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More than surgery

# CYTOMETRY CATALOGUE

## Enabling better sample preparation for flow cytometry

MEDIMACHINE
SYSTEM



Classifications:
EU: GLU (General Laboratory Use)
USA: GLP (Good Laboratory Practice)

A standardized, fully mechanical, closed-disposable platform for single-cell suspension - engineered for reproducibility, operator safety and lab throughput.

# Instruments and consumables, working as one ecosystem.

A reliable single-cell suspension is the prerequisite for every flow cytometry analysis.



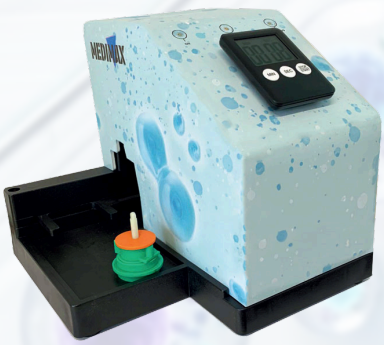


## WHAT THE MEDIMACHINE SYSTEM BRINGS:

- Reproducibility by design
- Automated, mechanical disaggregation independent of operator technique.
- Cleaner suspensions
- Combined dissociation + filtration reduces clumps and debris in one workflow.
- Operator safety
- Closed disposable unit limits direct contact with the biological sample.




**Fast**: from 10 second up to ~ 4 minutes depending on tissue type.
**Standardized output**, independent of operator technique.
**Reduces dependence** on enzymatic reagents and incubations.
**Single one-step procedure**: dissociate / withdraw / strain.



## SCAN THE QR CODE TO SEE THE VIDEO:

# MEDIMACHINE II Cod. 121600

## Homogenization / Dissociation system

The Medimachine II System is a device for the automated tissue dissociation to obtain single-cell suspensions.

Additionally, Medimachine II can be used for the homogenization of cells and tissues to extract biomolecules in molecular biology or protein biochemistry applications.

Medimachine II must be used with appropriate disposable devices with different technical characteristics depending on the procedure required.

It provides high-quality results for the extraction of molecules for the analysis of chemical residues, viruses, bacteria, etc.

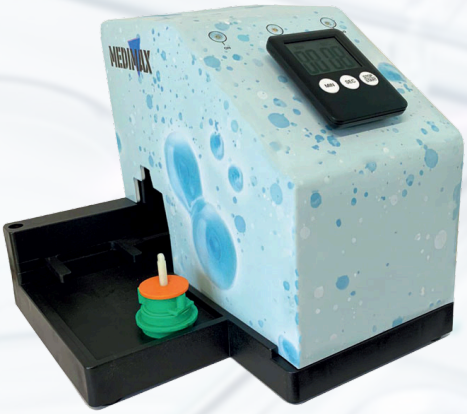
Various Medimachine II programs have been specifically developed to offer standardized procedures for gentle dissociation or fine homogenization of various samples.




- Power consumption: 120W
- Supply voltage: 85 ~ 264 VAC, 47-63 Hz
- Fuses: 2 x 2A121600
- Weight: 2,50 kg
- Sizes: 211 mm x 164 mm x 257 mm

# MEDIMAX 2.0 Cod. 79202

## Benchtop System for Cellular Standardization




- Supply voltage: 80 ~ 230 V (automatic selection)
- Weight: 2,50 Kg
- Sizes: 230 mm x 220 mm x 200 mm

Medimax 2.0 is a compact benchtop instrument, also ideal for use under a hood, designed to automate and standardize the preparation of biological samples. By providing constant torque and speed to Medicons devices, the system ensures optimal and reproducible cell suspension

**Main Features**

- Compact design: Space-saving benchtop instrument (230 mm x 220 mm x 200 mm), perfect for integration under a biofume hood.
- High standardization: Constant torque and speed for consistently uniform sample preparation.
- Single processing: Optimized for the accurate processing of one sample at a time.
- Maximum flexibility: Native slide for Medicons-Max (16 ml), convertible to standard Medicons (1 ml) via adapter rack.

## MEDICONS Cod. 79300N / 79300S



**Disposable disaggregator with 35µm** cut microblades stainless steel disk. HD/LD PE casing. Provided sterile and non-sterile.

The non-sterile Medicons code 79300N can be used for general laboratory use and for research, to obtain live single cells of size below 50µm.

The sterile Medicons code 79300S can be used for general laboratory use and for research and diagnostics to obtain live single cells of size below 50µm.

The stainless steel disk is made up of a fixed screen with about 100 hexagonal bore-holes, around each of which there are 6 microblades.

– It must be used by adding 1 ml to 1.2 ml of liquid solution plus the solid tissue sample.

– All kinds of fresh/frozen solid tissues can be processed.

Sample size: small parts of about 2 $mm^3$

Dilution: from 1 to 1,2 ml

Common tissues: **Skin biopsies, Lungs, Kidneys, Bones, Cartilage**

**For biopsies, 1 ml Medicons can be used for skin samples; for larger skin specimens, we recommend Medicons Max.**

## MEDICONS Codes: 79400N / 79400S



**Disposable disaggregator with 50µm** cut microblades stainless steel disk. HD/LD PE casing. Provided sterile and non-sterile.

The non sterile Medicons code 79400N can be used for general laboratory use and for research to obtain live single cells sized around 50µm.

The sterile Medicons code 79400S can be used for general laboratory use, research and diagnostics to obtain live single cells.

The stainless steel disk is made up of a fixed screen with about 100 hexagonal bore-holes, around each of which there are 6 microblades

– It must be used by adding 1 ml to 1.2 ml of liquid solution plus the solid tissue sample

– All types of fresh/frozen solid tissues can be treated

Sample size: small parts of about 2 $mm^3$

Dilution: from 1 to 1,2 ml

Common tissues: **Liver, Muscles, Heart, Adipose, Dermis, Connective tissue, Spleen, Kidney, Small intestine, Esophagus, Ovary, Bone, Cartilage**

## MEDICONS-P Cod. 79700N / 79700S



**Disposable disaggregator** with **70µm** cut microblades polymer disk. HD/LD PE casing. Provided sterile and non-sterile.

The non sterile Medicons code 79700N can be used for general laboratory use and for research to obtain live single cells and clusters of about 70µm.

The sterile Medicons code 79700S can be used for general laboratory use, research and diagnostics to obtain live single cells and clusters.

The polymer disk is made up of a fixed screen with about 100 squared bore-holes, around each of which there are 4 microblades.

– It must be used by adding 1 ml to 1.2 ml of liquid solution plus the solid tissue sample.

– All kinds of fresh/frozen solid tissues can be processed.

Sample size: small parts of about 2 $mm^3$

Dilution: from 1 to 1,2 ml

Common tissues: **Testicle, Lymph nodes, Intestine, Spleen, Kidney, Small intestine, Esophagus, Liver, Muscle, Heart, Adipose, Dermis, Connective tissue, Cerebral cortex, Ovary**

## MEDICONS MAX Cod. 79500N / 79500S



**Disposable disaggregator** with **50µm** cut microblades stainless steel disk. HD/LD PE casing. Provided sterile and non-sterile.

The non sterile Medicons code 79500N can be used for general laboratory use and for research to obtain live single cells sized around 50µm.

The sterile Medicons code 79500S can be used for general laboratory use, for research and diagnostics, to obtain live single cells sized around 50µm.

The stainless steel disk is made up of a fixed screen with hexagonal bore-holes, around each of which there are 6 microblades able to disaggregate all kind of tissues (fresh/frozen)

- It must be used by adding 16 ml of liquid solution plus the solid tissue sample

- Designed for plant biology and large volume samples

Sample size: small parts of about 4 $mm^3$

Dilution: 16 ml

Common tissues: **Skin, Plant tissues, Liver, Muscle, Heart, Adipose, Connective tissue, Spleen, Kidney, Small intestine, Esophagus, Ovary, Bone, Cartilage**

# FILCONS

**Disposable filters** for the separation of cells and nuclei by aspiration or compression.

FILCONS strainers, with different mesh sizes, can easily remove cell clumps and large particles from your sample after tissue dissociation and ensure that you have a uniform single-cell suspension.



## NON STERILE FILCONS

| | |
|---|---|
| 008-10N-S/1 | Syringe Fitting 10µm filter 100 pcs |
| 020-22N-S/1 | Syringe Fitting 20µm filter 100 pcs |
| 030-33N-S/1 | Syringe Fitting 30µm filter 100 pcs |
| 050-47N-S/1 | Syringe Fitting 50µm filter 100 pcs |
| 070-67N-S/1 | Syringe Fitting 70µm filter 100 pcs |
| 100-98N-S/1 | Syringe Fitting 100µm filter 100pcs |
| 200-20N-S/1 | Syringe Fitting 200µm filter 100pcs |
| 500-50N-S/1 | Syringe Fitting 500µm filter 100pcs |

| | |
|---|---|
| 108-10N-S/1 | Cup-Type 10µm filter 100 pcs |
| 120-22N-S/1 | Cup-Type 20µm filter 100 pcs |
| 130-33N-S/1 | Cup-Type 30µm filter 100 pcs |
| 150-47N-S/1 | Cup-Type 50µm filter 100 pcs |
| 170-67N-S/1 | Cup-Type 70µm filter 100 pcs |
| 200-98N-S/1 | Cup-Type 100µm filter 100 pcs |
| 220-20N-S/1 | Cup-Type 200µm filter 100 pcs |
| 550-50N-S/1 | Cup-Type 500µm filter 100 pcs |

## STERILE FILCONS

| | |
|---|---|
| 008-10S-S/1 | Syringe Fitting 10µm filter 100 pcs |
| 020-22S-S/1 | Syringe Fitting 20µm filter 100 pcs |
| 030-33S-S/1 | Syringe Fitting 30µm filter 100 pcs |
| 050-47S-S/1 | Syringe Fitting 50µm filter 100 pcs |
| 070-67S-S/1 | Syringe Fitting 70µm filter 100 pcs |
| 100-98S-S/1 | Syringe Fitting 100µm filter 100pcs |
| 200-20S-S/1 | Syringe Fitting 200µm filter 100pcs |
| 500-50S-S/1 | Syringe Fitting 500µm filter 100pcs |

| | |
|---|---|
| 108-10S-S/1 | Cup-Type 10µm filter 100 pcs |
| 120-22S-S/1 | Cup-Type 20µm filter 100 pcs |
| 130-33S-S/1 | Cup-Type 30µm filter 100 pcs |
| 150-47S-S/1 | Cup-Type 50µm filter 100 pcs |
| 170-67S-S/1 | Cup-Type 70µm filter 100 pcs |
| 200-98S-S/1 | Cup-Type 100µm filter 100 pcs |
| 220-20S-S/1 | Cup-Type 200µm filter 100 pcs |
| 550-50S-S/1 | Cup-Type 500µm filter 100 pcs |

**The strainers have smart features, such as:**

- Compatibility with 5 (Filcons) and 50ml (Filcons Max) conical tubes
- Prevent clogging with optimized ventilation
- Compact size for sterile handling
- Syringe fitting for bigger volumes, cup type for smaller volumes

**Filcons are the only cell strainers provided with syringe fitting on the market**

EXCLUSIVE

# FILCONS MAX

Filcons-Max is a disposable filter for separating cells and nuclei. It's porous membrane has an effective surface area of 660 mm2, enabling large quantities of cell suspensions to be filtered.

The microporous polyethylene funnel section is designed to pass the biological material to be retrived while trapping waste particles under 1.5µm in size. Filcons-Max must not be used more than once, as subsequent specimens could be contaminated. Before use, dampen the filter membrane with the medium that is going to be used for filtration.



Filcons-Max are only available as cup-type. They fit perfectly the 50 ml tubes as indicated in the pictures All packages contain 100 units. Non sterile Filcons-max are packed in 20 units/bag, Sterile FIlcons-Max are packed 1 unit/blister.

| | |
|---|---|
| 131M33N/1 | Filcons Max Non Sterile - 30µm - 100b units per box |
| 131M33S/1 | Filcons Max Sterile - 30µm - 100b units per box |
| 151M47N/1 | Filcons Max Non Sterile - 50µm - 100b units per box |
| 151M47S/1 | Filcons Max Sterile - 50µm - 100b units per box |
| 171M67N/1 | Filcons Max Non Sterile - 70µm - 100b units per box |
| 171M67S/1 | Filcons Max Sterile - 70µm - 100b units per box |
| 201M98N/1 | Filcons Max Non Sterile - 100µm - 100b units per box |
| 201M98S/1 | Filcons Max Sterile - 100µm - 100b units per box |

**Extended filtration option for larger or more demanding samples.**

**PRYPCONS and FOODcon7** provide high-quality results for the extraction of molecules for the analysis of chemical residues, viruses, bacteria, etc.

They are designed to spin up to 21k rpm without increasing sample temperature

## PRYPCONS Cod. 80300/48



It provides high-quality results for the extraction of molecules for the analysis of chemical residues, viruses, bacteria, etc.

Single use **homogenizer** for soft samples **up to 6 ml**.
Minimum package: 48 units/box.

**Samples:**

- brain, bone marrow and similar
- hones, yogurt, milk and similar
- fresh leaves, grass, cotyledons and similar



## FOODcon7 Cod. 82300/50

Single use **homogenizer** for samples **up to 25 ml**. Minimum package: 50 units/box.

**Samples**:

- brain, bone marrow and similar
- hones, yogurt, milk and similar
- fresh leaves, grass, cotyledons and similar

## Tissue preparation for surface antigen staining using the Medimachine system

This preparation protocol is suitable for fresh or frozen material.

**Warning**: Handle all biological specimens and materials with which they contact as if capable of transmitting infection. Dispose of waste using proper precautions in accordance with state and local regulations. Never pipette by mouth. Avoid specimen contact with skin and mucous membranes.

1. Dissect a small piece of tissue (10 – 20 $mm^3$) into 1 – 2 $mm^3$ portions and moisten with buffer or medium.
2. Prerinse the Medicons twice with 1 mL of buffer or medium.
3. Place tissue and 1 mL of buffer or medium in the Medicons. Replace the lid and insert the Medicons into the Medimachine unit.
4. Disaggregate tissue. The duration depends on the tissue type (see Disaggregation Timing Table).
5. Remove the suspension with a syringe through the syringe port on the Medicons.
6. Rinse the Medicons three times with 1 mL of buffer or medium.
7. Filter the suspension through a Filcon with the appropriate pore size (50-µm Filcons are suitable for most tissues, such as lymph nodes, tumors, and skin).
8. Rinse the Filcon three times with 1 mL of buffer or medium.
9. Centrifuge the suspension for 5 minutes at 250g.
10. Resuspend the pellet in the appropriate buffer or medium.
11. Repeat steps 3 through 10 if required.
12. Adjust the cell concentration to 5 x $10^5$ to 1 x $10^6$ cells/ml.
13. Incubate 100 mL of suspension for 15 – 30 minutes at 2°C – 8°C with the appropriate concentration of antibody.
14. Add 2 mL of cold buffer or medium (2°C – 8°C) and centrifuge for 5 minutes at 250g.
15. Resuspend the pellet in a buffer or medium.
16. Analyse the sample.

| Tissue | Quantity (1-2-$mm^3$ pieces) | Pulses | Duration | Conditions |
|---|---|---|---|---|
| **Breast** | 3-4 | two (2) times | 30 seconds | fresh or frozen |
| **Bladder** | 4-5 | two (2) times | 20 seconds | fresh or frozen |
| **Colon** | 3-6 | two (2) times | 20 seconds | fresh or frozen |
| **Stomach** | 4-6 | two (2) times | 20 seconds | fresh or frozen |
| **Marginal tissue of stomach tumor** | 3-6 | two (2) times | 20 seconds | fresh or frozen |
| **Healthy tissue, stomach tumor** | 3-4 | two (2) times | 20 seconds | fresh or frozen |
| **Lymph node** | 3-6 | two (2) times | 15 seconds | fresh or frozen |
| **Spleen** | 3-6 | two (2) times | 15 seconds | fresh or frozen |
| **Liver** | 3-6 | two (2) times | 15 seconds | fresh or frozen |
| **Ovary** | 3-6 | two (2) times | 30 seconds | fresh or frozen |
| **Prostate** | 2-3 | two (2) times | 35 seconds | fresh or frozen |
| **Brain** | 3-6 | one (1) time | 10 seconds | fresh or frozen |
| **Lung** | 2-3 | two (2) times | 30 seconds | fresh or frozen |
| **Uterus** | 3-6 | one (1) time | 60 seconds | fresh or frozen |
| **Skin** | 3-4 | one (1) time | 45 seconds | fresh or frozen |

**Note**: *The times were validated by Assut Europe but should be adapted to your laboratory and validated for each tissue type you process.*

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