL SPINDLE	1
7*	18 02 08	O -RING	1
8	18 02 22	TRIGGER SCREW	1
9	18 02 27	GUN BRUSH (NOT SHOWN)	1
10	18 02 31	AIR CONNECTION	1
11	18 28 27	TRIGGER STUD	1
12	18 47 88	SPANNER (NOT SHOWN)	1
13	18 79 85	NEEDLE CONTROL KNOB	1
14	18 79 86	AIR CONTROL KNOB	1
15	18 79 87	PACKING SCREW	1
16	18 79 88	TRIGGER SPOOL	1
17	18 79 90	AIR VALVE HOUSING	1
18	18 79 91	NEEDLE LOCKNUT	1
19	18 79 92	NEEDLE ADJUSTING NUT	1

Ref. No	Order No.	Description	Qty.
20*	18 79 94	AIR VALVE SPINDLE	1
21	18 79 95	AIR CONTROL SEAL HOUSING	1
22	18 80 14	TRIGGER	1
23	18 81 38	SPANNER (NOT SHOWN)	1
24	18 81 51	AIR CONTROL SPINDLE ASSY	1
25	18 82 33	AIR CONTROL ASSY	1
26	18 82 57	PLUG	1
27	18 83 28	188329 C/W PAINT REGULATOR	1
28	18 83 29	FLUID INLET (ST ST)	1
29	18 83 91	O-RING HOUSING (ST ST)	1
30*	18 97 36	PACKING	2
31	19 10 96	O-RING HOUSING PP	1
32	20 00 87	GUN BODY	1
33	20 11 16	HEAD INSERT	1
34	20 41 41	RETAINING RING	1
35	20 64 72	FLUID INLET (NICKEL PLATED)	1
36	see table 1	AIR CAP	1
37	see table 1	FLUID NOZZLE	1
38	18 83 18	NEEDLE ASSY	1

Recommended spares kit with quantities based on 12 months supply with medium wear materials 25 02 58. Items shown on parts list by *

OPERATION

CONNECTING GUN TO AIR HOSE

Gun should be connected by a suitable length of $\frac{5}{16}$ " (7.94 mm) bore air hose fitted with a connector with a $\frac{1}{4}$ " B.S.P union nut at gun end. It is recommended that the air supply be filtered to 50 microns maximum, however alternative air preparation may be required for special applications.

CONTROLLING THE MATERIAL FLOW

The rate of flow is adjusted by the Material Control knob (13) which acts as an adjustable stop limiting the travel of the Material Needle Valve. Turning it clockwise will reduce the rate of flow and anti clockwise will increase flow. When used with a gravity cup an increase in air pressure will increase the rate of flow.

ADJUSTMENT OF MATERIAL NEEDLE VALVE

The needle valve assembly is adjustable for length by means of the needle locking screw and needle end assembly. These should be adjusted so that when the trigger is in contact with the air valve stem there is about $\frac{1}{32}$ " (.79 mm) clearance between the trigger and the needle assembly. In no circumstances must the needle valve open before the air valve.

CONTROLLING THE FAN SPRAY

The fan spray is controlled by means of the Air Control Assembly (25) Turning this control clockwise until it is closed will give a round spray; turning it anti-clockwise will widen the spray into a fan shape. The fan spray can be turned anywhere through 360 by rotating the Air Nozzle (36) relative to the gun. To effect this - slacken retainer ring, position Nozzle (34) then tighten retainer ring.

CONNECTING GUN TO MATERIAL HOSE

Gun should be connected by a suitable length of $\frac{3}{8}$ " bore (9.5 mm) material hose fitted with a connector with a $\frac{3}{8}$ " B.S.P union nut at the gun end $\frac{1}{4}$ " (6.35 mm) bore hose is recommended for use with low viscosity materials. Fluid hoses of different materials are available for special fluids.

CONNECTING GUN TO SIPHON CUPS

The union nut of the cup should be attached to the material connection of the gun and firmly tightened. It is important that there is no leakage at this point. The siphon pipe should be positioned at the front of the gun. i.e under the nozzles, and the vent hole in the cup lid positioned under the trigger.

CONNECTING GUN TO PRESSURE CUPS

Attach an air hose from a supply point to the inlet connection of the pressure cup. The air outlet of the cup should then be connected with an air hose to the air inlet of the spraygun. Connect the pressure cup fluid outlet with a suitable fluid hose to the spraygun fluid inlet.

Air pressure to the gun should be regulated in line after the pressure cup. The paint flow through the spraygun is regulated by the air pressure set on the cup regulator, combined with the spraygun fluid tip size and needle setting. (always read instructions supplied with pressure cup prior to use).

SAFETY WARNINGS

FIRE AND EXPLOSION

Solvents and coating materials can be highly flammable or combustible, especially when sprayed.

- Work stations must be provided with adequate ventilation/exhaust to prevent the build-up of flammable vapours.
- Smoking and naked flames must not be allowed in the spraying or mixing areas.
- Fire extinguishing equipment must be provided in the spraying and mixing areas.

Users must comply with all local and national codes of practice and insurance company requirements governing ventilation, fire precautions, operation, maintenance and housekeeping of work stations.

HALOGENATED HYDROCARBON SOLVENTS - for example 1,1,1-Trichloroethane and Methylene Chloride can chemically react with aluminium and galvanised or zinc coated parts and cause an explosion hazard. Read the label and data sheet of the material you intend to spray.

DO NOT USE SOLVENTS OR COATING MATERIALS CONTAINING HALOGENATED HYDROCARBONS WITH THIS EQUIPMENT.

STATIC ELECTRICITY - is generated by fluid moving through pipes and hoses. A static spark, capable of igniting certain solvents and coating materials, could be produced by high fluid flow rates. To prevent the risk of fire or explosion, earth continuity to the spray equipment and object being sprayed should be maintained.

PERSONAL PROTECTIVE EQUIPMENT

TOXIC VAPOURS - when sprayed, certain materials may be poisonous, create irritation or otherwise be harmful to health. Always read carefully all labels and safety/performance data for the material being sprayed and follow any recommendations. IF IN DOUBT, CONSULT THE MATERIAL SUPPLIER.

- The use of respiratory protective equipment is recommended at all times when spraying. The type of respiratory protective equipment used must be compatible with the material being sprayed and the level of concentration.
- Always wear eye protection when spraying or cleaning the equipment.
- Gloves must be worn for spraying or cleaning the equipment when certain coating materials and solvents are used.

TRAINING

Personnel should be given adequate training in the safe use and maintenance of this equipment. Training courses on all aspects of the equipment are available. For details contact your local representative. The instructions and safety precautions contained in this literature and the literature supplied with the coating material should be read and understood before the equipment is used.

MISUSE

- All spray guns project particles at high velocity and must never be aimed at any part of the body.
- Never exceed the recommended safe working pressures for any of the equipment used.
- The fitting of non-recommended or non-original accessories or spare parts may create hazardous conditions.
- Before dismantling the equipment for cleaning or maintenance, all pressures, air and material, must be isolated and released.

The disposal of non-metallic materials must be carried out in an approved manner. Burning may generate toxic fumes. The removal of waste solvents and coating materials should be carried out by an authorised local waste disposal service.

The materials used in the construction of this equipment are (bearing in mind the warning on Halogenated Hydrocarbons) solvent resistant enabling the equipment to be cleaned using gun washing machines. However, this equipment must not be left inside the gun washing machine for prolonged periods of time after the automatic cleaning cycle has been completed. The solvents used in the gun washing machine should be regularly checked to ensure that the equipment is not flushed through with contaminated material. Follow the recommendations of the machine manufacturer.

NOISE LEVELS

The continuous A-weighted sound pressure level of this spray gun may exceed 85 dB(A) depending on the air cap/nozzle set-up being used. Sound levels are measured using an impulse sound level meter and analyser, when the gun is being used in a normal spraying application. Details of actual noise levels produced by the various air cap/nozzle set-ups are available on request.

OPERATING

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

MAINTENANCE & FAULT FINDING

CLEANING GUN USED WITH SYPHON CUP OR MATERIAL SUPPLY HOSE

CUP - Unscrew the cup empty and rinse out carefully with thinners, place clean thinners in the cup and spray this through the gun until it is clean, then blow air through the gun to dry it.

MODE - Disconnect supply hose at Fluid Inlet, reconnect a supply of clean solvent. Spray through the gun until clean, then disconnect solvent and replace with an air supply and blow through until dry.

EVERY DAY AFTER CLEANING PLACE A DROP OF OIL IN THE FOLLOWING:

- 1) Trigger stud.
- 2) Material needle valve at material packing screw.
- 3) Air valve stem at gun body.
- 4) Material needle valve guide at gun body.

NEVER IMMERSER GUN IN SOLVENTS. DO NOT USE SILICONE OILS OR GREASES.

FAULTY SPRAY

This can be caused by improper cleaning, dried material around the material nozzle tip or in the air nozzle. Soak these parts in thinners that will soften the dried material and remove with a brush or cloth.

NEVER USE METAL INSTRUMENTS TO CLEAN THE AIR OR MATERIAL NOZZLES. THESE PARTS ARE CAREFULLY MACHINED AND ANY DAMAGE TO THEM WILL CAUSE A FAULTY SPRAY.

If either the Air Nozzle (36) or Material Nozzle (37) are damaged, these parts must be replaced before a perfect spray can be obtained.

INTERMITTENT SPRAY.

If the spray flutters, it is caused by one of the following faults: -

- 1) Insufficient material available. Check supply and replenish if necessary.
- 2) Loose Material Nozzle (37) Tighten but without using undue force.
- 3) Leakage at Material Needle Valve Packing (30) Tighten or replace Material Needle Valve Packing.
- 4) Cup connection insufficiently tight, or dirt on cone faces. Correct as necessary.
- 5) Air vent in cup lid blocked . Remove lid and clear obstruction. Replace lid.

AIR LEAK AT AIR VALVE SPINDLE.

This could be caused by a worn Valve Spindle (20) or Spindle Seals (4) . Remove knob (13) Spring (2) and withdraw needle assembly (38). Unscrew Valve housing (17) and all valve components can be removed , seals (4), Springs (2) & (3), Seal housings (31) & (29) and Valve Spindle (20). Replace seals (4) and valve spindle (20) prior to re-assembly which is a reverse of the above procedure.

Note: ensure Springs (2) and (3) and seal housings (31) and (29) are assembled in the correct order.

AIR LEAKING THROUGH THE GUN

This could be caused by dirt on the Air Valve seat or a damaged air valve which is part of the Spindle (20). Replace the Spindle (20) and at the same time Spindle Seals (4) as described above in "Air leak at Air Valve Spindle".

PAINT LEAKING AT NEEDLE GLAND SEAL

Tighten Material Packing Screw (15), do not overtighten as this may cause the needle to stick. To replace Seal unscrew Material Needle Control knob (13) , remove Material Spring (2) and Material Needle (38). Unscrew Material Packing Screw (15) and take out old packing.(30)x 2) Refit with Packing (30)x 2) then replace Material Packing Screw, Needle, Spring and knob then adjust Packing Screw to seal correctly.

ACCESSORIES

AIR HOSE AND CONNECTIONS

17 00 04	5/16" Bore P.V.C Lined Terylene Reinforced Air Hose.- Specify Length required.
18 42 12	1/4" BSP(F) Hose Connector
19 16 68	QR Male Stem 1/4" BSP (F)
19 16 47	QR Male Stem 1/4" BSP (M)
19 16 46	QR Female 1/4" BSP (M)

FLUID HOSE AND CONNECTIONS

17 00 74	3/8" Bore nylon lined branded rubber hose
18 42 03	3/8" BSP (F) Hose Connector
20 11 20	QR Male Stem 3/8" BSP (F) ST.ST
18 39 64	QR Female Body 3/8" BSP (M)

CUPS

10 53 03	EZ2 SIPHON CUP (1 LITRE)
10 53 46	AS 105303 PLUS FILTER
10 53 04	PRESSURE CUP 2 QUART
10 53 08	PRESSURE CUP 2 LITRE C/W HOSES
10 53 60	PRESSURE CUP 2 LITRE REMOTE
10 53 62	PRESSURE CUP 1 1/2 LITRE CLASSIC ST.ST.
10 54 33	PRESSURE CUP ST.ST
10 54 28	PRESSURE CUP 2.2 QUART STEADI-GRIP

AIR FILTER AND REDUCING VALVE

10 70 18	V5000 Filter Regulator 2 x 1/4" BSP outlet.
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SPARES KIT

250258	See Parts List for included items shown by *
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AIR FED VISORS

10 70 30	Visor and Carbon Filter/ Regulator complete with Breather tube.
10 70 29	As 107030 plus Coalescing Filter, Hoses and Spare Elements.

NOTES

BINKS

Ringwood Road
Bournemouth BH11 9LH England
Tel. No. (01202) 571111
Telefax No. (01202) 581940

