

ISevo α

SWITCH TO SAFE MODE

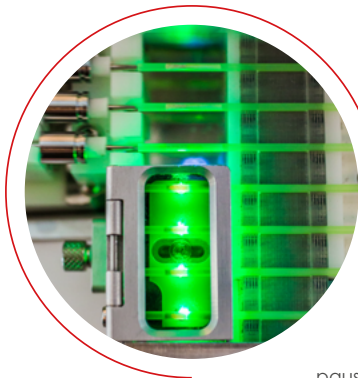


9 PATENTS

ISevo α

Switch to safe mode

ISevo Alpha is a commitment. The commitment of working safely and quickly, in total confidence and silence. **Resulting from 9 patents**, this new concept blends leading-edge technology and intelligence, guaranteeing **perfect packaging every time**. It's more than a straw-filling machine; it's a revolution.



ISevo Alpha's star feature: **automated verification of the plug's moisture level**. The equipment pauses if the plug is not filled to a safe level.

Short distance between hopper and filling station for a **fast start cycle**.

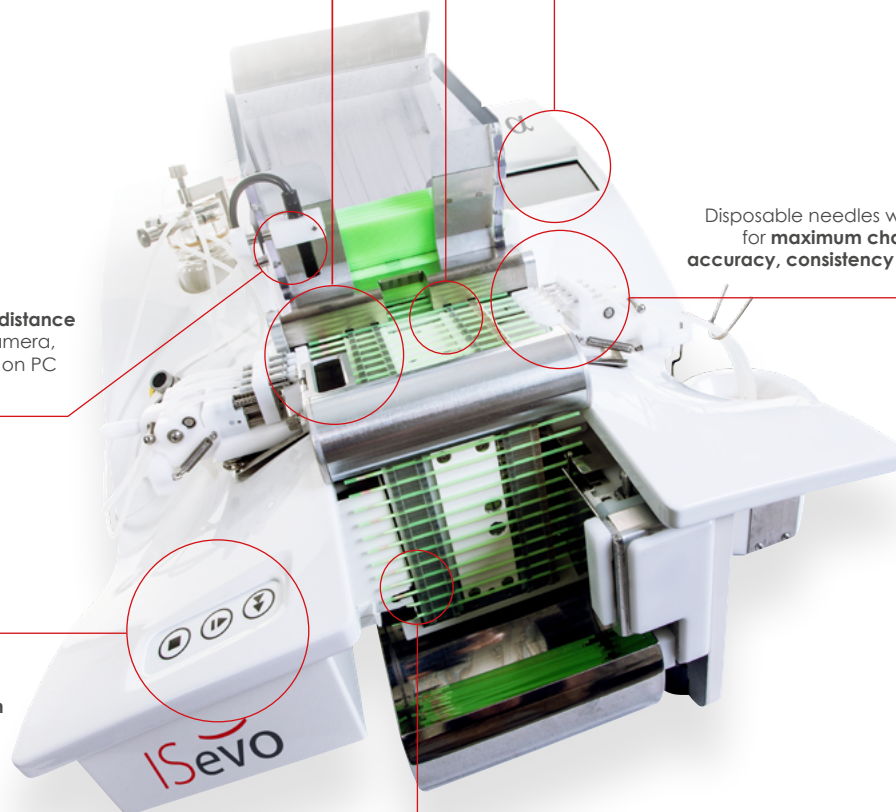
Touch-screen for: 1x1, 2x2, 4x4, automatic 4->1 switchover, sequential priming and on-the-fly changeover. Five features designed for **semen-saving**.

Disposable needles with oriented slots for **maximum changeover speed, accuracy, consistency and cleanliness**.

Visual control from a distance with on-board USB camera, displaying live image on PC or TV.

Three easy operating buttons, close to the user for **maximum productivity**.

Filled and sealed straw counter for **traceability**.



α straws ...Innovation at the heart



A breakthrough idea lies behind ISevo Alpha. This concept – the most innovative of the last few years – is truly revolutionizing semen packaging through a clever combination of the Alpha Straw and the ISevo Alpha equipment, offering a level of working comfort never seen before.



Our patented Alpha straw enables automatic control of the plug's moisture level, helping to **prevent potential losses during thawing**. Its colored plug turns fluorescent when correctly moist.

With its unique technology, the Alpha straw creates a new reference in **low-absorption** straws.





New concept designed for you

ISevo Alpha ... the ultimate security



Peace of mind

Designed for optimum security, you will be able to rely on ISevo Alpha for the entire semen packaging process.

The automatic control of the plug's moisture level and the possibility to display the filling on a remote screen ensure **a secure process**.



Time saving

Not only does ISevo Alpha benefit from a short start cycle, a fast 4x4 cycle (12,500 straws/hour) and quick and easy cleaning, it will also allow you to save time by **no longer needing a visual control** of the filling.



Efficient filling and sealing

The Alpha Straw is specifically designed to absorb less semen. Its hydrophobic plug is a real innovation.

Thanks to its different modes, ISevo Alpha allows optimum filling from the first to the last straw.

Our Alpha straws' together with ISevo's optimum filling modes can yield upwards of **5% more mini straws** than current consumables and conventional equipment.



Smart ergonomics

ISevo Alpha is crafted to provide the best levels of **safety, comfort, confidence and speed**.

Three smart buttons improve user comfort and reaction speed. The equipment's elegant curves make it easy to clean. It is also designed to be easy to take apart.

With its disposable needle concept, ISevo Alpha increases safety and improves semen volume regularity.



Unique traceability

ISevo Alpha is equipped with a **unique traceability and safety system**. Both the integrated and non-integrated versions allow to record all processes and edit reports.

On the non-integrated version, a unique barcode system option allows the user to check that the bull and the printed straws correspond.



ISevo α

Highlights



Technical specifications

Perfect downsizing

> ISevo Alpha
520 L X 350 H X 570 D mm / 20,5 L X 13,8 H X 22,5 D inches
40 kg / 88 lb

> ISevo Alpha - Integrated
700 L X 350 H X 570 D mm / 27,6 L X 13,8 H X 22,5 D inches
52 kg / 115 lb

Low voltage efficiency

> ISevo Alpha
115 - 230 V 50/60 Hz
24 Vdc

> Branson ultrasonic generator:
115/230 V or 50/60 Hz

Comfort and silence

< 80 decibels

Straw packaging modes

- 4 x 4 (up to 12,500 straws per hour)
- 2 x 2
- 1 x 1

- sequential priming
- end-of-liquid detection and automatic switch to 1x1
- dynamic switch to 1x1 or 2x2

Connectivity, cleaning, maintenance

- Teamviewer remote maintenance enabled
- Fast tool-less removal of main parts to be cleaned
- RJ45 network ready

ISevo equipment

ISevo Alpha – integrated - Mini..... 027036 ISevo Alpha - Mini 027034

ISevo Alpha – integrated - Medium..... 027035 ISevo Alpha - Medium 026979

Included options

Supervision software for non-integrated ISevo Alpha

Includes touch-screen PC and software. Allows to record all processes and edit reports.

Consistency checking software

Includes touch-screen PC, barcode reader, label printer and software. Match straws and semen to process. Customization required.

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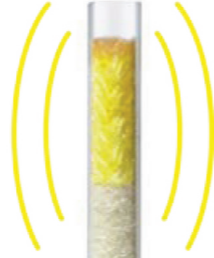
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IMV Straws

INNOVATION FOR ANIMAL INSEMINATION



Innovating to help you meet new challenges of quality and reliability

Classic Straw

The standard in semen storage

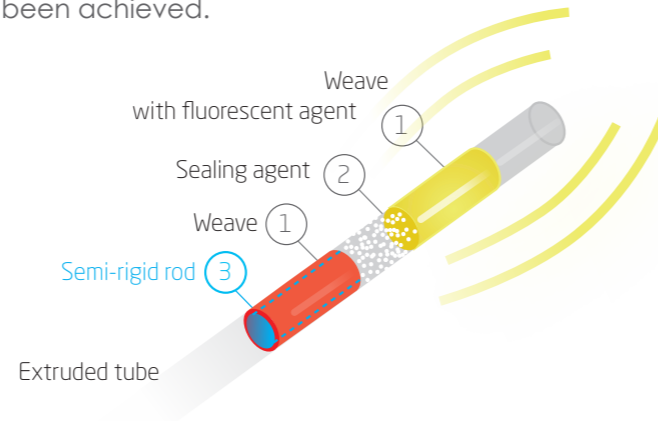
IMV Technologies is the company behind the straw. Our founder, Robert Cassou, developed it in 1963. Three key benefits made it the standard: biological and sanitary security; the automated processes and tools developed around it; and, its ease-of-use, from the laboratory to the field.



α Alpha™ Straw

Switch to safe mode

The **Alpha straw** is our **latest innovation** in bovine semen straws. The Alpha straw combines the advantages of the TBS straw, with additional features to enhance the safety of the dose of semen produced. Upon reaching the optimal level of filling, the outer weave of the straw's plug fluoresces to indicate that a quality seal has been achieved.

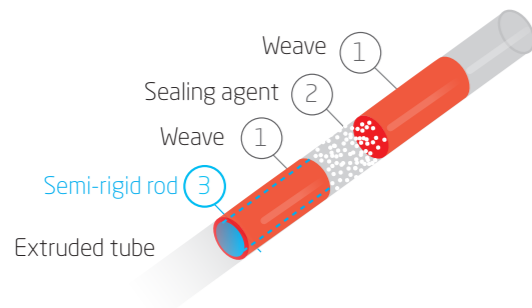


TBS* Straw

More straws per ejaculate

Designed for bulls of **high genetic merit**. The proprietary low absorption technology used in this straw reduces the volume of ejaculate lost to the plug by absorption. Its tube is manufactured to strict tolerances, for greater accuracy and consistency in volume.

These features, combined, can result in up to 3.5% more straws.



In IMV trials, 10 to 15 more (mini) straws were produced per bull ejaculate using TBS straws!



"Our innovations promote safety, maximize productivity, and help our customers offer more reliable products."

E. Schmitt, Director of R&D, IMV Technologies

Low-absorption technology

Like the TBS straw, the **Alpha straw saves semen**. When used on the ISevo Alpha filling and sealing machine, IMV has produced up to **5% more mini straws** per ejaculate than with conventional straw and equipment combinations.

Greater safety, less concern

A poor seal on the plug-end of the straw may lead to the straw exploding when thawed. The straw and its content become unusable. The Alpha straw technology allows for easy, **visual detection of potentially compromised straws**, in the lab. Poorly filled straws need not hit the market anymore!

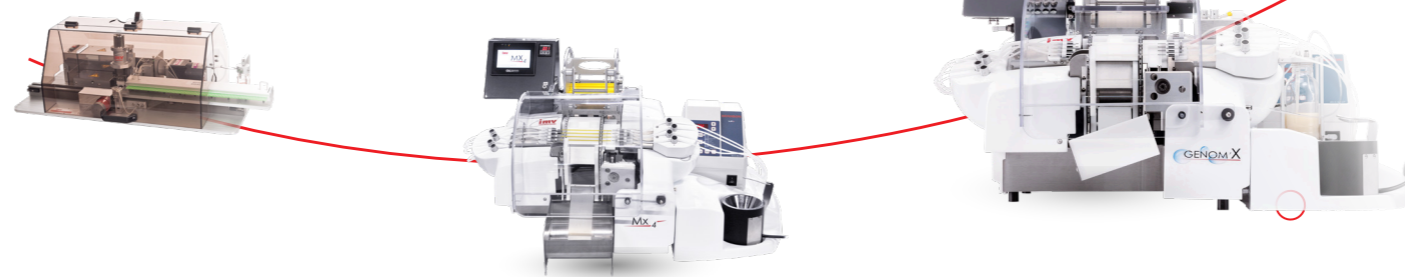
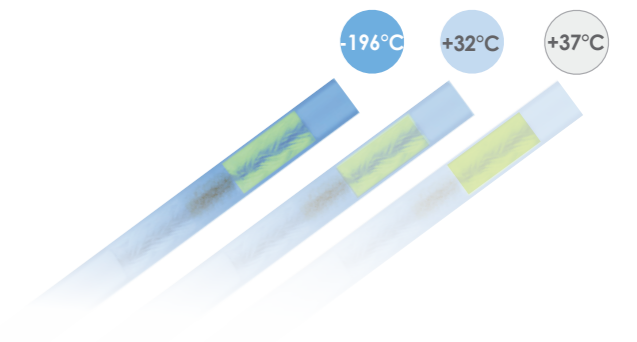
Increased productivity and reliability

Used with the ISevo Alpha filling and sealing machine, **poorly filled straws are detected automatically** by the machine. Upon finding a misfilled straw, the machine will pause, alert the operator and help to identify the source of the problem. Operator **efficiency** can be **maximized**, and resources can be used elsewhere, for other quality tasks.

α Sensitemp™ Alpha Straw

The Sensitemp straw builds on the Alpha straw and incorporates additional technology that transcends from the laboratory, into the field.

Made using "smart" polymers, this straw changes color when its content reaches thawing temperature. The laboratory benefits from knowing its product is used correctly, while the inseminator benefits from the **visual prompt alerting** that the dose has **properly thawed**.



* Top Bull Straw™

Technical specification

	OPTiXcell	Home made Tris Egg Yolk	Soy Lecithin
Longer Equilibration	YES	YES	NO
Egg yolk-like characteristics	YES	YES	NO
Protein-free	YES	NO	YES
Biosecured	YES	NO	YES
Clear	YES	NO	YES
Wash-free cytometer analysis	YES	NO	YES
Fresh semen optimized	YES	NO	NO
Sub-optimal concentration optimized	YES	Partially	NO
Enhanced post-thraw motility	YES	Partially	Partially
Immediate preparation	YES	NO	YES
Clears QC Thermoresistance test	YES	YES	NO
Extended shelf life	YES	N/A	NO
Proven fertility rates	YES	YES	YES

Ordering information

OptiXcell	Ref 026218 with antibiotics 250 ml QSF 750 ml
OptiXcell CSS	Ref 025239 (antibiotics-free) 250 ml QSF 750 ml
Kit OptiXcell CSS	Ref 027919 (including antibiotics) 250 ml QSF 750 ml

Liposome

The active fractions of the egg-yolk that ensure the cell protection during refrigeration and freezing are known as phospholipids (Kampschmidt 53, Quinn 80, Manjunath 02, Röpkes 11). Strong of our experience of 30 years of media manufacturing, IMV processes phospholipids organized together as liposomes, an artificially prepared and water soluble vesicle. Because the polar head of the phospholipid is hydrophilic and its tail hydrophobic, liposomes can be put into solution and sterilized. One of the benefits of liposomes being cold shock protection, sperm cells undergo the freezing process with a maximized survival rate. No protein is added to the media.

Safety

Lipids which make up liposomes, as opposed to animal protein are not a vector of infective agents. Liposomes are made of lipids. As such they cannot be a vector of infective agents, as opposed to proteins contained in other extender.

References

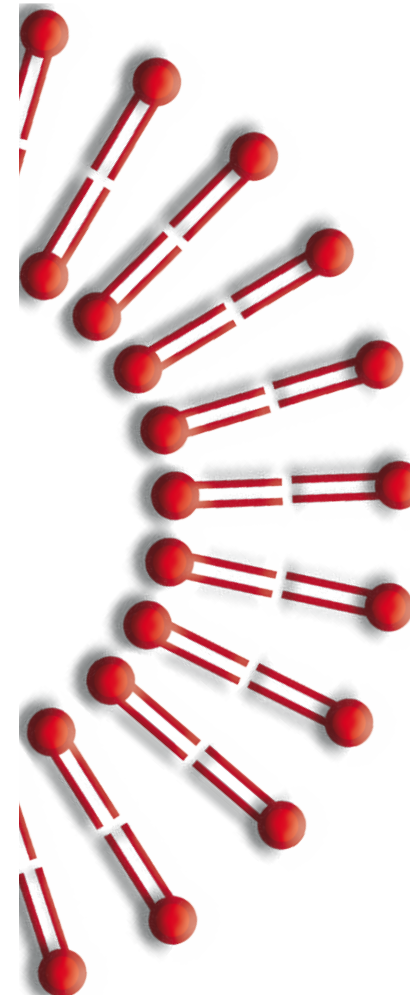
Kampschmidt RF, Mayer DT, Herman HA. Lipid and lipoprotein constituents of egg yolk in the resistance and storage of bull spermatozoa. J Dairy Sci 1953;36:733-42 – Quinn PJ, Chow PYW, White IG. Evidence that phospholipid protects spermatozoa from cold shock at a plasma membrane site. J Reprod Fert 1980;60:403-7. – Manjunath P, Nauc V, M.S. Ansari, B.A. Rakha, S. Akhter, M. Ashiq, OPTiXcell improves the postthaw quality and fertility of buffalo bull sperm
Bergeron A, Ménard M. Major proteins of bovine seminal plasma bind to the low-density lipoprotein fraction of hen's egg yolk. Biol Reprod 2002;67:1250-8 – T. Röpke, H. Oldenhof, C. Leiding, H. Sieme, H. Boilwein, W.F. Wolkers, Liposomes for cryopreservation of bovine sperm Theriogenology 76 (2011) 1465–1472. Novel protein-free semen medium improves fertility potential of frozen bovine sperm, A. Camus, A. González, E. Schmitt.

Quality

OPTiXcell is manufactured by IMV Technologies in a CGMP facility, working under ISO9001:V2008. Each batch is tested with live semen. GTLS antibiotics contained in OptiXcell ref: 026218 follow EU regulation 88/407/CEE. amended by 2003/43/CE.

OptiXcell™

LIPOSOMES-BASED MEDIUM FOR BOVINE SEMEN



Liposomes-based media

Optimized for fresh and frozen semen

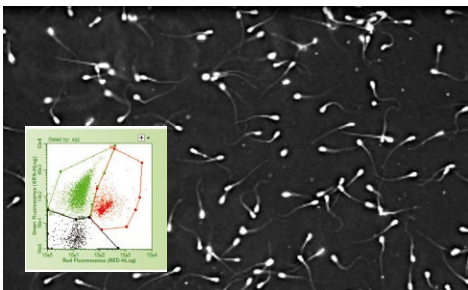
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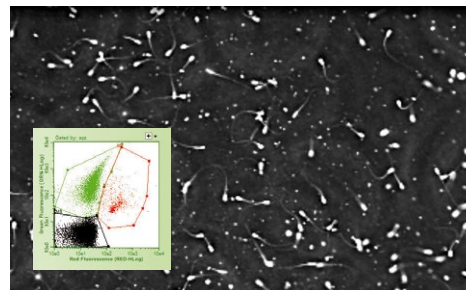
5 outstanding advantages

- Animal protein free and chemically defined**
 avoid the hazard of transporting avian influenza through egg-based products
 avoid the transport of pathogenic microorganisms
 production of harmful metabolites and toxins
- 24 hours equilibration-safe**
 More flexible work organization
 Time before freezing can be longer with the same or even better freezing
- Biosecured**
 Sterilized by filtration
- Extended shelf-life**
 420 days from production
- Enhanced post-thaw motility**
 at sub-optimal concentrations
 Possible higher pass marks for sorted sexed semen, genomics and high demand bulls

Clear wash-free analysis - Enhanced microscope and CASA semen evaluation



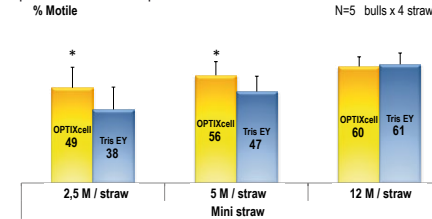
OPTiXcell: clear extender



Egg yolk extender

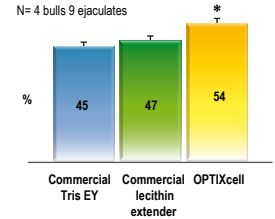
Enhanced dilution rate effect

OPTiXcell performs significantly better than Tris egg yolk with low numbers of spermatozoids per dose.*



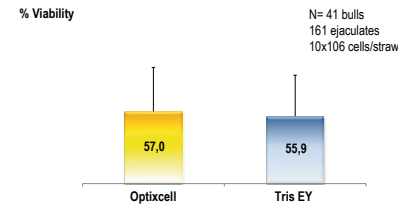
Motility

Motility parameters are significantly higher in OPTiXcell than soy lecithin or Tris egg yolk extenders.



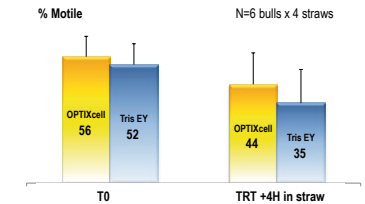
Viability

There is no significant difference between OPTiXcell and commercial Tris EY.



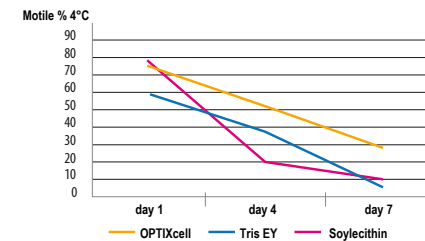
Egg yolk-like thermoresistance QC test

OPTiXcell held at 37°C for 4 hours in straws ranks higher than standard egg yolk



Optimized for fresh semen

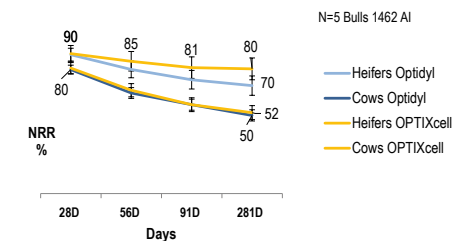
Motility parameters of fresh semen kept in OPTiXcell are significantly higher past 3 days than soy lecithin or Tris egg yolk extenders.



Proven in vivo

In vivo field trials show consistent results both with young genomic bulls and progeny tested bulls.

Split trial - Optidyl 1535 AIs - OPTiXcell 1011 AIs



* Motility test performed with IVOS CASA system.



DID YOU KNOW?

"In our experiment conducted on 120 frozen-thawed straws, a significant higher motility and concentration were found in the last deposited drops."

Lucie Gavin-Plagne, Field Trials Engineer, IMV Technologies



THEY TESTED IT!

"The Top Bull Sheath is really made for heifers. It makes the passage through the third and fourth cervical rings easier. The space between the end of the sheath and the end of the applicator is almost nonexistent which gives the technician more accuracy handling an insemination through a small cervix. "

DVM PhD Decuadro-Hansen, Chile



"Even if the diameter reduction of Top Bull Sheath seems non-significant, it is clearly palpable when you go through the cervix. The reduced diameter and the very specific tip shape permits easy passage through the usually «difficult» cervix of a heifer. The TBS applicator for mini straws only ensures a secure fit."

Dr. Joly, bovine AI consultant, France



Connected to

...REPRODUCTION BIOTECHNOLOGIES

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Top Bull SHEATH & APPLICATOR



Experience precision in insemination

APPALCOS&R - Version 1 - Janvier 2020



Experience precision in insemination



Introducing the Top Bull Sheath, the sheath for insemination experts who want to be even more efficient in their work.

This thinner sheath with a special shape in its tip, when used with the dedicated TBS applicator, is the indispensable tool to complete your insemination box.

With the TBS sheath and applicator:

- easily manage «difficult-to-breed» cows
- improve semen use
- support environmental sustainability

Use it and be more efficient!



Optimal semen use

Deposit 5% more diluted semen with the Top Bull Sheath! TBS is designed for mini straws only so its insert creates a perfect seal and will see reduced amount of backflow. In addition, the specific tip shape reduces dead-volume from 15µL, with a standard sheath, to 5µL with the TBS.

Dedicated applicator

This TBS applicator is only used with mini straws and was specifically developed for the Top Bull Sheath. A perfect fit between the applicator, the mini straw and the sheath results in the best insemination experience.

Mini straw

Easier heifer insemination

It becomes definitively easier to go through a heifer's small cervix thanks to the 10% reduction in diameter and special tip shape of the Top Bull Sheath.

Perfect fit between sheath, straw & applicator



An eco-designed product

- cornstarch-based packaging
- 130g less plastic per 1000 sheaths

Top
Bull
SHEATH
& APPLICATOR