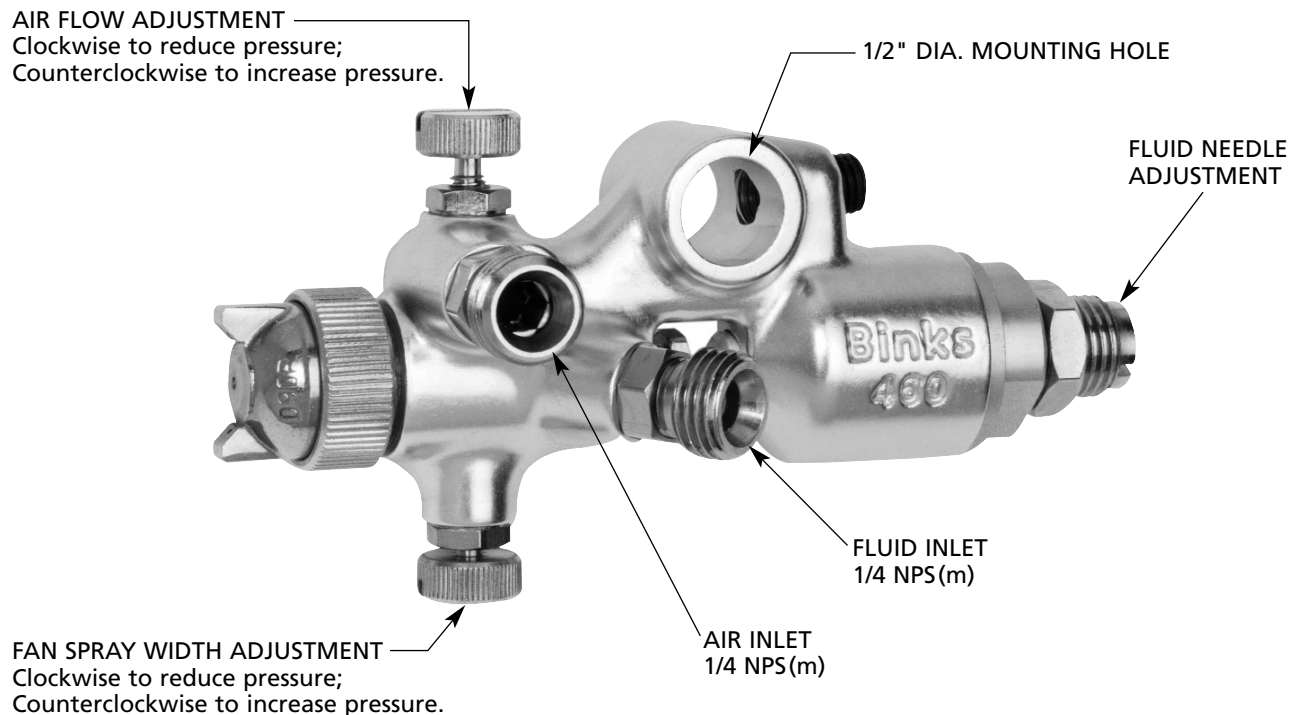




# Binks Model 460 LIGHTWEIGHT AUTOMATIC SPRAY GUN



## DESCRIPTION

The Binks 460 Automatic Spray Gun is a small precision gun designed with accuracy in mind, for ease of fitting to existing automatic and semi-automatic machine. Its compact dimensions also enable the gun to be installed neatly and at close quarters, where the standard range of automatics cannot be accommodated.

## FEATURES

- Aluminum alloy body with brass air nozzle.
- Stainless steel needle valve and springs.
- Both gun operation and spray variation is controlled from a single air supply.
- Control valves for atomization fan and air flow.
- No lag, instant piston controlled "on and off".
- A range of fluid nozzles for applying many liquid coatings.

## GUN ASSEMBLY ORDERING INFORMATION

### 6401-1800-5

460 Gun J920SS-J92P with .020" Fluid Nozzle

### 6401-1900-5

460 Gun J930SS-J92P with .030" Fluid Nozzle

### 6401-2000-5

460 Gun J940SS-J92P with .040" Fluid Nozzle

### 6401-2100-8

460 Gun K960SS-K92P with .060" Fluid Nozzle

## SPECIFICATIONS:

**Max Air Pressure:** 100 PSI/6.8 Bar

**Min Air Pressure:** 50PSI/3.4 Bar

**Max Fluid Pressure:** 100 PSI/6.8 Bar

**Air Volume Requirements:** 20 SCFM Max

**Gun Body:** Aluminum Forging

**Fluid Path:** Stainless Steel

**Fluid Inlet:** 1/4" NPS (M)

**Air Inlet:** 1/4" NPS (M)

**Gun Weight:** .43 Ibs/.2kg

**Gun Mounting Hole:** 1/2" Dia.

Replaces  
Part Sheet  
77-2019R-2

Part  
Sheet  
77-2019R-3

In this part sheet, the words **WARNING**, **CAUTION** and **NOTE** are used to emphasize important safety information as follows:

**⚠ WARNING**  
 Hazards or unsafe practices which could result in severe personal injury, death or substantial property damage.

**⚠ CAUTION**  
 Hazards or unsafe practices which could result in minor personal injury, product or property damage.

**NOTE**  
 Important installation, operation or maintenance information.

**⚠ WARNING**

Read the following warnings before using this equipment.



**READ THE MANUAL**  
 Before operating finishing equipment, read and understand all safety, operation and maintenance information provided in the operation manual.



**WEAR SAFETY GLASSES**  
 Failure to wear safety glasses with side shields could result in serious eye injury or blindness.



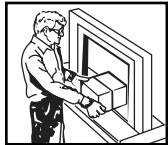
**DE-ENERGIZE, DEPRESSURIZE, DISCONNECT AND LOCK OUT ALL POWER SOURCES DURING MAINTENANCE**  
 Failure to De-energize, disconnect and lock out all power supplies before performing equipment maintenance could cause serious injury or death.



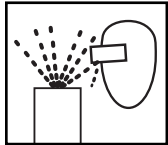
**OPERATOR TRAINING**  
 All personnel must be trained before operating finishing equipment.



**EQUIPMENT MISUSE HAZARD**  
 Equipment misuse can cause the equipment to rupture, malfunction, or start unexpectedly and result in serious injury.



**KEEP EQUIPMENT GUARDS IN PLACE**  
 Do not operate the equipment if the safety devices have been removed.



**PROJECTILE HAZARD**  
 You may be injured by venting liquids or gases that are released under pressure, or flying debris.



**PINCH POINT HAZARD**  
 Moving parts can crush and cut. Pinch points are basically any areas where there are moving parts.



**AUTOMATIC EQUIPMENT**  
 Automatic equipment may start suddenly without warning.



**INSPECT THE EQUIPMENT DAILY**  
 Inspect the equipment for worn or broken parts on a daily basis. Do not operate the equipment if you are uncertain about its condition.



**NEVER MODIFY THE EQUIPMENT**  
 Do not modify the equipment unless the manufacturer provides written approval.



**KNOW WHERE AND HOW TO SHUT OFF THE EQUIPMENT IN CASE OF AN EMERGENCY**



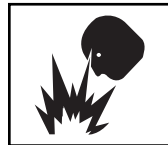
**PRESSURE RELIEF PROCEDURE**  
 Always follow the pressure relief procedure in the equipment instruction manual.



**NOISE HAZARD**  
 You may be injured by loud noise. Hearing protection may be required when using this equipment.



**STATIC CHARGE**  
 Fluid may develop a static charge that must be dissipated through proper grounding of the equipment, objects to be sprayed and all other electrically conductive objects in the dispensing area. Improper grounding or sparks can cause a hazardous condition and result in fire, explosion or electric shock and other serious injury.



**FIRE AND EXPLOSION HAZARD**  
 Never use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents in equipment with aluminum wetted parts. Such use could result in a serious chemical reaction, with the possibility of explosion. Consult your fluid suppliers to ensure that the fluids being used are compatible with aluminum parts.



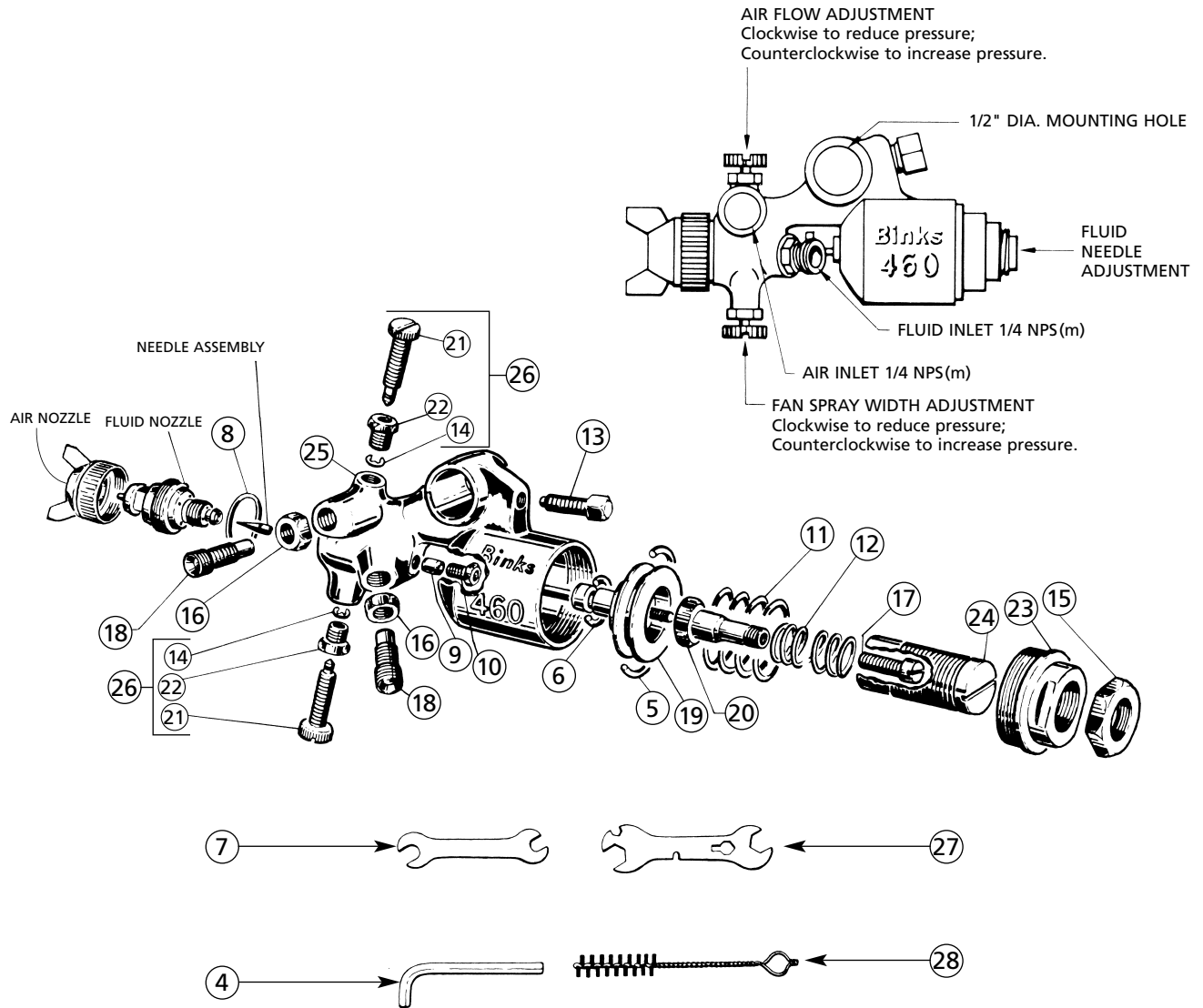
**TOXIC FLUID & FUMES**  
 Hazardous fluid or toxic fumes can cause serious injury or death if splashed in the eyes or on the skin, inhaled, injected or swallowed. LEARN and KNOW the specific hazards of the fluids you are using.



**WEAR RESPIRATOR**  
 Toxic fumes can cause serious injury or death if inhaled. Wear a respirator as recommended by the fluid and solvent manufacturer's Material Safety Data Sheet.

**FOR FURTHER SAFETY INFORMATION REGARDING BINKS AND DEVILBISS EQUIPMENT, SEE THE GENERAL EQUIPMENT SAFETY BOOKLET (77-5300).**

## Binks MODEL 460 LIGHTWEIGHT AUTOMATIC SPRAY GUN



### PARTS LIST

When ordering, please specify Part No.

ITEM NO.	PART NO.	DESCRIPTION	QTY.	ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	—	AIR NOZZLE .....	1	15	54-2868	LOCKNUT .....	1
2	—	FLUID NOZZLE .....	1	16	54-2869	LOCKNUT .....	2
3	—	NEEDLE ASSEMBLY .....	1	17	54-2870	SCREW .....	1
4	20-1941	WRENCH .....	1	18	54-2871	CONNECTOR .....	2
5	20-2111	O-RING .....	1	19	54-2872	PISTON .....	1
6	20-3236	O-RING .....	1	20	54-2873	SPIGOT .....	1
7	54-1959	SPANNER WRENCH .....	1	21	54-2874	SCREW .....	2
8	54-2209	GASKET .....	1	22	54-2875	BUSHING .....	2
9	54-2292	PACKING .....	1	23	54-2876	COVER .....	1
10	54-2294	SCREW .....	1	24	54-2877	SCREW .....	1
11	54-2860	SPRING .....	1	25	54-2878	BODY .....	1
12	54-2861	SPRING .....	1	26	54-2879	SIDE PORT CONTROL.....	2
13	54-2864	SCREW .....	1	27	54-2880	SPANNER WRENCH .....	1
14	54-2865	CIRCLIP .....	2	28	82-221	GUN BRUSH .....	1

## INSTALLATION, OPERATION & MAINTENANCE

### GUN MOUNTING

A hexagon screw (13) will secure the spray gun to the 54-380 gun mounting rod. For special mountings, a 1/2" dia. rod will fit the hole in the top of the gun body.

### HOSE LENGTH

Install minimum hose length from valve to gun to minimize time required for "off-on" response of gun.

### CONNECTIONS

The air connection and fluid connection are both 1/4 NPS. The air connection is stamped "a".

### AIR SUPPLY

Since the gun has its own control, atomizing air may be taken directly from the main line. However, if regulated air is used, 50 PSI minimum is required to actuate gun fluid valve piston. When rapid "off-on" operation is required, use a 3-way valve which exhausts to atmosphere, in place of a 2-way valve.

### SPRAY PATTERN

The width of spray pattern is controlled by the control assembly (26). Vertical or horizontal position of the spray is obtained by rotating the air nozzle.

### ATOMIZATION

Air volume to the nozzle is controlled by the control assembly (26) located adjacent to the air inlet connection.

### FLUID CONTROL

The rate of fluid flow is controlled by a combination of the selection of the correct nozzle orifice size and adjustment of fluid pressure. The maximum fluid flow rate is approximately 8 fluid ounces per minute. Fine adjustment of the fluid flow can be obtained by controlling the travel of the needle valve. Clockwise rotation of the screw (24) decreases the needle travel and counterclockwise rotation increases the travel. The locknut (15) is used to lock the screw (24) after adjustment.

### FAULTY SPRAY

Caused by improper cleaning, or dried fluid on nozzle tip or in the air nozzle. Soak these parts in solvent to soften the dried fluid and remove with a brush or cloth.

### ▲ CAUTION

**Never use metal instruments to clean air or fluid nozzles. These parts are carefully machined and any damage to them will cause a faulty spray.**

If either air nozzle or fluid nozzle is damaged, the part must be replaced before a perfect spray can be obtained.

### SPITTING

To eliminate spitting and dripping, turn on atomizing air before turning on fluid.

### NEEDLE ADJUSTMENT

The correct setting is to allow approximately 1/16" piston travel before contacting NEEDLE. Adjustment is made by loosening the screw (17) on rear of needle and rotating the spring guide (20) either forward to reduce or back to increase clearance.

### AIR LEAKAGE INTO AIR CYLINDER VENT

Remove piston (19) and inspect for dirt or damage to large o-ring (5). Clean piston and cylinder. Replace o-ring if necessary. Lubricate with white petroleum jelly.

### AIR LEAKAGE AT FLUID NEEDLE

Remove piston (19) and inspect for dirt or damage to small o-ring (6). Replace if necessary.

### FLUID LEAKAGE AT PACKING GLAND

Tighten screw (10) and slightly "back-off" screw to set packing. If leakage continues, replace packing.

### CLEANING THE GUN

Under no circumstances should the complete gun be immersed in thinners or solvents.

## Binks MODEL 460 GUN FLUID NOZZLE, NEEDLE & AIR CAP SELECTION CHART

Fluid Nozzle	Orifice Size	Fluid Needle	Air Nozzle	Approx. Air Consumption SCFM with Specific Dynamic Air Pressure (PSI) at air cap			Type of Spray Pattern	*Max. Spray Pattern Size @ 5" Distance
				30 PSI	50 PSI	70 PSI		
J920SS (PN 45-84)	.020" (.5 mm)	940 (PN 47-454)	J92P (PN 46-131)	6.4	8.5	10.5	ELLIPSE / STRAIGHT SIDES	6"
J930SS (PN 45-85)	.030" (.75 mm)	940 (PN 47-454)	J92P (PN 46-131)	6.4	8.5	10.5	ELLIPSE / STRAIGHT SIDES	7.5"
J940SS (PN 45-86)	.040" (1.0 mm)	940 (PN 47-454)	J92P (PN 46-131)	6.4	8.5	10.5	ELLIPSE / STRAIGHT SIDES	8"
J940SS (PN 45-86)	.040" (1.0 mm)	940 (PN 47-454)	J92R (PN 46-126)	4	6	8	ROUND	2"
K960SS (PN 45-87)	.060" (1.5 mm)	960 (PN 47-455)	K92P (PN 46-134)	7.2	10.6	14	ELLIPSE / STRAIGHT SIDES	9.5"

\*Spray pattern for reference only. Pattern size will vary slightly with flow and viscosity of the materials.

### ITW Industrial Finishing

Binks has authorized distributors throughout the world. For technical assistance or the distributor nearest you, see listing below.

#### U.S./Canada Technical Service Office:

195 Internationale Blvd., Glendale Heights, IL 60139  
Toll-Free Telephone: 1-888-992-4657 (U.S.A. and Canada only)  
Toll-Free Fax: 1-888-246-5732

### Binks Worldwide Sales and Service Listing: [www.binks.com](http://www.binks.com)

#### WARRANTY

This product is covered by Binks' 1 Year Limited Warranty.

77-2019R-3 Revisions: Updated all information.



An Illinois Tool Works Company