

MIKROLAB FRISENETTE

RSI - Focus on ergonomic solutions

Version 3.2.0



Unilaterally stressful work

At Mikrolab - Frisenette, we develop effective but simple aids and laboratory equipment that make everyday life easier and enable employees to focus on their work tasks and their own safety. Read more about Mikrolab - Frisenette's ergonomic solutions in this folder.

Increased focus on the **working environment** and work processes

Unilaterally stressful work occurs in all industries and in many job categories and can lead to Repetitive Stress Injury (RSI). In unilaterally stressful work, fatigue, soreness, pain, swelling and stiffness in muscles, tendons and joints can occur in the short or long term - often with reduced functional capacity, reduced attention and increased risk of accidents.

The reason why one can get injuries as a result of unilaterally stressful work is believed to be related to a relatively long-term tension of the muscles, pressure on or stretching of the tissue, influence on the blood supply or nerves. The damage occurs especially in the musculoskeletal system - that is, the body's muscles, tendons, joints and associated vessels and nerve tissue. The injuries are most frequently seen in the neck, shoulders, arms and hands, but can occur in all areas of the body.

Mikrolab - Frisenette offers **ergonomic aids** that create **well-being** in the laboratory

For the laboratory technician, daily life in the laboratory is characterized by many repetitive routine tasks that place demands on the employee's physique and good habits in relation to the work routines.

Unilaterally stressful work includes, among other things:

- Repetitive work
- Static holding and carrying tasks
- Work in fixed working positions

This is unilateral stressful work, when you repeat the same work movements for a large part of the working day. Discomfort and injuries after unilateral stressful work are particularly linked to the neck, shoulders and arms. The risk of injuries is greater if you also work in poor working postures or if the work requires precision, power and concentration, such as e.g. by using hand tools for closing lids and pipetting.

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Ergonomic advantages

The PowerCrimp is an **ergonomic aid** that **protects the hands and wrists** during frequent crimping of capsules and **reduces the risk of occupational injuries**.

Focus on safety: End dangerous situations

Handling manual crimpers in fume hoods is difficult due to limited work space - with PowerCrimp, no effort is needed to handle crimpers and thus risk spilling liquids or other parts of the set-up. PowerCrimp relieves hands and wrists by automating the closure of vials. The laboratory's regular closing pliers are mounted in PowerCrimp and close the capsules with compressed air. Can also be used with opening pliers for removing capsules (decapper). PowerCrimp uses only compressed air, if there is no compressed air supply in the laboratory, a silent compressor can also be supplied with the equipment.

Streamlining routine tasks

The PowerCrimp requires no training or further instruction: connect compressed air, insert the closing pliers into the device and the device is ready for use. The closing pressure is easily adjusted and adapted to the various closing pliers and capsules. The closing pliers are easy to replace when crimping a different capsule diameter. PowerCrimp can be used on the table, in fume cupboards and in LAF benches. Contact us for a free trial for 3 weeks.

**TRY FOR
FREE**

SPECIFICATIONS

- Developed and produced in DK by Mikrolab - Frisenette A/S
- The closure head can be changed to the desired capsule size - standard sizes 8, 11, 13 and 20 mm
- Available with foot control, hand control or a combination of both. The hand switch is at table height, which provides a good operating position
- The closing pressure can be easily adjusted





Ergonomic solution that reduces chance of RSI

Closing capsules is completed quickly and easily - even when many have to be closed, which can cause sore hands and wrists due to manual force.

Avoid sore wrists with VariCrimp

Many laboratory employees find that the tiring routine tasks take a toll on their bodies. Closing capsules on vials with manual crimpers is a tough task when done many times a day. The VariCrimp relieves hands and wrists by automating the closure of vials. The operation is intuitive: When the foot pedal is activated, the capsule is pressed onto the vial, and only when the foot pedal is released is the pressure on the capsule released.

More gentle work process

VariCrimp streamlines routine tasks in the laboratory and helps to provide a faster, easier and much gentler work process in the laboratory. Users quickly feel the ergonomic benefits in everyday life. The device can be used on the table, in fume cupboards and in LAF benches.

VariCrimp can be used by anyone - no training required. VariCrimp uses only compressed air, if there is no compressed air supply, a quiet compressor can also be supplied with the equipment.

Contact us for a free trial for 3 weeks.

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SPECIFICATIONS

- Developed and produced in DK by Mikrolab - Frisenette A/S
- The closure head can be changed to the desired capsule size - standard sizes 8, 11, 13 and 20 mm
- Available with foot control, hand control or a combination of both. The hand switch is at table height, which provides a good operating position
- The closing pressure can be easily adjusted





SPECIFICATIONS

- Developed and produced in DK by Mikrolab - Frisenette A/S
- The SuperCrimp can be used for closing vials with capsule sizes of 8, 11, 13 and 20 mm
- Compressed air connection: 5-7 bar
- Requires no service and maintenance
- Minimal footprint and can therefore be used everywhere

Automation removes the risk of RSI

The SuperCrimp automates and streamlines the work process around closing vials and **saves hands and wrists for many repetitive closings.**

Ideal for larger closing tasks

With SuperCrimp, uniform closure of vials is ensured, and sources of error that occur when closing by hand are eliminated. SuperCrimp is ideal for closing typically up to approx. 1,000 vials daily. For SuperCrimp, closing heads and racks suitable for various types of glass can be supplied.

Silent technology that maintains a good working environment

The closing head is easy to replace if there is a need to close capsules with different diameters or designs. There is a built-in pressure regulator and manometer, so no additional installation is required before commissioning. SuperCrimp is easy to use.

Quick set-up and commissioning:

Connect compressed air and the correct closing head and the device is ready for use. There is room for 20 vials in 2 rows.

When the rack is in place, the start button is activated and the ten vials in row no. 1 are closed. The stand is then turned over, after which the 10 vials in row no. 2 are closed. Also available in a carousel model, where vials can be continuously inserted. The equipment requires compressed air. If there is no compressed air supply, a quiet compressor can also be supplied with the equipment. Contact us for a free trial for 3 weeks.

**ALSO
AVAILABLE AS
A CAROUSEL
MODEL**





Simple ergonomic solution

The PowerDisp is a **simple ergonomic solution** that **effectively reduces the strain on hands and shoulders** when dispensing/dosing.

Greater safety when handling liquids

With The PowerDisp, it is not necessary to move around the set-up - the user has his hands free to place vials, test tubes or other collection devices under the outlet hose, after which the dispensing is activated by pressing the foot pedal. The device can be attached to virtually all standard manual dispensers on the market and can be used inside and outside fume hoods. PowerDisp uses only compressed air, if there is no compressed air supply in the laboratory, a quiet compressor can also be supplied with the equipment.

Intuitive operation without training

Quick set-up and commissioning: Compressed air and foot pedal are connected to the control box and the unit is ready for use. On the control box, the compressed air is set according to the viscosity of the liquid, so that the liquid is dispensed with the right pressure. Mikrolab - Frisenette PowerDisp is a proven and simple technology that lasts for years of daily use. The dispenser itself is replaced with the same frequency as if it is used manually. Contact us for a free trial for 3 weeks.

NOTE: This version of PowerDisp is not suitable for sulfuric acid. It can be made in PVDF as desired.

**TRY FOR
FREE**

SPECIFICATIONS

- Developed and produced in DK by Mikrolab - Frisenette A/S
- The PowerDisp is available in two different sizes for 2.5-25 ml and 25-100 ml respectively
- Requires no service and maintenance
- Does not take up more space than bottles with manual dispensers
- Weight: 1 kg





Streamlining of routine tasks

The SuperDisp is perfect for more **precise and uniform dispensing tasks**. SuperDisp reduces risk of RSI for uniform tasks.

Greater precision when handling liquids

Perfect for dosing buffers or reagents. The dosing system is controlled by microprocessors and based on a valveless piston pump, which makes the dosing accuracy extremely good. SuperDisp can be supplied with a dosing handle with switch for start. The handle can have direct or wireless start of the pump, and as additional equipment the system can also be supplied with a foot pedal as a start switch.

Flexible equipment with many operating options

SuperDisp can dose a constant amount as well as measure varying amounts (quantities are entered). There is also the possibility of a series with repeated dosing of different amounts or dosing with a constant flow (ml or $\mu\text{l}/\text{min.}$) In addition, it is possible to enter a stop time for the dispensing. The SuperDisp is equipped with a calibration function that only requires one weighing after 100 pump strokes. The weighing result is entered, after which the equipment calculates the correction and is calibrated. It is possible to correct for the density of the liquid.

SPECIFICATIONS

- Developed and produced in DK by Mikrolab - Frisenette A/S
- The motor speed can be set manually
- The pump capacity (ml/pump stroke) is set manually
- Supplied as standard with a pump head that is variable in the range 0.1 - 0.7 ml/pump stroke. This range can be changed by using a different pump head





Simple design to prevent RSI

The EL-Skru45 is an electric screwdriver that **protects the hand and shoulder** when removing and attaching lids, thereby avoiding or reducing risk of RSI.

Auxiliary tool for routine tasks in the laboratory

The device automates and streamlines the work process around unscrewing and screwing lids at a smaller scale. This saves the user's hands and wrists from many repeated screwing movements. Mikrolab - Frisenette makes special screw heads which retain the lid and are therefore ideal for addition routines where the lid is unscrewed, liquid is added and the lid is screwed back on shortly afterwards.

Can be adapted to all sizes and types of lids

The machine is electrically powered and can either be set to continuous running or started with a foot pedal or hand switch. The direction of rotation can be reversed with a switch and the speed for unscrewing and screwing on can also be adjusted. The screw head can be replaced if there is a need to unscrew or screw on other sizes or types of lids.

Simple and intuitive everyday technology

EL-Skru45 can be used by anyone - no training required. Quick set-up and commissioning: connect to the socket, connect the foot pedal and the device is ready for use. Contact us for a free trial for 3 weeks.

SPECIFICATIONS

- Developed and produced in DK by Mikrolab - Frisenette A/S
- Requires no service and maintenance
- Tough and simple technology that lasts for years of daily use
- Minimal footprint and can therefore be used everywhere

TRY FOR
FREE





Save your hand and shoulder in your everyday worklife

The SuperSkruscrewdriver is a **powerful screwdriver** for unscrewing and screwing on lids, which is specially designed to **relieve the user's hands and shoulders**.

Many different screw heads

SuperSkruscrewdriver can be renewed with different screw heads and thus used for different lid types - screw heads are manufactured up to 60 mm, so that you can close both small and large bottles. SuperSkruscrewdriver is mounted in a lifting/lowering stand, where the handle guides the screwdriver down onto the layer. The machine starts automatically when the screw head hits the lid. The direction of rotation can be reversed by turning the black switch on the screwdriver. SuperSkruscrewdriver comes with a sea of different holder solutions - according to your needs. SuperSkruscrewdriver can also be supplied with balance suspension, which makes SuperSkruscrewdriver extremely flexible in use.

Simple tough technology that lasts for years

SuperSkruscrewdriver requires no training or further instruction: simply connect compressed air and SuperSkruscrewdriver is up and running. SuperSkruscrewdriver can be used on the table, in fume cupboards and in LAF benches. SuperSkruscrewdriver requires compressed air. When supplied from a central air supply, where the pressure can vary, a pressure regulator/water separator can be supplied. A quiet compressor can also be supplied if compressed air is not available nearby. Contact us to hear more about the possibilities.

ALSO
AVAILABLE
WITH A
BALANCE-
SUSPENSION

SPECIFICATIONS

- Developed and produced in DK by Mikrolab - Frisenette A/S
- Requires minimal service and maintenance - just a few drops of lubricating oil
- The screw head and holder are designed according to the user's needs
- Minimal footprint and can therefore be used everywhere





Ergonomic universal utility tool

The ErgoSkrus reduces **twisting in the wrist**, and effectively **reduces risk of RSI** when screw caps have to be closed and opened on bottles and tubes.

Automation of routine tasks

ErgoSkrus is designed so that both tube and screwdriver are fixed in the direction of rotation. This avoids twisting in the wrists and hands when the screw cap has to be tightened and loosened. ErgoSkrus ensures consistent screwing on and off, and eliminates sources of error that occur when closing by hand. The torque on the screw driver can be adjusted to suit different types of glass, tubes and bottles. The device can be purchased with a screw head, which holds the lid if it needs to be screwed back on shortly afterwards.

Intuitive operation and setup

No special training is required to operate the ErgoSkrus. Quick set-up and commissioning: Connect compressed air, correct stand and screw head and the device is ready for use. By pressing the button on the screw motor, you can quickly choose between unscrewing and screwing on. Can be adapted to all sizes or types of lids. The stand is not fixed and can be easily moved around the laboratory. ErgoSkrus can be used on the table, in fume cupboards and in LAF benches. ErgoSkrus uses only compressed air, if there is no compressed air supply in the laboratory, a quiet compressor can also be supplied with the equipment. Contact us to hear more about the possibilities.

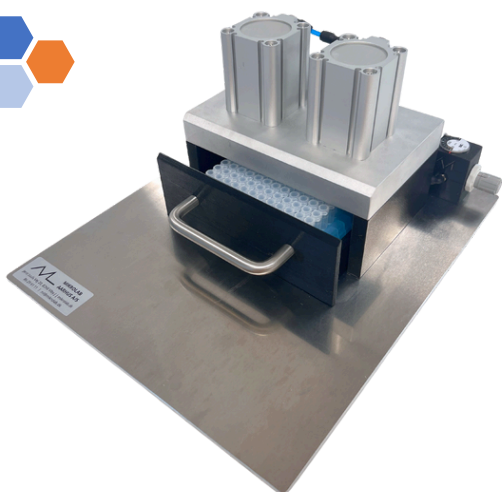
SPECIFICATIONS

- Developed and produced in DK by Mikrolab - Frisenette A/S
- Requires minimal service and maintenance - just a few drops of lubricating oil
- Screw head, stand and holder can be specially designed for the customer's needs
- Minimal footprint and can therefore be used everywhere



Simple aids for routine tasks in the laboratory

Mikrolab - Frisenette develops auxiliary tools that facilitate workflows in the laboratory. Among other things, to avoid discomfort when applying rubber mats and inserting adapters, Mikrolab - Frisenette has developed a mat press and a PowerPress for solid-phase extraction (SPE).



Easy and intuitive operation

The MatPress is an aid for pressing silicone/rubber mats onto microplates. The microtiter plate is placed in the drawer/frame and the mat is placed on it. The drawer is pushed in and the mat is automatically pressed on.

The application is simple and requires no manual force. Easy and intuitive to use. MatPress can be used both inside and outside fume hoods.

The equipment only requires compressed air. If there is no compressed air supply in the laboratory, a silent compressor can also be supplied with the equipment. The working pressure can be adjusted to the mats used.

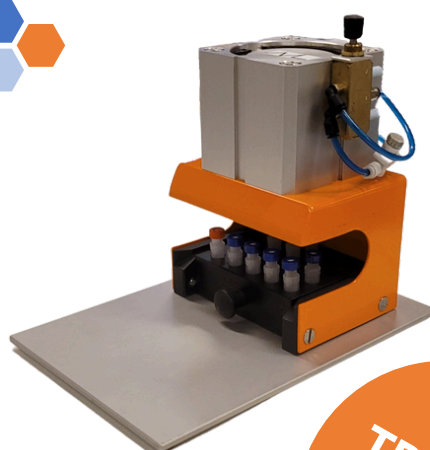


Simple aid

To save effort when inserting adapters into SPE columns for processing in Gilson Aspec, Mikrolab - Frisenette has manufactured a pneumatic mounting device that presses adapters into place in the column.

The equipment uses compressed air of 5 - 7 bar. The function is activated with a push button. The principle can of course be used for similar tasks in connection with other equipment or adapted to other tasks.

Contact Mikrolab - Frisenette for a free trial for 3 weeks.



**TRY FOR
FREE**



Efficient ergonomic auxiliary tool

The syringe-filter-press **effectively eliminates the strain of filtration tasks** and eliminates the risk of occupational injuries through physical EBA/EGA.

Minimizing time consumption on heavier filtration tasks

Manual spray filtration is a physically demanding process that strains the hands, arms and shoulders.

The Syringe-filter-press is an ergonomic auxiliary tool that streamlines the filtration process and performs the rough work of filtering with spray filters. The press uses compressed air and can be operated with one finger.

The pressure can be adjusted with the pressure regulator to get a suitable filtration speed. Easily replaceable adapters are used to adapt the holder to different sizes of syringes. With the syringe-filter-press, it does not matter if there is 5 or 50 filters, or if the filters require a few or many kilos of pressure.

Makes everyday life easier

The unit can be used inside and outside fume cupboards. The appliance is operated solely by means of compressed air. If there is no compressed air in the laboratory, a quiet compressor can also be delivered with the press. Contact us for a free trial for 3 weeks.

SPECIFICATIONS

- Developed and produced in DK by Mikrolab - Frisenette A/S
- Used for all syringe sizes and syringe filters
- Application temperature: 10-40°C
- Working pressure: 0.5 - 7 bar, inlet pressure max. 10 bars
- Can be modified to higher pressure on request
- Dimensions: 550 x 200 x 170 mm
- Weight: 2,3 kg



**ALSO
AVAILABLE AS
ELECTRIC
OR 3-POS**





The manufacturing of simple aids

Mikrolab - Frisenette supplies well-thought-out and comfortable aids that make everyday life easier and safer for the user in the laboratory.



Ergonomic handle for canisters

Mikrolab - Frisenette designs and manufactures ergonomic solutions that facilitate your workflows in the laboratory.

Do you have a can with a handle that is too small? Get in touch with us and we will design and manufacture a solution so that you can avoid damage due to Unilateral stressful work.

We also have a number of ergonomic handles for opening cans, bottles, etc. These are also specially designed by us for the lids that you want opened.

They can be manufactured in exactly the material that is needed.



NOTES



DIDN'T FIND WHAT YOU WERE LOOKING FOR?

At Mikrolab - Frisenette , we understand that every customer has unique specifications and requirements for customized ergonomic and automation equipment. Our customers' needs are never the same, which is why dialogue and processing are crucial. It is our customers who determine the size of the project, not us. In the development process, we will come up with ideas for possible functions and expansion options, but the customer has the last word when the specifications are to be determined. No project is too small or too big.

Let us evaluate your next automation challenge and we'll show you why our customers return to us time and time again.

Great service, Experts, Innovation



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