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## **Cleveland Steel Container Corporation**

100 Executive Parkway Hudson, OH 44236

July 27, 2022

To Our Customers and Distributors:

Cleveland Steel Container Corporation is required by 49 CFR (Code of Federal Regulations, Title 49--Transportation) to *notify* all of our customers and distributors using Cleveland Steel Container's UN Packaging that they must comply with our UN Closing Instructions.

The actual terminology in 49 CFR, §178.2(c) Notification, clearly states that the manufacturer or other person certifying compliance with the requirements of Part 178, and each subsequent distributor of that packaging shall:

(1) Notify in writing each person to whom that packaging is transferred--

- (i) of all requirements in Part 178 not met at the time of transfer, and
- (ii) of the type and dimensions of any closures, including gaskets, needed to satisfy performance test requirements
- (2) Retain copies of each written notification for at least one year from date of issuance; and
- (3) Make copies of all written notifications available for inspection by a representative of the Department

In the attached accompanying manual, you will find the newly revised complete set of Cleveland Steel Container Corporation's UN Closing Instructions. In addition, we have included a matrix that will help you choose which UN Closing Instructions are required based on the type of UN packaging that you purchase.

In addition, these closing instructions are to be made available to the actual personnel who will be filling, sealing, and preparing the packaging for shipment.

Also included in the manual is an acknowledgment form that must be signed in accordance with 49 CFR, §178.2(c) Notification. We ask that an authorized representative of your company sign and date the form, fax a signed copy of the form to Jeff Swan at 440-349-8101, e-mail the form to jswan@cscpails.com or mail the form to the above address.

To fulfill the requirement of compliance with 49 CFR, §178.2(c) Notification, Cleveland Steel Container will retain a copy of the signed acknowledgement form on file at our Corporate Office, such that it can be made available for inspection by a representative of the Department of Transportation. If you have any questions please feel free to contact your Regional Sales Manager.

Sincerely yours,

Michael D. a.

Michael S. Doran UN Program Manager



# **Cleveland Steel Container Corporation**

100 Executive Parkway Hudson, OH 44236

# Receipt of UN Closing Instructions Acknowledgement Form

I, \_\_\_\_\_, acknowledge that I have received, read, printed and distributed (Please Print Name)

to the appropriate Hazmat personnel responsible for UN Compliance,

CLEVELAND STEEL CONTAINER CORPORATION'S UN CLOSING INSTRUCTION MANUAL

in accordance with 49 CFR, §178.2(c) Notification.

I understand that the material in this manual is subject to change and/or revision.

Company Name

Authorized Representative Signature

Date

Please fax a signed copy of this form to Jeff Swan at 440-349-8101, e-mail the form to JSwan@CSCPails.com or mail the form to the above address.

The UN Closing Instruction Manual includes detailed closing instructions for properly closing UN regulated containers manufactured by Cleveland Steel Container. An acknowledgement form indicating the receipt of these instructions is included. If you are using our closing instructions, please take the time to complete this form and fax a signed copy of it to our corporate office at 440-349-8101, or e-mail it to JSwan@CSCPails.com

The Closing Instruction Manual contains two closing instruction matrices that will help you determine which closing instruction is required based on the type of container you are using. Simply click anywhere on the title page to display the Table of Contents, then click on the appropriate closing instruction matrix heading--open head or tighthead. The matrix of choice will be displayed from which you can choose the correct closing instruction. Click on any CSC logo to return to the Table of Contents.

You will need Adobe Reader to view these files. If your PC does not have this reader, click the button on the bottom of the page to install it.

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**UN Closing Instruction Manual** 

## **UN Closing Instruction Matrix--Open Head Pails**

**Date:** 4/25/13 **Rev:** 2 **Page:** 1 of 1

|                |   |            |            |            | U          | N C        | LOS        | SING       | INS        | TRU        | JCT        | ION        | NUI        | MBE        | R          |            |            |            |
|----------------|---|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Cover          | Fitting   | QA-FM-L250 | QA-FM-L251 | QA-FM-L252 | QA-FM-L253 | QA-FM-L254 | QA-FM-L255 | QA-FM-L256 | QA-FM-L257 | QA-FM-L258 | QA-FM-L266 | QA-FM-L267 | QA-FM-L270 | QA-FM-L271 | QA-FM-L272 | QA-FM-L273 | QA-FM-L274 | QA-FM-L275 |
|                | None  |            | Х          |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|                | Rieke <sup>®</sup> Flexspout <sup>®</sup>             |            | Х          |            | Х          |            |            |            |            |            |            |            |            |            |            |            |            |            |
|                | Tri-Sure <sup>®</sup> Uni-Grip <sup>®</sup> 60S Spout |            | Х          |            |            | Х          |            |            |            |            |            |            |            |            |            |            |            |            |
| UN Hiperform   | Rieke <sup>®</sup> Drum Fitting                       |            | Х          |            |            |            | Х          |            |            |            |            |            |            |            |            |            |            |            |
| Cover          | Tri-Sure <sup>®</sup> Drum Fitting                    |            | Х          |            |            |            |            | Х          |            |            |            |            |            |            |            |            |            |            |
|                | Metal Screw Cap                                       |            | Χ          | Χ          |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|                | Stolz HZ60 Screw Cap                                  |            | Х          |            |            |            |            |            |            |            |            |            |            |            |            |            | Х          |            |
|                | Delpak HDPE Liner                                     |            | Х          |            |            |            |            |            |            |            |            |            | Х          |            |            |            |            |            |
|                | CDF HDPE Cradle                                       | Х          | Χ          |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
| UN Liner       | CDF HDPE Liner  |            | Χ          |            |            |            |            |            |            |            |            |            |            |            |            | Х          |            |            |
| Cover          | CDF HDPE Tray   |            | Χ          |            |            |            |            |            |            |            |            | Х          |            |            |            |            |            |            |
|                | CDF HDPE Tray w/ Scholle Bag                          |            | Χ          |            |            |            |            |            |            |            | Х          |            |            |            |            |            |            |            |
|                | Bolt Ring w/ Delpak HDPE Liner                        |            |            |            |            |            |            |            |            |            |            |            |            |            | Χ          |            |            |            |
|                | Rieke <sup>®</sup> Flexspout <sup>®</sup>             |            |            |            | Х          |            |            |            |            | Х          |            |            |            |            |            |            |            |            |
| UN RingSeal    | Tri-Sure <sup>®</sup> Uni-Grip <sup>®</sup> 60S Spout |            |            |            |            | Х          |            |            |            | Х          |            |            |            |            |            |            |            | 1          |
| Cover w/       | Metal Screw Cap                                       |            |            | Х          |            |            |            |            |            | Х          |            |            |            |            |            |            |            |            |
| Bolt Ring      | Rieke <sup>®</sup> Drum Fitting                       |            |            |            |            |            | Х          |            |            | Х          |            |            |            |            |            |            |            |            |
|                | Tri-Sure <sup>®</sup> Drum Fitting                    |            |            |            |            |            |            | Х          |            | Х          |            |            |            |            |            |            |            |            |
|                | Bolt Ring   |            |            |            |            |            |            |            |            | Х          |            |            |            |            |            |            |            |            |
|                | Rieke <sup>®</sup> LeverLock Rings                    |            |            |            |            |            |            |            | Χ          |            |            |            |            |            |            |            |            |            |
|                | OFFKO LeverLock Ring                                  |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            | Х          |
| UN RingSeal    | LeverLock Ring w/ Delpak HDPE Liner                   |            |            |            |            |            |            |            | Х          |            |            |            |            | Х          |            |            |            |            |
| Cover w/       | Rieke <sup>®</sup> Flexspout <sup>®</sup>             |            |            |            | Х          |            |            |            | Х          |            |            |            |            |            |            |            |            |            |
| LeverLock Ring | Tri-Sure <sup>®</sup> Uni-Grip <sup>®</sup> 60S Spout |            |            |            |            | Х          |            |            | Х          |            |            |            |            |            |            |            |            |            |
|                | Rieke <sup>®</sup> Drum Fitting                       |            |            |            |            |            | Х          |            | Х          |            |            |            |            |            |            |            |            |            |
|                | Tri-Sure <sup>®</sup> Drum Fitting                    |            |            |            |            |            |            | Х          | Х          |            |            |            |            |            |            |            |            |            |
|                | Metal Screw Cap                                       |            |            | Х          |            |            |            |            | Х          |            |            |            |            |            |            |            |            |            |

**Note:** To locate the proper closing instruction, select the cover and fitting, then move right across the row to the **X**; move up the column and read the closing instruction number; be sure to move across the entire row as some pails have more than one applicable instruction sheet



## **UN Closing Instruction Matrix--Tighthead Pails**

**Date:** 9/5/12 **Rev:** 0 **Page:** 1 of 1

|           |  |            | UN CLOSING INSTRUCTION NUMBER |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|-----------|--|------------|-------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Cover     | Fitting  | QA-FM-L250 | QA-FM-L251                    | QA-FM-L252 | QA-FM-L253 | QA-FM-L254 | QA-FM-L255 | QA-FM-L256 | QA-FM-L257 | QA-FM-L258 | QA-FM-L266 | QA-FM-L267 | QA-FM-L270 | QA-FM-L271 | QA-FM-L272 | QA-FM-L273 | QA-FM-L274 | QA-FM-L275 |
|           | Rieke <sup>®</sup> Flexspout <sup>®</sup>                      |            |                               |            | Х          |            |            |            |            |            |            |            |            |            |            |            |            |            |
|           | Tri-Sure UNi-GRIP <sup>®</sup> Spout                           |            |                               |            |            | Х          |            |            |            |            |            |            |            |            |            |            |            |            |
|           | Rieke <sup>®</sup> Drum Fitting                                |            |                               |            |            |            | Х          |            |            |            |            |            |            |            |            |            |            |            |
|           | Tri-Sure <sup>®</sup> Drum Fitting                             |            |                               |            |            |            |            | Х          |            |            |            |            |            |            |            |            |            |            |
| Tighthead | Metal Screw Cap  |            |                               | Х          |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
| Тор       | Rieke <sup>®</sup> Flexspout <sup>®</sup> &<br>Metal Screw Cap |            |                               | Х          | x          |            |            |            |            |            |            |            |            |            |            |            |            |            |
|           | Tri-Sure UNi-GRIP <sup>®</sup> Spout &<br>Metal Screw Cap      |            |                               | х          |            | х          |            |            |            |            |            |            |            |            |            |            |            |            |
|           | Rieke <sup>®</sup> Drum Fitting &<br>Metal Screw Cap           |            |                               | X          |            |            | x          |            |            |            |            |            |            |            |            |            |            |            |
|           | Tri-Sure <sup>®</sup> Drum Fitting &<br>Metal Screw Cap        |            |                               | х          |            |            |            | х          |            |            |            |            |            |            |            |            |            |            |

**Note:** To locate the proper closing instruction, select the fitting, then move right across the row to the **X**; move up the column and read the closing instruction number; be sure to move across the entire row as some pails have more than one applicable instruction sheet



#### **UNi-Pak Cradle Closing Instructions**

**Rev:** 

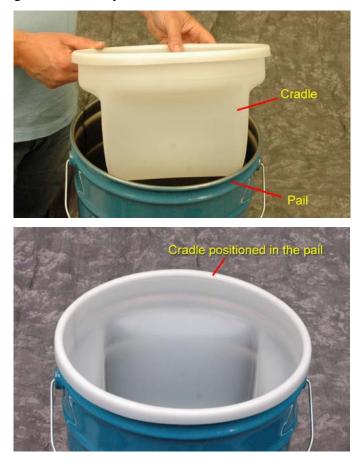
Document:

QA-FM-L250 **Date:** 8/29/12

**Page:** 1 of 3

#### UNi-Pak Cradle Closing Instructions (UN Lug Cover)

*Step 1*--Position the cradle into the filled pail. The gasket is already installed in the cradle

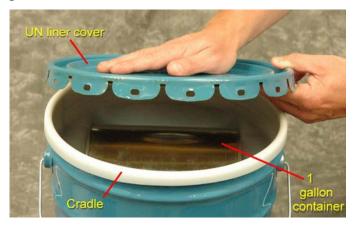


*Step 2*--Place the 1 gallon container, horizontally, into the cradle.



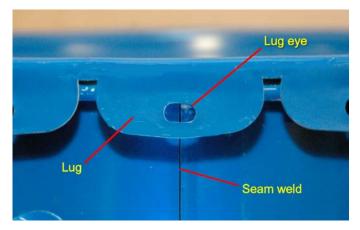
*Step 3*--Place the UN liner cover on the pail. Ensure that it is evenly seated around the curl of the pail.

6





The eye of one of the lugs should be centered directly over the seam weld of the pail.



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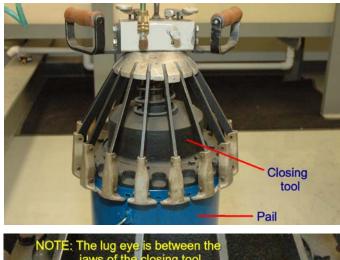
## **UNi-Pak Cradle Closing Instructions**

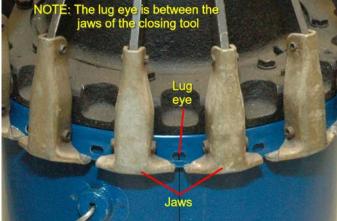
**Document:** QA-FM-L250

**Date:** 8/29/12 **Rev:** 

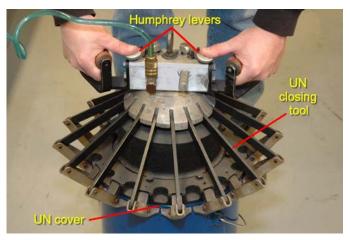
6 **Page:** 2 of 3

*Step 4*--Lower the closing tool onto the cover. Rotate the tool in order to position the lug eyes between the jaws of the closing tool.





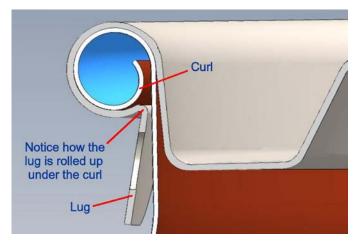
*Step 5*--To close the pail with the *pneumatic closing tool*, push the Humphrey levers on the top of the closing tool



When the downward motion of the tool stops, release the levers.

**Note:** The use of a hand-operated pneumatic tool is detailed in this closing instruction; however, many packaging facilities use automated closing tools; regardless of the closing tool used, the quality of the closure is critical.

*Step 6*--Check the integrity of the close to be sure that the cover is properly crimped. The cover lugs should be rolled up under the curl as shown in the drawing below.



*Step 7*--Remove the closing tool. The lugs should be crimped under the curl of the pail at least  $90^{\circ}$  from the starting position

Review the photographs and drawings on the next page that illustrate the *preferred* crimp and the *unacceptable* crimp.



## **UNi-Pak Cradle Closing Instructions**

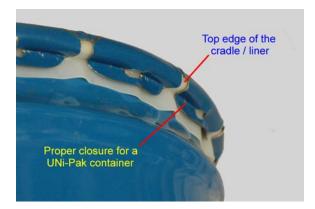
8/29/12

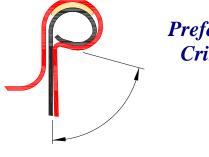
**Rev:** 

**Document:** 

QA-FM-L250 Date:

6 **Page:** 3 of 3



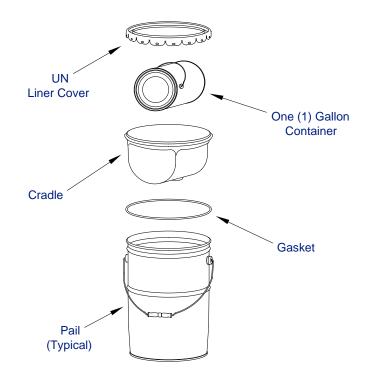


Preferred Crimp





Unacceptable Crimp



CLEVELAND STEEL CONTAINER PROPRIETARY INFORMATION





## **Open Head Closing Instructions**

**Rev:** 

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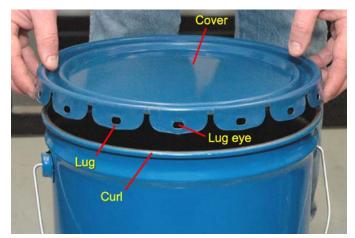
QA-FM-L251 Date: 7/27/22

7 Page: 1 of 3

#### **Open Head Pail Closing Instructions**

*Step 1*--Determine that the pail/cover combination is the correct specification for the material being filled.

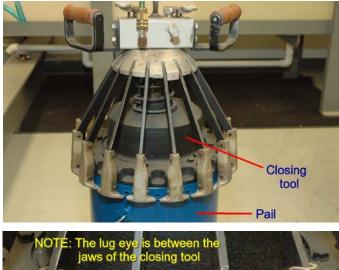
*Step 2*--Place the cover on pail. Ensure that it is evenly seated around the curl of the pail.

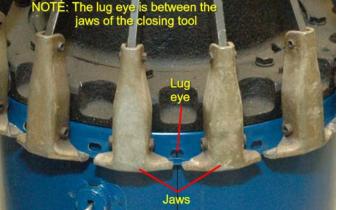


The eye of one of the lugs should be centered directly over the seam weld of the pail.

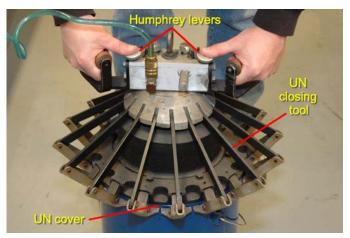


*Step 3*--Lower the closing tool onto the cover. Rotate the tool in order to position the lug eyes between the jaws of the closing tool.





*Step 4a*--To close the pail with the *pneumatic closing tool*, push the Humphrey levers on the top of the closing tool



When the downward motion of the tool stops, release the levers.



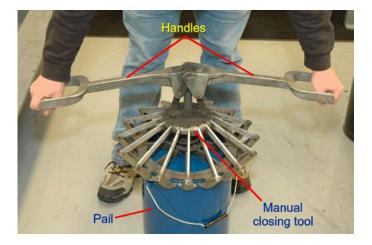
## **Open Head Closing Instructions**

**Document:** QA-FM-L251

**Date:** 7/27/22 **Rev:** 

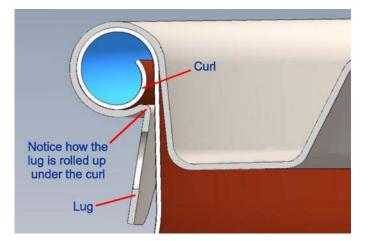
7 Page: 2 of 3

*Step 4b*--To close the pail with the *manual hand closing tool*, push the handles down and out until the downward motion stops. Release the handles, allowing them to come back up to their starting position, then turn (rotate) the tool 90 degrees right or left and repeat the closing (crimping) process. The crimping process must be done twice with the manual hand tool to ensure the proper close.



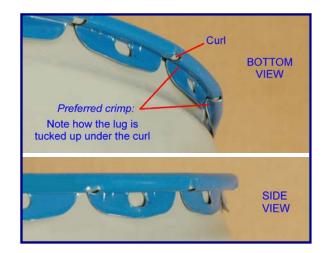
**Note:** The use of pneumatic and manual closing tools is detailed in this closing instruction; however, many packaging facilities use automated closing tools; regardless of the closing tool used, the quality of the closure is critical.

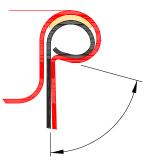
*Step 5*--Check the integrity of the close to be sure that the cover is properly crimped. Ideally, the cover lugs should be rolled up under the curl as shown in the drawing below.



**Step 6--**The lugs should be crimped under the curl of the pail at least  $90^{\circ}$  from the starting position

Review the following photographs and drawings that illustrate the *preferred* crimp, the *acceptable* crimp and the *unacceptable* crimp.





Preferred Crimp



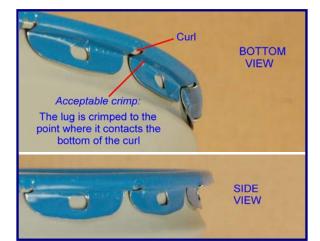
## **Open Head Closing Instructions**

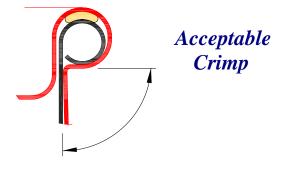
**Rev:** 

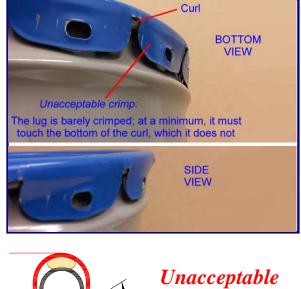
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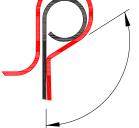
QA-FM-L251 Date: 7/27/22

7 **Page:** 3 of 3









Unacceptable Crimp



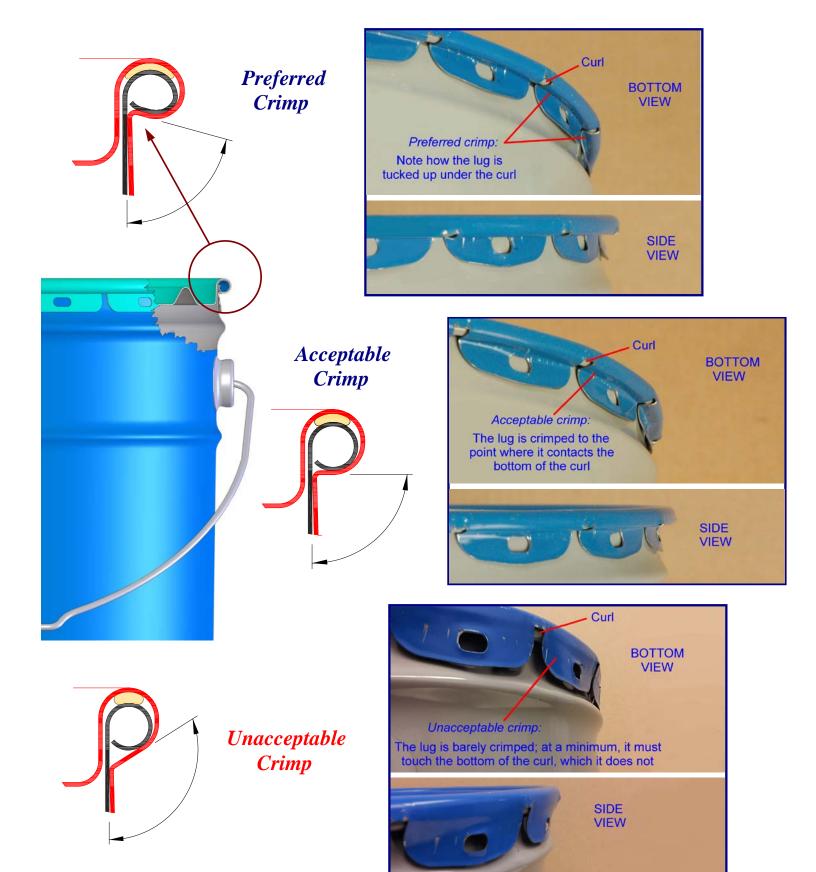
#### **UN Closing Instructions--Proper Pail Crimping**

**Document:** 

QA-FM-L249

**Date:** 2/5/13 **Rev:** 

0 **Page:** 1 of 1





## **Metal Screw Cap Closing Instructions**

**Document:** QA-FM-L252 **Date:** 8/29/12 **Rev:** 5 **Page:** 1 of 2

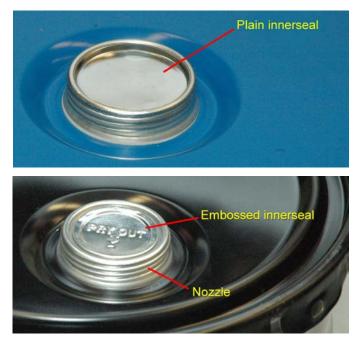
#### **Metal Screw Cap Closing Instructions**

*Step 1*--Hold the pail securely on a flat surface.

*Step 2*-- Place the innerseal over the opening in the nozzle. Apply pressure to the innerseal to ensure that it locks completely into the nozzle opening.



- **Note:** Use caution in order to prevent distortion to the innerseal while applying pressure
- **Note:** There are 2 styles of innerseals, *plain* and *embossed*; both are installed in the same manner; the embossed style is designed to accommodate a metal pour spout and must be used with the nozzle





*Step 3*--Place the screw cap over the opening in the nozzle. Gently rotate the screw cap clockwise until the threads of the cap smoothly engage the threads in the nozzle.



*Step 4*--Continue to rotate the screw cap clockwise until it cannot be tightened any further by hand. Using a torque wrench and specialized fitting for the particular cap screw being installed, tighten it to at least 80 inch-pounds.

Refer to the *Recommended Torque Specifications* chart for the torque specification required for the hydrostatic pressure rating marked on the pail.

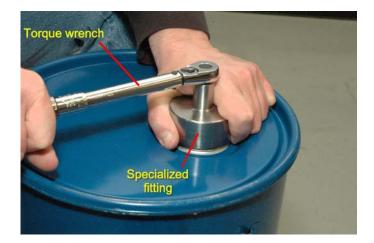


#### **Metal Screw Cap Closing Instructions**

**Document:** QA-FM-L252

**Date:** 8/29/12 **Rev:** 5

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#### **Automatic Application**

*Step 1*--Set the capping machine torque adjustment to the required specification for the product being packaged in the pail. As a guide, tighten the cap screw to at least 80 inch-pounds.

Refer to the *Recommended Torque Specifications* chart for the torque specification required for the hydrostatic pressure rating marked on the pail.

*Step 2*--Be sure that the screw cap is not misaligned or mis-threaded. If it is, adjust the alignment of the screw cap and nozzle.

#### Recommended Torque Specifications for Screw Cap Fittings

| Hydrostatic<br>Pressure Rating | Torque     |
|--------------------------------|------------|
| < 80 kPa                       | 80 in-lbs  |
| 80 - 100 kPa                   | 100 in-lbs |



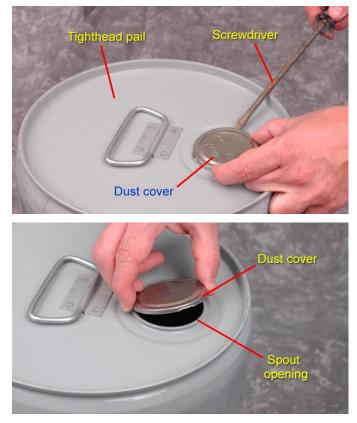
## **Rieke<sup>®</sup> FlexSpout Closing Instructions**

**Document:** QA-FM-L253 **Date:** 6/3/18 **Rev:** 4 **Page:** 1 of 2

## **Rieke<sup>®</sup> FlexSpout Closing Instructions**

#### Manual, Hand-Operated Crimping Tool

*Step 1*--Place the pail on a flat surface. Using a screwdriver, pry off the dust cover.



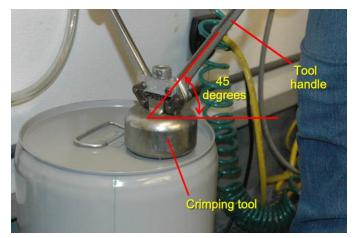
*Step 2*-- Place the Rieke<sup>®</sup> FlexSpout in the opening on the top of the pail.



*Step 3--*The FS-600 Rieke<sup>®</sup> Hand Crimping Tool is used to crimp the FlexSpout to the opening. Place the crimping tool evenly over the fitting on the pail.



*Step 4*--In the resting position, the handles of the crimping tool should be approximately  $45^{\circ}$  to the top of the pail.



*Step 5--*Grip the handles of the crimping tool with your hands. Apply *even* downward pressure until the handles are parallel to the top of the pail in order to properly crimp the fitting.



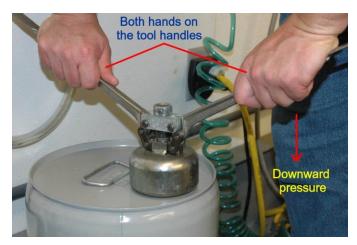


## **Rieke<sup>®</sup> FlexSpout Closing Instructions**

**Document:** QA-FM-L253

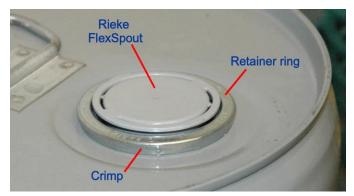
3 **Date:** 6/3/18

**Rev:** 4 **Page:** 2 of 2





*Step 6*--Visually inspect the crimped FlexSpout. The crimp should be uniform and consistent around the entire circumference of the retainer ring of the fitting.

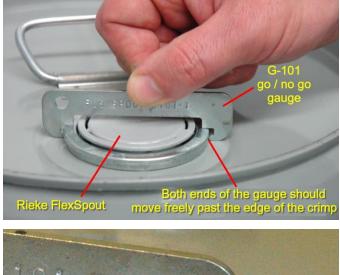


**Note:** It is important that the closing tool is resting *evenly* on the FlexSpout when applying the downward pressure; if the tool is *cocked* or *tilted* when crimping the fitting, an improper

seal can result which might cause leakage of the contents of the pail

*Step* 7--Check the crimp of the Rieke<sup>®</sup> FlexSpout fitting using the *G-101 go / no go gauge*. As the gauge is moved over the fitting, the edge must be able to pass by the side of crimp.

**Note:** Contact Rieke<sup>®</sup> Corporation, or your Cleveland Steel Container Regional Sales Manager, to obtain this gauge





#### Note:

The use of the hand crimping tool is detailed in this closing instruction; however, many packaging facilities use automated crimping tools which are also authorized. The critical part of this closing process is to ensure that the crimp meets the details outlined in Step 6 and Step 7.



# Tri-Sure<sup>®</sup> Uni-Grip<sup>®</sup> 60S Spout Closing Instructions

Document:

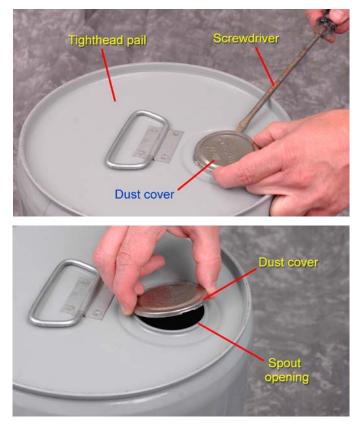
QA-FM-L254 Date: 4/17/13

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## Tri-Sure<sup>®</sup> Uni-Grip<sup>®</sup> 60S Spout Closing Instructions

#### **Manual Hand Tool**

*Step 1*--Place the pail on a flat surface. Using a screwdriver, pry off the dust cover.



*Step 2--*Place the Uni-Grip<sup>®</sup> 60S Spout in the opening on the top of the pail.



*Step 3--*The Tri-Sure<sup>®</sup> Uni-Grip<sup>®</sup> 60S Spout Hand Crimping Tool is used to crimp the Uni-Grip<sup>®</sup> 60S Spout to the opening.

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Place the Tri-Sure<sup>®</sup> Uni-Grip<sup>®</sup> 60S Spout Hand Crimping Tool evenly over the fitting at the top of the pail. In the resting position, the handles of the crimping tool should be approximately 45° to the top of the pail.



*Step 4*--Grip the handles of the crimping tool with your hands. Apply *even* downward pressure until the handles are parallel to the top of the pail in order to properly crimp the spout (refer to the two photographs in the left hand column on the next page)

**Note:** It is important that the closing tool is resting *evenly* on the Uni-Grip<sup>®</sup> 60S Spout when applying the downward pressure; if the tool is *cocked* or *tilted* when crimping the fitting, an improper seal can result which might cause leakage of the contents of the pail



# Tri-Sure<sup>®</sup> Uni-Grip<sup>®</sup> 60S Spout Closing Instructions

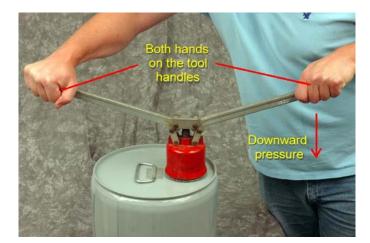
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**Note:** The use of the hand crimping tool is detailed in this closing instruction; however, many packaging facilities use automated crimping tools; regardless of the crimping tool used, the quality of the crimp is critical 60

**UN Closing Instruction Manual** 

#### **Rieke<sup>®</sup> Drum Fitting Closing Instructions**

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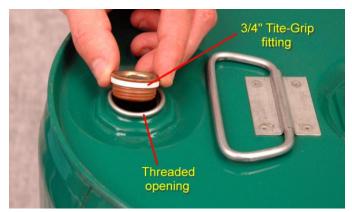
9

#### **Rieke® Tite-Grip and Vice-Grip Drum Fitting Closing Instructions**

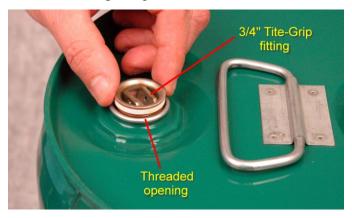
#### 3/4" Rieke® Tite-Grip Fitting (Steel)

*Step 1*--Place the pail on a flat surface.

*Step 2*-- Place the fitting on the top of the pail in the threaded opening.



*Step 3*--Rotate the fitting clockwise to engage the threads in the opening.



*Step 4*--Thread the fitting into the opening and tighten it using a (1) custom-made fitting adapter for a torque wrench, or a (2) pre-set torque wrench from the manufacturer.



*Step 5*--Be sure the fitting is tightened to the proper specification (refer to the table on page 4).

#### 2" Rieke® Tite-Grip Fitting (Steel)

*Step 1*--Place the pail on a flat surface.

*Step 2*-- Place the fitting on the top of the pail in the threaded opening.



*Step 3*--Rotate the fitting clockwise to engage the threads in the opening.

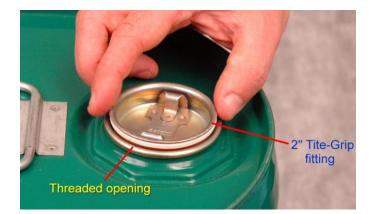


## **Rieke<sup>®</sup> Drum Fitting Closing Instructions**

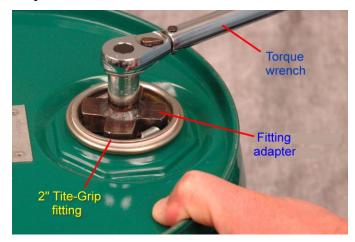
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*Step 4*--Thread the fitting into the opening and tighten it using a custom-made fitting adapter for a torque wrench.



*Step 5*--Be sure the fitting is tightened to the proper specification (refer to the table on page 4).

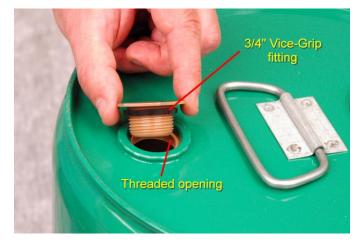
**Note:** The photograph below illustrates both fittings correctly installed in the pail cover



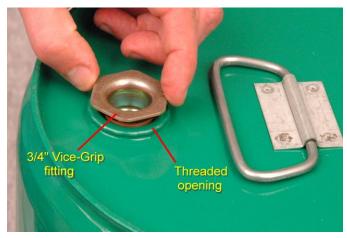
#### 3/4" Rieke® Vice-Grip Fitting (Steel)

*Step 1*--Place the pail on a flat surface.

*Step 2*-- Place the fitting on the top of the pail in the threaded opening.



*Step 3*--Rotate the fitting clockwise to engage the threads in the opening.



*Step 4--*Thread the fitting into the opening and tighten it using a pre-set torque wrench from the manufacturer.

#### Note:

The use of a manual torque tool is detailed in this closing instruction; however, the use of automated pneumatic torque tightening tools is authorized provided the required torque specifications are achieved.



# **Rieke<sup>®</sup> Drum Fitting Closing Instructions**

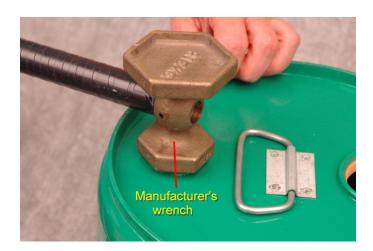
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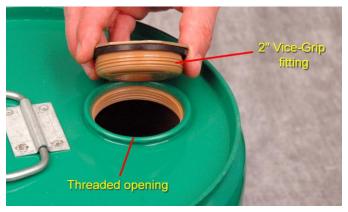


*Step 5*--Be sure the fitting is tightened to the proper specification (refer to the table on page 4).

#### 2" Rieke® Vice-Grip Fitting (Steel)

*Step 1*--Place the pail on a flat surface.

*Step 2*-- Place the fitting on the top of the pail in the threaded opening.



*Step 3*--Rotate the fitting clockwise to engage the threads in the opening.



*Step 4*--Thread the fitting into the opening and tighten it using a pre-set torque wrench from the manufacturer.



*Step 5*--Be sure the fitting is tightened to the proper specification (refer to the table on page 5).

**Note:** The photograph below illustrates both fittings correctly installed in the pail cover





# **Rieke<sup>®</sup> Drum Fitting Closing Instructions**

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| Gasket  | Material                   | Plastic   | Nylon     | Steel     | Oven   |
|---------|----------------------------|-----------|-----------|-----------|--------|
|         |                            | Plug      | Plug      | Plug      | Temp   |
| GT043   | Buna                       | 10 ft-lbs | 20 ft-lbs | 30 ft-lbs | 450° F |
| GT043W  | White Buna                 | 10 ft-lbs | 20 ft-lbs | 30 ft-lbs | 450° F |
| GT073-2 | LD Polyethylene            | 10 ft-lbs | 20 ft-lbs | 40 ft-lbs | 120° F |
| GT073-3 | Irradiated LD Polyethylene | 10 ft-lbs | 20 ft-lbs | 40 ft-lbs | 375° F |
| GT083   | Dapon                      | 10 ft-lbs | 20 ft-lbs | 30 ft-lbs | 450° F |
| GT093   | EPT / EPDM                 | 10 ft-lbs | 20 ft-lbs | 30 ft-lbs | 450° F |
| GT093W  | White EPT / EPDM           | 10 ft-lbs | 20 ft-lbs | 30 ft-lbs | 450° F |
| GT099W  | White EPT / EPDM           | 10 ft-lbs | 20 ft-lbs | N/A       | N/A    |
| GT073-4 | Teflon PTFE                | 10 ft-lbs | 20 ft-lbs | 30 ft-lbs | N/A    |

## 2" Tite-Grip Plugs

#### 3/4" Tite-Grip Plugs

| Gasket  | Material                   | Plastic  | Nylon    | Steel     | Oven   |
|---------|----------------------------|----------|----------|-----------|--------|
|         |                            | Plug     | Plug     | Plug      | Temp   |
| GT041   | Buna                       | 5 ft-lbs | 9 ft-lbs | 15 ft-lbs | 450° F |
| GT041W  | White Buna                 | 5 ft-lbs | 9 ft-lbs | 15 ft-lbs | 450° F |
| GT071-2 | LD Polyethylene            | 5 ft-lbs | 9 ft-lbs | 20 ft-lbs | 120° F |
| GT071-3 | Irradiated LD Polyethylene | 5 ft-lbs | 9 ft-lbs | 20 ft-lbs | 375° F |
| GT081W  | Dapon                      | 5 ft-lbs | 9 ft-lbs | 15 ft-lbs | 450° F |
| GT091   | EPT / EPDM                 | 5 ft-lbs | 9 ft-lbs | 15 ft-lbs | 450° F |
| GT091W  | White EPT / EPDM           | 5 ft-lbs | 9 ft-lbs | 15 ft-lbs | 450° F |
| GT071-4 | Teflon PTFE                | 5 ft-lbs | 9 ft-lbs | 15 ft-lbs | N/A    |

| Gasket | Material         | Plug Type | Torque   | Oven Temp |
|--------|------------------|-----------|----------|-----------|
| G-91w  | White EPT / EPDM | HDPE      | 4 ft-lbs | 120° F    |



# **Rieke<sup>®</sup> Drum Fitting Closing Instructions**

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#### **2" Vice-Grip Plugs**

| Gasket  | Material                   | Plastic   | Nylon     | Steel     | Oven   |
|---------|----------------------------|-----------|-----------|-----------|--------|
|         |                            | Plug      | Plug      | Plug      | Temp   |
| GV043   | Buna                       | 20 ft-lbs | 20 ft-lbs | 30 ft-lbs | 450° F |
| GV043W  | White Buna                 | 20 ft-lbs | 20 ft-lbs | 30 ft-lbs | 450° F |
| GV073-2 | LD Polyethylene            | 20 ft-lbs | 20 ft-lbs | 40 ft-lbs | 120° F |
| GV073-3 | Irradiated LD Polyethylene | 20 ft-lbs | 20 ft-lbs | 40 ft-lbs | 350° F |
| GV093   | EPT / EPDM                 | 20 ft-lbs | 20 ft-lbs | 30 ft-lbs | 470° F |
| GV093W  | White EPT / EPDM           | 20 ft-lbs | 20 ft-lbs | 30 ft-lbs | 470° F |

#### 3/4" Vice-Grip Plugs

| Gasket  | Material                   | Plastic  | Nylon    | Steel     | Oven   |
|---------|----------------------------|----------|----------|-----------|--------|
|         |                            | Plug     | Plug     | Plug      | Temp   |
| GV041   | Buna                       | 9 ft-lbs | 9 ft-lbs | 15 ft-lbs | 450° F |
| GV041W  | White Buna                 | 9 ft-lbs | 9 ft-lbs | 15 ft-lbs | 450° F |
| GV071-2 | LD Polyethylene            | 9 ft-lbs | 9 ft-lbs | 20 ft-lbs | 120° F |
| GV071-3 | Irradiated LD Polyethylene | 9 ft-lbs | 9 ft-lbs | 20 ft-lbs | 350° F |
| GV091   | EPT / EPDM                 | 9 ft-lbs | 9 ft-lbs | 15 ft-lbs | 470° F |
| GV091W  | White EPT / EPDM           | 9 ft-lbs | 9 ft-lbs | 15 ft-lbs | 470° F |



**Tri-Sure<sup>®</sup> Drum Fitting Closing Instructions** 

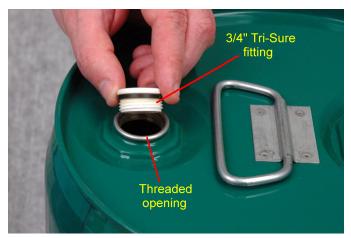
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#### Tri-Sure<sup>®</sup> Drum Fitting Closing Instructions

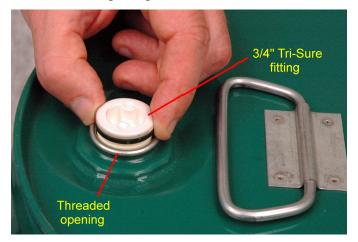
#### 3/4" Tri-Sure<sup>®</sup> Fitting (Plastic)

*Step 1*--Place the pail on a flat surface.

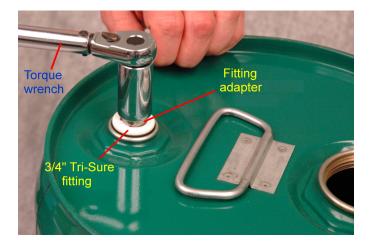
*Step 2*-- Place the fitting on the top of the pail in the threaded opening.



*Step 3*--Rotate the fitting clockwise to engage the threads in the opening.



*Step 4*--Thread the fitting into the opening and tighten it using a (1) custom-made fitting adapter for a torque wrench, or a (2) pre-set torque wrench from the manufacturer. An automated pneumatic torque wrench is also authorized.



*Step 5*--Be sure the fitting is tightened to the proper specification (refer to the table on page 3).

#### 2" Tri-Sure<sup>®</sup> Fitting (Plastic)

*Step 1*--Place the pail on a flat surface.

*Step 2*-- Place the fitting on the top of the pail in the threaded opening.



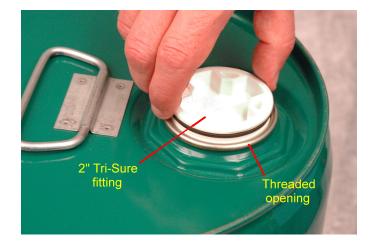
*Step 3*--Rotate the fitting clockwise to engage the threads in the opening.



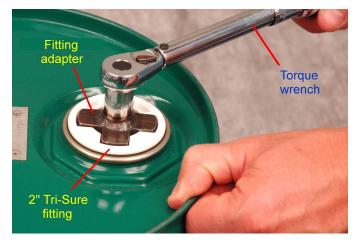
# **Tri-Sure<sup>®</sup> Drum Fitting Closing Instructions**

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*Step 4*--Thread the fitting into the opening and tighten it using a (1) custom-made fitting adapter for a torque wrench, or a (2) pre-set torque wrench from the manufacturer.



*Step 5*--Be sure the fitting is tightened to the proper specification (refer to the table on page 2).

**Note:** The photograph below illustrates both fittings correctly installed in the pail cover



#### Note:

The use of a manual torque tool is detailed in this closing instruction, however, the use of automated pneumatic torque tightening tools is also authorized such that the required torque specifications are achieved.



# **Tri-Sure<sup>®</sup> Drum Fitting Closing Instructions**

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#### 2" Plugs

| Gasket Material            | Plastic Plug | Steel Plug | Oven Temp |
|----------------------------|--------------|------------|-----------|
| Black Buna                 | 20 ft-lbs    | 30 ft-lbs  | 450° F    |
| White Buna                 | 20 ft-lbs    | 30 ft-lbs  | 450° F    |
| Irradiated LD Polyethylene | 30 ft-lbs    | 30 ft-lbs  | 375° F    |
| LD Polyethylene            | 30 ft-lbs    | 30 ft-lbs  | 120° F    |
| Dapon                      | 20 ft-lbs    | 30 ft-lbs  | 450° F    |
| EPT / EPDM                 | 20 ft-lbs    | 30 ft-lbs  | 450° F    |
| White EPT / EPDM           | 20 ft-lbs    | 30 ft-lbs  | 450° F    |

#### 3/4" Plugs

| Gasket Material            | Plastic Plug         | Steel Plug | Oven Temp |
|----------------------------|----------------------|------------|-----------|
| Black Buna                 | 7 ft-lbs (84 in-lbs) | 15 ft-lbs  | 450° F    |
| White Buna                 | 7 ft-lbs (84 in-lbs) | 15 ft-lbs  | 450° F    |
| Irradiated LD Polyethylene | 7 ft-lbs (84 in-lbs) | 15 ft-lbs  | 375° F    |
| LD Polyethylene            | 7 ft-lbs (84 in-lbs) | 15 ft-lbs  | 120° F    |
| Dapon                      | 7 ft-lbs (84 in-lbs) | 15 ft-lbs  | 450° F    |
| EPT / EPDM                 | 7 ft-lbs (84 in-lbs) | 15 ft-lbs  | 450° F    |
| White EPT / EPDM           | 7 ft-lbs (84 in-lbs) | 15 ft-lbs  | 450° F    |



**Rieke<sup>®</sup> (RU/RS) LeverLock Closing Instructions** 

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#### **Proper Application of the Rieke<sup>®</sup> (RU/RS) LeverLock Ring**

**Caution:** The use of gloves is highly recommended to avoid injury due to sharp edges when performing this operation.

*Step 1*--Place the cover on the pail. Press down along the edges and in the center of the cover to ensure that it is seated properly.

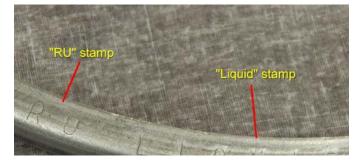


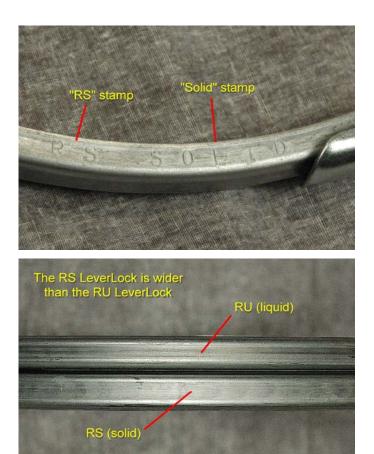
*Step 2*--Select the proper leverlock ring for the material being packaged.

The *RU* leverlock ring is used when packaging *liquids*.

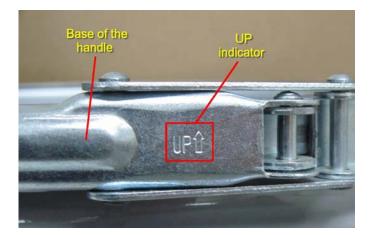
The **RS** leverlock ring is used when packaging *solids*.

The leverlock rings are stamped for the particular application. Also, the RS leverlock ring is wider than the RU leverlock ring.





*Step 3*--Before placing the leverlock ring on the pail, it must be oriented correctly. There is an *Up indicator* w/ an arrow stamped into the base of the handle. Orient the ring w/ the arrow pointing *up*.



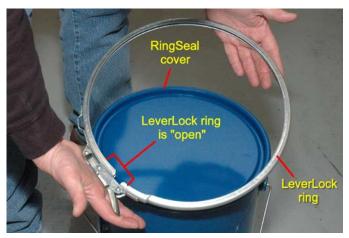


# **Rieke<sup>®</sup> (RU/RS) LeverLock Closing Instructions**

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*Step 4*--Open the leverlock ring as wide as possible, then slip it over the pail. Be sure that the ring is placed on the pail in a manner that allows it to be closed by moving the lever *clockwise* onto the ring.



*Step 5--*Orient the lever on the Ring to be 45 degrees from the bail ears so that the lever does not interfere with the operation of the bail handle. The lever should be oriented directly between the ears on either side of the pail.

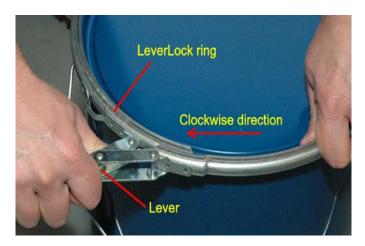
*Step 6*--Apply downward pressure to the edge of the cover opposite the ring opening. Push the ring onto the cover/curl and work the ring onto the cover/curl around the entire circumference of the pail up to where the ends of the ring meet at the lever.



*Step 10--*Close the ring clockwise by applying pressure to the handle. The lever should offer some resistance before collapsing onto the ring. If done correctly the lever should snap shut onto the ring.

**Note:** The ring *must* encompass the cover/curl around the entire circumference of the pail.

**Do not try to force lever closed.** This may result in a bent and damaged lever. If lever ceases and does not move the ring is not fully engaged on the cover/curl.







# **Rieke<sup>®</sup> (RU/RS) LeverLock Closing Instructions**

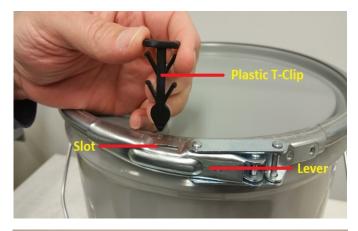
**Document:** QA-FM-L257

**Date:** 7/24/22

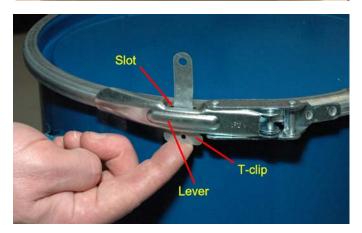
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*Step 8*--Insert a plastic or metal tamper-evident Tclip through the slot in the lever. This will hold the lever in place. The T-clip should also pass through the loop attached to the body of the ring.

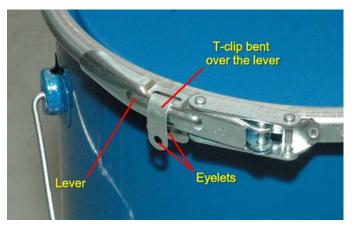






*Step 9*--If the ring is locked properly, it cannot be rotated or moved. If the ring slides, it is oversized.





**Note:** A locking mechanism can be inserted into the eyelet of the metal T-clip.



## **Bolt Ring Closing Instructions**

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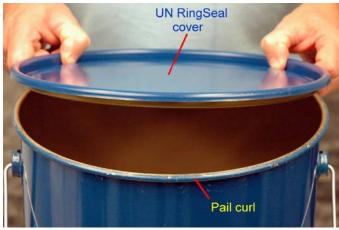
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#### Bolt Ring Closing Instructions (UN RingSeal Cover w/ R5 Bolt Ring)

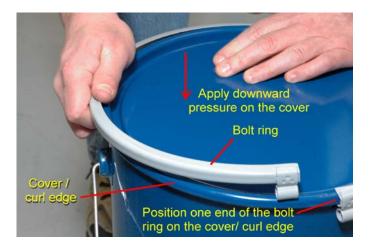
*Step 1*-- Place the UN RingSeal cover on the pail. Press down along the edges and in the center of the cover to ensure that it is seated properly on the pail curl.



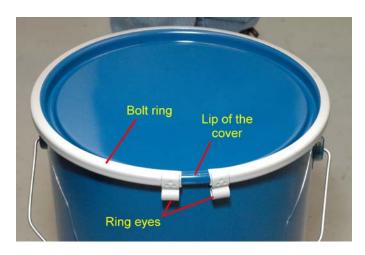


*Step 2*-- Position the R5 bolt ring around the top of the pail. Start at one end of the bolt ring and work it around the entire perimeter of the cover/curl edge of the pail.

**Note:** Applying downward pressure on the cover while fitting the bolt ring to the pail will make this task easier



*Step 3*--To properly close the pail, the bolt ring should cover the lip of the cover *and* the curl of the pail. Also, the ring eyes must positioned *down*, below the curl of the pail.



*Step 4*--Orient the bolt ring eyes opposite, or 180°, from the seam weld.





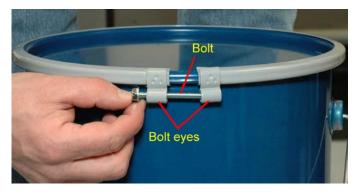
## **Bolt Ring Closing Instructions**

**Document:** QA-FM-L258

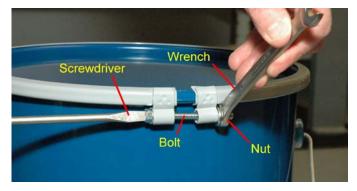
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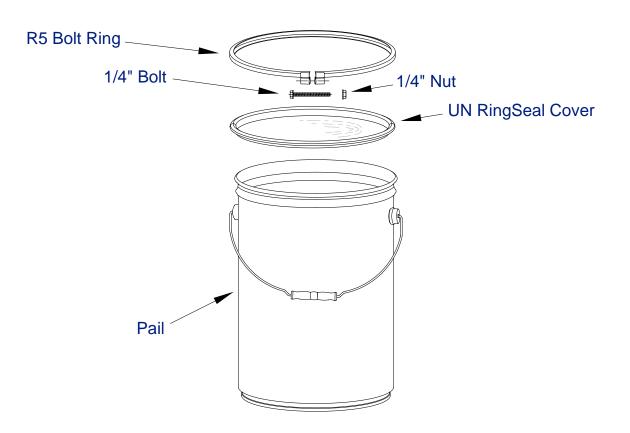
*Step 5*--Using both hands, squeeze the bolt ring eyes together. Slide the 1/4" bolt through the eyes.



*Step 6*--Thread the nut onto the 1/4" bolt. Tighten the nut and torque it to 50 in-lbs.



*Step 7*--Check to proper fit and tightness of the bolt ring. If the bolt ring is torqued properly, it cannot be rotated or moved. If the bolt ring slides, it might be oversized or improperly torqued.





**UNi-Pak Tray w/ Scholle Bag Closing Instructions** 

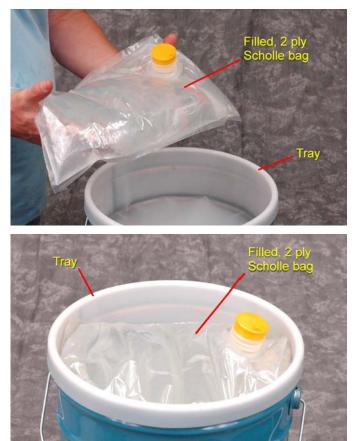
**Document:** QA-FM-L266 **Date:** 9/7/12 **Rev:** 4 **Page:** 1 of 3

#### UNi-Pak Tray w/ Scholle Bag Closing Instructions (UN Liner Cover)

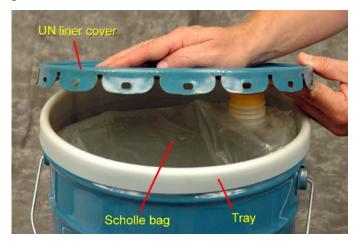
*Step 1*--Position the tray into the filled pail, fitting it onto the pail curl.



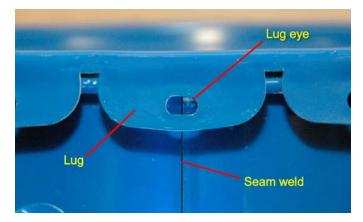
*Step 2*--Place the filled, 2-ply Scholle bag, horizontally, into the tray.



*Step 3*--Place the UN liner cover on the pail. Ensure that it is evenly seated around the curl of the pail.



The eye of one of the lugs should be centered directly over the seam weld of the pail.



*Step 4*--Lower the closing tool onto the cover. Rotate the tool in order to position the lug eyes between the jaws of the closing tool.

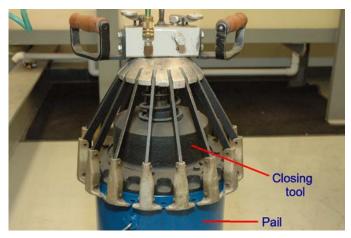


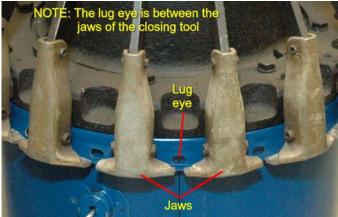
#### **UNi-Pak Tray w/ Scholle Bag Closing Instructions**

**Document:** QA-FM-L266

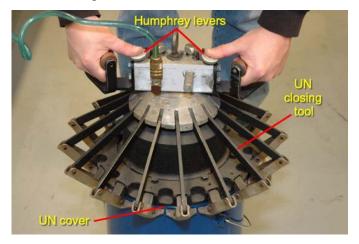
L266 **Date:** 9/7/12

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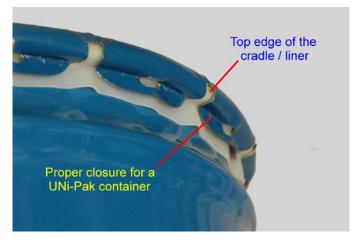




*Step 5*--To close the pail with the *pneumatic closing tool*, push the Humphrey levers on the top of the closing tool



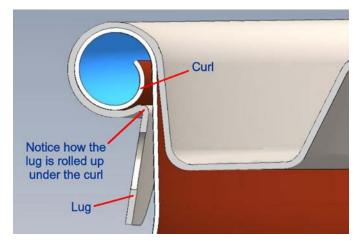
When the downward motion of the tool stops, release the levers.



When the downward motion of the tool stops, release the handles.

**Note:** The use of pneumatic and manual closing tools is detailed in this closing instruction; however, many packaging facilities use automated closing tools; regardless of the closing tool used, the quality of the closure is critical

*Step 6*--Check the integrity of the close to be sure that the cover is properly crimped. The cover lugs should be rolled up under the curl as shown in the drawing below.



*Step 7*--Remove the closing tool. The lugs should be crimped under the curl of the pail at least  $90^{\circ}$  from the starting position

Review the photographs and drawings on the next page that illustrate the *preferred* crimp and the *unacceptable* crimp.

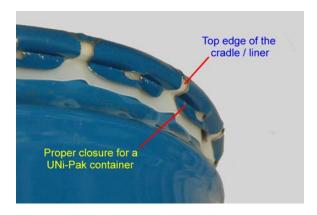


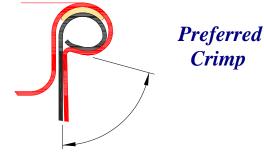
#### **UNi-Pak Tray w/ Scholle Bag Closing Instructions**

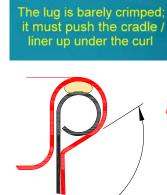
Document:

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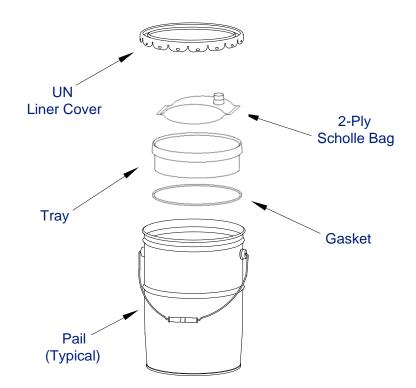


**Rev:** 

Unacceptable crimp.

Unacceptable Crimp

Top edge of the cradle / liner





### **UNi-Pak Tray Closing Instructions**

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#### UNi-Pak Tray Closing Instructions (UN Liner Cover)

*Step 1*--Position the tray into the filled pail.





*Step 2*--Fill the tray with the designated material.

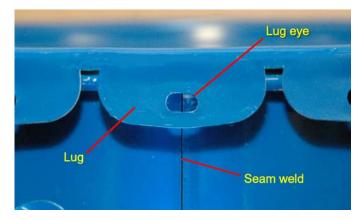
*Step 3*--Place the UN liner cover on the pail. Ensure that it is evenly seated around the curl of the pail.



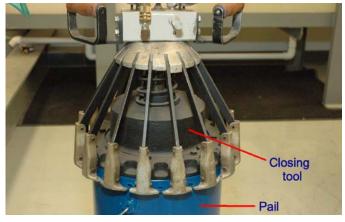
The eye of one of the lugs should be centered directly over the seam weld of the pail.

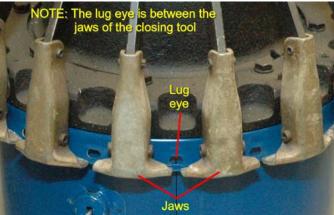
3

**Rev:** 



*Step 4*--Lower the closing tool onto the cover. Rotate the tool in order to position the lug eyes between the jaws of the closing tool.





CLEVELAND STEEL CONTAINER PROPRIETARY INFORMATION



# **UNi-Pak Tray Closing Instructions**

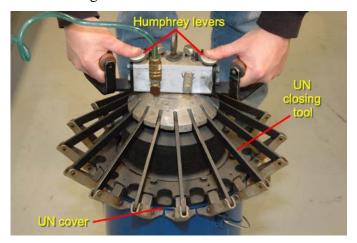
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**Document:** QA-FM-L267

**Date:** 4/2/12

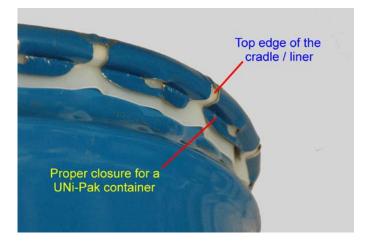
3 **Page:** 2 of 3

*Step 5*--To close the pail with the *pneumatic closing tool*, push the Humphrey levers on the top of the closing tool

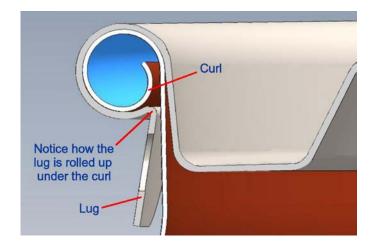


When the downward motion of the tool stops, release the levers.

**Note:** The use of pneumatic and manual closing tools is detailed in this closing instruction; however, many packaging facilities use automated closing tools; regardless of the closing tool used, the quality of the closure is critical

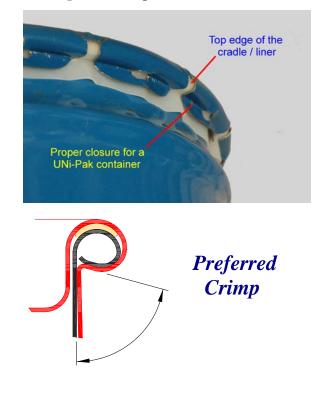


*Step 6*--Check the integrity of the close to be sure that the cover is properly crimped. The cover lugs should be rolled up under the curl as shown in the drawing below.



*Step 7*--Remove the closing tool. The lugs should be crimped under the curl of the pail at least  $90^{\circ}$  from the starting position

Review the photographs and drawings below and on the next page that illustrate the *preferred* crimp and the *unacceptable* crimp.





# **UNi-Pak Tray Closing Instructions**

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Gasket

 Top edge of the cradle / liner

 Unacceptable crimped; timust push the cradle / liner up under the curl

 Unacceptable crimped; timust push the cradle / liner

 Unacceptable crimped; timust push the cradle / liner

 Unacceptable crimped; timust push the cradle / liner

(Typical)

### **Delpak Lug Cover Closing Instructions**

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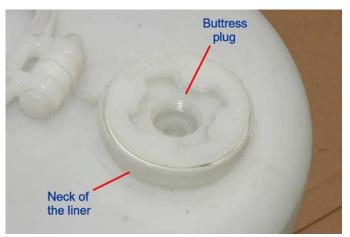
4

#### Delpak Lug Cover Closing Instructions (UN Lug Cover)

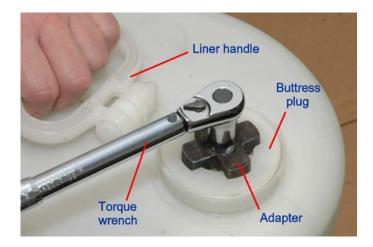
*Step 1*--Verify that the EPDM gasket is in place on the 2-inch buttress plug.



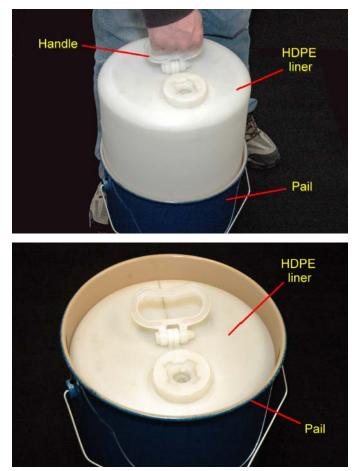
*Step 2*--Thread the buttress plug into neck of the filled HDPE liner.



*Step 3--*While holding the liner handle, tighten the buttress plug. Torque it to 250 in-lbs using the adapter and preset calibrated torque wrench



*Step 4*--Place the liner into the empty pail.





### **Delpak Lug Cover Closing Instructions**

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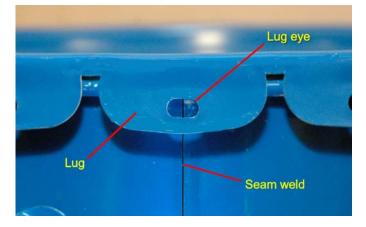
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**Rev:** 

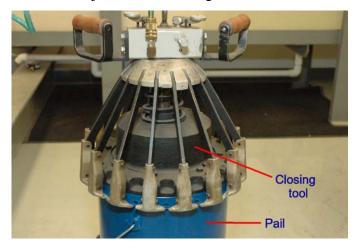
*Step 5*--Place the UN cover on pail. Ensure that it is evenly seated around the curl of the pail.

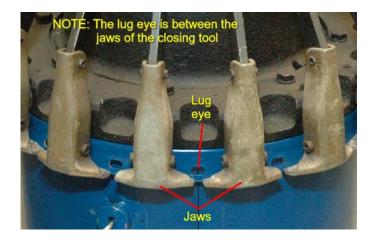


The eye of one of the lugs should be centered directly over the seam weld of the pail.

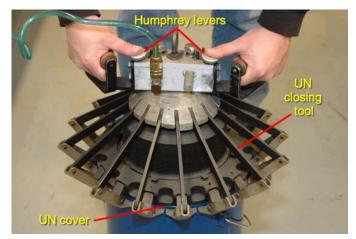


*Step 6*--Lower the closing tool onto the cover. Rotate the tool in order to position the lug eyes between the jaws of the closing tool.





*Step 6a*--To close the pail with the *pneumatic closing tool*, push the Humphrey levers on the top of the closing tool



When the downward motion of the tool stops, release the levers.

*Step 6b*--To close the pail with the *manual hand-closing tool*, push the handles down and out until the downward motion stops. Release the handles, allowing them to come back up to their starting position, then turn (rotate) the tool 90 degrees right or left and repeat the closing (crimping) process. The crimping process must be done twice with the manual hand tool to ensure the proper close.



# **Delpak Lug Cover Closing Instructions**

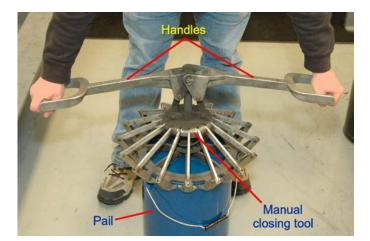
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**Document:** QA-FM-L270

270 Date:

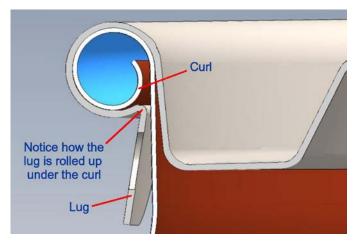
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When the downward motion of the tool stops, release the handles.

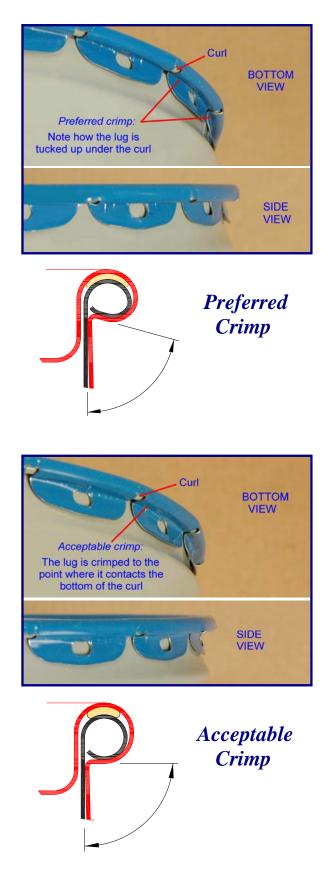
**Note:** The use of pneumatic and manual closing tools is detailed in this closing instruction; however, many packaging facilities use automated closing tools; regardless of the closing tool used, the quality of the closure is critical

*Step 7*--Check the integrity of the close to be sure that the cover is properly crimped. The cover lugs should be rolled up under the curl as shown in the photograph below.



*Step 8*--Remove the closing tool. The lugs should be crimped under the curl of the pail at least  $90^{\circ}$  from the starting position

Review the following photographs and drawings that illustrate the *preferred* crimp, the *acceptable* crimp and the *unacceptable* crimp.





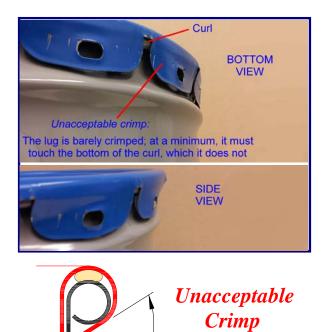
# **Delpak Lug Cover Closing Instructions**

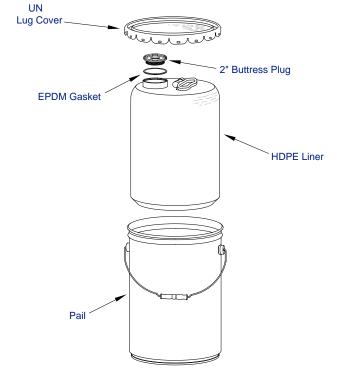
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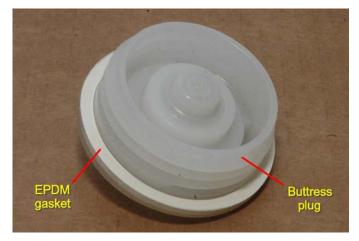
**Delpak LeverLock Ring Closing Instructions** 

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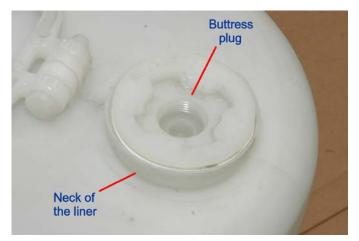
#### Delpak LeverLock Ring Closing Instructions (UN RingSeal Cover w/ RU LeverLock Ring)

**Caution:** The use of gloves is highly recommended to avoid injury due to sharp edges when performing this operation.

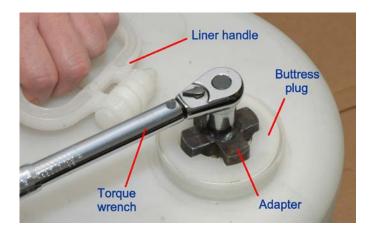
*Step 1*--Verify that the EPDM gasket is in place on the 2-inch buttress plug.



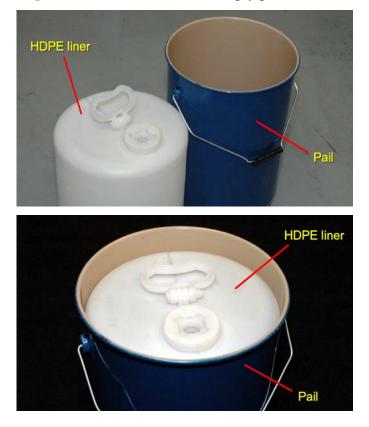
*Step 2*--Thread the buttress plug into neck of the filled HDPE liner.



*Step 3*--While holding the liner handle, tighten the buttress plug. Torque it to 250 in-lbs using the adapter and preset calibrated torque wrench.



*Step 4*--Place the liner into the empty pail.



*Step 5--*Place the steel RingSeal cover on the pail. Press down along the edges and in the center of the cover to ensure that it is seated properly.



# **Delpak LeverLock Ring Closing Instructions**

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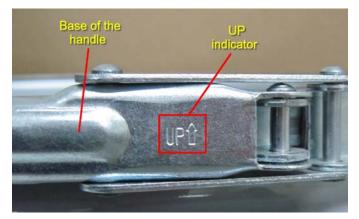
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**Step 6**--Before placing the leverlock ring on the pail, it must be oriented correctly. There is an Up *indicator* w/ an arrow stamped into the base of the handle. Orient the ring w/ the arrow pointing up.



*Step 7*--Open the leverlock ring as wide as possible, then slip it over the pail. Be sure that the ring is placed on the pail in a manner that allows it to be closed by moving the lever *clockwise* onto the ring.



*Step 8*--Orient the lever on the Ring to be 45 degrees from the bail ears so that the lever does not interfere with the operation of the bail handle. The lever should be oriented directly between the ears on either side of the pail.

Step 9--Apply downward pressure to the edge of the cover opposite the ring opening. Push the ring onto the cover/curl and work the ring onto the cover/curl around the entire circumference of the pail up to where the ends of the ring meet at the lever.



*Step 10*--Close the ring clockwise by applying pressure to the handle. The lever should offer some resistance before collapsing onto the ring. If done correctly the lever should snap shut onto the ring.

**Note:** The ring *must* encompass the cover/curl around the entire circumference of the pail.

**Do not try to force lever closed.** This may result in a bent and damaged lever. If lever ceases and does not move the ring is not fully engaged on the cover/curl.



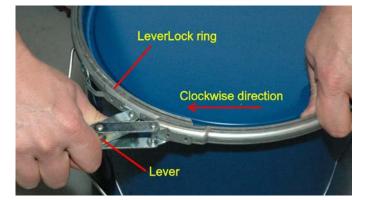
# **Delpak LeverLock Ring Closing Instructions**

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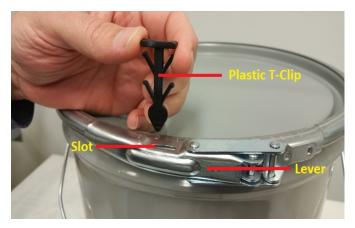
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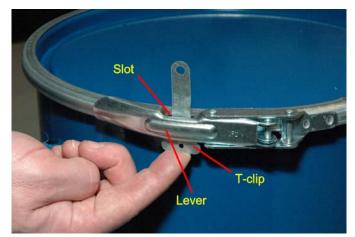


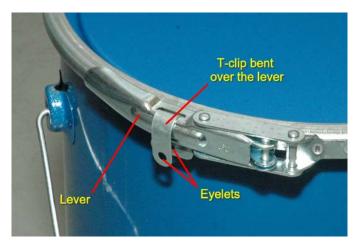
*Note--*If the ring is locked properly, it cannot be rotated or moved. If the ring slides, it is oversized.

*Step 11*--Insert a plastic or metal tamper-evident Tclip through the slot in the lever. This will hold the lever in place. The T-clip should also pass through the loop attached to the body of the ring.







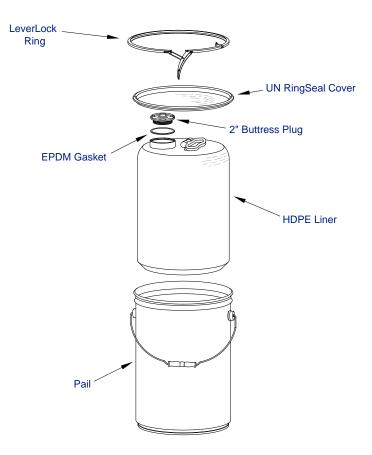


**Note:** A locking mechanism can be inserted into the eyelet of the latch to make the lever tamper-evident



# **Delpak LeverLock Ring Closing Instructions**

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# **Delpak Bolt Ring Closing Instructions**

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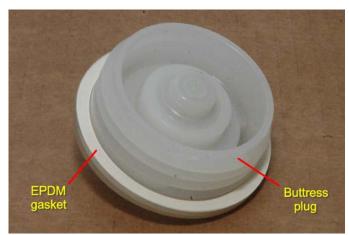
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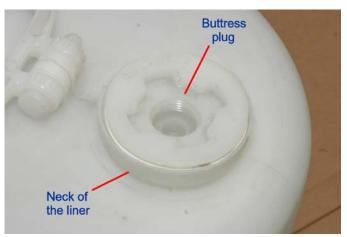
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#### Delpak Bolt Ring Closing Instructions (UN RingSeal Cover w/ R5 Bolt Ring)

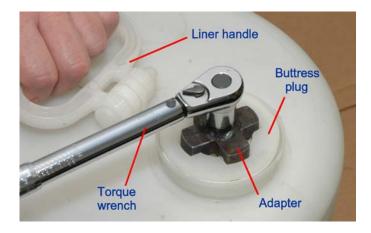
*Step 1*--Verify that the EDPM gasket is in place on the 2-inch buttress plug.



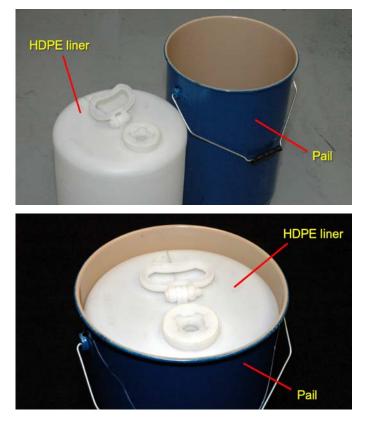
*Step 2*--Thread the buttress plug into the neck of the filled HDPE liner.



*Step 3--*While holding the liner handle, tighten the buttress plug. Torque it to 250 in-lbs using the adapter and preset calibrated torque wrench.



*Step 4*--Place the liner into the empty pail.



*Step 5--*Place the UN RingSeal cover on the pail. Press down along the edges and in the center of the cover to ensure that it is seated properly.



# **Delpak Bolt Ring Closing Instructions**

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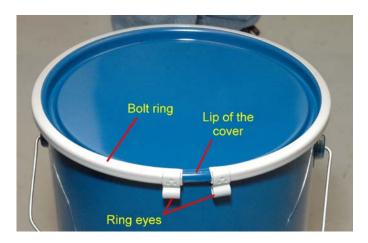
*Step 5*--Position the R5 bolt ring around the top of the pail. Start at one end of the bolt ring and work it around the entire perimeter of the cover/curl edge of the pail.

**Note:** Applying downward pressure on the cover while fitting the bolt ring to the pail will make this task easier



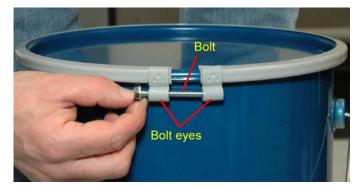
*Step 6*-To properly close the pail, the bolt ring should cover the lip of the cover *and* the curl of the pail. Also, the ring eyes must positioned *down*, below the curl of the pail.

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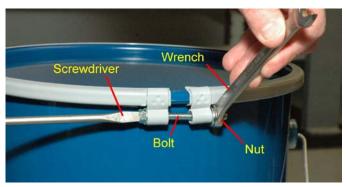


*Step 7*--Orient the bolt ring eyes opposite, or 180°, from the seam weld.

*Step 8*--Using both hands, squeeze the bolt ring eyes together. Slide the 1/4" bolt through the eyes.



*Step 9*--Thread the nut onto the 1/4" bolt. Tighten the nut and torque it to 50 in-lbs.





### **Delpak Bolt Ring Closing Instructions**

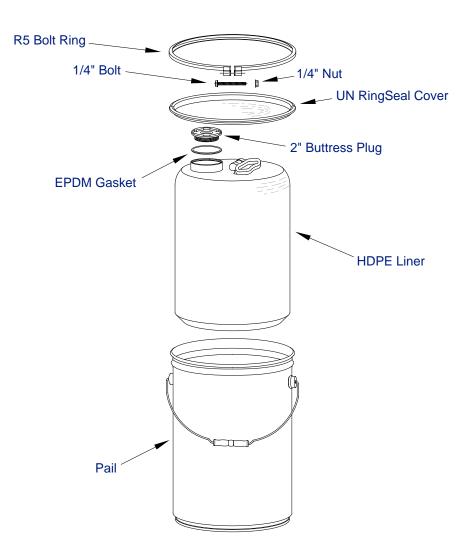
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*Step 10--*Check to proper fit and tightness of the bolt ring. If the bolt ring is torqued properly, it cannot be rotated or moved. If the bolt ring slides, it might be oversized or improperly torqued.





## **Pail Liner Closing Instructions**

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#### Pail Liner Closing Instructions (UN Lug Cover)

*Step 1*--Place the pail liner into the empty pail.



*Step 2*--Using your hands, push the pail liner against the wall of the pail



*Step 3*--Fill the pail liner/pail with the designated material.

3

**Rev:** 



*Step 4*--Place the polyethylene, or compatible, sheet liner over the opening of the pail, *if desired*. Be sure to center the sheet liner in order to cover the entire opening.

**Note:** Using the polyethylene sheet liner will make the package *ineligible* for air transport due to performance limitations on the hydrostatic pressure test





# **Pail Liner Closing Instructions**

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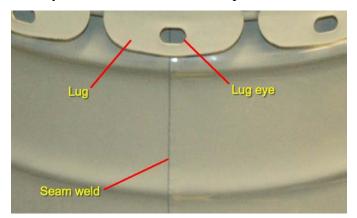
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*Step 5*--Place the UN cover on the pail. Ensure that it is evenly seated around the curl of the pail.

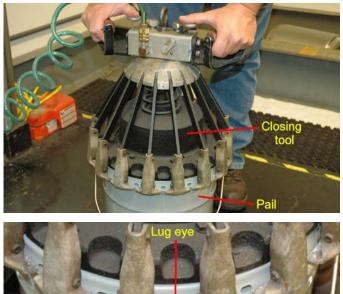


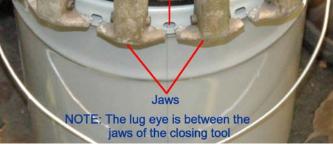


The eye of one of the lugs should be centered directly over the seam weld of the pail.

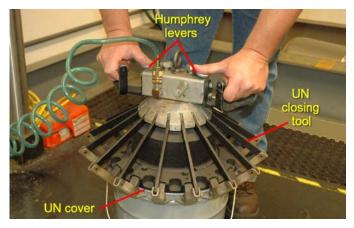


*Step 6*--Lower the closing tool onto the cover. Rotate the tool in order to position the lug eyes between the jaws of the closing tool.





*Step 6a*--To close the pail with the *pneumatic closing tool*, push the Humphrey levers on the top of the closing tool



When the downward motion of the tool stops, release the levers.



## **Pail Liner Closing Instructions**

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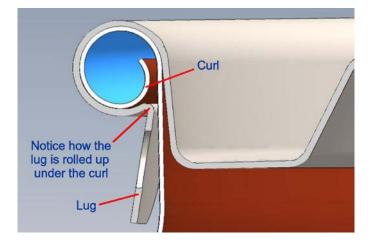
QA-FM-L273 Date: 7/27/22

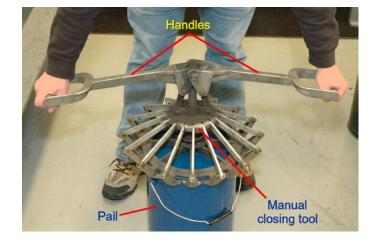
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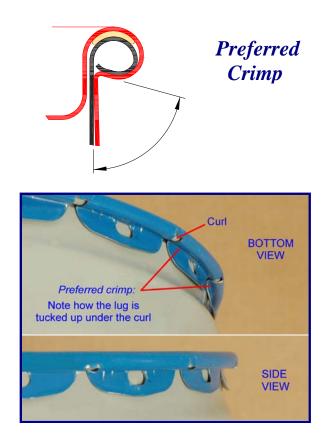
*Step 6b*--To close the pail with the *manual hand closing tool*, push the handles down and out until the downward motion stops. Release the handles, allowing them to come back up to their starting position, then turn (rotate) the tool 90 degrees right or left and repeat the closing (crimping) process. The crimping process must be done twice with the manual hand tool to ensure the proper close.

*Step* 7--Remove the closing tool and check the integrity of the curl to be sure that the cover is properly crimped. The lugs should preferably be rolled under the curl as shown in the photograph below and at least 90 degrees from the starting position.





**Note:** The use of pneumatic and manual closing tools is detailed in this closing instruction; however, many packaging facilities use automated closing tools; regardless of the closing tool used, the quality of the closure is critical.



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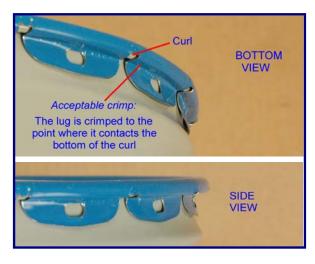
# **Pail Liner Closing Instructions**

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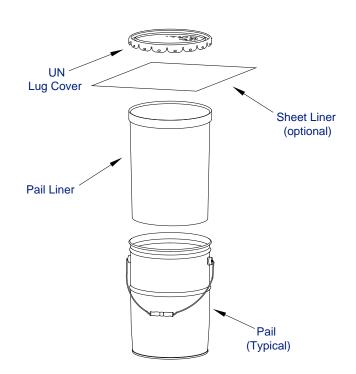
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J<mark>nacceptabl</mark> Crimp



**Stolz HZ60 Screw Cap Closing Instructions** 

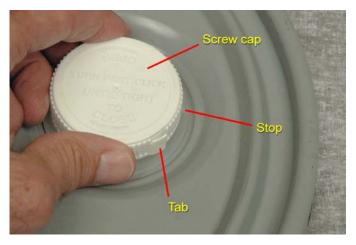
**Document:** QA-FM-L274 **Date:** 11/1/12 **Rev:** 1 **Page:** 1 of 1

#### Stolz HZ60 Screw Cap Closing Instructions

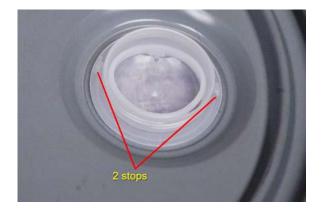
*Step 1*--Place the Stolz screw cap over the opening in the nozzle.



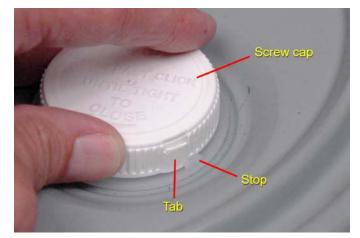
*Step 2*-- Gently rotate the cap clockwise until the threads of the cap smoothly engage the threads of the nozzle.



**Note:** Be sure the cap is being turned between the stops on the nozzle and does *not* ride on the top of the stops; if this occurs, the cap can be come cocked or mis-threaded



*Step 3*--Continue to rotate the screw cap clockwise. until the tab on the cap clicks past the stop on the nozzle. After this occurs, rotate the cap until it can no longer be torqued any tighter by hand.



**Note:** The printed instructions on the top of the screw cap read as follows: *Turn past click until tight* 



### **OFFKO (RU-1) LeverLock Ring Closing Instructions**

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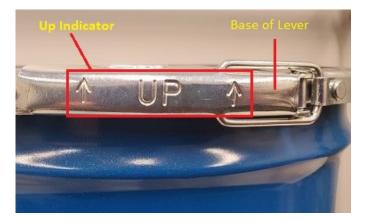
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#### Proper Application of the OFFKO (RU-1) LeverLock Ring

*Step 1*--Place the steel RingSeal cover on the pail. Press down along the edges and in the center of the cover to ensure that it is seated properly.



*Step 2*--Before placing the leverlock ring on the pail, it must be oriented correctly. There is an *Up indicator* w/ an arrow stamped into the base of the handle. Orient the ring w/ the arrow pointing *up*.



*Step 3*--Open the leverlock ring as wide as possible, then slip it over the pail. Be sure that the ring is placed on the pail in a manner that allows it to be closed by moving the lever *clockwise* onto the ring.



*Step 4*--Orient the lever on the ring to be opposite of the seam weld (180 degrees from the seam weld).

*Step 5--*Apply downward pressure to the cover and release the lever, allowing the ring to slide onto the cover/curl edge.

**Note:** The ring *must* encompass the cover/curl around the entire edge of the pail





## **OFFKO (RU-1) LeverLock Ring Closing Instructions**

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*Step 7* -- Close the ring clockwise by applying pressure to the lever until it collapses onto the ring.



If the ring is locked properly, it cannot be rotated or moved. If the ring slides, it is oversized.

*Step 8*--Push down on the attached clip such that it passes through the slot at the edge of the lever handle.

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*Step 9*--A tamper-evident seal with a metal or plastic wire may be used to secure the package. The wire should pass through the eyelet hole in the clip before being secured.