**DESCRIPTION**

The Binks Model 43P is a low to medium-volume plural component (spray and/or pour) dispensing device designed specifically for plural component systems. Capacity is up to 20 lbs. spray using a patented static mixing principle.

The 43P, and its companion the 43PA (automatic), uses the opposed internal orifices principle with no moving parts (patented).

Spray patterns are by nozzle selection.

Gun output is dependent upon nozzle and impingement orifices in conjunction with applied fluid pressures. Impingement orifices usually are matched but may be dissimilar to “balance” divergent viscosities and/or ratios.

The 18-8 stainless steel head is designed with cross-drilled ports for ease of maintenance. The ports allow access to remove impacted cured resins. Immersion in solvent will not affect the PTFE seals.

Both resin (1/4 NPS) ports have check valves. The needle valves share common parts (springs, housing, take-up nuts, packings and followers) for simplicity. The resin needles are ball type, the purge is tapered tip.

The rugged forged aluminum gun handle is anodized for corrosion resistance. The trigger’s finger geometry affords comfortable trigger pull and operation.
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.

HIGH PRESSURE CONSIDERATION
High pressure can cause serious injury. Relieve all pressure before servicing. Spray from the spray gun, hose leaks, or ruptured components can inject fluid into your body and cause extremely serious injury.

GET IMMEDIATE MEDICAL ATTENTION
To prevent contact with the fluid, please note the following:
- Never point the gun/valve at anyone or any part of the body.
- Never put hand or fingers over the spray tip.
- Never attempt to stop or deflect fluid leaks with your hand, body, glove or rag.
- Always have the tip guard on the spray gun before spraying.
- Always ensure that the gun trigger safety operates before spraying.
- Always lock the gun trigger safety when you stop spraying.

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

MEDICAL ALERT
Any injury caused by high pressure liquid can be serious. If you are injured or even suspect an injury:
- Go to an emergency room immediately.
- Tell the doctor you suspect an injection injury.
- Show the doctor this medical information or the medical alert card provided with your airless spray equipment.
- Tell the doctor what kind of fluid you were spraying or dispensing.
- Refer to the Material Safety Data Sheet for specific information.

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 or 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.

ELECTRIC SHOCK / GROUNDING
Improper grounding or sparks can cause a hazardous condition and result in fire, explosion or electric shock and other serious injury.

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

FIRE AND EXPLOSION HAZARD
Improper equipment grounding, poor ventilation, open flame or sparks can cause hazardous conditions and result in fire or explosion and serious injury.

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.

PROP 65 WARNING
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

IT IS THE RESPONSIBILITY OF THE EMPLOYER TO PROVIDE THIS INFORMATION TO THE OPERATOR OF THE EQUIPMENT.

FOR FURTHER SAFETY INFORMATION REGARDING BINKS AND DEVLBISSE EQUIPMENT, SEE THE GENERAL EQUIPMENT SAFETY BOOKLET (77-5300).
Your Binks 43P Airless Spray Gun has been thoroughly tested before leaving the factory. No adjustment is required prior to its operation other than installing the nozzle tip.

1. **Solvent Hook-up**
   Hook up solvent line and check to insure proper purging. Open purge valve and allow solvent to enter the gun head. Activate valve on-off and observe solvent spray emitting from front of gun. It is important that solvent purge be available in case of incorrect resin-hardener hook-up, reacting fluids, or mixed resins remaining in gun mix chamber.

2. **Gun Hook-up**
   Remove Items 1, 2, 3, and 5. Connect material lines to gun. Run system to insure material flows through gun. Shut gun off and allow system to run to stall. Check for leaks at all connections.

3. **Material Flow Check**
   *Aim gun into a suitable waste container* or place waste container under front of gun head. Operate formulator and open gun needles until both fluids flow freely from front of gun head. 1:1 systems should appear equal in volume. (Off-ratio systems will visibly be unequal.)

4. **Calibration**
   To check for correct proportioning of two fluids the simplest method is to take two containers of equal capacity and fill them simultaneously.

5. **Shut-Down**
   When spraying is discontinued for extended periods of time such as lunch, overnight or weekends, the following procedures are recommended:
   A. Remove items 1, 2, 3, and 4 and place in clean solvent. Pack mixing chamber with petroleum jelly.
   B. Leave gun connected to the hoses and formulator and shut-off fluid supply to the gun, but do not bleed the pressure.

   If you wish to disconnect fluid hoses, you must first shut off main air supply to formulator and gun and then bleed off all fluid material pressure before removing any hoses.

   For long shut-down periods, it is necessary to purge ("flush") the system completely (use solvent recommended by the material supplier). Pump solvent through system until all traces of material are removed. Pack gun mixing chamber with petroleum jelly. To exclude ambient moisture and/or foreign matter from hoses and formulator, fill system with an inert fluid such as a plasticiser (DOTP, etc.).

6. **Gun Ports**
   The gun head is drilled with bottom material inlet ports (1/4 NPT) and solvent port (1/8 NPT).

7. **Priming and "Warm-Up"**
   Heating resins (at the gun head) at start-up can help assure improved mixing. "Warm-up" may also be needed after a down-time of duration that would allow heat loss in hoses to gun.
### PARTS LIST

(When ordering, please specify Part No.)

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<tr>
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<th>DESCRIPTION</th>
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♦ Not part of gun assembly. Order separately.
■ Recommended as replacement items, also available in 106-1078 Spare Parts Kit.
★ Larger or smaller orifices available for special applications.

### 106-1078 SPARE PARTS KIT INCLUDES

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The diagram shows the Binks MODEL 102-1700 (43P) Airless Spray Gun with its parts labeled for identification.
MAINTENANCE INSTRUCTIONS

A. Short Period Shut-down.
   1. When stopping operation of the Model 43P gun for short periods exceeding 1/2 hour, remove nut (1), nozzle tip (2), gasket (3), and any washers from gun, and soak them in a clean solvent.
   2. Inspect inside of mix chamber (8) and clean thoroughly.
   3. Prior to reassembly, blow tip and washers with compressed air and inspect for cleanliness.

B. Long Period Shut-down.
   1. For overnight or longer periods of down-time, it is recommended that items 1, 2, 3, (two) plugs (5) and (two) orifices (6) be removed and placed in a clean solvent.
   2. Hold gun over empty container. Rotate knob (30) counterclockwise to obtain solvent flow to back-flush the mixing chamber in head (8). After flushing, inspect chamber to be sure it is clean.
   3. After mixing chamber is clean, pack over openings on head (8) with Vaseline® to prevent crystallization of materials in head.

C. Needle Valve Assembly, (two) (50).
   1. If fluid leaks through gland (48), tighten only enough to stop leak.
   2. If leak cannot be stopped:
      a. Shut off pump and relieve pressure within entire system.
      b. Remove screw (23), stud (25), and trigger (42).
      c. Use Allen wrench and remove screw (7). Separate head (8) and body (24).
      d. Lift off safety lock yoke assembly (41). Use crescent or open-end wrench and remove needle assembly (50).
      e. Turn out gland (48) until no threads are engaged, thus relieving spring tension on packing (45).
      f. Remove each of the two retainers (46).
      g. With knife edge, or sharp tool, pick up split in packing (45) and remove.
      h. Slip new packing (45) (factory pre-split) over needle wire in needle and packing assembly (43), again exercising care not to damage wire.
      i. Tighten gland (48) into retainer (46).
      j. Wrap retainer (46) threads with PTFE tape and insert into head (8). Reinstall needle assembly (50) by reversing above procedures (a) to (c) in Step C.2.
   3. The seat (9) is designed for long life and is not usually removed for normal maintenance. If it is damaged and must be removed, repeat procedures (a) to (c), Step C.2. then:
      a. Remove plug (5).
      b. Insert 3/16” dia. brass rod, or drift pin, through plug (5) hole and knock out seat (9).
      c. To replace, insert new seat (9) in the opposite direction from which it was removed. Press and tap into place.

D. Fluid Inlet Fittings, (two) Items 20.
   1. Be sure check valve assembly (20) is clean and moving freely before connecting hoses.
   2. When replacing or reinserting (two) check valve assemblies (20), always wrap threads with PTFE tape.

E. Solvent Flush Valve.
   1. Turn off pump and release pressure.
   2. To replace packing (12) or seat (10):
      a. Remove stem (31) by turning out knob (30).
      b. Remove nut (13).
      c. Going through front of mix chamber, head (8), use 3/16” dia. brass rod or drift pin to push out packing (12).
      d. Replace by reversing above procedure.

NOTE

Never open knob (30) when trigger is pulled. CAUTION: YOU ARE WORKING WITH TWO HAZARDOUS FACTORS:

3. a. High Fluid Pressures—Be sure the main air or electric supply to outfit is turned “OFF” and liquid pressures relieved from hoses and gun by pulling trigger BEFORE ANY disassembly.
   b. Small Orifices—Any dirt in the fluid, or lack of proper maintenance, will cause constant orifice plugging.

ACCESSORIES

1/4” NPS(m)
1/4” NPS(f) (SS)

MODEL 102-2160 FILTER (100 mesh, in-line)
MODEL 102-2176 FILTER (200 mesh)

PARTS LIST

When ordering, please specify Part No.

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WARRANTY
This product is covered by Binks’ 1 Year Limited Warranty.

Binks Sales and Service: www.binks.com