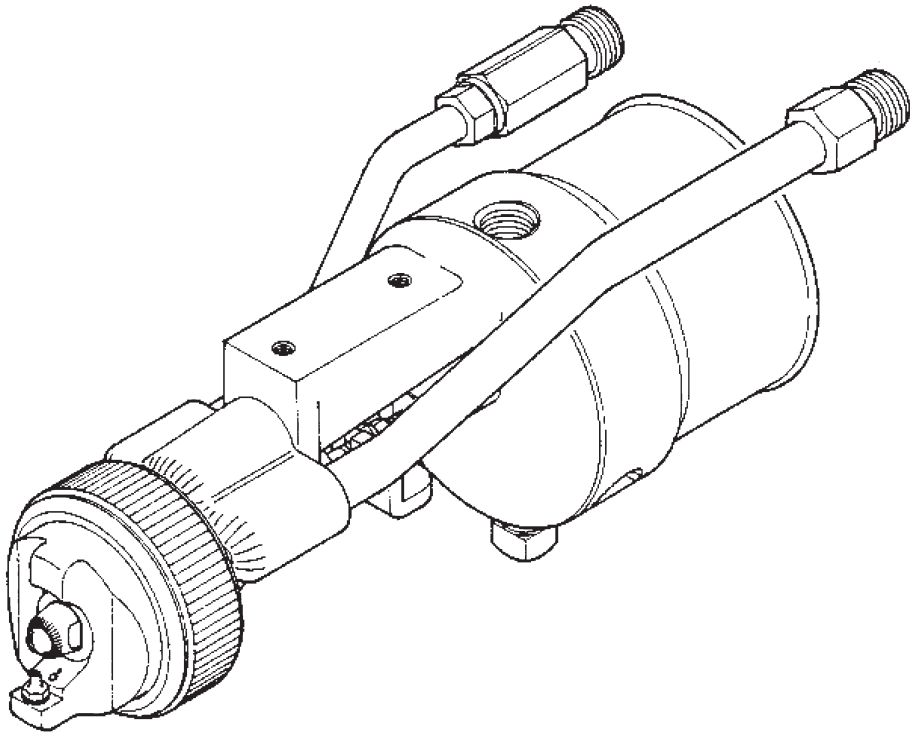
CENTURY AUTOMATIC GUN

EXTERNAL MIX

MODELS 102-2900 (AIR ASSIST AIRLESS) AND 102-2900-L (LEL)



The Binks Century Automatic gun is a high-performance spray gun used for the application of polyester and other catalyzed resins. The gun is operated remotely through a 3-way pneumatic valve (not supplied) and fluid is typically supplied with a plural component pumping system to produce a catalyst-to-resin ratio between 0.75% to 3.0% by volume. Assist, or shaping air, is independently controlled through a separate three-way valve and pressure regulator. The shaping air is not controlled by the gun.

The air-assist-airless version of the gun (102-2900) sprays resin or gel coat through the high-performance 108-series carbide spray tips and injects catalyst into the resin fan with the patented "EXACT" non-atomizing catalyst injection system. The catalyst is directly injected into the resin fan without atomizing, thereby ensuring maximum efficiency and mixing performance.

The "LEL" (Low Emission Laminator) version of the gun (102-2900-L) sprays resin through a unique tip to produce impinging fluid streams at low pressure and velocity and provide non-atomizing performance as defined by EPA (NESHAP 40 CFR part 63). If the LEL gun is used according to the instructions in this sheet it will enable MACT compliance by allowing the use of non-atomized mechanical application UEF factors when calculating plant emissions.

SPECIFICATIONS	
Maximum resin pressure:	3500 psi [241 bar]
Maximum catalyst pressure:	100 psi [7 bar]
Maximum air pressure:	100 psi [7 bar]
Resin inlet:	3/8" NPS (m)
Catalyst inlet:	1/4" NPS (m)
Piston air inlet:	1/4" NPT (f)
Assist air inlet:	1/4" NPT (f)
Weight:	2.8 lbs. [1.3kg]
Wetted parts materials of construction:	Anodized aluminum, stainless steel, UHMWPE, PTFE, Silicone Rubber, EP Rubber, Nylon, Tungsten Carbide

⚠ WARNING

Before using the Century LEL gun, be sure to read and understand all warnings included in this part sheet.

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.

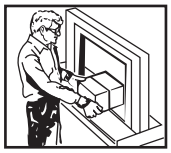
READ THE MANUAL
Before operating finishing equipment, read and understand all safety, operation and maintenance information provided in the operation manual.

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.

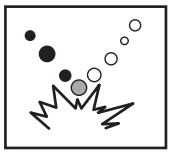
EQUIPMENT MISUSE HAZARD
Equipment misuse can cause the equipment to rupture, malfunction, or start unexpectedly and result in serious injury.



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

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.

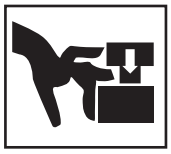
STATIC CHARGE
Fluid may develop a static charge that must be dissipated through proper grounding of the equipment, objects to be sprayed and all other electrically conductive objects in the dispensing area. Improper grounding or sparks can cause a hazardous condition and result in fire, explosion or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



PLURAL COMPONENT MATERIALS HAZARD
Because of the vast number of chemicals that could be used and their varying chemical reactions, the buyer and user of this equipment must determine all facts relating to the materials used, including any of the potential hazards involved.

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

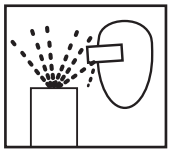
FIRE AND EXPLOSION HAZARD
Improper equipment grounding, poor ventilation, open flame or sparks can cause hazardous conditions and result in fire or explosion and serious injury.



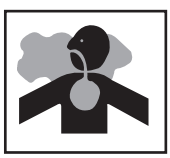
PINCH POINT HAZARD
Moving parts can crush and cut. Pinch points are basically any areas where there are moving parts.

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.



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



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.

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

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

⚠ WARNING

When using Binks equipment with Methyl Ethyl Ketone Peroxide in Plasticizer OBSERVE the following precautions

CORROSIVE TO THE EYES – MAY CAUSE BLINDNESS. MAY BE FATAL IF SWALLOWED. STRONG IRRITANT. CONTAMINATION OR HEAT MAY LEAD TO FIRE OR EXPLOSIVE DECOMPOSITION. COMBUSTIBLE.

Do not handle or use until safety precautions concerning Methyl Ethyl Ketone Peroxides in the Manufacturer's literature have been read and understood.

Contact with foreign materials, especially strong mineral acids, metals (including certain equipment and containers) or metal salts, or exposure to heat above 135° F (57° C) may lead to violent decomposition, releasing flammable vapors which may self-ignite.

Do not get into eyes or on skin or clothing. Wear eye and skin protection when handling. Avoid breathing mist. Use with adequate ventilation. Store only it in the original closed container. Wash hands thoroughly after handling. Protect from direct sunlight, heat, sparks and other sources of ignition. Prevent contamination with foreign materials. Do not add to hot materials.

FIRST AID

EYES
Wash immediately (seconds count) with water and continue washing for at least 15 minutes. Obtain medical attention.

SKIN
Wash with soap and water. Remove contaminated clothes and shoes and again wash thoroughly with soap and water.

SWALLOWING
Administer large quantities of milk or water. Obtain immediate medical attention for lavage.

To maintain the chemical activity store below 100° F (38° C).

In case of fire, use water spray, foam or dry chemical.

In case of spill or leak, absorb or blend with inert, non-combustible material. Put in suitable container. Dispose of immediately in accordance with federal, state and local regulations.

Do not reuse container as some of the original hazardous contents may still be present.

Follow the above precautions in handling.

READ & UNDERSTAND THE MATERIAL SAFETY DATA SHEET FROM MATERIAL SUPPLIER

⚠ WARNING

Binks Century Guns are constructed with components of aluminum alloy and SHOULD NOT be used with any Halogenated Hydrocarbon solvents.

HALOGENATED HYDROCARBON SOLVENTS CAN CAUSE AN EXPLOSION WHEN IN CONTACT WITH ALUMINUM COMPONENTS OF A PRESSURIZED OR CLOSED FLUID SYSTEM (PUMPS, HEATERS, FILTERS, etc.)

The same possibility of an explosion is possible with the galvanized coatings in pressure tanks. The possibility of a non-flammable explosion increases greatly at high operating temperatures.

The explosion could be of sufficient strength to cause bodily injury, death, and substantial property damage.

Cleaning agents, coatings, or adhesives may contain HALOGENATED HYDROCARBON SOLVENTS. CHECK WITH YOUR SOLVENT AND PAINT SUPPLIER.

If you are now using a Halogenated Hydrocarbon Solvent in a pressurized fluid system with aluminum components or galvanized wetted parts, the following steps should be taken immediately:

1. Remove all pressure; drain and disconnect the entire system.
2. Inspect and replace all corroded parts.
3. Contact your solvent supplier for a NON-HALOGENATED SOLVENT to flush and clean the system of all residues.

HALOGENATED Solvents are defined as any hydrocarbon solvent containing any of the following elements:

CHLORINE	"CHLORO" (Cl)
BROMINE	"BROMO" (Br)
FLUORINE	"FLUORO" (F)
IODINE	"IODO" (I)

Of those listed, the Chlorinated Solvents will most likely be the type used as a cleaning agent or solvent in an adhesive or coating. The most common are:

METHYLENE CHLORIDE

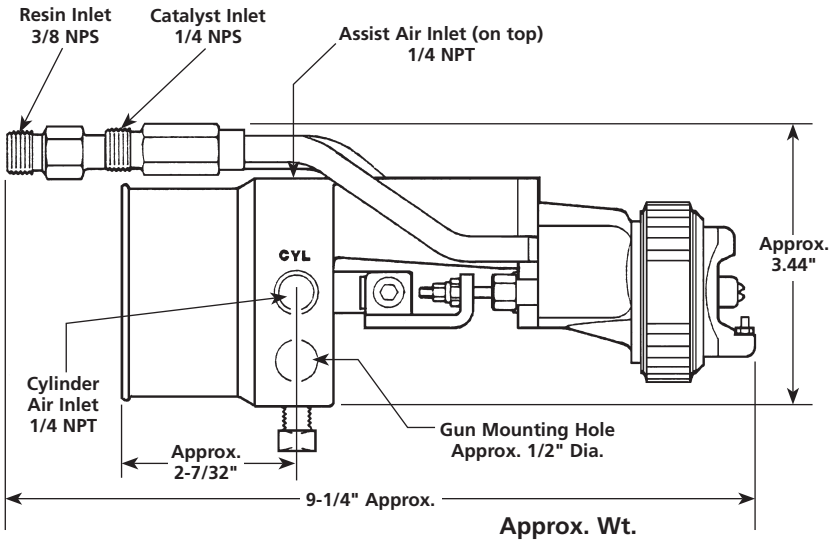
1,1,1, TRICHLORETHANE

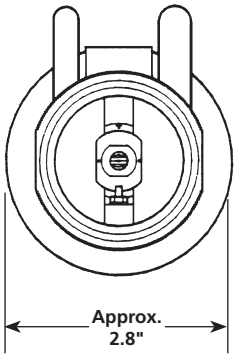
PERCHLORETHYLENE

Although stabilizers have been added to some of the solvents to reduce their corrosive effect, **we are aware of none that will prevent these solvents from reacting under all conditions with aluminum components or galvanized coatings.**

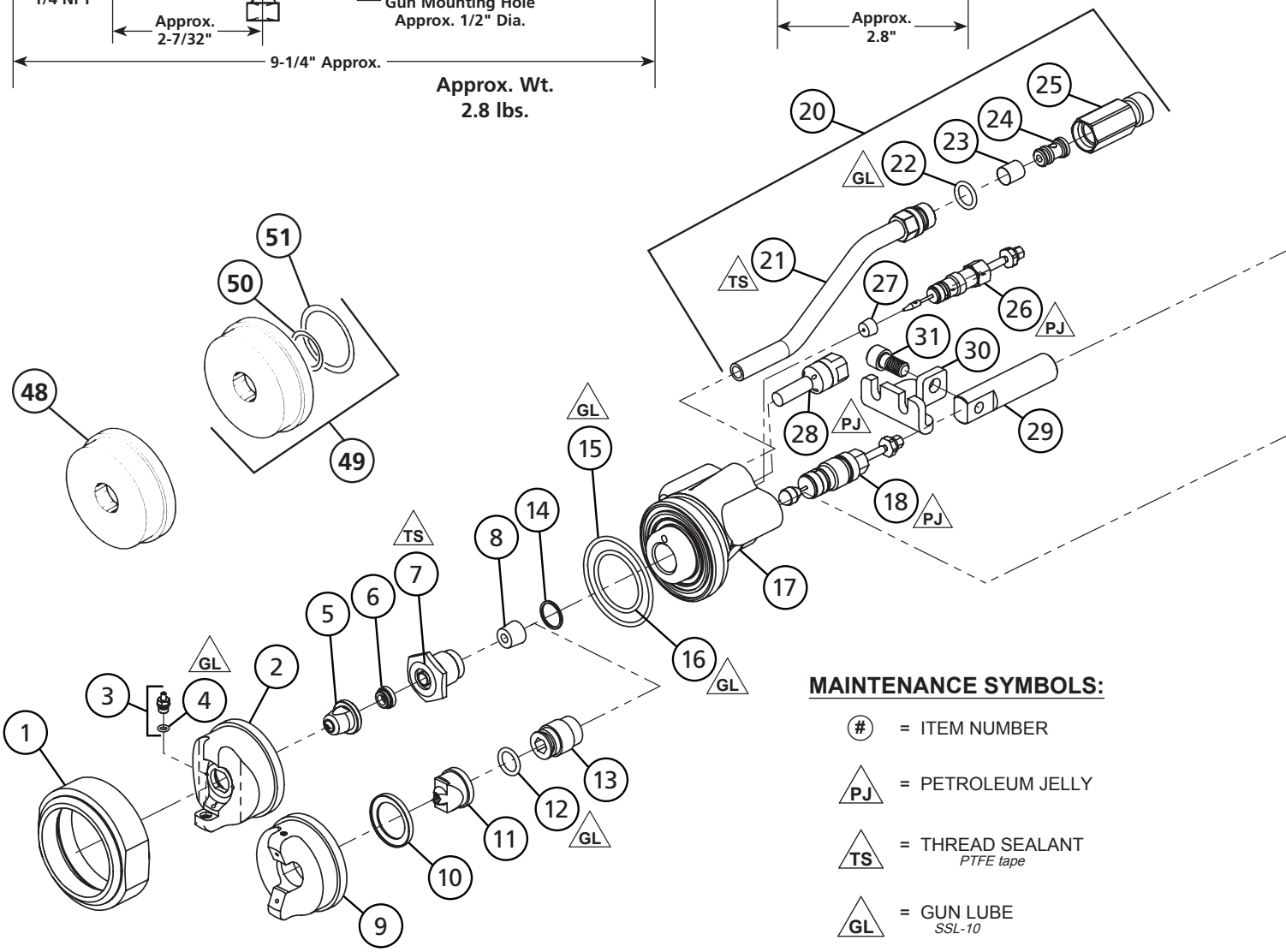
Previous use of the solvents under pressurized conditions, without incident, does not necessarily indicate that it can be considered safe.

CENTURY AUTOMATIC GUN – GUN DIMENSIONS





Approx. Wt.
2.8 lbs.



MAINTENANCE SYMBOLS:

(#) = ITEM NUMBER

PJ = PETROLEUM JELLY

TS = THREAD SEALANT
PTFE tape

GL = GUN LUBE
SSL-10

RECOMMENDED TOOL LIST

OPEN END WRENCHES:
3/16, 5/16, 3/8, 7/16, 9/16, 11/16, 13/16

HEX KEY WRENCHES:
1/16, 3/16, 1/4

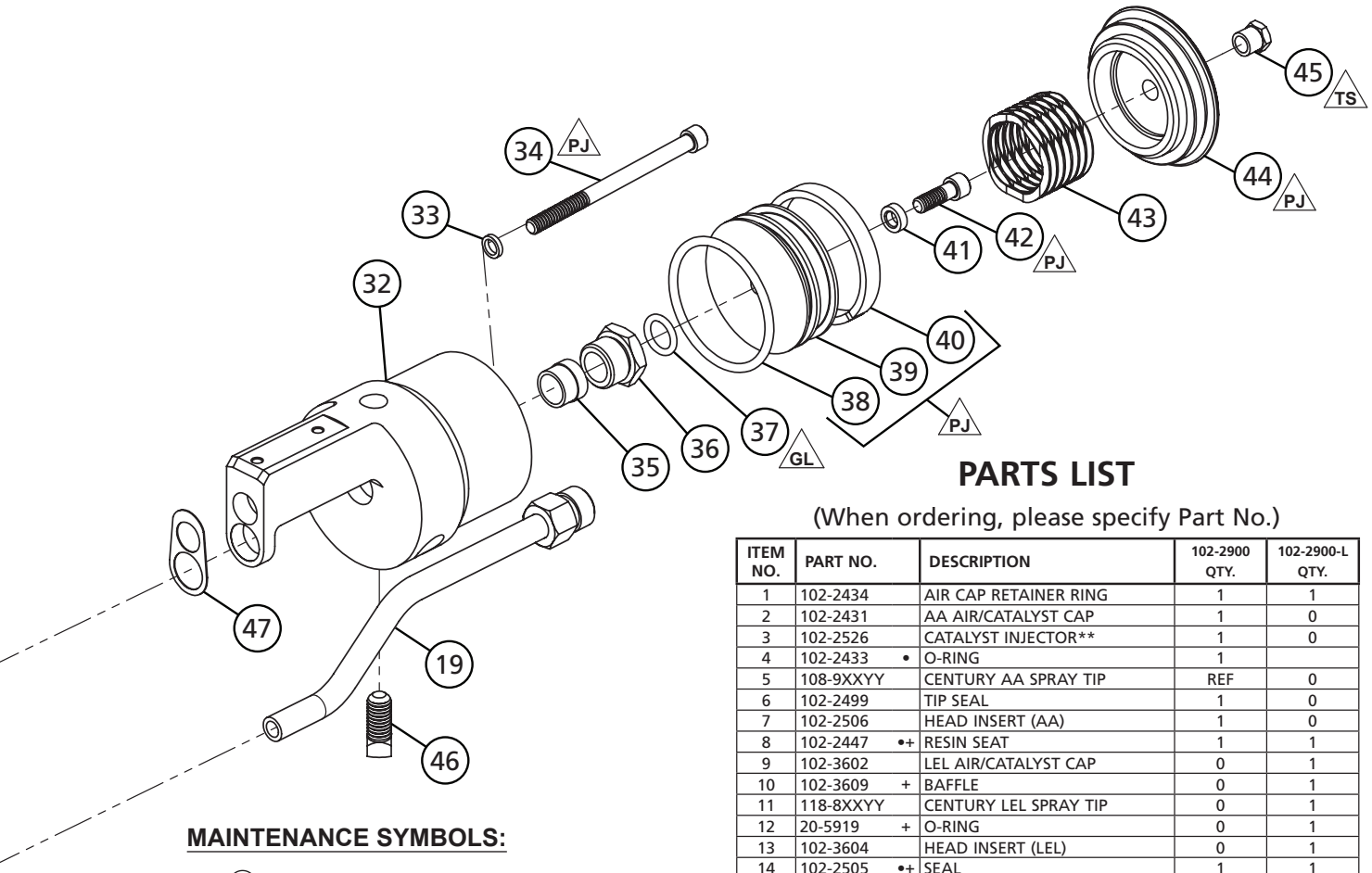
DEEP WELL SOCKET:
7/8

AWL OR OTHER POINTED INSTRUMENT

INCLUDED IN REPAIR KIT 106-1171:

102-2438 DOWEL PIN 5/64
102-2439 DOWEL PIN 13/64
102-2510 DOWEL PIN 3/8
102-2511 DOWEL PIN 1/4

CENTURY AUTOMATIC GUN



MAINTENANCE SYMBOLS:

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PARTS LIST

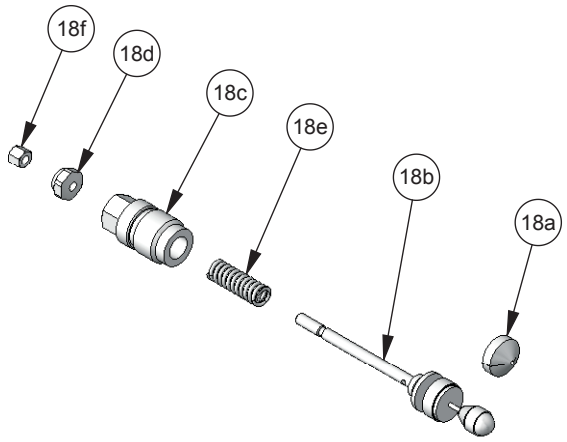
(When ordering, please specify Part No.)

ITEM NO.	PART NO.	DESCRIPTION	102-2900 QTY.	102-2900-L QTY.
1	102-2434	AIR CAP RETAINER RING	1	1
2	102-2431	AA AIR/CATALYST CAP	1	0
3	102-2526	CATALYST INJECTOR**	1	0
4	102-2433 •	O-RING	1	
5	108-9XXYY	CENTURY AA SPRAY TIP	REF	0
6	102-2499	TIP SEAL	1	0
7	102-2506	HEAD INSERT (AA)	1	0
8	102-2447 •+	RESIN SEAT	1	1
9	102-3602	LEL AIR/CATALYST CAP	0	1
10	102-3609 +	BAFFLE	0	1
11	118-8XXYY	CENTURY LEL SPRAY TIP	0	1
12	20-5919 +	O-RING	0	1
13	102-3604	HEAD INSERT (LEL)	0	1
14	102-2505 •+	SEAL	1	1
15	20-6474 •+	O-RING (EP)	1	1
16	20-6473 •+	O-RING (EP)	1	1
17	102-2504	HEAD	1	1
18	102-2410 •+	RESIN NEEDLE ASSEMBLY	1	1
19	102-2918	RESIN INLET TUBE	1	1
20	102-2916	CATALYST INLET ASSEMBLY	1	1
21	102-2917	CATALYST INLET TUBE	1	1
22	237-91 •+	O-RING	1	1
23	102-2181 •+	FILTER SCREEN	1	1
24	54-1263	SCREEN SUPPORT	1	1
25	102-2441	CATALYST INLET	1	1
26	102-2420 •+	CATALYST NEEDLE ASSEMBLY	1	1
27	102-2448 •+	CATALYST SEAT	1	1
28	102-2915	HEAD RETAINER	1	1
29	102-2920	PISTON ROD	1	1
30	102-2921	ACTUATOR BRACKET	1	1
31	20-6130	SCREW	1	1
32	102-2905	GUN BODY	1	1
33	102-2922	SEAL	1	1
34	20-6628	SCREW	1	1
35	102-2914	WIPER	1	1
36	102-2913	ROD GUIDE	1	1
37	20-6554	O-RING	1	1
38	20-6498	O-RING	1	1
39	102-2911	PISTON	1	1
40	102-2912	WEAR RING	1	1
41	102-626	PISTON SEAL	1	1
42	20-2195	SCREW	1	1
43	102-2908	SPRING	1	1
44	102-2907	END CAP	1	1
45	20-6909	BREATHER	1	1
46	54-335	SET SCREW	1	1
47	102-2427	HEAD GASKET	1	1
48	102-3605	NIGHT CAP	0	1
49	102-2494	NIGHT CAP ASSEMBLY	1	0
50	20-5052	O-RING	1	0
51	20-6183	O-RING	1	0

• Items included in 106-1171 Fluid Repair Kit (AA version)

+ Items included in 106-1252 Fluid Repair Kit (LEL version)

SUBASSEMBLIES



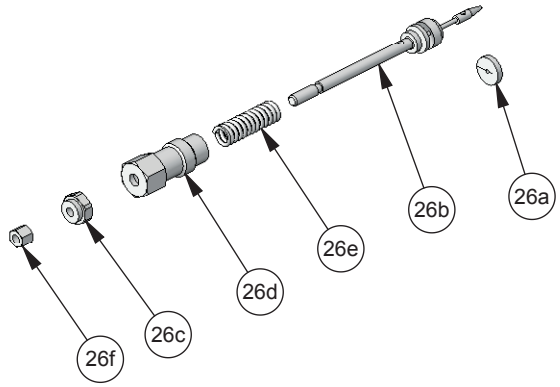
102-2410 RESIN NEEDLE ASSEMBLY

Item 18

When ordering, please specify Part No.

ITEM NO.	PART NO.	DESCRIPTION	QTY.
18a	102-2411 •	PACKING	1
18b	102-2412	RESIN NEEDLE SUB-ASM	1
18c	102-2419	RESIN PACKING NUT	1
18d	102-2428	CONVEX NUT (5/16 HEX)	1
18e	102-2613	SPRING	1
18f	52-487	LOCKNUT	1

• Parts are included in 106-1267 Soft seal kit.



102-2420 CATALYST NEEDLE ASSEMBLY

Item 26

When ordering, please specify Part No.

ITEM NO.	PART NO.	DESCRIPTION	QTY.
26a	102-2421 •	PACKING	1
26b	102-2422	CATALYST NEEDLE SUB-ASM	1
26c	102-2428	CONVEX NUT (5/16 HEX)	1
26d	102-2429	CATALYST PACKING NUT	1
26e	102-2613	SPRING	1
26f	52-487	LOCKNUT	1

• Parts are included in 106-1267 Soft seal kit.

FOR 102-2900 GUN ONLY:

CATALYST INJECTOR SIZING CHART

ASSEMBLY NUMBER	ORIFICE SIZE	GEL/RESIN TIP SIZES
102-2513	.013	.013 – .018
102-2515	.015	.015 – .021
102-2518	.018	.015 – .021
102-2521	.021	.021 – .031
102-2526	.026	.026 – .043
102-2531	.031	.031 – .052
102-2536	.036	.043 – .072

NOTE

These are general recommendations. Due to variations in viscosities of catalyst and resin (Gel-Coat), actual optimal sizing may differ. The intent is to optimize mix by minimizing catalyst pressure.

BINKS AUTOMATIC CENTURY GUN SUGGESTED SPARE PARTS

PART NUMBER	DESCRIPTION
108-9XXYY	**CARBIDE SPRAY TIP FOR 102-2900 GUN** XX=ORIFICE, YY=SPRAY WIDTH IN INCHES
118-8XXY	**LEL SPRAY TIP FOR 102-2900-L GUN** XX=ORIFICE, Y=IMPINGEMENT ANGLE: N=NARROW, S=STANDARD, W=WIDE
106-1171	**FLUID REPAIR KIT FOR 102-2900** INCLUDES NEEDLES, SEATS, ALL O-RINGS AND SEALS FOR CATALYST AND RESIN
106-1252	**LEL FLUID REPAIR KIT FOR 102-2900-L**
106-1174	**SOFT SEAT KIT** 10 RESIN, 5 CATALYST
106-1175	**CATALYST FILTER REPAIR KIT** 5 O-RINGS, 5 SCREENS

Most o-rings and seals are available in 5-packs. Consult your Binks distributor for availability.

SET-UP INSTRUCTIONS

1. Connect actuating air to “CYL” inlet on side of gun body. Use a three-way valve to control the actuator. Set actuator air pressure to 30-80 psi. Positioning the three-way valve as close as possible to the gun will provide best response.
2. Connect air hose to air assist inlet on top of gun body and tighten securely. Set regulator to provide sufficient air at nozzle. Use a separate two or three-way valve to control atomizing air.
3. Connect high pressure airless fluid hose from the resin pump to the resin inlet assembly (19) and tighten securely. Set pumping source to deliver resin from 500-1500 psi.
4. Connect the catalyst hose to the catalyst inlet/filter assembly (20) and tighten securely.
5. If using chopper, connect the chopper air hose to a separate air supply and tighten securely.
6. Loosen the two nuts (26c & 26f) on the catalyst needle and move them forward so that the attachment bracket (30) actuates them simultaneously with engagement of the resin needle.
7. If required, reassemble the spray tip (5, 11) and the air/catalyst cap (2, 9) and securely tighten the air/catalyst cap retainer ring (1).
8. Set fluid pressure to achieve low pressure airless pattern with “fingers”.
9. Adjust atomizing air until the “fingers” have been removed from the spray pattern and proper atomization has been achieved. If atomizing air seems excessive (overspray), increase fluid pressure and reduce air. (Check pattern). (Excessive atomizing air can impair catalyzation).

OPERATING INSTRUCTIONS

Your new Binks Automatic Century Gun will give you excellent performance as long as it is handled properly. Read over these sections before operating the gun.

CATALYZATION

102-2900 GUN: The catalyst orifice should be sized to minimize catalyst pressure. Over-catalyzation can show up as a split pattern, misting of the resin, streaking of the catalyst in the resin, or detection of catalyst fumes. A wide range of catalyst injectors is available to accommodate your specific needs. Refer to the catalyst injector selection chart for the various orifice sizes. Catalyst fumes should be minimal. The Binks automatic Century guns utilize External Advanced Catalyzation Technology, “EXACT” which mixes all of the catalyst exiting the catalyst injector into the resin stream.

102-2900-L GUN: the catalyst is pre-atomized in the air/catalyst cap by injecting a small stream of catalyst into the air stream in one of the horn air passages. Air pressure may be increased to improve catalyst atomization, or decreased to minimize deflection off the resin fan. Be aware that changes in air pressure also affect the shape of the resin fan. For laminating resin application use the 102-3602 air cap with 10-25 psi air pressure, and for gel coats use the 102-3607 air cap with 25-45 psi air pressure.

FLUID PRESSURE OF THE RESIN/GEL-COAT

To reduce overspray and obtain maximum efficiency of the automatic Century gun, the fluid and air pressure should be reduced to their lowest possible pressures that produce acceptable atomization and finish.

102-2900 GUN: Typically, for unfilled resins and un-pigmented gel-coats, the fluid pressure needed for proper atomization is approximately 200-700 psi. For filled resins and pigmented gel-coats, the fluid pressure will be significantly higher, approximately 400-1500 psi. Typically, the pressure setting at nozzle for the atomizing air will be from 3 to 10 psi, although pressures up to 30 psi are acceptable. The atomizing air is necessary for proper catalyzation and therefore should not be reduced below 5 psi. Also, depending upon the catalyst, it may be necessary to increase/decrease the atomizing air in order to induce proper catalyzation after determining the necessary air pressure for a good spray pattern.

102-2900-L GUN: Typically for unfilled resins and un-pigmented gel coats, the fluid pressure needed for proper non-atomizing performance is approximately 125-500 psi. For filled resins and pigmented gel coats the correct fluid pressure for non-atomizing performance is approximately 400-1200 psi. Depending on your system, the fluid pressures you use will vary higher or lower than these numbers, but they serve as a good starting point.

TIMING OF THE AIR, CATALYST AND RESIN VALVES

The timing of the air, catalyst and resin valves is an important factor in the operation of the automatic Century gun. The gun will appear to leak if the lag between engaging the atomizing air and the fluid needles is unnecessarily long. When the piston (39) returns, the resin and catalyst should shut off first with the atomizing air. The atomizing air will then siphon out any remaining material in the spray tip and/or catalyst injector. Time the atomizing air valve to shut off about 200 to 300ms after the actuator air valve is closed, and 100 to 200ms before it is opened.

NOTE

The sequence of operation is: atomizing air, catalyst and resin simultaneously.

GENERAL MAINTENANCE

DAILY INSPECTION

1. Inspect the gun head o-rings (15 & 16) for cuts or tears and replace if necessary.
2. Check the fluid needle assemblies (18 & 26) for signs of material leakage. Tighten fluid packing nuts if leaks are present until leakage stops. If leak does not stop, replace the needle packing or needle.
3. Inspect the tip seal (6) or o-ring (12) for wear or damage and replace if necessary.
4. Inspect filters of system for build-up and clean if necessary.

CLEANING THE SPRAY TIP

1. Shut off pumps and air supply, leaving piston (39) in forward position.
2. Release fluid pressure in entire system.
3. Unscrew air/catalyst cap retainer ring (1) and remove air/catalyst cap (2, 9) and the tip (5, 11).
4. Submerge tip in solvent to remove dry or hardened material.

NOTE

Use care when handling the tip to avoid dropping it, or if cleaning the tip with a sharp tool be careful to avoid damage. The tip is made of a brittle material which is susceptible to cracking upon contact.

5. Blow air through tip from front to back to remove stuck particles. Hold the tip to a light to inspect orifice to assure it is clear.

CATALYST INLET/FILTER ASSEMBLY

1. Shut off pumps and air supply.
2. Bleed pressure from entire system.
3. Remove catalyst hose from gun.
4. Using a 9/16” wrench and a 7/16” wrench, unscrew the material inlet (25) from the catalyst inlet tube (21), revealing the filter screen (23).
5. Inspect the filter screen for build-up or damage.
6. If the filter screen needs to be cleaned or replaced, unscrew the filter support (24) with your fingers and slide the filter screen off of it. Clean or replace.
7. Inspect o-ring (22) on the tube assembly for cuts or tears and replace if necessary.
8. Reassemble in reverse order.

OVERNIGHT SHUT-DOWN

1. Shut off pumps (in down position) and air supply.
2. Bleed pressure from entire system.
3. Remove the air/catalyst cap retainer ring (1), air/catalyst cap (2, 9), baffle (10), and spray tip (5, 11). Inspect the tip seal (6) or o-ring (12) and replace if worn or damaged.
4. Remove the two o-rings (15 & 16) from the grooves of the gun head (17). Inspect o-rings for cuts or tears and replace if necessary.
5. Wipe off face of the gun head with a solvent-dampened rag.
6. Replace o-rings onto the front of the gun head and place the night cap (49, 48) onto the gun head so that the larger face of the night cap traps the o-rings against the gun head in the same way as the air/catalyst cap does. In many cases, lubricant will provide protection for o-rings and head during shutdown. Use gun lube SSL-10.
7. Screw the air/catalyst cap retainer ring back onto the gun head snugly against the night cap. Do not over-tighten.
8. Clean the air/catalyst cap with solvent-dampened rag or place in solvent. Be very careful to not scratch the bottom surface of the air/catalyst cap as this will cause it to leak catalyst into the air passages when in service.

NOTE

Do not soak o-rings in solvents (swelling will occur).

REPLACEMENT OF WORN PARTS

⚠CAUTION

Do not disassemble or work on the Binks Century gun without first doing the following:

1. **Shut off the fluid pumps and air supply.**
2. **Release the fluid pressure in the gun and the entire system.**
3. **Remove the gun from fluid hoses.**

If you do not follow these steps you may injure yourself and/or nearby personnel.

REPLACING THE CATALYST NEEDLE PACKING

1. Using a 3/16” allen wrench, remove screw (31), and detach bracket (30) from piston rod (29).
2. Using a 3/8” open-end wrench unscrew the catalyst packing nut (26d) and pull out the catalyst needle assembly (26) straight back until it comes out of the gun head. Be sure to pull the needle out without bending it up or down or from side to side thus ruining the needle.
3. Clean the needle assembly so that you may be able to clearly identify the packing (26a).
4. The packing is the only non-metal piece of the needle assembly and is white in color. Note its location and orientation on the wire of the needle. Cut the worn packing away with a sharp knife being sure not to scratch or deform any nearby parts.
5. Carefully spread the new packing apart, about 3/64” at the edge (this can be done easily with an X-acto type knife) and press the packing onto the wire of the needle assembly in the same location and orientation as noted in Step 4. Gently squeeze the packing closed with fingers.
6. Slide the packing forward and back with your fingers to assure a proper fit onto the wire.
7. Reassemble in reverse order.

REPLACING THE CATALYST SEAT

1. Using a 3/16” allen wrench, remove screw (31), and detach bracket (30) from piston rod (29).
2. Use a 1” wrench to unscrew end cap (44), and remove spring (43).
3. Push in on the front of the piston rod (29) to pop out the piston (39) with attached o-ring (38) and wear ring (40). Remove screw (34) and gasket (33) to remove gun head (17).
4. Remove items 1 thru 16 from the front of the gun head (17) and head gasket (47) from the back. Using a 3/8” wrench, unscrew catalyst packing nut (26d) and pull out catalyst needle assembly (26). Placing the gun head between a couple of clean blocks of wood or in some rags, etc., to protect it, tighten it, front down, in a vise. With the appropriate wrenches, remove the catalyst inlet and resin tubes (19 & 20).
5. Place gun head on a flat clean surface with the back of the gun head against the surface. This will require a hole or recess in the surface such that the alignment cone on the back of the gun head does not rest against anything.
6. Align a 5/64” dowel pin (part # 102-2438) (available in Repair Kit 106-1171) with the hole in the center groove of the gun head. Move the dowel pin straight down into the hole until it seats against the catalyst seat (27). This will be about 3/16” from the surface of the gun head with the three large grooves. Press the seat out. This is most easily done on a drill press or arbor press.
7. Place the front of the gun head against a flat clean surface such that the surface of the gun head that has the three large grooves seats against the flat surface. A hole in the flat surface with at least a 1” diameter and a minimum depth of 3/4” is required for this orientation.
8. Put the new catalyst seat into the hole of the gun head that the catalyst needle assembly came out of. The small end of the catalyst seat must go in first. The seat should drop down into the gun head.
9. The seat now needs to be pressed into place such that a tight fit is created between the resin seat and the walls of the gun head that retain it. Use a 1/4” diameter dowel to press the seat tight. Be careful not to scratch the walls of the gun head. A drill press or arbor press is best for this operation.
10. Reassemble in reverse order.

REPLACING THE RESIN SEAT

1. Remove air/catalyst cap retainer ring (1), air/catalyst cap (2, 9), spray tip (5, 11), and the two o-rings (15 & 16) from the gun head.
2. Using a 13/16” wrench, remove head insert (7) from gun head (17). Remove seal (14) and replace with new seal.
3. Place head insert on a flat clean surface with the back of the hex of the head insert against the surface. This will require a hole or recess in the surface such that the head insert does not rest against anything. A 9/16” diameter hole with a minimum depth of 1” would accommodate this. Align 13/64” dowel pin (part # 102-2439) (available in Repair Kit 106-1171) with the center of the hole of the head insert. Move the dowel pin straight down until it seats against the resin seat (8). This will be about 1/2” from the top surface to the head insert. Press the seat out. This is most easily done on a drill press or arbor press.
4. Place the front of the head insert with grooves against a flat clean surface. Put the new resin seat into the tapered hole of the head insert. The small end of the resin seat must go in first. The seat now needs to be pressed in place such that a tight fit is created between the resin seat and the walls of the head insert that retain it. Use a 3/8” diameter dowel pin (part # 102-2510) (available in Repair Kit 106-1171) to press the seat tight. A drill press or arbor press is best for this operation.
5. Reassemble in reverse order.

(continued on next page)

REPLACEMENT OF WORN PARTS (CONTINUED)

REPLACING THE RESIN NEEDLE PACKING

1. Using a 3/16” allen wrench, remove screw (31) and detach bracket (30) from piston rod (29).
2. Use a 1” wrench to unscrew end cap (44), and remove spring (43).
3. Push in on the front of the piston rod (29) approximately 1/2” so that the piston (39) and the attached parts are still contained within the gun body (32). Using a 3/8” wrench, unscrew resin packing nut (18c) and pull the resin needle assembly (18) straight back until it comes out of the gun head. Be sure to pull the needle out without bending it up or down or from side to side thus ruining the needle.
4. Clean the needle assembly so that you may be able to clearly identify the packing.
5. The packing is the only non-metal piece of the needle assembly and is white in color. Note its location and orientation on the wire of the needle. Cut the worn packing away with a sharp knife being sure not to scratch or deform any nearby parts.
6. Carefully spread the new packing apart, about 3/64” at the edge (this can be done easily with an X-acto type knife) and press the packing onto the wire of the needle assembly in the same location and orientation as noted in Step 5. Gently squeeze the packing closed with fingers.
7. Slide the packing forward and back with your fingers to assure a proper fit onto the wire.
8. Reassemble in reverse order.

Product Description/Object of Declaration:	Century Series Spray Guns - 102-2900, 102-2900-L
This Product is designed for use with:	Solvent and Water based Materials
Suitable for use in hazardous area:	Zone 1
Protection Level:	II 2 G X
Notified body details and role:	Element Materials Technology. WN8 9PN UK Lodging of Technical file
This Declaration of Conformity /incorporation is issued under the sole responsiblility of the manufacturer:	Carlisle Fluid Technologies, 320 Phillips Ave., Toledo, OH 43612

EU Declaration of Conformity

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

Machinery Directive 2006/42/EC
ATEX Directive 2014/34/EU
by complying with the following statutory documents and harmonized standards:
EN ISO 12100:2010 Safety of Machinery - General Principles for Design
EN 13463-1:2009 Non electrical equipment for use in potentially explosive atmospheres - Basic methods and requirements
The object of the declaration described above is in conformity with the relevant Union harmonisation legislation: Directive 94/9/EC (until April 19th, 2016) and Directive 2014/34/EU (from April 20th, 2016)

Providing all conditions of safe use / installation stated within the product manuals have been complied with and also installed in accordance with any applicable local codes of practice.

Signed for and on behalf of Carlisle Fluid Technologies:

DJ Hasselschwert
19-Apr-16

(Vice President: Global Product Development)
Toledo, OH 43612

4-3196R-1

WARRANTY POLICY

Binks products are covered by Carlisle Fluid Technologies one year materials and workmanship limited warranty. The use of any parts or accessories, from a source other than Carlisle Fluid Technologies, will void all warranties. For specific warranty information please contact the closest Carlisle Fluid Technologies location listed below.

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