



Sunlight Medical Assisted Reproduction Microtools

Founded in 1987, Cryo Bio System is a division of IMV Technologies,
the world leader in animal reproduction biotechnologies.

Cryo Bio System is exclusively dedicated to human life sciences and biodiversity.

Combined with IMV Technologies Group's expertise in cryopreservation of biological samples, Cryo Bio System provides innovative solutions to the scientific community through a range of High Security storage products for biorepositories, biobanks and biological resources centres in various fields and applications.



Our international presence through subsidiaries (Italy, Netherlands, United States, China and India), and a network of distributors in over 60 countries offers customers both high quality products and expert technical support.

This catalog demonstrates our commitment to the Assisted Reproductive Technologies (ART) field with a complete product line that meets, in particular, all requirements of cryopreservation.

The solutions we have designed for humans make it possible to deep-freeze sperm, embryos, ovarian cortex, as well as to vitrify oocytes and embryos at various stages. We also have developed the unique concept of long-term high-security cryopreservation, an essential guarantee of storage safety and quality for all samples.

Select an ICSI Pipette that is best for your need !

Sunlight Medical offers three types of spiked ICSI injection pipettes for our diversified customers. The table below summarizes their differences, characteristics and advantages.

V Type



Characteristics:

- Short taper
- Long parallel wall section
- Standard tip to elbow length (0.55 mm)

Advantages:

- Smooth control of sperm injection and cytoplasm suction
- Less cytoplasm draws back when breaking oocyte membrane
- Less damage to oocyte
- Better fertilization and embryo development
- Multiple sperm can be loaded and injected

Dis-advantages:

- May not be easy in immobilizing sperm for some embryologists who need press down very hard on sperm tail

H Type



Characteristics:

- Longer taper
- Short parallel wall
- Longer tip to elbow length (0.75 mm)

Advantages:

- Multiple sperm can be loaded and injected
- Smooth control of sperm injection
- Less damage to oocyte
- Better fertilization and embryo development

Dis-advantages:

- Sperm may turn around when loading and injecting multiple sperm

W Type



Characteristics:

- Short taper
- No parallel wall
- Longer parallel wall section
- Standard tip to elbow length (0.55 mm)

Advantages:

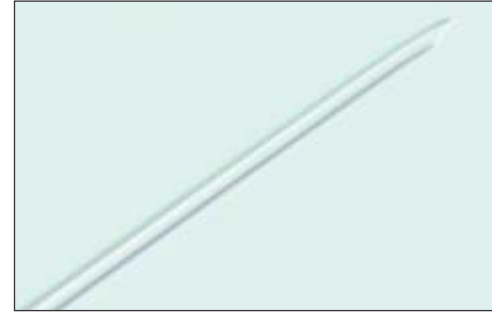
- Strong and less flexible tip, so easy in immobilizing sperm

Dis-advantages:

- May suck lots of cytoplasm, especially for people who are not familiar with this type of pipette
- Sperm may turn around when loading and injecting multiple sperm

ICSI Injection Pipettes

- SLM ICSI Injection Pipettes are used to perform intracytoplasmic sperm injection (ICSI).
- SLM offers three types of spiked and two types of non-spiked ICSI Injection Pipettes. See page 3 for details.
- SLM offers three sizes of ICSI Injection Pipette.
- All our injection pipettes are supplied with an angle of 0° - 45° and a tip to elbow length of 0.55 mm and 1.0 mm.



Catalogue No.	Size	Tip Style	Tip to Elbow Length	Tip Angle degree
SIC-45V-xx SIC-45V-xxL SIC-45W-xx SIC-45W-xxL SIC-45H-xx	ID: 4.0 - 4.5 µm OD: 5 - 6 µm	Spiked tip	xx - 0.55 mm xxL - 1.0 mm	xx - 0°, 5°, 10°, 15°, 20°, 25°, 30°, 35°, 40°, 45°
SIC-45T-xx SIC-45T-xxL SIC-45N-xx SIC-45N-xxL	ID: 4.0 - 4.5 µm OD: 5 - 6 µm	Non Spiked tip	xx - 0.55 mm xxL - 1.0 mm	xx - 0°, 5°, 10°, 15°, 20°, 25°, 30°, 35°, 40°, 45°
SIC-50V-xx SIC-50V-xxL SIC-50W-xx SIC-50W-xxL SIC-50H-xx	ID: 4.5 - 5.0 µm OD: 6 - 7 µm	Spiked tip	xx - 0.55 mm xxL - 1.0 mm	xx - 0°, 5°, 10°, 15°, 20°, 25°, 30°, 35°, 40°, 45°
SIC-55V-xx SIC-55V-xxL SIC-55W-xx SIC-55W-xxL SIC-55H-xx	ID: 5.0 - 5.5 µm OD: 6 - 7 µm	Spiked tip	xx - 0.55 mm xxL - 1.0 mm	xx - 0°, 5°, 10°, 15°, 20°, 25°, 30°, 35°, 40°, 45°

Holding Pipettes

- SLM Holding Pipettes are used to hold an oocyte or embryo in position during ICSI and other micro-manipulation procedures.
- There are three series and six sizes for selection. The classic series has an ID 15-20 μm and OD in 90 μm , 100 μm , 120 μm and 130 μm . The 'S' series has smaller ID (10-15 μm). The 'B' series has an ID 25-30 μm and OD in 120 μm , 130 μm and 180 μm . The 'B' series may be used for holding an oocyte with cumulus cells attached and for embryo biopsy.
- All our holding pipettes are supplied with a tip angle of $0^\circ - 45^\circ$ and a tip to elbow length of 0.65 mm.
- Packed in a box of 10.

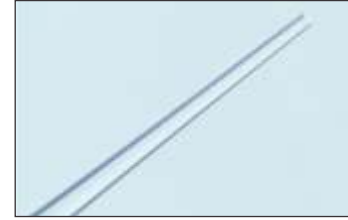


Ordering Information

Catalogue No.	Outer Diameter (μm)	Inner Diameter (μm)	Tip Angle degree
SHP-70S-xx	70 ± 5	10 - 15	xx - $0^\circ, 5^\circ, 10^\circ, 15^\circ, 20^\circ,$ $25^\circ, 30^\circ, 35^\circ, 40^\circ, 45^\circ$
SHP-90-xx	90 ± 5	15 - 20	
SHP-100-xx	100 ± 5	15 - 20	
SHP-120-xx	120 ± 5	15 - 20	
SHP-120B-xx	120 ± 5	25 - 30	
SHP-130-xx	130 ± 5	15 - 20	
SHP-130B-xx	130 ± 5	25 - 30	
SHP-180B-xx	175 ± 5	25 - 30	

Zona Drilling Pipettes

- SLM Zona Drilling Pipettes are used to apply acidic solution for creating a hole on the zona pellucida to enable assisted hatching and /or embryo biopsy.
- There are two sizes available for selection: ID 8 -10 μm and ID 10-12 μm . These pipettes are designed with a slightly fire polished tip.
- They are supplied with 0° - 45° tip angle and a tip to elbow length of 0.55 mm.



Catalogue No.	Inner Diameter (μm)	Tip Style	Tip Angle degree
SZD-10-xx	8 - 10	Flat	20° , 25° , 30° , 35°
SZD-12-xx	10 - 12	Flat	20° , 25° , 30° , 35°

Polar Body Biopsy Pipettes

- SLM Polar Body Biopsy Pipettes are used to remove polar bodies from human oocytes and embryos for pre-implantation genetic diagnosis (PGD).
- There are three series of pipettes available for selection: 15Z (flat tip), 15X (beveled tip) and 15S (spiked tip).
- All these pipettes are designed with a fire polished edge to avoid damage to the cell membrane.
- They are supplied with a tip angle of 0° - 45° and a tip to elbow length of 0.55mm.



Catalogue No.	Inner Diameter (μm)	Tip Style	Tip Angle degree
SPB-15Z-xx	13 - 15	Flat	20° , 25° , 30° , 35°
SPB-15X-xx	13 - 15	Beveled	20° , 25° , 30° , 35°
SPB-15S-xx	13 - 15	Beveled & Spiked	20° , 25° , 30° , 35°

Blastomere Biopsy Pipettes

- SLM Blastomere Biopsy Pipettes are used to remove blastomeres and trophectoderm cells from embryos for pre-implantation genetic diagnosis (PGD).
- There are five sizes and two series available for selection. The 'Z' series is flat tip while the 'X' series is beveled tip. Both styles are supplied with an ID in 20 μm , 25 μm , 30 μm , 35 μm and 40 μm . Size 20 μm and 25 μm are recommended for trophectoderm (TE) biopsy.
- There is no shrinkage at the bending section, so less likely to damage blastomere in case it is sucked through.
- All tips are fire polished to reduce damage to the cell membrane.
- They are supplied with a tip angle of 0° - 45° and a tip to elbow length of 0.55 mm.



For trophectoderm (TE) biopsy use ID 20 μm and 25 μm pipettes

Catalogue No.	Tip Style	Inner Diameter (μm)	Tip Angle degree
SBB-20Z-xx	Flat	20 \pm 0.2	xx - 0°, 5°, 10°, 15°, 20°, 25°, 30°, 35°, 40°, 45°
SBB-25Z-xx	Flat	25 \pm 0.2	
SBB-30Z-xx	Flat	30 \pm 0.2	
SBB-35Z-xx	Flat	35 \pm 0.2	
SBB-40Z-xx	Flat	40 \pm 0.2	
SBB-20X-xx	Beveled	20 \pm 0.2	xx - 0°, 5°, 10°, 15°, 20°, 25°, 30°, 35°, 40°, 45°
SBB-25X-xx	Beveled	25 \pm 0.2	
SBB-30X-xx	Beveled	30 \pm 0.2	
SBB-35X-xx	Beveled	35 \pm 0.2	
SBB-40X-xx	Beveled	40 \pm 0.2	

PZD Pipettes

- SLM PZD Pipettes are used to cut an opening on the zona pellucida of an oocyte mechanically to enable assisted hatching and/or embryo biopsy.
- The pipette is designed with a very sharp tip and a strong taper section for easy control and precision manipulation.
- They are supplied with 0° - 45° tip angle and a tip to elbow length of 0.55 mm.



Catalogue No.	Description	Tip Angle degree
SPD-30	Solid sharp tip	30

Instructions for use:

- To open the case, hold the case as shown in Figure 1. Make sure that “Sunlight” mark is up facing your right hand.
- Using your left index finger and thumb press the case on both sides marked “IIIII” then using your right index finger and thumb pull the top cover as shown in Figure 2.
- Hold firmly the pipette in the middle and gently pull it out from the base as shown in Figure 3.

Caution: Consult accompanying document • Do not reuse • Latex free
• Sterilized using irradiation • Do not use if package is damaged
• Store dry at room temperature • Keep away from Sun ray



Figure 1



Figure 2



Figure 3

Denuding Pipettes

- SLM Denuding Pipettes are used with SLM 3-in-One Pipette controller for denudation and gametes and embryo transfer.
- The pipettes are made of borosilicate glass which is known for its stability and is resistant to corrosion and remains absolutely neutral, even to aggressive chemicals in nearly all fields of chemistry.
- The glass pipette has better wetting feature comparing to plastic one and is less likely to have oil drops attached inside which can sometimes damage an oocyte and embryo.
- Unpolished pipettes are used to remove cumulus cells attached to the zona prior to micro manipulation procedures and fertilization assessment.
- Polished pipettes are used to transfer blastomere (during PGS), oocytes and embryos from one dish to another during other assisted reproduction procedures.



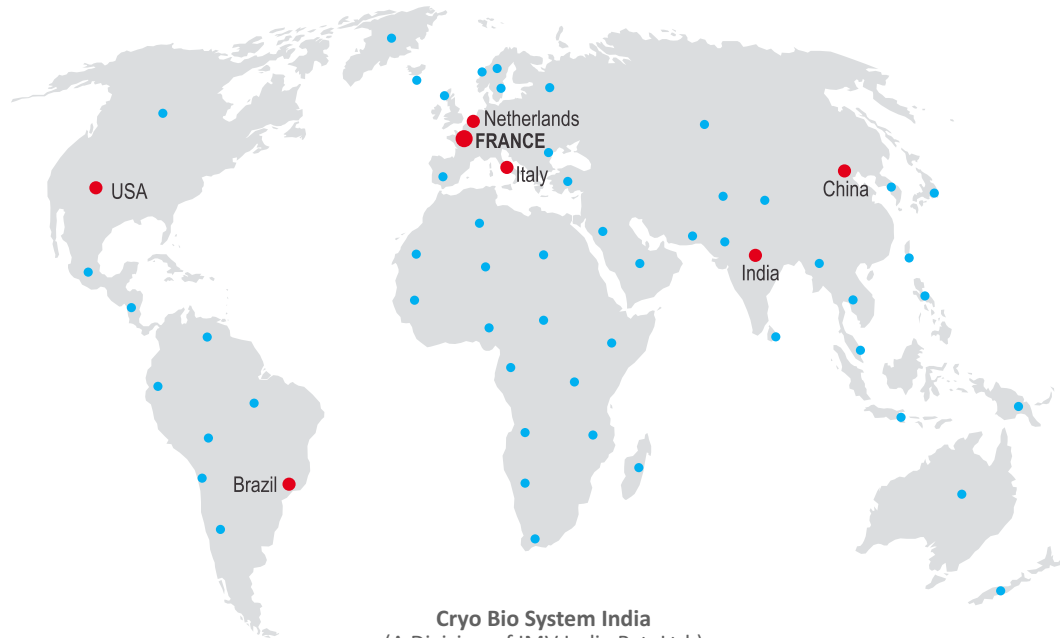
Catalogue No.	Inner Diameter (µm)	Tip Style
SDP-120	120 - 124	Un-polished
SDP-125	125 - 129	Un-polished
SDP-130	130 - 134	Un-polished
SDP-140	135 - 144	Un-polished
SDP-150	145 - 154	Un-polished
SDP-160	155 - 164	Un-polished
SDP-170	165 - 174	Un-polished
SDP-180	175 - 184	Un-polished

Catalogue No.	Inner Diameter (µm)	Tip Style
SDP-70P	65 - 74	Polished
SDP-80P	75 - 84	Polished
SDP-90P	85 - 99	Polished
SDP-100P	100 - 119	Polished
SDP-120P	120 - 139	Polished
SDP-140P	140 - 159	Polished
SDP-160P	160 - 189	Polished
SDP-190P	190 - 219	Polished
SDP-220P	220 - 249	Polished
SDP-250P	250 - 289	Polished
SDP-290P	290 - 319	Polished
SDP-320P	320 - 360	Polished

Pipette Controllers

- **SLM 3-in-One Pipettor** is a multi-actuated micro-pipette controller, which includes a housing and an access door, a ballonet seated at the housing. The ballonet is connected through a pipe to a pipette pin base (ballonet assembly). The ballonet assembly can be replaced easily for contamination control. It can be operated in three ways.
- Pressing on the top cap for denudation of cumulus cells and gamete transfer.
- Press on the ballonet directly for denudation and transfer.
- Take the ballonet assembly out and use it like a Pasteur pipette.





Cryo Bio System India

(A Division of IMV India Pvt. Ltd.)

Plot No. 750, Phase-V, Udyog Vihar, Gurgaon-122016, Haryana, India

Ph.: +91 (0124) 4770707 (20 Lines), Fax: +91 (0124) 4002172 E-mail: infocbs@cryobiosystemindia.com

CIN: U29299DL1998PTC093069

Cryo Bio System France

(Groupe IMV Technologies)

Rue Jean Moulin / POLYSEM 78120, Rambouillet - France

Ph.: +33 1 34 83 60 80/81 E-mail: contact@cryobiosystem-imv.com

www.cryobiosystem.com