Hoefer®

PROVEN SOLUTIONS FOR ELECTROPHORESIS AND SAMPLE STORAGE

Providing the Quality Tools You Need and Can Rely On to Get the Results you Expect

Hoefer, established in 1967, specializes in developing and manufacturing tools and complimentary accessories for gel electrophoresis and blotting applications. Our decades of experience allow us to deliver products that are intelligently designed for top performance and ease of use.

Our premium products can be found in laboratories around the world and are proven to deliver consistent and reproducible protein and nucleic acid electrophoretic separations. Scientists can trust that Hoefer instruments, accessories, and consumables will meet the highest standards of excellence.

- Combines the advantages of small format and efficient cooling for rapid screening and rapid separation–SE250 and SE260 (pages 3)
- A large range of vertical and horizontal electrophoresis solutions to meet every application and budget (pages 2-16)
- Quickly and efficiently transfers proteins and nucleic acids with wet tank blotting unit -TE22 (page 19)
- Sample storage consumables and equipment, to further help our customers in sample management for their research and discovery work, whether in clinical research, biologics discovery or compound management. (Page23-28)

We look forward to partnering with you for all of your electrophoresis and sample storage needs and thank you in advance for your support.

For technical assistance please contact us toll free at (800) 813-0488, reach us by e-mail at support@hoeferinc.com, or visit www.hoeferinc.com.

Protein Electrophoresis

Nucleic Acid Electrophoresis

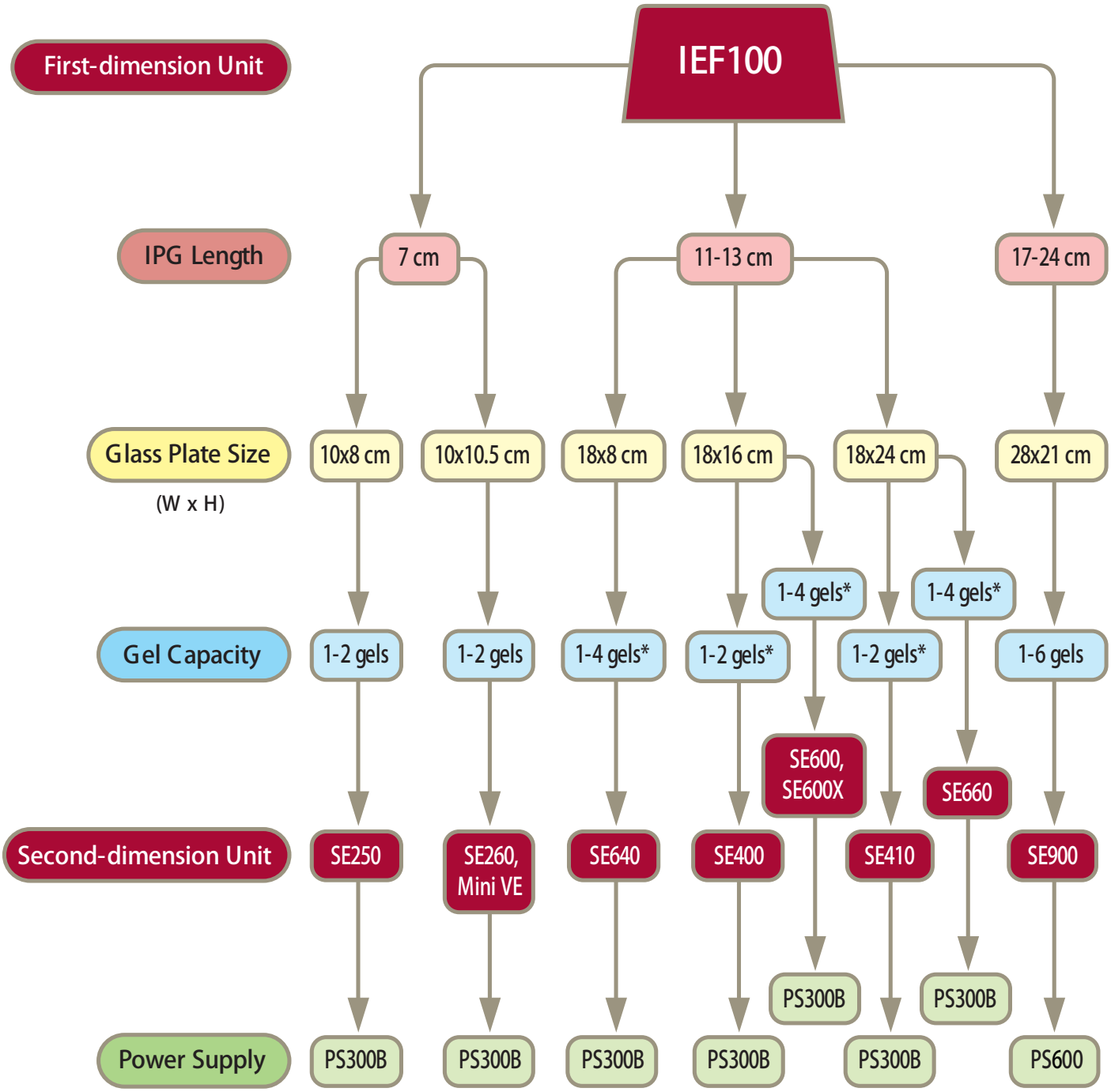
Blotting

Power Supplies

Electrophoresis Reagents

Sample Storage Solutions

Electrophoresis Selection Guide



*With optional divider plate

SE300 miniVE™ Integrated Vertical Electrophoresis and Blotting Unit

SE300

Features and Benefits

- Quick, excellent results using minimal buffer
- Passive cooling produces gels with straight lanes and sharp bands
- Cast your own or use precast gels from a variety of manufacturers
- Transfer up to 4 gels in 45 minutes with only 300 ml buffer using optional SE302 Blot Modules
- Designed for use with a wide variety of precast gels

Specifications

Glass Plate Size (w x h) .....10 x 10.5 cm or 10 x 8 cm
Spacers..... 0.75 mm, 1.0 mm, 1.5 mm
Maximum Power Settings
for Electrophoresis.....500 V and 25 W per module
for Blotting.....400 mA and 15 W per module
Maximum Temperature.....45°C
Humidity.....Up to 80%
Unit Dimensions (w x h x d).....19.2 x 17.2 x 18.8 cm
Safety Certifications.....EN61010-1, UL61010A-1
CSA C22.2 1010.1, CE

Ordering Information

Cat. #	Description
SE300-10A-1.0	miniVE Integrated Vertical Electrophoresis Unit, Complete
SE300	miniVE Integrated Vertical Electrophoresis Unit, Basic
SE302	miniVE Blot Module

SE302

Basic Unit Includes:

- Lower Buffer Chamber (tank)
- Safety Lid with High Voltage Leads
- Gel Modules with Gaskets–2 assemblies

Complete Unit Includes:

- Basic Unit
- Glass Plates 10 x 10.5 cm
- T-Spacers
- Combs

Blot Module Includes:

- Blot Module
- Dacron Sponges, 6 mm thick–4 pcs
- Blotter Paper–25 sheets

SE250/SE260 Mighty Small II Mini Vertical Electrophoresis Units

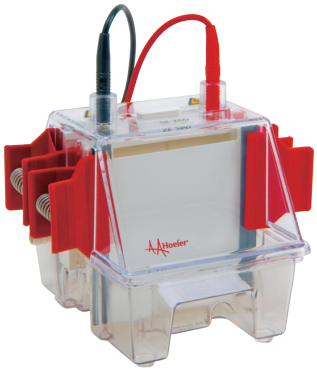
SE250

Features and Benefits

- Efficient active cooling ensures sharp bands
- Quick and easy to assemble, requires minimal buffer
- Run up to two gels at one time under identical conditions
- Easily upgradable from SE250 to the SE260 (with optional accessories)
- Supports a wide variety of precast gels

Specifications

Glass Plate Size (w x h)
SE250.....10 x 8 cm
SE260 .....10 x 10.5 or 10 x 8 cm
Spacers.....0.75 mm, 1.0 mm, 1.5 mm
Maximum Power Settings.....500 V, 500 mA, 12 W
Maximum Temperature.....45°C
Humidity.....Up to 80%
Unit Dimension (w x h x d).....16.5 x 16 x 16 cm
Safety Certifications .....EN61010-1, UL61010A-1, CSA C22.2 1010.1, CE



SE260

Ordering Information

Cat.#	Description
SE250-10A-1.0	Mighty Small II Mini Vertical Electrophoresis Unit, Complete
SE250-CS	SE250 Complete Unit Without Combs and Spacers
SE250	SE250 Basic Unit
SE260-10A-1.0	Mighty Small II Deluxe Mini Vertical Electrophoresis Unit, Complete
SE260-CS	SE260 Complete Unit Without Combs and Spacers
SE260B	SE260 Basic Unit

Basic Unit Includes:

- Lower Buffer Chamber
- Upper Buffer Chamber/Cooling Core
- Safety Lid with High Voltage Leads
- Spring Clamps–4 pcs

Complete Unit Includes:

- Basic Unit (SE250 include Plates)
- Combs
- T-Spacers
- Gel caster

SE600 Series Vertical Electrophoresis Systems

Features and Benefits

- Gels are fully submerged for greater temperature equilibration
- Produces straight lanes and sharp, well-defined bands
- Run up to four gels at one time under identical conditions
- Accommodates denaturing and native PAGE gels for 2-D electrophoresis
- Run gels at uniform temperature from 1 to 45°C

SE660

Specifications

Glass Plate Size (w x h)

SE660.....18 x 24 cm, 18 x 16cm, 18 x 8cm
SE600X.....18 x 16cm, 18 x 8cm
SE600.....18 x 16cm, 18 x 8cm
SE640.....18 x 8cm

Spacers.....0.75 mm, 1.0 mm, 1.5 mm
Maximum Power Settings.....1000 V, 500 mA, 50 W
Maximum Temperature.....45°C
Humidity.....Up to 80%
Unit Dimension (w x h x d).....16.5 x 16 x 16 cm
Safety Certifications.....EN61010-1, UL61010A-1
CSA C22.2 1010.1, CE

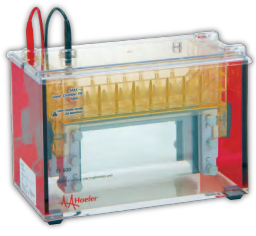
SE600X

Ordering Information

Cat. #	Description
SE660-15-1.5	Tall Standard Dual Cooled Vertical Electrophoresis Unit,Complete
SE600X-15-1.5	Deluxe Dual Cooled Vertical Electrophoresis Unit,Complete
SE600-15-1.5	Standatrd Dual Cooled Vertical Electrophoresis Unit,Complete
SE640-15-1.5	Wide-Mini Vertical Electrophoresis Unit,Complete

SE600

* Basic units are available for selection (SE660, SE600, SE600X, SE640)



SE640

Basic Unit Includes:

- Buffer Chamber
- Heat Exchanger
- Dual Gel Casting Stand
- Safety Lid w/High Voltage Leads
- Glass Plates
- Clamp Assemblies

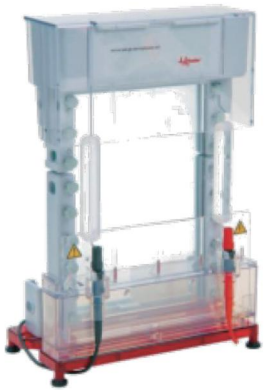
Complete Unit Includes:

- Basic Unit
- Combs
- Spacers

SE400 Series Vertical Electrophoresis Systems

Features and Benefits

- The rugged injection molded construction is durable and assembles easily
- Run two gels with the addition of a divider plate
- Built-in casting stand seals leak free
- Plates, clamps, spacers, and combs are interchangeable with the SE600 Series



SE410

Specifications

Glass Plate Size (w x h)
SE410.....18 x 24 cm
SE400.....18 x 16cm
Spacers.....0.75 mm, 1.0 mm, 1.5 mm
Maximum Power Settings.....500 V, 60 mA, 20 W
Maximum Temperature.....45°C
Humidity.....Up to 80%
Unit Dimension (w x h x d).....16.5 x 16 x 16 cm
Safety Certifications.....EN61010-1, UL61010A-1
CSA C22.2 1010.1, CE

Ordering Information

Cat. #	Description
SE410-15-1.5	Tall Air- Cooled Vertical Electrophoresis Unit,Complete
SE410	Tall Air-Cooled Vertical Electrophoresis Unit, Basic
SE400-15-1.5	Air- Cooled Vertical Electrophoresis Unit,Complete
SE400	Air-Cooled Vertical Electrophoresis Unit, Basic

SE400

Basic Unit Includes:

- Buffer Chamber
- Glass Plates
- Clamp Assemblies
- Safety Lid w/High Voltage Leads
- Dual Gel Casting Stand

Complete Unit Includes:

- Basic Unit
- Combs
- Spacers

Accessories: miniVE™, SE260, and SE250

Combs

Cat. #	# of Wells	Thickness (mm)	Well Width (mm)	Well Volume (µl per 1 mm depth)
Standard Combs		Standard combs produce maximum well depths of 13 mm.		
SE211A-5-.75	5	0.75	13	9.8
SE211A-5-1.0	5	1	13	13
SE211A-5-1.5	5	1.5	13	19.5
SE211A-9-1.0	9*	1	5.8	5.8
SE211A-10-.75	10	0.75	4.8	3.6
SE211A-10-1.0	10	1	4.8	4.8
SE211A-10-1.5	10	1.5	4.8	7.2
SE211A-15-.75	15	0.75	2.9	2.2
SE211A-15-1.0	15	1	2.9	2.9
SE211A-15-1.5	15	1.5	2.9	4.4
SE211A-18-1.0	18*	1	2.9	2.9
Preparative Combs		Preparative Combs form 1 large preparative well plus 1 small reference well.		
SE211A-R-.75	1/1	0.75	68/5	51/3.8
SE211A-R-1.0	1/1	1	68/5	68/5
SE211A-R-1.5	1/1	1.5	68/5	120/7.5

T-Spacers

Cat. #	Thickness (mm)	Length (cm)	Width (cm)	Qty.
SE2119T-2-.75	0.75	8	1	2
SE2119T-2-1.0	1	8	1	2
SE2119T-2-1.5	1.5	8	1	2
SE2619T-2-.75	0.75	10.5	1	2
SE2619T-2-1.0	1	10.5	1	2
SE2619T-2-1.5	1.5	10.5	1	2

Glass and Alumina Plates

Cat. #	Description
SE202P-10	10 x 8 cm Rectangular Glass Plates–10 pcs
SE202GN-5	10 x 8 cm Notched Glass Plates–5 pcs
SE262P-5	10 x 10.5 cm Rectangular Glass Plates–5 pcs
SE262GN-5	10 x 10.5 cm Notched Glass Plates–5 pcs
SE202N	10 x 8 cm Notched Alumina Plate
SE202N-10	10 x 8 cm Notched Alumina Plates–10 pcs
SE262N-5	10 x 10.5 cm Notched Alumina Plates–5 pcs


SE202P-10


SE202GN-5


SE262P-5


SE262GN-5


SE6602


SE6602D

Accessories: SE660,SE600X Chroma,SE600,SE640,SE410,and SE400

Combs

Cat. #	# of Wells	Thickness (mm)	Well Width (mm)	Well Volume (µl per 1 mm depth)	Qty.
Standard Combs	Our combs are precision machined from Teflon® which is highly resistant to acids,bases, and all commonly used buffer systems.				
SE511-10-.75	10	0.75	8.3	6.2	1
SE511-10-1.0	10	1	8.3	8.3	1
SE511-10-1.5	10	1.5	8.3	12.4	1
SE511-12-.75	12	0.75	7.6	5.8	1
SE511-12-1.0	12	1	7.6	7.7	1
SE511-12-1.5	12	1.5	7.6	11.5	1
SE511-15-.75	15	0.75	5.7	4.3	1
SE511-15-1.0	15	1	5.7	5.7	1
SE511-15-1.5	15	1.5	5.7	8.6	1
SE511-20-.75	20	0.75	4.1	3.1	1
SE511-20-1.0	20	1	4.1	4.1	1
SE511-20-1.5	20	1.5	4.1	6.2	1
SE511-28-.75	28	0.75	2.7	2.1	1
SE511-28-1.0	28	1	2.7	2.7	1
SE511-28-1.5	28	1.5	2.7	4.1	1
Preparative Combs	Preparative Combs have adjustable comb backs (10, 15, and 25 mm depth) and form 1 large preparative well plus 1 or 2 small reference wells.				
SE511-R-.75	1/1	0.75	121/6	90/4	1
SE511-R-1.0	1/1	1	121/6	120/6	1
SE511-R-1.5	1/1	1.5	121/6	183/9	1
SE511-DR-.75	1/2	0.75	113/6	85/4	1
SE511-DR-1.0	1/2	1	113/6	112/6	1
SE511-DR-1.5	1/2	1.5	113/6	171/9	1

Spacers

Cat. #	Thickness (mm)	Length (cm)	Width (cm)	Qty.
SE6419-2-.75	0.75	8	2	2
SE6419-2-1.0	1	8	2	2
SE6419-2-1.5	1.5	8	2	2
SE6119-2-.75	0.75	16	2	2
SE6119-2-1.0	1	16	2	2
SE6119-2-1.5	1.5	16	2	2
SE6619-2-.75	0.75	24	2	2
SE6619-2-1.0	1	24	2	2
SE6619-2-1.5	1.5	24	2	2
SE6118-2-1.0	1	16	1	2
SE6118-2-1.5	1.5	16	1	2

Glass Plates

Cat. #	Description
SE6402	18 x 8 cm Regular–2 pcs
SE6402LF	18 x 8 cm Low Fluorescence–2 pcs
SE6402D	18 x 8 cm Divider Plate, Notched
SE6102	18 x 16 cm Regular–2 pcs
SE6102LF	18 x 16 cm Low Fluorescence–2 pcs
SE6102D	18 x 16 cm Divider Plate, Notched
SE6602	18 x 24 cm Regular–2 pcs
SE6602LF	18 x 24 cm Low Fluorescence–2 pcs
SE6602D	18 x 24 cm Divider Plate, Notched

Divider Plates Double Gel Capacity

Run as many as four 0.75, 1.0, or 1.5 mm thick gels on SE600 Series units and two gels on the SE400 Series at one time under identical conditions.

Divider Plate

Gel Casters

Multiple Gel Casters

- Pour uniform gels from the top; pump gradient gels into an inlet port at the bottom of the unit
- Sandwiches fill at the same time at the same rate from the same solution.
  The result: identical gels.
- Glass plate sandwiches seal leak free without the use of messy grease or tape
- Once cast, gels can be wrapped in plastic and refrigerated for several weeks

SE275

SE215

Dual Gel Caster

- Cast one or two gels
- Double the capacity with optional divider plates

SE675

SE615

Ordering Information

Cat. #	Description
SE215	Ten Gel Caster for 10 x 8 cm plates Includes: 10 x 8 cm Rectangular Glass Plates–20 pcs 10 x 8 cm Notched Alumina Plates–10 pcs
SE275	Four Gel Caster for 10 x 8 cm plates Includes: 10 x 8 cm Rectangular Glass Plates–10 pcs 10 x 8 cm Notched Alumina Plates–4 pcs
SE235	Four Gel Caster for 10 x 10.5 cm plates Includes: 10 x 10.5 cm Rectangular Glass Plates–5 pcs 10 x 10.5 cm Notched Alumina Plates–4 pcs
SE675	Four Gel Caster Includes Glass Plates, 18 x 16 cm–8 pcs
SE615	Ten Gel Caster Includes Glass Plates, 18 x 16 cm–20 pcs
SE245	Dual Gel Caster, For use with SE250, SE260
SE6015	Dual Gel Caster, For use with SE600 Series

SE245

SE6015

IEF100 First-dimension Isoelectric Focusing Unit

Monitor current flow for each individual IPG strip in real time

- Flexible first-dimension IEF can be run with up to six 7 to 24 cm IPG strips simultaneously, or twelve 7 cm IPG strips using the included dual electrode accessory
- Turn and click intuitive user interface with graphical display
- Capable of faster run times with an integrated 12,000 V power supply that has the highest voltage and current commercially available
- Easily accessible Ethernet and RS232 ports
- The IEF100 is the only first dimension instrument that controls the current and voltage applied to the IPG strips to prevent overheating

Features and Benefits

- Cup-loading or rehydration-loading–versatility to accommodate individual sample requirements
- Instrument control through LAN–remote control and data acquisition possible
- Integrated power supply and Peltier cooling–minimizes footprint
- Constant power mode–minimizes overheating risks
- Ultra high voltage and current–reduces focusing time and enhances focusing results
- Focusing tray clamped to cooling plate–ensures efficient heat transfer
- Electrodes lock into place on strips–ensures good contact during run
- Front data ports–enable recording of instrument performance if required by GLP
- Entire protocol can be seen on screen–easy to read and edit
- Large display–provides real-time graphical results
- Stores multiple protocols each with multiple steps–flexible programming for precise results

Ordering Information

Cat. #	Description
IEF100	Isoelectric Focusing Unit

Dual electrode assembly increases IEF throughput - Up to 12 7cm strips can be run at the same time, with highly consistent results for both left and right sets of electrophoresis.

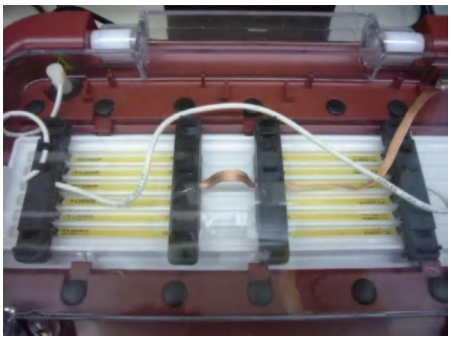


Figure 1 IEF100 with dual-electrode moduleenabling six pairs ofIPG strips to be run inparallel circuit.

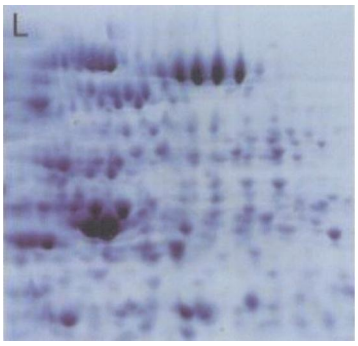
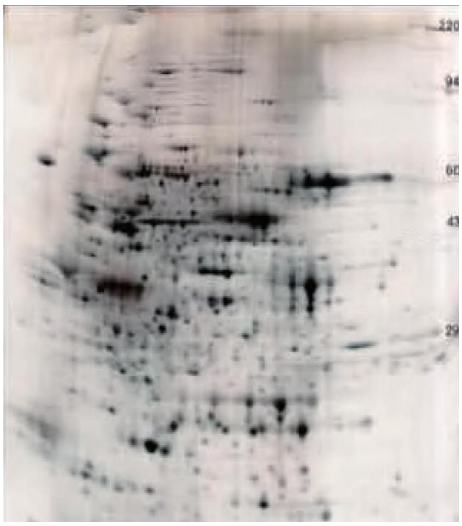


Figure 2 Identical regions enlarged from 2-D gels showing reproducibility of duplicate IPGs run simultaneously with left(L) or right(R) electrode pairs wired in parallel.IPGs were PH 3-10 non-linear.SDS-PAGE wasperformed on 11% polyacrylamide gels.

Technical Specifications

Voltage .....12,000 V
Resolution .....1 µA
Sample Cup Capacity.....240 µl
Unit Dimensions (w x h x d) .....38 x 19 x 27 cm
Data Connectivity.....Ethernet / RS232
Current.....10 mA (999 µA/strip)
Platform Temperature.....15-25°C (Peltier Controlled)
Trays.....Running and Rehydration Tray
Weight.....6 kg
Safety Certifications.....EN61010-1, UL61010-1
CSA22.2 1010.1, CE



Mouse Liver separation using the Hoefer 2-D System and 4-7 IPG Strips.
Image courtesy of Prof. Peter James and Dr. Sofia Waldemarson, Departmentof Immunotechnology, Lund University, Sweden.

SG Series Gradient Makers

Ideal for generating gradients of polyacrylamide, sucrose, and cesium chloride

- Milled of heavy acrylic plastic with high quality, leak-free Teflon® valves
- Flat base provides stability on magnetic stir. Comes with a support rod for attaching to a ring stand
- Takes Luer or 4 mm ID tubing. With included adapters, can also take 2 mm ID or 22 gauge tubing

SG15

The 500 ml SG500 Gradient Maker is made of two cylindrical acrylic chambers joined and mounted on a flat acrylic base.

- An easy-to-use push-pull valve opens and closes the passage between the reservoir and mixing chambers
- Suitable for forming polyacrylamide gradients or buffer gradients used with medium to small chromatography columns
- Ideal for use with the SE615 Multiple Gel Caster

SG30

SG50

SG100

Ordering Information

Cat. #	Description
SG15	Gradient maker, 15 ml total volume
SG30	Gradient maker, 30 ml total volume
SG50	Gradient maker, 50 ml total volume
SG100	Gradient maker, 100 ml total volume
SG500	Gradient maker, 500 ml total volume

SG500

Horizontal Electrophoresis Selection Guide

Product Name	Tray Size (w x l cm)	Maximum Sample Capacity	Cooling Option	Buffer volume(ml)	Built-in Power Supply
HE33	7 x 10	32	Yes	250	—
HE99X	15 x 10 15 x 15 15 x 20	30 60 60	—	1200	—
SUB6	6 x 7.5	32	—	325	—
SUB10	10 x 11.5	80	—	450	—
SUB13	12.8 x 15	112	—	900	—
SUB15	15 x 15	120	—	1200	—
SUB20	20 x 20	160	—	2200	—
SUB20C	20 x 20	160	Yes	2200	—
SUB25	25 x 30	624	—	3000	—
SUB25C	25 x 30	624	Yes	3000	—
SUBHT	15 x 15	120	—	1200	—
HE-PLUS	12.5 x 13 12.5 x 6 6 x 6	112 56 8	—	350	Yes

The recommended power supply for the above non-powered horizontal units is the Hoefer PS300B.

HE Series Horizontal Agarose Electrophoresis Unit

HE33 Mini Horizontal Unit

- Fast separations–run a 7 x 10 cm gel in as little as 5 minutes
- The clear molded base acts as a heat-sink—simply fill the base with coolant and seal
- Cooling the unit prior to a run allows higher voltages to be applied without generating band distortions or damaging the gel and unit

HE33

HE99X Max Horizontal Unit

- High resolution separation of the fragments 100 bp to 20 kbp
- Three casting kits available–enabling users to run 15 x 20, 15 x 15, or 15 x 10 cm gels in the same unit

Ordering Information

Cat. #	Description
HE33-8-1.5	HE33 Mini Horizontal Unit, Complete
HE33B	HE33 Mini Horizontal Unit, Basic

Basic Unit Includes:

- Buffer Chamber Assembly
- Safety Lid w/High Voltage Leads
- Running and Casting Tray

Complete Unit Includes:

- Basic unit
- Combs and comb backs

HE99X Max

Cat. #	Description
HE99X-15-1.5	HE99X Max Horizontal Unit, Complete
HE99X	HE99X Max Horizontal Unit, Basic

Basic Unit Includes:

- Buffer Chamber Assembly
- Safety Lid w/High Voltage Leads

Complete Unit Includes:

- Basic unit
- Casting kit
- Combs and comb backs

HE-PLUS Electrophoresis System

HE-PLUS

Features and Benefits

- Compact and Easy to Use
- Built-in Variable Power Supply with LED Display
- Adjustable Power Supply from 10 to 400 mA or 10 to 150 Volts
- Built-in Timer with Audible Alert

Specifications

Unit Dimensions (w x l x h) .....24.5 x 17.0 x 6.2 cm
Gel Dimensions (w x l) .....12.5 x 13.0 cm
Maximum Sample Capacity .....112 samples
(4 combs, 28 samples each)
Buffer Capacity .....350 ml
Distance Between Electrodes .....13.5 cm

Electrophoresis Tank

Overall Dimensions (w x l x h) .....18.3 x 16.4 x 5.6 cm
Material Characteristic .....UV transmitting (50% at 254 nm, 80% at 312 nm)
Solution Volume .....350 ml

Power Supply

Overall Dimensions (w x l x h) .....7.5 cm x 17.0 x 6.2 cm
Weight .....410 g
Input Voltage .....AC 100 – 240 V, 50/60 Hz
Output Voltage .....10 to 150 volts; constant peak voltage of 150 V
Output Amperage .....10 to 400 mA
Maximum Wattage .....45 W
Timer .....99 hours 59 min, or continuous run
Safety Switch .....A microsensor in the power supply prevents output without the safety lid in place
Memory Function .....Automatic memory (the last used Voltage & Time)
Safety Certifications .....TVE, CSA, and CE

Ordering Information

Cat. #	Description
HE-PLUS-115V	HE-PLUS Electrophoresis Complete System 115V
HE-PLUS-230V	HE-PLUS Electrophoresis Complete System 230V

Includes:

- Gel Tank
- Safety Lid
- Power Supply
- Gel Tray
- Comb 14/28 Wells
- Casting Stand

SUB Series Submarine Gel Electrophoresis Units

Features and Benefits

- **Color-coded and height adjustable combs**–easily identify comb thickness at a glance and control well depth
- **Colored loading strips**–for easy well detection when loading
- **Compact tank**–reduces the buffer volume required to cover the gel, providing greater control over the voltage gradient and run-time
- **UV-transparent running tray**–allows the user to image the gel without risk of damage due to handling
- **Side handles**–for safe and easy transportation around the laboratory

SUB6

SUB15

SUB25

SUB25C

SUB13/SUB15/SUB20&SUB20C/SUB25&SUB25C

- Buffer recirculation ports–may be connected to a peristaltic pump for buffer recirculation during electrophoresis to maintain buffer pH and prevent ionic gradient formation

SUB20C/SUB25C

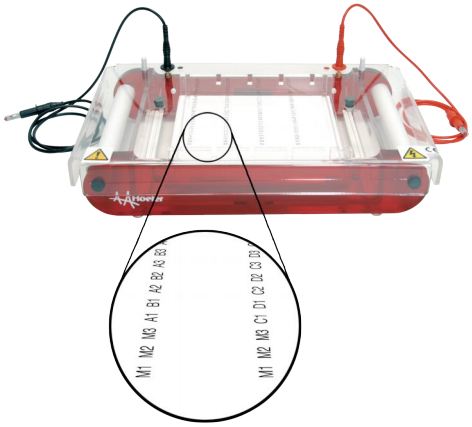
- cooling base–can be connected to a recirculation bath allowing high voltage electrophoretic separations without overheating.

Ordering Information

Cat. #	Description
SUB6	Mini Submarine GelUnit
SUB10	Mini-Plus Submarine Gel Unit
SUB13	Midi Submarine Gel Unit
SUB15	Standard Submarine Gel Unit
SUB20	Maxi-Standard Submarine GelUnit
SUB20C	Maxi-Standard Submarine Gel Unit With Cooling Base
SUB25	Maxi-Plus Submarine Gel Unit
SUB25C	Maxi-Plus Submarine Gel Unit with Cooling Base

For more information such as combs, please visit www.hoeferinc.com

SUBHT High Throughput Submarine Gel Electrophoresis Unit



Ideal for high throughput screening applications like single strand polymorphism (SSP) analysis following PCR

Features and Benefits

- **Fast, Error-Free Loading**–Load an entire 96-well plate using a multi-channel pipette
- **Simplified Analysis**–Fluorescent labels for each sample printed on a UV transparent gel tray allows for instant sample identification (matched to a 96-well plate) during post-run visualization
- **High Throughput**–Run up to 120 samples (96-well plate + 24 control and/or marker samples) in 30 minutes

Ordering Information

Cat. #	Description
SUBHT	High throughput submarine gel electrophoresis unit

Includes:

- Buffer Chamber Assembly
- 30 well combs–4 pcs
- Safety Lid
- Colored Loading Strips
- High Voltage Leads
- Buffer Recirculation Ports–2 pcs
- Fluorescent Labeled Running Tray w/Casting Gates

For more information such as combs, please visit www.hoeferinc.com

Blotting Unit Selection Guide

	Product Name	Transfer Area	Capacity	Buffer Required	Cooling Option	Built-in Power Supply
Semi-dry	TE70XP	14 x 16 cm	Up to 4 Mini Gels	0.5L	N/A	Yes
	TE77XP	21 x 26 cm	Up to 12 Mini Gels	0.5L	N/A	Yes
	TE77X	21 x 26 cm	Up to 12 Mini Gels	0.5L	N/A	—
Tank	TE22	9 x 10 cm	4 Cassettes	1L	Built-In Heat Exchanger	—
	TE42	15 x 21 cm	2 Cassettes with Cooling 4 Cassettes without Cooling	5L	Optional Heat Exchanger	—
	TE62	15 x 21 cm	4 Cassettes	5L	Built-In Heat Exchanger	—

Semi-Dry Transfer

Efficient design that uses minimal buffer to transfer proteins from polyacrylamide gels in less than an hour

TE77X

TE70XP/TE77XP

Technical Specifications

Transfer Area:

TE70XP .....Up to 14 x 16 cm

TE77XP .....Up to 21 x 26 cm

TE77X .....Up to 21 x 26 cm

Maximum Power Settings.....30 V, 500 mA, 15 W

Maximum Temperature.....45°C

Indoor Use.....4-40°C

Humidity.....Up to 80%

Unit Dimensions (w x h x d).....38 x 46 x 9 cm

Safety Certifications.....EN61010-1, UL61010-1, CSA22.2 1010.1, CE

Features and Benefits

- Intelligent built-in power supply (TE70XP and TE77XP)–prevents the stack from overheating by monitoring the transfer status
- Included safety circuit breaker–limits voltage and current from the users power supply, preventing
- electrical damage to the transfer unit
- Requires minimal current–does not generate excessive heat that can dry out the transfer stack and halt transfer or damage transfer units
- Durable iridium oxide and stainless steel electrodes–allow for contamination free, consistent transfer
- Vented electrodes–prevent build up of bubbles which may impair transfer
- Minimal buffer requirements–reagent cost and preparation time are reduced

Ordering Information

Cat.#	Description
TE70XP	Semi-Dry Transfer Unit with Built-In Power Supply
TE77XP	Large Semi-Dry Transfer Unit with Built-In Power Supply
TE77X	Large Semi-Dry Transfer Unit

Wet Tank Transfer

Quickly and evenly transfers proteins and nucleic acids from polyacrylamide or agarose gels onto nylon, nitrocellulose, or PVDF membranes

TE22

Features and Benefits

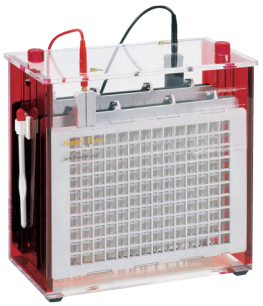
- Superior design provides a uniform electric field–the key to even transfers
- Superior tank design allows the cassettes to apply equal pressure across the stack–prevents gel distortion
- Color coded, easy to assemble cassettes–ensures proper orientation during transfer

TE22 Mighty Small Transfer Tank

- Transfers as many as four small gels, up to 9 x 10 cm in less than an hour
- Built-in alumina-covered cooling channel provides excellent temperature control with no more than a 5°C temperature increase during a typical run

TE42 Standard Transfer Tank

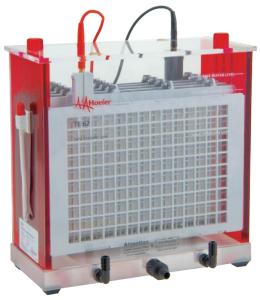
- Up to four 15 x 21 cm gels (without cooling); Up to two 15 x 21 cm gels (with cooling)
- Optional TE47 heat exchanger–provides excellent buffer temperature control when used with an external cooling water bath.



TE42

TE62 Standard Transfer Tank with Cooling Chamber

- Up to four 15 x 21 cm gels or sixteen 7 x 10 cm gels
- Built-in ceramic heat exchanger–provides excellent temperature control when used with an external cooling water bath



TE62

Ordering Information

Cat. #	Description
TE22	Mighty Small Transfer Tank
TE42	Standard Transfer Tank
TE62	Standard Transfer Tank with Cooling Chamber

Western Blotting System Packages

Mini Electrophoresis Blotting System with Transfer Tank

Cat. #	Description
326223	Mini Transfer Tank Combination Package
	Package Includes:
SE260-10A-1.0	Mighty Small II Mini Deluxe Vertical Unit
TE22	Mighty Small Mini Transfer Tank
PS300B	300 V, 500 mA, 90 W Power Supply

Standard Electrophoresis Blotting System with Transfer Tank

Cat. #	Description
SE600X-15-1.5	Deluxe Dual Cooled Vertical Unit
TE62	Standard Transfer Tank with Cooling Chamber
PS300B	300 V, 500 mA, 90 W Power Supply

Standard Electrophoresis Blotting System with Semi-Dry Unit

Cat. #	Description
SE600X-15-1.5	Deluxe Dual Cooled Vertical Unit
TE77XP	Large Semi-Dry Transfer Unit with Built-In Power Supply
PS300B	300 V, 500 mA, 90 W Power Supply

Standard Electrophoresis Blotting System with Semi-Dry Unit

Cat. #	Description
SE660-15-1.5	Tall Standard Dual Cooled Vertical Electrophoresis Unit
TE77X	Large Semi-Dry Transfer Unit
PS300B	300 V, 500 mA, 90 W Power Supply

Power Supplies

Features and Benefits

- Constant voltage or constant current mode with automatic crossover
- The voltage accuracy is ±1%, and the current accuracy is ±2%
- Four sets of 4 mm output jacks
- Continuous runs or 999 minute timer
- Automatic recovery after power failure
- Open circuit detection
- Short circuit protection

PS300B

PS300B 300 Volt Power Supply

- Maximum output of 300 V, 500 mA, and 90 W
- Ideal for running and transferring mini protein gels
- Supports DNA/RNA electrophoresis, SDS-PAGE, and native PAGE applications

PS200HC

PS200HC 200 Volt High Current Power Supply

- Maximum output of 250 V, 2500 mA, and 200 W
- Ideal for large electrophoretic blotting applications and for low voltage electrophoresis runs
- Supports SDS-PAGE, native PAGE, western blotting, and DNA/RNA electrophoresis applications

PS600

PS600 600 Volt Power Supply

- Maximum output of 600 V, 750 mA, and 150 W
- Best capabilities and output for running and transferring both mini and midi protein gels
- Supports IEF gel, SDS-PAGE, native PAGE, western blotting, and DNA/RNA electrophoresis applications

Ordering Information

Cat.#	Description
PS300B	300 Volt Power Supply, Universal VAC
PS200HC	250 Volt High Current Power Supply,Universal VAC
PS600	600 Volt Power Supply,Universal VAC

High Quality Electrophoresis Reagents

Hoefer Electrophoresis Reagents deliver consistently outstanding results. A high standard of purity, rigorous analytical procedures, and carefully controlled manufacturing techniques ensure that Hoefer Reagents are the best quality buffer, gel casting, gel staining, and sample preparation chemicals available.

- A complete range of chemicals for electrophoresis
- Free from impurities that interfere with polymerization
- Manufactured to stringent specifications
- Functionally tested by batch to ensure reproducibility
- Pure powder or premixed ready-to-use solutions for your convenience and to meet your lab' s needs

Ordering Information

Reagent	Cat.#	Qty
Agarose	GR140-25/GR140-500/GR140-500X	25 g/500 g/500 g, 2PK
Ammonium Persulfate (APS)	GR152-10	10 g
CHAPS	GR121-10	10 g
Dithiothreitol (DTT)	GR122-5	5 g
EDTA, 0.5 M Solution, pH8.0	GR123-100	100 ml
Glycerol	GR124-1	1 L
Glycine	GR125-1	1 kg
Mineral Oil	GR138-1	1 L
PBS, 10X Solution, pH 7.4	GR145-1	1 L
Sodium Dodecyl Sulfate (SDS)	GR126-500	500 g
Sodium Dodecyl Sulfate (SDS), 10% Solution	GR155-1	1 L
Sucrose, Molecular Biol GR	GR129-1	1 kg
TAE Buffer, 10X Solution, pH 8.3	GR150-1	1 L
TBE Buffer, 5X Solution	GR146-1	1 L
TBS, 20X Solution, pH 7.4	GR147-1	1 L
TBST, 20X Solution, pH 7.4	GR154-1	1 L
TEMED	GR151-25	25 ml
Tris-Glycine-SDS Buffer, 10X Solution	GR149-1	1 L
Tween® 20, Ultrapure	GR128-500	500 ml
Water, RNase-Free, non-DEPC	GR139-1	1 L
30% Bis-Acrylamide Solution 19:1	GR319-500	500 ml
30% Bis-Acrylamide Solution 29:1	GR329-500	500 ml
30% Bis-Acrylamide Solution 37.5:1	GR337-500	500 ml
40% Bis-Acrylamide Solution 19:1	GR419-500	500 ml
40% Bis-Acrylamide Solution 29:1	GR429-500	500 ml
40% Bis-Acrylamide Solution 37.5:1	GR437-500	500 ml

For more reagents and information, please visit www.hoeferinc.com.

Tri-coded Sample Storage Tube

Features and Benefits

- Manufactured in clean workshop complying with GMP 8 and certified with ISO 9001 and 13485
- Strict quality control, Tri-Coded system, providing readability and uniqueness, and unequaled sample audit traceability
- Laser-etched code on the tube bottom and side, easy to be read, scratch resistant
- Super-toughened materials with standing temperatures from -196°C to 120°C for various storage condition
- Same material for cap and tube, effectively preventing the uneven expansion during freeze-thaw cycles
- Non-silicone seal with unique thread to prevent over-tightening
- RNase / DNase and pyrogen free
- Direct code-reading with the tubes on rack with SBS format

Specifications

	0.5 ml	0.75 ml	1.0 ml	2.0 ml
Max. Working Volume (ml)	0.58	0.77	1.15	2
Tube Height (mm)	26.82	31.2	46.59	38.43
Tube Height with Cap (mm)	29.58	34.1	49.34	43.12
Inner Diameter (mm)	6.5	6.5	6.5	9.6
Outer Diameter with Cap (mm)	8.7	8.7	8.7	12.8
Center to Center (mm)	9	9	9	13.5
Minimum temperature (°C)	-196	-196	-196	-196
Format	96-format	96-format	96-format	48-format
2D-code on base	√	√	√	√
1D Linear Barcode on side	√	√	√	√
1D Linear Barcode on rack	√	√	√	√
Box Dimensions (L×W×H,mm)	128×85×36	/	128×85×54	128×85×48

Ordering Information

Cat.#	Description	Package
ST1-0050-0	0.5ml Tri-coded, Bulk	960/bag, 1bag/case
ST1-0050-1	0.5ml Tri-coded, Rack	96/rack, 10racks/case
ST1-0075-0	0.75ml Tri-coded, Bulk	960/bag, 1bag/case
ST1-0075-1	0.75ml Tri-coded, Rack	96/rack, 10racks/case
ST1-0100-0	1.0ml Tri-coded, Bulk	960/bag, 1bag/case
ST1-0100-1	1.0ml Tri-coded, Rack	96/rack, 10racks/case
ST1-0200-0	2.0ml Tri-coded, Bulk	480/bag, 1bag/case
ST1-0200-1	2.0ml Tri-coded, Rack	48/rack, 10racks/case
ST2-0050-0	0.5ml Editable, Bulk	960/bag, 1bag/case
ST2-0050-1	0.5ml Editable, Rack	96/rack, 10racks/case
ST2-0075-0	0.75ml Editable, Bulk	960/bag, 1bag/case
ST2-0075-1	0.75ml Editable, Rack	96/rack, 10racks/case
ST2-0100-0	1.0ml Editable, Bulk	960/bag, 1bag/case
ST2-0100-1	1.0ml Editable, Rack	96/rack, 10racks/case
ST2-0200-0	2.0ml Editable, Bulk	480/bag, 1bag/case
ST2-0200-1	2.0ml Editable, Rack	48/rack, 10racks/case
ST4-0050-4	Cryo Rack, Suitable for 0.5ml Tube	10racks/case
ST4-0100-4	Cryo Rack, Suitable for 1.0ml Tube	10racks/case
ST4-0200-4	Cryo Rack, Suitable for 2.0ml Tube	10racks/case
ST5-0050-0	0.5ml, bottom 2D coded, Editable on side, Bulk	960/bag, 1bag/case
ST5-0050-1	0.5ml, bottom 2D coded, Editable on side, Rack	96/rack, 10racks/case
ST5-0075-0	0.75ml, bottom 2D coded, Editable on side, Bulk	960/bag, 1bag/case
ST5-0075-1	0.75ml, bottom 2D coded, Editable on side, Rack	96/rack, 10racks/case
ST5-0100-0	1.0ml, bottom 2D coded, Editable on side, Bulk	960/bag, 1bag/case
ST5-0100-1	1.0ml, bottom 2D coded, Editable on side, Rack	96/rack, 10racks/case
ST5-0200-0	2.0ml, bottom 2D coded, Editable on side, Bulk	480/bag, 1bag/case
ST5-0200-1	2.0ml, bottom 2D coded, Editable on side, Rack	48/rack, 10racks/case

*Cat. number without suffix refers to transparent lid, red cap, and white base.

Multi-color caps and racks for customization.

Barcode Reader

Hoefer Barcode Reader, combing a high-resolution, camera-based imaging system, providing a very effective reading of whole SBS rack tubes. With an integrated sample management software, it is an ideal tool for precise identification of 2D codes and sample traceability, can meet the requirements of sample storage of any lab.

Features and Benefits

- Decode a whole rack of tubes in less than 1 second, capable of reading whole rack of tubes or a single tube
- Direct USB power supply and data transfer via Type C or USB3.1 ports
- Use with any 2D-coded tubes in SBS format rack, available for 24, 48, 96 and 240 format SBS racks
- Data output choice with Excel, CSV, text, TCP/IP, ODBC, etc
- Remote control via TCP/IP, allowing synchronized code-reading in multi-computers
- Compact size, suitable for small workbench operation
- High resolution camera, to provide clearer pictures and more accurate reads

Technical Parameters

Camera Resolution	12 MegaPixel
Linear Barcode Reader	Optional (70-4012) – Plug directly into PC
Communication	Type C&USB
Decodable Formats	2D Data Matrix®, QR Codes, ISO 16022, Square and Rectangular Format, ECC 200, 0 - 20 grid sizes, White on Black and Black on White, Numeric and Alphanumeric
Tube Formats	Almost all tubes in SBS format rack. Either 24, 48, 96, 240 or 384-formats.
Total Read Time	< 0.5 second
Operating Systems	Windows7，Windows8，Windows10，Windows11
Dimension（W×L×H）	147mm×147mm×200mm
Weight	1000g

Ordering Information

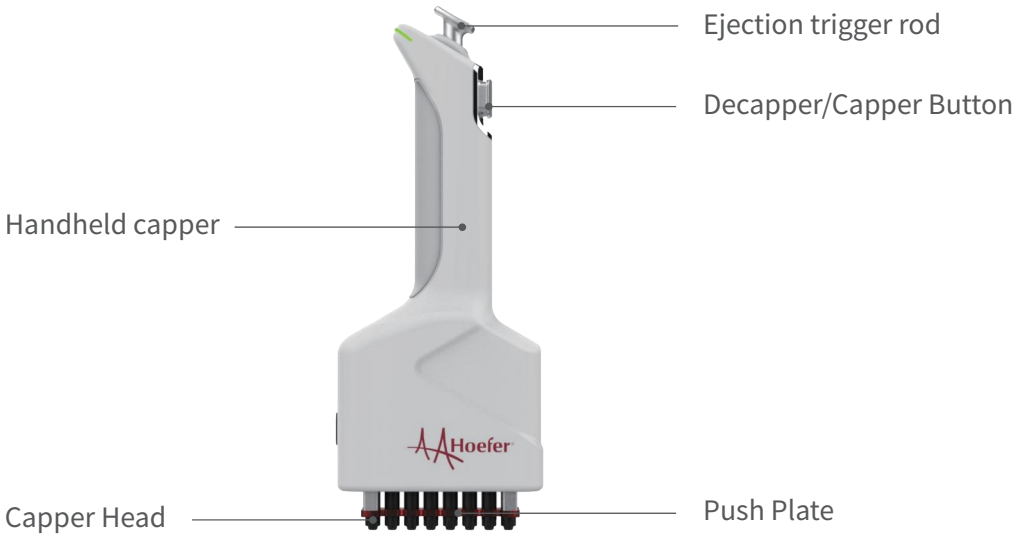
Cat.#	Description
ST-FBR01	Whole Rack Barcode Reader

HandheldCap 8/6 Capper/Decapper

User-friendly and lightweight, Hoefer HandheldCap8/6 can quickly cap/decap 8-ch or 6-ch Hoefer sample storage tubes, effectively reducing the work load of operators as a solution that takes into account the transition from manual to automated systems.

Features and Benefits

- Automatic capping and decapping within 10 seconds, improving the processing throughput by handheld.
- User-friendly, lightweight and ergonomically designed
- Magnetic contact charging for longer battery life and faster charging times
- Portable and convenient, a better choice for sample treatment in any laboratory
- Desktop stand for easy handling, firmly attached



Ordering Information

Cat.#	Description
ST-HCM8	HandheldCap 8 Capper/Decapper
ST-HCM6	HandheldCap 6 Capper/Decapper

AutoCap 96/48 Capper/Decapper

Designed for increased throughput and optimized workflow, Hoefer™ AutoCap96/48 can be used for capping/decapping whole SBS-format tubes, making the system ideal for lab automation management or biological sample storage.

Features and Benefits

- Cap/decap a whole SBS-format rack of tubes within 1 min
- Compatible with a wide range of sample storage tubes of different type and brands
- Interchangeable carriers for switching tube format in less than two minutes
- Quick setup and touch screen operation, an ideal use for fully-automated workflow integration
- A better choice for sample storage management in any high-throughput laboratories

Specifications

- Dimensions: 260mm (W) x 350mm (L) x 460mm (H)
- Weight: 20 kg Max. Wattage: 120W
- Compatible with a variety of sample tubes, including Hoefer, Fluidx, etc.
- Positioning regulation, positioning error: ±0.05mm
- Emergency stop switch in case of emergency
- Interface for third-party equipment communication
- Operating Conditions: 220V, 50Hz
- Temperature: 0°C to 40°C
- Humidity <85% RH

Ordering Information

Cat.#	Description
ST-ACM96	AutoCap 96 Capper/Decapper
ST-ACM48	AutoCap 48 Capper/Decapper

AutoLaser Marking Machine

Features and Benefits

- Laser-etch tri-code sample tubes with a maximum of 1200 tubes per hour, user defined with his own information
- Customize the code using characters, numbers, letters, barcodes, 2D codes, graphics, etc
- Laser-etched code with high contrast and readability, simply recognized with barcode reader
- Open communication interface for integrating into existing software. Data can be imported externally without manual input
- Compatible with the entire range of Hoefer sample storage tubes
- Simplify the sample handling process by solving issues of paper labels that are prone to contamination, not waterproof, and fall off at low temperatures

Technical Parameters

Dimension	W×L×H	570mm×485mm×650mm
Optical Parameters	Marking range	110mm×110mm
	Standard marking line width	0.06mm (depend on the material)
	Minimum character height	0.2mm
Cooling system	Cooling method	forced air cooling
Controlling Unit	IPC	I5-6200 main board, 4GMemory, 128G drive, touch screen
Operating environment	System power supply	1.5KW/AC220V/50Hz The voltage fluctuation range is ± 5%. If it exceeds the fluctuation range, a voltage regulator device needs to be equipped.
	Grounding	Class D [grounding resistance 100 or less]
	Ambient temperature	10~35°C
	Ambient humidity	⩽90%
	Vibrate	0.98m/s^2 {0.1G} or less, 10~60Hz. During transportation: 4.9 m/s2 {0.5G} or less.
	Dust	Less 0.20mg/m^3
	Mist	Not allow
	Condensation	Not allow

Ordering Information

Cat.#	Description
ST-ATL01	Single Channel AutoLaser Marking Machine
ST-ATL02	Multi-Channel AutoLaser Marking Machine

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