

Operating Instructions For Binks Spray Guns

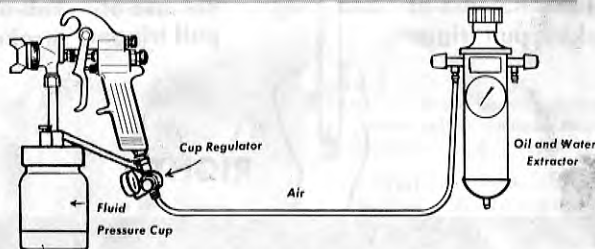
Your new Binks Spray Gun is exceptionally rugged in construction, and is built to stand up under hard, continuous use. However, like any other fine precision instrument, its most efficient operation depends on a knowledge of its construction, operation and maintenance. Properly handled and cared for, it will produce beautiful, uniform finishing results long after most other spray guns have worn out.



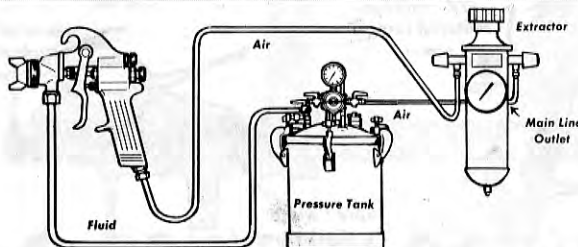
Parts
Sheet 1155R



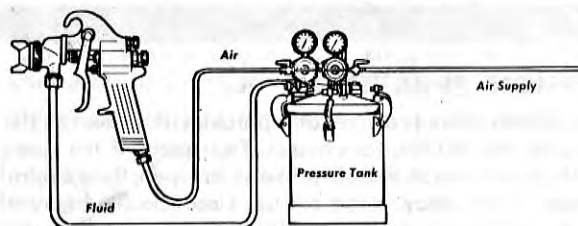
SIPHON FEED HOOKUP



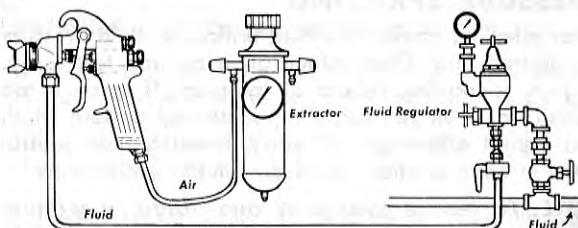
PRESSURE FEED CUP HOOKUP



PRESSURE FEED TANK HOOKUP



PRESSURE FEED TANK HOOKUP



PRESSURE FEED CIRCULATING SYSTEM HOOKUP

1. INSTALLATIONS

SIPHON FEED HOOKUP

For limited spraying and touch-up.

Atomization air is regulated at extractor. Amount of fluid and atomization is adjusted by fluid control screw on gun, consistency of paint and air pressure.

PRESSURE FEED CUP HOOKUP

Atomization air is regulated at extractor. Fluid pressure at cup regulator. Atomization air passes through cup regulator. This method is ideal for fine finishing with limited spraying.

Pressure cup also available less cup regulator. Fluid pressure equal to atomization pressure. For heavy fluids and internal mix nozzle spraying, fluid adjusted by control screw on gun.

PRESSURE FEED TANK HOOKUP

(Single regulator)

Atomization air is regulated at extractor. Fluid pressure at tank regulator. This system is ideal for medium production spraying.

PRESSURE FEED TANK HOOKUP

(Double regulator)

Atomization air and fluid pressure is regulated by two individual air regulators on tank. This is proven highly efficient for portable painting operations.

PRESSURE FEED CIRCULATING SYSTEM HOOKUP

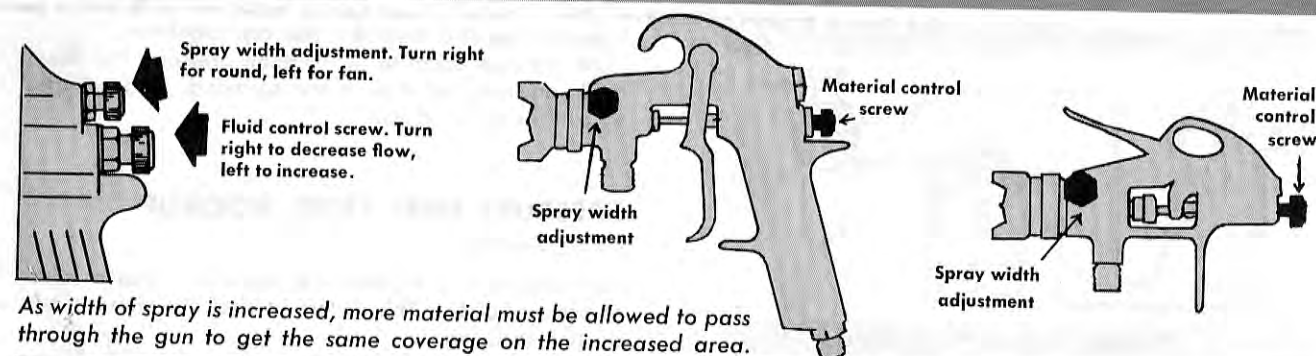
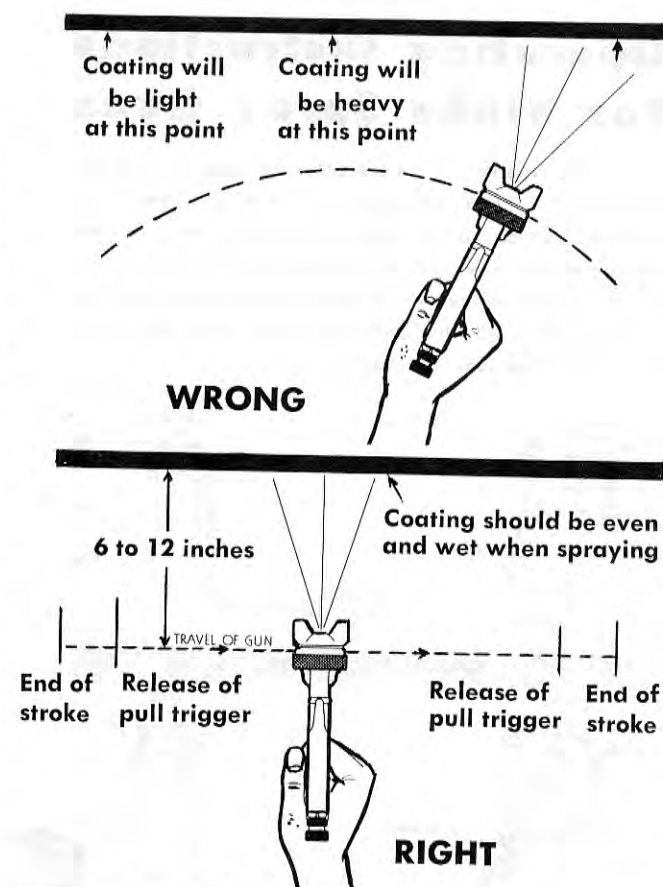
Atomization air regulated at extractor. Fluid pressure regulated at fluid regulator. Recommended for heavy production spraying.

INITIALLY—Always prepare paint to be sprayed in accordance with *Manufacturer's Instructions*. Material should always be strained first.

Binks Manufacturing Co.

2. USE OF GUN

The first requirement for a good resultant finish is the proper handling of the gun. The gun should be held perpendicular to the surface being covered, and moved in even strokes parallel with it. The stroke should be started before the trigger is pulled and released before the stroke is finished. This is easy and gives accurate control of the gun and material. The distance the gun is held from the surface being covered is determined by the material and atomizing pressure, and will vary from 6 to 12 inches, but the material deposited should always be even and wet. Lap each stroke over the preceding stroke to obtain a uniform finish.



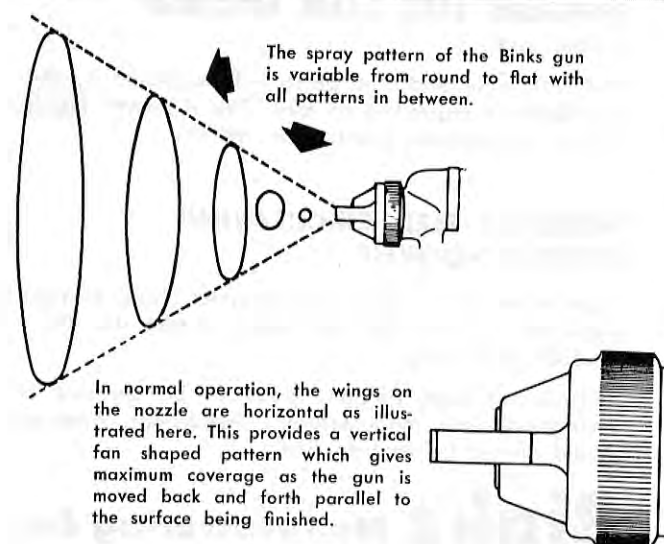
SIPHON SPRAYING

Set atomization pressure at approximately 50 lbs. for lacquer and 60 lbs. for enamel. Test spray. If the spray is too fine, reduce the air pressure or open fluid control screw. If the spray is too coarse, close the fluid control screw. Adjust the pattern width and repeat adjustment of spray if necessary.

PRESSURE SPRAYING

After selecting correct size fluid orifice, set fluid pressure for desired flow. Open atomization air and test spray. If spray is too fine reduce air pressure. If spray is too coarse, raise air pressure. Adjust desired pattern width and repeat adjustment of spray. Keeping fluid control screw in open position will reduce fluid needle wear.

NOTE: To reduce overspray and obtain maximum efficiency always spray with the lowest possible atomization air pressure.



3. FAULTY PATTERNS and how to correct them

PATTERN	CAUSE	CORRECTION
	Dried material in side-port "A" restricts passage of air through it. Result: Full pressure of air from clean side-port forces fan pattern in direction of clogged side.	Dissolve material in side-port with thinner. Do not poke in any of the openings with metal instruments.
	Dried material around the outside of the fluid nozzle tip at position "B" restricts the passage of atomizing air at one point through the center opening of air nozzle and results in pattern shown. This pattern can also be caused by loose air nozzle.	If dried material is causing the trouble, remove air nozzle and wipe off fluid tip, using rag wet with thinner. Tighten air nozzle.
	A split spray or one that is heavy on each end of a fan pattern and weak in the middle is usually caused by (1) too high an atomization air pressure, or (2) by attempting to get too wide a spray with thin material.	Reducing air pressure will correct cause (1). To correct cause (2) open material control to full position by turning to left. At the same time turn spray width adjustment to right. This will reduce width of spray but will correct split spray pattern.
	(1) Dried out packing around material needle valve permits air to get into fluid passageway. This results in spitting. (2) Dirt between fluid nozzle seat and body or a loosely installed fluid nozzle will make gun spit. (3) A loose or defective swivel nut on siphon cup or material hose can cause spitting.	To correct cause (1) back up knurled nut (E), place two drops of machine oil on packing, replace nut and tighten with fingers only. In aggravated cases, replace packing. To correct cause (2), remove fluid nozzle (F), clean back of nozzle and nozzle seat in gun body using rag wet with thinner, replace nozzle and draw up tightly against body. To correct cause (3) tighten or replace swivel nut (G).

4. POINTERS ON CLEANING

When used with a cup, thinner or suitable solvent should be siphoned through gun by inserting tube in open container of that liquid. Move trigger constantly to thoroughly flush passageway and to clean tip of needle.

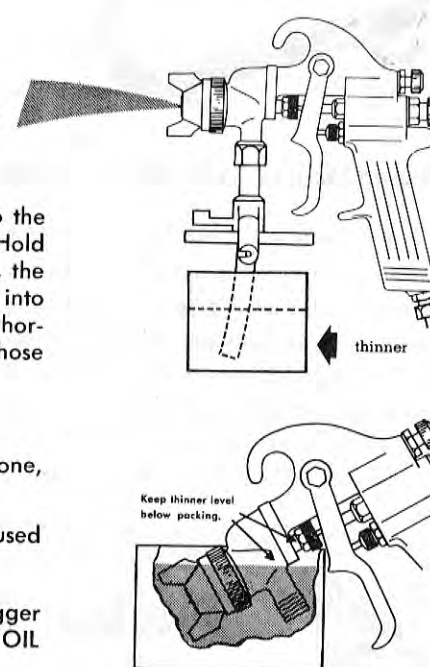
CLEANING GUN USED WITH PRESSURE TANK—Shut off the air supply to the tank and release the pressure on the tank. Open vent and loosen air nozzle. Hold a piece of cloth, wadded in the hand over the air nozzle and pull the trigger, the air will back up through the fluid nozzle, and force the fluid out of the hose into the tank. Next put enough thinner into the tank to wash the hose and gun thoroughly and spray this through the gun until it is clean. Then blow out the fluid hose to dry it and remove all traces of materials by attaching it to the air line.

THINNER—Keep thinner level below packing.

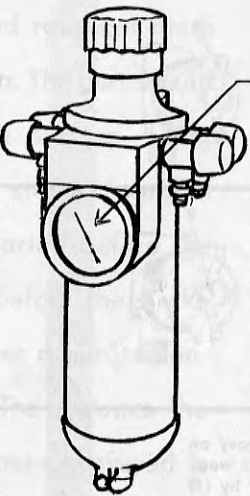
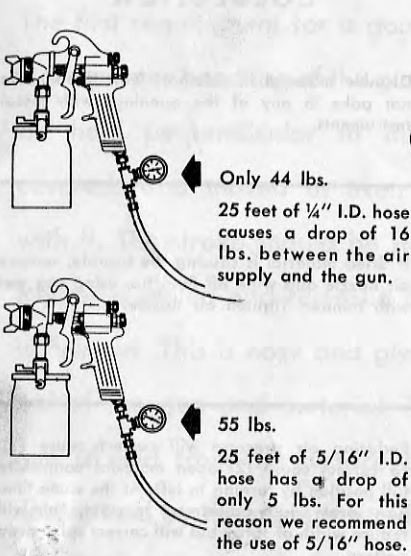
It is extremely poor practice to place an entire gun in thinner. When this is done, the solvent dissolves the oil in the leather packing and causes the gun to spit.

It is good practice to place the nozzle and fluid connection in thinner. Vessel used should be shallow enough to prevent thinner from reaching packing.

LUBRICATION—Daily oil fluid needle packing, air valve packing, and trigger bearing screw. Occasionally coat needle valve spring with petroleum jelly. OIL ALL WORKING PARTS EVERY DAY.



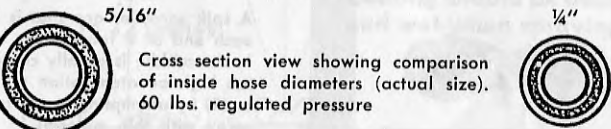
5. AIR PRESSURE



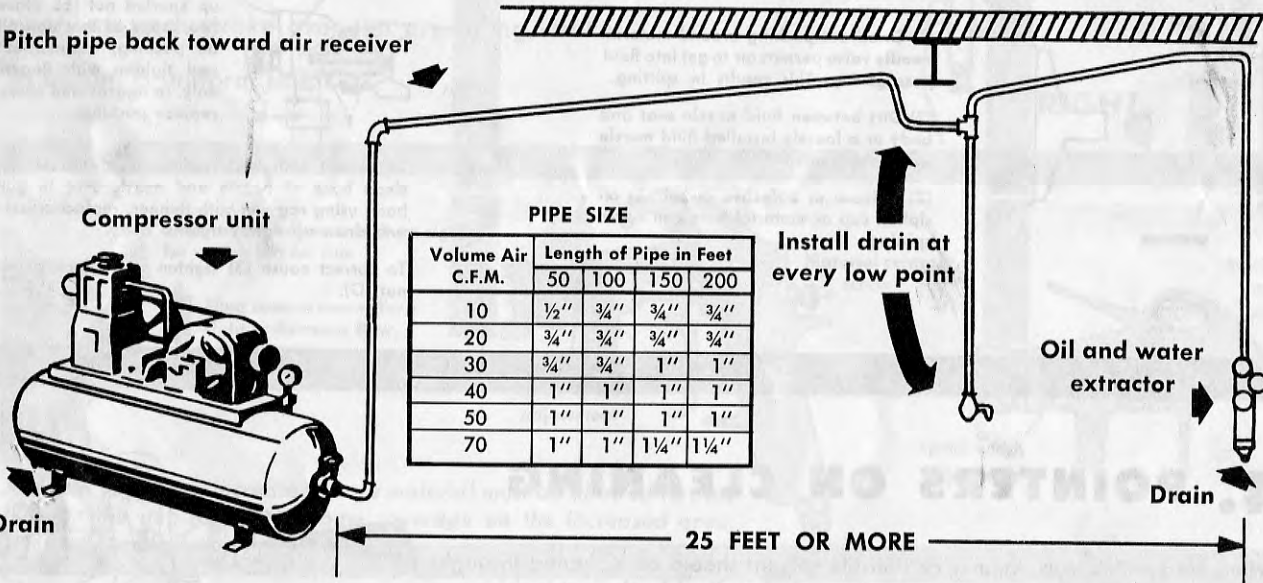
Atomizing pressure must be set to allow for the drop in air pressure between the regulator and the spray gun.

Binks oil and water extractor is important

A Binks Extractor serves a double purpose. It eliminates blistering and spotting by keeping air free from oil and water . . . and its precision air regulator makes possible perfect air pressure control at the gun.
The best spray gun in the world will not operate efficiently without a good compressor and a good oil and water extractor. If you are attempting to get a fine finish without the use of an oil and water extractor you will not succeed.
See below for instructions regarding installation of extractors.



Pitch pipe back toward air receiver



Volume Air C.F.M.	PIPE SIZE			
	50	100	150	200
10	1/2"	3/4"	3/4"	3/4"
20	3/4"	3/4"	3/4"	3/4"
30	3/4"	3/4"	1"	1"
40	1"	1"	1"	1"
50	1"	1"	1"	1"
70	1"	1"	1 1/4"	1 1/4"


Oil and Water Extractor should be at least 25 ft. from the compressor. Further if possible.

It is extremely poor practice to mount the oil and water extractor on or even near the compressor unit. The temperature of the air is greatly increased as it passes through the compressor and this compressed air must be cooled before the moisture in it will condense. If the air from the compressor is still warm when it passes through the oil and water extractor, moisture will not be effectively removed, but will remain in suspension. Then, when the air

cools in the hose beyond the extractor, the moisture will condense into drops of water and cause trouble.

Air lines must be properly drained

Pitch all air lines back towards the compressor so that condensed moisture will flow back into the air receiver where it can be removed by opening a drain. Every low point on an air line acts as a water trap. Such points should be fitted with an easily accessible drain. See diagram above.

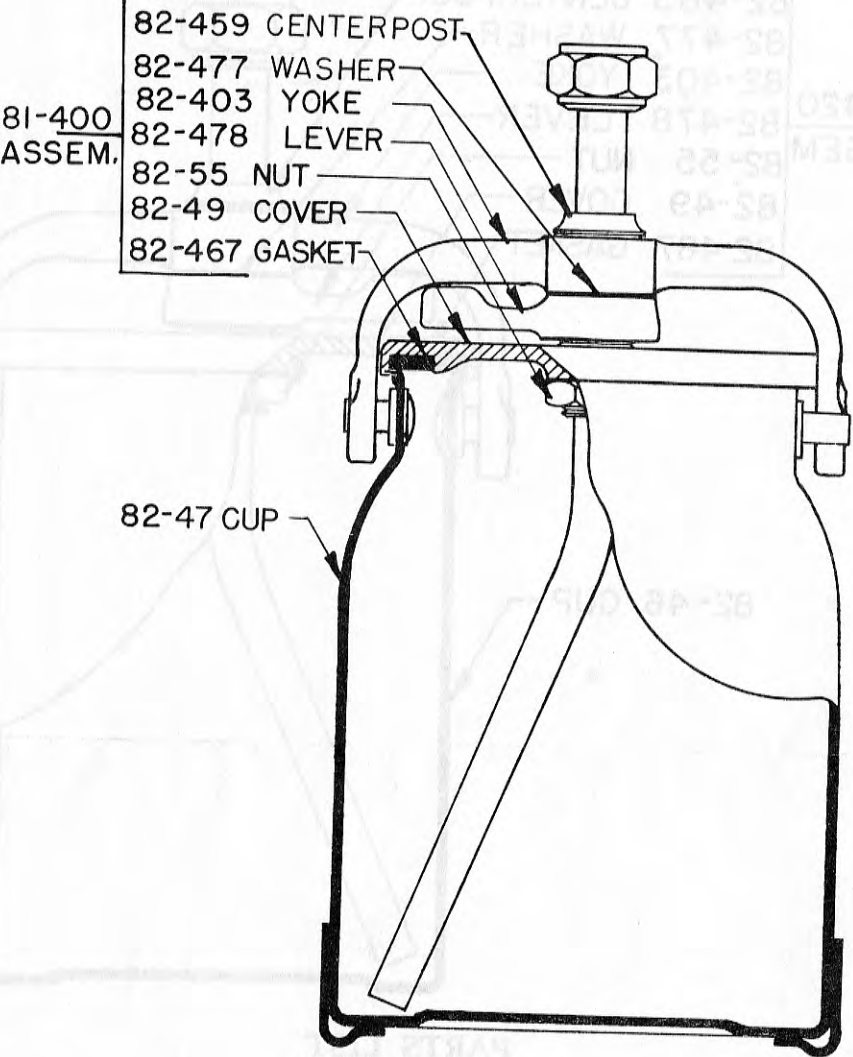


Binks Manufacturing Company


3114-44 Carroll Ave., Chicago 12, Ill.—Representatives in all Principal Cities
LITHO IN U.S.A.

BINKS MODEL 81-500 QUART SIPHON CUP AND ATTACHMENT

3/8" PIPE THREAD SWIVEL NUT



Part No.	Description	No. Req.
81-400	3/8 Cup Attachment Assembly	1
82-47	One Quart Cup, Aluminum	1
82-49	Cover	1
82-55	Nut	1
*82-56	Gasket (thiokol)	1
82-403	Yoke	1
82-459	Centerpost	1
*82-467	Gasket (leather)	1
82-477	Washer	1
82-478	Lever	1
* Interchangeable Parts		



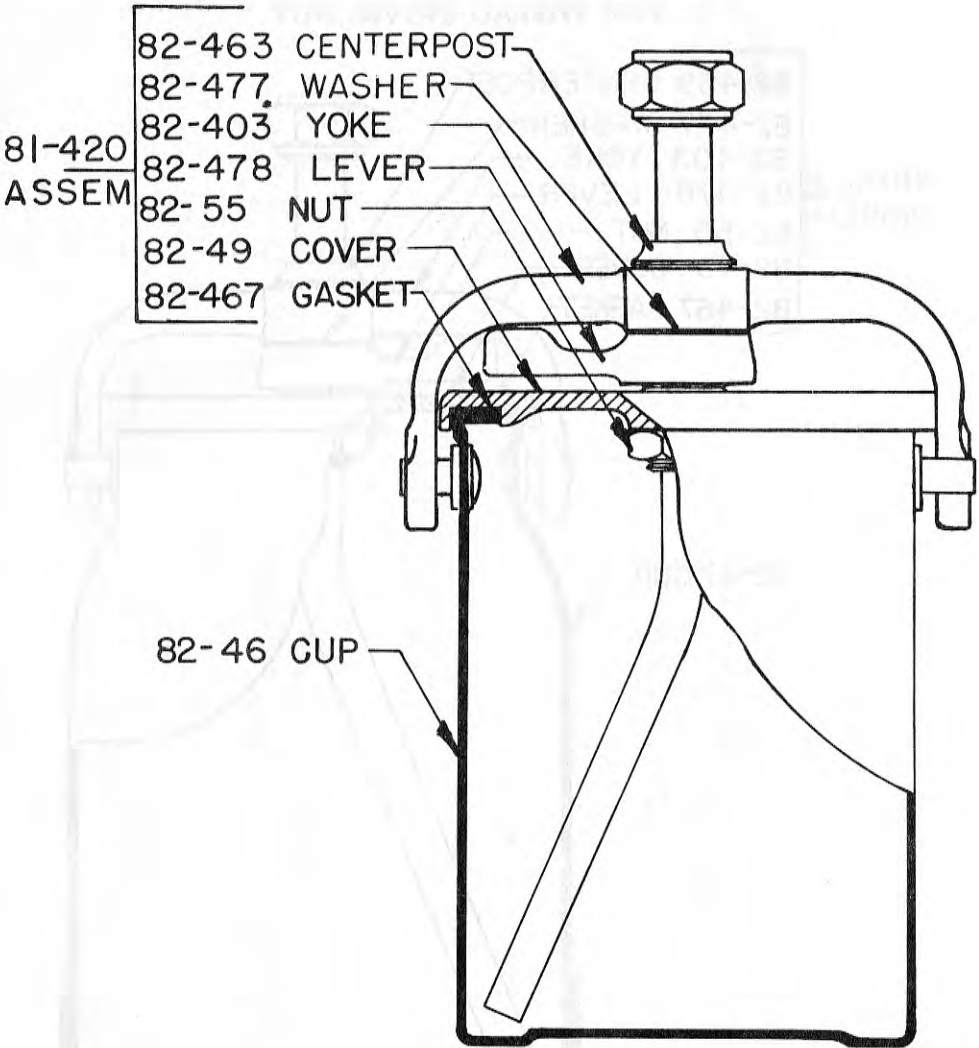
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REPLACES
PARTS SHEET
NO. 1234R1

PARTS SHEET
No. 1234R2

BINKS MODEL 81-520 PINT SIPHON CUP
AND ATTACHMENT



PARTS LIST

Part No.	Description	No. Req.
81-420	3/8 Cup Attachment Assem	1
82-46	One Pint Cup, Aluminum	1
82-49	Cover	1
82-55	Nut	1
*82-56	Gasket (thiokol)	1
82-403	Yoke	1
82-463	Centerpost	1
*82-467	Gasket (leather)	1
82-477	Washer	1
82-478	Lever	1

* Interchangeable Parts

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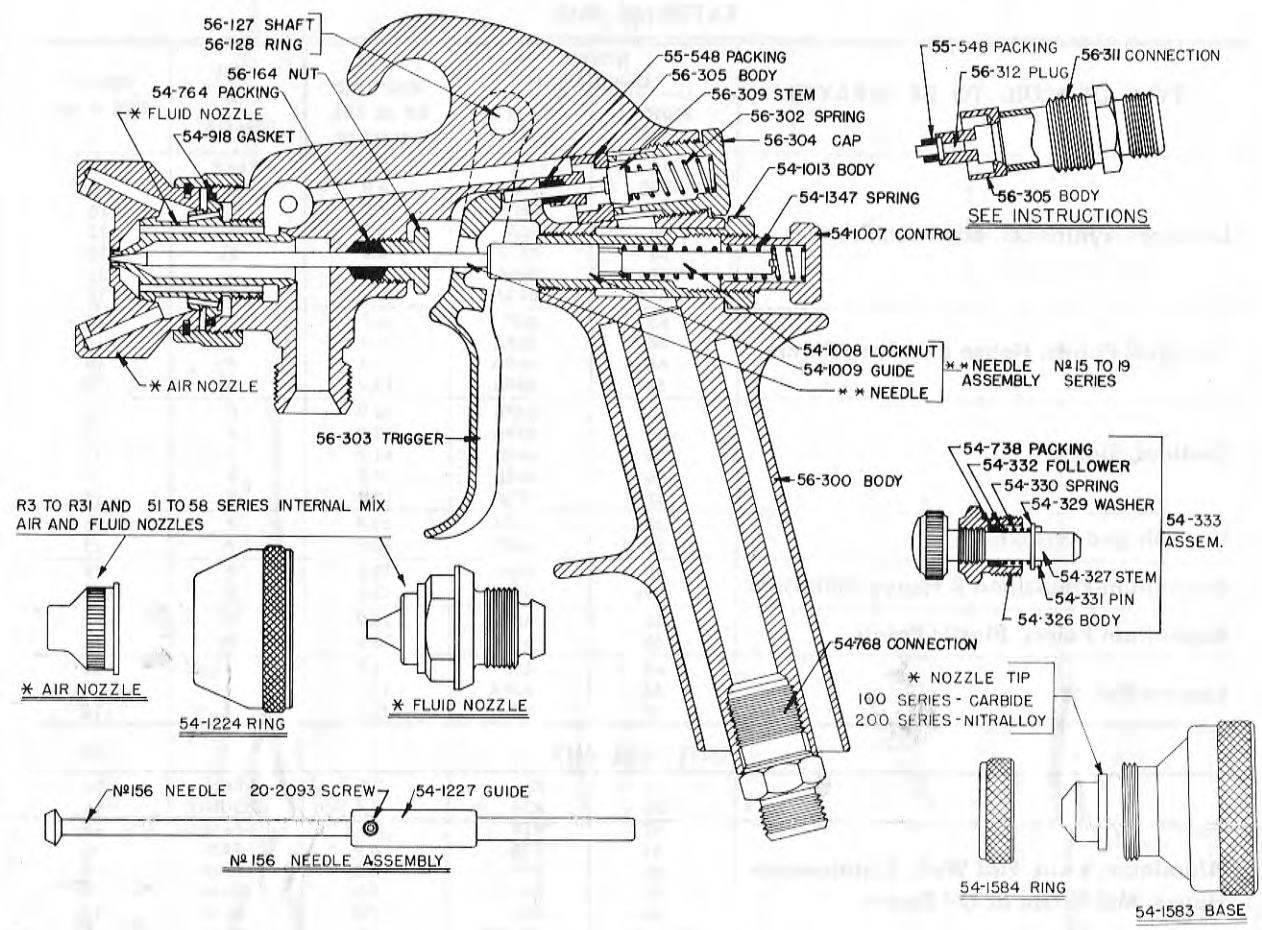


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PARTS SHEET
No. 1234R2

BINKS MODEL 29 SPRAY GUN



PARTS LIST

Part No.	DESCRIPTION	No. Required	Part No.	DESCRIPTION	No. Required
*	Air Nozzle	1	54-1009	Needle Guide	1
*	Fluid Nozzle	1	54-1013	Fluid Control Body	1
**	Needle Valve Assembly	1	54-1224	Retainer Ring	1
5-32	Gun Wrench	1	54-1227	Needle Guide	1
20-2093	#6-32x1/8 Allen Hd. Cup Pt. Set Scr.	1	54-1347	Fluid Spring	1
20-2094	* Allen Hd Wrench	1	54-1583	Nozzle Tip Base	1
	(For 20-2093 Screw)	1	54-1584	Retainer Ring	1
54-326	Side Port Control Body	1	55-548	Packing	1 or 2
54-327	Side Port Control Stem	1	56-127	Trigger Shaft	1
54-329	Side Port Control Washer	1	56-128	Snap Ring	2
54-330	Side Port Control Spring	1	56-164	Needle Packing Nut	1
54-331	Side Port Control Pin	1	56-300	Gun Body	1
54-332	Side Port Control Follower	1	56-302	Spring	1
54-333	Side Port Control Assembly	1	56-303	Trigger	1
54-738	Side Port Control Packing	1	56-304	Cap	1
54-764	Fluid Packing	1	56-305	Body	1
54-768	Air Connection	1	56-309	Stem	1
54-918	Fluid Nozzle Gasket	1	56-311	Rear Connection	1
54-1007	Fluid Control Screw	1	56-312	Plug	1
54-1008	Rear Locknut	1	82-221	Cleaning Brush	1

*Be sure to specify number stamped on Air Nozzle and Fluid Nozzle, or see Nozzle Selection Chart on reverse side of sheet.
**Be sure to specify number stamped on Needle Valve Stem when ordering; also specify Stem Only or Needle Assembly and Gun Model.

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REPLACES
PARTS SHEET
NO. 1320R3

PARTS SHEET
No. 1320R4

NOZZLE SELECTION CHART FOR BINKS MODEL 29 SPRAY GUN

EXTERNAL MIX

TYPE OF FLUID TO BE SPRAYED	NOZZLE COMBINATION		C.F.M. REQUIRED AT 50 LBS. PRESSURE	TYPE OF NOZZLE*	NEEDLE† SIZE & NO.
	FLUID NOZZLE†	AIR NOZZLE			
Lacquers, Synthetics, Enamels, Primers	66	R	4.0	S or P	15
	63C	66S	4.8	P	16
	63B	66PE	13.9	P	16
	66	66S	4.8	S	15
	66	66SE	9.0	S	15
	66	66SF	11.4	S	15
	67A	67SA	10.2	S	18
Flat Wall Paints, House and Barn Paints	65	65P	8.7	P	15
	66	66PA	10.1	P	15
	68	68PA	8.1	P	19
	68	68PB	13.9	P	19
Shellacs, Stains	63B	66PE	13.9	P	16
	65	63PB	13.9	P	15
	66	66SD	11.9	S	15
	66	66SE	9.0	S	15
	67A	67SA	10.2	S	18
Varnish and Wrinkles	63C	63PB	13.9	P	16
	65	66PE	13.9	P	15
Asphaltum-Emulsified & Heavy Materials	68	68PB	13.9	P	19
	69B	69P	14.3	P	156
Asphaltum Paints, Plastic Paints	66	66PE	13.2	P	15
	67	67PB	13.0	P	18
Cement Paints	65	65P	8.7	P	15
	66	66PA	10.1	P	15
	67	67P	13.0	P	18

INTERNAL MIX

Aluminum, Barn, Flat Wall, Maintenance House, Mill White or Oil Paints	51	R3	3.9	I-FAN	16
	51	R3A	3.4	I-ROUND	16
	51	R15	3.9	I-FAN	16
	51	R16	6.9	I-FAN	16
	53	R19	6.5	I-FAN	18
	53	R21	9.3	I-FAN	18
	54	R21	7.0	I-FAN	19
	63 to 66	100-200	5.0	I-FAN	..
	67	105-205	7.75	I-FAN	18
	68	106-206	8.0	I-FAN	19
Heavy Material	56	R24	10.6	I-FAN	156
	56	R25	8.2	I-ROUND	156
	57	R27	9.0	I-FAN	156
	57	R28	9.5	I-ROUND	156
	58	R30	12.2	I-FAN	156
	58	R31	12.2	I-ROUND	156
	69B	103-203	11.0	I-FAN	156

WHEN SELECTING NOZZLES FOR YOUR GUN, BE SURE TO CHECK THE FOLLOWING POINTS:

- Be certain your air supply is sufficient to operate nozzles selected.
- For light material, select small fluid opening. For heavier material; select larger fluid opening.
- The Air volume (C.F.M.) of the air nozzle will determine the speed of application and degree of atomization.

*P—External atomizing; for use with pressure tank or pressure cup. Spray pattern adjustable round to fan.

*S—External atomizing; for use with siphon cup or gravity bucket. Spray pattern adjustable round to fan.

*I—Internal atomizing; for use with pressure equipment only. Spray pattern fixed as specified.

† 60 series fluid nozzles and their corresponding needle valves can be furnished in stainless steel. If required, specify when ordering.

FLUID NOZZLE ORIFICE SIZES														
63A	63B	63C	65	66	67	67A	68	69B	51	53	54	56	57	58
.040	.046	.052	.059	.070	.086	.086	.110	.172	.052	.086	.110	.172	.218	.281

+ Air nozzles shown with any one of the (+) fluid nozzles can be used with all of these (+) fluid nozzles.

1. TO CONVERT TO BLEEDER TYPE:

Remove 56-304 Cap. Take out 56-302 Spring and 56-309 Stem. Remove 56-305 Body and all of the 55-548 Packing. Insert 56-312 Plug and one piece of the 55-548 Packing (shown in figure in upper right hand corner on reverse side) and replace the 56-305 Body and 56-304 Cap by threading clockwise.

2. TO CONVERT TO BLEEDER TYPE AND BACK AIR CONNECTION:

Remove 56-304 Cap. Take out 56-302 Spring and 56-309

Stem. Remove 56-305 Body and all of the 55-548 Packing. Insert 56-312 Plug and one piece of 55-548 packing and replace the 56-305 Body. Insert 56-311 Double Male Connection.

3. TO CONVERT TO BACK CONNECTION NON-BLEEDER TYPE:

Remove 56-304 Cap keeping 56-302 Spring and 56-309 Stem in position as shown in large illustration. Insert 56-311 Double Male Connection.