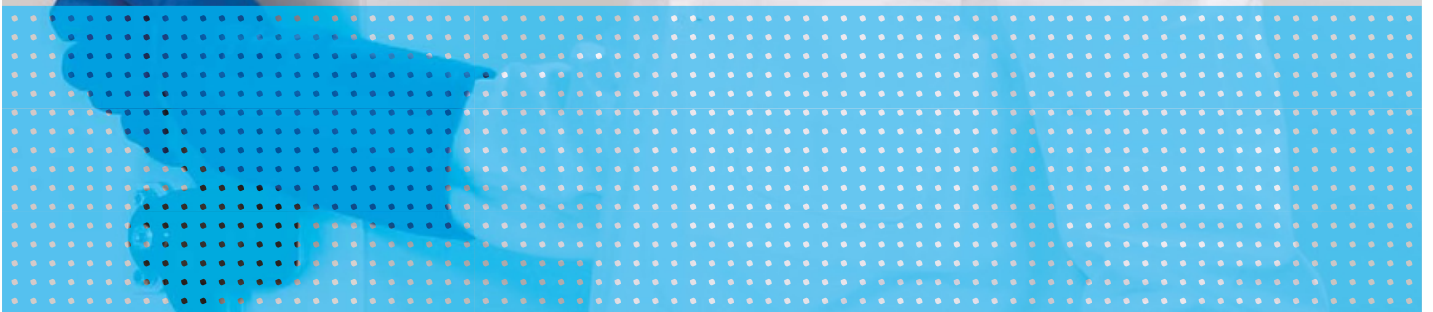


-86° C  
freezers



# New Benchmark

New Brunswick sets the standard for extraordinary freezer quality, support, and energy savings

# World-class service.



For over 50 years, New Brunswick lab products have set new standards for design innovation, performance, and durability. The New Brunswick name is synonymous with exceptional quality and reliable performance that stand the test of time. And, for the past three decades, New Brunswick Ultra-Low Temperature (ULT) Freezers have continued that tradition. Offered in three lines to meet a variety of needs,

Premium and Innova Freezers have established a reputation for preserving outstanding sample quality while minimizing with rapid delivery and service, New Brunswick freezers continue to raise the bar. **New Benchmark. New Brunswick.**

# New Brunswick Ultra-Low Temperature Freezers

## Uncompromising quality

Freezers meet the highest standards for quality. No other freezers offer the same combination of high performance, sample security, and convenience. Attention to every detail in manufacturing and the use of only the best components ensure consistent, reliable performance year after year. Every freezer is also individually tested and performance

New Brunswick freezers are among the most energy-efficient in the industry, with energy consumption by up to 43 % when compared to competitive

models. consumption by up to 35 % compared to our Premium models.

## Unmatched service and support

We are dedicated to providing you world-class service and support. To start, our products are backed by a manufacturer's warranty. We also offer extended warranties, preventive maintenance and other services for those who need it (see details). Our service and support organization consists of highly trained customer service and technical representatives who are readily available to offer professional assistance when and where you need it.



New Brunswick Innova, Premium and HEF Freezers are available in upright and chest styles. With 15 models to choose from and capacities ranging from 101 - 725 liters, there is a New Brunswick freezer perfectly suited for every lab.

# Quality you can rely on

## Superior performance and reliability

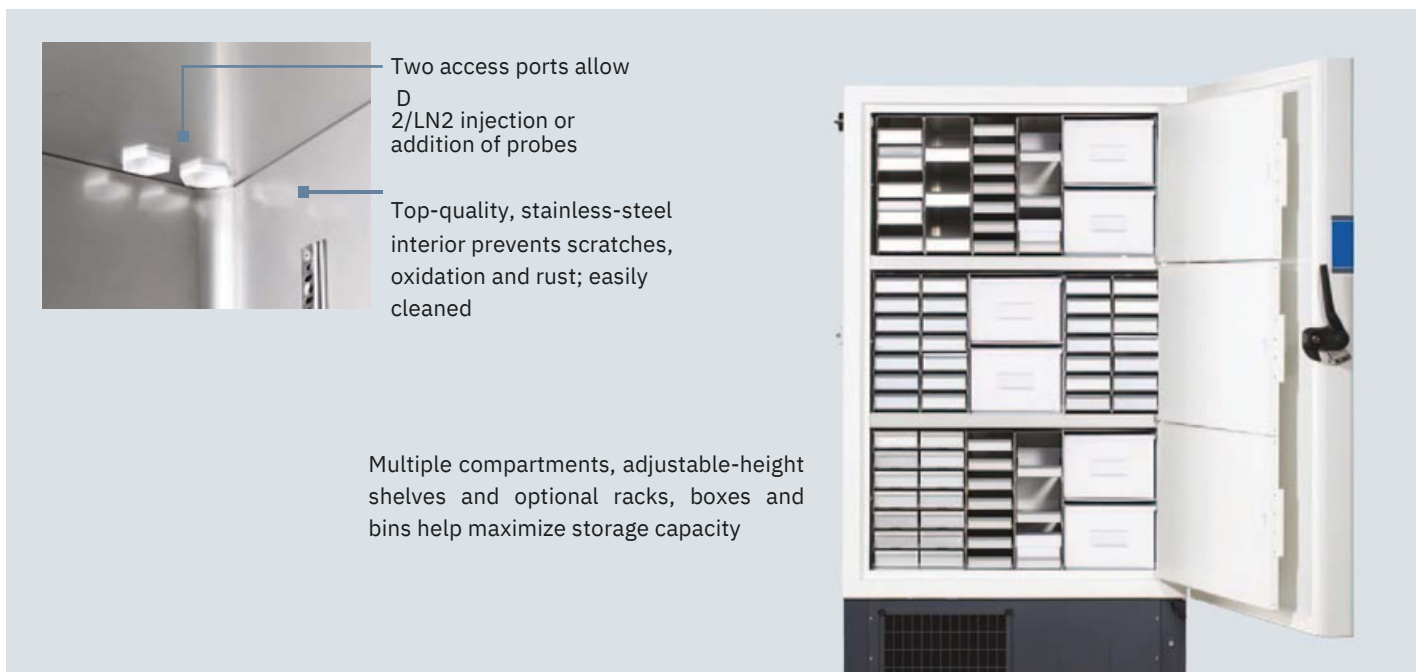
The value of your samples can be considerable. That's why researchers worldwide turn to New Brunswick when selecting a freezer to store their precious samples. New Brunswick freezers are designed and built to preserve your samples using advanced technology and the highest quality construction.

New Brunswick freezers provide outstanding insulation and temperature uniformity, plus many additional high performance features:

- > Heavy-duty, commercially-available compressor provides rapid temperature “pull down” and recovery after door opening
- > Multiple compartments (upright models) with insulated inner doors limit cold air loss during sample access
- > Flexible, high-quality gaskets on inner and outer doors ensure a proper seal; reduces icing, prevents cold air loss
- > Unique automatic reset protects the microprocessor controller from damage by electrical spikes
- > External voltage stabilizer option evens out voltage
- < => ' /
- #?>? #@=> C & C
- > Each freezer is extensively tested, including tests on pull-down times and long-term performance data
- > # \$



include two insulated sub-lids



Two access ports allow D2/LN2 injection or addition of probes

Top-quality, stainless-steel interior prevents scratches, oxidation and rust; easily cleaned

Multiple compartments, adjustable-height shelves and optional racks, boxes and bins help maximize storage capacity

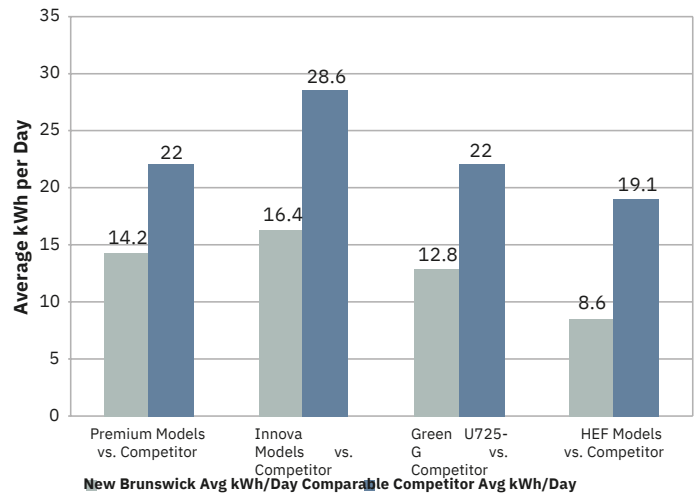
# The eco-logical choice™

## Environmentally friendly and energy efficient

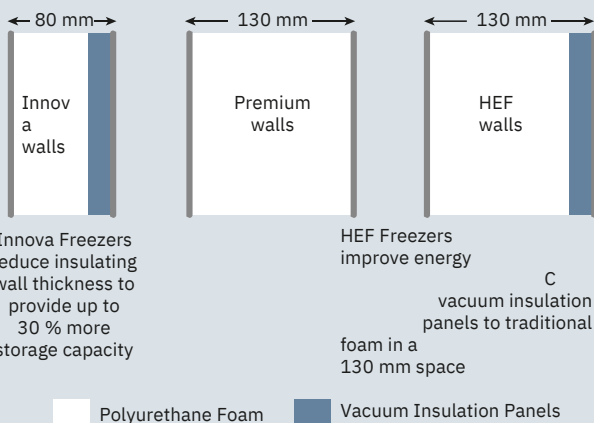
Ultra-low temperature freezers are traditionally high energy consumers as they maintain extremely low temperatures 24/7. With today's high energy costs and focus on the environment, energy conservation has become even more important in the lab. Eco-friendly New Brunswick ULT freezers are designed to help you save energy by minimizing cold air loss and by providing these added advanced features:

- > Y cycling times to lower energy consumption and increase freezer longevity
- > Biodegradable and commercially-available, high-performance, synthetic compressor lubricants prevent "oil-logging"
- > Asingle, quiet, condenser fan reduces energy consumption; most freezers require two
- > Built with 95 - 98 % recyclable materials (by weight)
- > Meet WEEE directives for disposal

Comparison of Energy Usage



New Brunswick freezers reduce energy consumption by thousands of kilowatt hours when compared to comparable competitor models. The net effect of using a New Brunswick freezer instead of a competitor is a significant reduction in energy consumption, equivalent to the carbon sequestration of thousands of trees. Plus, an average savings of up to 40 % in annual energy costs.



### Advanced vacuum insulation panel technology

vacuum insulation panel technology, an advanced thermal insulating material such as closed-cell foams (urethane), foam beads and other materials, provides a high level of thermal insulation performance far exceeds traditional materials. Other freezers use vacuum insulation panel technology, but none use advanced vacuum insulation panel technology. They are composed of a barrier seal to maintain vacuum and they are composed of advanced materials.

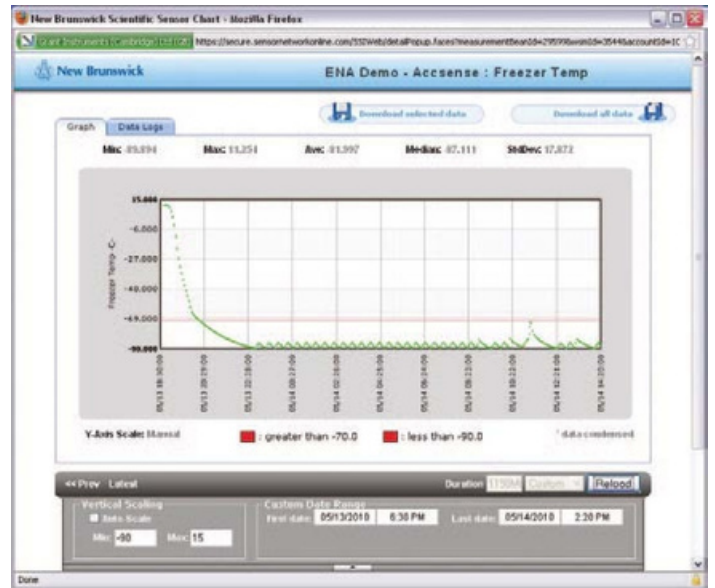
=

# Maximum sample protection

## Advanced monitoring and security

New Brunswick freezers safeguard your valuable samples with these advanced security features:

- > Offers added security; combines independent temperature monitor with alarm, electronic chart recorder, and an auto-dialer into one small pod
- > User-programmable, four-digit passwords for freezer setpoint and alarms
- > Battery back-up maintains temperature settings and activates alarms during a power outage
- > 2 and LN2 back-up, as well as a range of remote monitoring and data logging systems are available for complete peace of mind
- > Automatic restart with non-volatile memory after power interrupt
- > Audible and visual alarms indicate high/low temperature, power failure and alarm conditions; LED light indicates low C
- > Alarm socket enables testing of power-fail and low-battery alarms; connects to your building management system or optional auto-dialer



ware to download; record and view temperature probe, ambient temperature and alarm data from any web-based computer! (Inquire for availability)



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Lockable security plate protects power and alarm on-off switches from accidental shut-off



Keyed, removable, door and lid locks prevent unauthorized access; optional padlock adapter (shown) offers even more protection

# Designed with you in mind

New Brunswick freezers are designed with user convenience and comfort in mind. All models include ergonomically-positioned front-mounted control panels, easy-open doors and more:

- > Easy-open door, with molded handle, provides one-handed operation
- > Y C & < / C
- > Low noise and low heat output
- > Hinged inner doors are easily removed for cleaning
- > 7 &
- duty, lockable castors facilitate installation
- > A wide selection of freezer racks and other accessories are available to meet your needs; see our accessories brochure for more information



Bright LED control panel, mounted at eye level on uprights, & < & &



Lightweight and durable anodized aluminum racks are available to accommodate 50, 75, 100 mm boxes. Racks for all other sample containers also available



| C & easily accessed without tools, for low-maintenance



Heated air vent with ice-cleaning plunger prevents vacuum formation, allowing the door to be quickly opened throughout the day

# New Brunswick HEF<sup>®</sup> High

Most energy-efficient, eco-friendly freezers anywhere

HEF Freezers provide all of the features of New Brunswick premium models and more: polyurethane foam form a 130 mm thick layer of insulation

HEF Freezers provide all of the features of New Brunswick premium models and more: polyurethane foam form a 130 mm thick layer of insulation

HEF Freezers minimize operating costs while providing superior protection for your critical samples. They reduce energy consumption by up to 59 % when compared to competitive models.

> 50 Hz HEF models use environmentally-safe hydrocarbon based refrigerants to further reduce energy consumption by 10 % (Not available in the United States)







#### HEF Upright Model U410

410 Liters

Holds up to 24,000 samples

External dimensions (H x W x D):

191.5 x 80 x 85.2 cm



#### HEF Upright Model U570

570 Liters

Holds up to 40,000 samples

External dimensions (H x W x D):

192.5 x 102.5 x 85.2 cm



#### HEF Chest Model C660

==> \$

Holds up to 52,000 samples

External dimensions (H x W x D):

107.5 x 205 x 84 cm



#### Green Upright U725-G

725 Liters

Holds up to 50,400 samples

External dimensions (H x W x D):

?`/?>`/=

#### U725-G "Green" Freezer

Ideal for large-capacity needs, Model U725-G is identical to the Innova U725 except that the U725-G replaces our standard refrigerants with hydrocarbon-based refrigerants and uses a superior fan design to further reduce greenhouse gases and energy consumption. A water-cooled model is available for even more energy and environmental savings (Not available in the United States)

To allow for handles and hinges, add 80 mm to width of upright freezers and 110 mm to depth of chest freezers. Open doors on upright freezers add up to 150 mm.

[ ?&?`

# New Brunswick Innova® Freezers

More capacity. Same freezer footprint.

When it comes to maximizing sample storage capacity, Innova freezers set the standard. They use advanced vacuum insulation panel technology to reduce freezer wall thickness. This provides up to 30 % more storage capacity than traditionally-insulated freezers without increasing the external dimensions.

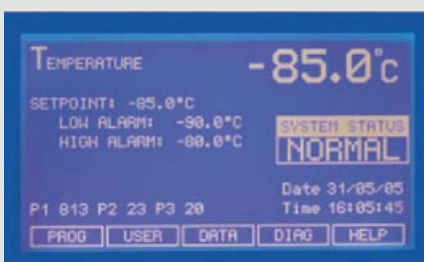
Upright Innova models have three separate interior compartments with gasketed, insulated doors for exceptional sample protection.

**Six models are offered, including two unique models:**

> # & ' # } #@=> = C  
 It features our advanced new controller with extra-large display, data logging and graphing capability  
 > For ultimate space savings, convenience, and security, } #?>? 6 C \ C  
 or can be stacked two high



Innova inner doors easily lift off hinges without tools to simplify cleaning



' #@=> & & \$  
 C ' & & \$  
 a detailed record of alarms and alarm acknowledgements, door openings, and operating conditions with time-date stamp. Data is automatically stored for up to 30 days for on-  
 C \*  
 strictest validation requirements. Built-in diagnostic screen enables a systems engineer  
 C & \$  
 ? / =



**Innova Upright Model U101**

101 Liters

= >>>

External dimensions (H x W x D):

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**Innova Upright Model U360**

@=> \$

Holds up to 25,200 samples

External dimensions (H x W x D):

? ` / = / =



**Innova Upright Model U535**

535 Liters

@@ =>>

External dimensions (H x W x D):

? ` / > / =



**Innova Upright Model U725**

725 Liters

Holds up to 50,400 samples

External dimensions (H x W x D):

? ` / ?> ` / =



**Innova Chest Model C585**

585 Liters

? =>>

External dimensions (H x W x D):

?> / ?= / `



**Innova Chest Model C760**

=> \$

Holds up to 57,200 samples

External dimensions (H x W x D):

109.2 x 205 x 78.5 cm

To allow for handles and hinges, add 80 mm to width of upright freezers and 110 mm to depth of chest freezers. Open doors on upright freezers add up to 150 mm.

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# New Brunswick Premium Freezers

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Over 30 years of innovation have gone into the design of New Brunswick Premium Freezers—the original benchmark for top quality ultra-low temperature freezers.

Premium Freezers are known for their worry-free, long-

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They provide many of the same features as our Innova models, but are conventionally-insulated for a cost-effective alternative. Polyurethane insulation combined with a highly

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Like all New Brunswick freezers, these models provide > consumption compared to competitor models.

Five models are offered to meet your application requirements, including a new 700-liter large capacity upright.



Premium Freezers offer the compartments to limit cold air loss during sample access



**Premium Upright Model U410**  
 410 Liters  
 Holds up to 24,000 samples  
 External dimensions (H x W x D):  
 191.5 x 80 x 85.2 cm



**Premium Upright Model U570**  
 570 Liters  
 Holds up to 40,000 samples  
 External dimensions (H x W x D):  
 192.5 x 102.5 x 85.2 cm



**Premium Upright Model U700**  
 700 Liters  
 Holds up to 48,000 samples  
 External dimensions (H x W x D):  
 195.9 x 112.1 x 87 cm



**Premium Chest Model C340**  
 340 Liters  
 = >>>  
 External dimensions (H x W x D):  
 107.5 x 134 x 84 cm



**Premium Chest Model C660**  
 ==> \$  
 Holds up to 52,000 samples  
 External dimensions (H x W x D):  
 107.5 x 205 x 84 cm

To allow for handles and hinges, add 80 mm to width of upright freezers and 110 mm to depth of chest freezers. Open doors on upright freezers add up to 150 mm.

[ ?&?`

Line		HEF® High Efficiency and Green					
Style	Freezers Upright Upright		Upright	Chest			
Model No.	U725-GHEF U410		HEF U570	HEF C660			
Catalog No.	120V, 60 Hz	– U9260-0007	U9270-0007	–			
	208 - 230V, 60	– –	–	U9250-0009			
	Hz 230V, 50 Hz	U9440-0005 (Air-Cooled) U9260-0008 U9440-0004 (Water-Cooled)	U9270-0008	U9250-0008			
Power	Electric/Mains (A)	?>{ =>	–	?= `	?= `	–	
		> & @>{ =>	–	–	–	8	
	kWh per day <sup>1</sup>	@>{ `>	9.5	5	=	=	
		?>{ =>	–	=	12.2	–	
	> & @>{ =>	–	–	–	11.5		
	@>{ `>	? 6Y & \	8.4	8.9	11.4		
Capacity	Overall		725 L	410 L	570 L	==> \$	
	Compartments		3	5	5	–	
	Racks per shelf		=	3	5	–	
	Racks per freezer		18	15	25	40	
	Box capacity per rack	2 in (50 mm) box (H)		28	?=	?=	13
		3 in (75 mm) box (H)		20	12	12	9
		4 in (100 mm) box		12	8	8	=
	Box capacity per freezer	(H) 2 in (50 mm) box		504	240	400	520
		(H)		@=>	180	300	@=>
		3 in (75 mm) box (H)		?=	120	200	240
	Sample capacity per freezer	4 in (100 mm) box		50,400	24,000	40,000	52,000
		(H) 2 in (50 mm) box		@=>>>	18,000	30,000	@=>>>
		(H)		?=>>	12,000	20,000	24,000
	Performance	Pull down to -85° C (Hours) <sup>2</sup>	3 in (75 mm) box (H)	–	5.8	=	–
4 in (100 mm) box			–	–	–	=	
Noise level (dB)		(H) ?>{ =>	6Y & \	4.7	4.7	5	
		> & @>{ => @>	–	57	58.5	–	
	{ `> ?>{ =>	–	–	–	=?		
Heat output (Watts)	> & @>{ => @>	59	53	58	58.5		
	{ `> ?>{ =>	–	525	=@>	–		
	> & @>{ => @>	–	–	–	580		
	{ `>	@> 6Y & \	505	520	580		
Refrigerant	60 Hz		R290/R170	B	B	B	
Dimensions <sup>3</sup>	models	50	195	R290/R17	R290/R17	R290/R17	
	External	Height (cm)	102.5	0 191.5	0 192.5	0 107.5	
		Width (cm)	=	80	102.5	205	
		Depth (cm)	?@=	85.2	85.2	84	
	Internal	Height (cm)	=	?=	?=	=	
		Width (cm)	=?	55	=	147	
		Depth (cm)	315	57.5	57.5	59	
Weight	Net weight (Kg)	@=	–	–	304		
	Shipping weight (Kg)		310	327	352		

<sup>1</sup> 6 \ &> & = C  
<sup>2</sup> 6 \ & = C  
<sup>3</sup> 2/LN2P \* & = ' 6@ \

Innova® Freezers						Premium Freezers				
Upright Upright		Upright Upright		Chest Chest		Upright Upright		UprightChestChest		
U101 U360		U535 U725		C585 C760		U410 U570		U700 C340 C660		
U9420-0000 U9425-0000		U9430-0000 –		U9400-0000 –		U9260-0000 U9270-0000		U9280-0000 U9230-0000 –		
– –		U9430-0002 U9440-0002		U9400-002 U9410-0002		U9260-0002 U9270-0002		U9280-0002 – U9250-0002		
U9420-0001 U9425-0001		U9430-0001 U9440-0001		U9400-0001 U9410-0001		U9260-0001 U9270-0001		U9280-0003 U9230-0001 U9250-0001		
13	?= `	?= `	–	?= `	–	?= `	?= `	13	?= `	–
–	–	9	10	9	10	8	9	8	–	8
5	= `	5	9.5	5.5	9.5	5	=	7	4.5	=
=	11.7	13.2	–	13.9	–	13	14.2	15.9	10.3	–
–	–	13.2	?=	13.9	?=	13	14.2	15.9	–	15
8.8	10.7	13.2	15.8	?@ =	?=	10.8	11.8	15.9	8.8	14.3
101 L	@=> \$	535 L	725 L	585 L	=> \$	410 L	570 L	700 L	340 L	==> \$
2	3	3	3	–	–	5	5	5	–	–
3	3	4	=	–	–	3	5	=	–	–
=	9	12	18	32	44	15	25	30	20	40
10	28	28	28	13	13	?=	?=	?=	13	13
=	20	20	20	9	9	12	12	12	9	9
4	12	12	12	=	=	8	8	8	=	=
=>	252	@@=	504	?=	572	240	400	480	=>	520
@=	180	240	@=>	288	@=	180	300	@=>	180	@=>
24	108	144	?=	192	=	120	200	240	120	240
=>>>	25,200	@@=>>	50,400	?=>>	57,200	24,000	40,000	48,000	=>>>	52,000
@=>>	18,000	24,000	@=>>>	28,800	@=>>	18,000	30,000	@=>>>	18,000	@=>>>
2,400	10,800	14,400	?=>>	19,200	=>>	12,000	20,000	24,000	12,000	24,000
3.5	5	5.3	–	4.3	–	4.1	5.3	5.9	3.4	–
–	–	5.3	5.2	4.3	5.8	4.1	5.3	4.8	–	=
3.7	` =	5.3	` =	4.5	5.8	5.3	5.2	=	3.8	5.8
54	54	` =	–	` =	–	57	58.5	=?	58	–
–	–	` =	59	` =	58	57	58.5	=?	–	58
54	54	` =	59	` =	58	55	` =	59	` =	57
344	=@	720	–	700	–	=>>	700	755	580	–
–	–	720	750	700	750	=>>	700	755	–	=`>
440	590	720	750	700	750	=`>	700	755	580	=`>
404A/508B	404A/508B	404A/508B	404A/508B	404A/508B	404A/508B	404A/508	404A/508	404A/508B	404A/508	404A/508B
404A/508B	404A/508B	404A/508B	404A/508B	404A/508B	404A/508B	B	B	404A/508B	B	404A/508B
83	195	195	195	109.2	109.2	404A/508	404A/508	195.9	404A/508	107.5
90	=	80	102.5	?=	205	B 191.5	B 192.5	112.1	B 107.5	205
` = =	=	=	=	78.5	78.5	80	102.5	87	134	84
=	?@= `	?@= `	?@= `	78	78	85.2	85.2	?@? =	84	=
48	44	=	=	120	? ` =	? ` =	? ` =	=	=	147
33	=? `	=? `	=? `	= `	= `	55	= `	=? @	=	59
??=	230	250	315	240	285	57.5	57.5	279	59	280
141	240	298	@=@	298	333	235	= `	372	205	328
						283	313		248	

# Backed by world-class service

## Service and support for your peace of mind

We are committed to providing not only the highest quality products, but also world-class service that delivers complete customer satisfaction. Like our products, our service and support sets the standard for excellence.

Our worldwide service and support organization is one of your loyalty by giving you personalized and professional service every day—before, during and after you purchase a New Brunswick product.

Our goal is to ensure that your New Brunswick equipment operates at peak performance. We offer services beyond essential maintenance and support, and can tailor

- > packages (IQ/OQ) available
  - > Warranty on all freezers; extended warranties and customized preventive maintenance plans (contact your
  - > Every freezer is equipped with unique S.M.A.R.T. Plus™ diagnostic software that allows system engineers to diagnose most issues over the phone at no cost—saving you time and money
  - > In-stock parts and product
  - > Multiple levels of personalized service and support:
    - Knowledgeable customer service representatives
- for rapid response

After three decades, still setting the standard. New Benchmark. New Brunswick.





Richmond  
Scientific



## Want to know more?

If you have questions about this item, please give us a call on 01257 270 433.

Richmond Scientific are a family run business in Lancashire. We're a small team, and we're always just a phone call away. With over 30 years in the business there's not much we haven't seen before, and we're always happy to chat.

Have kit to sell?

Call us on 01257 270 433

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