



## Fill-n-Spray™ MODEL 14

OWNER'S MANUAL



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## IMPORTANT!

Read this entire manual before operating this unit. Keep it in a handy place for future reference and trouble-shooting.

## General Safety

Any misuse of the Fill-n-Spray filling equipment or accessories, such as over pressurizing, modifying parts, using incompatible chemicals and fluids, removing door, or using worn or damaged parts, can cause rupture, splashing in the eyes and skin or other serious bodily injury, fire, explosion or property damage. Never alter or modify any part of this equipment; doing so could cause equipment malfunction and, doing so could cause equipment malfunction and/or injury. Check all equipment regularly and repair or replace worn or damaged parts immediately. Read and follow the paint manufacturer's literature and SDS sheet regarding the use of product, protective clothing, and equipment.

## Safety Warning

Always wear safety glasses when filling! Use of protective clothing recommended. Use with adequate ventilation. Flammable. Keep from heat, sparks and flame. Refer to Fill-n-Spray Solvent Blend MSDS sheet for complete safety information.

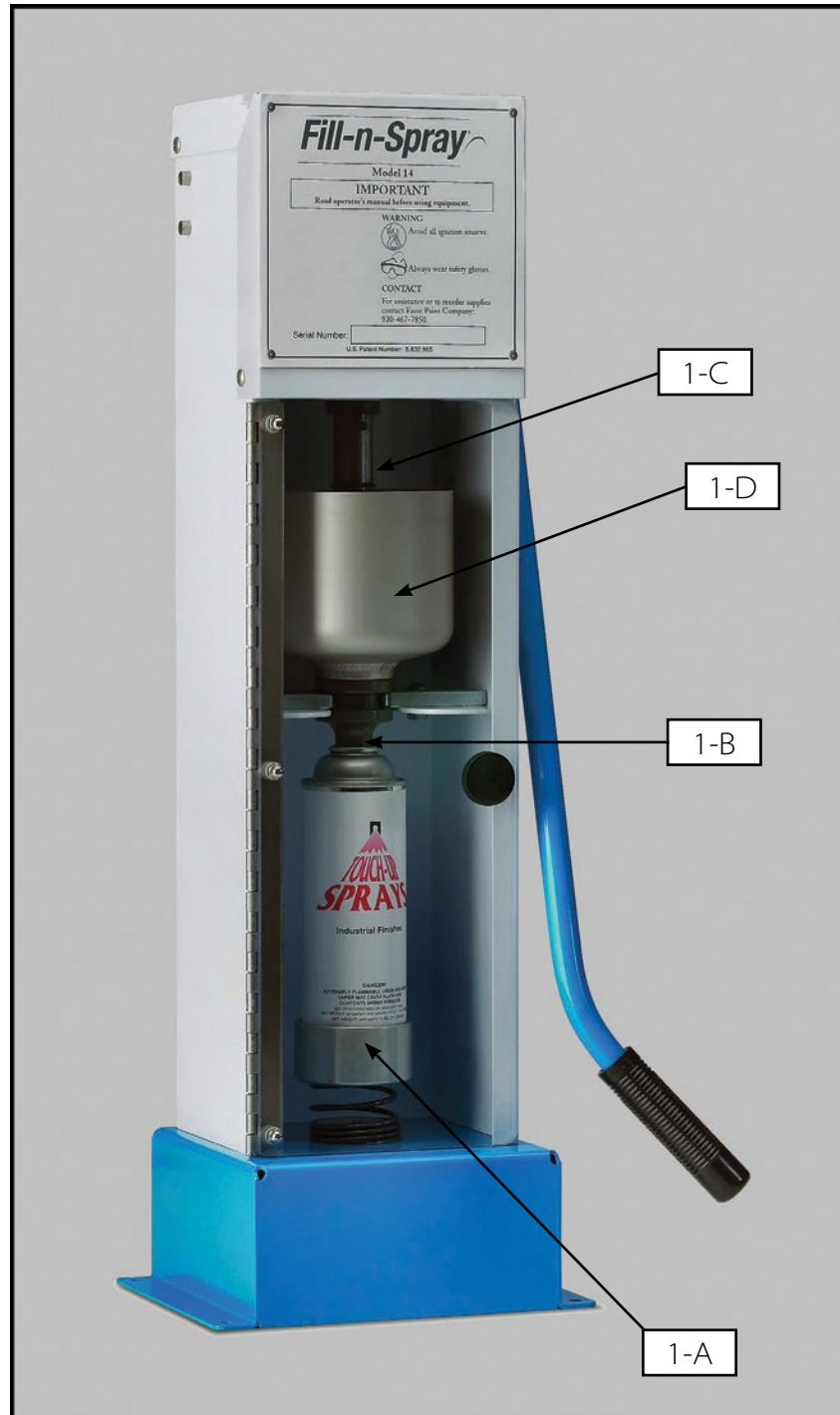


Figure 1

## Paint Preparation

Most solvent-based enamels, lacquers, vinyl's and acrylics are suitable for use in the Fill-n-Spray Pump. Paint must be thoroughly mixed and strained before pouring into the reservoir. Even the freshest paint may contain bits of "skin", undispersed pigment or other foreign matter. Particles may block the valve in the open position, allowing can pressure to blow back through the reservoir.

Note: Some exotic, solvent-based paints may be suitable for filling, but it is recommended that the material be tested before setting up to fill the entire batch. Coarsegrind and water-based (latex) paints cannot be packaged. They will not work!

## Filling Paint Reservoir

Pull handle away from machine until piston is all the way up. Pull paint reservoir forward until it rests against piston (Fig 1-C). Carefully pour un-thinned, Strained paint into reservoir until reservoir is three quarters full. Slide reservoir back into place. Do Not push the handle down until can is in position.

## Loading Spray Can

Place the Fill-n-Spray™ aerosol can in position on the round platform. The platform is connected to a large spring inside the frame cavity (Fig 1-A). When the can is in position the injector point will make contact with valve assembly (Fig 1-B). To insure proper alignment

twist can back and forth slightly. The upward pressure from the spring will make contact with the injector point. The check valve inside the injector point will prevent the gas from escaping from the can. If gas start escaping from the can when it is placed in position indicates a dirty or worn injector point. Review problems and solutions section.

## Filling by Weight and Spray Properties

Pump the paint using firm strokes. Start with the handle as high as it will go, push the handle down continuing until the piston hits bottom. Pulling the handle up completes the stroke. Pause between strokes when the handle in the up position to allow paint to fill the piston cavity.

The number of strokes to fill a can varies, depending on the weight, viscosity, opacity, and type of paint. The following chart provides the amount of paint required per can and suggested starting stroke count (Fig 2).

When filling the first can, start by weighing the unfilled can, add the suggested number of strokes of your paint and re-weigh the can. The difference is the amount of paint filled. If the weight is short, add one or two strokes and re-check. If the weight is over, try a new can and reduce the stroke count.

	Gross weight of can before paint	Amount of paint required	Gross weight filled	Number of strokes	Label weight
ALV 6 oz	145 Grams 5.11 oz	35 Grams 1.23 oz	180 Grams 6.35 oz	7	120 Grams 4.25 oz
ALV 16 oz	292 Grams 10.3 oz	122 Grams 4.3 oz	414 Grams 14.6 oz	15	312 Grams 11.0 oz

**Figure 2** Note: Gross weights are listed without over caps

**WARNING:** DO NOT OVER-FILL CANS. DO NOT EXCEED THE MAXIMUM NUMBER OF STROKES PER CAN. OVER-FILLING MAY CAUSE BURSTING.

Along with checking the weight of a fill, check the can for spray properties. When filling the first can, select an average number of strokes for a starting point. Clear the can (see instructions on “clearing the valve”) and make a test spray-out. Check for spray properties and adequate “hide”. If spray does not develop good “hide properties” or appears thin and transparent, add one or two strokes to improve. If hide and transparency is not a problem, pump a second can starting with less strokes. The goal is to achieve the “best possible spray properties” with the least number of strokes and yet hit the minimum net weight stated on the label.

## Clearing The Valve

Wipe any excess paint off the top of the aerosol can. Place the spray actuator (button) on top of the can. Insert button into hole with a slight downward pressure and twisting motion. Shake the can vigorously



Figure 3

to thoroughly mix the paint and propellant. Prepare the can for storage by holding the can upside down and spraying it into a waste receptacle until only clear propellant comes out (Fig 3). This will clear the valve and dip tube of the small amount of paint left in them and must be done to keep the valve from clogging. Wipe clean any excess paint from the valve.

## VALVE CLEARING TOOL

(Part # FAS-0100) To assist in the valve clearing process a special valve clearing device is available. This accessory speeds up and simplifies the “clearing” process. To use the valve-clearing tool, place and secure the cover to an empty 5-gallon pail. Invert the can and insert the valve stem into the opening of the device. Press the can down quickly and firmly for 1-3 seconds (Fig 4). Wipe the top of the can clean and insert the spray actuator (button).

## CLEAN UP

When filling is complete or when changing color, open door by turning black knob counter-clockwise. Pull the handle all the way forward until the piston is all the way up. Pull reservoir forward and tilt reservoir back then slide reservoir out. Pour out any remaining paint. Rinse filler body and piston in solvent.



Figure 4

**IMPORTANT** Reassemble filler body and piston. Fill bowl with clean solvent and pump into empty aerosol can provided. Be sure to pump sufficient solvent through filler assembly to thoroughly clean injector.

If machine is to be unused for a period of time, pump a very slow evaporating solvent or lightweight oil through assembly.

Cleaning the filler assembly is extremely important to the success of your Fill-n-Spray pump. Within the filler

assembly (Part # FNS-0002) is an injector point (Part # FNS-0011, Fig 5), which contains a check-ball, spring and seat. This checking mechanism prevents the propellant from escaping from the can and bubbling up through the container of paint. Improper cleaning leaves a dry film of paint, that will prevent the ball from creating a proper "check seat" and create a propellant leak the next time you try to fill cans.

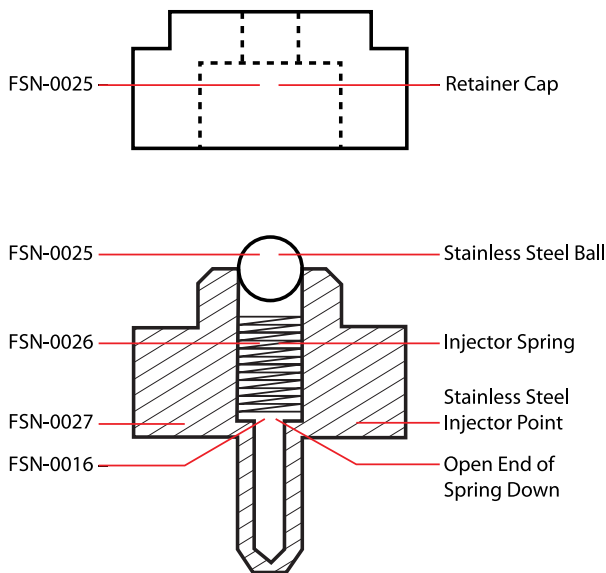


Figure 5

## REPLACEMENT PARTS

### Piston "O-ring"

The bottom end of the piston (Part # 14-048BB) has a Teflon o-ring (part # FNS-0014), which assures equal amounts of paint pumped with each stroke. A noticeable drop in the weight of cans after filling or an unusually larger number of strokes to fill a can will indicate the piston o-ring has worn and should be replaced. Cut off o-ring with a sharp knife or razor blade. Clean piston groove of old dried paint. Place the new o-ring on end of piston. Force o-ring into groove by pushing piston downward on hard surface and roll piston on its edge (Fig 6). O-ring should snap into groove. Before filling cans with new piston o-ring, stroke piston one time through dry main

body assembly to form and size the o-ring. Slivers of Teflon may result which must be removed from the opening.

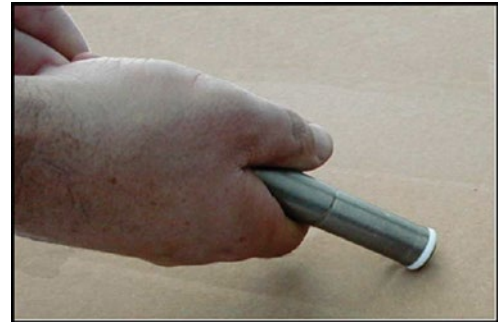


Figure 6

## FILLER ASSEMBLY

(Parts page 10) If it becomes necessary to disassemble filler assembly, located at the bottom of the bowl, start by removing filler nut (FAS-0030). Push out injector point assembly (FAS-0011), injector o-ring (FAS-0023), and screen (FAS-0024).

**WARNING:** Do not pull injector point with a pliers, but instead push out from top end with pencil or blunt instrument. Pulling with a pliers will damage steel point.

Inspect for damage and replace if necessary. Be sure to place parts in their exact order as shown in parts diagram. Be sure to keep main body nut (FAS-0030) snug (do not over-tight) to prevent paint from leaking around injector o-ring (FAS-0023), and injector point assembly (FAS-0011).



## REPAIRING INJECTOR POINT

(FAS-0011, Fig 7 ) The injector point assembly is a typical “check valve”, consisting of a ball, spring and seat. Use the special tool (FNS-0500, Fig 8) to separate the plastic retainer (FAS-0025) from the stainless steel injector point (FAS-0016). Spread tool open and place assembly in the rounded-out cradle of the tool



**Figure 7**

(pliers), with the knife-edge lined up with the seam between plastic retainer and stainless steel point. Gently squeeze tool closed so knife-edge splits the plastic cap from the point. Replace parts as shown in parts diagram (Fig 5). Replace spring and ball. Squeeze injector retainer (FNS-0025) together with injector point (FNS-0016) by using end of special tool (FNS-0500) similar to a typical pliers.

## PROBLEMS AND SOLUTIONS

### 1. Propellant escapes out of can and bubbles up through the reservoir when can is in the filling position.

The check valve within the injector point assembly (FAS-0011) is not creating a seal. Dried paint due to improper cleaning is preventing the ball from creating a seat. Pump 1-2 quarts of lacquer thinner, acetone, or MEK through the injector into the empty cleaning can to flush out dried paint. If after repeated cleaning cycles

the valve continues to leak (propellant bubbles up through reservoir) it is possible the injector point assembly is damaged or worn and requires replacing.

### 2. Excessive wet paint fills the cup at the top of the can during the filling process

**a)** The exterior surface of the injector point assembly (FAS-0011) has accumulated excess, dry paint. Clean injector point with solvent and soft bristle brush.

**b)** Filler Assembly is not assembled correctly. Check injector screen (FNS-0024) and injector o-ring (FAS- 0023) to be sure parts are not twisted, damaged or properly assembled. Check parts drawing for correct assembly.

**c)** Main body nut (FAS-0030) is not tight. Disassemble Filler Assembly, inspect and clean all parts and reassemble in correct order. Keep main body nut (FAS-0030) “snug”.



**Figure 8**

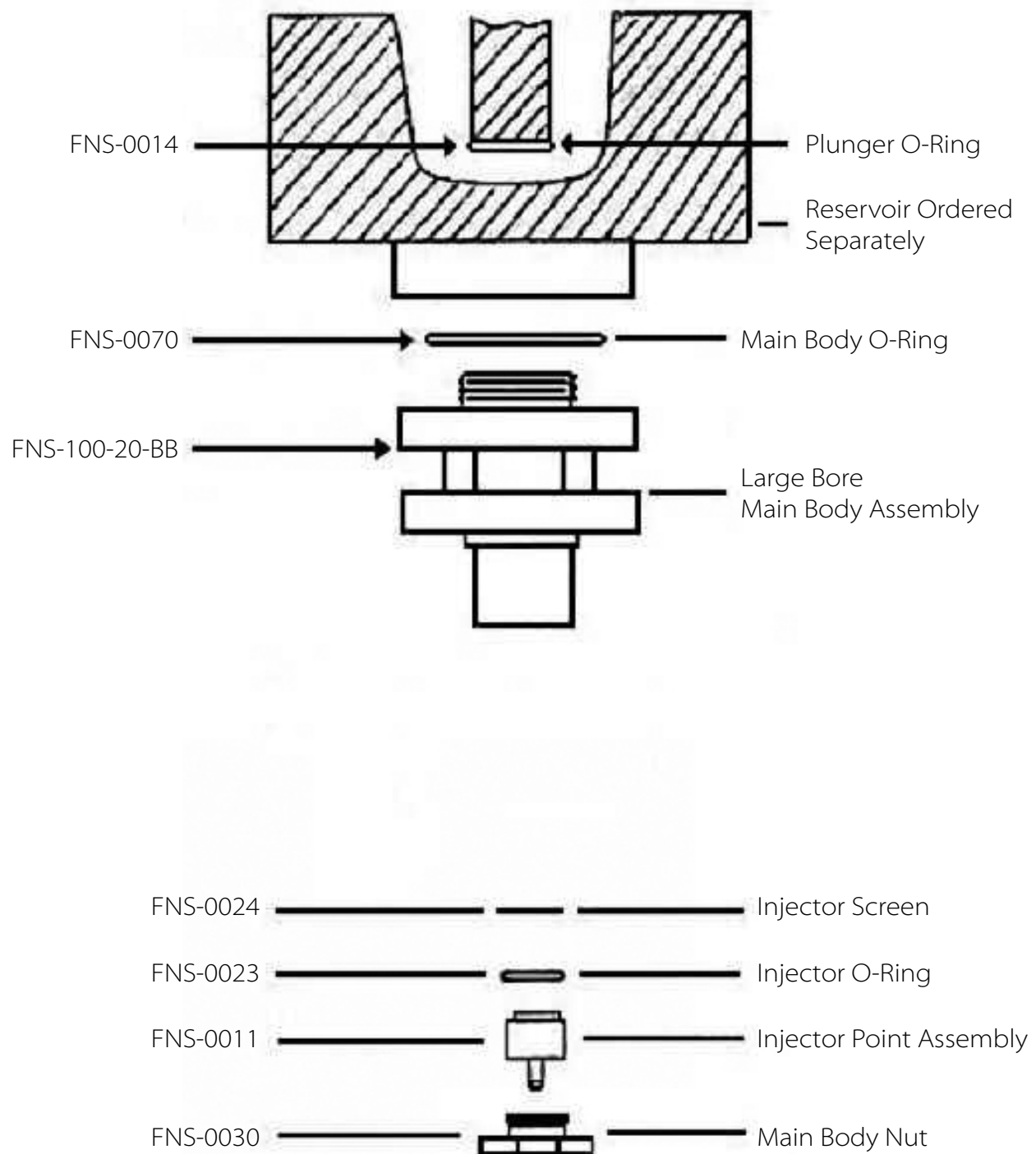
## Fill-n-Spray Models

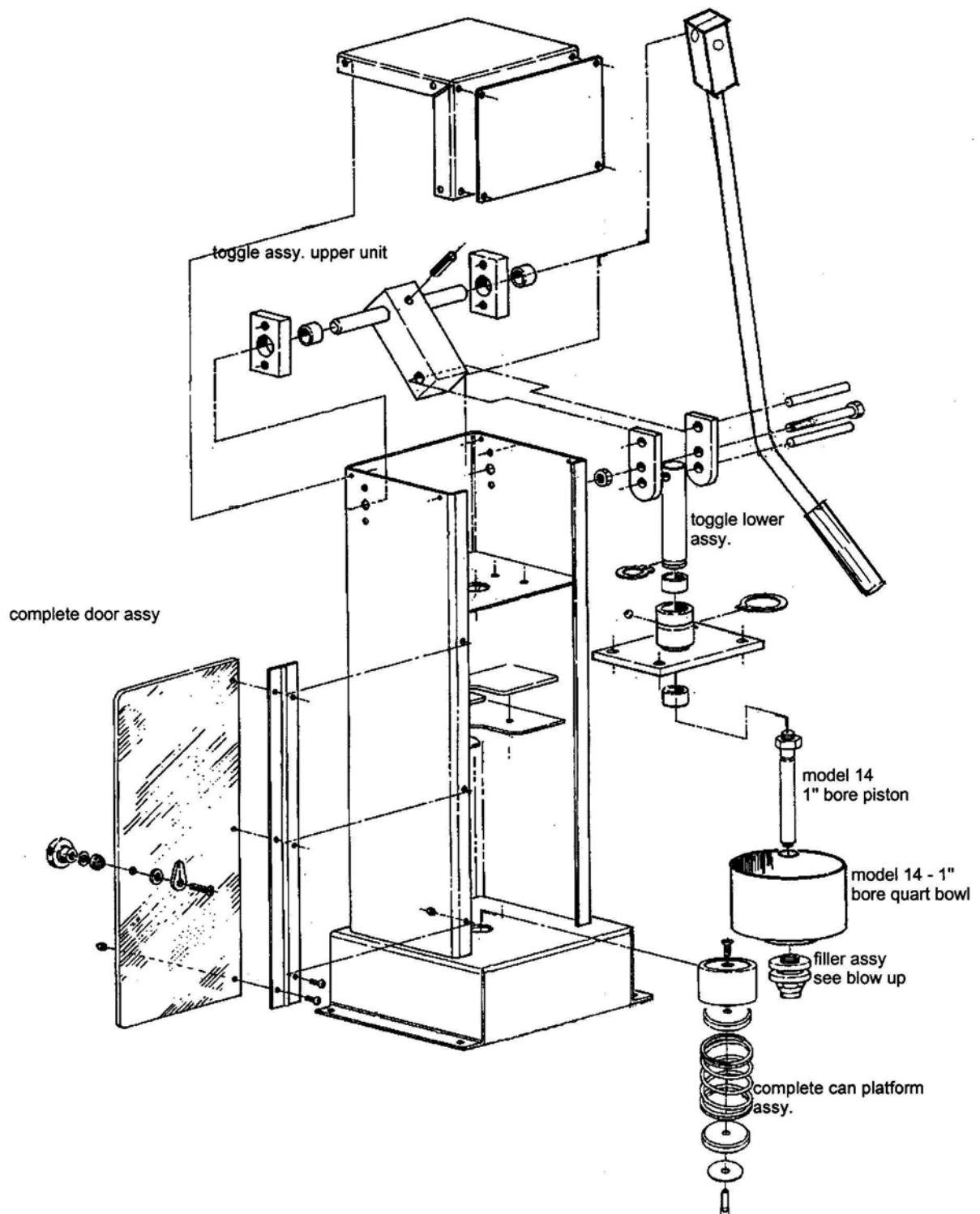
The complete line of Fill-n-Spray machines designed to meet many production needs. Our sales and marketing team can provide statistics and costs. Let us help you meet your production requirements.

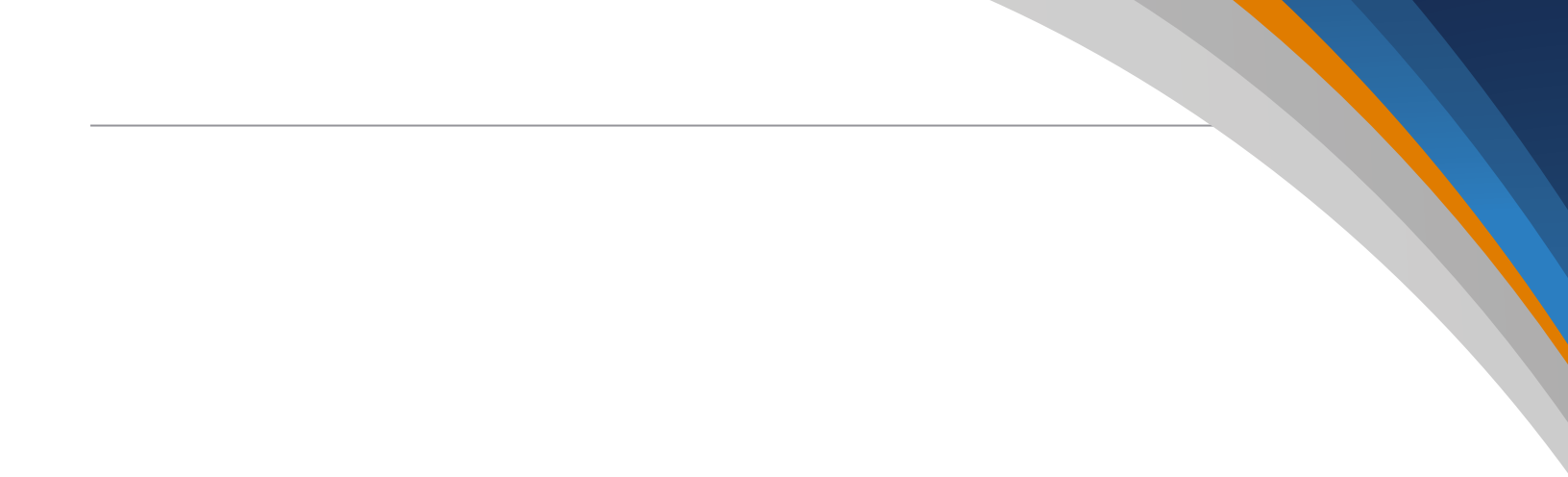




## Model 15 FNS-0002 Filler Assembly Complete









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