



Research Equipment

PRODUCT CATALOGUE



is a product range of

**SCIENTIFIC INSTRUMENTS and
EQUIPMENT FOR RESEARCH**

APPLICATIONS mainly focused on life sciences and material sciences fields, like cell culture, biotechnology, tissue engineering, advanced therapies and nanomaterials.

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**WE
HIGH-
TECH
YOUR
RESE-
ARCH**

CUSTOM-MADE

Through custom-making, we combine engineering know-how and flexible attitude during the many stages of project development, to find the best possible solutions that meet research requirements.

HIGH TECHNOLOGIES

We always use the very latest technologies to develop your ideas, borrowing technical knowledge from other sectors and combining them to create new solutions.

**RESEARCH
SUSTAINABILITY**

Our approach to the worlds of both industry and research is sustainable in that, during every stage of design, we always look for an idea and development in which great consideration is given to the life cycle of the investment and to the people involved in the project.

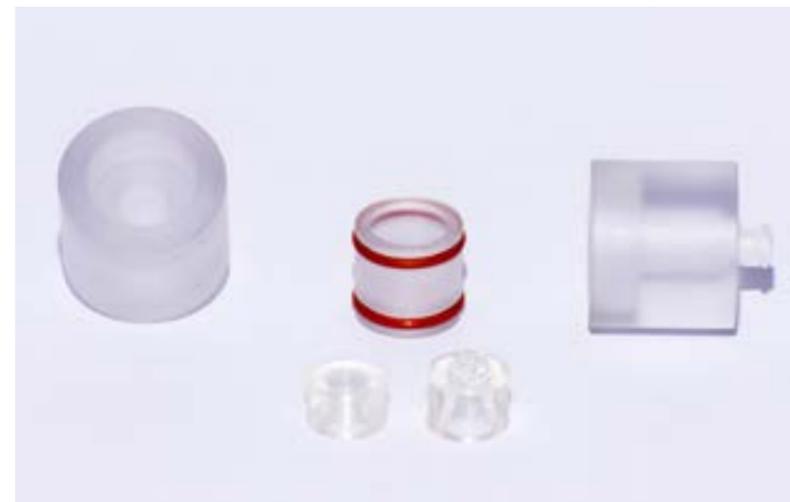
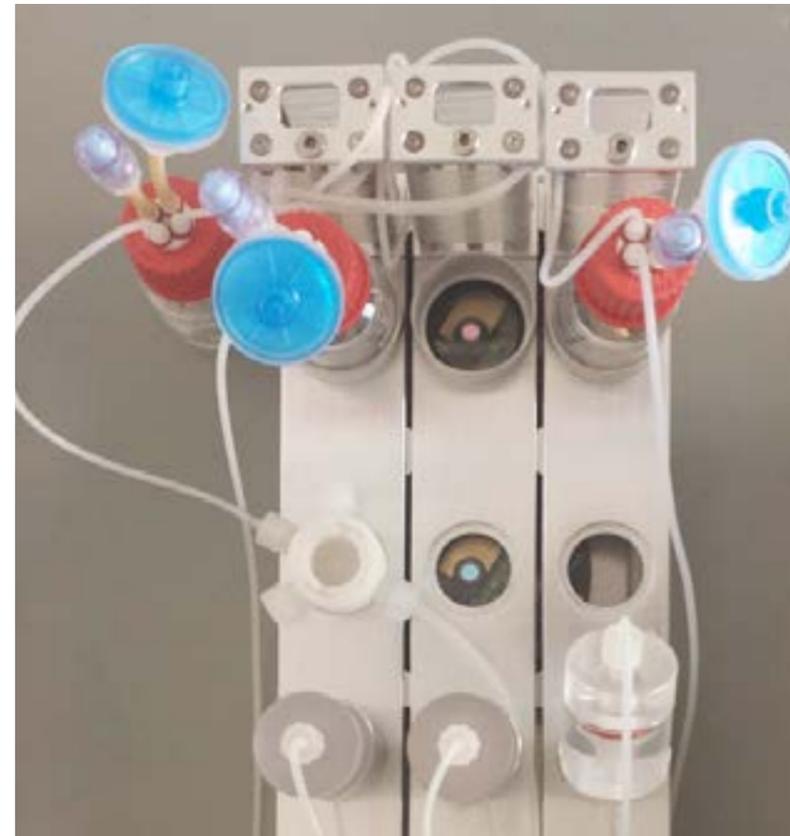
**LIFE
SCIENCE**

InFlow
Modular Perfusion Bioreactor
(cod. B011)



Standard scaffold sizes, cylindrical shape:

- 8 [mm] x h 2 [mm] or h 4 [mm] – perfused diameter 6 [mm]
- 10 [mm] x h 2 [mm] or h 4 [mm] – perfused diameter 8 [mm]
- 12 [mm] x h 2 [mm] or h 4 [mm] – perfused diameter 10 [mm]



InFlow is an incubator compatible, modular bioreactor for the controlled, bidirectional and interstitial perfusion of up to 9 cell seeded scaffolds with culture medium. InFlow is ideal for general purpose uses and is particularly suitable for the long-term culture of cylindrical fragments of bone and cartilage tissues.

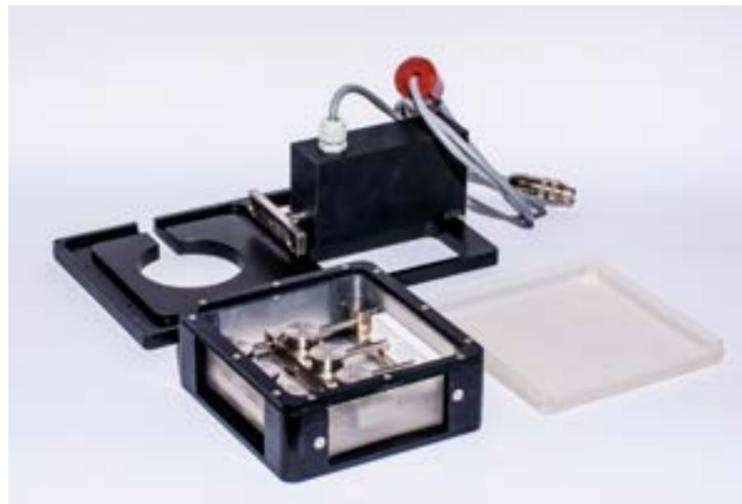
Each module of InFlow is equipped with 3 *perfusion lines* (up to 3 modules with 9 perfusion lines).

Every single line is:

- Hydraulically independent – ensures equal perfusion conditions between lines, possibility of flexible experimental design with sample triplicates and/or time course studies.
- Biologically independent – ideal for preventing cross-contamination.
- Characterised by a by-pass circuit which by-passes the culture chamber for a fast priming of the circuit.

Each line presents a medium reservoir with an air filter and medium sampling port. Hydraulic circuit is made of silicone platinum cured tubing for culture medium oxygenation, pH balancing with a minimum priming volume. Each line could be equipped with pH, O₂ and CO₂ optical sensors. Fully customizable on customer requirements.

GYM
mechanical stretching bioreactor
(cod. B010)



Gym is an incubator-compatible, actuator-driven mechanical stretching bioreactor, which cyclically stimulate up to three tissue engineered constructs in parallel, with a defined displacement stretching pattern.

Gym is ideal for general purpose uses, it can house biological samples in a variety of sizes and enables accurate, reproducible cyclic stretching with adjustable amplitude and frequency. It is well suited for engineering stretch-sensitive tissues, such as muscle and myocardial tissues, and represents a powerful culture model system for the investigation of mechano-transduction phenomena.

Its gas-permeable transparent silicone culture chamber ensures the oxygenation and pH balancing of the culture medium.

The culture chamber is designed with rounded edges in order to avoid stagnation points and has no inlets, breaks, fissures, gaps or holes which could be targets for microbial contamination.

Motion is transferred to the constructs by a drive shaft which is attached by magnets to the moving crossbar.

This kind of magnetic attachment between the culture chamber and the motor ensures that, during the transmission of movement, sterility is maintained. No physical connection between inner and outer environment.

Standard scaffold sizes, flat sheet rectangular shape:

length 50-70 [mm]

width 10-20 [mm]

thickness 0.5-1.5 [mm]

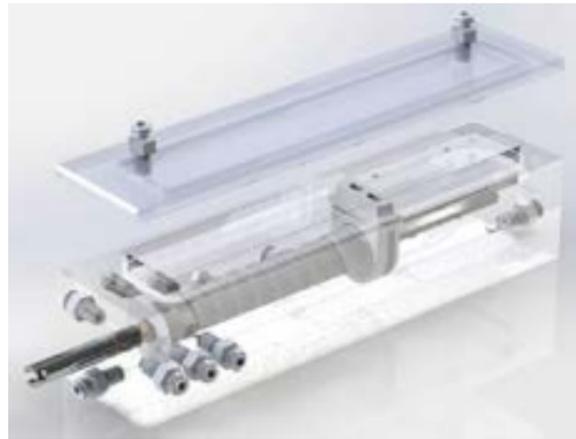
InBreath

Hollow organs bioreactor (large animals)
(cod. B020)



Clinically proven and published tubular constructs bioreactor for hollow organs used in first successful human transplantation of bronchus. InBreath bioreactor is ideally suited to regeneration of tubular hollow organs such as trachea/bronchus, blood vessels, esophagus and intestines.

InBreath is a rotating, double-chamber, bioreactor designed for cell seeding and culturing on both surfaces of a tubular matrix and includes rotational movement of the scaffold around its longitudinal axis. Large animal chamber and motor drive controller.



Fully compliant with SKE Research Equipment® silk fibroin electrospun tubular scaffold.

MiniBreath

Hollow organs bioreactor (small animals)
(cod. B021)



MiniBreath bioreactor is ideally suited to regeneration of tubular hollow organs such as trachea/bronchus, blood vessels, esophagus and intestines.



Clinically proven and published tubular constructs bioreactor for hollow organs used in successful human transplantation of bronchus. MiniBreath is a rotating, double-chamber, bioreactor designed for cell seeding and culturing on both surfaces of a tubular matrix and includes rotational movement of the scaffold around its longitudinal axis. Small animal chamber and motor drive controller.

Fully compliant with SKE Research Equipment® silk fibroin electrospun tubular scaffold.

AutoFeed
Culture medium exchanger
(cod. B006)



AutoFeed is an automatic culture medium exchanger driven by pH monitoring, designed to easily fit any bioreactor or culture chamber. AutoFeed minimises labour intensive operator handling, reduces contamination risks connected with manual medium exchange processes and preserves the homeostasis of culture milieu.



For the successful implementation of stem cell culture in bioreactor systems several critical parameters need to be addressed. These include physicochemical variables such as pH, dissolved oxygen, temperature and biochemical input, including the levels of key nutrients and metabolites, or growth factors: AutoFeed provides fresh medium through a medium recirculator and maintains a suitable level of key nutrients in the culture.

Like others SKE Research Equipment® products, the system is highly configurable, customizable and adaptable for almost every bioreactor.

SCAFFOLD for TISSUE ENGINEERING

Nanomatrix and scaffold

Silk fibroin disc (cod. B012)



Silk fibroin scaffold for 3D cell cultures and tissue engineering applications.

Silk fibroin square (cod. B013)



Entirely made of electrospun silk fibroin, an FDA approved natural polymer, these scaffolds are biocompatible and cytocompatible, suitable for almost all type of cells. Provided in ready to use single sterile package (EtO sterilization).

Silk fibroin tubular (cod. B014)



100% customizable on specific needs and applications. These electrospun scaffolds can be used in bioreactor systems as well as in Petri Dishes, multiwell plates or flasks.

Silk fibroin flat sheet (cod. B017)



* Scaffold of different materials, shape and dimension on request, contact us at sales@ske.it for more information.

Also available on the following materials:
Hyaluronic acid, Sodium alginate, Collagen, Elastin, Poly(D,L-Lactide-Co-Glycolide) PLGA, Poly(D-Lactide) PDLA, Poly(DL-Lactide-Co-Caprolactone) PDLC, Poly(L-Lactide) PLLA, Polycaprolactone PCL, PolyEthyleneOxide PEO, Polylactide PLA, Polyurethane PUR.
B014 are fully compatible with our InBreath clinically proven bioreactor.

ACCESSORIES

Culture chambers

Autoclavable cell chamber for microscopy (cod. B001)



Coverslip holder designed for viewing live cell specimens on upright or inverted microscopes.



Cell culture chamber with injection ports (cod. B002)



Customization available for any particular coverslip size or shape.

The chamber of model B001 accepts 25 mm round coverslips (maximum thickness 0.2 mm)

Model B002 is equipped with 2 injection ports, to connect 1/32" or 1/16" tubing.

Because the chamber is constructed from surgical stainless steel and is autoclavable, cells can be grown directly on coverslips within the unit. The O-ring seal design prevents samples from being contaminated by oil or leakage of media from the coverslips.

The chamber accepts 25 mm round coverslips (maximum thickness 0.2 mm) and mounts in a standard 35 mm diameter stage holder, and the 0.5 mm base dimension allows clearance for the objective when focusing.

Perfusion chambers

Culture chamber for confined perfusion of scaffolds
(cod. B007)



Ergonomic culture chamber for a confined perfusion of cylindrical scaffolds of different sizes.

Designed to maintain sterility inside the chamber, made of biocompatible and autoclavable materials. Easy to assemble and disassemble, in conformity with GLP requirements. Inlet and outlet port with Luer connection and barbed connectors, for 1/32", 1/16" or 1/8" ID tubing. Entirely made of polycarbonate, these perfusion chambers are completely autoclavable and equipped with silicone scaffold holders of different dimensions.

*Suitable for cylindrical scaffold with a diameter of 6, 8 or 10 mm and an height of 2 or 4 mm.
Customizable on request (different size, materials, etc.)*



Silicone scaffold holders

(cod. B008)



Silicone scaffold holders for perfusion chambers, suitable for 3D cell culture applications and tissue engineering.

Compatible with cylindrical porous scaffold of different diameters and height. To be used with our perfusion chambers, to keep the scaffold on place during perfusion. All parts are made of biocompatible silicone, completely autoclavable or, as an alternative, provided in single sterile packages.

Customizable on request (different size, materials, etc.)



Optical visors

for cell culture systems
(cod. B015)



Optical visors to act as an interface between cell culture systems and optical sensors to monitor CO₂ or O₂ level or the pH in the culture medium during your experiments.

A smart product to help you with the integration of optical sensors in your perfusion system or other bioreactors. This line of products applies particularly to hydraulic components with optically transparent surfaces and with internal geometries that have been optimised to minimise the impact of fluid dynamics and to allow the housing of sensors and coupling with their reading system. Completely autoclavable, with silicone optical visors.

Customizable on request (different size, materials, etc)



Special Caps

GL45 Special Caps (cod. B004)



GL25 or GL45 special caps for media bottles, with 2, 3, 4 or 5 ports.



GL25 Special Caps (cod. B005)



Customized stainless steel barbed connectors for 1/32", 1/16" or 1/8" tubing. Standard caps with customized inserts to host threaded connectors, special fittings, sensors, probes, heaters, filters and sample ports. All parts are completely autoclavable.



Fully customizable and made according to customer specifications.

Special Caps

pH sensor GL45 cap (cod. B009)



pH sensor GL45 cap with a shield to host an electrolytic pH sensor.



Equipped with 5 inlet/outlet ports with barbed connectors. Ideal as pH monitored reservoir for your cell culture applications. Provided with an autoclavable sensor, with a range of 0-14 pH.

Compatible with your own pH meter, or provided with a pH meter.

Culture medium heater
(cod. B003)



Culture medium heater with inlet port and outlet port to connect your pump.



It allows to heat the culture medium that flows through a coil submerged in hot water. Could work inside a cell incubator or with the optional external thermostatic bath, that heat the medium up to 37° C. Useful when you feed your culture with fresh medium stored at 4°C.

Oxygenator
For cell culture systems
(cod. B016)



Oxygenator for cell culture systems, equipped with oxygen permeable platinum cured silicone tubing and Luer connectors.



Completely autoclavable. Made of anodized aluminium, to allow the coiling of oxygenator tubing, avoiding handling difficulties and guaranteeing easy operations under GLP conditions.

Compatible with almost every perfusion circuit and culture chamber with hydraulic connections.

Organ holder
(cod. B022)



Cylindrical scaffold holders to house matrices of diverse dimensions for InBreath system.

All parts are autoclavable or, as an alternative, provided in sterile packages. Organ holders of different sizes for InBreath tubular constructs bioreactor.

Fully compliant with SKE Research Equipment® silk fibroin electrospun tubular scaffold.

MiniBreath
Cannulae
(Cod. B024)



Replacement cannulae and spacers of various sizes for MiniBreath system.

All parts are autoclavable.

Tubing

Platinum-cured silicone (cod. D012)



Tubing made of platinum-cured silicone, suitable for cell culture systems, with an high oxygen permeability.



Manufactured and packaged in a Class 7 clean room for pharmaceutical and biomedical applications. Completely autoclavable.

Available in different sizes (1/8"; 1/16"; 1/32").

PharMed® tubing (cod. D014)



PharMed® tubing is ideal for use in peristaltic pumps and cell cultures.



Completely autoclavable. PharMed® tubing is biocompatible and less permeable to gases and vapors than silicone tubing. Completely autoclavable.

Available in different sizes (1/8"; 1/16"; 1/32").

Tubing

Two-stop pump tubing (cod. D015)



Two-stop PharMed® pump tubing for peristaltic pump of InFlow perfusion system, made of PharMed® BPT, completely autoclavable.

Manufactured and packaged in a Class 7 clean room for pharmaceutical and biomedical applications. Completely autoclavable.

Available in different sizes (1/8"; 1/16"; 1/32").



Media Bottle

GL45 Media Bottle (cod. D004)



Clear borosilicate glass GL45 media bottle with GL45 blue PP cap.

Media Bottle (cod. D003)



Clear borosilicate glass GL25 and GL45 media bottle with GL25 red PP cap or GL45 blue PP cap. Completely autoclavable.

Different volumes available.

Barb Fittings

Male Luer-lock barb fittings (cod. D008)



These secure connectors ensure process integrity. Suitable for sterilization with autoclave.

Available in different sizes (1/16"; 3/32").

PP or nylon Luer adapters for hydraulic circuits.

Female Luer barb fittings (cod. D006)



Available in different sizes (1/16"; 3/32").

Cap Fittings

Female Luer cap fittings (cod. D007)



These secure connectors ensure process integrity. Suitable for sterilization with autoclave



PP or nylon Luer adapters for hydraulic circuits.



Male Luer-lock cap fittings (cod. D009)



These secure connectors ensure process integrity. Suitable for sterilization with autoclave



Barb Y fittings
(cod. D011)



These secure connectors ensure process integrity. Suitable for sterilization with autoclave.



PP or nylon Luer adapters for hydraulic circuits.

Female Luer to Female Luer adapter fittings
(cod. D005)



These secure connectors ensure process integrity. Suitable for sterilization with autoclave.



PP or nylon Luer adapters for hydraulic circuits.

Tubing pinch clamp
(cod. D019)



Provide quick and easy on/off control of fluids in flexible tubing. Suitable for sterilization in autoclave.

Available in different sizes
(Maximum tubing OD 3mm, 3,6mm, 5mm, 6,3mm).



Tubing pinch clamp, open or close clamps with the easy push of the thumb latch.

Luer-lock injection site
(cod. D018)



Luer-lock injection site, useful for sampling or injecting substances in your media bottle in an easier way, reducing risk of contamination.

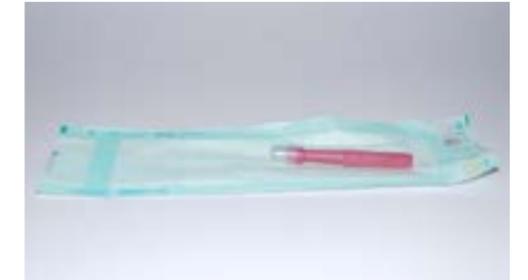
Provided in sterile single package.



Biopsy punch
(cod. D002)



Useful for punching porous and soft scaffolds for your 3D cell cultures. Size are clearly marked on each punch.



Sterile disposable biopsy punch, with a stainless steel blade and a ribbed handle.

Available in different sizes
(Diameter 4mm, 6mm, 8mm)

Self-sealing autoclave bags
(cod. D001)



Sterilization pouches made of surgical grade paper and polypropylene/polyester film. Easy-to-open lip closure, prefold self-adhesive strip, and flat seals ensure seal integrity.



Available in different sizes
(50x20 mm, 60x100 mm, 70x100 mm, 80x230 mm, 90x130 mm, 90x230 mm, 110x280 mm, 130x250 mm, 190x330 mm, 250x380 mm, 300x380 mm, 300x460 mm).

Self-sealing autoclave bags.

Luer filters
(cod. D016)



Highest protein retention of all membranes and good binding matrix for macromolecules. Provide fast flow rates with aqueous solutions.



Sterile nitrocellulose Luer filters, ideal as a sterile air-port for media reservoir.

Pore size 0.2 um. Membrane diameter 26 mm. Not autoclavable, provided in sterile single package.

Coverslip
(cod. D013)



Diameter 25 mm, thickness #1 (0,13 – 0,17 mm). Compatible with cell culture chambers and injection culture chambers.



Coverslips for culture chambers

O-ring
(cod. D021)



Spare parts, for perfusion chambers, culture chambers or injection culture chamber. Guarantee hydraulic seal, to avoid medium culture leakage.



Silicone culture chambers o-rings.

Barb connector for caps
(cod. D010)



SKE Research Equipment® designs this connector to help users to interface tubing with media bottle and special caps.



Surgical stainless steel barb connector with a threaded neck, to easily connect tubing with caps.

Compatible with GL45 and GL25 caps.

InFlow – Reservoir with multiport cap
(cod. D022)



Autoclavable culture medium reservoir for InFlow perfusion line.

The cap has an insert to host 4 tubing connectors.

InFlow – Tubing set and connectors
(cod. D023)



Available in different sizes (1/8"; 1/16"; 1/32"). Connectors available in different materials.



Tubing set and connectors replacement for a complete InFlow perfusion line.

Each line include platinum-cured silicone tubing, nylon connectors, clamps and Luer adapters pharmed tubes elongation, two-stop Pharmed pump tubing, for peristaltic pump. All parts are autoclavable or, as an alternative, provided in sterile packages.

AutoFeed – pH sensor
(cod. D024)



Autoclavable amperometric pH sensor replacement for AutoFeed system.

Gym silicone chamber
(cod. D025)



GYM stretching bioreactor silicone chamber spare part.



Gas-permeable transparent silicone culture chamber ensures the oxygenation and pH balancing of the culture medium. The silicone chamber is designed with rounded edges in order to avoid stagnation points and has no inlets, breaks, fissures, gaps or holes which could be targets for microbial contamination. Completely autoclavable.

Gym silicone lid
(cod. D026)



GYM stretching bioreactor silicone lid spare part.



Gas-permeable transparent silicone lid ensures the oxygenation and pH balancing of the culture medium. The silicone lid is designed with rounded edges in order to avoid stagnation points and has no inlets, breaks, fissures, gaps or holes which could be targets for microbial contamination. Completely autoclavable.

CUSTOMIZED PARTS

Silicone components
Customized parts



Biocompatible silicone chambers permeable to gases (to allow medium oxygenation in perfect sterile condition).

Scaffold holders of various sizes for perfusion system and custom made special parts. All parts are autoclavable or, as an alternative, provided in sterile packages.

Fully customizable on customer requirements.

Special fittings and connectors
Customized parts



Customized metal and plastic tubing connectors and pipe fittings to help you set up your perfusion or fluid handling system.

All parts are autoclavable or, as an alternative, provided in sterile packages.

Fully customizable on customer requirements.

Cell culture chambers
Customized parts



Coverslip holder designed for viewing live cell specimens on upright or inverted microscopes. customer requirements.

Available on different shapes, materials, accessories, coverslip dimensions. Fully customizable on customer requirements.

Perfusion chambers
Customized parts



Ergonomic culture chamber for a confined perfusion of scaffolds of different sizes.

Designed to maintain sterility inside the chamber, made of biocompatible and autoclavable materials. Easy to assemble and disassemble, in conformity with GLP requirements. Available on different shapes, materials, accessories, coverslip dimensions.

Fully customizable on customer requirements.

Bottle caps
Customized parts



Standard caps (GL45, GL25, etc) with customized inserts to host threaded connectors, special fittings, sensors, probes, heaters, filters and sample ports.

Available on different shapes, materials, accessories, coverslip dimensions. Fully customizable on customer requirements.

**MATERIAL
SCIENCE**

E-Fiber®
 Starter kit with basic features
 (cod. E001)



E-fiber is a fully-customisable electrospinning platform consisting of injection stages and application-specific collectors (static or movable), for the laboratory-scale manufacturing of polymeric-nanofibrous matrices.



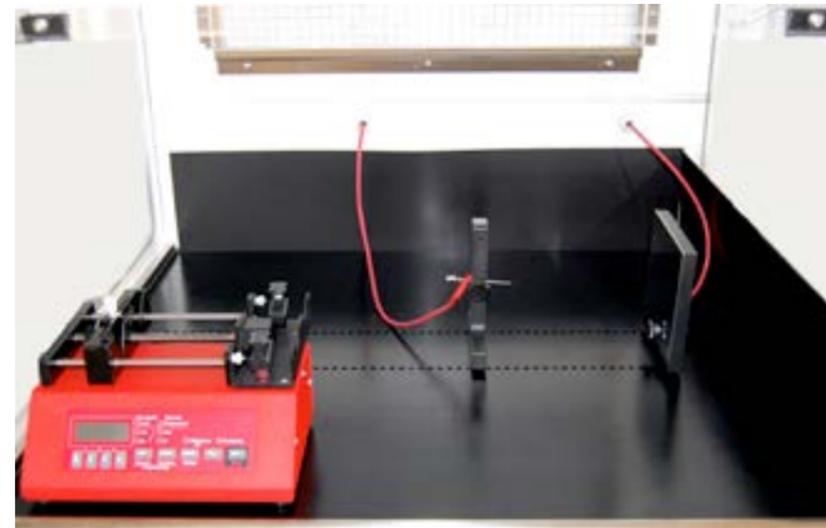
This device creates a powerful and highly versatile technique for the creation of various fibrous architectures with controlled fibre diameter and orientation. Its technology minimises influence on the electrospinning process. E-fiber offers various technological solutions to accurately control each process guaranteeing batch-to-batch reproducibility and precise control of fibre parameters such as diameter, orientation and texture. The equipment is user-friendly and safe thanks to the automatic safety devices that protect the operator.

E-Fiber starter kit, basic version, includes: high voltage power supply 0-40 kV, control system with LCD console, 1-channel syringe pump with external control, insulating base with distance adjusting, spinneret support, collector support and disposable kit.

Disposable kit includes 4 stainless steel spinneret of 2 different diameters, 2 stainless steel plate collectors, 50 syringes, tygon/ptfe tubing (25m), polypropylene male and female Luer connectors(25+25). Provided without cabinet (for customer with their own fume-hood system), or already installed in a TUV certified fume-hood with active carbon filter (customizable for specific solvent and chemical agents), in Desktop or standalone version.



E-Fiber®
Starter kit with advanced features
(cod. E002)



E-fiber is a fully-customisable electrospinning platform consisting of injection stages and application-specific collectors (static or movable), for the laboratory-scale manufacturing of polymeric-nanofibrous matrices.

This device creates a powerful and highly versatile technique for the creation of various fibrous architectures with controlled fibre diameter and orientation. Its technology minimises influence on the electrospinning process. E-fiber offers various technological solutions to accurately control each process guaranteeing batch-to-batch reproducibility and precise control of fibre parameters such as diameter, orientation and texture. The equipment is user-friendly and safe thanks to the automatic safety devices that protect the operator. E-Fiber starter kit, advanced version includes: high voltage power supply 0-40 kVolt, control system with LCD console, 2-channel syringe pump with external control, insulating base with distance adjusting, double spinneret support, collector support, coaxial spinneret and disposable kit.

Disposable kit includes 4 stainless steel spinneret of 2 different diameters, 2 stainless steel plate collectors, 50 syringes, tygon/ptfe tubing (25m), polypropylene male and female Luer connectors(25+25).
Provided without cabinet (for customer with their own fume-hood system), or already installed in a TUV certified fume-hood with active carbon filter (customizable for specific solvent and chemical agents), in Desktop or standalone version.
Double high-voltage power supply options for needleless technology upgrade or specific applications:
-30kvolt / + 30kVolt, -40kvolt / +40kVolt, -50kvolt / + 50kVolt,
(resulting in a 60kVolt, 80kVolt or 100kVolt electric field).

Spinneret needles

Spinneret needles (cod. E012)



Spinneret needles of standard and custom sizes, entirely made in stainless steel, with Luer lock connection.

Standard needle length 30 mm. Fully customizable according to customer requirements.

Coaxial spinneret needle (cod. E010)



Fully customizable on customer requirements.

Coaxial spinneret needles made of two coaxial needles, used to simultaneously electrospin up to two different polymers. This is generally used to create fibers whose core and shell are made of different materials. Ideal for research purposes. Detachable options for easy cleaning operations. Minimum dead volume.

Triaxial spinneret needle (cod. E013)



Fully customizable on customer requirements.

Triaxial spinneret needles, made of three coaxial needles, used to simultaneously electrospin up to three different polymers. Generally used to create fibers with core and shell made of different materials. Ideal for research purposes. Detachable options for easy cleaning operations. Minimum dead volume.

Special sizes spinneret needles (cod. E011)



Standard needle length 50 mm. Fully customizable according to customer requirements.

Plate collector (cod. E003)

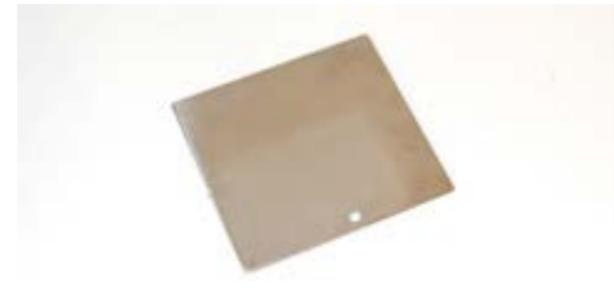
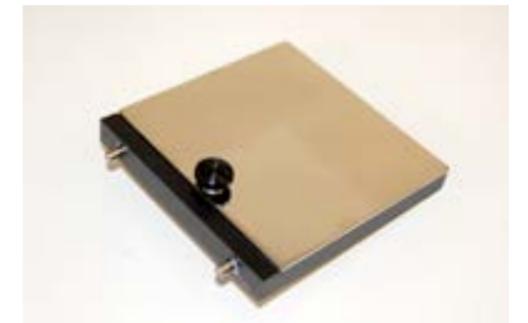


Plate collectors, entirely made of stainless steel with an high-quality polished surface finish.



To randomly collect fibers into a small planar matrix (for example 10x10 cm).

Fully customizable on customer requirements.

Spinneret support (cod. E005)



Spinneret support, entirely made of insulating material, with hooks for distance adjusting on the insulating base and insulated screws. 2 spinneret included.

Fully customizable on customer requirements.

Plate collector support
(cod. E004)

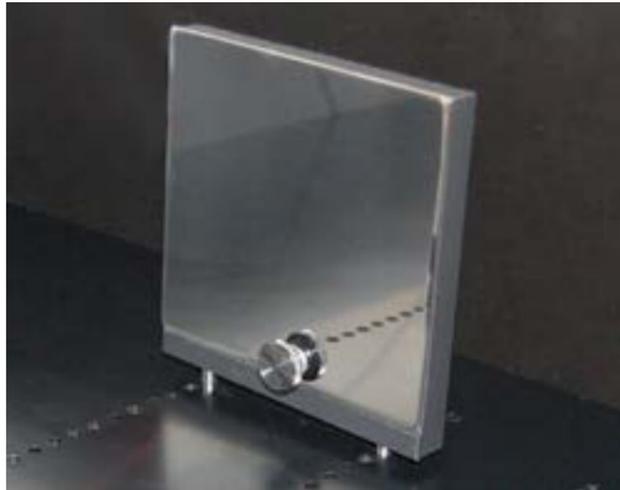


Plate collector support, entirely made of insulating material, with hooks for distance adjusting on the insulating base and insulated screw. One plate collector included.

Fully customizable on customer requirements.

Spinneret linear motion
(cod. E016)



Spinneret linear motion device to achieve greater static or rotating surface coverage. It is used to electrospin large planar formats (for example, A4 size or bigger) or long cylinders. Ideal for scaling-up application and small medium scale of manufacturing requirements.

Fully compatible with our E-fiber platform and our rotating collector. Easy keypad and LCD based user interface. Entirely made in plastic, in order to guarantee no interferences with electrical field and electrospinning process. Electronic feedback for a precise control over speed rotation, in order to guarantee highly reproducible batch-to-batch conditions.

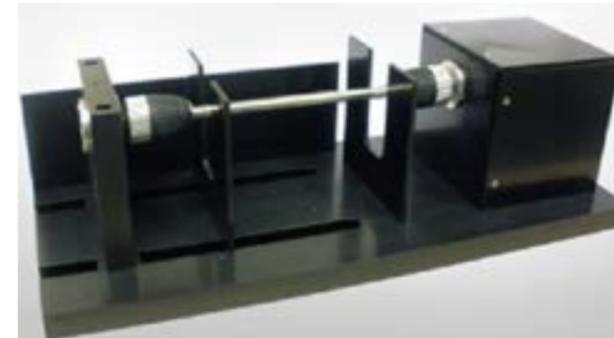


Multispinneret support
(cod. E007)



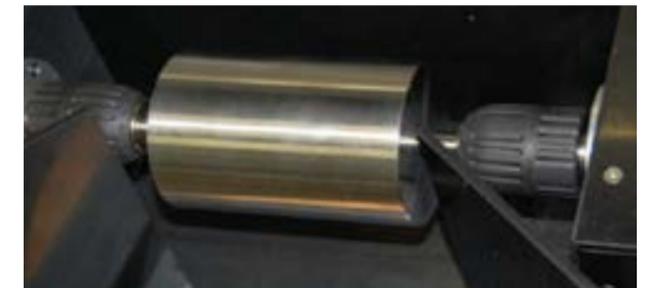
Insulating support to house up to a maximum of 12 spinnerets, used for large planar formats or continuous strip electrospinning machines. Multi-channel syringe pump needed.

Interchangeable size rotating collector system
(cod. E009)

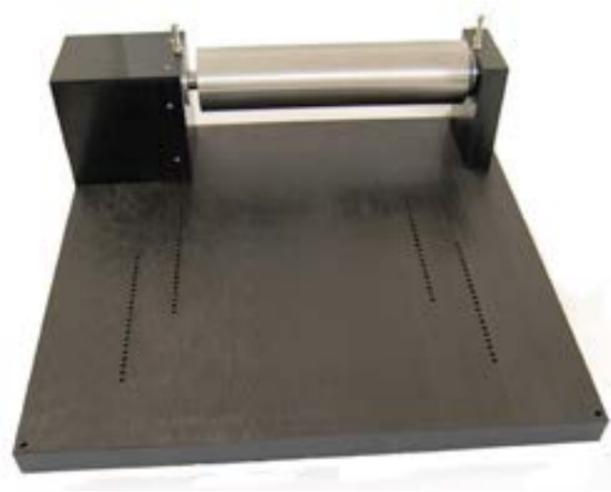


Rotating collector used to electrospin cylindrical or big planar structures with oriented and non-oriented fibers (depending on rotation speed).

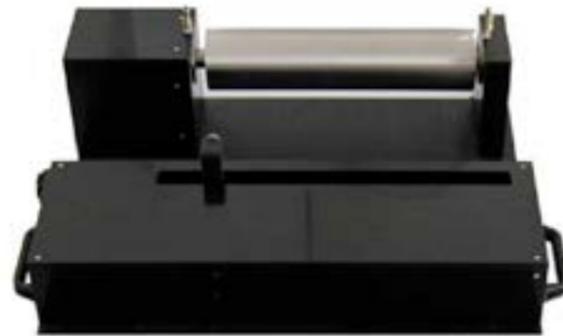
This version can house cylindrical collectors (mandrels) with different diameters and lengths and, because it is highly flexible and versatile, it is ideal for research applications. Supplied with 5 collectors of different diameters. Easy keypad and LCD based user interface. Entirely made in plastic, in order to guarantee no interferences with electrical field and electrospinning process. Electronic feedback for a precise control over speed rotation, in order to guarantee highly reproducible batch-to-batch conditions.



Fixed size rotating collector system
(cod. E015)



A motor-driven cylindrical collector, used for electrospinning cylindrical or big planar structures with oriented and non-oriented fibers (depending on rotation speed).



The fixed collector version is more suitable for applications intended for the production of material since it offers higher condition reproducibility. Easy keypad and LCD based user interface. Entirely made in plastic, in order to guarantee no interferences with electrical field and electrospinning process. Electronic feedback for a precise control over speed rotation, in order to guarantee highly reproducible batch-to-batch conditions.

Custom mandrels for rotating collector system
(cod. E006)



Variable diameter mandrels made according to customer specifications regarding length, diameter, material and surface finish.



Compatible with the interchangeable size rotating collector system.

ACCESSORIES

High-pressure syringe pump
(cod. E017)



Replaces the standard supplied syringe pump and is used to electrospin highly viscous solutions that require greater force to activate the syringe.

Multichannel Syringe pump
(cod. E018)



Replaces the standard supplied syringe pump and is used to electrospin high quantity of solution through multiple syringes, for big target collectors, or to use co- or tri-axial spinneret.

Available with two, four, eight and twelve channels. Compatible with multispinneret support.

Pump remote control
(cod. E019)



Control pedal or push button for the remote activation of the syringe pump's ON OFF function, useful outside hoods with lowered glass panel.

ACCESSORIES

High voltage power supply with controller
(cod. E020)



High voltage power supply 0-40 kVolt, other voltage on request. Double high-voltage power supply options for needleless technology upgrade or specific applications: -30kvolt / + 30kVolt, -40kvolt / +40kVolt, -50kvolt / + 50kVolt, (resulting in a 60kVolt, 80kVolt or 100kVolt electric field). CE and UL certified.

Disposable pack
(cod. E021)



Disposable kit includes 4 stainless steel spinneret of 2 different diameters, 2 stainless steel plate collectors, 50 syringes, tygon/ptfe tubing (25m), polypropylene male and female Luer connectors(25+25).

Benchtop fume hood with support
(cod. E022)

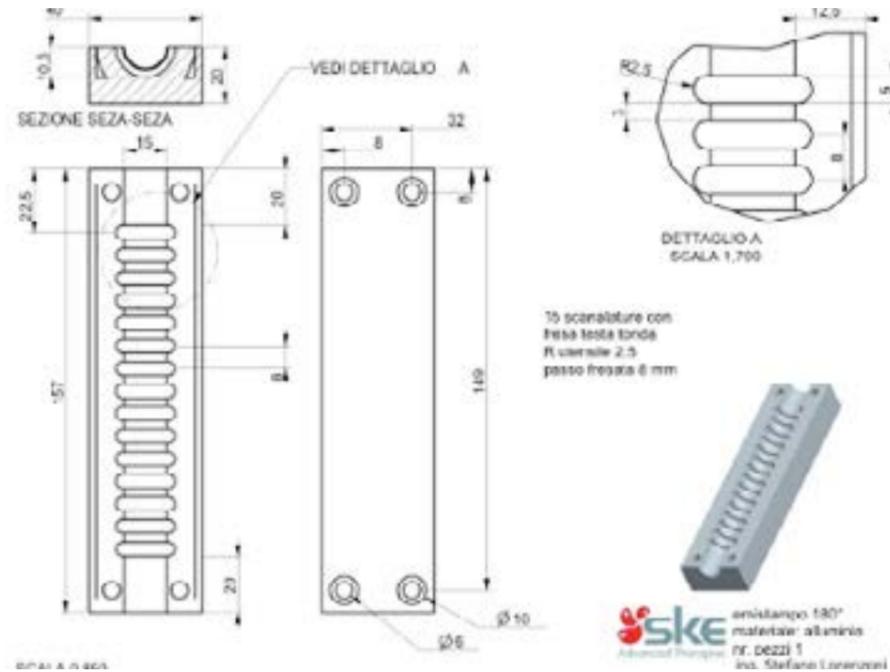
TUV certified fume-hood with active carbon filter (customizable for specific solvent and chemical agents), in Desktop or free-standing version. E-Fiber is completely integrated in the fume-hood. Available option: table, as support for the fumehood, for ready to use standalone E-Fiber system.



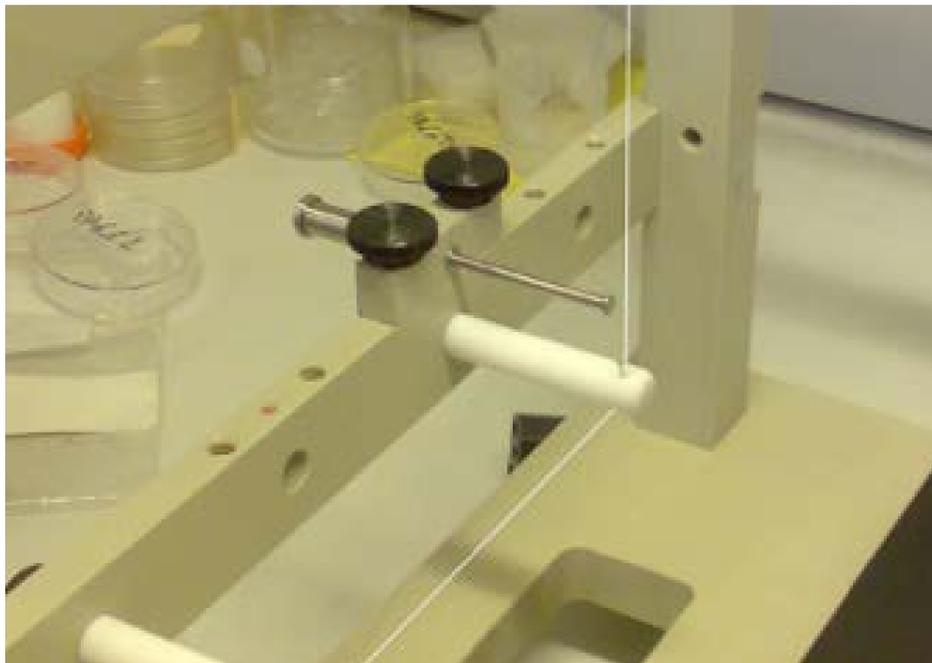
SERVICES

CUSTOM SYSTEM DESIGN

SKE Research Equipment® is well aware of the different needs researchers have to deal with on a day-to-day basis. For this reason, SKE Research Equipment® offers feasibility studies and in-depth investigations conducted with the client to decide on the best solution, and with its custom-made approach, develops systems starting right from the original concept, moving on to the design and manufacturing stages then to on-site installation and staff training.



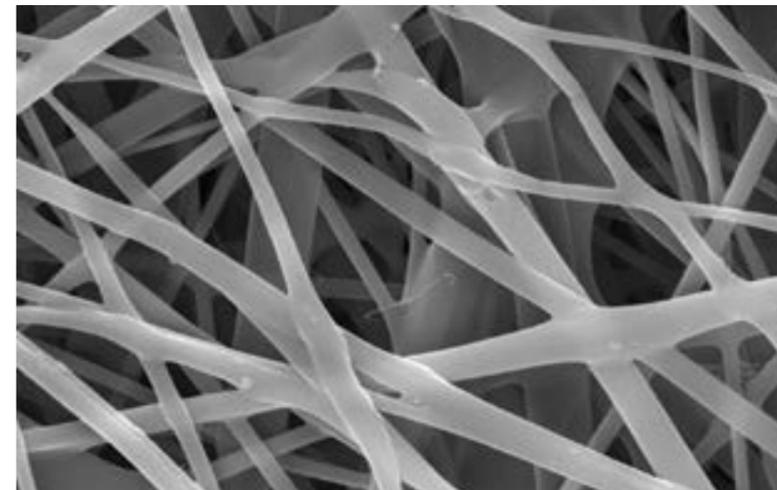
Mold for trachea engineered construct



System for coating a single fiber of nanofibers

R&D AND CONSULTANCY

In Life Science and Material Science sectors, optimising R&D activities is essential for companies wishing to improve their applications and their ability to innovate. We are well aware of this and provide clients with our experience and know-how in different engineering disciplines. Consultancy services related to regulations, project management (conceptual, basic & detail design, process design & validation, feasibility studies...) and engineering in general.



SEM analysis of a nanomaterial sample



Nanomaterial manufacturing for our customers

SOME SPECIFIC SERVICES WE OFFER:

- analyses and studies of new applications
- technical consultancy on materials and processes
- test and verification services for materials
- R&D for companies belonging to sectors dedicated to nanofibers and their applications
- feasibility studies on materials and technologies
- manufacturing of semi-finished and finished nano-material products

PRODUCT DEVELOPMENT

Product development is centred on finding the perfect balance between increasingly complex concepts, performance specifications and higher quality. Over the years, we assisted companies working in the disciplines of Life Sciences which did not have internal engineering expertise, either supplying the engineering know-how needed to develop new products or helping with and optimising existing activities, starting from the client's concept and going on to optimisation and manufacture.



Cellec U-cup engineering: from concept to final product design and manufacturing



Wireless monitor and control of clean room activities for quality management



System for coating a single fiber of nanofibers

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