



University of Washington Medical Center 1959 NE Pacific Street. Seattle, WA, 98195 Transfusion Services Laboratory Policies and Procedures Manual	Original Effective Date: 03-11-16	Number: EQ-0008.02
	Revision Effective Date:	
TITLE: Tube Sealer Operation and Maintenance		

PURPOSE:

Provide instructions to seal PVC tubing using the Genesis Rapid Seal II Tube Sealer SE540

PRINCIPLE & CLINICAL SIGNIFICANCE:

A tube sealer is used to seal PVC tubing, connecting blood containers, to allow separation of the containers while retaining the sterility of the blood component. Sealers are also used to make tubing segments used for sterile sampling of the blood component.

If the seal leaks creating an open system after cutting, the component must be transfused within 24 hours if stored at 1-6°C or within 4 hours if stored at 20-24°C.

POLICIES:

Maintenance:

- Cleaning of the front panel and handheld unit is performed weekly and as needed

SPECIMEN REQUIREMENTS:

NA

REAGENTS/SUPPLIES/EQUIPMENT:

Reagents:	Supplies:	Equipment:
NA	NA	Genesis Rapid Seal II Tube Sealer SE540

QUALITY CONTROL:

NA

INSTRUCTIONS:

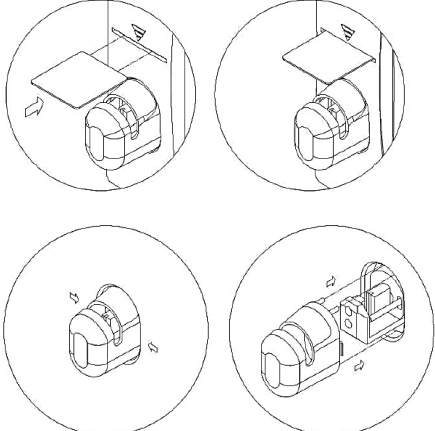

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Sealing Tubing

STEP	ACTION		
1	If using	Then	
	Main unit	<div style="display: flex; justify-content: space-around;">  </div> <p style="text-align: right; margin-right: 50px;">Figure 1: Splash Guard</p> <p style="text-align: center;">Push both sides to take off the protector. Push in till the protector locks.</p> <p style="text-align: right; margin-right: 50px;">Figure 2: sealing protector</p> <p>Ensure splash guard is installed and sealing protector is securely attached.</p>	
	Hand unit	<div style="display: flex; justify-content: space-around;">  </div> <p style="text-align: right; margin-right: 50px;">Figure 3: head protector</p> <p>Ensure head protector is securely attached.</p>	
2	Turn power switch on		
	If Indicator Lamp is	Then	
	Green	Proceed to next step	
Yellow	Sealing Protector Head is removed or not properly mounted on the sealing head <ul style="list-style-type: none"> Replace if removed or reposition to secure it Proceed to next step when the indicator lamp turns green 		
3	Use	To Seal	Then
	Main Unit	1/8" tubing	<ul style="list-style-type: none"> Place tubing in the sealing head and depress the trigger level, the indicator lamp on the main unit will turn RED Remove the tubing after the trigger level releases the tubing and the indicator lamp turns GREEN

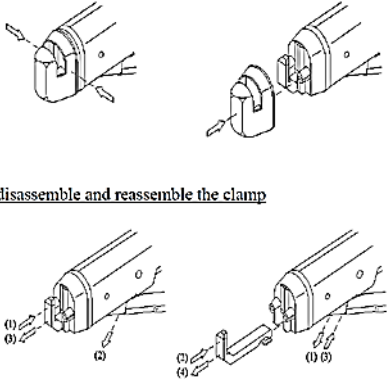
STEP	ACTION		
	Hand unit	1/8" or 1/4" tubing	<ul style="list-style-type: none"> Place tubing in sealing head of hand unit and pull the trigger lever. The sealing indicator lamp on the handheld turns GREEN Release the trigger level when the sealing indicator lamp turns off <p>NOTE: Must use hand unit to seal 1/4" tubing on cell processing sets. Tubing must be pulled all the way to the back of the hand unit to ensure a good seal</p>
4	Make 2 more seals close the first one and cut the tubing at the middle seal, taking care not to open the seal NOTE: If you do not have enough tubing for three seals close to each other, one seal is acceptable		
5	Clean if needed		

Front Panel Cleaning

STEP	ACTION
1	Turn power switch off
2	Remove seal head protector by pinching both sides then pulling. (See Figure 2 above)
3	Clean head using either dry cloth, cloth dampened with water, a mild detergent, or 70% alcohol for decontamination
4	Dry the sealing head area thoroughly
5	Reassemble the seal head protector by pushing it back into the front panel until it clicks
6	Allow to dry thoroughly for several minutes if any liquids were used for cleaning
7	Turn power switch on and test the unit by making a seal.

Handheld Unit Cleaning

STEP	ACTION
1	Turn power switch off
2	Remove the RF cable from the hand unit
3	Loosen the screw on the bottom of the protector head then push head off

STEP	ACTION
4	<p>Remove clamp by:</p> <ul style="list-style-type: none"> • Push clamp inward • Pull lever down • Release the clamp  <p><u>How to disassemble and reassemble the clamp</u></p> <p style="text-align: right;">Figure 4</p>
5	Clean clamp, protector head and sealing area thoroughly using either dry cloth, cloth dampened with water, a mild detergent, or 70% alcohol for decontamination
6	Allow to dry thoroughly for several minutes if any liquids were used for cleaning
7	<p>Reassemble clamp by (see figure 4 above):</p> <ul style="list-style-type: none"> • Pull lever down • Push clamp in • Push lever up • Release clamp
8	<p>Reassemble protector head:</p> <ul style="list-style-type: none"> • Push protector head on • Fasten screw on the bottom
9	Connect RF cable
10	Turn power switch on and test unit by making a seal
11	<p>Document the following on the <i>Bench Equipment Maintenance</i> form to indicate weekly cleaning was performed</p> <ul style="list-style-type: none"> • Date of cleaning • Tech ID

CALCULATIONS/INTERPRETATIONS/RESULTS REPORTING/NORMAL VALUES/CRITICAL VALUES:

NA

CALIBRATION:

NA

NOTES AND LIMITATIONS:

- Hand unit operates without the head protector installed but it is not recommended.

- Scalding may occur if you touch any metal part on the hand unit while pulling the trigger lever.
- Pulling the end of the trigger lever provides optimal pressure to ensure reliable seals.
- Making 3 seals close together prevents contamination of the blood component if a leak occurred when the tubing is cut. When there is not enough tubing to make 3 seals, one seal is acceptable. If only one seal is made and it leaks upon cutting, the component is considered air contaminated and should be processed as such.

REFERENCES:

- User's Manual, Genesis Rapid Seal II Tube Sealer Model #SE540; No. CAT # 53418Ae
- Technical Manual. Bethesda, MD: AABB, current edition
- Standards for Blood Banks and Transfusion Services. Bethesda, MD; AABB, current edition

RELATED DOCUMENTS:

FORM *Bench Equipment Maintenance*

ADDENDUM:

NA

Trainin

UWMC SOP Approval:	
UWMC CLIA Medical Director	_____ Date _____
	Mark H. Wener, MD
Transfusion Service Manager	_____ Date _____
	Nina Sen
Compliance Analyst	_____ Date _____
	Christine Clark
Transfusion Service Medical Director	_____ Date _____
	Monica R. Pagano, MD
UWMC Biennial Review:	
	_____ Date _____
	_____ Date _____

07/14/2021: Added policy to specify weekly cleaning and instructions for documenting cleaning on the *Bench Equipment Cleaning* form.

