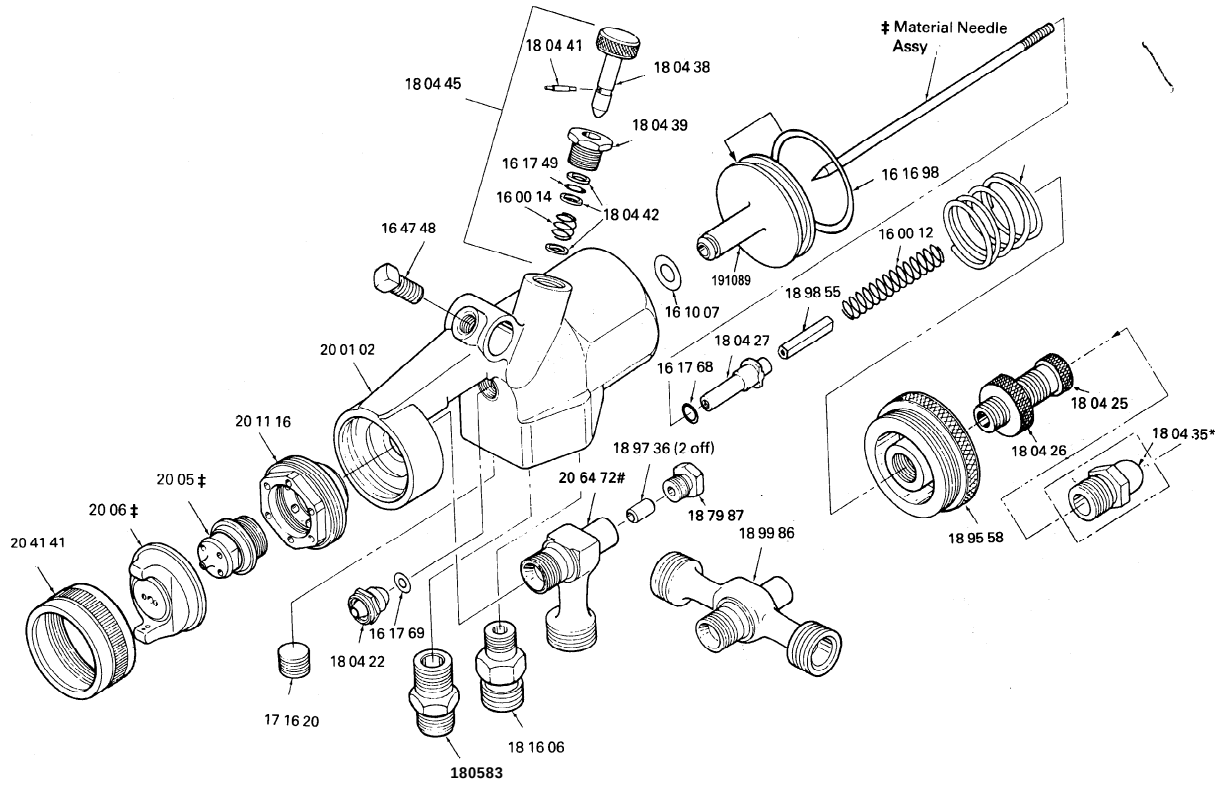
BBR AUTOMATIC SPRAY GUN



*Optional fluid needle cover is for installations that need to be tamper-proof. Needle cover allows gun to be fully opened when triggered.

Stainless Steel option, Order Pt No. 188329
‡Nozzles & Needles should be selected from chart overleaf.

Part No.	No. Off	Description	Rec. Spares	Part No.	No. Off	Description	Rec. Spares
16 00 11	1	Spring	1	18 04 41	1	Retaining Pin	
16 00 12	1	Spring	1	18 04 42	3	Inner Washer	
16 00 14	1	Control Spring		18 04 45	1	Side Port Control Assy	
16 10 07	1	'O' Ring	1	18 05 83	1	Double Male nipple 1/4NPTx ¼BSP	
16 16 98	1	'O' Ring	1	18 16 06	1	Double Male nipple ⅛NPT x ¼BSP	
16 17 49	1	'O'Ring		18 79 87	1	Packing Gland Follower	
16 17 68	1	'O' Ring		19 10 89	1	Piston	
16 17 69	2	'O' Ring	2	18 95 58	1	End Cap	
16 47 48	1	Fixing Bolt		18 97 36	2	Packing Washer	2
17 16 20	1	Plug		18 98 55	1	Needle Locking Nut	
18 04 22	1	Air Valve GlandAssy	1	18 99 86	1	Fluid Inlet (Optionalrecirculating)	
18 04 25	1	Material Valve ControlScrew		20 01 02	1	Gun Body Assy	
18 04 26	1	Control Screw LockingNut		20 11 16	1	Head Insert	
18 04 27	1	Needle Body		20 41 41	1	Retaining Ring	
18 04 35	1	Needle Cover (tamperproof)		20 64 72	1	Fluid Inlet	
18 04 38	1	Control Spindle		18 47 88	1	Spanner (not shown)	
18 04 39	1	Stuffing box		18 81 38	1	Spanner (not shown)	

Recommended Spares, quantities based on 12 months supply with medium wear materials. 250372 part number for complete set.

OPERATING THE BBR AUTOMATIC SPRAY **GUN**

CONTROLLING THE MATERIAL FLOW

When fed from a pressure supply an increase in the material pressure will increase the rate of flow. Correct fluid nozzle size ensures correct material flow rate. If necessary, fluid flow can also be adjusted by adjusting the amount of needle travel. This is done by partially removing the Material Needle Valve, screwing the Needle either in or out of the Needle Body, locking it by tightening the Needle Locking Nut, inserting it back into the gun being sure to check the clearance between the Air Valve Piston 189557 and the Needle Body (SEE FIG.1). A good recommended clearance is approx. 1/16''. The adjustment feature allows for wear and the clearance creates needle motion which should allow air to flow before fluid starts flowing and should shut off fluid flow before air flow is shut off.

ADJUSTING THE SPRAY PATTERN

The width of the spray pattern is controlled by the Side Port Control Assembly 180445. Turning this control clock-wise until it is closed will give a round spray; turning it counterclock wise will widen the spray into a fan shape. The fan spray can be turned anywhere through 360" by positioning the Air Cap relative **to the gun.** To effect this: loosen retainer ring; position nozzle, then, re-tighten retainer ring.

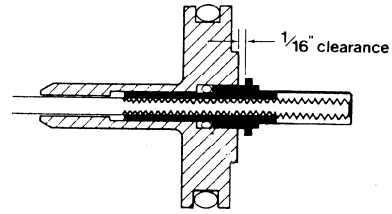


Fig 1.

CONNECTING GUN TO MATERIAL HOSE

Gun should be connected by a suitable length of 3/8" diameter material hose fitted with a connector with a 3/8" BSP (f) nut at gun end. 1/4" diameter hose is recommended for use with low viscosity materials. (Fluid hoses of different composition are available for special fluids.)

CONNECTING GUN TO AIR HOSE

Guns should be connected by a suitable length of 5/16" diameter air **hose fitted** with a **connector and** a 1/4BSP (f) nut at gun end.

MAINTENANCE

LUBRICATION

Monthly: Remove Piston 189557 and lubricate the air cylinder chamber and needle valve spring with a coating of petroleum Jelly. Also, lubricate Side Port Control Ass'y 180445 with oil.

REMOVAL OF PISTON

To remove the piston, first unscrew the End Cap 189558 remove the 2 Springs 16 00 11 & 12, and pull out the entire Material Needle Valve. Remove the piston by applying a few pounds of air pressure to the cylinder air inlet. This air pressure will cause the piston to pop out.
Caution: When removing piston, aim back of gun in a safe direction and do not use excessive air.

CLEANING

To Clean the gun, flush the fluid lines with solvent and blow air through the air lines to make sure all the air passages are dry.

Caution: Never completely submerge the gun in solvent as this will dissolve the lubricating oil and dry out the seals.

REPLACING THE PACKING GLAND

To remove the Packing Gland 16 17 69 first remove End Cap 18 95 58. Springs 16 00 11 & 12 and Material Needle Valve, Then proceed to front of gun and remove Retaining Ring, Air Cap and Fluid Nozzle. Then, using Spanner 1881 38 unscrew Head 20 11 16 and remove Fluid Inlet 20 6472. Pull or pry out packing gland and insert new gland.

TROUBLESHOOTING

FAULTY SPRAY

A faulty spray may be caused by improper cleaning, dried materials around the fluid nozzle tip or in the air cap. 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 FLUID NOZZLES. THESE PARTS ARE CAREFULLY MACHINED AND ANY DAMAGETOTHEM WILLCAUSE FAULTY SPRAY. If eitherthe Air Cap or Fluid Nozzle are damaged, these parts must be replaced before 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 Fluid Nozzle. Tighten but without using undue force.
3. Leakage at Material Needle Valve Packing 18 04 22. Tighten or replace Material Needle Valve Packing.
4. Fluid connection insufficiently tight or dirt on cone faces of connection. Correct as necessary.
5. Leaking Cylinder Air and/or inadequate pressure.

NOZZLE SET-UPS FOR BBR AUTOMATIC SPRAY GUN

A nozzle set-up consists of a material nozzle and a material needle valve. To ensure the best results, they must be correctly selected for the particular material to be sprayed and to suit the type of article being painted. The Chart below should enable a correct selection to be made in each group, the material nozzles are listed in order of increasing size, and the air nozzles in order of increasing air consumption and consequently speed of application. In each group, any air and material nozzle can be combined. The correct needle valve must always be used for each material nozzle.

FLUID NOZZLE, AIR NOZZLE AND MATERIAL NEEDLE COMBINATIONS (SET-UPS)

	MATERIAL NEEDLE ASSY		FLUID NOZZLES			AIR NOZZLES			
	CODE	PART No.	CODE	PART No.	BORE	SYPHON FEED	PART No.	PRESSURE FEED	PART No.
GROUP A NORMAL RANGE OF FINISHING MATERIALS FROM THIN SPIRITS TO HEAVY ENAMELS	AB	183233 (NYLON TIP) 1832 34 (ST ST)	A031 A039 A047 A061 A072	20 05 10 20 05 09 20 05 00 20 05 01 20 05 02	.031" (0.79mm) .039" (1.00mm) .046"(1.15mm) .059" (1.50mm) .073" (1.85mm)	AS06 (6.0) 10[1 AS10 (10.0) 16.8] AS16 (16.0) [26.9] AS17 (17.0) [28.6] AS20 (21 .0) [35.3]	20 06 00 20 06 08 20 06 33 20 06 01 20 06 13	AP1O (11.5) [19.3] AP15 (16.5) [27.7] AP19 (21.0) [35.3] AP21 (23.0) [38.6]	20 06 03 20 06 06 20 06 04 20 06 07
GROUP B HEAVY PRIMERS, CEMENT PAINTS, FILLERS AND SNOWCEM.	AB	183233 (NYLON TIP) 1832 34 (ST ST)	B087	20 05 03	.086" (2.20mm)	BSI4 (14.5)[24.4]	20 06 02	BP23 (21 .0) [35.3]	20 06 05
GROUP C VERY HEAVY FILLERS AND PLASTIC PAINTS. BITUMENS AND ASPHALTS	C	1831 21 (NYLON TIP) 183231 (ST ST)	Cl11	20 05 04	,106" (2.70mm)	CS19 (19.0) [31.9]	20 06 09	CP26 (26.0) [43.7]	20 06 10
GROUP D HEAVY SAND LADEN CEMENT PAINTS, PLASTIC PAINTS, TEXTURE PAINTS AND CEMENT SLURRY.	D	1831 23 (NYLON TIP) 183232 (ST ST)	D157	20 05 05	,156" (3.97mm)			DP26 (26.0) [43.7]	20 06 11
GROUP E VITREOUS ENAMEL (AIR NOZZLE CAN ONLY BE USED WITH MATERIAL NOZZLE OF THE SAME GROUP) PREFIX 'V' ON FLUID NOZZLES DENOTES TUNGSTEN CARBIDE TIPPED.	V5 V8 V11	18 31 24 1831 25 18 31 26	V065 VO88 V112	20 05 06 20 05 07 20 05 08	.064" (1.62mm) ,086" (2.20mm) ,110" (2.80mm)	 BSI4 (14.5) [24.4] CS19 (19.0) [31.9]	 20 06 02 20 06 09	VP1 5 (16.5)[27.7] BP23 (2 1.0) [35.3] CP26 (26.0) [43.7]	20 06 12 70 06 05 20 06 10

FIGURE IN ( ) DENOTES CONSUMPTION IN CUBIC FEET PER MINUTE OF AIR NOZZLE AT 70LBf/IN².
FIGURE IN [ ] DENOTES EQUIVALENTTO THE ABOVE IN CUBIC METRES/HOUR.

REV. 1. NEEDLE ASSY PT NO.S CHANGED NOV 1989.