

# SETON

## Instructions for Re-Seal™ Tubes and Crowns

### ALUMINUM CROWNS IN FIXED ANGLE ROTORS

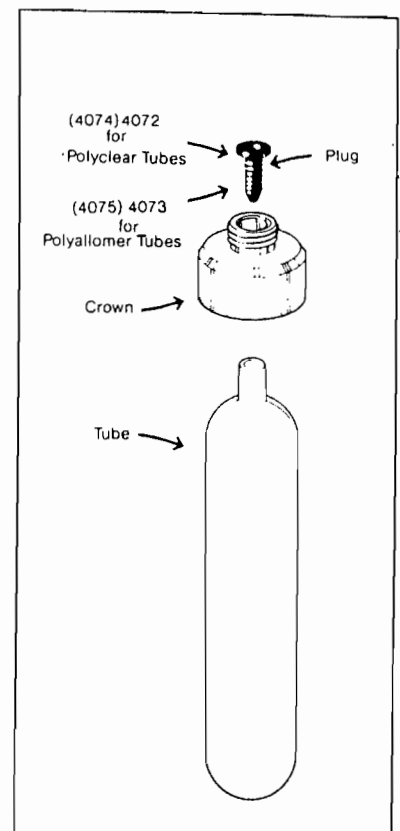
**Rotors:** Beckman 90Ti, 80Ti, 75Ti, 65, 50Ti, 40

**Crown :** 4068, 4069 [MAXIMUM SPEED IS 75 KRPM]

**Plug:** 4073, 4075, 4072, 4074

**Tubes:** Polyallomer 9041  
Polyclear™ 3041

- 1.1 Fill the tube so that the meniscus coincides with the junction of the tube dome and stem. Since heat is not used to make the seal, a head space in the dome is not required.
- 1.2 Place the crown over the stem, making sure the crown is seated against the top of the tube.
- 1.3 Hold the tube and crown together with one hand and screw the stainless steel plug into the tube stem with the hex key wrench [PN 4088 not shown]. Because Polyclear tubes may require more torque to insert the plug, an alternate technique is to pre-thread the stem of the tube prior to filling with a sample and before attaching a crown. If this is the case, take an empty tube and screw a plug halfway in and then out of the stem. With a filled tube apply a downward force to the screw with the wrench as it self-taps a thread into the stem. Screw the plug tightly into the stem (it is not easy to strip the threads). The head of the plug should be almost completely into the counterbore socket in the top of the crown. It is acceptable if the head of the plug protrudes slightly above the crown (about .25 mm).
- 1.4 The plug for Polyclear tubes is black stainless steel and for polyallomer tubes is clear stainless steel.
- 1.5 Place the sealed tube assembly into the rotor. It may be necessary to tilt the crown with the removal tool [PN 4077 not shown] in order for the crown to slide into the rotor counterbore.
- 1.6 After centrifugation, attach the removal tool [PN 4077} and pull the tube assembly from the rotor.
- 1.7 Unscrew the plug with the hex key wrench [PN 4088] for access to the tube contents.
- 1.8 Re-Seal tubes may be reused if they have not been punctured.
- 1.9 Polyallomer Re-Seal tubes may be autoclaved. Polyclear Re-Seal tubes can be sterilized with ethanol and hydrogen peroxide solutions and ethylene oxide gas.



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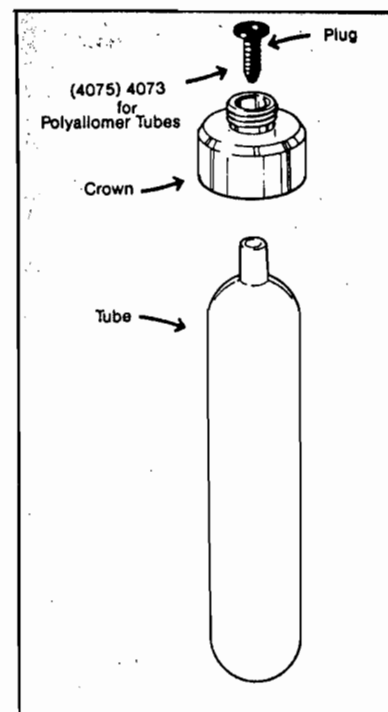
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### ALUMINUM 16mm CROWNS IN FIXED-ANGLE ROTORS\*

Rotors:	Sorvall S80-AT3	
Crowns:	4491 (45599)	Seton PN (Sorvall PN)
Plugs:	4073, 4075 = pkg 10 (45307)	
Tubes:	9042 (45597) Polyallomer	

#### FOR OPERATING SPEEDS CONSULT THE SORVALL ROTOR MANUAL.

- 1.1 Fill the tube so that the meniscus coincides with the junction of the tube conical dome and stem. Since heat is not used to make the seal, a head space in the dome is not required.
- 1.2 Place the crown over the stem, making sure the crown is seated against the top of the tube.
- 1.3 Hold the tube and crown together with one hand and screw the stainless steel plug part way into the tube stem with the hex key wrench (PN 4088).
- 1.4 The crown and tube are of small diameter and may not be easily held in the fingers while tightening the plug and forming a compression seal. To hold the crown/tube assembly, place it into the bench-mounted vise (PN 4183). Insert the assembly into the 16mm diameter hole from the underside of the vise. Position the crown so that the bottom of the aluminum crown is approximately flush with the bottom of the vise. To secure the crown (with attached tube) in the vise, tighten the handle on the side of the vise while holding the crown/tube in the hole. Screw the plug tightly into the stem with the hex key wrench (PN 4088). Apply a downward force to the screw with the wrench as it self-taps a thread into the stem. (It is not easy to strip the threads.) The head of the plug should be almost completely into the counterbore socket in the top of the crown. It is acceptable if the head of the plug protrudes slightly above the crown (about .25mm).
- 1.5 Place the sealed tube assembly into the rotor.
- 1.6 After centrifugation, screw the removal tool (PN 4077) onto the top of the crown and remove the tube assembly from the rotor.
- 1.7 Place the crown/tube assembly into the vise, tighten the vise handle to secure the assembly and unscrew the plug with the hex key wrench. The tube may be tightly held in the crown and attempts to remove a filled tube from the crown may cause agitation of the sample. In this case, it is recommended to first remove the tube liquid contents before removing the tube from the crown.
- 1.8 To provide a good seal, the tube stem flares onto the crown and makes the separation of the crown from the tube somewhat more difficult than other crown tube assemblies. To facilitate removal of the crown, screw the removal tool (PN 4077) onto the crown and continue turning clockwise while pulling the crown upward. The flare should be overcome and the crown removed from the tube stem. Another method is to carefully cut some of the tube flare away with a surgical scalpel, then the crown can be more easily pulled off.
- 1.9 Aluminum crowns, stainless steel plugs and polyallomer tubes can be sterilized by autoclaving or by soaking in aqueous solutions of 70% ethanol, 70% isopropanol or 10% hydrogen peroxide solutions.



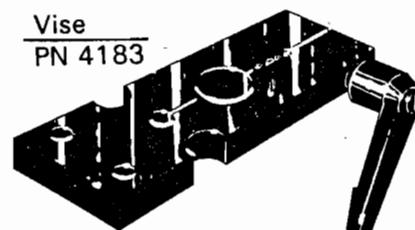
#### 4088 Wrench

This hex key with molded plastic handle is used to tighten the 4073/4075 plugs.



#### 4077 Removal Tool

This tool is used to insert and remove sealed tube assemblies from rotor holes. The threaded socket fits the top of Re-Seal crowns.



\* U.S. Patent 4,537,320 and UK Patent GB 2149325 apply.  
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