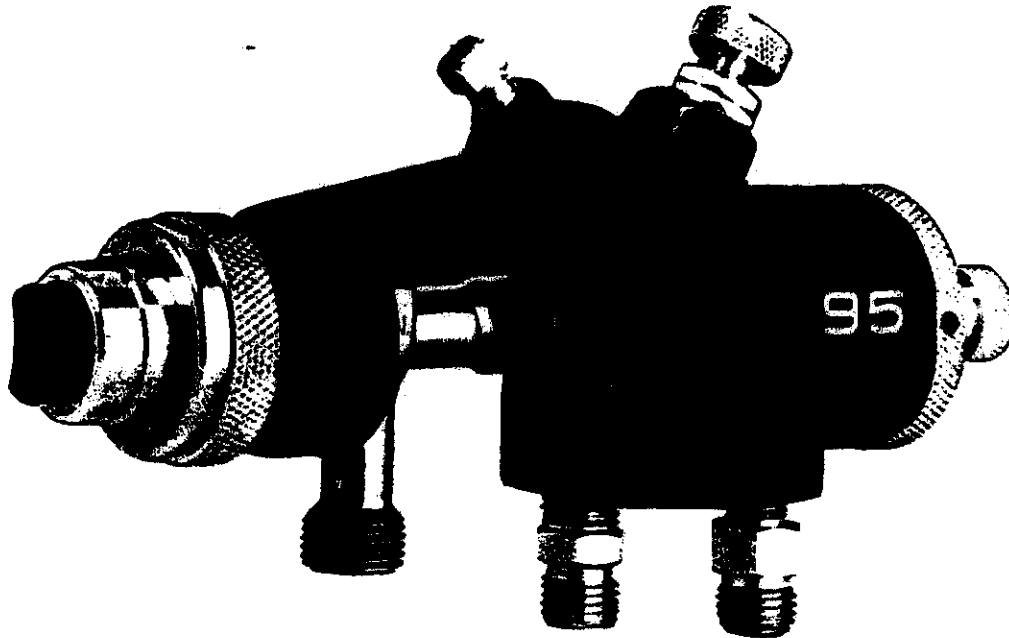


Binks MODEL 95AM AUTOMATIC ROAD MARKING GUN



AIRSPRAY GUN WITH STAINLESS STEEL INLET

MODEL 95 AM AUTOMATIC ROAD MARKING SPRAY GUN

The Model 95AM Automatic Road Marking Gun is a heavy duty, pneumatically operated spray gun. It is excellent for slow speed line striping as well as high speed road and highway marking applications. A wide nozzle selection available from stock makes it adaptable to many types of coatings and applications including water base, solvent base and abrasive coatings.

Main construction features include:

- Stainless steel Fluid Inlet.
- Teflon Seals.
- Stainless steel hardened Needle Tip and Needle.
- Stainless steel Fluid Nozzles and tungsten carbide Air Caps.
- Drop forged and anodized aluminum body.
- Water/solvent flush port for clean and long operation.
- Minimum parts for easy cleaning and maintenance.
- Low air consumption requirements to operate (12 SCFM Max. at 50 PSIG).
- Fast 250 cycles per minute response time.

Properly handled and cared for, it will produce excellent spray results long after other spray guns have worn out.

IMPORTANT SAFETY NOTE

BEFORE REMOVING ANY COMPONENTS FROM THE SPRAY GUN, SHUT OFF AND DEPRESSURIZE AIR AND MATERIAL SUPPLY PRESSURES.

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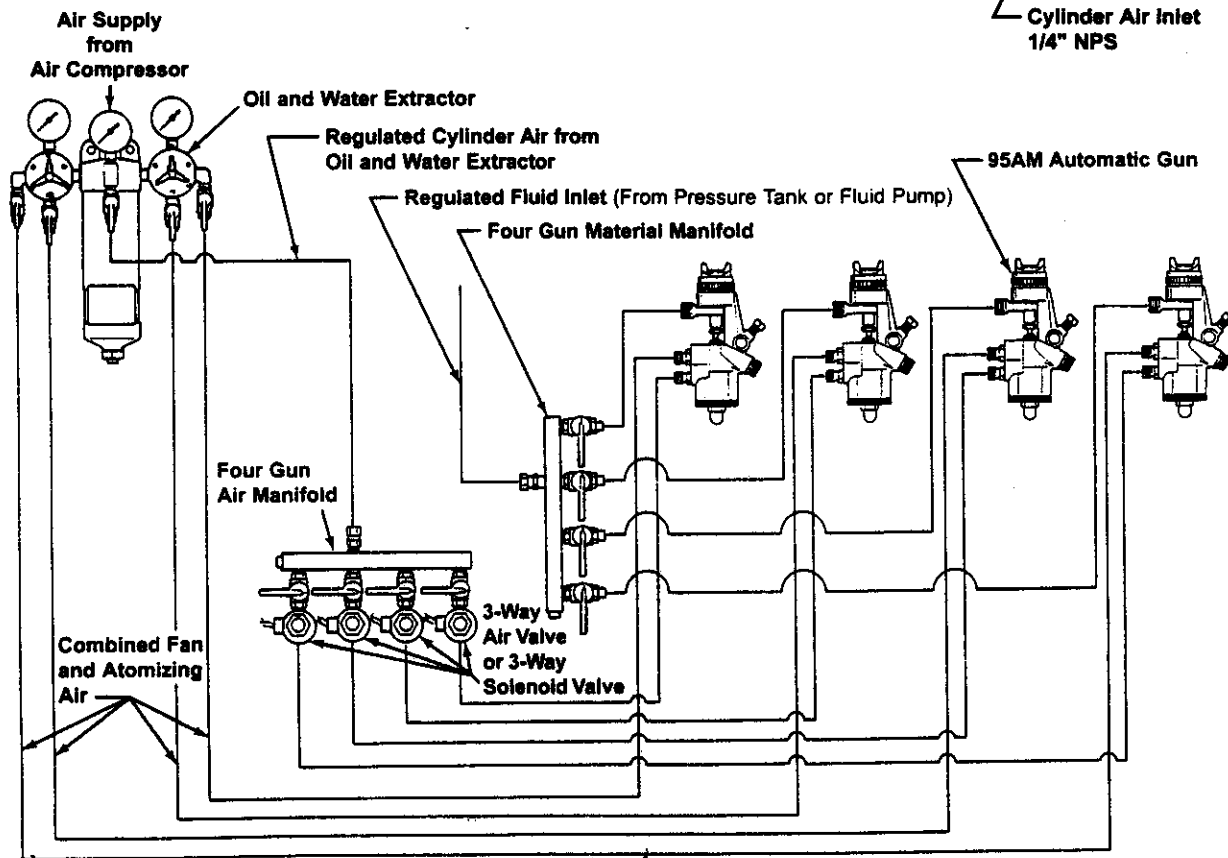
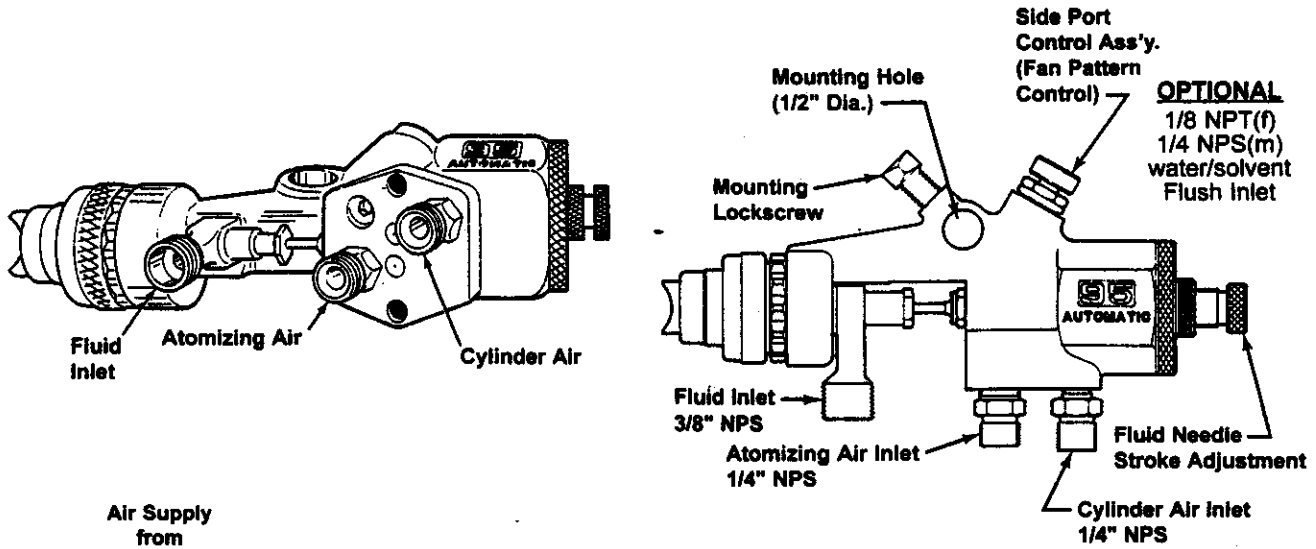


MANUFACTURING COMPANY

9201 Belmont Avenue, Franklin Park, Illinois 60131-2887

**Part Sheet
2661**

Binks MODEL 95AM AUTOMATIC SPRAY GUN
 Typical Arrangement Diagram and Hook-up



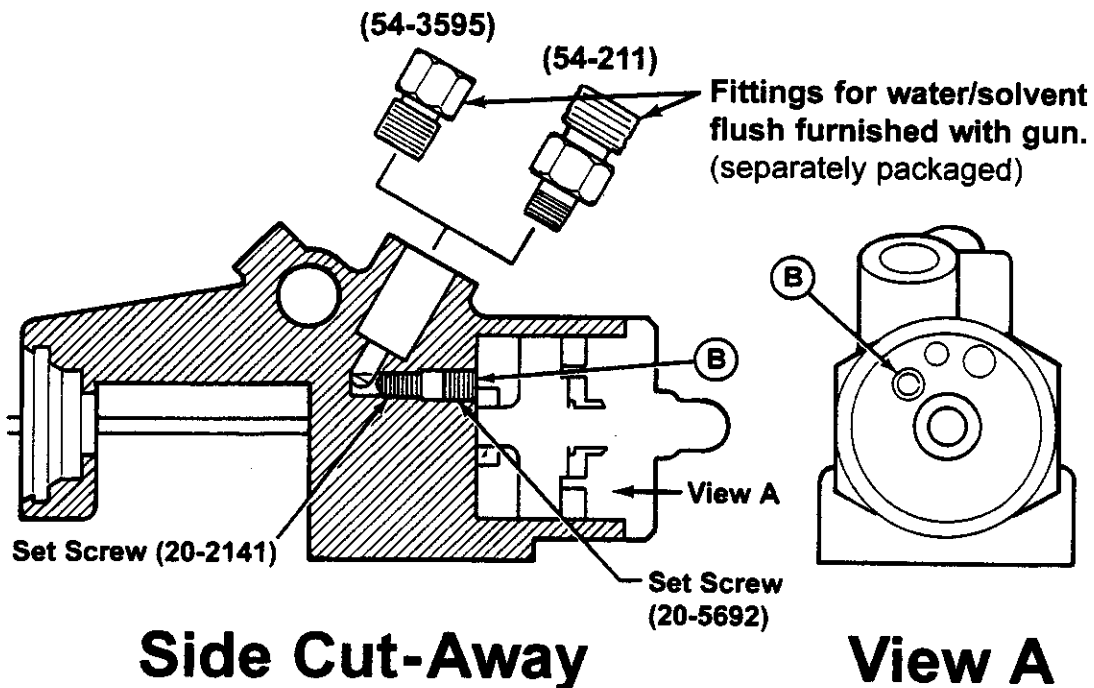
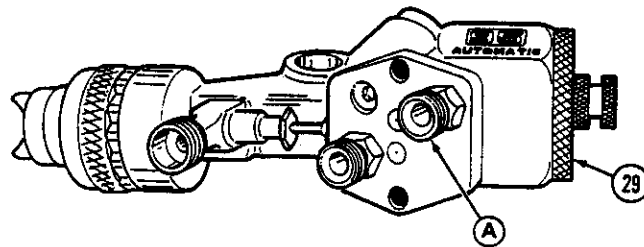
For some applications, each gun may require individually regulated fluid and air inlet lines.

GENERAL NOTES

1. Have at least 55-60 P.S.I. air pressure for cylinder's operating air.
2. To reduce overspray and obtain maximum efficiency, always spray with lowest possible fluid/air pressure that produces an acceptable spray pattern.
3. The air line from gun to 3-way Valve should be as short as possible for rapid operation.
4. All air used in the gun should be dirt and moisture free. (This is accomplished by using an oil and water extractor).
5. Shut off all fluid and air lines to gun if gun is to stand idle for any length of time. (This is to prevent "Build-up" or accumulation of minute leaks in the system and turning on the gun).

**TO CHANGE FROM COMBINED FAN AND ATOMIZING AIR
TO SEPARATE WATER / SOLVENT FLUSH AND ATOMIZING AIR**

1. Unscrew End Cap (29) with attached parts (30&31). Remove Springs (28&27) and unscrew and remove Needle Locking Nut (26) Needle Body (25) and O-Ring (24) from Needle (5) (See Ass'y dwg.on pg. 6).
 2. Remove Piston Ass'y (20) by applying a few pounds of air pressure to the Cylinder Air Port (A). The air pressure will cause the Piston to pop out. **CAUTION: When removing piston, aim the back of the gun in a safe direction and do not use excessive air pressure.**
 3. With a 5/32" Allen Wrench, remove Plug (20-5692) from hole (B) on inside of cylinder.
 4. Insert Set Screw (20-2141) into position as shown in SIDE CUT-AWAY. (Set Screw is packaged separately).
 5. Re-install Plug (20-5692).
 6. Re-install Piston Ass'y (20), Needle Body (25) with O-Ring (24), Needle Locking Nut (26), 2 Springs (27&28) and screw on End Cap (29) with attached parts (See Ass'y dwg. pg.6).
 7. Remove all parts of 54-3720 Side Port Control Ass'y (9).
 8. Install 54-3595, 1/2"-27(m) x 1/8"NPT Fitting or 54-211, 1/2"-27 x 1/4"NPS(m) Fitting to connect water or solvent flush line.
- NOTE:** When water/solvent Flush is not required, Side Port Control Spindle (10) should be fully open.



SETUP FOR SPRAYING

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" NPS(f) nut at the gun end. 1/4" diameter hose is recommended for use with low viscosity materials. (Fluid hoses of different composition are available for special fluids.)

IT IS RECOMMENDED THAT WATER/SOVENT FLUSH PORTS ARE UTILIZED TO OPERATE THE SPRAY GUN WITH MINIMUM CLEANING DURING IT'S OPERATION.

CONNECTING GUN TO ATOMIZING AIR

Gun should be connected by a suitable length of 5/16" or 3/8" diameter material hose fitted with a 1/4" NPS(f) connector at gun end.

CONNECTING GUN TO CYLINDER AIR

Gun should be connected with a 3/16" I.D. or 1/8" I.D. air hose of shortest length possible with a 1/4" NPS(f) connector.

OPERATING THE MODEL 95AM 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 insures correct material flow rate. If necessary, fluid flow can also be adjusted by adjusting the amount of needle travel. This is done by loosening Locknut (30) and adjusting Control Knob (31) until the correct needle travel is achieved.

ADJUSTING AIR AND FLUID TIMING

A 1/16" gap between the Air Piston Ass'y (20) and Needle Body (25) should be maintained (see Fig. 1). This will create needle motion that will allow adequate air flow before the fluid starts flowing. The gap may be adjusted by partially removing the Material Needle (5), screwing it either in or out of the Needle Body (25) and locking it back into the gun while being sure to check the clearance between the Air Valve Piston (20) and the Needle Body (25).

ADJUSTING THE SPRAY PATTERN WIDTH

The width of the spray pattern (stripe width) is controlled by varying the distance between the spray nozzle tip and the surface being sprayed. The amount of fluid sprayed can be adjusted thru the customer's fluid pressure regulator. The fan spray can be turned anywhere through 360° by positioning the Air Cap (2) relative to the gun. To effect this, loosen the Retaining Ring (1), position the Air Cap (2), then, retighten the Retaining Ring.

FAULTY SPRAY

Faulty spray is caused by dry residue of the fluid material accumulated around the fluid nozzle tip or inside the air nozzle. Soak these parts in a solvent that will soften the dry residue, then remove it with a brush or cloth. NEVER use metal probes to clean the air or fluid nozzles because they can scratch and burr the precision machined surfaces and cause faulty spray. If either the air or fluid nozzle is damaged so as to give faulty spray it must be replaced.

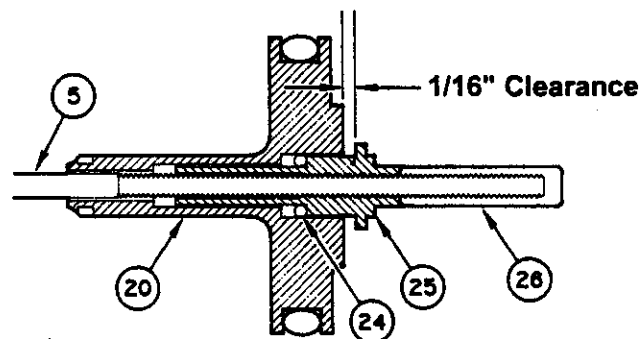


Fig. 1

MAINTENANCE

LUBRICATION

Monthly: Remove Piston Ass'y (20) and lubricate the air cylinder chamber and needle valve spring with a coating of petroleum jelly. Also, lubricate the Side Port Control Ass'y (9) with oil. **CAUTION:** Never use lubricants containing silicone since these lubricants can cause finish defects. Binks Gunners Mate (54-3871) is recommended.

TO REPLACE NEEDLE SEAL AND GLAND ADAPTER

To replace Needle Seal (37) and Gland Adapter (36), first unscrew End Cap (29) and 2 Springs (28&27). Unscrew and remove O-Ring (24), Needle Body (25) and Needle Locking Nut (26) from Needle (5). Next, go to the front of the gun and remove Retaining Ring (1), Air Nozzle (2) and fluid Nozzle (3). By slowly unscrewing counterclockwise, extract Needle (5) out the front of the Gun Body (7) so as to limit damage to O-Ring (43). Then, using Wrench (45), unscrew Head Insert (4) and remove Fluid Inlet (34 or 35). Unscrew Packing Nut (40) and remove Spring (39) and Seal Backup (38). Using a No. 110 x 1 1/4" coarse thread wood screw (Binks PART NO. 20-6536) or small sheet metal screw, remove the Needle Seal

(37) and Gland Adapter (36). Replace Needle Seal and Gland Adapter. Re-insert Seal Backup (38), Spring (39) and screw on Packing Nut (40) a couple of turns so it fits loosely by hand. Reassemble Fluid Inlet (35) to Gun Body (7) with Head Insert (4). Tighten Head Insert using Wrench (45). Slowly re-thread Needle (5) back into Gun Body (7) through Gland Assembly (42). Reassemble Fluid Nozzle (3), Air Nozzle (2) and Retaining Ring (1) to front of gun. reattach Needle Body (25), O-Ring (24) and Needle Locking Nut (26) to Needle. Reassemble 2 Springs (27&28), and End Cap (29) with attached Lock Nut (30) and Control Knob (31).

REMOVAL OF PISTON

CAUTION: When removing piston, aim the back of the gun in a safe direction and do not use excessive air pressure.

Unscrew End Cap (29) with attached parts (30&31). Remove Springs (28&27) and unscrew and remove Needle Locking Nut (26) Needle Body (25) and O-Ring (24) from Needle (5). Remove Piston Ass'y (20) by applying a few pounds of air pressure to the cylinder air inlet. The air pressure will cause the Piston to pop out.

CLEANING

In certain states it is now against the law to spray solvents containing Volatile Organic Compounds (VOC)'s into the atmosphere when cleaning a spray gun.

In order to comply with these new air quality laws, Binks recommends one of the following two methods to clean your spray finishing equipment.

1. Spray solvent in the gun into a closed system. An enclosed unit, or spray gun cleaning station, condenses solvent vapors back into liquid form which prevents escape of VOC's into the atmosphere.
2. Place spray gun in a washer type container. This system must totally enclose the spray gun, cups, nozzles, and other

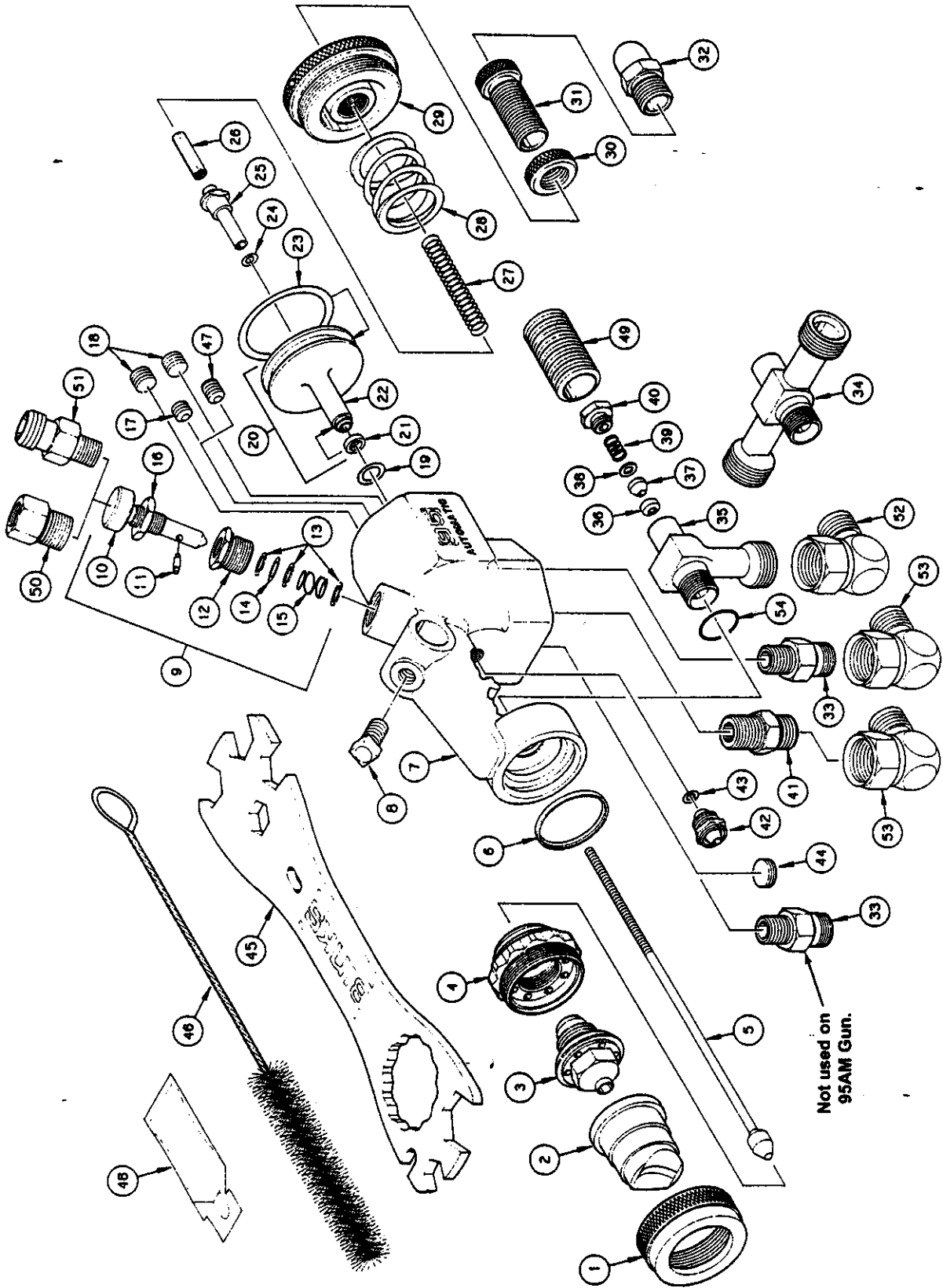
parts during washing, rinsing and draining cycles. This type of unit must be able to flush solvent through the gun without releasing any VOC vapors into the atmosphere.

Additionally, open containers for storage or disposal of solvent, or solvent-containing cloth or paper, used for surface preparation or clean-up may not be used. Containers shall be non-absorbent.

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.

MODEL 95AM AUTOMATIC AIRSPRAY GUN ASSEMBLY DRAWING



Not used on
95AM Gun.

PARTS LIST

(When ordering, please specify PART NO.)

ITEM NO.	PART NO.	DESCRIPTION	QTY.	ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	54-2065	RETAINER RING	1	32	54-3715□	FLUID NEEDLE COVER, Optional	1
2	*	AIR NOZZLE	1	33	71-28	DOUBLE MALE NIPPLE 1/8 NPT X 1/4 NPS	2
3	*	FLUID NOZZLE	1	34	54-4208◆	FLUID INLET Recirculating (Optional)	1
4	54-4215	HEAD INSERT	1	35	54-4210	FLUID INLET, Standard	1
5	47-75900	NEEDLE	7	36	54-4264▲●	GLAND ADAPTER	1
6	54-918▲●	SEALING RING	1	37	54-4265▲●	NEEDLE SEAL	1
7	54-4206	95 SERIES AUTO GUN BODY	1	38	54-4266▲●	SEAL BACKUP	1
8	20-1359	SQ. HD. BOLT, 5/16-18 X 3/4	1	39	54-4267▲●	SPRING	1
9	54-3720	SIDE PORT CONTROL ASS'Y	1	40	54-4263▲	PACKING NUT	1
10	54-3721	CONTROL SPINDLE	1	41	57-13	DOUBLE MALE NIPPLE, 1/4 NPT X 1/4 NPS	1
11	31-258	RETAINING PIN	1	42	54-3716	AIR VALVE GLAND ASS'Y	1
12	31-256	STUFFING BOX	1	43	20-3859▲	O-RING	1
13	31-259	INNER WASHER	3	44	20-2287■	PLUG, 1/8-27 NPT	1
14	20-3620▲	O-RING	1	45	54-4213	WRENCH	1
15	31-241	CONTROL SPRING	1	46	82-469	GUN BRUSH	1
16	54-4269	JAM NUT	1	47	20-2141	SET SCREW	1
17	20-5589	PLUG	1	48	54-3871	GUNNERS MATE	1
18	20-5692	PLUG, 1/16-20 NPT	2	49	54-4270	FLUID NEEDLE COVER	1
19	20-5286▲	O-RING	1	50	54-3595	ADAPTER 1/2-27(f) X 1/8 NPT	1
20	54-3706	PISTON ASSEMBLY	1	51	54-211	D.M. NIPPLE 1/2-27(m) X 1/4 NPS(m)	1
21	54-3729▲	SEAL	1	52	73-24◆	90° S. S. CONNECTOR 3/8 NPS(m) X 3/8 NPS(f)	1
22	54-3722	PISTON	1	53	73-12◆	90° CONNECTOR 1/4 NPS(m) X 1/4 NPS(f)	2
23	20-4511▲	O-RING	1	54	54-3592	BRASS GASKET	1
24	20-3515▲	O-RING	1				
25	54-3713	NEEDLE BODY	1				
26	54-3709	NEEDLE LOCKING NUT	1				
27	54-3719	SPRING, Needle Return	1				
28	54-1876	SPRING, Piston Return	1				
29	54-3708	END CAP	1				
30	54-3732	LOCK NUT	1				
31	54-3731	CONTROL KNOB	2				

* See Fluid Nozzle and Air Cap Selection Charts on pgs.8&9.

▲ Part of 54-3579 Repair Kit (Fluid Inlet, Nozzle and Piston Seal Kit).

● Part of 54-4225 Repair Kit (Fluid Inlet & Fluid Nozzle Packing Kit).

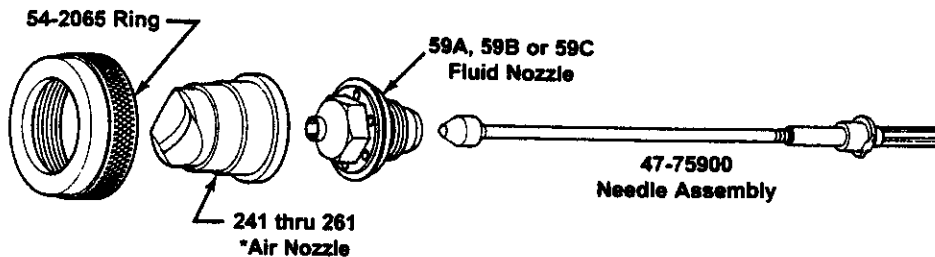
■ Part of Gun Body Assembly, Item 7.

◆ Optional Fittings not furnished with the spray gun.

□ Item 32 is for Installations that need to be tamper-proof. It allows the gun needle to fully open when triggered.

NOTE: Items 47, 50 and 51 are for water/solvent flush (See pg.4 for details) and are packaged loose.

INTERNAL MIX HEAVY MATERIAL NOZZLES



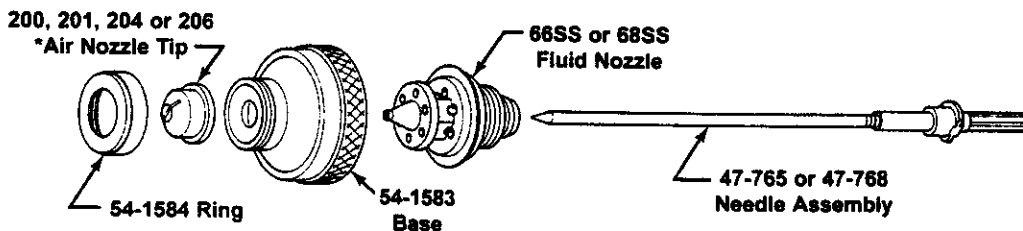
NOZZLE SELECTION CHART

FLUID NOZZLE			AIR NOZZLE					NEEDLE (Ass'y No.)	
NUMBER (Part No.)	ORIFICE (Typical Application)	APPROX. CAPACITY GPM	NUMBER (Part No.)	SPRAY	WIDTH	DISTANCE FROM SURFACE	CFM REQUIRED AT 80 LBS. PRESSURE		
59ASS (45-5911)	0.171 in. 4.34 mm. (WALKING STRIPER)	2.5	241 (46-2241)	FAN	17 in.	12 in.	6	759 (47-75900)	
			242 (46-2242)	FAN	5 in.	6 in.	6		
			243 (46-2243)	ROUND					10
			244 (46-2244)	FAN	16 in.	12 in.	11.5		
			245 (46-2245)	FAN	6 in.	6 in.	11.5		
59BSS (45-5912)	0.218 in. 5.54 mm. (TRUCK MOUNTED)	3.0	250 (46-2250)	ROUND			11	759 (47-75900)	
			251 (46-2251)	FAN	16 in.	12 in.	11.5		
			252 (46-2252)	FAN	5 in.	6 in.	11.5		
59CSS (45-5913)	0.281 in. 7.14 mm. (TRUCK MOUNTED)	3.5	■160 (46-2160)	ROUND			11	759 (47-75900)	
			261 (46-2261)	FAN	17 in.	12 in.	11.5		
			■162 (46-2162)	FAN	5 in.	6 in.	11.5		

Order Ring, Air Nozzle, Fluid Nozzle and Fluid Needle separately.

■ Tungsten Carbide Air Nozzle Assembly.

* Nitralloy hardened steel tips-corrosion resistant.



NOZZLE SELECTION CHART

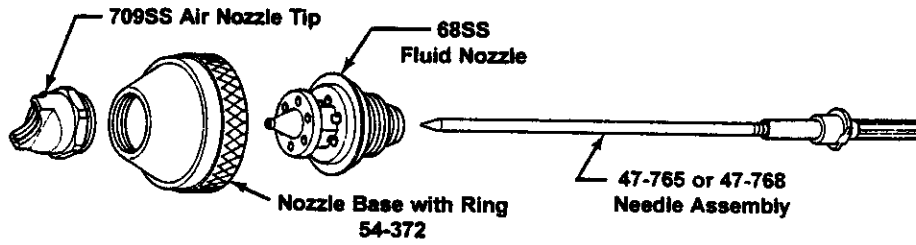
FLUID NOZZLE ORIFICE (Part No.)	AIR NOZZLE TIP (Part No.)	AIR FLOW (CFM) AT 50 PSIG	MAX. PATTERN AT 8 INCHES	SHAPE OF SPRAY	NEEDLE ASS'Y NUMBER
66SS (45-6601) .070 in. (1.78 mm)	200 (46-2200)	9.8	15 in.	FAN	47-765
68SS (45-6801) .110 in. (2.8 mm)	201 (46-2201) ■	6.8	11 in.	FAN	47-768
66SS (45-6601) .070 in. (.178 mm)	204 (46-2204)	5.5	9 in.	FAN	47-765
68SS (45-6801) .110 in. (2.8 mm)	206 (46-2206)	9.8	15 in.	FAN	47-768

Order Ring, Air Nozzle, Base, Fluid Nozzle and Fluid Needle separately.

■ Available also in Tungsten Carbide #101 Air Nozzle (46-2101).

* Nitralloy hardened steel tips-corrosion resistant.

INTERNAL MIX HEAVY MATERIAL NOZZLES



NOZZLE SELECTION CHART

FLUID NOZZLE (Part No.)	ORIFICE SIZE	AIR NOZZLE TIP (Part No.)	APPROX. CFM @ 50 PSI	FAN SIZE @ 6" DIST.	NEEDLE ASSEMBLY	SHAPE OF SPRAY
68 SS	.110 (2.8mm)	709 SS (46-2020)	8	6"	(768) 47-768	FAN

TROUBLESHOOTING

FAULTY SPRAY

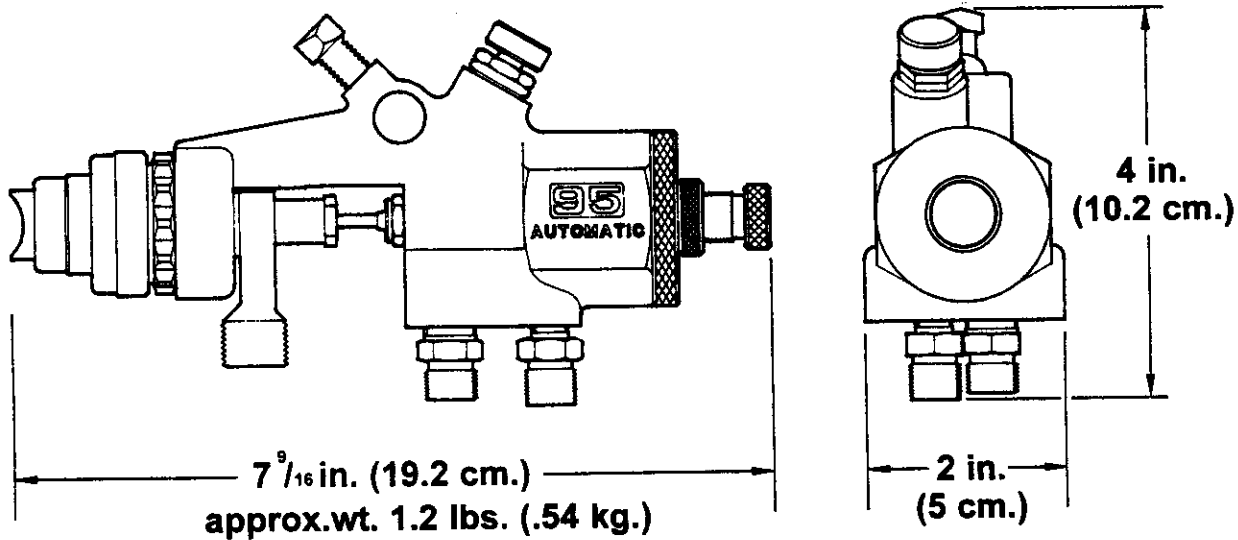
A faulty spray may be caused by improper cleaning, dried materials around the fluid nozzle tip or in the air cap. Soak these parts in thinners that will soften the dried material and remove with a brush or cloth. NEVER USE METAL INSTRUMENTS TO CLEAN THE AIR OR FLUID NOZZLES. THESE PARTS ARE CAREFULLY MACHINED AND ANY DAMAGE TO THEM WILL CAUSE FAULTY SPRAY. If either the Air Cap (2) or Fluid Nozzle (3) 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 (3). Tighten, but without using undue force.
3. Leakage at Gland Adapter (36) and Needle Seal (37). Tighten Packing Nut (40) if loose, and replace Gland Adapter and Needle Seal if necessary.
4. Fluid connection insufficiently tight or dirt on cone faces of connection. Correct as necessary.
5. Leaking Cylinder Air and/or inadequate pressure.

GUN DIMENSIONS



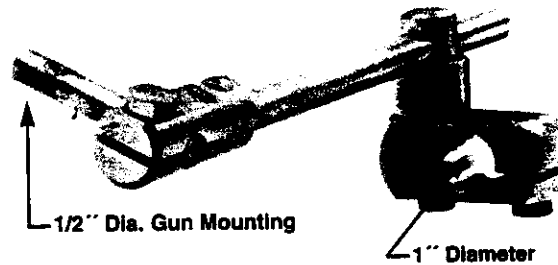
ACCESSORIES (Optional)

MOUNTING BRACKETS

Use for automatic guns. Adjustable to any position. 18" bracket arm. One inch diameter bracket clamp hole for attachment to facility hardware.

54-380 Steel Bracket for automatic guns.
Shpg. wt. 5 lbs.

54-551 Aluminum Bracket for automatic guns.
Shpg. wt. 3 lbs. Part Sheet 1185.



GUN COVER ASSEMBLY

54-3691 Use over the 95A, 95AR and 95AM Automatic Spray Guns to protect them from overspray. Drawing at right shows gun cover with 95A Automatic Spray Gun.
(Package of 20 covers).

