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1. Description

This product is for research use only.

Components	<p>1 SuperMACS™ II Separator mounted on a stainless steel stand</p> <p>Column adapters:</p> <ul style="list-style-type: none"> • 1 adapter for MS, LS, and LD Columns • 1 adapter for XS Columns • 1 adapter for D Columns <p>1 MACS® Acrylic Tube Rack (# 130-041-406)</p> <p>1 pair of pliers for use with D Columns</p>
Storage	Store the SuperMACS II Separator and adapters dry and at 15–35 °C. Do not store the MACS Separator under a corrosive atmosphere, for example, in a chemical hood.
Maintenance	The SuperMACS II Separator and the column adapters are sensitive to aggressive media, for example, acetone and heat. Do not autoclave the SuperMACS II Separator. The MACS Separator can be cleaned with a soft cleansing tissue and a mild detergent, and disinfected using 70% ethanol. Do not drop the MACS Separator.



▲ The SuperMACS II Separator is equipped with an extremely powerful magnet. Its magnetic field can damage computers, watches, electronic storage media, and other objects sensitive to magnetic fields. Never allow the SuperMACS II Separator to be closer than 30 cm to any magnetically sensitive object.

1.1 Background information

The MACS Separation system is developed to separate human and animal cells. Moreover it can be used for the separation of plant protoplasts, bacteria, cell organelles, and other bioparticles. The material to be separated, for example, cells, is first magnetically labeled with superparamagnetic MACS MicroBeads. After magnetic labeling, cells are passed through a MACS Column which is placed in the strong permanent magnet of the MACS Separator. The ferromagnetic spheres in the column amplify the magnetic field by 10,000-fold, thus inducing a high gradient. Unlabeled cells pass through while magnetically labeled cells are retained within the column. After removal of the column from the magnetic field, the retained fraction can be eluted. Both fractions, labeled and non-labeled, are completely recovered.

1.2 Applications

The SuperMACS II Separator allows the performance of MACS Separations in combination with MS Columns (# 130-042-201), LS Columns (# 130-042-401), XS Columns (# 130-041-202), LD Columns (# 130-042-901), D Columns (#130-041-201), or Whole Blood Columns (# 130-093-545):

- MS Columns for positive selection or depletion
- LS Columns for positive selection or depletion
- XS Columns for positive selection or depletion
- LD Columns for depletion
- D Columns for depletion
- Whole Blood Columns for positive selection of cells directly from whole blood

The SuperMACS II Separator is provided with three column adapters to insert MACS Columns into the magnetic field. It is delivered with a mounted adapter for D Columns. The adapter for MS, LS, and LD Columns and the adapter for XS Columns are stored on the back of the separator.

For details refer to the respective MACS Column data sheets.

2. Technical specifications

- Weight of the SuperMACS™ II Separator and stand: 17.5 kg
- Size of the stand: 490×390×510 mm (W×D×H)

3. Instructions for use of the SuperMACS™ II Separator

The SuperMACS™ II Separator can be used with different MACS® Columns in combination with the appropriate adapters for MS, LS, and LD Columns (figure 2B), for XS Columns (figure 2C), and for D Columns (figure 2A).

The SuperMACS II Separator is delivered with a mounted adapter for D Columns. To change the adapter, move the column adapter holder out of the magnetic field by turning the handle. Twist off the screw on the bottom of the 3-way stopcock holder and pull the 3-way stopcock holder down. Remove the adapter by lifting upward.

Column adapters can be stored on the back of the SuperMACS II Separator.

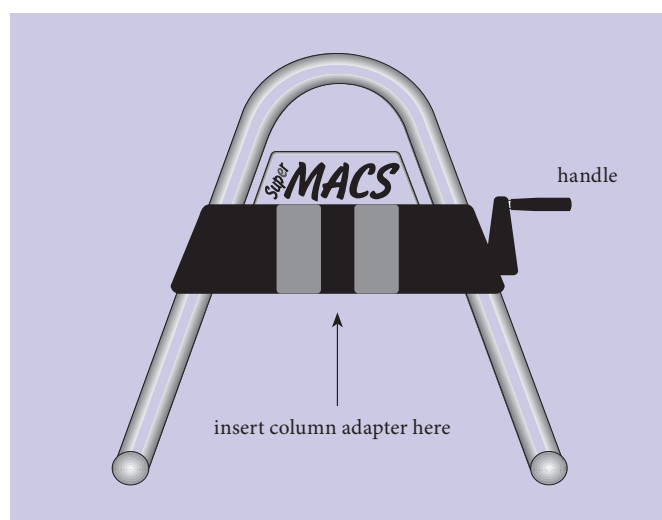


Figure 1: SuperMACS II Separator (front view).

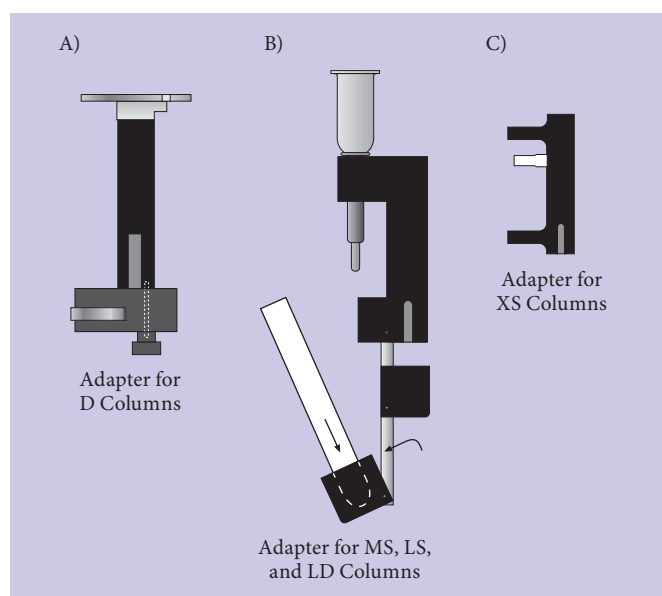


Figure 2: Side view of adapters for D Columns (A), MS, LS, and LD Columns (B), and XS Columns (C), provided with the SuperMACS II Separator.

3.1 Insertion of the adapter for D Columns

1. Move the column adapter holder out of the magnetic field by turning the handle.
2. Insert the adapter for D Columns from above with the notch down on the right (figure 3A and 3B).
3. Attach the 3-way stopcock holder to the bottom of the column adapter.
4. Place the assembled D Column with adjusted 3-way stopcock in the column adapter and secure with the lever (figure 3C). For details refer to the respective MACS Column data sheet.
5. Move the column adapter into the magnetic field by turning the handle.
6. Proceed to cell separation. For details refer to the respective MACS Column and Cell Separation Reagent data sheets.

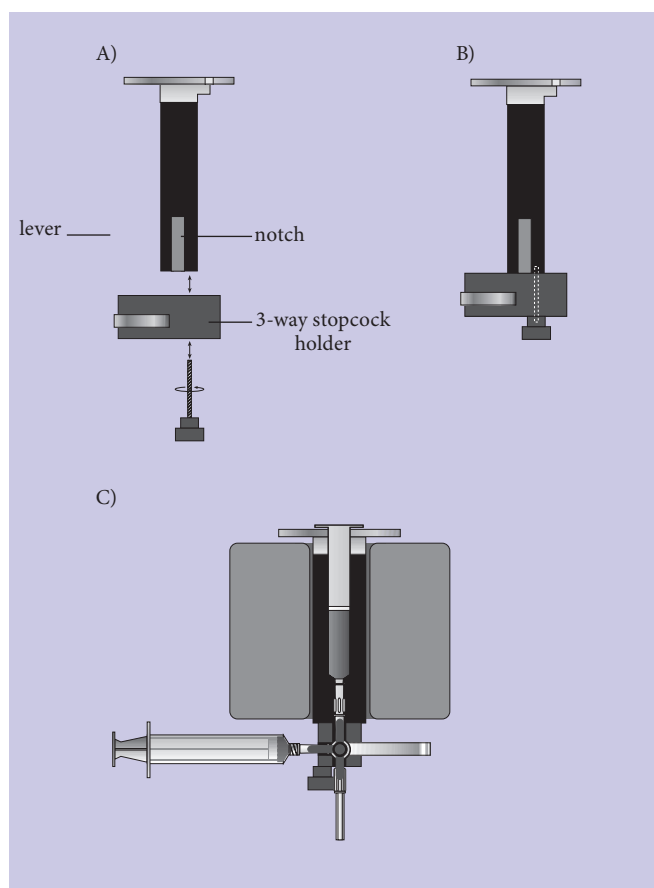
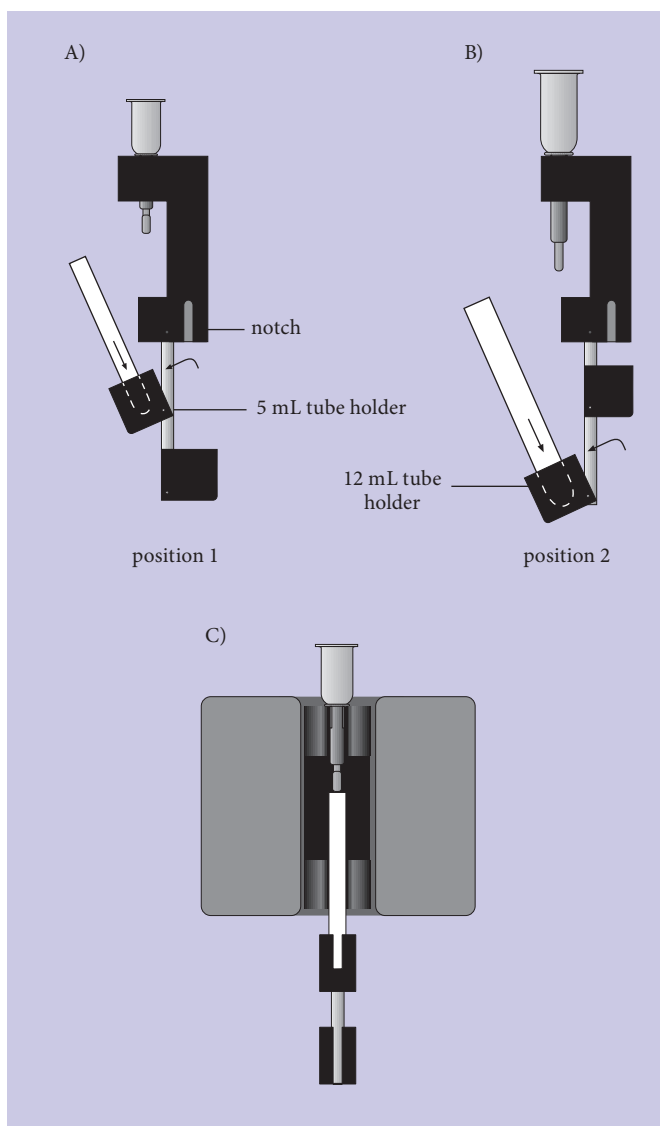


Figure 3: Assembly of adapters for D Columns in side view (A), (B) and front view (C).

3.2 Insertion of the adapter for MS, LS, and LD Columns

1. Move the column adapter holder out of the magnetic field by turning the handle.
2. Insert the adapter for MS, LS, and LD Columns from above with the notch down on the right and the 12 mL tube holder to the back (position 1).
3. Place the MS, LS, LD, or Whole Blood Column in the column adapter.
4. Using the MS Column, place a 5 mL tube in the upper tube holder (figure 4A). Using LS, LD, or Whole Blood Columns, turn the tube holder to position 2 and place a 12 mL tube in the lower tube holder (figure 4B).
5. Move the column adapter into the magnetic field by turning the handle.
6. Proceed to cell separation. For details refer to the respective MACS® Column and Cell Separation Reagent data sheets.



3.3 Insertion of the adapter for XS Columns

1. Move the column adapter holder out of the magnetic field by turning the handle.
2. Insert the adapter for XS Columns from above with the notch down on the right.
3. Place the assembled XS Column in the adapter. For details refer to XS Column data sheet.
4. Move the column adapter into the magnetic field by turning the handle.
5. Proceed to cell separation. For details refer to XS Column and Cell Separation Reagent data sheets.

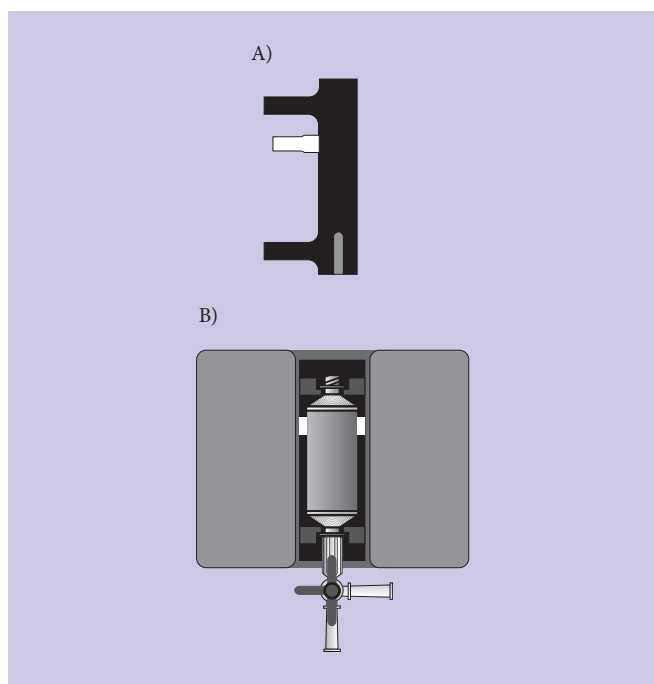


Figure 5: Assembly of the adapter for XS Columns in side view (A) and front view (B)

Refer to www.miltenyibiotec.com for all data sheets and protocols. Miltenyi Biotec provides technical support worldwide. Visit www.miltenyibiotec.com/local to find your nearest Miltenyi Biotec contact.

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