



AIR & VAPOR BARRIERS

**Spray Equipment Recommended for Dispense of:
Barriseal® Air & Vapor Barrier, Barricoat® Waterproofing
Membrane, Barritech VP/VP LT Vapor-Permeable Air Barrier,
Barritech NP™/NP LT Air & Vapor Barrier**



Note: This literature addresses operation of spray equipment and spray technique for installation of specific CCW fluid-applied membrane products. Consult spray equipment manufacturer's literature for additional information about equipment operation, maintenance and safety. Consult CCW Product Data Sheets for information about product usage and limitations. Consult the CCW product Safety Data Sheets for safety, health and environmental information.

AIR & VAPOR BARRIER

Recommended Equipment for Co-Spray Dispense of Barriseal and Barricoat

GH 733 Co-Spray Package by Spray Equipment & Service Center, Inc.

Equipment provides co-spray dispense of Carlisle Coatings & Waterproofing Barriseal or Barricoat. The powerful GH-733 pump, manufactured by Graco, dispenses the Barriseal or Barricoat. The co-spray assembly dispenses the Barricure™ solution.



GH 733 Package

- Graco GH733 with Kohler 18hp Gas / Electric Start Engine
- Extreme 250cc Pump Lower rated at 3500 psi 3gpm
- Drum Siphon Assembly (8')
- Jump Hose (15' x ½" Pump to Reel)
- Hose Reel Electric Rewind with Barricure Tank Table
- Jacketed Dual Hose (200' Material & Co-Spray)
- Co-Spray Gun
- Barricure Tank (25 gallon)
- Barricure Pump (12v 250 psi Regulator, Pressure Gauge, SS Brackets & Fittings)

Co-Spray Assembly:

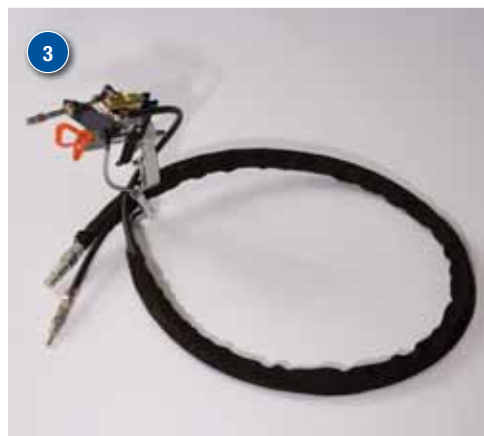
Co-spray assembly can be attached to conventional one-part pumps. The GH 733, GH 833 or GMAX 7900, all by Graco, have been verified as suitable for dispensing Barriseal and Barricoat. The co-spray unit, which dispenses Barricure solution, can be attached to any of the aforementioned Graco pumps.



Co-Spray Pump & Tank Assembly with Table and Hose Reel

- 25-gallon Barricure Tank
- Stainless Steel Bracket
- 12v 250psi Pump
- 15' Electric Cables
- Power Control Box
- Regulator
- Pressure Gauge
- Jump Hoses
- All Stainless Steel Fittings
- Hannay Manual Dual Port Hose Reel / Co-Spray Table or Hannay Electric Dual Port Hose Reel / Co-Spray Table Assembled Ready to connect to your system

Silver Plus Co-Spray Gun



- Modified Graco Silver Plus Gun
- Graco HD RAC Tip Housings for Barriseal/Barricoat
- Hand-removable water nozzle tip for Barricure: XR TeeJet 800TVS
- GHD635 Heavy Duty Tip, Z-Swivel
- 6' x 3/8" High Pressure Whip Hose
- 6' x 1/4" Calcium Whip Hose with Quick Connects
- Heavy Duty Scuff Jacket

Accessories

- Hose 50' x 1/4" 300 psi
- Hose 50' x 3/8" 4000 psi
- Hose 50' x 1/2" 4000 psi
- Graco Heavy Duty Tips GHDXXX
- HD RAC Tip Housings
- Heat Exchanger Package
- Packing Kits:
 - GH733
 - GH 833
 - GMAX 7900

Replacement Nozzles

Barriseal, Barricoat

- Standard: GHD 535
- Other acceptable sizes:
 - Fan size: GHD 5XX or 6XX
 - Orifice size: GHD X31 to X45

Barricure

- XR TeeJet 800TVS

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Recommended Equipment for Co-Spray Dispense of Barriseal and Barricoat

Co-Spray Set-Up



Connect jump hose to Graco pump.



Connect alligator clips to 12 V DC on Graco pump. (GH 733 Model Shown)



If pump does not have 12 V DC connection, connect clips to 12 V DC generator or 12 V DC battery. (GH 833 Model shown)



Pour full 5-gallon pail of Barricure into 25-gallon tank on Co-Spray Assembly.



Top off tank on Co-Spray Assembly with clean tap water.



To re-fill tank, wait until Barricure solution is depleted to the empty line.

Note: New co-spray equipment lines must be purged and loaded with Barricure solution at start-up. Do this by loading the Barricure tank as shown in figures 7 and 8. Remove the co-spray nozzle from the spray gun, then turn on and pressure up co-spray pump as shown in figures 16 and 18. Close the Graco Barriseal/Barricoat RAC nozzle. Point the spray into a container, trigger the gun and discharge fluid until a steady stream of signature blue-colored Barricure solution is observed. Replace co-spray nozzle and turn off co-spray pump. Dispose of fluid purged through pump in accordance with local, state and federal regulations.



Barriseal and Barricoat are packaged in 50-gallon drums and in 5-gallon pails. Barricure, a chloride-free liquid concentrate, provides instant cure of Barriseal and Barricoat. Barricure is packaged in 5-gallon pails.



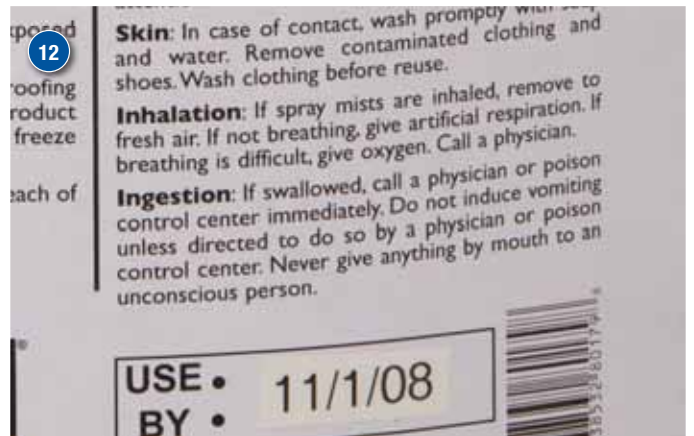
Unbroken freeze indicator

If freeze indicator is not broken, proceed to checking the label for shelf life.



Broken freeze indicator

If freeze indicator is broken, shown by red staining, call CCW Tech Service.



Examine the product label for shelf life. If product is out of shelf life, call CCW Tech Service.

Note: Barricoat and Barriseal must be protected from freezing during delivery, storage and handling. Product subjected to freeze may separate irreversibly, making it unusable and possibly clog spray equipment.



Unscrew bung cap on drum of Barriseal or Barricoat. Cut membrane that is visible through bung with utility knife.

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Recommended Equipment for Co-Spray Dispense of Barriseal and Barricoat

Co-Spray Set-Up - Continued



Align intake pipe with larger bung. Set intake pipe all the way to bottom of drum.



Insert purge wand into smaller bung. Start up Graco pump and adjust settings according to manufacturer's instruction manual.

Operation

Back out pressure dial on Graco pump to lowest setting. Start up engine on Graco pump according to manufacturer's instructions. Make sure Graco pump is loading by running Barriseal/Barricoat through purge line. To do this, open purge valve and raise pressure on Graco pump to the lowest setting that will move material through the purge line. DO NOT OPEN the purge valve if the pump is pressurized - discharge the pressure through the spray gun, pointed in a safe direction, then open purge valve. Collect material discharged through purge line in a container. Re-use purge material or dispose of in accordance with local, state and federal regulations. Shut off purge valve once piston on Graco pump is observed to cycle smoothly up and down. Turn on Co-Spray and adjust pressure settings according to Figures 16 through 18. Pull trigger on Silver Plus Co-Spray Gun to commence spray. Evaluate spray pattern according to Figures 19 and 20.



Turn on Co-Spray Pump with switch.



Adjust pressure on Graco pump to initial setting of 2400 psi.



Adjust pressure on co-spray pump to initial setting of 150 psi.



Good

Even spray pattern. Pressure and nozzle size provide an even coating of spray without “fingering” or “ralley striping.”



Not Good

Uneven spray pattern. Raise pressure or reduce nozzle size to even out spray pattern. Spray must fan out evenly on both Barriseal/Barricoat nozzle and Barricure nozzle. Clean dirty nozzles or replace worn nozzles as necessary.



Spray Technique

Operator shall spray with the nozzles positioned 20 to 24 inches from the surface. Spray lower area first, working upward. Keep spray direction square with wall surface. When sprayed properly, Barriseal/Barricoat should set up immediately, with fairly smooth surface texture and no running or blistering.

Barriseal/Barricoat Pump Requirements

These pumping systems, manufactured by Graco, have been verified by Carlisle Coatings & Waterproofing as suitable for use with the Co-Spray Assembly. Other pumps providing similar flow rate and pressure output as those shown in this document may also be used. Contact CCW Tech Service for more information.

Model: GH 733

Gasoline Engine/Hydraulic-powered pump with electric start. Has 12 V DC connection for powering the Co-Spray Assembly.

Model: GH 833

Gasoline Engine/Hydraulic-powered pump with pull start engine. Need generator or battery connection to provide 12 V DC power to Co-Spray Assembly.

Model: GMAX 7900

Gasoline engine-powered pump with pull start engine. Need generator or battery connection to provide 12 V DC power to Co-Spray Assembly.

Cold Weather Requirements

For spray installation in winter conditions, spray rig and products must be kept in a heated area maintained between 50°F and 80°F. Keep line and gun inside of heated space unless product is moving through lines in spray application. In-line heaters can be used, but these should not heat the material warmer than 120°F. Warmer material sprays and cures better than colder material. Minimum required material temperature is 50°F for effective spray application.

AIR & VAPOR BARRIER

Recommended Equipment for Co-Spray Dispense of Barriseal and Barricoat

Shut-Down or Material Changeover

Barriseal/Barricoat can be left in pump, line and gun without cleanout for duration of overnight or weekend work stoppage. For long-term shutdown or material changeover, flush Barriseal/Barricoat from Graco pump with mixture of 1 gallon citrus cleaner to 4 gallons tap water. Do not attempt flush with plain tap water, as this will separate the Barriseal/Barricoat emulsion and gum-up the pump. Graco pump cleanout is performed by inserting the intake pipe or siphon end of the pump into the pail of cleaning solution, and inserting the purge wand into the same pail. Open purge valve and run pump, circulating cleaning solution through pump until Barriseal/Barricoat is flushed out. The Barriseal/Barricoat line does not need to be flushed unless shut down will exceed several months or Co-Spray Assembly will be stored in area subjected to freezing temperatures. After cleanout is complete, shut off engine on Graco pump and relieve pressure on lines. Shut off co-spray pump at switch shown in Figure 16. Dispose of fluid purged through pump in accordance with local, state and federal regulations.



Disconnect gun at quick-disconnect fittings. Disassemble gun and tips, clean Barriseal/Barricoat residue from parts. Thoroughly with citrus cleaner or mineral spirits and reassemble.



Reel in hose.



Disconnect alligator clips and jump hose. Store Co-spray Assembly in area protected from freezing and outdoor exposure.

Recommended Spray Equipment For Barritech VP/VP LT, Barritech NP/NP LT, and 1-Part Spray of Barriseal/Barricoat

Graco PUMP:

GH 733, GH 833 or GMAX 7900

Note: GH-733 and GH-833 pumps shipped from Spray Equipment & Service Center, Inc. for Barritech VP, Barritech NP, Barriseal, and Barricoat spray come fitted with a spring kit on the lower ball valve and a drum siphon assembly incorporating a pneumatic-powered transfer pump. Contact Spray Equipment & Service Center, Inc. for parts and instructions to retrofit standard GH-733/833 pumps.

Hose and Guns:

- Hose: Up to 200 ft of ½" 4000 psi
- Silver Plus Spray Assembly
- Graco Silver Plus Gun
- HD RAC Tip Housing

Note - maximum 100 ft length of ½" ID line is recommended for Barritech VP LT.

Full Coverage Nozzles:

- Standard: GHD 535

Other acceptable sizes:

- Fan size: GHD 5XX or 6XX
- Orifice size: GHD X31 to X45

Detail Nozzles:

- Fan size: GHD 2XX or 3XX
- Orifice size: GHD X15 to X21

Z Swivel

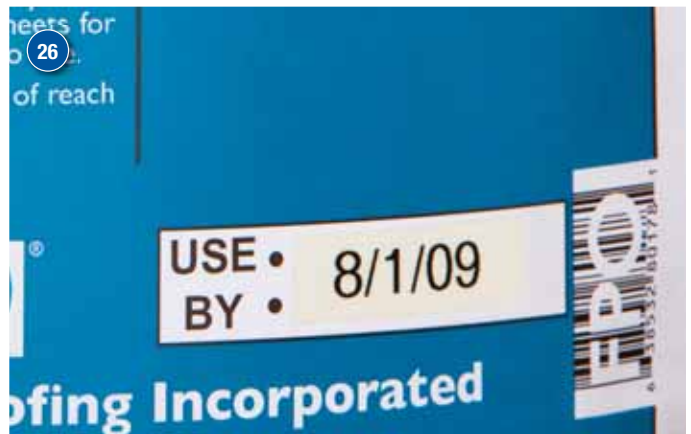
- 6' X ¾" High Pressure Whip Hose
- Tip: GHD635 for high coverage, GHD429 for detail

CCW Barritech, Barriseal and Barricoat products can be sprayed through other conventional one-part pumps which provide similar flow rate and output pressure as those recommended in this document. Contact CCW Tech Service for more information.

Barritech VP/VP LT, Barritech NP/NP LT, and 1-Part Barriseal/Barricoat Spray Set-Up



The CCW Barritech, Barriseal and Barricoat products are packaged in 50-gallon drums and 5-gallon pails.



Examine product label to determine if material is within shelf life. If material is out of shelf life, call CCW Tech Service.

To dispense product from drums, open drum as shown in Figure 13. Install transfer pump into bung. Connect purge wand to drum as shown in Figure 15. Connect siphon hose on Graco pump to discharge of transfer pump on drum. Connect compressed air supply to transfer pump.

Note: Each pallet of CCW Barritech, Barriseal and Barricoat product is fitted with a freeze indicator, like those shown in figures 11a and 11b. If product has broken freeze indicators, contact CCW Technical service. All CCW Barritech, Barriseal and Barricoat must be protected from freezing during delivery, storage and handling. Product subjected to freeze may thicken or even separate irreversibly, making it unusable and possibly clog spray equipment.

AIR & VAPOR BARRIER

Recommended Spray Equipment for Barritech VP/VP LT, Barritech NP/NP LT and 1-Part Barriseal/Barricoat

Dispensing CCW Barritech, Barriseal and Barricoat Products From Pails



27 Disconnect drum siphon assembly.



28 Connect pail adaptor to siphon end of pump.



29 Insert siphon end of pump into pail.



30 Insert purge line into pail. Connect hose and Graco Silver Gun to discharge of Graco pump.

Operation

Back out pressure dial on Graco pump to lowest setting. Start engine on Graco pump according to manufacturer's instructions. Make sure pump is loading by running Barritech product through purge line. To do this, open purge valve and raise pressure on Graco pump to the lowest setting that will move material through the purge line. DO NOT OPEN the purge valve if the pump is pressurized - discharge the pressure through the spray gun, pointed in a safe direction, then open purge valve. Collect material discharged through purge line in a container. Re-use purge material or dispose of in accordance with local, state and federal regulations. Shut off purge valve once piston on Graco pump is observed to cycle smoothly up and down.

Adjust pressure on Graco pump, as shown in Figure 17, to initial setting of 2400 psi. Pull trigger on Graco Silver Gun to commence spray. Evaluate spray pattern according to Figures 31 and 32.



Good

Even spray pattern. Pressure and nozzle size provide an even coating of spray without “fingering” or “ralley striping.”



Not Good

Uneven spray pattern. Raise pressure or reduce nozzle size to even out spray pattern. Spray must fan out evenly. Clean dirty nozzle and replace worn nozzle as necessary.

Shut-Down Or Material Changeover

CCW Barritech, Barriseal and Barricoat products can be left in pump, line and gun without cleanout for duration of overnight or weekend work stoppage. Do not leave product in the lines, pump or gun if equipment will be stored in freezing conditions. For long-term shut down or material changeover, flush product from Graco pump using a mixture of 1-gallon of citrus cleaner diluted in 4 gallons of tap water. Barritech products can also be flushed using clean tap water (no citrus cleaner added). Do not attempt to flush Barriseal/Barricoat with plain water (no citrus cleaner added) as this can separate the asphalt emulsion and gum up the pump. Graco pump cleanout is performed by inserting the intake pipe or siphon end of the pump into the pail of water, and inserting the purge wand into the same pail. Open purge valve and run pump, circulating water through pump until Barritech VP/NP is flushed out. Then close purge valve and flush Barritech product from the line with water. After cleanout is complete, shut off engine on Graco pump and relieve pressure on line. Disconnect gun assembly from line. Disconnect line from pump. Disassemble gun and tip, clean parts with water before Barritech VP/NP residue dries, and reassemble. Dispose of fluid purged through pump in accordance with local, state and federal regulations.

Cold Weather Requirements

CCW is proud to offer low temperature (LT) versions of Barritech VP and NP. For spray installation of these products in winter conditions, spray rig and products must be kept in a heated area maintained between 50°F and 80°F. Keep line and gun inside of heated space unless product is moving through lines in spray application. Warmer material sprays and hangs better than colder material. Minimum required material temperature is 50°F for effective spray application.

Install CCW products in accordance with requirements in the Product Technical Data Sheet and as shown in Drawings. Consult the Product Safety Data Sheet (SDS) for important health, safety and environmental information.

Limited Warranty

Carlisle Coatings & Waterproofing, Incorporated (Carlisle) warrants this product to be free of defects in workmanship and materials only at the time of shipment from our factory. If any Carlisle materials prove to contain manufacturing defects that substantially affect their performance, Carlisle will, at its option, replace the materials or refund its purchase price.

This limited warranty is the only warranty extended by Carlisle with respect to its materials. There are no other warranties including the implied warranties of merchantability and fitness for a particular purpose.

Carlisle specifically disclaims liability for any incidental, consequential or other damages including, but not limited to, loss of profits or damages to a structure or its contents arising under any theory of law whatsoever.

The dollar value of Carlisle's liability and buyer's remedy under this limited warranty shall not exceed the purchase price of the Carlisle material in question.



For sales and support for CCW products and their application.

CCW Tech Service Department
888.229.2199 | www.carlisle-ccw.com



For sales and support for the Graco contractor spray rigs and the Co-Spray Assembly.

1.800.666.6072 | www.sprayequipment.com

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