



# LABORATORY AUTOCLAVES

## 25 - 200 LITERS

GERMAN ENGINEERING UNDER HIGH PRESSURE



# ZIRBUS TECHNOLOGY GMBH

Since its founding in 1984, ZIRBUS technology GmbH, as a German manufacturer, has gained an outstanding reputation on the international market. We manufacture not only autoclaves but also focus on process technology. A steadily increasing number of customers is putting their trust in Zirbus brand autoclaves and lyophilizers.



*Our customers' satisfaction is our top priority...*



**TOGETHER WITH OUR CUSTOMERS, WE CONTINUALLY DEVELOP  
NEW SOLUTIONS FOR VARIOUS AREAS OF APPLICATION**



**WE TAKE ADVANTAGE OF EVERY POSSIBLE OPPORTUNITY FOR IMPROVEMENT**



**PERFECTION IN SERVICE IS WHAT DRIVES US**



**EFFICIENT AND RELIABLE TECHNOLOGY**



**A PERFECT COMBINATION OF SOFTWARE AND HARDWARE**

## CERTIFIED QUALITY

**ASME** certified

**Module H** certified

**EN ISO 9001**

The quality management (QM) system according to DIN EN ISO 9001 implemented and practiced at ZIRBUS technology GmbH provides the framework for our quality- and cost-oriented activities.

In addition, a risk management system is a component of the QM system.

# THE RIGHT EQUIPMENT FOR YOUR NEEDS



## BASIC LAB

Recommended for the sterilization of simple materials or liquids without removal when dry.

- Integrated steam generator
- SteriTouch control

## DRY LAB

Recommended for the sterilization of non-infectious waste bags and materials which require intensive subsequent drying.

- Integrated steam generator
- Vacuum pump set
- SteriTouch control

## QUICK LAB · BASIC

Recommended for the sterilization of large quantities of liquids.

- Integrated steam generator
- Rapid water recooling system with air-circulating fan
- SteriTouch control

## QUICK LAB

Recommended for the sterilization of non-infectious waste bags, large quantities of liquids and materials which require intensive subsequent drying.

- Integrated steam generator
- Vacuum pump set
- Rapid water recooling system with air-circulating fan
- SteriTouch control

## QUICK LAB · ADVANCED

Recommended for the sterilization of non-infectious waste bags, large quantities of liquids and materials which require intensive subsequent drying – this also applies to liquids in closed containers.

- Integrated steam generator
- Vacuum pump set
- Rapid water recooling system with air-circulating fan
- Steam/air mixture method (SAMM)
- SteriTouch control

## SAFE LAB

Recommended for operation in the level S2 lab. Recommended for the sterilization of infectious waste bags and materials which require intensive subsequent drying.

- Integrated steam generator
- Vacuum pump set
- Exhaust air filtration EAF
- SteriTouch control

## COMPLETE LAB

Fully equipped laboratory autoclave for operation in the level S2 lab. Recommended for the sterilization of infectious waste bags, large quantities of liquids and materials which require intensive subsequent drying.

- Integrated steam generator
- Vacuum pump set
- Exhaust air filtration EAF
- Rapid water recooling system with air-circulating fan
- SteriTouch control



LARGE LOADING CAPACITY WITH A SMALL FOOTPRINT THANKS TO A SQUARE CHAMBER



CAN BE LOADED WITH UP TO FOUR 5000-ML SCHOTT BOTTLES



MADE COMPLETELY OF STAINLESS STEEL



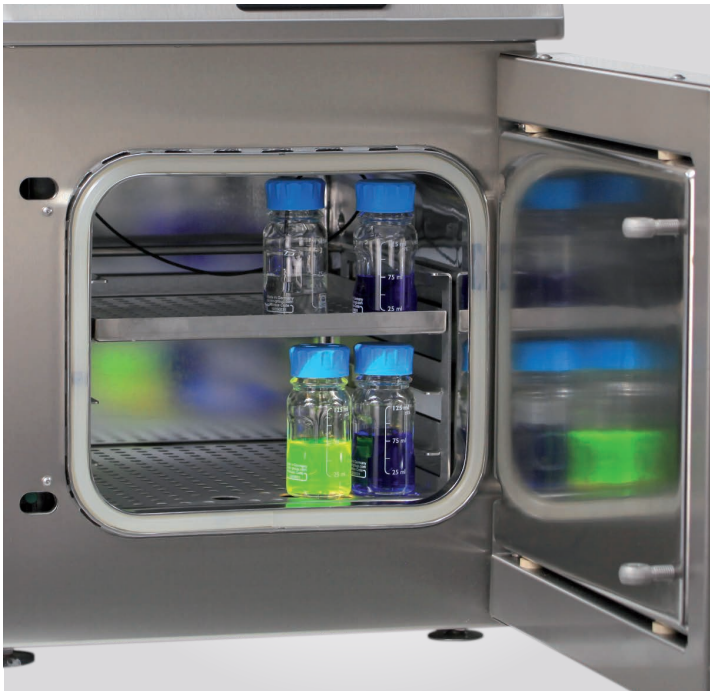
SUITABLE FOR ANY LABORATORY TABLE

BENCHTOP AUTOCLAVE LOADING CAPACITY (in pieces)

ERLENMEYER FLASKS	250 ml	500 ml	1000 ml	2000 ml	5000 ml
SCHOTT medium bottles					
LABSTAR 25	14 / 10	10 / 6	5 / 2	2 / -	- / -
LABSTAR 40	50 / 30	15 / 11	12 / 6	5 / 3	- / -
LABSTAR 70	72 / 46	23 / 18	18 / 10	9 / 8	4 / -

Labstar	25	40	70
Dimensions in mm (WxHxD)	450 x 520 x 660	532 x 570 x 620	700 x 825 x 850
Chamber volume in liters	25	40	73
Effective space in mm (WxHxD)	Ø, T 300 x 360	295 x 295 x 460	320 x 350 x 630



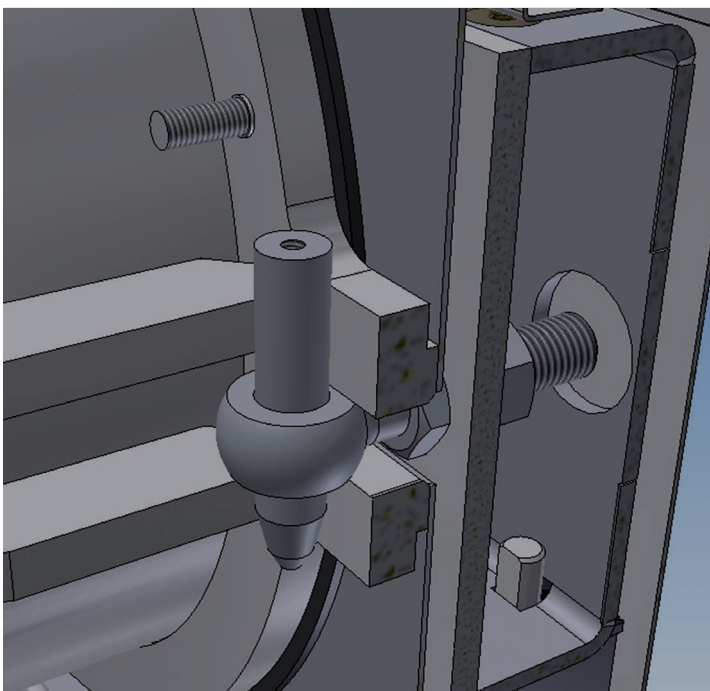


## Compact device with square, space-saving chamber

- ▶ Constructed for optimal loading capacity with many standard bottles (for example, Schott) and Erlenmeyer flasks.
- ▶ Significantly higher loading capacity compared to a round chamber device. 40 liters "square" = ~ 75 liters "round".

## Integrated printer for batch documentation

- ▶ After the program has completed, the entire batch log is printed out and the paper is automatically cut. The previous batch printout can be reprinted until the time the device is restarted.



## Completely secure and simple sealing system

- ▶ The door-locking mechanism closes the sterilization chamber in combination with a low-maintenance, inflatable door seal.



## VERTICAL LABORATORY AUTOCLAVES



LOW LOADING HEIGHT



EQUIPPED WITH MAINTENANCE ROLLERS  
AS A STANDARD FEATURE



CLOSED FLOOR PLAN WITH WATER  
DETECTOR AND AQUASTOP



EASY, SECURE COVER SEAL

### VERTICAL AUTOCLAVE LOADING CAPACITY (in pieces)

ERLENMEYER FLASKS	250 ml	500 ml	1000 ml	2000 ml	5000 ml
SCHOTT medium bottles					
LVSA 40/60	42 / 28	26 / 16	18 / 10	8 / 6	2 / 1
LVSA 40/75	63 / 42	39 / 24	27 / 15	8 / 6	2 / 1
LVSA 50/60	74 / 46	46 / 30	32 / 18	16 / 10	8 / 3
LVSA 50/70	111 / 69	69 / 45	48 / 27	16 / 10	8 / 6

LVSA Series	40/60	40/75	50/60	50/70
External diameter in mm (WxD)	550 x 750	550 x 750	750 x 900	750 x 900
Chamber volume in liters	80	96	133	153
Effective space in mm (ØxH)	Ø 400 x 620	Ø 400 x 770	Ø 500 x 680	Ø 500 x 780

## Easy-to-use color touchscreen

- ▶ All autoclaves are equipped with an ergonomic and easy-to-use color touchscreen.



## For back-friendly loading and unloading of the sterilization chamber

- ▶ Lifting and pivoting mechanism with electric drive. Lifting capacity 30 kg.
- ▶ The pivoting arm can be used to place the sterile materials next to the autoclave.
- ▶ Rotates 360°.

## Fast and water-saving cooling of liquid media

- ▶ We provide cooling where it is needed. In the chamber!
- ▶ The rapid water recooling system with air-circulating fan ensures fast and water-saving cooling of liquid media in open and closed containers to a safe removal temperature, without loss of medium.







## HORIZONTAL FLOOR-STANDING AUTOCLAVES



ALL FLOOR-STANDING DEVICES ARE AVAILABLE IN A "PASS-THROUGH" DESIGN



ERGONOMIC LOADING HEIGHT



MADE COMPLETELY OF STAINLESS STEEL



EASY LOADING USING BATCH CARTS

### FLOOR-STANDING AUTOCLAVE LOADING CAPACITY (in pieces)

ERLENMEYER FLASKS	250 ml	500 ml	1000 ml	2000 ml	5000 ml
SCHOTT medium bottles					
HST 50/75	116 / 72	72 / 49	28 / 15	15 / 9	6 / 3
HST 50/100	154 / 99	99 / 63	36 / 21	21 / 12	9 / 5

HST series	3 x 3 x 6	50/75	50/100
Dimensions in mm (WxHxD)	600 x 1450 x 850	800 x 1680 x 1100	800 x 1680 x 1350
Chamber volume in liters	72	150	200
Effective space in mm (WxHxD)	320 x 350 x 640	Ø, T 500 x 750	Ø, T 500 x 1000



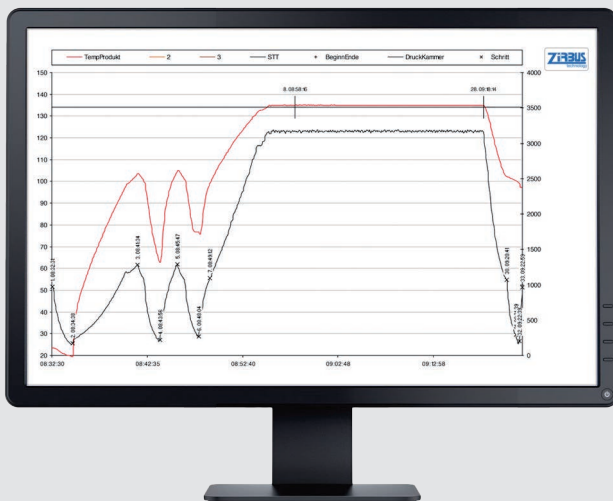


## High-performance vacuum pump

- ▶ Vacuum pump for optimal ventilation of the sterilized materials. This fulfills the basic requirement for safe saturated steam sterilization that can be validated.
- ▶ In addition, solids are dried at the end of the sterilization cycle. This is aided by heating of the jacket.

## Transport and batch carts

- ▶ For ergonomic loading and unloading.



## "SteriLog" documentation software

- ▶ A PC can be directly connected to the Ethernet interface. All important process steps can be recorded using software specially optimized for Windows.
- ▶ They are then displayed in the form of a color diagram and value table.

## DESCRIPTION OF THE INDIVIDUAL COMPONENTS

### + STEAM GENERATOR

The steam generator is integrated in the housing, separate from the sterilization chamber, and ensures rapid heating and cooling, in comparison to conventional heating systems.

### + VACUUM PUMP SET

To mechanically remove air and dry in a vacuum. Possible methods include single-stage prevacuum (VOVV), fractionated prevacuum (FRVV), constant or pulsating drying under a vacuum.

### + LIFTING AND PIVOTING MECHANISM

The lifting and pivoting mechanism makes it easier to load and unload vertically loaded autoclaves. Loaded baskets are lifted into and out of the chamber using a crane mounted on the autoclave. The load capacity is 30 kg.

### + PASS-THROUGH MODEL

All horizontal floor-standing autoclaves can be supplied, if desired, as pass-through autoclaves with a gas-tight partition (bioseal). Using an optional display on the unloading side, the autoclave can be fully operated from both sides.

### + EXHAUST AIR FILTRATION

For the sterilization of pathogenic substances in level S2/S3 laboratories, a steam-sterilizable exhaust air filter (retention rate for gases: 0.01 µm), with inline condensate sterilization is stipulated.

### + TRANSPORT/BATCH CARTS

For all horizontal floor-standing autoclaves, transport and batch carts are available for easy loading and unloading of the sterilized material..

### + TOUCH DISPLAY (STERITOUCH CONTROL)

Simple, intuitive operation is made possible through the color touch screen which is installed as a standard feature. Together with user-friendly software, the autoclave can be operated in an easy and quick but also highly variable manner. Exactly what you need for your daily work routine in research.

### + STEAM-AIR MIXTURE METHOD

For the sterilization of securely closed bottles and pressure-sensitive materials, such as blister packaging. Additional support pressure prevents the closed vessels from bursting. Precise temperature control and distribution is achieved using an additional temperature sensor, air deflectors and an air-circulating fan.

### + RAPID WATER RECOOLING SYSTEM WITH AIR-CIRCULATING FAN

For the sterilization of liquids, the recooling time can be shortened by more than 80% with the use of rapid water recooling system, in comparison to self-cooling. This is due to an internal heat exchanger, known as a "fast cooler," through which water flows. The process is supported by an optional air-circulating fan.

### + ACCESSORIES

We offer stainless steel sterilization baskets, pails and containers which fit our various chamber designs.

## DOCUMENTATION

Available in three versions to fit your needs.



### BATCH PRINTER

Paper-cutter. Generates an informative paper printout with all relevant data at the end of the process.



### STERILOG BATCH DOCUMENTATION SOFTWARE

Windows-based software automatically reads the process data from the autoclave and processes these data into a graphic and numeric PDF log (direct coupling with an Ethernet interface RJ45).



### USB MEMORY CARD

To record process data on a USB stick at an integrated USB socket of the autoclave. Includes "SteriLog" evaluation software.

### SERVICE

Availability, reliability and qualification are the requirements for excellent service. Training and regular continuing education sessions for our employees guarantee that our service team is quickly and diligently there for you.

### HOTLINE

Our technical hotline will assist you if you have questions regarding operation or if you are having system- or process-related problems.

### REPLACEMENT PARTS

Replacement part deliveries are processed immediately, such that delivery is usually made on the following day.

### CONSULTATION

We can provide you with advice regarding your project and draw on our experience to assist you.

#### OUR SERVICES INCLUDE:

- Delivery, installation and training
- Calibration with DKD (German Calibration Service)-tested measuring
- Qualification DQ/IQ/FDS, SDS, HDS/OQ/PQ according to cGMP guidelines
- Sterilization and drying on a contract basis in our own application laboratory
- Maintenance and Service
- Validation according to recognized guidelines
- Customized process development and optimization





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Content subject to change.