



# CARTRIDGE KILLER

## Cartridge Killer™ Extrusion Kit



# Warnings

The following are general warnings related to the setup, use, grounding, maintenance and repair of Sprayer equipment. Additional, more specific warnings may be found throughout the body of this manual where applicable. Symbols appearing in the body of the manual refer to these general warnings. When these symbols appear throughout the manual, refer back to these pages for a description of the specific hazard.

## WARNING

### FIRE AND EXPLOSION HAZARD

Flammable fumes, such as solvent and paint fumes, in work area can ignite or explode. To help prevent fire and explosion:

- Use equipment only in well-ventilated area.
- Eliminate all ignition sources such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static arc).
- Sprayers generate sparks. When flammable liquid is used in or near the sprayer or for flushing or cleaning, keep sprayer at least 20 feet (6 m) away from explosive vapors.
- Keep work area free of debris, including solvent, rags and gasoline.
- Do not plug or unplug power cords or turn lights on or off when flammable fumes are present.
- Ground equipment and conductive objects in work area. Read grounding instructions in the following section.
- If there is static sparking or you feel a shock, stop operation immediately. Do not use equipment until you identify and correct the problem.
- Keep a fire extinguisher in the work area.

### ELECTRIC SHOCK HAZARD

Improper grounding, setup, or usage of the system can cause electric shock.

- Turn off and disconnect power cord before servicing equipment.
- Use only grounded electrical outlets.
- Use only 3-wire extension cords.
- Ensure ground prongs are intact on sprayer and extension cords.
- Do not expose to rain. Store indoors.

### SKIN INJECTION HAZARD

High-pressure fluid from gun, hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. Get immediate surgical treatment.

- Do not point gun at anyone or at any part of the body.
- Do not put your hand over the extrusion tip.
- Do not stop or deflect leaks with your hand, body, glove, or rag.
- Place gun where trigger cannot be accidentally pressed when not extruding.
- Follow Pressure Relief Procedures in this manual when you stop extruding and before cleaning, checking, or servicing equipment.

## EQUIPMENT MISUSE HAZARD

Misuse can cause death or serious injury.

- Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. Read Technical Data in all equipment manuals.
- Use fluids and solvents that are compatible with equipment wetted parts. Read Technical Data in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request Safety Data Sheet (SDS) from distributor or retailer.
- Check equipment daily. Repair or replace worn or damaged parts immediately with genuine replacement parts only.
- Do not alter or modify equipment.
- Use equipment only for its intended purpose. Call your distributor for information.
- Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.
- Do not kink or overbend hoses or use hoses to pull equipment.
- Comply with all applicable safety regulations.
- Keep children and animals away from work area.
- Do not operate the unit when fatigued or under the influence of drugs or alcohol.

## PRESSURIZED ALUMINUM PARTS HAZARD

Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents in pressurized aluminum equipment. Such use can cause serious chemical reaction and equipment rupture, and can result in death, serious injury, and property damage.

## TOXIC FLUID OR FUMES HAZARD

Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled, or swallowed.

- Read SDS's to know the specific hazards of the fluids you are using.
- Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.

## PERSONAL PROTECTIVE EQUIPMENT

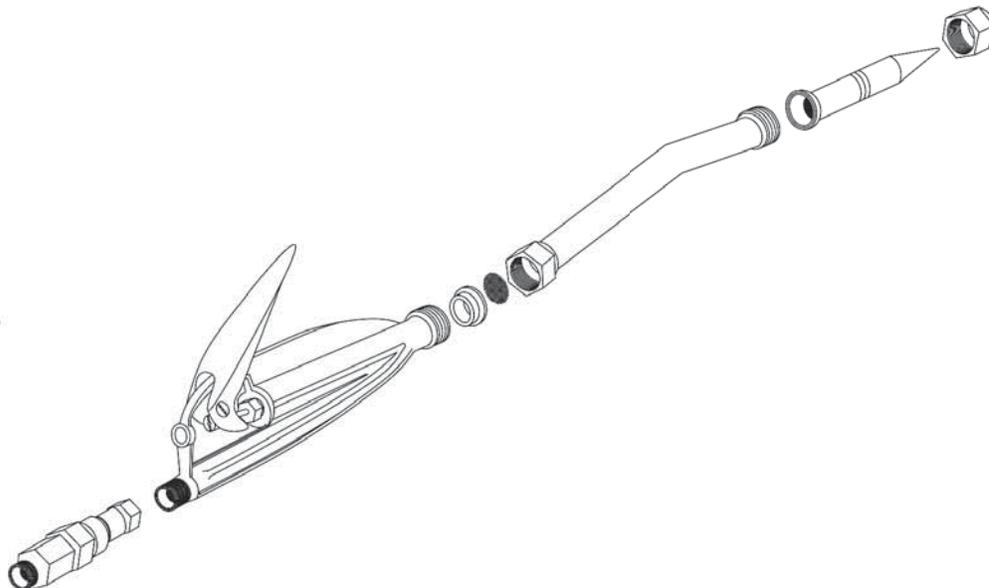
You must wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to protect yourself from serious injury, including eye injury, inhalation of toxic fumes, burns, and hearing loss. The spray equipment typically includes but is not limited to:

- Protective eye wear
- Clothing and respirator as recommended by the fluid and solvent manufacturer
- Gloves
- Hearing protection
- Always refer to the spray equipment manufacturer's user manual to verify required PPE.

# Cartridge Killer Kit

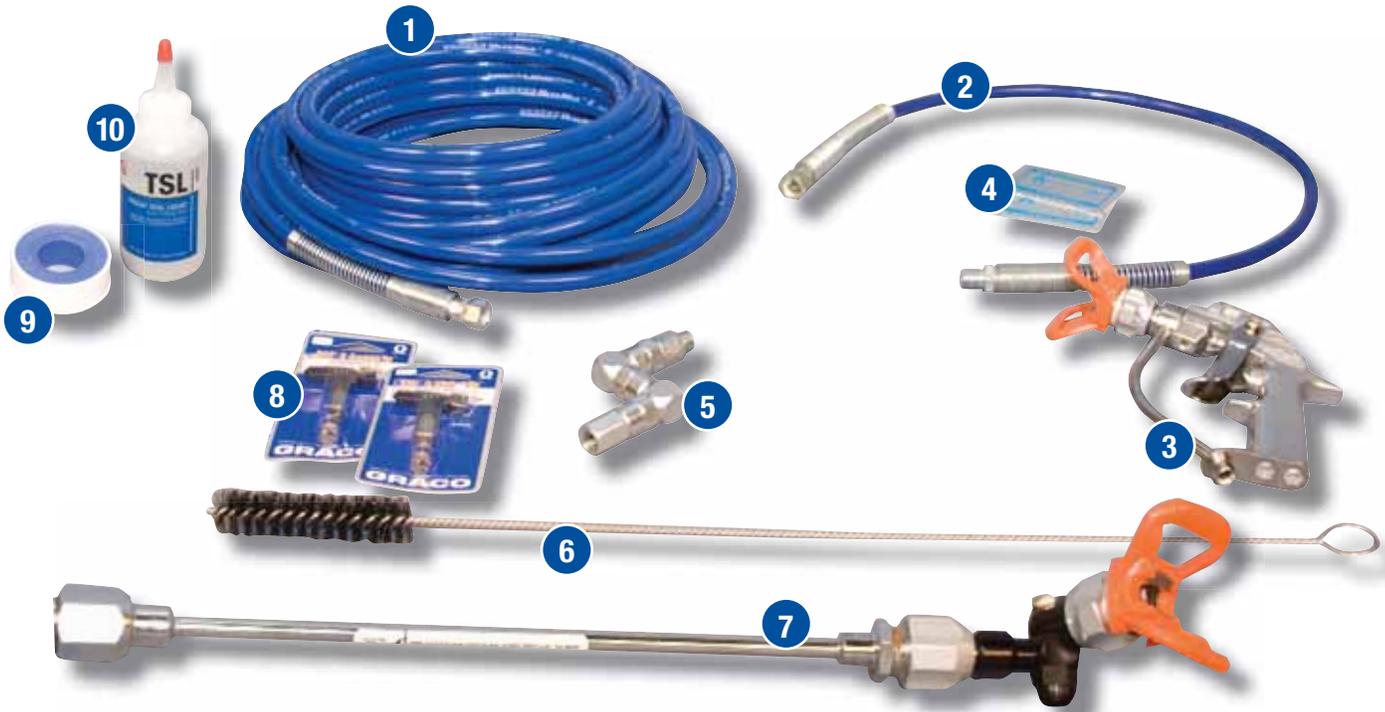


#	Part Description	Kit Quantity
1	Gun - lightweight, palm-held	1
2	Rotating Swivel	1
3	8" Wand Extension	1
4	0.012" orifice 304SS Custom Extrude Tip	2
4	0.017" orifice 304SS Custom Extrude Tip	2
4	0.022" orifice 304SS Custom Extrude Tip	2
5	Stainless Steel Mesh Filter Screens	25



## Delivery System Standard Package

The Cartridge Killer Kit is designed to be used with an electric airless sprayer. Carlisle HVAC recommends using either the Standard Mobile Sealant Delivery System or the Junior Mobile Sealant Delivery System, which can be purchased from any distributor carrying Hardcast products. The system will also work with many off-the-shelf electric airless sprayers.



#	Part Description
1	50 ft. Hose
2	Whip Hose
3	Spray Gun w/Guard
4	2 Mil Thickness Gauges
5	Z Swivel
6	Cleaner Brush
7	12" Extension w/Swivel Head & Guard
8	2 Reversible Spray Tips
9	Teflon Tape
10	TSL Throat Seal Liquid
11	Standard Pump

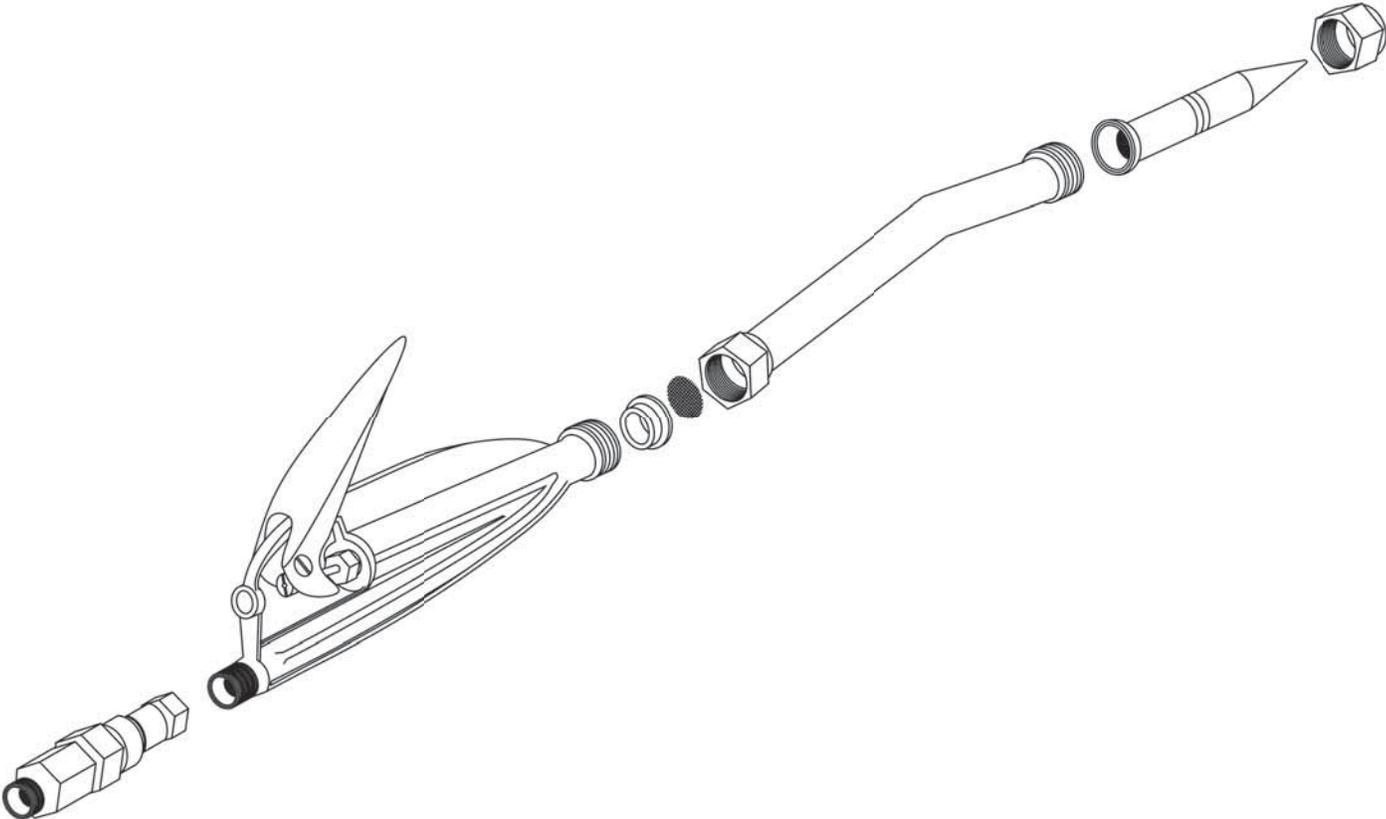
Note: Custom packages available. Contact your Carlisle HVAC/  
Hardcast distributor for a quote.

# Recommended Airless Sprayers

## Delivery System Junior Package



#	Part Description
1	50 ft. Hose
2	1 Spray Gun w/Guard
3	2 Spray Tips
4	2 Mil Thickness Gauges
5	Cleaner Brush
6	Teflon Tape
7	TSL Throat Seal Liquid
8	Jr. Pump



1. Remove contents from box.
2. Verify all components are in the kit per below:

Part Description	Kit Quantity
Gun - lightweight, palm-held	1
Rotating Swivel	1
Stainless Steel Mesh Filter Screens	25
8" Wand Extension	1
0.012" orifice 304SS Custom Extrude Tip	2
0.017" orifice 304SS Custom Extrude Tip	2
0.022" orifice 304SS Custom Extrude Tip	2

# Assembly of Cartridge Killer Kit

3. Install straight rotating swivel onto the inlet side of the gun.
  - a. Note - take care to not cross-thread when installing. This may potentially cause permanent damage and make the assembly unable to seal and unsafe to use.
4. Wrap Teflon tape (supplied) around threaded outlet of gun.
  - a. Note - Care must be taken to cover only the threaded section. If the Teflon tape is allowed to cover over the outlet this can potentially cause clogging issues with the Cartridge Killer gun assembly.
5. Verify fluid shut-off grommet is installed in the end of the gun.
  - a. Note - The white gasket goes towards the gun with the flat surface away from the gun.  
***If this is installed incorrectly the gun will not have a positive pressure shut-off when releasing the gun trigger***
  - b. Note - It may be necessary to depress the trigger slightly to get the shut-off grommet to set in the end of the gun.
6. Install the preferred orifice size stainless steel extrusion tip (sizing and marking notated on the drawing) into the extrusion cap tip.
  - a. Note - The stainless steel extrusion tip will fit snugly into the extrusion cap tip.
7. Install the filter mesh within the female end of the 8" wand extension (or within the female end of the extrusion cap if the extension is not used).
  - a. Note - The wire mesh will fit tightly within the female end of the extension and cap.
8. Install Teflon tape over the male end of the 8" extension, if using the 8" extension, or the male end of the Cartridge Killer gun.
  - a. Note - Not installing the Teflon tape will allow the sealant to leak around the connection point.
9. If using the 8" extension - thread the female end of the 8" extension over the threaded end of the gun. Use the appropriate tools to tighten down the extension.
  - a. Note - If the extension is not tightened down the Cartridge Killer system will likely leak sealant from this location.
10. Install the stainless steel extrusion tip and extrusion cap over the threaded end of the gun, or extension if being used. Use the appropriate tools to tighten down the extrusion cap.
  - a. Note - If the extrusion cap is not tightened down the Cartridge Killer system will likely leak sealant from this location.
11. You have completed the assembly of the Cartridge Killer kit.

**WARNING** - when using the Cartridge Killer kit **DO NOT EXCEED 500 PSI** of pressure into the gun assembly. Pressures above this can cause irreparable damage to system and poses a danger to the user.

## Connecting Cartridge Killer kit onto your sprayer equipment

1. Verify that your spray equipment is turned off and any residual pressure relieved.
2. Remove existing spray gun from your spray equipment. Use appropriate tools to keep from damaging the hose and gun assembly.
3. Install the Cartridge Killer gun assembly onto the spray equipment hose using the rotating swivel as the attachment connection. Use appropriate tools.
  - a. Note - if the rotating swivel is not tightened down properly the Cartridge Killer system will likely leak sealant from this location.
  - b. The rotating swivel is designed to install without Teflon tape.
    - i. Note - if you decide to use Teflon tape, care must be taken to cover only the threaded section as this can potentially cause clogging issues with the Cartridge Killer gun assembly if the Teflon tape is allowed to cover over the inlet of the rotating swivel.
4. You have completed the installation onto your spray equipment.

## Using the Cartridge Killer system

**WARNING - ALWAYS** start your spray equipment with the pressure dial set to zero or to the lowest setting. This will insure you do not over-pressurize the Cartridge Killer system.

1. Follow your standard procedures for startup of your spray equipment.
2. Starting with the pressure set to zero or to the lowest setting, trigger the Cartridge Killer gun into a waste pail. Slowly increase your pressure until you get the appropriate bead size and flow desired.
3. The Cartridge Killer system is designed with a palm-style gun so that it allows the user to utilize their thumb to control the amount the trigger is depressed.
4. As you begin using the Cartridge Killer system on joints and seams adjust your pressure setting accordingly.
5. The speed at which the user moves the stainless steel tip across the joint or seam is also a key control feature. Once the user is using a consistent speed adjust the pressure accordingly.
  - a. Note - each user will have their preferred speed and pressure setting.
6. On first trigger pull, with the spray equipment set to the desired pressure, the user will see a slight initial increase in sealant being delivered. This is inherent to the design as the pressure comes to a steady-state with the trigger depressed. This initial slight increase will immediately dissipate and the user will be able to lay down a consistent bead of sealant.
7. Care must be taken to insert the tip as close to or within the joints and seams being sealed. This will allow the sealant to penetrate into the joints and seams.

# Cleaning the Cartridge Killer System

## Cleaning the Cartridge Killer system

**WARNING - ALWAYS** turn the pump off and relieve the pressure in the spray equipment before attempting any maintenance.

1. Follow the spray equipment manufacturer's directions for cleaning your pump equipment.
2. If you do not have those directions, you can follow the steps outlined in the [Carlisle HVAC Mobile Sealant Delivery System User Manual](#) or watch the YouTube video of the process on [Carlisle HVAC's YouTube channel](#).

### Carlisle HVAC Mobile Sealant Delivery System User Manual:

Go to [goo.gl/o2vbPm](https://goo.gl/o2vbPm) or scan QR code below.



### Carlisle HVAC's YouTube channel:

Go to [www.youtube.com/user/CarlisleHVAC](https://www.youtube.com/user/CarlisleHVAC) or scan QR code below.



3. During the pump cleaning process, you will have utilized water or a solvent to flush the system. When flushing through the spray hose simply flush directly through the Cartridge Killer system.
4. Once the pump equipment and Cartridge Killer system are flushed then remove the extrusion cap and extension wand (if used). Rinse and clean the cap, extension, wire mesh and stainless steel tip.

For technical support contact:

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