



RTF1000EZ

SETUP, OPERATING AND MAINTENANCE MANUAL



POLYFOAM PRODUCTS, INC.
A 3M Company

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Introduction

The Polyfoam Foampro® RTF1000EZ is the latest iteration of a long line of rugged and reliable polyurethane foam dispensers. Over time, Polyfoam's technology and hardware have been refined to provide applicators dispensers that are easy to use, easy to maintain and extremely cost effective. The RTF1000EZ is the culmination of these developments and refinements. The RTF1000EZ is engineered for quick setup and shutdown, consistency from jobsite to jobsite and years of trouble-free service.

This manual describes the operating principles and best practices for using and maintaining the Polypro® RTF1000EZ polyurethane foam adhesive dispenser. It may be helpful to read it through first, to gain an overall understanding of the system, before trying to use the RTF1000EZ. It may also be helpful to study the exploded parts diagram to become accustomed to the part names and their locations so, when referenced in the text, the reader is already familiar. For clarity, the full part names are always given.

Note:

Operator of the Foampro® RTF1000EZ dispensing system must be qualified by Polyfoam Products, Inc.

Safety Procedures

Nitrogen bottles are under very high pressure. Use extreme care when handling and always keep them properly secured. The nitrogen pressure of the chemical cylinders should never exceed 200 psi. When the nitrogen supply pressure level drops to 200 psi, replace the nitrogen bottle with a full one.

Some people are allergic or sensitive to chemicals. If a reaction of any kind develops, immediately stop and inform your supervisor.

It is strongly recommended you wear protective clothing, eyewear and gloves. A NIOSH approved mask is required in a non-ventilated area.

In case of accidental contact with your eyes, wash them with water for no less than 15 minutes. If irritation persists, seek medical attention.

If there is accidental contact with large skin areas, you must remove most of the chemical with a dry cloth, then wash thoroughly with soap and water.

Always read the Material Safety Data Sheets in case of small or large chemical spills. These can be found affixed to the side of the chemical cylinders, on our web site www.polyfoam.cc or call Polyfoam Products, Inc. at **888.774.1099**.

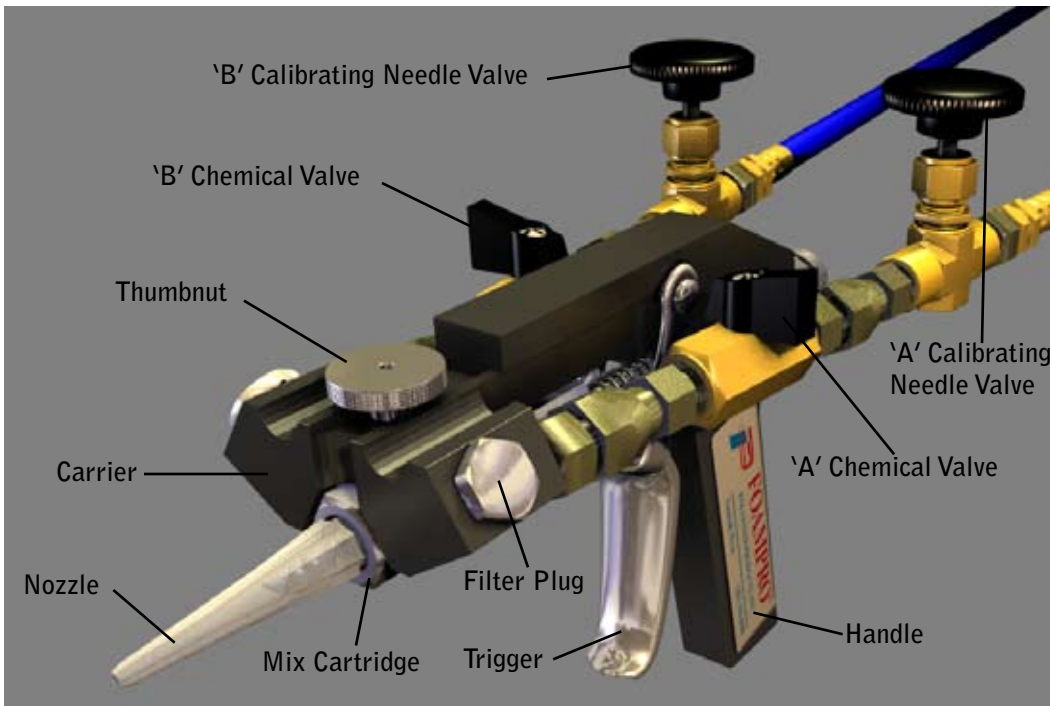


Figure 1
The RTF1000EZ

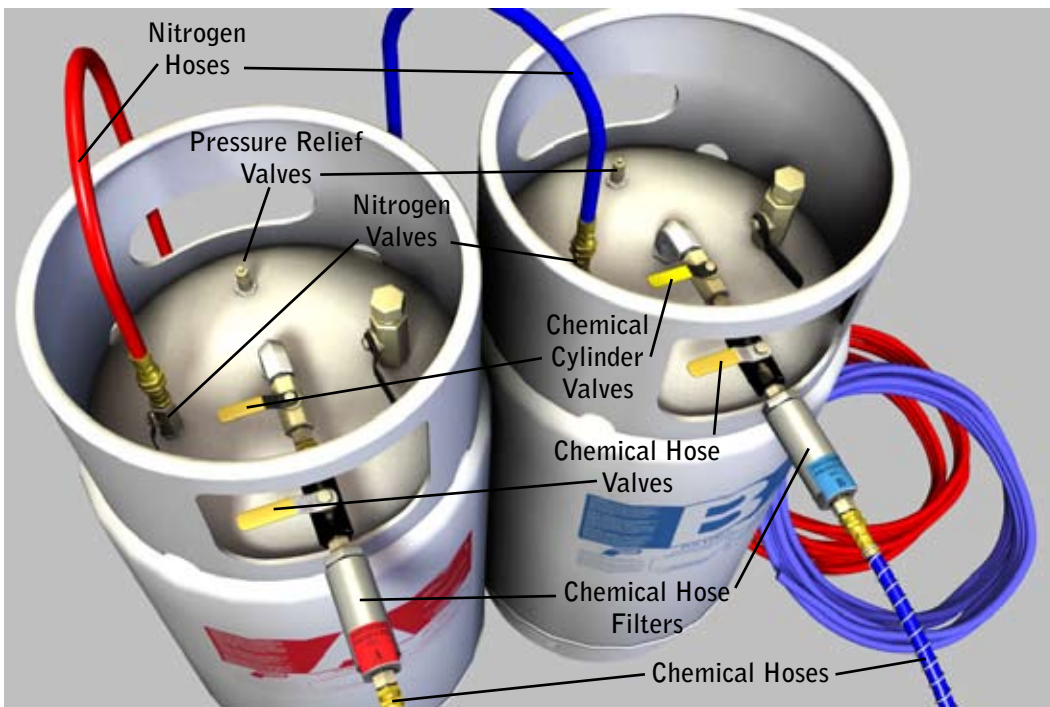


Figure 2
The chemical cylinders and hoses



Installation

The Foampro® dispenser is usually shipped to customers with the hose assembly already connected to the dispenser. If your Foampro® dispenser is not connected to the hose assembly:

Attach the red “A” hose to the Hose Connection Fitting (H837) on the left side of the dispenser. (See Figure 3)

Attach the blue “B” hose to the Hose Connection Fitting (H837) on the right side of the dispenser. (See Figure 3)

Lay out the dispenser/hose assembly.

Place the cylinders of “A” chemical and “B” chemical in a position where the hoses can be connected without strain.

Be sure all valves on both of the cylinders, and the hoses are closed before connecting or disconnecting hoses, or removing caps or plugs from cylinder.

After checking to be sure all valves on the “A” chemical cylinder are closed, remove the cap from the outlet of the chemical valve. (See Figure 4) Keep the cap handy so that it can be refitted to the cylinder after the cylinder is empty.

Remove the plug from the filter end of the red “A” hose. (See Figure 4) Keep the plug handy - it will be needed to reseal the hose after the hose is disconnected from the cylinder.

Connect the red “A” hose to the outlet of the chemical valve on the “A” component cylinder. (See Figure 4)

To connect the blue “B” hose to the “B” chemical cylinder: After checking to be sure that all valves on the cylinder are closed, remove the plug from the outlet of the chemical valve. Keep the plug handy so that it can be refitted to the cylinder after the cylinder is empty.

Remove the cap from the filter end of the blue “B” hose. (See Figure 4) Keep the plug handy it will be needed to reseal the hose after the hose is disconnected from the cylinder.

Connect the blue “B” hose to the outlet of the chemical valve on the “B” chemical cylinder. (See Figure 4)

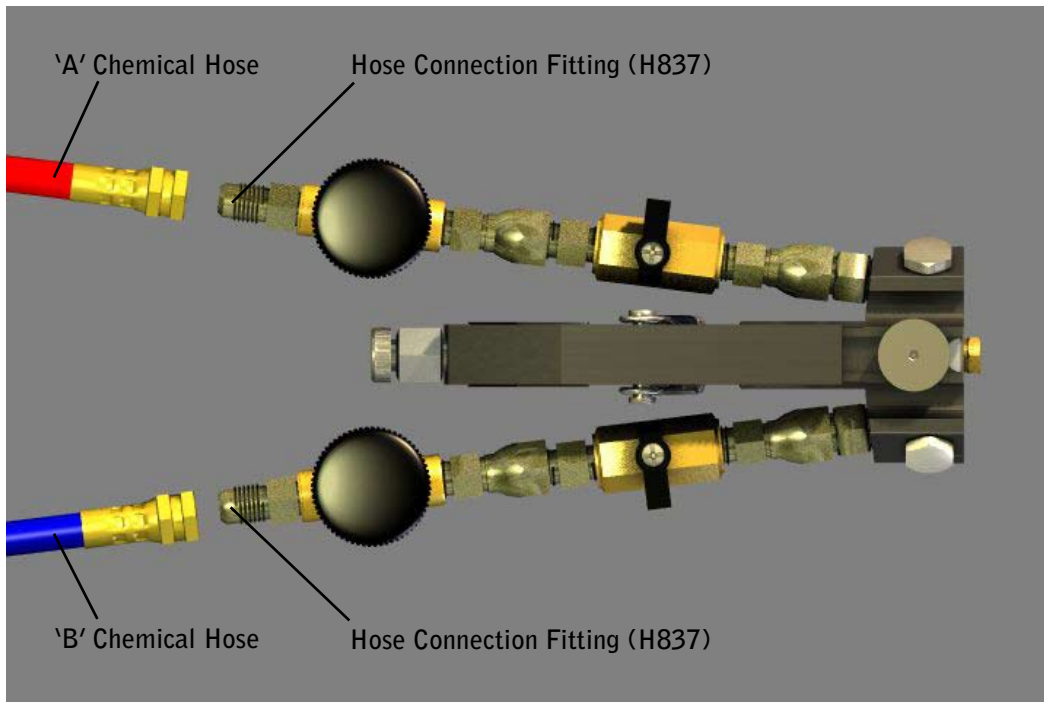


Figure 3
*Connecting the
 chemical hoses
 to the RTF1000EZ*

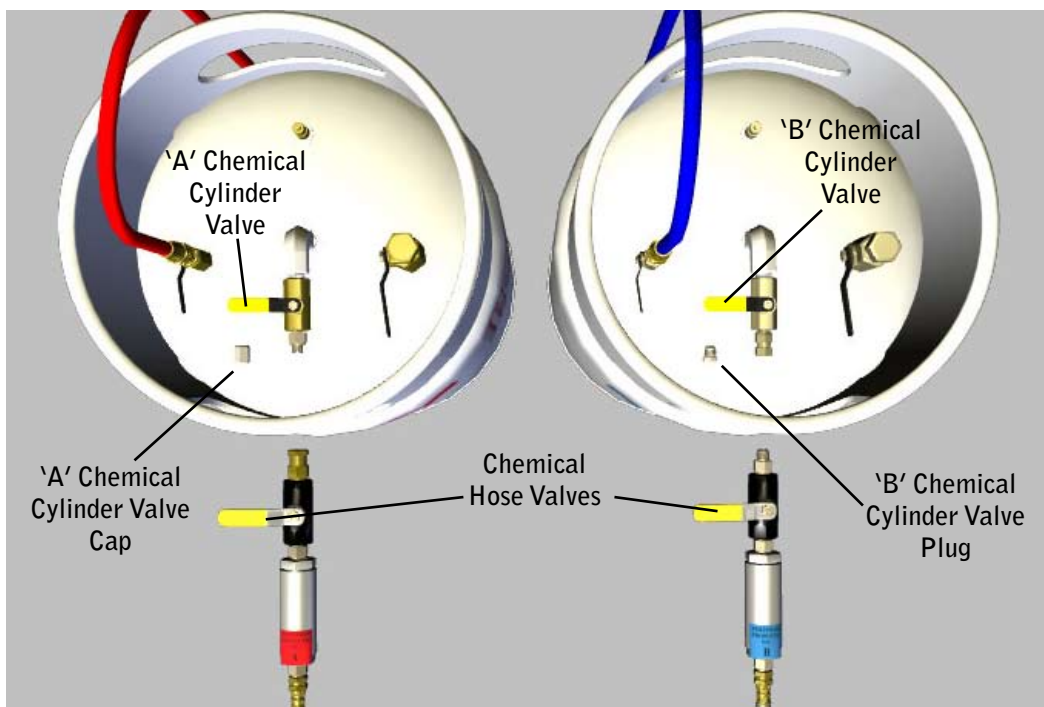


Figure 4
*Connecting the
 chemical hoses
 to the chemical cylinders*

Place the nitrogen cylinder near the chemical cylinders, being sure to secure the nitrogen cylinder so that it cannot be accidentally knocked over.

Connect the nitrogen regulator to the nitrogen cylinder using the threaded pressure fitting on the rear of the nitrogen regulator assembly.
(See Figure 5)

Connect the red hose leading from the nitrogen regulator assembly to the nitrogen fitting on the “A” chemical cylinder . It will be fitted with a quick connect fitting that will simply snap into place. (See Figure 6)

Connect the blue hose leading from the nitrogen regulator assembly to the nitrogen fitting on the “B” chemical cylinder. It will be fitted with a quick connect fitting that will simply snap into place. (See Figure 6)

'A' Component
Nitrogen Pressure
Gauge

Nitrogen Supply
Pressure Gauge

'B' Component
Nitrogen Pressure
Gauge



Figure 5
*Connecting the
nitrogen regulator
and gauge assembly*

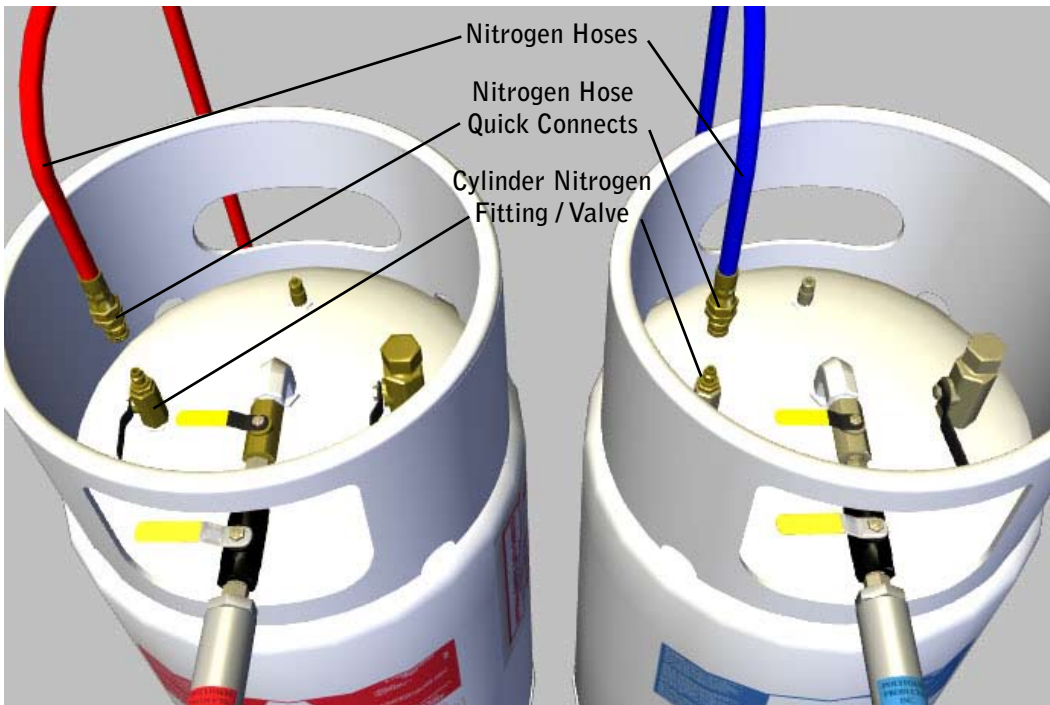


Figure 6
*Connecting the
nitrogen hoses
to the chemical cylinders*

Startup

Make sure all installation steps have been completed prior to startup and calibration. Make sure that the chemicals are at the correct operating temperature, usually 70° to 90° F.

- 1 | Be sure that all valves are closed. (See figures for valve locations) This would include: The valve on top of the nitrogen cylinder. (See Figure 8) The nitrogen valve on top of both chemical cylinders (“A” Chemical and “B” Chemical). (See Figure 7) The chemical outlet valve on top of both chemical cylinders (“A” chemical and “B” chemical) (See Figure 7) The chemical valve on the filter end of both the red “A” component hose and the blue “B” component hose. (See Figure 7) Both the “A” chemical valve and the “B” chemical valve on the RTF1000EZ dispenser (See Figure 8).
- 2 | Remove Mix Cartridge Plug (D620) if one is in place. Do not install a nozzle until calibration steps are completed.
- 3 | Turn the adjustment valves on both nitrogen regulators leading to the “A” chemical and the “B” chemical counterclockwise two full turns. (See Figure 8)
- 4 | Open the valve on top of the nitrogen cylinder, and check for leaks.
- 5 | Adjust the “A” component nitrogen regulator (with the red hose) to 150 psi (as a starting point) by turning clockwise (See Figure 8)
- 6 | Adjust the “B” component nitrogen regulator (with the blue hose) to 150 psi (as a starting point) by turning clockwise (See Figure 8)

Note:

The chemical cylinders are equipped with a pressure overload relief valve that will open if the pressure of the cylinder exceeds approximately 200 psi. Do not adjust the nitrogen pressure on the chemical cylinders to approach 200 psi. Caution: Do not use any gas other than nitrogen to pressurize the chemical cylinders.

- 7 | Open the nitrogen valves on both chemical cylinders (“A” component and “B” component). (See Figure 7)
- 8 | Open the chemical valves on both chemical cylinders (“A” component and “B” component). (See Figure 7) Check for leaks. Tighten any leaking fittings.
- 9 | Open the chemical valves on the filter end of the hose assembly for both the “A” component and “B” component. (See Figure 7) Check for leaks. Tighten any leaking fittings.
- 10 | Position a garbage can with a plastic liner at the work area.
- 11 | Make sure mixing cartridge plug is removed.
- 12 | Open the “A” valve and the “B” valve on the RTF1000EZ dispenser.
- 13 | While aiming the RTF1000EZ into the trash can, pull the trigger on the RT-

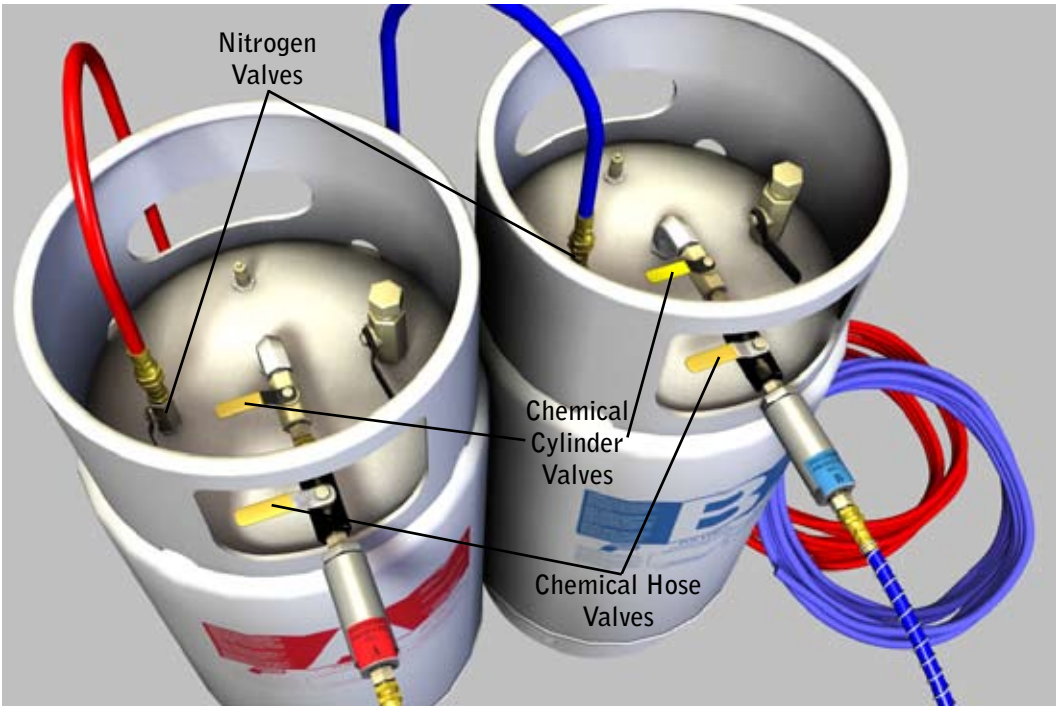


Figure 7
Valve locations on the chemical cylinders and hoses

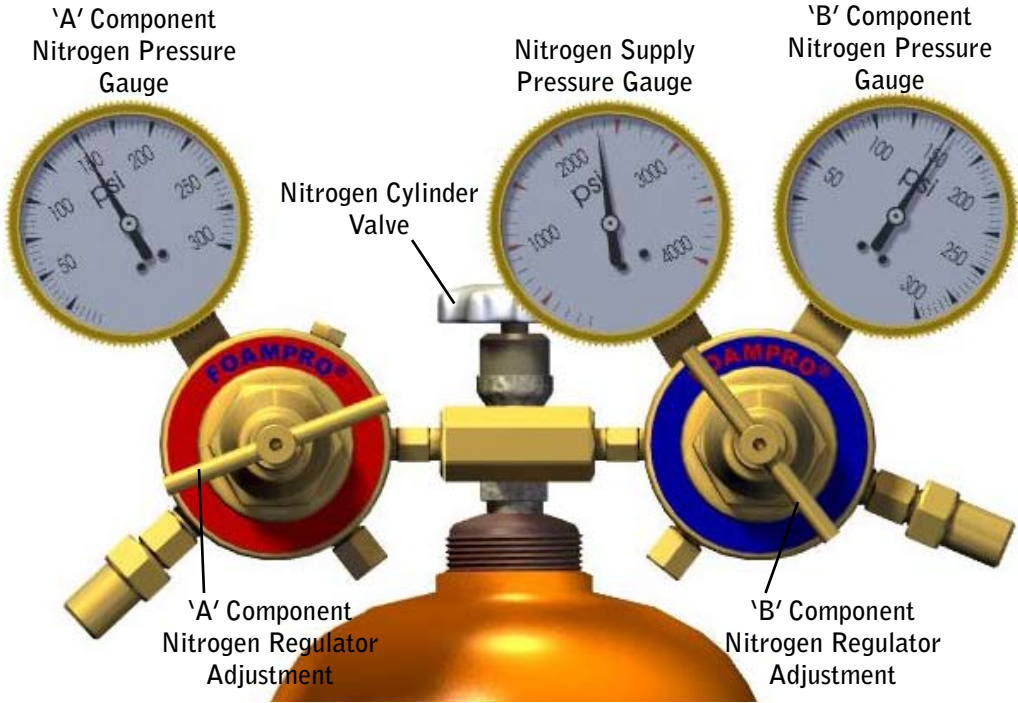


Figure 8
Adjusting the nitrogen pressure to the chemical cylinders

F1000EZ dispenser for 10 seconds, dispensing the foam into the trash can liner. If your RTF1000EZ is brand new, you may have to pull the trigger for a longer period to purge the air out of the hoses. If your RTF1000EZ dispenser was put into storage with the hoses full of chemicals, you may have to dispense foam for longer than 10 seconds to be sure that the chemicals that were stored in the hoses are fully flushed out by fresh chemicals from the chemical cylinders.

Calibration

Proper mixing of the “A” and “B” component chemicals in the correct proportions is important in producing foam. Foams produced with an improper proportion of “A” to “B” chemical can in some cases affect foam properties.

When and how often should the A:B ratio be checked?

- Just before tile installation.
- When a new cylinder of “A” or “B” component is installed.
- When a new cylinder of nitrogen is installed.
- About halfway through the normal workday.
- When the temperature in the work area rises or falls by more than 10 degrees. If the chemical temperature changes, the viscosity also changes. This viscosity change can effect the A:B ratio.
- When a noticeable change takes place in the foam being produced.
- After any restriction in the chemical flow is removed. For example, cleaning the filter screens or the ports in the mixing cartridge in the RTF1000EZ will likely increase the flow of chemical which in turn may change the A:B ratio.
- When a new mixing cartridge is installed.

- 1 | Make sure that the RTF1000EZ dispenser is correctly installed to the chemical cylinders and nitrogen cylinder as described in the Startup procedures above. Check all hose connections to be sure that there are no leaks. For calibration, remove the plastic nozzle.
- 2 | Place a 32 oz. paper cup on a scale, tare the scale to read zero, then remove the cup.
- 3 | Open the “A” chemical valve and close the “B” chemical valve on the RTF1000EZ dispenser. (See Figure 9)
- 4 | Using a stop watch, or optional timer, fully depress the trigger on the RTF1000EZ dispenser for exactly 5 seconds, directing the flow of the “A” chemical into the paper cup, purge dispenser, then place the cup on the scale. Record the weight of “A” chemical dispensed.

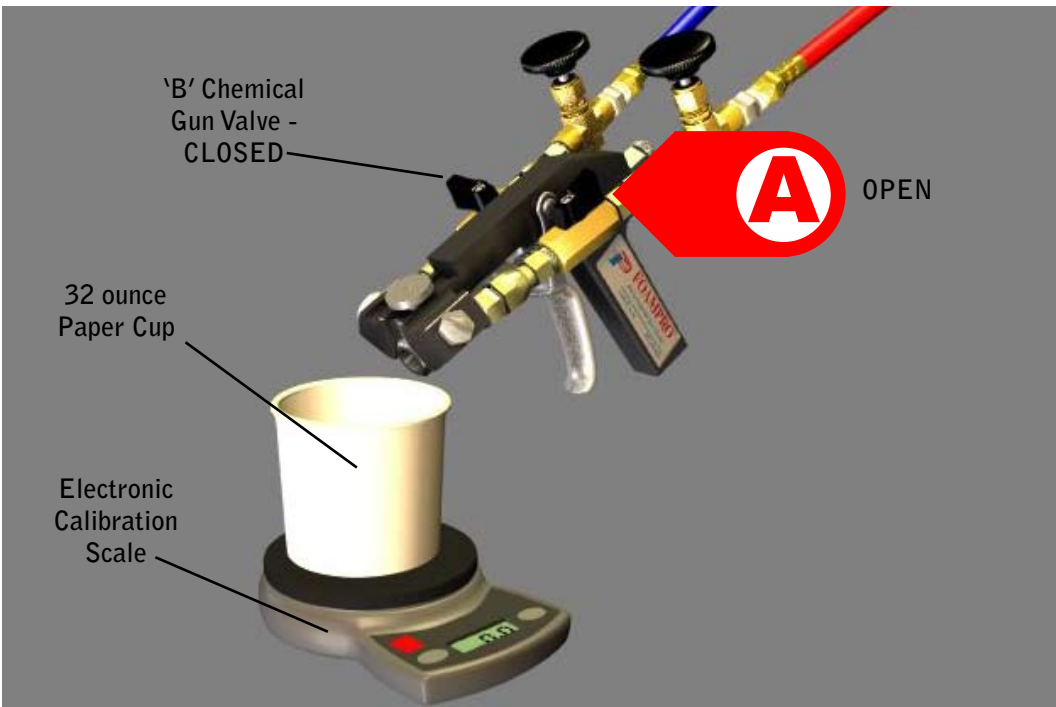


Figure 9
*"A" Chemical
Timed Shot*

- 5 | **Critical Step - Purging the mix cartridge:** Before measuring the weight of the dispensed “A” chemical in step 4, open the both “B” chemical valve and the “A” chemical valve on the RTF1000EZ dispenser. (See Figure 10) Then, while directing the flow of the dispenser into a trash can, trigger the RTF1000EZ dispenser for a few seconds to dispense a mixture of “A” and “B” chemicals into the trash can. This step is important because it will reduce plugging of the mix cartridge.
- 6 | Close the “A” chemical valve on the RTF1000EZ dispenser, leaving the “B” chemical valve open. (See Figure 11)
- 7 | Place a 32 oz. paper cup on a scale, and tare the scale to read zero.
- 8 | Using a stop watch, or optional timer, fully depress the trigger on the RTF1000EZ dispenser for exactly 5 seconds, directing the flow of the “B” chemical into the paper cup, purge dispenser, then place the cup on the scale. Record the weight of “B” chemical dispensed.
- 9 | Purge the mix cartridge once again as outlined in step 5 above.
- 10 | Calculate the A:B chemical ratio by dividing the weight of the “A” chemical obtained from step 4 by the weight of the “B” chemical obtained in step 8.

Example:

“A” chemical (5 second shot) weighs 41 grams
“B” chemical (5 second shot) weighs 37 grams
 $41 \text{ grams} \div 37 \text{ grams} = 1.11 \text{ A:B ratio}$

Most Polypro® formulations should be run with an A:B ratio in the range of 1.00 to 1.15. Consult the technical data sheet for the Polypro® formulation you are running - it will list the best A:B ratio for that particular product (See Ratio Calibration Charts on pages 16 - 19).

- 11 | If the A:B chemical ratio obtained in step 10 is too high, ie above 1.15, adjust the nitrogen pressure on the “B” chemical up by 10 psi and repeat the calibration procedure starting at step 6. If the A:B ratio obtained in step 10 was too low, ie below 1.00, then adjust the nitrogen pressure on the “A” chemical up by 10 psi and repeat the calibration procedure. It may be necessary to make more than one adjustment to the nitrogen pressure of the “B” chemical before reaching the correct A:B ratio. It is advisable to adjust the nitrogen pressure on the “B” component in order to adjust the A:B ratio, not the nitrogen pressure on the “A” chemical.
- 12 | It may be necessary during the calibration process to reduce the nitrogen pressure on one of the chemical cylinders. This situation occurs when the proper A:B component ratio cannot be achieved without raising the pressure on one of the cylinders to its maximum pressure of 200 psi.

REMEMBER: Each of the chemical cylinders is equipped with a pressure relief valve that will automatically open if the nitrogen pressure on the cylinder



Figure 10
*Purging the
Mixing Cartridge*

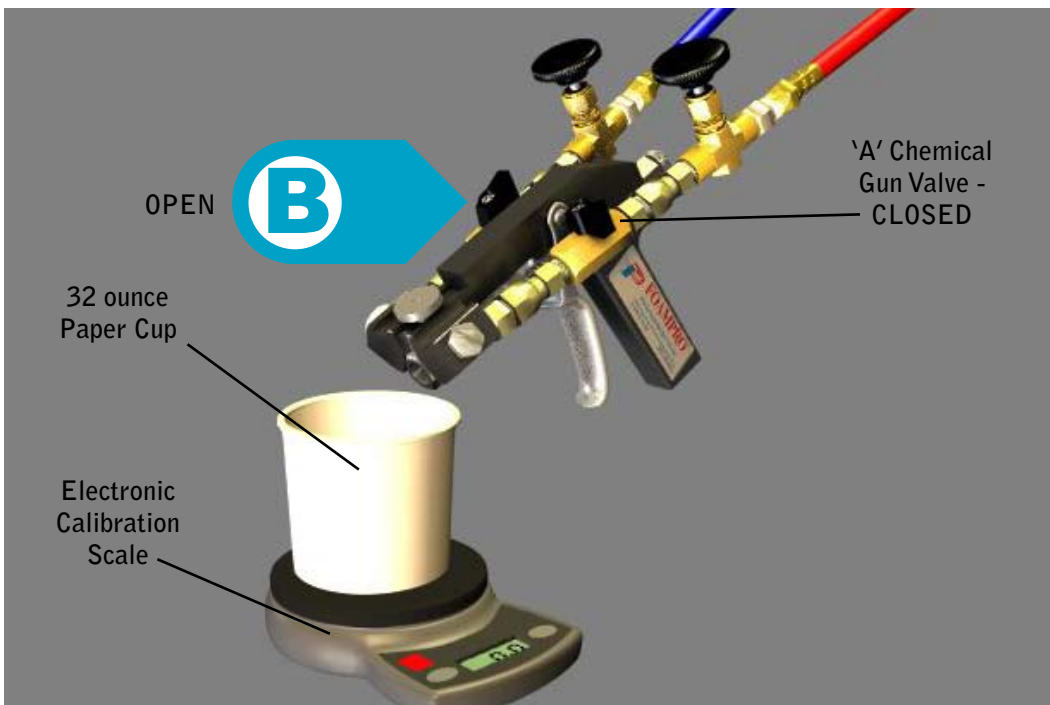


Figure 11
*“B” Chemical
Timed Shot*

exceeds 200 psi.

Adjusting Chemical Cylinder Pressure

Use the following steps to reduce nitrogen pressure on the cylinder.

FOLLOW SAFETY PROCEDURES ON PAGE 2.

- 1 | Close the nitrogen valve on the chemical cylinder. (See Figure 12)
- 2 | Using the nitrogen pressure adjustment valve for the chemical cylinder being adjusted, turn the adjustment valve counterclockwise two full turns. (See Figure 13)
- 3 | Locate the pressure relief valve on the chemical cylinder being adjusted. (See Figure 12)
- 4 | Pull upward on the ring of the pressure relief valve in one second bursts, then release the ring to allow the valve to close. A burst of pressure will escape from the valve.
- 5 | Open the nitrogen valve on the chemical cylinder. (See Figure 12)
- 6 | Using the nitrogen pressure adjustment valve for the chemical cylinder being adjusted, turn the valve clockwise to the desired pressure. (See Figure 13)

Following steps 1 through 5 should result in a decrease in the pressure on the chemical cylinder.

The chemical cylinders are equipped with a pressure overload relief valve that will open if the pressure of the cylinder exceeds approximately 200 psi. Do not adjust nitrogen pressure on the cylinders to approach 200 psi.

Before using the RTF1000EZ dispenser, you will need to install the plastic nozzle onto the Mix Cartridge.

After using the RTF1000EZ dispenser, if it is to momentarily sit idle for more than a few minutes, place a few drops of solvent into the open end of the plastic nozzle. Keep the plastic nozzle pointed upward so the solvent remains and prevents any foam product from curing in the nozzle or mix cartridge. If the RTF1000EZ dispenser is to be shut down or stored for a long period of time, follow the procedure for Shutdown described later in this manual.

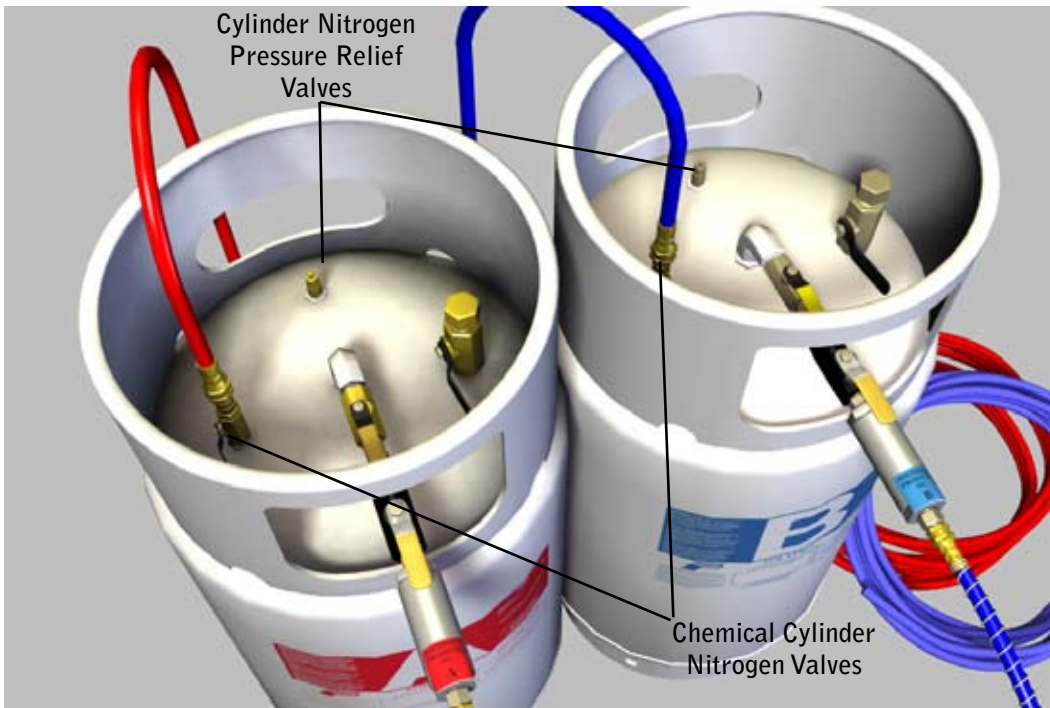


Figure 12
Lowering the chemical cylinder nitrogen pressure by venting

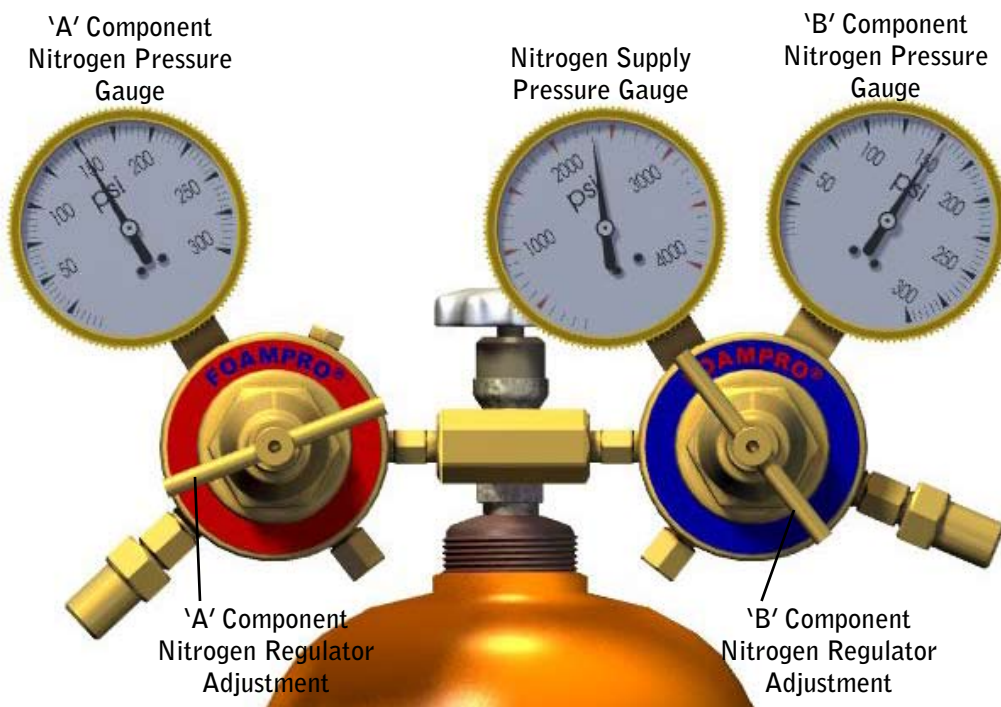


Figure 13
Adjusting the nitrogen pressure to the chemical cylinders

Maintenance

The RTF100EZ can be easily disassembled by the user for all maintenance and repair tasks. The RTF1000EZ is made up of two basic systems - the Mechanical System, and the Chemical Flow System.

The **Mechanical System** is comprised of the following parts: (See Figure 14)

Part Description	Part Number
Airless Handle	AL100
Trigger	AL108
Trigger Pivot Pin	AL109
Trigger Pivot Screw	AL110
Airless Gun Connecting Rod	AL106
Connecting Rod Bushing	AL107
Inner Return Spring	AL104
Outer Return Spring	AL105
Spring Spacer	AL103
Tension Adjusting Nut	AL102
Tension Adjusting Knob	AL101

The **Chemical Flow System** is comprised of the following parts: (See Figure 14)

Part Description	Part Number
Carrier EZ	D500EZ
Attachment Screws (2)	D502
Filter Screens (2)	D504
Filter Plugs (2)	D505
Filter Plug O-Rings (2)	D506
Check Springs (2)	D508
Check Balls (2)	D509
3/8 inch Hose Connectors (2)	D520
Hose Connector O-Rings (2)	D506
Airless Gun Mix Cartridge	AD600
Cartridge O-Rings (2)	D602
Thumbnut	D510
Nozzle	N100E
Mix Cartridge End Plug	D620
¼ inch Male NPT x 3/8 inch Female JIC Connectors (2)	H864
EZ Valve Units (2)	D503EZ
1/8 inch Male NPT x 3/8 inch Male JIC Connectors (2)	H837
1/8 Needle Valves (2)	D703

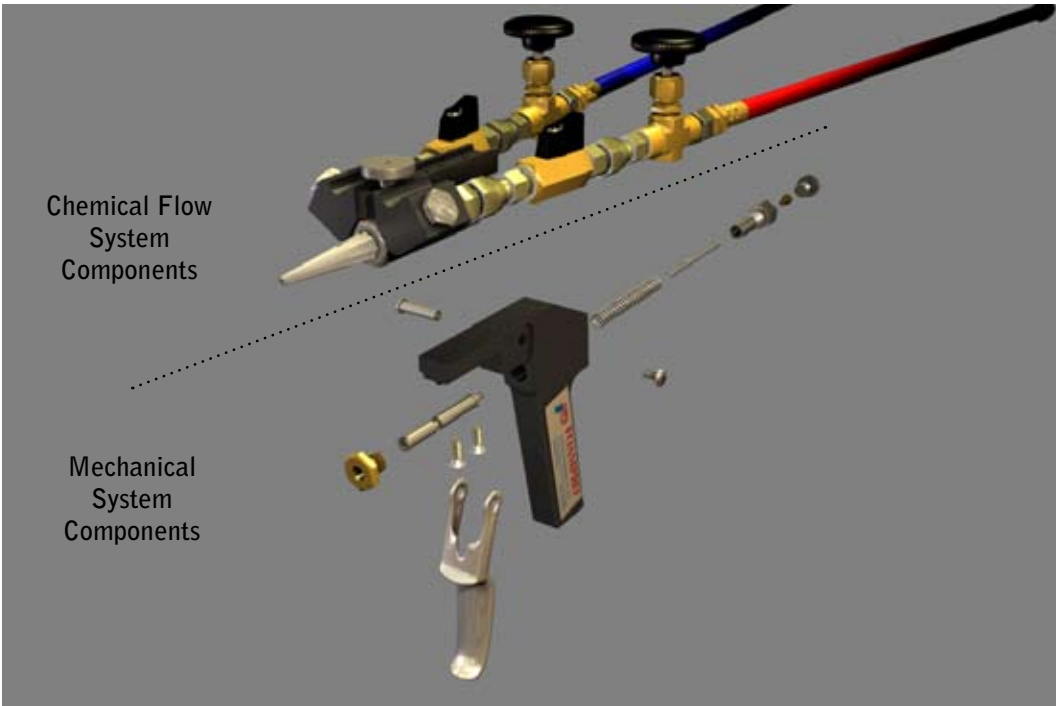


Figure 14
The two functional sections of the RTF1000EZ

Chemical Flow System

Symptoms of problems in the chemical flow system

No chemicals dispensed when gun is triggered

Only one chemical (only “A” Chemical or only “B” Chemical) dispensed when gun is triggered

Difficulty in adjusting the proper “A”/”B” Chemicals ratio

Inconsistent flow of chemicals

Corrective Actions:

Verify nitrogen, cylinder and dispenser valves are open

Check if nitrogen cylinder or chemical cylinders are empty

Check Nozzle (N100E) for blockage

Ensure Mix Cartridge End Plug (D620) is not installed

If problem still exists, proceed to the next section, “Cleaning the Mix Cartridge”.

Cleaning the Mix Cartridge

IMPORTANT - Prior to servicing the Mix Cartridge (AD600), close all Chemical Valves on “A” and “B” Chemical Cylinders and “A” and “B” Chemical Hoses. (See Figure 2, page 3)

CRITICAL - Prior to servicing the Mix Cartridge (AD600), close both EZ Valve Units (D503EZ) on the RTF1000EZ. (See Figure 1, page 3)

- 1 | Loosen, but do not fully remove, Thumbnut (D510) using a pair of pliers.
- 2 | Holding the Trigger (AL108) in the triggered (pulled) position, lightly tap on top of Thumbnut (D510) to separate the Mix Cartridge (AD600) from Carrier EZ (D500EZ).
- 3 | Continue holding the Trigger (AL108) in the triggered (pulled) position while removing Thumbnut (D510). Set aside Thumbnut (D510) for reassembly later.
- 4 | Continue holding the Trigger (AL108) in the triggered (pulled) position while removing the Mix Cartridge (AD600). Remove the Mix Cartridge (AD600) from the Carrier EZ (D500EZ).
- 5 | The Mix Cartridge (AD600) should have the center rod extended. **DO NOT** remove the center rod. Removing the center rod will damage the Mix Cartridge (AD600). There are no user serviceable parts inside the Mix Cartridge (AD600). **DO NOT** remove the chemical ports on the side of the Mix Cartridge (AD600). Removal of the chemical ports will damage the Mix Cartridge (AD600).

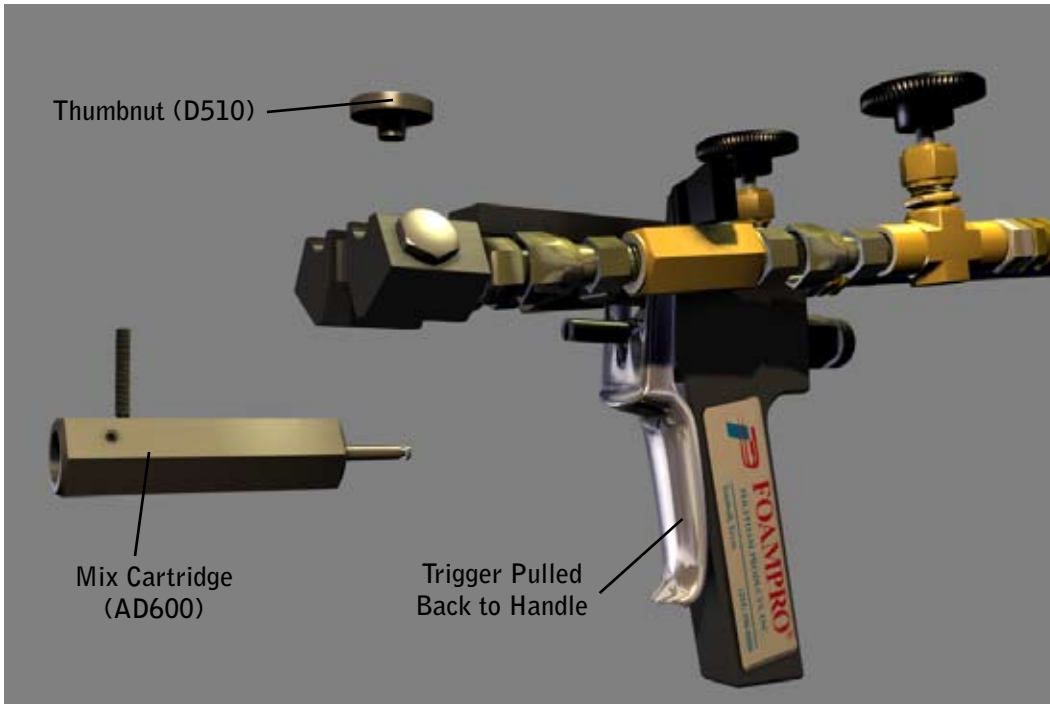


Figure 15
*Removing the
 Mix Cartridge
 for cleaning*

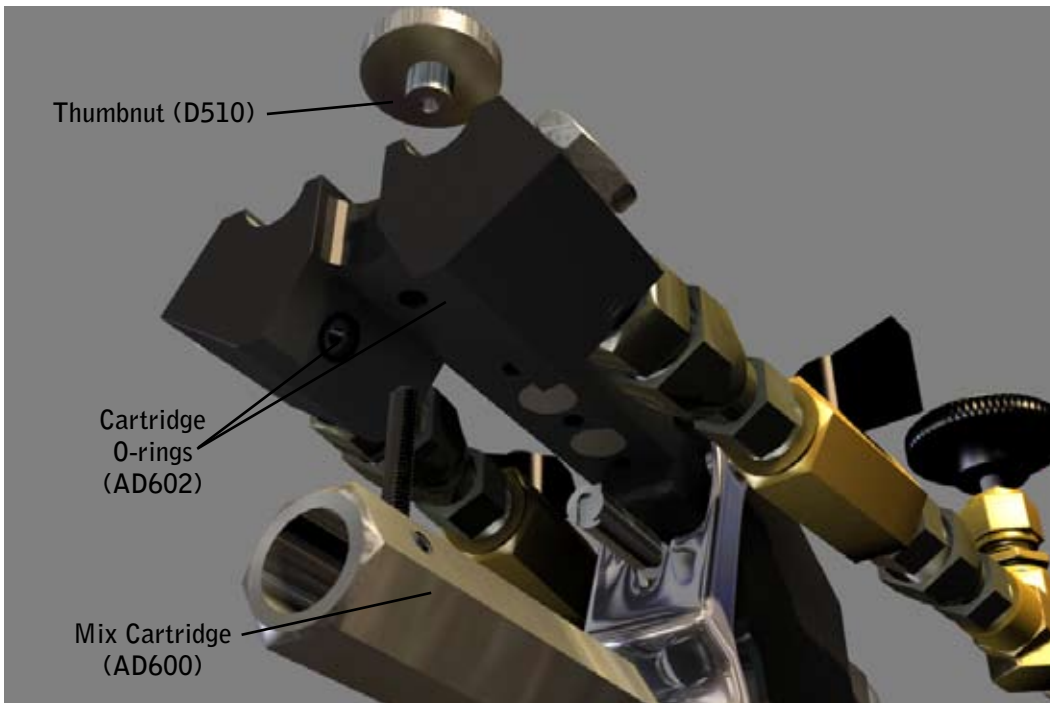


Figure 16
*Cleaning the surfaces of
 the Carrier and
 inspecting the O-rings*

- 6 | Using a Port Cleaning Pick (A1009), clean any debris from each small port on the sides of the Mix Cartridge (AD600).
- 7 | Holding the Mix Cartridge (AD600) vertically with the threaded opening on the front of the Cartridge pointed straight up, pour some solvent into the threaded opening. This should rinse the inside of the cartridge and solvent should exit the small ports.
- 8 | Check the small ports again and make sure they are clean.
- 9 | Remove the two Cartridge O-Rings (D602) on the Carrier EZ (D500EZ).
- 10 | Clean the surfaces of the Carrier EZ (D500EZ) where it comes into contact with the Mix Cartridge (AD600).
- 11 | Replace the two Cartridge O-Rings (D602) on the Carrier EZ (D500EZ).
- 12 | Holding the Trigger (AL108) in the triggered (pulled) position, reinstall the Mix Cartridge (AD600) onto the Carrier EZ (D500EZ), making sure that the notch in the center rod of the Mix Cartridge mates correctly with the notch in the Connecting Rod (AL106).
- 13 | Release the Trigger (AL108). The center rod of the Mix Cartridge (AD600) should return to its forward (inward) position.
- 14 | Replace the Thumbnut (D10). Tighten by hand, then snug into place 1/4 turn using a pair of pliers. DO NOT overtighten the Thumbnut (D510). Doing so will cause damage to the Mix Cartridge (AD600).
- 15 | Check the RTF1000EZ for proper chemical flow. If chemical flow problems persist, or difficulty is encountered in achieving proper “A” to “B” chemical ratio, cleaning the two Filter Screens (D504) in the Carrier EZ (D500 EZ) is recommended. The procedure to perform this cleaning is detailed in the next step, “Cleaning the Filter Screens (D504)” outlined below.

Replacing the Mix Cartridge

IMPORTANT - Prior to servicing the Mix Cartridge (AD600), close all Chemical Valves on “A” and “B” Chemical Cylinders and “A” and “B” Chemical Hoses. (See Figure 2, page 3)

CRITICAL - Prior to servicing the Mix Cartridge (AD600), close both EZ Valve Units (D503EZ) on the RTF1000EZ. (See Figure 1, page 3)

- 1 | Loosen, but do not fully remove, Thumbnut (D510) using a pair of pliers.
- 2 | Lightly tap on top of Thumbnut (D510) to separate the Mix Cartridge (AD600) from Carrier EZ (D500EZ).
- 3 | Check the small ports and make sure they are clean.

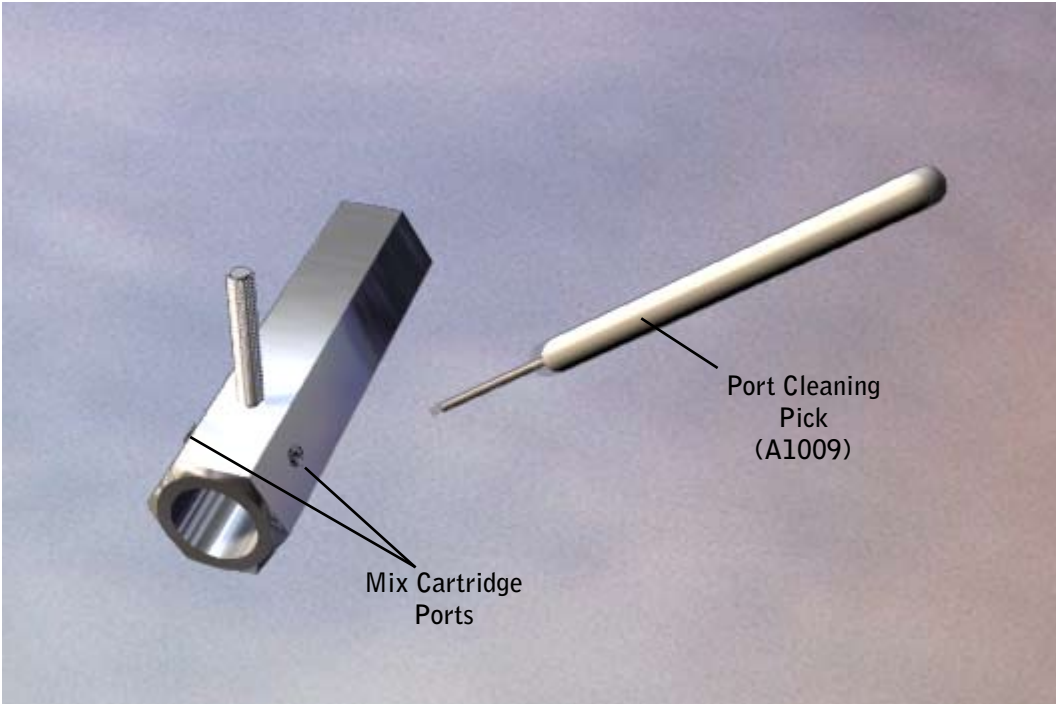


Figure 17
*Cleaning the orifices
of the Mix Cartridge*

- 4 | Remove the two Cartridge O-Rings (D602) on the Carrier EZ (D500EZ).
- 5 | Clean the surfaces of the Carrier EZ (D500EZ) where it comes into contact with the Mix Cartridge (AD600).
- 6 | Replace the two Cartridge O-Rings (D602) on the Carrier EZ (D500EZ). Before installing the Mix Cartridge (D600), aim the dispenser into a trash can and slowly open the “A” valve to check the chemical flow through the “A” port on the Carrier EZ (D500EZ). Close the “A” valve. Repeat this step for the “B” side.
- 7 | Install the Mix Cartridge (AD600) onto the Carrier EZ (D500EZ), making sure that the notch in the center rod of the Mix Cartridge mates correctly with the notch in the Connecting Rod (AL106).
- 8 | Replace the Thumbnut (D10). Tighten by hand, then snug into place 1/4 turn using a pair of pliers. DO NOT overtighten the Thumbnut (D510). Doing so will cause damage to the Mix Cartridge (AD600).
- 9 | Check the RTF1000EZ for proper chemical flow. If chemical flow problems persist, or difficulty is encountered in achieving proper “A” to “B” chemical ratio, cleaning the two Filter Screens (D504) in the Carrier EZ (D500 EZ) is recommended. The procedure to perform this cleaning is detailed in the next step, “Cleaning the Filter Screens (D504)” outlined below.

Cleaning the Filter Screens

IMPORTANT - Prior to servicing the two Filter Screens (D504), close all Chemical Valves on “A” and “B” Chemical Cylinders and “A” and “B” Chemical Hoses. (See Figure 2, page 3)

CRITICAL - Prior to servicing the two Filter Screens (D504), close both EZ Valve Units (D503EZ) on the RTF1000EZ. (See Figure 1, page 3)

(See Figure 18 for this procedure)

- 1 | Using a wrench, remove the Filter Plug (D505). The Filter Screen (D504) is pressed onto the end of the Filter Plug (D505). Upon inspection, the Filter Screen (D504) should be clean and free of dirt or debris. Clean the Filter Screen (D504) with solvent if necessary. The Filter Screen (D504) is pressed onto the end of the Filter Plug (D505). The Filter Screen (D504) can be rinsed with solvent without removing it from the Filter Plug (D505). If the Filter Screen (D504) is damaged, it can be removed from The Filter Plug (D505) and replaced by pressing a new Filter Screen (D504) onto the Filter Plug (D505).

Note: Remove and clean the Filter Plug (D505) and Filter Screen (D504) one side/component at a time to avoid cross-contamination.

- 2 | Inspect the Filter Plug O-Ring (D506). Replace if necessary.
- 3 | Making sure that the Filter Screen (D504) is set in place on the Filter Plug

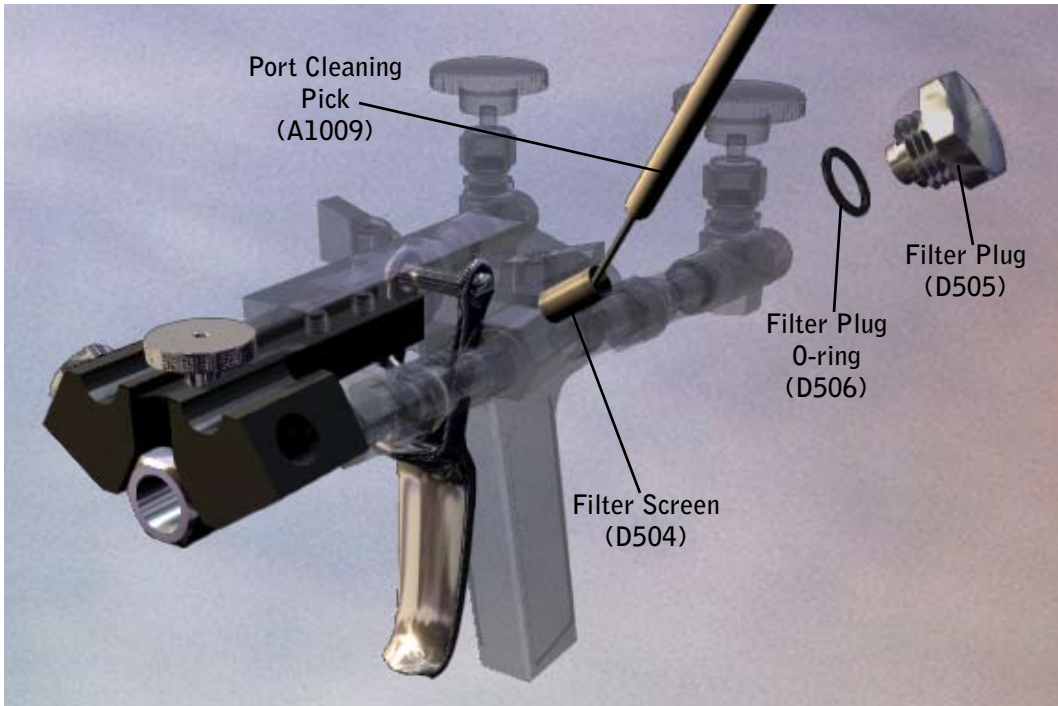


Figure 18
*Cleaning the
Filter Screens*

(D505), and that the Filter Plug O-Ring (D506) is in place, point “A” side of the Carrier toward the trash can, then open “A” side chemical valve to check for chemical flow. Repeat for “B” side. If proper flow is achieved, reinstall the Filter Plug Assembly into the Carrier EZ (D500EZ) and tighten with a wrench.

Check Ball and Check Spring Assemblies

IMPORTANT - Prior to servicing the two Check Ball / Spring Assemblies (D508, D509), close all Chemical Valves on “A” and “B” Chemical Cylinders and “A” and “B” Chemical Hoses. (See Figure 2, page 3) For safety, servicing the Check Ball / Spring Assemblies should be done on the ground, not on the roof.

CRITICAL - Prior to servicing the two Check Ball / Spring Assemblies (D508, D509), close both EZ Valve Units (D503EZ) on the RTF1000EZ. (See Figure 1, page 3)

(See Figure 19 for this procedure)

- 1 | Make sure both of the EZ Valve Units (D503EZ) are closed.
- 2 | Using a wrench, loosen and remove the ¼” male NPT x 3/8” female JIC Connector (H864) from the 3/8” Hose Connector (D520).
- 3 | Using a wrench, remove the 3/8” Hose Connector (D520) from the Carrier EZ (D500EZ). Inspect the Hose Connector O-Ring (D506), and replace if necessary.
- 4 | Remove the Check Ball (D509) and Check Spring (D508) from the 3/8” Hose Connector (D520). Clean the Check Ball (D509) and Check Spring (D508) and inspect for damage. Replace parts if necessary.
- 5 | Clean and inspect the 3/8” Hose Connector (D520). Clean and inspect the Hose Connector O-Ring (D506). Replace if necessary.
- 6 | Clean and inspect the port holes on the Carrier EZ (D500EZ) before reinstalling the Check Ball (D509) and Check Spring (D508).
- 7 | To reassemble, place the Check Ball (D509) inside the 3/8” Hose Connector (D520). The Check Ball (D509) should fit inside the 3/8” Hose Connector (D520), but should be loose enough to be able to move back and forth. If the Check Ball (D509) fits too tightly in the 3/8” Hose Connector (D520), replace both of these parts. Place the Check Spring (D508) on top of the Check Ball (D509) inside the 3/8” Hose Connector (D520).
- 8 | Thread the 3/8” Hose Connector (D520) containing the Check Ball (D509) and Check Spring (D508) into the Carrier EZ (D500EZ). Tighten with a wrench.
- 9 | Reconnect the ¼” male NPT x 3/8” female JIC connector (H864).

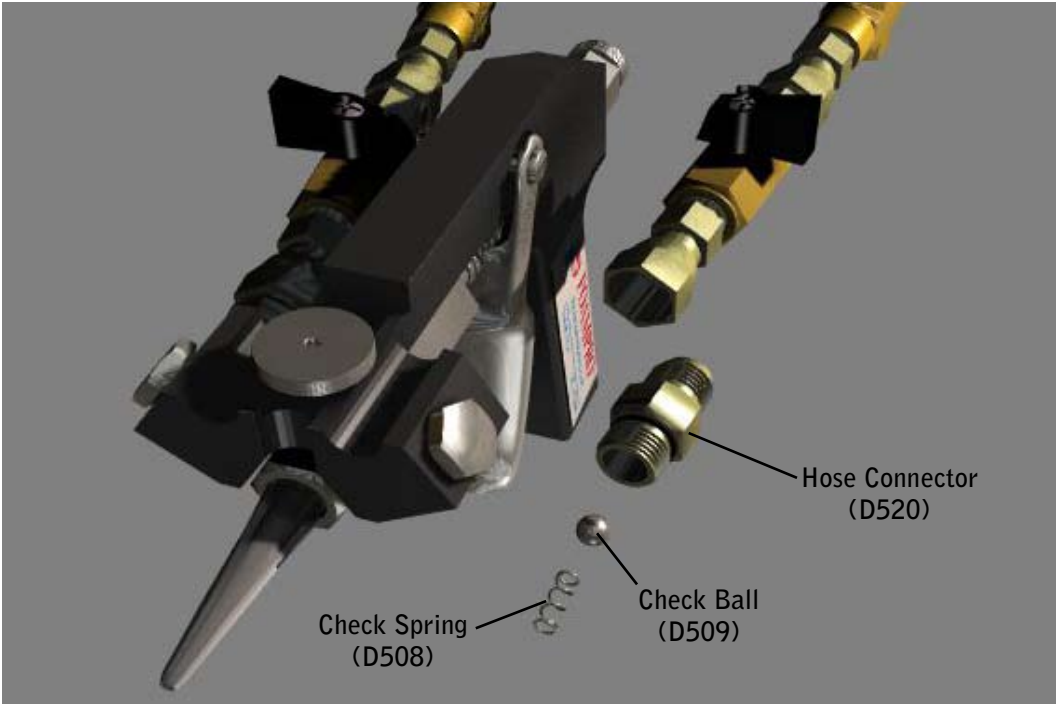


Figure 19
*Servicing the
Check Ball*

Mechanical System

NOTE: Prior to removing the Handle (AL100) / Trigger (AL108) Assembly, the Mix Cartridge (AD600) must be removed from the RTF100EZ gun. To do so, follow Steps 1 through 4 in “Cleaning the Mix Cartridge” on page 18.

IMPORTANT - Prior to servicing the Mix Cartridge (AD600), close all Chemical Valves on “A” and “B” Chemical Cylinders and “A” and “B” Chemical Hoses. (See Figure 2, page 3)

CRITICAL- Prior to servicing the Mix Cartridge (AD600), close both EZ Valve Units (D503EZ) on the RTF1000EZ. (See Figure 1, page 3)

Servicing the Handle/Trigger Assembly

- 1 | Close both EZ Valve Units (D503EZ) on the RTF1000EZ.
- 2 | Remove the Mix Cartridge by following Steps 1 through 4 in “Replacing the Mix Cartridge” on page 20.
- 3 | Unscrew the Trigger Pivot Screw (AL110) from the Trigger Pivot Pin (AL109). The Trigger (AL108) can then be removed from the Handle (AL100).
- 4 | Remove the two Attachment Screws (D502) using a screwdriver. The Handle (AL100) can then be separated from the Carrier EZ (D500EZ).

Servicing the Trigger

(See Figure 20 for this procedure)

- 1 | Close both EZ Valve Units (D503EZ) on the RTF1000EZ.
- 2 | Remove the Trigger Pivot Screw (AL110) from the Trigger Pivot Pin (AL109) using a screwdriver. The Trigger Pivot pin (AL109) can then be removed from the Handle (AL100).
- 3 | The Trigger (A108) can then be removed from the Handle (AL100).
- 4 | To reinstall or replace the Trigger (AL108), slide the Trigger (AL108) back into position, making sure that the notch in the Trigger (AL108) is positioned correctly with the notch in the Connecting Road (AL106).
- 5 | Reinstall the Trigger Pivot Pin (AL109) in the Handle (AL100). Install the Trigger Pivot Screw (AL110) into the Trigger Pivot Pin (AL109).

Servicing the Return Springs

(See Figure 21 for this procedure)

- 1 | Close both EZ Valve Units (D503EZ) on the RTF1000EZ. Remove Trigger (AL108) by performing Steps 1 through 3 in “Servicing the Trigger”.
- 2 | Remove the Mix Cartridge (AD600) by performing Steps 1 and 2 in “Cleaning



Figure 20
Servicing the Trigger Assembly

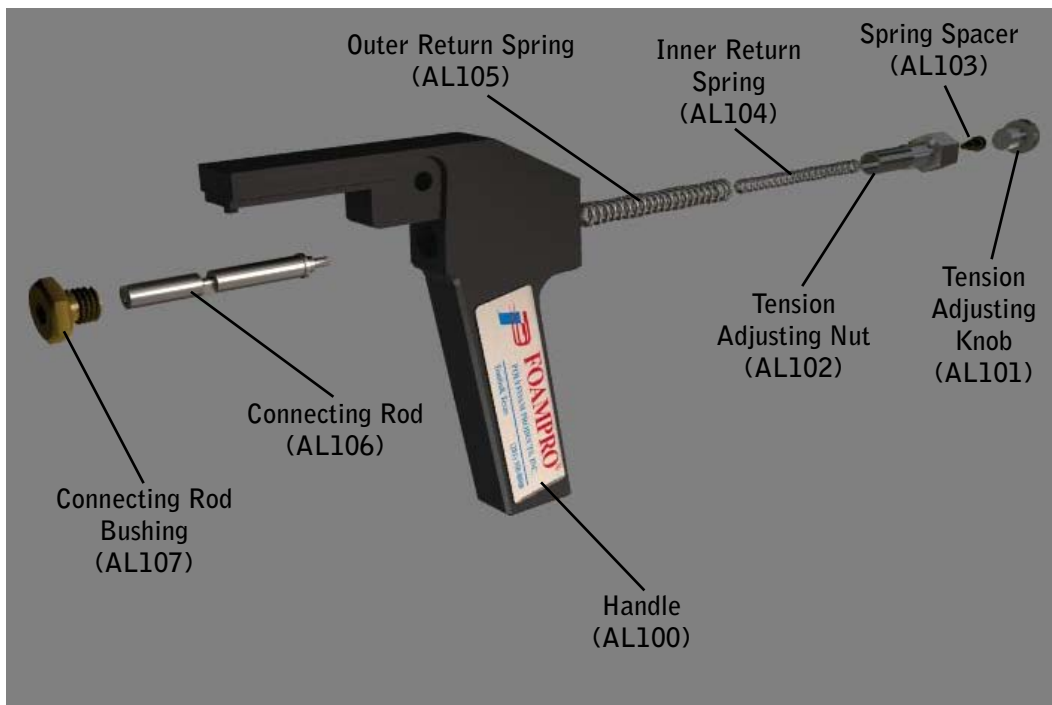


Figure 21
Servicing the Trigger Return Springs

the Mix Cartridge” above.

- 3 | Using a wrench, remove the Tension Adjusting Nut (AL102). Leave the Tension Adjusting Knob (AL101) in place.
- 4 | Remove the Connecting Rod (AL106) from the Handle (AL100) by pushing the Connecting Rod backward through the Connecting Rod Bushing (AL107). The Outer Return Spring (AL105), the Inner Return Spring (AL104), and the Spring Spacer (AL103) should also be pushed out of the Handle (AL100) at the same time.
- 5 | The Connecting Rod Bushing (AL107) can be removed if necessary by unscrewing it from the Handle (AL100) using a pair of pliers. Reinstall the Connecting Rod Bushing (AL107) by screwing it back into the Handle (AL100). Tighten with pliers.
- 6 | To reassemble the Return Springs (AL104, AL105)/ Connecting Rod (AL106) Assembly, first make sure that the Connecting Rod Bushing (AL107) is in place in the Handle (AL100).
- 7 | Lightly grease the Connecting Rod (AL106), and insert it in the Handle (AL100), making sure that it passes through the Connecting Rod Bushing (AL107). Make sure that the slot in the front of the Connecting Rod (AL106) is pointed down.
- 8 | Lightly grease the Outer Return Spring (AL105) and Inner Return Spring (AL104). Place the Inner Return Spring (AL104) inside the Outer Return Spring (AL105).
- 9 | Place the Spring Spacer (AL103) on the end of the Inner Return Spring (AL104).
- 10 | Hold the Tension Adjusting Nut (AL102) / Tension Adjusting Knob (AL101) Assembly vertically with the opening pointed upward. Place the Springs / Spacer Assembly described in Step 7 above into the Tension Adjusting Nut (AL102), being careful that the Spring Spacer (AL103) remains in place.
- 11 | Install the Assembly performed in Step 1 above into the Handle (AL100) using a wrench to tighten. NOTE: It will be easier to perform this step if the Tension Adjusting Knob (AL101) is loosened (but not fully removed) first.
- 12 | Reinstall the Mix Cartridge (AD600) as outlined in Steps 12 and 13 of “Cleaning the Mix Cartridge” above.
- 13 | Reinstall the Trigger Pivot Pin (AL109) in the Handle (AL100). Install the Trigger Pivot Screw (AL110) into the Trigger Pivot Pin (AL109).



RTF 1000 EZ

Calibration Chart

5 Second Shot FOR CALIBRATING THE RTF1000EZ—SERIES GUNS

Note: Below is a chart which will predetermine the 5 second shot weight of the “B” chemical once the weight of the “A” chemical has been determined. At Start up the nitrogen pressure for the “A” and “B” should be set the same approximately 150 PSI depending on the ambient temperature . The flow of the chemical can be increased or decreased by utilizing either the regulators or the EZ volume control valve.

(weight in grams)

The Weight of the “A” Chemical is	The Weight of the “B” Chemical must be between:		If the Weight of the “A” Chemical is:	The Weight of the “B” Chemical must be between:
25	22-25		56	49-56
26	23-26		57	50-57
27	24-27		58	51-58
28	25-28		59	52-59
29	26-29		60	52-60
30	26-30		61	53-61
31	27-31		62	54-62
32	28-31		63	55-63
33	29-33		64	56-64
34	30-34		65	57-65
35	31-35		66	58-66
36	32-36		67	59-67
37	33-37		68	59-68
38	33-38		69	60-69
39	34-39		70	61-70
40	35-40		71	62-71
41	36-41		72	63-72
42	37-42		73	64-73
43	38-43		74	65-74
44	39-44		75	66-75
45	39-45		76	66-76
46	41-46		77	67-77
47	42-47		78	68-78
48	43-48		79	69-79
49	44-49		80	70-80
50	45-50		81	70-81
51	45-51		82	71-82
52	46-52		83	72-83
53	46-53		84	73-84
54	47-54		85	74-85
55	48-55		86	75-86

