

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Visit our website - *Click HERE*

USER GUIDE

Mini Gel Tank

Online Specials

For protein electrophoresis of Novex®, NuPAGE®, and Bolt® Mini Gels

Catalog Number A25977

Publication Number MAN0006968

Revision A.0

For Research Use Only. Not for use in diagnostic procedures.

life technologies™

For Research Use Only. Not for use in diagnostic procedures.

Information in this document is subject to change without notice.

DISCLAIMER

LIFE TECHNOLOGIES CORPORATION AND/OR ITS AFFILIATE(S) DISCLAIM ALL WARRANTIES WITH RESPECT TO THIS DOCUMENT, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. TO THE EXTENT ALLOWED BY LAW, IN NO EVENT SHALL LIFE TECHNOLOGIES AND/OR ITS AFFILIATE(S) BE LIABLE, WHETHER IN CONTRACT, TORT, WARRANTY, OR UNDER ANY STATUTE OR ON ANY OTHER BASIS FOR SPECIAL, INCIDENTAL, INDIRECT, PUNITIVE, MULTIPLE OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH OR ARISING FROM THIS DOCUMENT, INCLUDING BUT NOT LIMITED TO THE USE THEREOF.

IMPORTANT LICENSING INFORMATION

This product may be covered by one or more Limited Use Label Licenses. By use of this product, you accept the terms and conditions of all applicable Limited Use Label Licenses.

TRADEMARKS

© 2014 Thermo Fisher Scientific Inc. All rights reserved. All trademarks are the property of Thermo Fisher Scientific and its subsidiaries unless otherwise specified.

Contents

Product Contents 4
Product Specifications 5
Description of Parts 6
Assembling the Mini Gel Tank 7
Gel Electrophoresis Protocol 8
Opening Mini Gel Cassettes 13
Maintenance 14
Troubleshooting 15
Appendix A 16
Technical Support 16
Related Products 17
Appendix B 19
Run Conditions 19
Appendix C 20
Replacing Cam Handles for the Bolt® Mini Gel Tank 20
Using 10 cm Mini Gel Cassettes with the Bolt® Mini Gel Tank 22
Appendix D: Safety 24
Safety Information 24
Sicherheits-Anweisungen 28
Instructions de securite 29

Product Contents

Product

This manual supports the Mini Gel Tank (Cat. no. A25977)



Product components

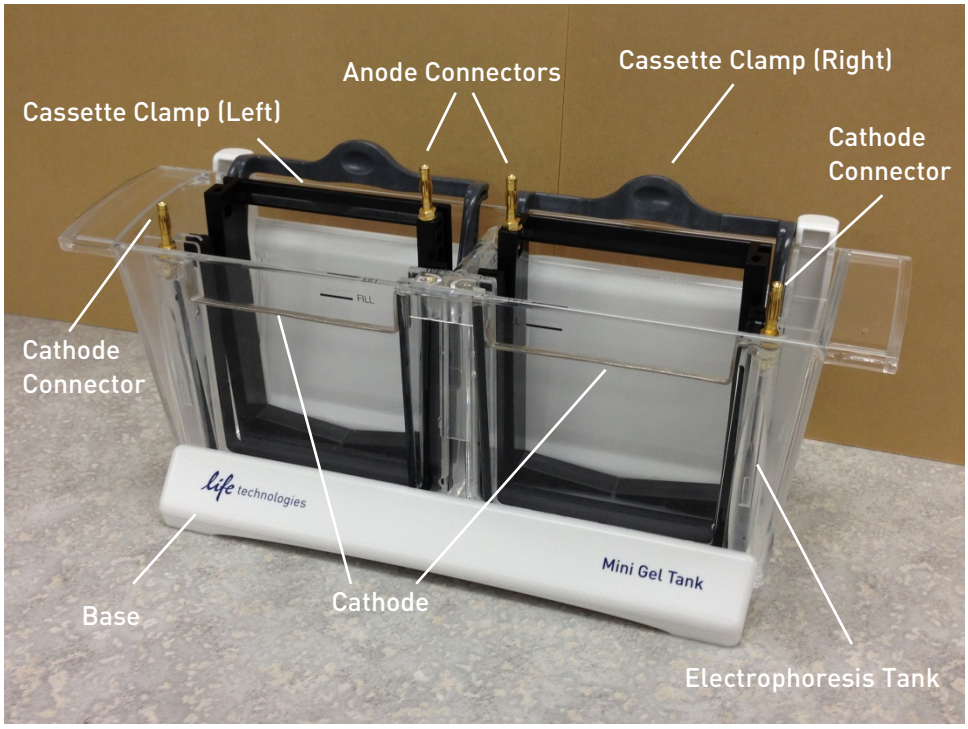
The components included with the Mini Gel Tank are listed below. See page 6 for more details.

Components	Quantity	Catalog Number
Mini Gel Electrophoresis Tank	1 each	B4478641
Mini Gel Tank Lid	1 each	A25944
Cassette Clamp (Right), 10 cm	1 each	A25945
Cassette Clamp (Left), 10 cm	1 each	A25946
Mini Gel Tank Base	1 each	A25950
Novex® Power Supply Adapters	1 set	ZA10001
Gel Knife	1 each	EI9010

Product Specifications

Product description

The unique design of the Mini Gel Tank allows you to run mini gels quickly, easily, and leak-free without any clamps or grease. The set-up time is only 30 seconds; just drop the cassette clamps into the electrophoresis tank, insert the gels, and pull the cassette clamp forward. The perfect no-leak seal results in no mess and consistent performance.



Specifications

Dimensions:	11 × 12 × 16 cm
Buffer Chamber Capacity:	400 mL
Material:	Acrylic
Electrode Wire:	Platinum (0.010″diameter)
Electrical Limits:	500 VDC or 100 Watts
Operating Temperature:	15°C to 30°C
Temperature Limit:	40°C

The Mini Gel Tank is not compatible with chlorinated hydrocarbons (e.g., chloroform), aromatic hydrocarbons (e.g., toluene, benzene) or acetone.

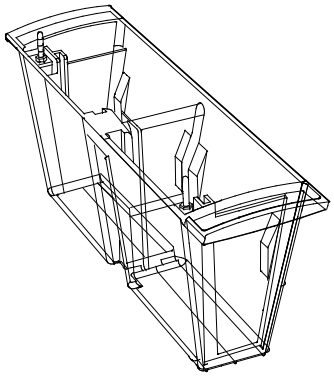
Description of Parts

Introduction

The parts included with the Mini Gel Tank are described below. See page 17 for ordering information.

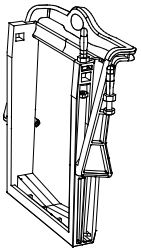
Mini Gel Electrophoresis Tank

- The electrophoresis tank consists of a left and right chamber, each with a capacity of approximately 400 mL.
- Additional overflow compartments to the side of each chamber are designed to catch buffer overflow from the chambers.
- The cathode connector and cathode are located in the electrophoresis tank.



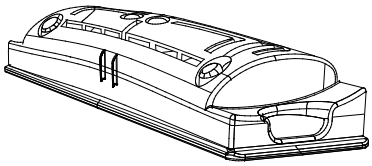
Cassette Clamp

- The cassette clamps consists of a cam plate and a cam handle.
- The anode connector is located on the cam plate.



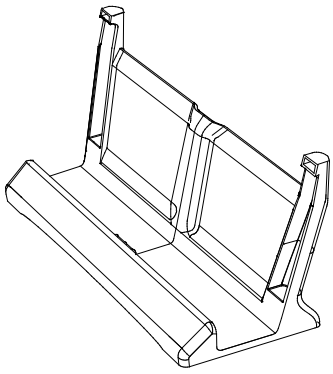
Mini Gel Tank Lid (with electrode cords)

- The tank lid fits over the electrophoresis tank, with sockets for the anode and cathode connectors.
- The lid connects to the power supply through two electrode cords (red (+), black (–)) that end in covered power leads.



Mini Gel Tank Base

- The tank base is used to support the electrophoresis tank in an upright position.
- The white surface of the base assists in visualization when loading samples.

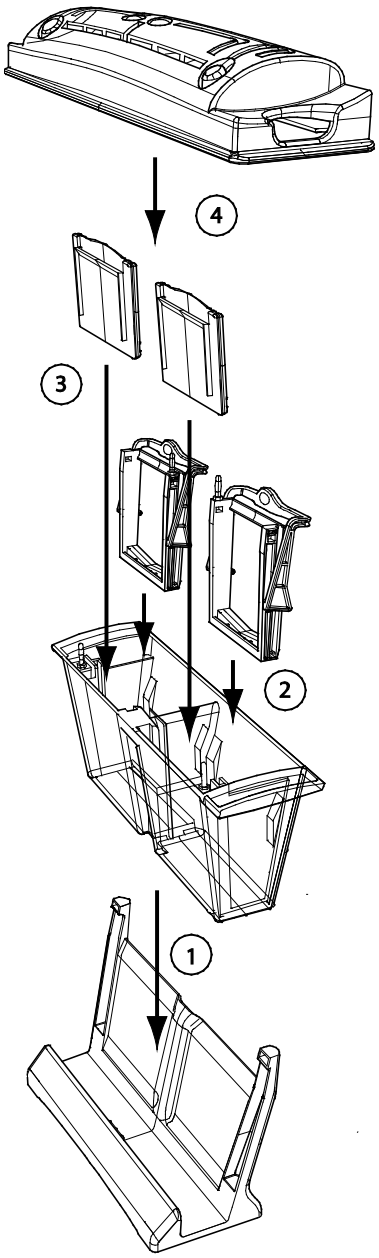


Assembling the Mini Gel Tank

Overview

1. Place the base on a flat surface, such as the benchtop, and snap the electrophoresis tank into the base.
2. Place the cassette clamps in the chambers of the electrophoresis tank.

   Note: the cassette clamps are directional, so make sure they are placed in the correct chamber.
3. Place the mini gel cassette into the electrophoresis tank and close the cassette clamp.
4. Place the lid on top of the electrophoresis tank.



Gel Electrophoresis Protocol

Prepare buffers

- Prepare 1X running buffer appropriate for the type of mini gel you are using.
- 400 mL of 1X running buffer is needed for each chamber of the electrophoresis tank to be used.
- Use the same buffer type for both chambers of the electrophoresis tank (e.g. do not perform electrophoresis with MES in one chamber, and MOPS in the other chamber).

Prepare samples

- Prepare your samples using the appropriate sample buffer at the desired protein concentration.
- Refer to the instructions for your mini gel for recommended protein load for each lane.

Running conditions

- Before performing electrophoresis, make sure that your power supply is sufficient for running the desired number of gels.
- Refer to Appendix B (page 19), or the instructions for your mini gel for recommended power settings for electrophoresis.
- Run time may vary depending upon the power supply used for electrophoresis.

Caution: Always wear protective clothing when performing laboratory experiments.
To avoid contamination from possible residual acrylamide, wear protective gloves when loading and unloading the Mini Gel Tank and when preparing, staining/destaining, and drying gels.

Gel Electrophoresis Protocol, Continued

Prepare gel cassette

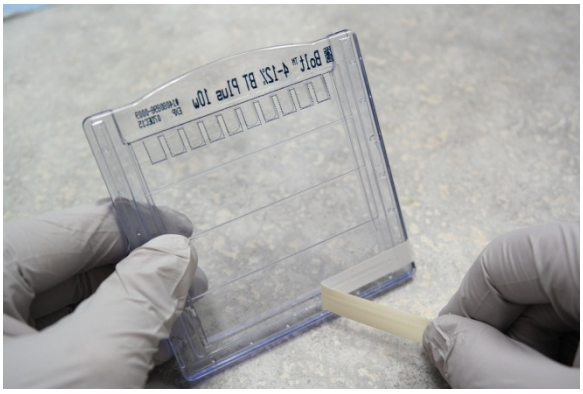
IMPORTANT: When handling the gel cassette, always hold it by the edges.

1. Cut open the gel cassette pouch and remove the cassette.
2. Remove the cassette from the pouch and rinse it with deionized water.
3. Remove the gel comb by sliding the comb up one side at a time.



Note: Be careful not to damage the wells when removing the comb, or samples may leak from one well to the other.

4. Remove the tape covering the slot at the lower portion of the cassette.



5. Use a pipette and rinse the wells 3 times with 1X running buffer. Invert the gel and shake gently between rinses to remove buffer.
6. Fill the sample wells with running buffer.

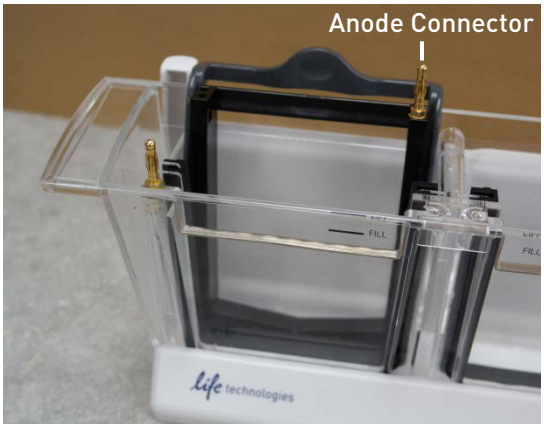
   Note: Be sure to displace all air bubbles from the cassette wells as they will affect sample running.

Assemble Mini Gel Tank

1. Place the base on a flat surface and snap the electrophoresis tank into the base.



2. Place the cassette clamp(s) into the appropriate chamber(s) of the electrophoresis tank with the anode connector(s) (–) aligned to the center.



3. Fill the chamber(s) with 1x running buffer to the level of the cathode.



Load samples

4. Place a gel cassette into a chamber with the wells facing towards you.

   Hold the cassette in a raised position, and close the clamp by moving the cam handle forward to secure the cassette.



5. Make sure that the wells are completely filled with 1X running buffer.

   Load your samples and markers.



6. Hold the cassette and release the cassette clamp.

   Gently lower the cassette so that it rests on the bottom of the chamber, and close the cassette clamp.

7. Add 1X running buffer to the level of the fill line. Any excess buffer will spill over into the overflow compartment.



Start electrophoresis

CAUTION: Make sure the **power is off** before connecting the Mini Gel Tank to the power supply.

8. Fit your power supply with Novex® Power Supply Adapters if your power supply is not designed for use with covered or retractable power leads.
9. If only running one gel, make sure the unused chamber does not contain a cassette clamp.
10. Place the lid on the electrophoresis tank. The lid can only be firmly seated if all the connectors are properly aligned. If the lid is not properly seated, power will not be properly supplied to the system.



11. With the power **off**, connect the electrode cords to power supply {red to (+) jack, black to (–) jack}.
12. Turn on the power.
13. Set the power supply according to the type of buffer and number of mini gels you are using (refer to the instructions supplied with your mini gel).

Opening Mini Gel Cassettes

Procedure

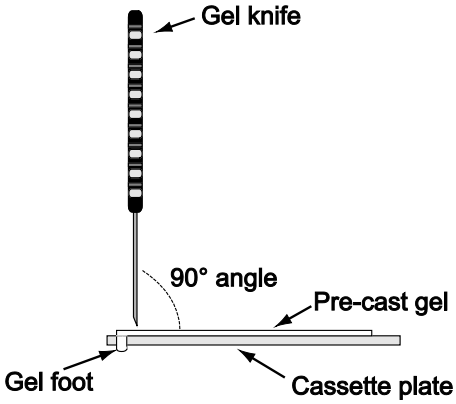
1. Turn off the power and disconnect the cables from the power supply after completion of electrophoresis.
2. Remove the lid and release the cassette clamps.
3. Remove the gel cassettes from the tank. Handle gel cassettes by their edges.
4. Lay the gel cassette (well side up) on a flat surface. Allow one edge to hang ~1 cm over the side of the benchtop.
5. Carefully insert the beveled edge of the Gel Knife into the narrow gap between the two plates of the cassette.

   Note: Do not push the knife forcefully between the cassette plates or you may cut into the gel.
6. Lever the knife handle up and down gently to separate the plates. A cracking sound indicates that you have successfully broken the bonds holding the plates together on that side.
7. Rotate the cassette and repeat Steps 5–6 on the other sides until the two plates are completely separated.
8. Upon separating the two plates, the gel may adhere to either side. Remove and discard the plate without the gel. Allow the gel to remain on the other plate.

   Note: Trying to remove the gel at this point may result in the gel tearing.
9. Remove the gel from the plate by one of the two methods:
   - If the gel is on the shorter (notched) plate, use the sharp edge of the Gel Knife to remove the gel foot.

     Hold the Gel Knife at a 90° angle to the gel and push down to cut the gel. Repeat the action laterally to cut off the entire foot.

     Hold the plate and gel over a container with the gel facing downward. Use the knife to carefully loosen one lower corner of the gel and allow the gel to peel away from the plate and into the container.

   - If the gel is on the longer (slotted) plate, hold the plate and gel over a container with the gel facing downward. Use the gel knife to push through the slot in the cassette until the gel peels away from the plate.

     Cut the gel foot off the gel after fixing and staining, but before drying.
10. Immediately fix, stain or transfer the gel as desired.

Maintenance

General guidelines

Warning: Disconnect the power cable before any maintenance is performed on this device. For repairs and service, contact Technical Support (page 18). Report the need for service to Life Technologies or an authorized agent. **Do not** perform any repairs or service on the device yourself.

Observe these guidelines to keep the device in good working order:

- When electrophoresis is complete, dispose of the buffer appropriately. Rinse the tank with water to remove residual buffer.
- Clean the surface of the Mini Gel Tank with a soft non-abrasive, lint-free cloth dampened with water.
- **Do not** use harsh detergents or solvents to clean the unit.

Troubleshooting

Problem	Cause	Solution
Run taking longer than usual	Buffers are too dilute	Check buffer recipe; remake if necessary.
	Buffer chamber is leaking	Make sure the cassette clamp is firmly seated, the gaskets are in place and the cassette clamp is locked.
	Current is set too low.	Set correct current.
Current reading on power supply is zero or very low	Tape left on the bottom of the cassette	Remove tape from bottom of cassette.
	Connection to power supply not complete	Check all connections with a voltmeter for conductance.
	Insufficient buffer level	Make sure there is sufficient buffer in the electrophoresis tank to cover the wells of the gel.
Run is faster than normal with poor resolution	Buffers are too concentrated or incorrect.	Check buffer recipe; dilute or re-make if necessary.
	Current is set at a higher limit	Decrease current to recommended running conditions (see page 8).
Cannot see the sample wells to load sample	There is little contrast between the sample well and the rest of the gel	Mark cassette at the bottom of the wells with a marker pen prior to placing the cassette in the electrophoresis tank.

Appendix A

Technical Support

Obtaining support

For the latest services and support information for all locations, go to **www.lifetechnologies.com**

At the website, you can:

- Access worldwide telephone and fax numbers to contact Technical Support and Sales facilities
- Search through frequently asked questions (FAQs)
- Submit a question directly to Technical Support (**techsupport@lifetech.com)**
- Search for user documents, SDSs, vector maps and sequences, application notes, formulations, handbooks, certificates of analysis, citations, and other product support documents
- Obtain information about customer training
- Download software updates and patches

Safety Data Sheets (SDS)

Safety Data Sheets (SDSs) are available at **www.lifetechnologies.com/support**

Certificate of Analysis

The Certificate of Analysis provides detailed quality control and product qualification information for each product. Certificates of Analysis are available on our website. Go to **www.lifetechnologies.com/support** and search for the Certificate of Analysis by product lot number, which is printed on the box.

Limited product warranty

Life Technologies Corporation and/or its affiliate(s) warrant their products as set forth in the Life Technologies' General Terms and Conditions of Sale found on Life Technologies' website at **www.lifetechnologies.com/termsandconditions**. If you have any questions, please contact Life Technologies at **www.lifetechnologies.com/support**.

Related Products

Additional products

Many of the components of the Mini Gel Tank, as well as additional reagents that may be used for electrophoresis of proteins are available separately from Life Technologies. Ordering information is provided below. For details, visit **www.lifetechnologies.com** or call Technical Support (page 18).

Apparatus	Quantity	Cat. no.
PowerEase® 300W Power Supply	1	PS0300
Replacement Parts	**Quantity**	**Cat. no.**
Mini Gel Electrophoresis Tank	1	B4478641
Mini Gel Tank Lid	1	A25944
Cassette Clamp (Right), 10 cm	1	A25945
Cassette Clamp (Left), 10 cm	1	A25946
Mini Gel Tank Base	1	A25950
Cassette Clamp Cam Handle Set, 10 cm	1 set	A26732
Gel Knife	1	EI9010
Pipette Tips for Gel Loading	**Quantity**	**Cat. no.**
Gel Loading Tips (Standard Round)	200/pk	LC1001
Flat Gel Loading Tips	200/pk	LC1002
Gel Loading Tips (Eppendorf Round)	200/pk	LC1010
Novex® Power Supply Adapters	1 set	ZA10001
Pre-Mixed Buffers	**Quantity**	**Cat. no.**
Bolt® Bis-Tris Plus Mini Gels		
Bolt® LDS Sample Buffer (4X)	10 mL	B0007
	250 mL	B0008
Bolt® Sample Reducing Agent (10X)	250 µL	B0004
	10 mL	B0009
Bolt® Antioxidant	15 mL	BT0005
Bolt® MOPS SDS Running Buffer (20X)	500 mL	B0001
	5 L	B000102
Bolt® MES SDS Running Buffer (20X)	500 mL	B0002
	5 L	B000202
NuPAGE® Bis-Tris Mini Gels		
NuPAGE® MOPS SDS Running Buffer (20X)	500 mL	NP0001
NuPAGE® MES SDS Running Buffer (20X)	500 mL	NP0002
NuPAGE® Tris-Acetate SDS Running Buffer (20X)	500 mL	LA0041

Related Products, Continued

Pre-Mixed Buffers	Quantity	Cat. no.
NuPAGE® Bis-Tris Mini Gels		
NuPAGE® Sample Reducing Agent (10X)	250 µL	NP0004
	10 mL	NP0009
NuPAGE® Antioxidant	15 mL	NP0005
NuPAGE® LDS Sample Buffer (4X)	250 mL	NP0008
Novex® Tris-Glycine Mini Gels		
Novex® Tris-Glycine SDS Running Buffer (10X)	500 mL	LC2675
Novex® Tris-Glycine Native Running Buffer (10X)	500 mL	LC2672
Novex® Tris-Glycine Native Sample Buffer (2X)	20 mL	LC2673
Novex® Tris-Glycine SDS Sample Buffer (2X)	20 mL	LC2673
Novex® Tricine SDS Running Buffer (10X)	500 mL	LC1675
Novex® Tricine SDS Sample Buffer (2X)	20 mL	LC1676
Novex® Zymogram Renaturing Buffer (10X)	500 mL	LC2670
Novex® Zymogram Developing Buffer (10X)	500 mL	LC2671
Novex® TBE Running Buffer (5X)	1 L	LC6675
Novex® Hi-Density TBE Sample Buffer (5X)	10 mL	LC6678
Novex® TBE-Urea Sample Buffer (2X)	10 mL	LC6876
Novex® Prep TBE-Urea Sample Buffer (2X)	20 mL	LC6877

Appendix B

Run Conditions

Recommended run conditions for electrophoresis are provided in the following table for various types of gels.

Note: Run time may vary depending on gel percentage and the power supply used for electrophoresis.

Gel Type	Voltage (V)	Starting Current (mA)	Ending Current (mA)	Run Time
Bolt® Bis-Tris Plus 4-12% (MES)	200	160	70	20
Bolt® Bis-Tris Plus 4-12% (MOPS)	200	160	50	35
NuPAGE® 4-12% Bis-Tris (MES)	200	160	90	30
NuPAGE® 4-12% Bis-Tris (MOPS)	200	140	50	42
Novex® 4-20% Tris-Glycine (denatured)	125	40	10	100
Novex® 4-20% Tris-Glycine (native)	125	30	10	90
NuPAGE® 3-8% Tris-Acetate (denatured)	150	60	20	50
NuPAGE® 3-8% Tris-Acetate (native)	150	40	10	100
Novex® 10-20% Tricine	125	110	40	65
NativePAGE 3-12%	150	10	<10	80
pH 3-10 IEF	program	8	5	150
10% Zymogram (Gelatin)	125	40	10	90
10% TBE-Urea (DNA)	180	10	10	50

Appendix C

Replacing Cam Handles for the Bolt® Mini Gel Tank

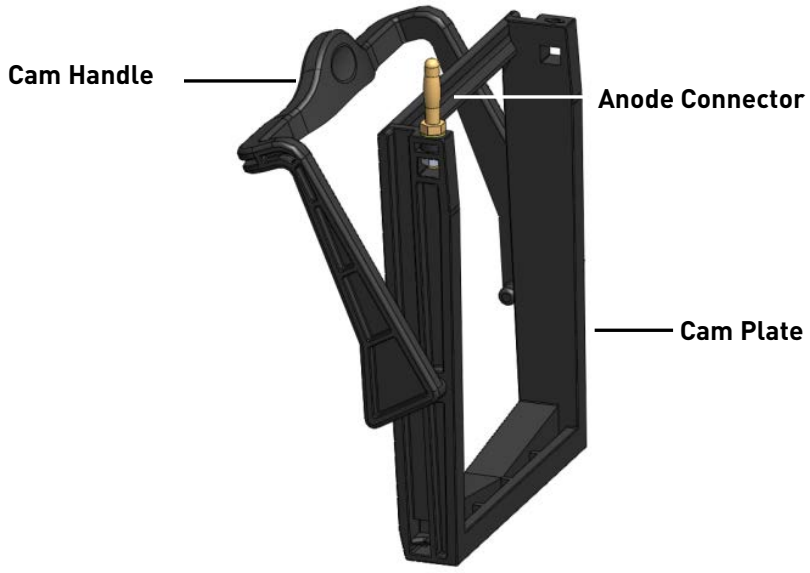
Introduction

The Bolt® Mini Gel Tank (previously available from Life Technologies) includes cassette clamps with black cam handles designed for use with 10.5 cm Bolt® mini gels.

Bolt® Mini Gel Tank can be upgraded to accommodate the new 10 cm Bolt® mini gels by replacing the black 10.5 cm cassette clamp cam handles with gray 10 cm cassette clamp cam handles (see page 17 for ordering information).

Bolt® Mini Gel Tanks upgraded with the gray 10 cm cassette clamp cam handles are compatible with the new 10 cm Bolt® mini gels as well as existing NuPAGE® and Novex® Tris-Glycine mini gels.

Cassette clamp



Replacing Cam Handles for the Bolt® Mini Gel Tank, Continued

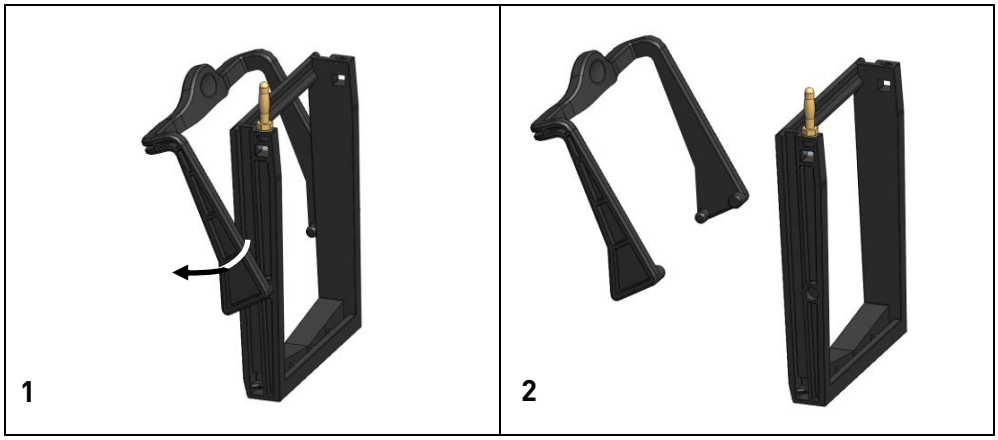
Replacing cam handles

Two identical gray Cam Handles are provided. The replacement procedure is identical for Right and Left Cassette Clamps.

Note: Illustrations show the Right Cassette Clamp. The anode connector is in a different location on the Left Cassette Clamp.

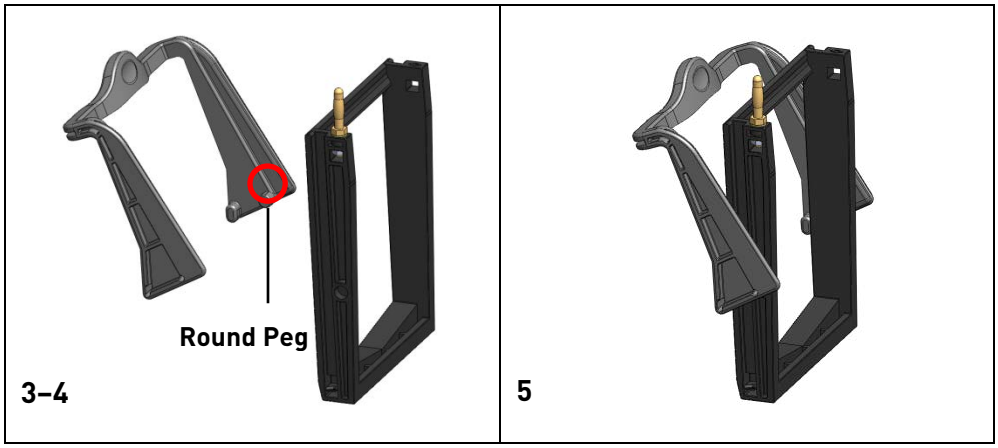
View a video of these instructions at: **www.lifetechnologies.com/bolttanksupport**

1. Carefully pull on one side of the black Cam Handle and separate the peg on the handle from the hole in the Cam Plate.
2. Slide the peg on the other side of the black Cam Handle out of the Cam Plate, and separate the two pieces.



3. Position the gray Cam Handle in the same orientation as the original black Cam Handle.

   Note: each side of the gray Cam Handle has one round peg and one oval peg. Only the round peg fits into the Cam Plate.
4. Slide the peg on one side of the gray Cam Handle into the corresponding hole in the Cam Plate.
5. Carefully pull the other side of the gray Cam Handle, and slide the round peg into the hole in the Cam Plate.



Using 10 cm Mini Gel Cassettes with the Bolt® Mini Gel Tank

Introduction

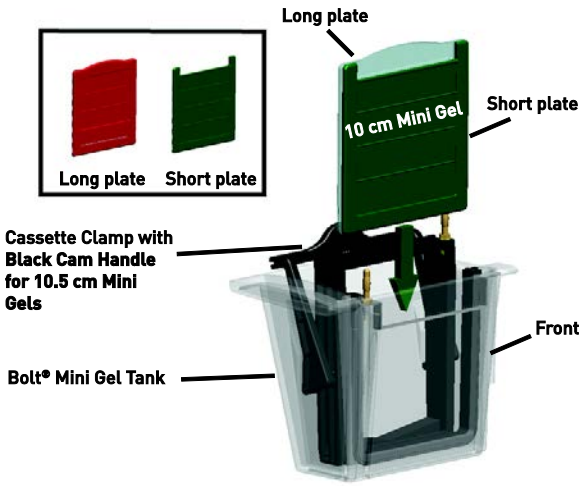
Instructions are provided below for using the Bolt® Mini Gel Tank (previously available from Life Technologies) to run 10 cm Bolt® Bis-Tris Plus, Novex® Tris-Glycine, or NuPAGE® Bis-Tris Mini Gels without replacement of 10.5 cm cassette clamp cam handles with 10 cm cassette clamp cam handles.

However, for optimal results, mini gels with 10 cm cassettes should be used with a Bolt® Mini Gel Tank fitted with cam handles for 10 cm cassette clamps (see page 20), the Mini Gel Tank, or the XCell SureLock® Mini-Cell.

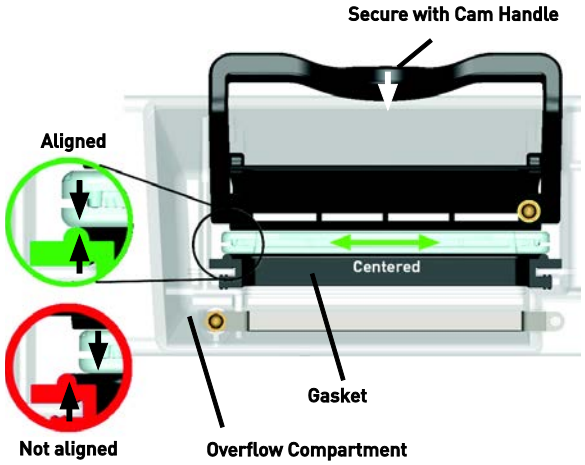
Using 10 cm cassettes with 10.5 cm cassette clamps

1. Place the gel cassette into the left/right chamber of the Bolt® Mini Gel Tank.

   Make sure the short plate faces the front of the Bolt® Mini Gel Tank.



2. Make sure the gel cassette is centered/aligned, and flush with the bottom of the chamber so a proper seal is formed with the gasket.
3. Hold the gel cassette in its centered position, and secure the gel cassette by pulling the cam handle forward.



Using 10 cm cassettes with 10.5 cm cassette clamps, continued

4. Fill the Anode and Cathode Chambers with 1X Running Buffer. For reduced samples, use 200 mL 1X Running Buffer with 0.5 mL NuPAGE® or Bolt® Antioxidant for the Cathode Chamber (and Overflow Compartment).

   Make sure the loading wells are completely filled with buffer (the Overflow Compartment should be nearly full).



5. Load your samples and markers.
6. Perform electrophoresis using the following conditions:

Gel Type	Voltage (V)	Run Time
Novex® Tris-Glycine Mini Gel	125	100 min
NuPAGE® Bis-Tris Mini Gel (MES)	200	30 min
NuPAGE® Bis-Tris Mini Gel (MOPS)	200	42 min
Bolt® Bis-Tris Plus Mini Gel (MES)	200	20 min
Bolt® Bis-Tris Plus Mini Gel (MOPS)	200	35 min
NuPAGE® Tris-Acetate Mini Gel	150	50 min
Novex® Tricine Mini Gel	125	65 min

Appendix D: Safety

Safety Information

Safety

During operation, the Mini Gel Tank must be used with an external DC power supply designed specifically for electrophoresis applications. This power supply must be isolated from ground so that the DC output is floating. The PowerEase™ 300W Power Supply (page 17) meets these requirements. The maximum electrical operating parameters for the Mini Gel Tank are:

Maximum Voltage Limit:	500 VDC
Maximum Power Limit:	100 Watts
Maximum Operating Temperature Limit:	40°C

The Mini Gel Tank's lid is designed such that if the lid is removed, the electrical connection to the unit will be broken. **Do not attempt to use the Gel Runner Tank without the tank lid. Do not use lids from other gel tanks.**

The Mini Gel Tank is designed to meet EN61010-1 Safety Standards. This product is safe to use when operated in accordance with this instruction manual. If this unit is used or modified in a manner not specified in this manual then protection afforded by the unit will be impaired. Alteration of this unit will:

- Void the warranty.
- Void the EN61010-1 safety standard certification.
- Create a potential safety hazard.

Life Technologies is not responsible for any injury or damage caused by use of this unit when operated for purposes which it is not intended. All repairs and service should be performed by Life Technologies.

The Mini Gel Tank is classified as Class II of IEC 536 for protection against electrical shock.

Product safety compliance

This device complies with the following safety standards:

- IEC 61010-1:2010 (3rd Edition), "Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use, Part 1: General Requirements."
- UL 61010-1, CSA C22.1 No. 61010-1, "Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use, Part 1: General Requirements."

Installing the instrument

The product may be installed only under the conditions and in the positions specified by Life Technologies.

Operating the instrument

Operation of the product is subject to the conditions described in this manual. The protection provided by the equipment may be impaired if the equipment is used in a manner not specified by Life Technologies.

Service operation requirements

In the event of an equipment malfunction, it is the responsibility of the customer to report the need for service to Life Technologies or to one of the authorized agents. For service information, contact Technical Support (page 18).

Electrical safety

The following information on electrical safety must be observed, failing to follow these instruction may result in electric shock, fire and/or serious personal injury or death.

- Prior to switching on the product, ensure that the nominal voltage setting on the product matches the nominal voltage of the AC supply network.
- If extension cords or connector strips are implemented, they must be checked on a regular basis to ensure that they are safe to use.
- Never use the product if the power cable is damaged. Check the power cable on a regular basis to ensure that it is in proper operating condition. By taking appropriate safety measures and carefully laying the power cable, you can ensure that the cable will not be damaged and that no one can be hurt by, for example, tripping over the cable or suffering an electric shock.

Electrical safety

The following information on electrical safety must be observed, failing to follow these instruction may result in electric shock, fire and/or serious personal injury or death.

- Do not insert the plug into sockets that are dusty or dirty. Insert the plug firmly and all the way into the socket. Otherwise, sparks that result in fire and/or injuries may occur.
- Unless expressly permitted, never remove the cover or any part of the housing while the product is in operation. Doing so will expose circuits and components and can lead to injuries, fire or damage to the product.
- Use suitable overvoltage protection to ensure that no overvoltage (such as that caused by a bolt of lightning) can reach the product. Otherwise, the person operating the product will be exposed to the danger of an electric shock.
- The overvoltage protection should limit the magnitude of the overvoltage surge to 1kV between the any of the power line and ground.
- Any object that is not designed to be placed in the openings of the housing must not be used for this purpose. Doing so can cause short circuits inside the product and/or electric shocks, fire or injuries.
- Prior to cleaning the product, disconnect it completely from the power supply. Use a soft, non-linting cloth to clean the product. Never use chemical cleaning agents such as alcohol, acetone or diluents for cellulose lacquers.

Symbols on instrument

The following table describes the symbols displayed on the instrument.

Informational symbols

The symbols used on the Mini Gel Tank are explained below:



The CE mark symbolizes that the product conforms to all applicable European Community provisions for which this marking is required.



The Mini Gel Tank complies with the TUV Rhineland North America Inc. safety requirements. The indicators "C" and "US" means that the product is certified for both the U.S. and Canadian markets, to the applicable U.S. and Canadian standards.



The C-Tick symbol denotes that the device is compliant with the electromagnetic compatibility (EMC) of the Australian Communications Authority (ACA).



Caution

The **Caution** symbol denotes a risk of safety hazard. Refer to accompanying documentation to avoid possible personal injury or instrument damage.



WEEE

The **WEEE** (Waste Electrical and Electronic Equipment) symbol indicates that this product should not be disposed of in unsorted municipal waste. Follow local municipal waste ordinances for proper disposal provisions to reduce the environmental impact of WEEE. Visit **http://www.lifetechnologies.com/weee** for collection and recycling options.



Product catalog number.



Site of manufacture.

Sicherheits-Anweisungen

Sicherheits-Anweisungen

Die Elektrophorese-Zelle mub mit einer geerdeten Gleichstrom-Spannungsquelle betrieben werden, die speziell für die Elektrophorese entwickelt wurde. Um eine Gefährdung des Benutzers auszuschlieben, sollten folgende Laufbedingungen eingehalten werden:

Maximale Spannung:	500 Volt
Maximale Leistung:	100 Watt
Maximale Temperatur:	40°C

Beim Entfernen des Kammerdeckels der Electrophorese-Zelle wird der Stromflub unterbrochen. Die Benutzung der Zelle ohne Deckel ist verboten.

Die Elektrophorese-Zelle entspricht den Sicherheits-Richtlinien EN 61010-1. Es besteht keinerlei Gefährdung für den Benutzer, wenn die Richtlinien der Gebrauchsanweisung eingehalten werden. Wird die Elektophorese-Zelle in einer Art und Weise benutzt bzw. modifiziert, die nicht in der Gebrauchsanleitung beschrieben ist, werden die Sicherheitvorkehrugen zum Schutz des Betreibers beeinträchtigt. Bei unsachgemäber Handhabung entfallen alle Garantieansprüche und Sicherheitszulassungen (EN61010-1).

Life Technologies haftet nicht für Verletzungen oder Schäden jeglicher Art, wenn die Elektrophorese-Zelle für Anwendungen eingesetzt wird, für die die Zelle nicht entwickelt wurde. Alle Reparaturen und Wartungen müssen von Life Technologies oder einem von Life Technologies authorisierten Händler vorgenommen werden.

Das Gehäuse der Elektrophorese-Zelle besteht aus Kunststoff und enthält keine leitenden Teile. Die QuickPoint™ Elektrophorese-Zelle ist gegen Stromschlag nach der IEC 536 – Norm in Klasse II eingestuft.

Symbolerklärung



Lesen Sie die Bedienungsanleitung, um Verletzungen oder Beschädigung des Gerätes zu vermeiden.



WEEE (Waste Electrical and Electronic Equipment)

Instructions de securite

Instructions de securite

La Cellule d'Electrophorése doit être uniquement une utilisation avec une alimentation en courant contimu DC externe et spécialement conçue pour en électrophorése. Cette alimentation doit être avec séparation galvanique de façon que la sortie DC du secondaire ai un potentiel électrique flottant. Le domaine d'utilisation de la Celleule d'Electrophorése est limité par les paramétres de fontctionnement suivants:

Tension maximum:	500 V continu
Puissance maximum:	100 W
Tempèrature maximum:	40°C

La Cellule d'Electrophorése est conçue de façon á ce que lorsque le couvercle de la cuve est ouvert, la connection électrique avec l'unité est interrompue. Il ne faut en aucun cas essayer de faire fonctionner la cuve sans le couvercle.

La Cellule d'Electrophorése satisfait aux normes de sécurité EN 61010-1. La sécurité est assurée dans tous les cas d'une utilisation conforme au manuel d'utilisation. Dans le cas ou la cellule serait modifiée ou utilisée de manière non spécifiée dans le manuel d'utilisation, la sécurité de l'utilisateur pourrait être remise en cause. En cas d'utilisation non conforme toutes les garanties sinsi que les certifications de conformité aux normes de sécurité sont abrogeès.

La responsabilité de Life Technologies ne péut être mise en cause en cas d' accident et dommages causés par une utilisation non conforme de la Cellue d'Electrophorése. Toute intervention de service ou de réparation doit être unquement effectuée par Life Technologies ou par un agent agrée de Life Technologies.

La Cellule d'Electrophorése est classifié par rapport à la norme d'isolation électrique IEC 536 en classe II.

Signification des pictogrammes



Sur le Cellule d'Electrophorése, signale un risque potentiel pour l'utilisateur ou pour l'equipement. Veuillez consulter le mode d'emploi.



WEEE (Waste Electrical and Electronic Equipment)

For support visit www.lifetechnologies.com/support or email techsupport@lifetechn.com

www.lifetechnologies.com

15 September 2014

life technologies™

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP