



IVFtech
for the next generation

IVFtech

What

IVFtech is a company producing advanced equipment for IVF laboratories.

The art and science of human assisted reproduction often demands individual solutions where strict considerations must be given to the culture conditions and the growth environment of gametes and embryos. Key factors for success rely on providing a steady temperature close to 37°C and secure an atmosphere with the right humidity and CO₂-concentration.

Where

IVFtech started at the facilities at Trianglen Fertility Clinic, Denmark. Now the company has moved the production to bigger premises, at Farum Gydevej 89, Denmark.

All our products are manufactured in Denmark. We believe in high quality and close relationship with our customers and subcontractors.

When

Since 1977 we have cultured human gonadal tissues and germinal cells and developed culturing devices ever since. Experience from our daily work in the laboratory since 1977 has been the key to inspiration and innovation of the equipment we manufacture.

In short: We know how well our products work because we use them every day.

Who

IVFtech was founded in 1998 by Jørgen Grinsted, MD., DMSc. gynaecologist in collaboration with engineer Kjeld Nielsen and Professor MSc., DMSc. Claus Yding Andersen.

We are all linked to a research laboratory and a fertility clinic.

Contents:

4. Productdescription.....

6. IVFtech Sterile.....

8. IVFtech Class II.....

10. Antivibration table.....

Free standing heated tabletop with build in microscope

12. Mini incubator.....

14. Accessories.....

Worldwide delivery.....



IVFtech Sterile is a vertical laminar flow sterile air cabinet designed to give the best product protection with true uniform flow clean air.

Low noise level - less than 52 dB(A)

The cabinet airflow can be switched to a reduced speed mode ensuring it is always ready to use with a noise level less than 48 dB(A).

Excellent light distribution

A combination of natural light through the side windows, and high intensity diffused light from the laminator source, ensures the work area is well illuminated at all times. A light damping facility allows adjustment of the light intensity from 0 to 2000 Lux to suit all work conditions.

Filtration

Class H-14 HEPA filters in accordance with EN 1822. Filter efficiency 99.999% against 0.3 μm particle size. 99.995% in MPPS. HEPA filters are protected by a pre-filter for longer life.

Compact

Being only 690 mm deep, the cabinet can easily be transported through 800 mm doorways.



Excellent clean air performance



A unique laminator system ensures the downflow air is uniform and balanced. This provides an excellent protection of the product by creating a better flow with less turbulence at the work surface and result in improved antivibration characteristics. This improved, uniform, airflow allows a reduced speed thus reducing the noise level and prolonging the life of the HEPA filter. The air speed is 0.35 m/s +/-10% (min 0.32 m/s) compared to others at 0.40 m/s +/-20% (min 0.32 m/s).

IVFtech Class II Biological Safety Cabinet fully certified, tested and TÜV approved to EN 12469:2000, giving operator, product and environmental protection.

Low noise level - less than 54 dB(A)

The cabinet airflow can be switched to a reduced speed mode ensuring it is always ready to use, with a noise level less than 54 dB(A).

Excellent light distribution

A combination of natural light through the side windows, and high intensity diffused light from the laminator source, ensures the work area is well illuminated at all times. A light damping facility allows adjustment of the light intensity from 0 to 2000 Lux to suit all work conditions.

Filtration

All HEPA-Filters are Class H-14 HEPA filters in accordance with EN 1822. Filter efficiency is 99.999 % against a 0.3 µm particle size. 99.995% in MPPS.

Compact

Being only 798 mm deep, the cabinet can usually be transported through 800 mm doorways.



High work opening, 20 cm or optional 30 cm

The normal work opening is 20 cm, optional for IVFtech Class II is 30 cm

Safety

Your Safety is of the highest concern. The cabinet is constructed with digital flow rate sensors, which operate within close tolerances giving precise performance. Audible and visual alarms will be triggered if the flow rate is measured to be outside these precise intervals. The cabinet is tested and manufactured in accordance with EN 12469:2000, BS 12469:2000, NSF 209e and GS- Approved by TÜV.

IVFtech Steril

Microscopes

Heated tabletop water or electrical

Gas

Build-in incubator

Build-in monitor

Aspiration tunnel

Anti-vibration table

Carbonfilter

Heated glass





Carbon filter

Cleans up the room continuously for the lowest VOC concentration.

Has an air exchange in the room more than 10 times per hour.

Large carbon surface takes all particles passing by.



Model	Unit	F-900	F-1200	F-1500	F-1800
External dimensions (DxWxH)	mm	686x1031x1335	686x1331x1335	686x1631x1335	686x1931x1335
Working chamber, dimensions (DxWxH)	mm	564x900x636	564x1200x636	564x1500x636	564x1800x636
Front opening, fixed	mm	350	350	350	350
Support Stand, height	mm	760-900	760-900	760-900	760-900
Air velocity, Vertical flow	m/s	0,35	0,35	0,35	0,35
Air velocity, Deviation	±%	10	10	10	10
Flow rate	m ³ /h	800	1100	1300	1500
Noise level; ISO 6081	dB(A)	<52	<52	<53	<53
Light intensity variable	Lux	0-2000	0-2000	0-2000	0-2000
HEPA fliters		H-14	H-14	H-14	H-14
Voltage/frequency	V/Hz	230/50	230/50	230/50	230/50
Power	W	300	300	400	500
Fuses	A	8	8	10	10
Net weight	kg	150	160	190	200
Shipping volume	m ³	2,2	2,9	3,5	4,1

IVFtech Class II

Microscopes

Heated tabletop water or electrical

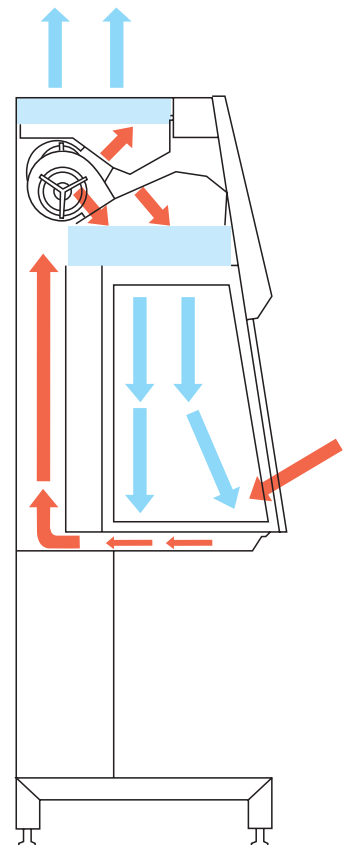
Gas

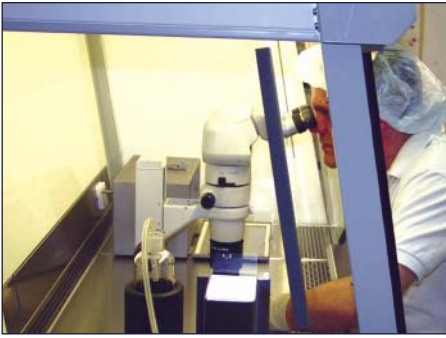
Build-in incubator

Build-in monitor

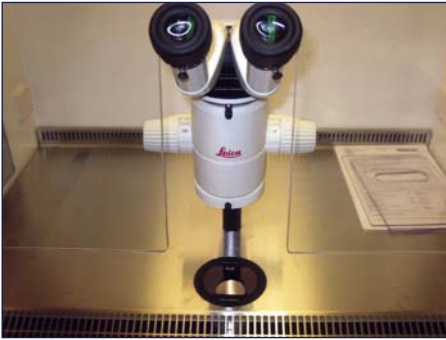
Aspiration tunnel

Anti-vibration table





- With or without secondary window.



Model	Unit	900	1200	1500	1800
External dimensions (DxWxH)	mm	798x1003x1248	798x1303x1248	798x1603x1248	798x1903x1248
Working chamber, dimensions (DxWxH)	mm	650x900x720	650x1200x720	650x1500x720	650x1800x720
Front opening, fixed	mm	200	200	200	200
Working height	mm	75-105	75-105	75-105	75-105
Air velocity, Vertical flow	m/s	0,35	0,35	0,35	0,35
Air velocity, Deviation	±%	10	10	10	10
Flow rate	m ³ /h	800	1100	1300	1500
Exhaust Flor rate	m ³ /h	300	400	500	600
Noise level; ISO 6081	dB(A)	<54	<54	<55	<55
Light intensity variable	Lux	0-2000	0-2000	0-2000	0-2000
HEPA filters		H-14	H-14	H-14	H-14
Voltage/frequency	V/Hz	230/50	230/50	230/50	230/50
Power	W	600	600	700	800
Fuses	A	10	10	10	10
Net weight	kg	225	250	275	300
Shipping volume	m ³	2,2	2,9	3,5	4,1

Anti-vibration table



For ICSI procedures

IVFtech Anti-vibration table are designed to meet the requirements for all available models of inverted microscopes.

The plate on top can either be stainless steel or stone.

Standard size L x D x H: 1150 mm x 720 mm x 790-830 mm

Heated tabletop with build in microscope.

Heated tabletop

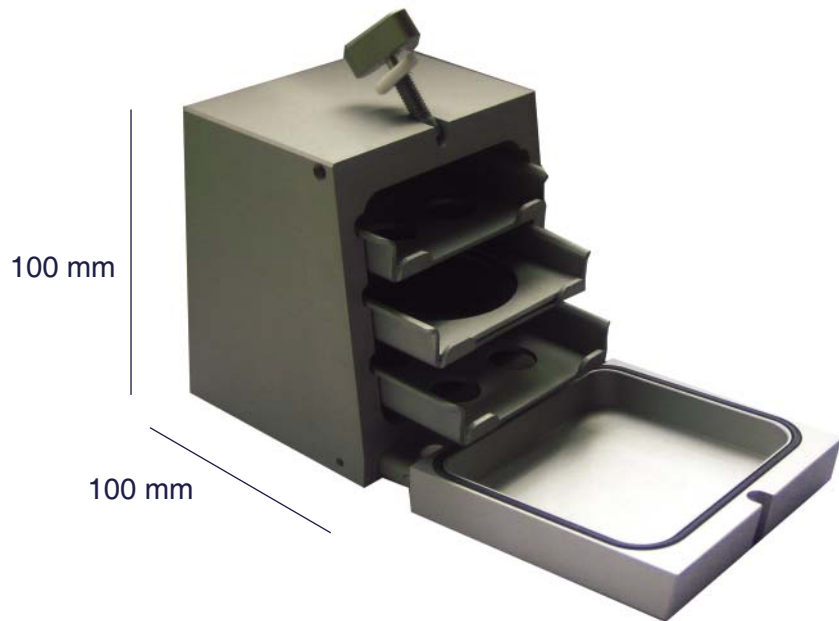
IVFtech Heated tabletop can be supplied with or without microscope and with or without wheels.

Electrical or water heated.

Standard sizes 900 mm, 1200 mm, 1500 mm, 1800 mm.



IVFtech Mini-incubator



This mini incubator is

1. All non-toxic aluminium
2. Airtight, but allows equilibration with a desired atmosphere
3. Support three 4-well dishes or three 60 mm round culture dishes
4. Allow inspection of gametes while situated in the incubator shells
5. Sustain autoclaving.

And is an ideal solution for:

1. maintain a constant pH in the medium surrounding the gametes in a busy every day IVF-lab
2. maintain a constant atmosphere – similar or different to that of the mother incubator
3. maintain a constant humidity and thereby osmolality of the medium.
4. reduce the risk of cross patient contamination
5. maintain temperature close to 37 degrees also during handling.
6. fast identification of gametes and embryos in the mother incubator limiting the time that the door being open.
7. Minimize exposure of gametes and embryos to light.

Examples of references:

Semin Reprod. Med.
2005 Nov. 23(4):319-24

Hum. Reprod.
2000 Dec. 15 Suppl. 6:9-23

Semin Reprod. Med.
2000; 18(2):195-204

Operating the IVFtech mini-incubator

Operating the airtight mini-incubator is straightforward. The incubator is placed on the flowbench and the valve at the back of the incubator is used to connect to the gas-outlet via snap-lock.

Four-well dishes or round culture dishes with gametes are placed on the shelves. With the lid loosely closed a gas flow for around 3 minutes will secure the correct atmosphere in the incubator.

By closing the lid and releasing the snap-lock the atmosphere will remain constant in the incubator until the lid is opened. The incubator can now be moved to the main incubator, where disturbances in the atmosphere will not be reflected in the mini-incubator.

Culturing at low oxygen tension

Metode: By securing an atmosphere with reduced oxygen tension, the oxygen concentration in the media around the oocytes/embryos is reduced. A reduced oxygen stress may possibly improve the embryos implantation potential.

Procedure:

1. The airtight mini-incubator is placed on top of the heated surface in the flow cabinet and is connected to the gas via the valve on the back.
2. Gas through the box for 3 minutes with the lid loosely closed.
3. After 3 minutes firmly close the lid and remove the gas supply
4. After inspection for fertilization on day 1, put the petridish with the embryos back in the boxmini-incubator, and then gas it for 3 min with the lid loosely closed.
5. After 3 minutes firmly close the lid and remove the gas supply.
Seal the box by turning the knop.
6. The box is moved to the incubator for the next 24 hours.
Step 4 and 5 are repeated on day 2 of culturing period or until embryo transfer is performed.

IVFtech Accessories



Warming Blocks

for small and larger test tubes: 14 / 17 cc or 6 cc.



Warming Blocks for Petri Dishes and Mediaflask

Warming blocks may be used to secure the temperature in the plastic dish while used at the temperate tabletop.



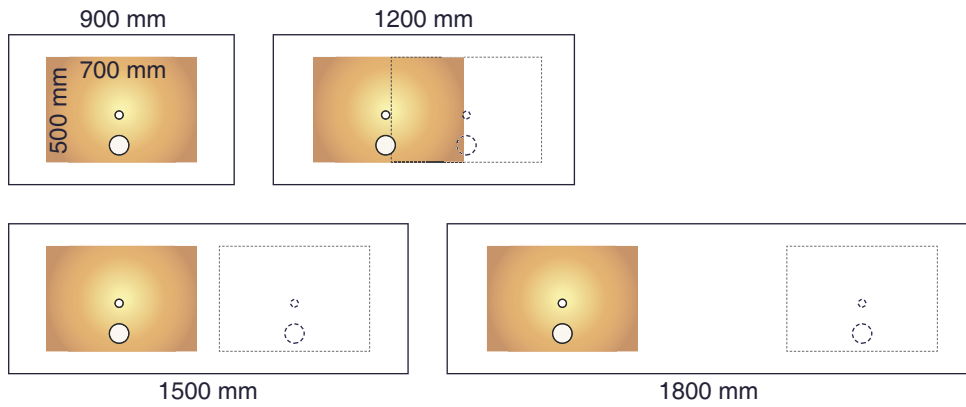
Glass Hood

for CO₂ flow to the culture dishes which are to be used to equilibrate the culture medium in the Flow Bench.

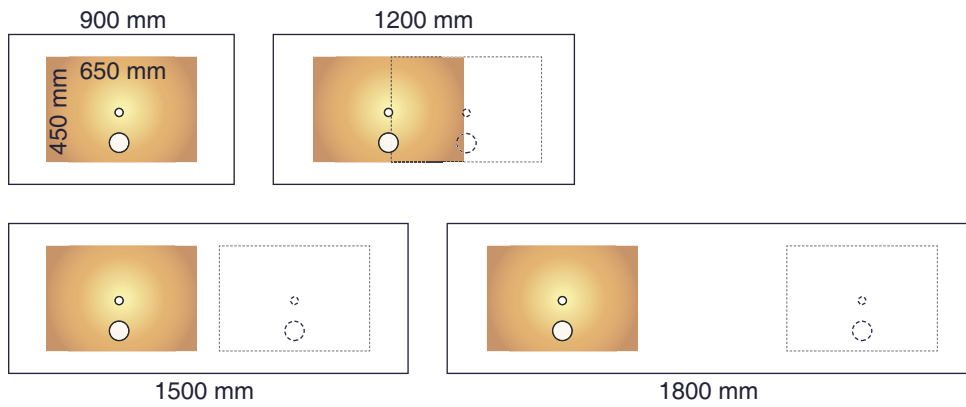
Glass bubble Flask

The gas bobble flask humidifies the 5% CO₂ gas mixture before use. The humidified gas is used for conditioning the IVF culture media and as gas flow source in connection with oocyte aspiration or embryo transfer.

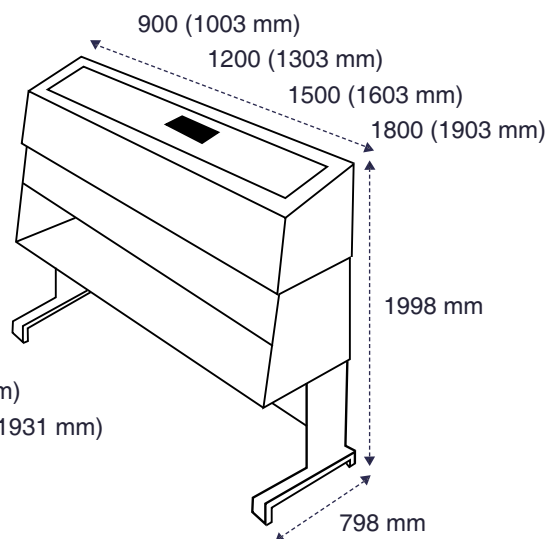
Water heated



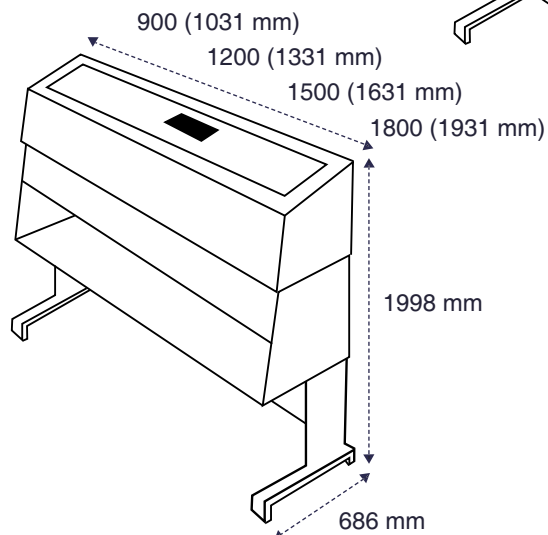
Electrical heated



IVF Class II



IVF Sterile



IVFtech
Farum Gydevej 89
DK - 3520 Farum

Phone +45 39 40 25 65
Fax +45 39 40 25 64
www.ivftech.dk
E-mail: info@ivftech.dk

