DNA/Bacteria Testing System

Quick... Easy... Precise...

For Your Products... Food, Beer, Beverage, Water...

The genesig® q16

Primerdesign®

Distributed by D.I. Engineering Corp. of America

D.I.E.C.

Beer Spoilage Detection Made Easy

Spoilage

Early detection of bacteria is the best method to avoid beer and beverage spoilage. Spoilage bacteria form as part of the natural decay in the brewing process and can result in wasted product and loss of profit. Detecting these bacteria in yeast stock or in brewing equipment is the fastest and easiest way to avoid a problem.

Campden BRI Evaluation

The genesig q16 and kits have been evaluated by Campden BRI - the UK's largest independent organization and validation body supporting the food and drinks industry worldwide.

Hop resistant Lactobacillus and Pediococcus species

Hop resistant genes horA and horC, when found in the species lactobacillus and pediococcus, enable these lactic acid producing bacteria to grow in beer. This results in beer with bitter and unpleasant flavors.

Pectinatus

Pectinatus bacteria cause beer spoilage by producing off flavors and turbidity. Detection of these bacteria is currently carried out using conventional microbiology. However, this is complicated by the strict anaerobic conditions and lengthy incubation times required for their cultivation. Consequently, there is a need for rapid detection methods.

Pediococcus

Pediococcus is a very common spoilage bacteria often considered one of the most difficult types of bacteria to remove from an infected brewery. Pediococci cause high acidity, buttery aroma and inhibit yeast growth, which results in decreased fermentation rates.

BEER SPOILAGE DETECTION KITS

CATALOG NO.	PRODUCT DESCRIPTION	KIT SIZE
Path-HorA/HorC-EASY	genesig Easy kit for hop resistant Lactobacillus and Pediococcus species	50rxn
Path-Pediococcus_spp-EASY	genesig Easy kit for Pediococcus genus	50rxn
Path-Pectinatus_spp-EASY	genesig Easy kit for Pectinatus genus	50rxn

qPCR test kits **Food and water**

qPCR testing methods are proven to be the fastest and most accurate way for screening water and food.
We offer highly sensitive kits for meat speciation, allergen testing, food pathogens and water contaminants.

Genetically modified organisms (GMO)

Speciation

Pathogen contamination

Allergens

Others

Genetically modified organisms (GMO)

Screening kits

- GMO 35S promoter
- GMO FMV
- GMO tNOS

Speciation

Meat Speciation kits

- Beef
- Buffalo
- Cat
- Chicken
- Deer
- Dog
- Donkey
- Duck
- Goat
- Horse
- Ostrich
- Pork
- Sheep
- Turkey
- Venison
- Warthog

Fish Speciation kits

- Atlantic Cod: Gadus morhua
- Coley: Pollachius virens
- European eel:Anguilla anguilla
- European Plaice: Pleuronectes platessa
- Haddock: Melanogrammus aeglefinus
- Pollock : Pollachius pollachius
- Whiting: Merlangius merlangus

Pathogen contamination

- Alpha toxin producing Clostridium perfringens
- Bacillus cereus E33
- Brucella genus
- Campylobacter Coli
- Campylobacter Jejuni
- Clostridium estertheticum
- Coxiella burnetii
- Crimean-Congo Haemorrhagic Fever Virus
- Cyclospora cayetanensis
- Dekkera bruxellensis
- Enterococcus faecalis
- Enterococcus faecium
- Escherichia coli
- Escherichia coli 0157:H7
- Eubacteria
- Francisella tularensis
- Giardia intestinalis
- Hepatitis A Virus
- Hepatitis E Virus
- JC Polyomavirus
- Legionella pneumophila
- Legionella species
- Listeria monocytogenes
- Mycobacterium avium subspecies paratuberculosis
- Naegleria Fowleri
- Naegleria species
- Norovirus genotypes 1 and 2
- Pseudomonas aeruginosa
- Salmonella enterica
- Salmonella species
- Shewanella putrefaciens
- Shiga toxin producing Escherichia coli
- Shigella
- Simkania negevensis
- Staphylococcus aureus
- Tellurite resistant Escherichia coli
- Toxigenic subspecies of Vibrio cholerae
- Vibrio cholerae subspecies
- Vibrio species
- Yersinia enterocolitica

Allergens

- Celery & Celeriac: Apium graveolens

Others

- Bifidobacterium bifidum
- Bifidobacterium longum
- Cystoisospora belli
- Hop resistant Lactobacillus and Pediococcus species
- Lactobacillus acidophilus
- Lactobacillus plantarum
- Lactococcus lactis
- Lactobacillus species
- M.cerevisiae/M.elsdenii
- Pectinatus species
- Pediococcus species
- Schistosoma haematobium
- Schistosoma mansoni
- Streptococcus sanguinis
- Tenebrio molitor
- Ureaplasma parvum

Can't find what you're looking for?
New kits on demand
info@diec-america.com

The genesig® q16

What is the genesig q16?

The genesig q16 is a revolutionary instrument launched by Primerdesign Ltd. The instrument is designed to accompany the genesig product range which includes kits for over 400 different DNA testing applications. The q16 can test up to 14 samples at a time and is designed to make DNA testing affordable and easy for anyone in any business.

What can I use it for?

The genesig product range includes a huge range of tests for human pathogen detection.

Meat speciation: The genesig q16 is the World's best tool for easy and affordable detection and quantification of meat and fish species. Horse in your beef burgers? Cheap white fish in your Cod supply?

Pathogen detection: Detect the presence of Salmonella, E.coli, Listeria and many more bacteria, virus and fungi in ingredients, on machinery, or in whole food products.

Allergen detection: The q16 is able to detect allergens and works equally with cooked and raw foods.

Spoilage bacteria: Detect the presence of spoilage bacteria in yeast cultures, in brewing and fermentation vessels and in alcoholic products.

Water testing: Screening water supplies for legionella or other pathogenic targets has never been easier than with the q16.

What is DNA testing?

DNA testing is the most sensitive and precise way to detect and quantify the presence of a DNA target. The underlying technology within the genesig q16 is real-time quantitative PCR. The technology has been around for 20 years, but to date has been complex and expensive to perform. The genesig q16 changes all that.

I don't have a laboratory. Can I use it?

Yes! If you don't have a laboratory it really doesn't matter. The instrument is designed to be used by anyone, anywhere. There is no complex programming or data analysis required. All of that is taken care of by our clever software. All you get is the answers to the questions you ask.

Alongside the instrument we can also supply you a complete 'lab-in-a-box' containing the few simple tools that you need to do your own DNA testing.

Is *everything* completely automated?

No. You will need to follow some very simple steps to extract the DNA from your sample. Then put it into a tube and on to the q16. It's easy. And we'll provide incredibly simple instructions to guide you through your first experience.

The genesig® easy kit range

What is a genesig easy kit?

genesig is a catalog of DNA testing kits for a range of applications in human pathogen screening. The kits come in 3 formats: advanced, standard and easy. The genesig easy kit range is the simplest to use version and is designed specifically for use on the genesig q16 instrument.

What is in the kit?

The kit contains all of the components required to run a DNA test. The kit is freeze-dried so that it can be shipped at room temperature. To use it you simply rehydrate the kit components, mix them and combine with your sample, before placing into the genesig q16 and starting the automated analysis. (DNA extraction solutions supplied separately)

The genesig® **easy DNA/RNA Extraction Kit**

Easy extraction from virtually any sample type

The genesig easy DNA/RNA extraction protocol begins with a simple lysis step where cells and tissue are lysed to release their nucleic acid. Then tiny magnetic particles are added to bind to RNA/DNA. When placed on to the genesig magnetic separator the particles are pulled to the side of the tube making it easy to remove the unwanted supernatant with a pipette. Then a series of simple wash steps are performed before the DNA/RNA is washed off the beads back in to solution, ready for analysis by real-time PCR.

Its fast, and incredibly easy to perform.

Suitable sample types

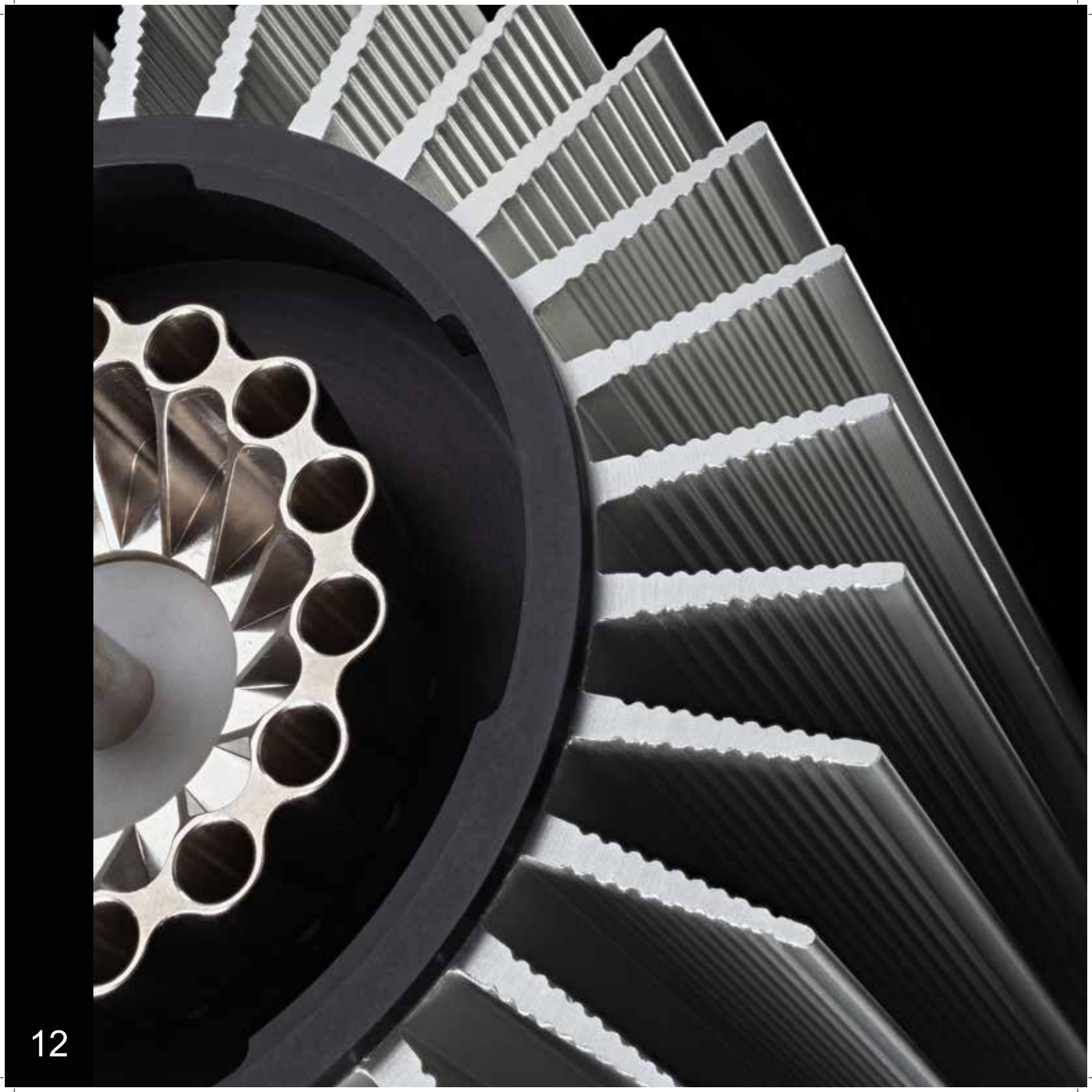
- Meat
- Fish
- Water
- Beer, Wine etc
- Swabs
- Bacterial culture broth
- Picked bacterial colonies
- Milk
- More…

The genesig® **Lab-in-a-box**

Create a lab for anyone, anywhere

Even if you've never performed a DNA test in your life, the genesig q16 makes it affordable and easy to do. If you've never done this kind of testing then you probably don't have a laboratory. That's fine, as our Lab-in-a-box provides all of the simple tools that you'll need to get started.

- A genesig magnetic rack for DNA/RNA extraction
- Fixed volume, color-coded pipettes for simple liquid handling
- Disposable tips for the pipettes
- Tube racks to hold everything in place while you work
- Digital laboratory timer



The genesig® q16 **Technical Specifications**

The q16 is a closed system designed to provide an incredibly simple user experience with fully automated data calling. It will not operate successfully with kits other than the genesig easy kit range.

- 16 Wells
- 20ul reaction volume

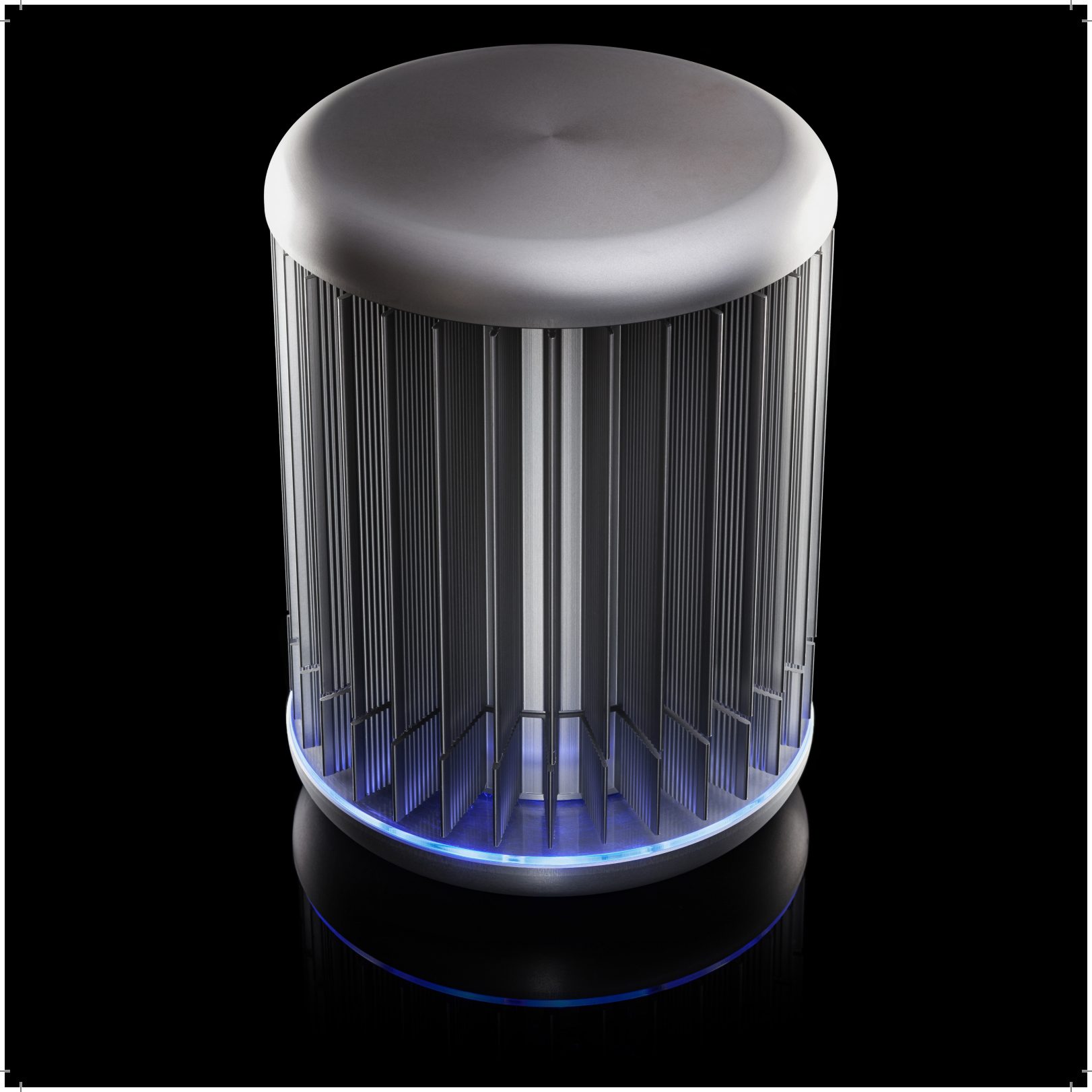
- Peltier thermal control
  - 3°C/s heating
  - 2°C/s cooling
  - Thermal uniformity +- 0.1°C range
  - Thermal accuracy +- 0.25°C

- LED excitation
- CMOS detection
- Multiplex detection of target and internal control via FAM and VIC channels

- 160mm height
- 120mm diameter
- 2kg weight

- 90W power consumption

- No moving parts
- Silent operation
- Operate from PC, Mac, via network, or stand alone with a USB drive
- Extraordinary well-to-well reproducibility



For more information please visit our website
www.diec-america.com

genesig kits are sold for general laboratory and research use only. Please feel free to contact us for free advice or technical support

Primerdesign®

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