



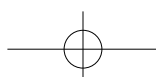
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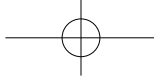
WIGGENS

THE MAGIC MOTION



- *Vacuum Pump*
- *Vacuum Solvent Recovery System*
- *Vacuum Meter and Controller*
- *Vacuum Filtration*
- *Liquid Handling Equipment*





About WIGGENS

What Does Wiggins Stand for?

- W**ide Product Range*
- I**nternational Orientation*
- G**reat Quality*
- G**reat Service*
- E**nergetic Team*
- N**ew Technology*
- S**olutions*

Wiggins was established in 2005 with the goal of delivering the best laboratory equipment and service for reliable results. Since then Wiggins has been producing top-quality general laboratory equipment, analysis apparatus and chemical reaction and purification solutions. Our brand Wiggins stands for high quality, durability and remarkable performance.

Wiggins is your reliable laboratory companion and provides products that can be used in different kinds of laboratory environments. The Wiggins product range includes:

ChemVak Pumps
Wiggins General Lab Equipment
Life Science Equipment

ChemTron Gas
H₂ Generators
N₂ Generators
O₂ Generators
Zero Air Generators

ChemTron Reaction & Purification System
Reactor
Rotary Evaporator
Thin film evaporator
Molecular distillation device

ChemTron Analytics
Viscometer
Titrator
Density

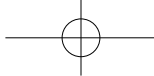
ChemVak[®]

ChemVak, a brand of Wiggins, is specialized in pump technology offering an extensive range of vacuum pumps, vacuum filtration and liquid pumps for various applications, including chemical-resistant diaphragm pumps, oil-free pumps and rotary vane vacuum pumps, vacuum filtration equipment for a wide range of different applications. In addition, peristaltic pumps, piston liquid pumps, solvent recovery systems and bio-suction systems are part of the product range.

ChemTron[®]

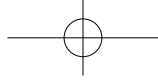
ChemTron is our product brand focusing on analysis apparatus, gas generators, chemical reaction solutions, chemical process separation and purification solutions, including efficient chemical separation tools-rotary evaporator, thin film evaporator, molecular distillation device, automatic distillation system, crystallization system etc...





Contents

Application Guide	08
Chemical-resistant Diaphragm Pump.....	10
Vacuum Solvent Recovery System.....	16
Chemical-resistant Vacuum Controller	18
Oil-free Piston Vacuum Pump	22
Oil-free Portable Vacuum / Pressure Pump.....	23
Rotary Vane Vacuum Pump	25
Chemical Hybrid Vacuum Pump	27
COLD TRAP with Refrigerated System	29
Vacuum Filtration	31
Liquid Handling Equipment	46



Vacuum Pump
Vacuum Solvent Recovery System
Vacuum Meter and Controller
Vacuum Filtration

Vacuum Pump

The ability to handle difficult and different vacuum challenges quickly.

Wiggins is your general laboratory companion and provides products that can be used in all kinds of laboratory environments. ChemVak is a product line in vacuum technology offering an extensive range of vacuum pumps for all applications, including :



Chemical-resistant diaphragm vacuum pump which can be used in the chemical, pharmaceutical, petrochemical and other industries

Chemical-resistant diaphragm pump
Frequency conversion chemical-resistant vacuum pump



Chemical-resistant diaphragm pump

Vacuum solvent recovery, which can be utilized to achieve the correct vacuum conditions for diverse applications



Vacuum solvent recovery system



Oil-free piston vacuum pump, no pollution, no need for oil changes

Oil-free piston vacuum pump

Oil-sealed rotary vane vacuum pumps are a proven and widely used vacuum solution for research and production applications.



Rotary vane vacuum pump



Vacuum pump selection guide

Before selecting a vacuum pump, please let us introduce a few basic concepts about vacuum.



Vacuum

Vacuum level refers to the pressure inside a system relative to atmospheric pressure or absolute zero, depending on the measurement basis. The value shown on the vacuum gauge represents the degree of vacuum, which indicates how much lower the system pressure is compared to atmospheric pressure. This value is also called gauge pressure or ultimate relative pressure.

In other words:

Vacuum = Atmospheric Pressure - Absolute Pressure

(Note: Atmospheric pressure is generally taken as 1013.25 mbar.)

The ultimate vacuum of an oil-free piston pump can reach approximately 30 mbar.

The ultimate vacuum of a chemical-resistant diaphragm pump can reach 1 mbar.

The ultimate vacuum of a rotary vane oil pump can reach about 0.0004 mbar.



Ultimate relative pressure

Relative pressure refers to how much lower the measured internal pressure is compared to atmospheric pressure, indicating that the internal pressure of the system is lower than the atmospheric pressure. As the air inside the container is evacuated, the pressure inside the container remains lower than the pressure outside the container. Therefore, when expressing relative pressure or gauge pressure, a negative sign is typically used to indicate that the internal pressure is lower than the external pressure.



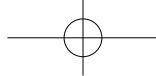
Ultimate absolute pressure

Absolute pressure refers to how much higher the measured internal pressure is compared to the theoretical vacuum, where the theoretical vacuum pressure value is 0 Pa. The comparison is made with the absolute vacuum pressure value in the theoretical state. Due to technological limitations, it is impossible to reduce the internal pressure to an absolute vacuum of 0 Pa. As a result, the vacuum level achieved by the vacuum pump will always be higher than the theoretical vacuum value. Therefore, when expressed in terms of absolute pressure, the value is always positive, and no negative sign is used.



Pumping speed

The pumping speed is a measure of the vacuum pump's ability to evacuate air from a container, typically expressed in units of liters per minute (L/min) or cubic meters per hour (m³/h). It serves as a parameter to compensate for air leakage. To understand this concept, consider that when evacuating a container of the same volume, a vacuum pump with a higher pumping capacity can achieve the desired vacuum more easily, while a pump with a lower pumping capacity may be slow or even unable to reach the required vacuum level. This is because it is impossible for the pipeline or container to be completely air-free. The larger pumping capacity compensates for the loss of vacuum caused by air leakage, allowing the pump to reach the ideal vacuum level more efficiently. Therefore, it is recommended to select a vacuum pump with a higher pumping capacity when calculating theoretical pumping requirements. The specific formula for calculating pumping volume will be introduced below.



After understanding the basic parameters of vacuum pumps such as vacuum degree, absolute pressure and relative pressure, we can enter the formal selection of vacuum pumps.



The required vacuum of the experimental process

The operating pressure of the vacuum pump should meet the pressure requirements of the process.



The required pumping speed of the experimental process

The required pumping speed of the vacuum pump refers to its capacity to evacuate gas, vapor, or entrained media from the system under operating pressure. Common units include m^3/h , L/min , and L/s . The required pumping speed can be estimated using the following formula to assist in pump selection. In practice, however, vacuum pump selection is a comprehensive process that also depends on application experience and other operating factors.

$$S = (V/t) \times \ln (P1/P2)$$

Where:

S = required pumping speed of the vacuum pump (L/s)

V = volume of the vacuum chamber (L)

t = time required to reach the target vacuum level (s)

P1 = initial pressure (Pa)

P2 = target pressure (Pa)



Determine the composition of the gas being pumped

1. Gas, Liquid, or Particulate Matter:

If the pumped substance is a gas, liquid, or contains particles (e.g., dust), and the gas includes water vapor or impurities such as dust and small particles, a rotary vane vacuum pump should be carefully considered. If high vacuum levels are required, a filter device must be added. The rotary vane vacuum pump can only be used effectively as a vacuum generation device if the impurities are properly filtered.

2. Corrosive Properties of the Gas:

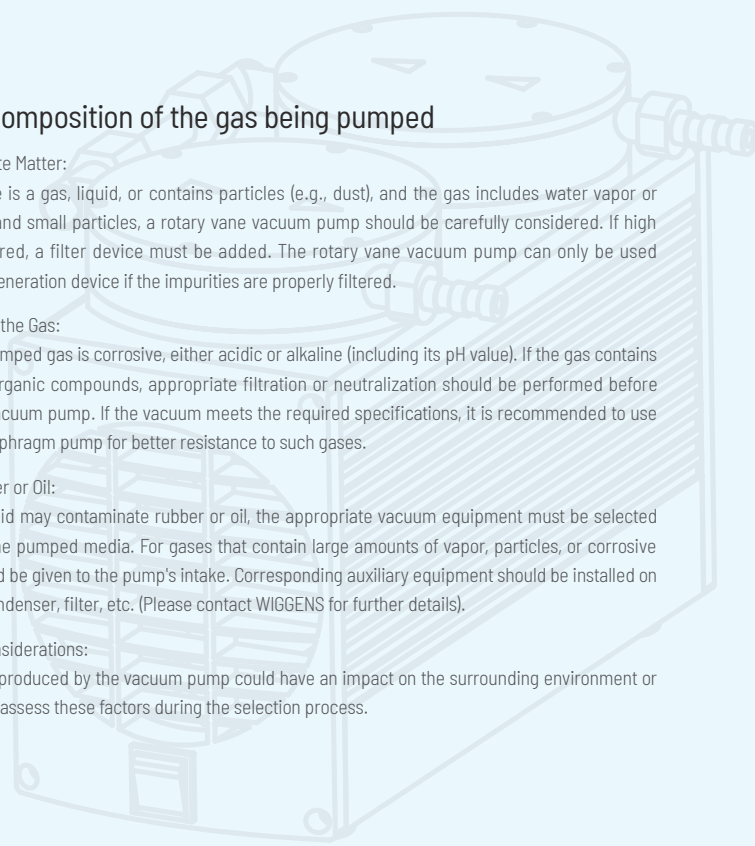
Please inform us if the pumped gas is corrosive, either acidic or alkaline (including its pH value). If the gas contains corrosive acid-base or organic compounds, appropriate filtration or neutralization should be performed before selecting a rotary vane vacuum pump. If the vacuum meets the required specifications, it is recommended to use a chemical-resistant diaphragm pump for better resistance to such gases.

3. Contamination of Rubber or Oil:












If the pumped gas or liquid may contaminate rubber or oil, the appropriate vacuum equipment must be selected based on the nature of the pumped media. For gases that contain large amounts of vapor, particles, or corrosive elements, attention should be given to the pump's intake. Corresponding auxiliary equipment should be installed on the pipeline, such as a condenser, filter, etc. (Please contact WIGGENS for further details).

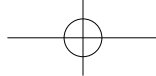
4. Noise and Vibration Considerations:

If the noise and vibration produced by the vacuum pump could have an impact on the surrounding environment or equipment, it is crucial to assess these factors during the selection process.

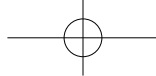


Application Guide

Application	Picture	Description	Pump speed / Vacuum	Recommended vacuum pump
Conventional vacuum requirements		Compact, portable, with certain corrosion resistance	25 L/min 13 mbar	C410 
Vacuum filtration		The filtered sample is non-corrosive	34 L/min 100 mbar	V400 
		The filtered sample is corrosive and requires high corrosion resistance of the vacuum pump	34 L/min 120 mbar	C400 
Vacuum drying		It is recommended to use a chemical resistant diaphragm vacuum pump. In addition, a vacuum gauge and a vacuum regulating valve are also required	35 L/min 13 mbar	C420 
		The samples are usually aqueous, acidic or alkaline solutions, so chemical resistant diaphragm vacuum pumps are often recommended	75 L/min < 8 mbar	C920Z 
Vacuum centrifugal concentration		The vacuum centrifugal concentrator is paired with a vacuum pump, which creates a vacuum to lower the boiling point of the solvent. This, combined with heating and centrifugation, accelerates the concentration of the solvent. This method is typically used for handling volatile and potentially hazardous chemicals, so a chemically resistant diaphragm pump is recommended.	60 L/min < 2 mbar	C960T 
		For extremely low vacuum levels, a rotary vane oil pump is used due to its ability to achieve deeper vacuums. However, it must be paired with a cold trap to prevent vapors from entering and damaging the pump.	180 L/min 4×10^{-4} mbar	R-8D 
Freeze-drying		Rotary vane oil pump is usually used, equipped with oil mist filter and cold trap	180 L/min 4×10^{-4} mbar	R-8D 



Application	Picture	Description	Pump speed / Vacuum	Recommended vacuum pump
Rotary evaporation		A 0.5-3 L evaporating flask requires a vacuum pump with high corrosion resistance and is usually used in conjunction with a vacuum controller.	35 L/min 15 mbar	C420
		A 6-20 L evaporating flask requires a vacuum pump with high corrosion resistance and is typically used in conjunction with a vacuum controller.	60 L/min < 2 mbar	C960T
Multi-channel vacuum applications		The rotary vane oil pump can provide a sufficiently high pumping rate, but it requires a matching cold trap.	360 L/min 4×10^{-4} mbar	R-24D
Liquid suction		After biochemical culture, it is used to separate tissues from the culture medium.	25-40 L/min 100 mbar	BioVac series
vacuum control		Sets and controls the system vacuum level	Vacuum control range: 0.1-1000 mbar	DVR series
Vacuum monitoring		Displays the system vacuum level in real time.	Vacuum measurement range: 0.1-1000 mbar	DVM series



Chemical-Resistant Diaphragm Pump (C Series)

C series construction with PTFE makes them very resistant to chemical vapors from inlet to exhaust and very tolerant to condensates. The pumping chambers are hermetically sealed, ensuring a long service life for the mechanical components.

Most importantly, diaphragm pumps are oil-free, with vastly reduced service demands compared with oil sealed pumps. They eliminate the cost of water and its contamination well-known from water-jet aspirators, and the waste-oil disposal of rotary vane pumps.

They are chemical resistant diaphragm vacuum pumps which can be widely used for aggressive acidic, alkaline, and solvent vapors by utilizing corrosion proof PTFE on all the wetted surfaces. Through innovative mechanical technology and human considerations, The C series is designed to be quiet, safe, low-maintenance, and cost-effective.

Features

High chemical resistant

All wetted parts of C series pump are made of PTFE which is ideal for extremely aggressive / corrosive gases and vapors.

Long-term durable

Head cover and diaphragm made of PTFE/PTFE-coated with stability core for unsurpassed long-term performance

No air pollution, maintenance free

Chemvak C series pumps are driven by diaphragm, without the need of lubricant, regular oil changes and maintenance; with no oil pollution.

Practical

- > smooth surfaces for easy cleaning
- > sealing system provides reduced leakage rates for improved ultimate vacuum

Quiet and low vibration

Direct motor drive with no additional belt transmission with no additional belt-driven transmission; the quality vibration-proof assembly makes Chemvak C series run at the lowest noise level among all other equivalent pumps.

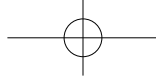
Thermal protection device

Every motor of Chemvak C series pumps has a built-in thermal protection device to shut off the pump automatically when overheated and then resume working when the temperature cools down.

The stability core principle: for unprecedented long-term performance

Chemical-Resistant Diaphragm Pumps provide optimum performance and unsurpassed service intervals even in harsh chemical applications. We achieve this unmatched reliability by manufacturing the most highly stressed components - the head cover and clamping disk.

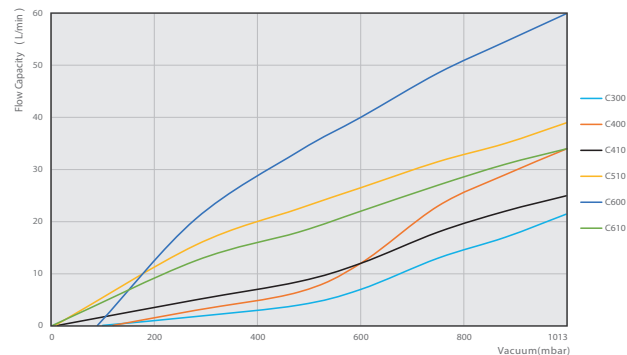
- > high quality PTFE coated EPDM provides long term chemical resistance
- > this thick-walled, diffusion resistant, molded fluoroplastic is supported by a stable metallic core for durability
- > mechanical precision finishing ensures reproducible WIGGENS quality



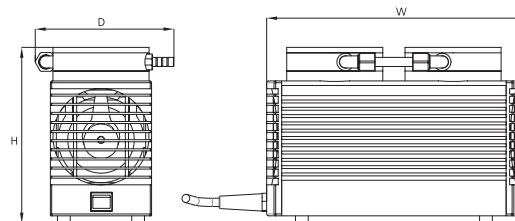
Application

- > Chemical and petrochemical Industry
- > Pharma Industry
- > Filtration processes
- > Vacuum distillation
- > Rotary evaporation
- > Vacuum and centrifugal concentration
- > Solid phase extraction
- > Conventional drying and gel drying
- > Advanced substitute for water-jet pumps

Chemical-Resistant Diaphragm Pumps Flow curve



Note: Above data is based on the 220V/50Hz instrument



Vacuum display and control

Set 1

Order No. :169311-06
Included vacuum trap, regulator and vacuum gauge

Set 2

Order No.: 169312-06
Included vacuum trap, regulator and digital meter DVM150C

Set 3

Order No. : 169314-06
Included vacuum trap, regulator, chemical resistant vacuum controller DVR480

Model / Specifications	C300	C400	C410	C510	C600	C610
Order No.	169300	169400	169410	169510	169600	169610
Flow rate [m ³ /h] at atm. pressure	1.32	2.04	1.5	2.04	3.6	2.22
Flow rate [L/min] at atm. pressure	22	34	25	34	60	37
Ultimate vacuum [mbar]	100	120	13	8	90	2-4
Power [W]	60	95	95	245	270	270
Motor speed [rpm]	1450	1450	1450	1450	1450	1450
Number of stages	Single stage	Single stage	Double stage	Double stage	Single stage	Double stage
Hose connection [mm]	10	10	10	10	10	10
IP code	IP20	IP20	IP20	IP20	IP20	IP20
Sound pressure level [dB]	50	50	50	60	60	60
Dimensions [W x D x H (mm)]	239×111×192	291×151×190	284×158×193	391×170×218	405×156×219	391×175×226
Weight [kg]	6	8.5	8.5	13.2	13.2	13.8
Power supply	220V/50Hz	220V/50Hz	220V/50Hz	220V/50Hz	220V/50Hz	220V/50Hz

A 60 Hz version is available.

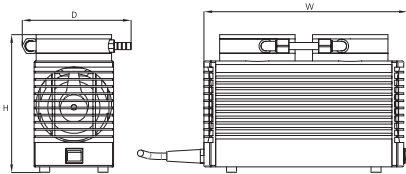
Chemical-Resistant Diaphragm Pump

This series of chemical-resistant diaphragm vacuum pumps incorporates a special diaphragm technology characterized by a split diaphragm and base design. This configuration not only preserves the essential features of traditional vacuum pumps but also delivers higher flow rates, enhancing overall performance.

A significant benefit of this diaphragm technology is the ease of maintenance. With this design, only the diaphragm needs to be replaced during servicing, eliminating the need to replace the entire base. This results in a more convenient maintenance process, reducing downtime and operational costs for users while ensuring consistent and reliable pump performance.

Features

- > High chemical resistant
- > Quiet and low vibration
- > Thermal protection
- > Convenient membrane replacement
- > Separate membrane and base design



Vacuum display and control

Set 1

Order No. : 169311-06
Included vacuum trap, regulator and vacuum gauge

Set 2

Order No.: 169312-06
Included vacuum trap, regulator and digital meter DVM150C

Set 3

Order No. : 169314-06
Included vacuum trap, regulator, chemical resistant vacuum controller DVR480

Specifications

Model / Specifications	C420	C520	C602
Order No.	169420	169520	169602
Flow rate [m ³ /h] at atm. pressure	1.5	3.0	4.2
Flow rate [L/min] at atm. pressure	35	50	70
Ultimate vacuum [mbar]	15	10	80
Power [W]	95	245	270
Motor speed [rpm]	1450	1450	1450
Pump head	Double stage	Double stage	Single stage
Hose connections [mm]	10	10	10
IP code	IP20	IP20	IP20
Sound pressure level [dB]	50	55	60
Dimensions W x D x H [mm]	294x156x195	380x156x226	380x171x226
Weight [kg]	8.5	14.5	14.5
Power supply	220V/50Hz	220V/50Hz	220V/50Hz

A 60 Hz version is available.

Chemical-resistant diaphragm pump

Fast pumping speed

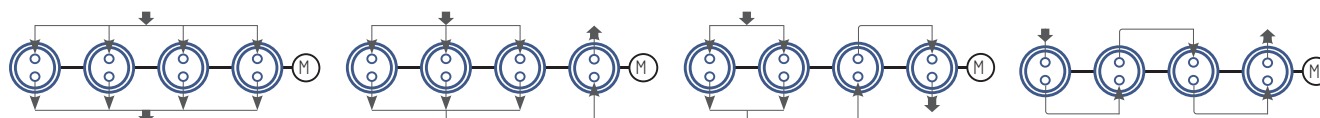
The C900 series Chemical-Resistant Diaphragm Pumps are specifically designed for handling aggressive gases and vapors.

Features

- > All wetted parts are made of chemical resistant materials
- > Fast pumping speed
- > Low noise
- > Overheat protection
- > Vacuum can be controlled by manual valve, vacuum controller
- > Easy and convenient for maintenance



The motor drives the pump head to vacuum



C900E with a single stage of pump head

C920Z with a double stage of pump head

C960T with a triple stage of pump head

C980V with a quadruple stage of pump head

Order No. :169311-06

Included vacuum pump, vacuum trap, regulator and vacuum gauge

Set 1



Order No.: 169312-06

Included vacuum pump, vacuum trap, regulator and digital meter DVM150C

Set 2



Order No. : 169314-06

Included vacuum pump, vacuum trap, regulator, chemical resistant vacuum controller DVR480

Set 3



Model / Specifications	C900E	C920Z	C960T	C980V
Order No.	169900	169920	169960	169980
Flow rate [m ³ /h] at atm. pressure	5.7	4.5	3.6	2.4
Flow rate [L/min] at atm. pressure	95	75	60	40
Ultimate vacuum [mbar]	< 30	< 8	< 2	< 1
Power [W]	370	370	370	370
Motor speed [rpm]	1425	1425	1425	1425
Number of stages	Single stage	Double stage	Triple stage	Quadruple stage
Hose connection [mm]	10	10	10	10
IP code	IP20	IP20	IP20	IP20
Sound pressure level [dB]	50	50	50	50
Dimensions [W x D x H (mm)]	506×277×197	506×277×197	506×277×197	522×268×197
Weight [kg]	21.5	21.5	21.5	21.5
Power supply	220V/50Hz	220V/50Hz	220V/50Hz	220V/50Hz

Chemical-resistant diaphragm pump

Variable-frequency vacuum pump with high pumping speed

The Chemical-Resistant Diaphragm Pumps are specifically designed for handling aggressive gases and vapors.

The variable-frequency pump must be connected to a variable-frequency controller to regulate the vacuum by adjusting the motor speed. This setup is particularly suitable for vacuum control in large-capacity systems, ensuring both faster pumping speeds and stable vacuum levels.

Features

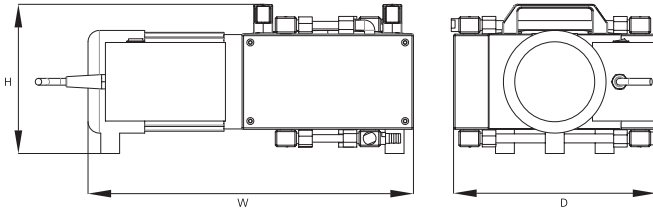
- > All wetted parts are made of chemical resistant materials
- > Variable frequency motor for fast pumping speed
- > Low noise
- > Overheat protection
- > Vacuum can be controlled by manual valve, vacuum controller or variable frequency controller
- > Easy and convenient for maintenance



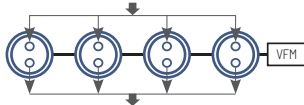
Variable-frequency vacuum pump without frequency controller



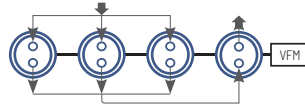
Variable-frequency vacuum pump with frequency controller



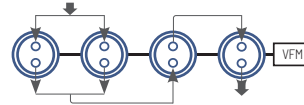
The motor drives the pump head to vacuum



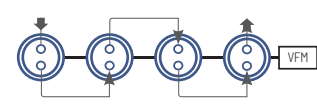
C900EF with variable frequency motor and single stage of pump head



C920ZF with variable frequency motor and double stage of pump head



C960TF with variable frequency motor and triple stage of pump head



C980VF with variable frequency motor and quadruple stage of pump head

Model / Specifications	C900EF	C920ZF	C960TF	C980VF
Order No. [w/o frequency controller]	169900B	169920B	169960B	169980B
Order No. [w/ frequency controller]	169901B	169921B	169961B	169981B
Flow rate [m ³ /h] at atm. pressure	5.7	4.5	3.6	2.4
Flow rate [L/min] at atm. pressure	95	75	60	40
Ultimate vacuum [mbar]	< 30	< 8	< 2	< 1
Power [W]	370	370	370	370
Motor speed [rpm]	0~1380	0~1380	0~1380	0~1380
Number of stages	Single stage	Double stage	Triple stage	Quadruple stage
Hose connection [mm]	10	10	10	10
IP code	IP20	IP20	IP20	IP20
Sound pressure level [dB]	50	50	50	50
Dimensions [W x D x H (mm)]	506×277×197	506×277×197	506×277×197	522×268×197
Weight [kg]	21.5	21.5	21.5	21.5
Power supply	200 - 240V, 50Hz	200 - 240V, 50Hz	200 - 240V, 50Hz	200 - 240V, 50Hz

60Hz version is available

Frequency Conversion Chemical Resistant Vacuum Systems

Integrated variable frequency controller

- > A new generation of intelligent vacuum technology features a modular design with integrated variable-frequency pumps and control units. Its compact and lightweight structure makes it highly efficient. The system adjusts the diaphragm pump's speed using a frequency conversion motor and controller, enabling more precise vacuum pressure control.
- > PID self-tuning for vacuum control, the controller automatically changes the PID value according to the artificial intelligence logic algorithm, accurately adjusting the motor speed and stabilizing the precise vacuum degree.
- > The systems in this series are suitable for handling corrosive gases in the chemical, pharmaceutical, petrochemical and other industries, such as extraction, vacuum distillation, rotary evaporator, vacuum concentration, centrifugal concentration, solid phase extraction and other uses.
- > All parts in contact with gas and condensate are made of high-quality PTFE. The gas chamber and drive chamber are separated and sealed to ensure a long life of the mechanical parts.
- > Overheat protection, automatic shutdown when the temperature is too high, and automatic start when it goes back to the normal temperature, to ensure the security and stability of the system.

Features

- > Vacuum stability, easy to control, high control precision
- > Excellent chemical and vapour resistance
- > In the high vacuum degree, the performance is still very good
- > Long life, simple and convenient for maintenance
- > Easy to operate with stable, long-term performance
- > Small structural size, energy conservation and environmental protection
- > High level of protection for motor, suitable for various environments

Application

- > Vacuum distillation for large volume
- > Large capacity reaction kettle
- > Large capacity vacuum filtration
- > Vacuum enrichment
- > Vacuum drying
- > Various applications in the semiconductor industry



Standard Configuration:

The vacuum system integrates a variable-frequency controller and also includes a vacuum trap, regulator, and vacuum gauge (Order No. 169311-06)

Model / Specifications	C900EEF	C920ZEF	C960TEF	C980VEF
Order No.	169900C	169920C	169960C	169980C
Pump flow rate [m ³ /h] at atm. pressure	5.7	4.5	3.6	2.4
Pump flow rate [L/min] at atm. pressure	95	75	60	40
Ultimate vacuum [mbar]	< 30	< 8	< 2	< 1
Vacuum setting range [mbar]	0.1~1000	0.1~1000	0.1~1000	0.1~1000
Power [W]	400	400	400	400
Motor speed [rpm] @50Hz	0~1380	0~1380	0~1380	0~1380
Number of stages	Single stage	Double stage	Triple stage	Quadruple stage
Hose connection [mm]	10	10	10	10
IP code	IP20	IP20	IP20	IP20
Sound pressure level [dB]	50	50	50	50
Dimensions [W x D x H (mm)]	224×493×498	224×493×498	224×493×498	224×493×498
Weight [kg]	21.5	21.5	21.5	21.5
Power supply	200 - 240V, 50Hz	200 - 240V, 50Hz	200 - 240V, 50Hz	200 - 240V, 50Hz

A 60 Hz version is available.

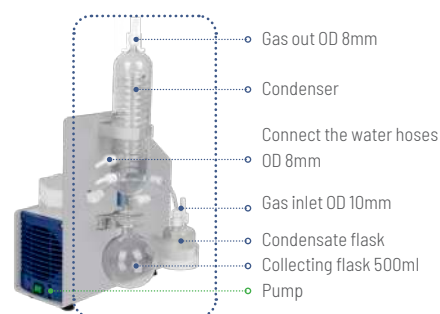
Vacuum Solvent Recovery System

This chemical vacuum system offers a wide range of applications, including evacuation, evaporation, and the handling of gases and vapors in chemical, biological, and pharmaceutical laboratories. It is particularly suited for high vacuum requirements involving high-boiling-point solvents. Typical applications include rotary evaporators and drying ovens.

The inlet separator, made of glass with a protective coating, effectively retains particles and liquid droplets, ensuring system efficiency and reliability. At the outlet, the waste vapor condenser is both highly efficient and compact. It enables effective solvent recycling and provides active environmental protection. Additionally, the system features exceptional chemical resistance and superior vapor tolerance.

Features

- > Sealed system to enable a good distillation environment
- > Precise control of the evaporation process
- > Compact and environmentally friendly design
- > Low noise
- > Buffer bottle prevents particles from damaging the pump



CSH System

The inlet of the CSH System is connected to a separation bottle to trap the solid particles and sticky fluid, while the outlet is connected to a condenser designed to condense and recover the solvent at atmospheric pressure.

Model	CSH410	CSH510	CSH520	CSH610
Power [W]	95	245	150	245
Ultimate Vacuum [mbar]	13	8	10	2
Pump max. Flow Rate [L/min]	25	34	50	34
Outlet Size [outer diameter in mm]	10	10	10	10
IP code	IP20	IP20	IP20	IP20
Dimensions [W x D x H (mm)]	341 x 255 x 545	341 x 255 x 545	341 x 255 x 545	341 x 255 x 545
Weight [kg]	12.5	15.8	17.1	16.6
Order No.	900512	900513	900515	900514



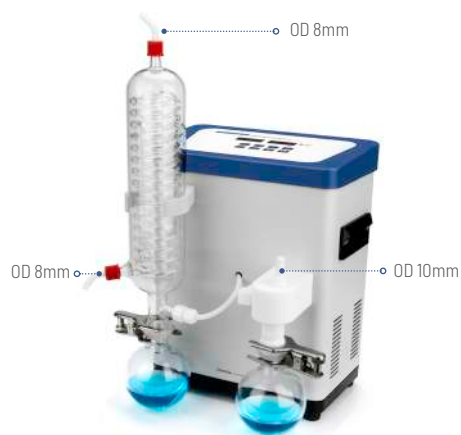
CSH System
Standard package includes the Chemical-Resistant Diaphragm Pump, separator, condenser

CSC System

The inlet of the CSC System is connected to a segregation flask, while the outlet is connected to a condenser that condenses and recovers solvents. Additionally, the system includes a vacuum controller to set, display, and regulate the vacuum.

This fully automated vacuum generation system features a chemical-resistant diaphragm vacuum pump, a base plate, a high-performance condenser, a segregation flask, a vacuum control device, and integrated valves.

Model	CSC410	CSC510	CSC520	CSC610
Power [W]	95	245	150	245
Ultimate Vacuum [mbar]	13	8	10	2
Pump max. Flow Rate [L/min]	25	34	50	34
Outlet Size [outer diameter in mm]	10	10	10	10
IP code	IP20	IP20	IP20	IP20
Dimensions [W x D x H (mm)]	304x280x517	363x288x516	396x338x535	359x304x524
Weight [kg]	16	19.3	20.6	20.1
Order No.	900522	900523	900525	900524



CSC System
Standard package includes the Chemical-Resistant Diaphragm Pump, vacuum controller, separator, condenser

CSP System

The inlet of the CSP System is connected to a segregation bottle, while the outlet is connected to a condenser designed to condense and recover solvents. Additionally, the system is equipped with a vacuum controller to set, monitor, and regulate the vacuum.

Model	CSP410	CSP510	CSP520	CSP610
Power [W]	95	245	150	245
Ultimate Vacuum [mbar]	13	8	10	2
Pump max. Flow Rate [L/min]	25	34	50	34
Outlet Size [outer diameter in mm]	10	10	10	10
IP code	IP20	IP20	IP20	IP20
Dimensions [W x D x H (mm)]	317 x 429 x 525	317 x 429 x 525	317 x 429 x 525	317 x 429 x 525
Weight [kg]	16	19.3	20.6	20.1
Order No.	900542	900543	900545	900544



CSP System
Standard package includes the Chemical-Resistant Diaphragm Pump, vacuum controller, separator, condenser

CSC Systems (Frequency conversion model)

A new generation of intelligent vacuum technology featuring a modular design with integrated variable-frequency pumps and control units, offering a compact and lightweight structure.

- > PID self-tuning for vacuum control, the controller automatically changes the PID value according to the artificial intelligence logic algorithm, accurately adjusting the motor speed to get the precise vacuum value.
- > All parts in contact with gas and condensate are made of high-quality PTFE. The gas chamber and drive chamber are separated and sealed to ensure a long life of the mechanical parts
- > It can be directly connected to the power supply and process system.
- > A recovery flask is installed at the air inlet to prevent solid particles and liquid water from entering the pump chamber.

Model	CSC900E	CSC920Z	CSC960T	CSC980V
Power [W]	400	400	400	400
Resolution [mbar]	0.1	0.1	0.1	0.1
Setting range [mbar]	0.1-1000	0.1-1000	0.1-1000	0.1-1000
Max. vacuum [mbar]	< 30	< 8	< 2	< 1
Pump max. Flow Rate [L/min]	95	75	60	40
Outlet [mm]	10	10	10	10
IP code	IP20	IP20	IP20	IP20
Dimensions [W x D x H (mm)]	334x380x568	334x380x568	334x380x568	334x380x568
Weight [kg]	25	25	25	25
Sound pressure level [dB]	50	50	50	50
Order No.	900532	900533	900534	900535



CSC System (Frequency conversion)
Standard package includes the Chemical-Resistant Diaphragm Pump, variable frequency controller, separator, condenser

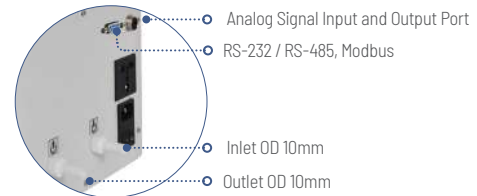
Chemical Resistant Vacuum Controller

- > Wide measurement and control range
- > Control the vacuum down to 0.1 mbar
- > Up to 5-step program control
- > All parts that come into contact with gases and vapors are made of PTFE or highly durable ceramic to ensure high chemical resistance
- > Bright LED display and convenient on-touch control
- > RS-232 and analog connection available
- > Pressure release feature for easy vacuum system installation
- > Direct electric control of the vacuum pump
- > Energy-saving and environmentally friendly
- > Suitable for continuous operation

Model	DVR480	DVR480-Pro
Order No.	900414-1	900414-2
Voltage	100-240V, 50/60Hz	100-240V, 50/60Hz
Displayed Vacuum Accuracy [mbar]	0.1	0.1
Controllable Range [mbar]	0.1...1000	0.1...1000
Measurement Accuracy	0.25%F.S	0.1%F.S
Display	LED	LED
Control Mode	On-Touch	On-Touch
Timer / Program	Yes / Up to 5 Steps	Yes / Up to 5 Steps
Pressure Release Feature	Yes	Yes
Electrical Control of the Pump	Yes	Yes
Protection Category	IP40	IP40
Corrosion resistance	All parts that come into contact with gases are made of PTFE or highly durable ceramic to ensure the resistance to various acid, base, or organic solvent gases.	
Dimensions [W x D x H (mm)]	153x179x220	153x179x220



DVR480

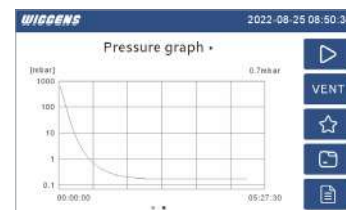


Chemical Resistant Vacuum Controller

Wiggins introduces the DVR580, a new-generation vacuum controller featuring innovative vacuum control technology. Designed for demanding vacuum applications, it simplifies the management of complex processes with precision and ease. The DVR580 is the ideal solution for laboratories requiring precise, reliable, and user-friendly vacuum control. Its advanced design and innovative technology make it perfect for a wide range of applications.

- > Continuously adjustable
- > Large, high-resolution TFT touch display with multilingual user interface
- > Parts being in contact with the medium made of chemical resistant material
- > Integrated programmer
- > USB connection
- > RS232 / RS485 interface for communication
- > Integrates two vacuum control modes, valve control and frequency-conversion control

Model	DVR580
Order No.	900580
Voltage	100-240V / 50Hz
Hose connections of inlet / outlet [mm]	OD 10
Displayed Vacuum Accuracy [mbar]	0.1
Controllable Range [mbar]	0.1-1010
Measurement Accuracy	0.25%F.S
Display	Touch screen
Control Mode	Turning knob
Timer / Program	Yes, Max. 6 steps
Pressure Release Feature	Continuous / intermittent pressure relief
Protection Category	IP40
Communication interfaces	RS232, RS485, USB
Corrosion resistance	All parts that come into contact with gases are made of PTFE or highly durable ceramic to ensure the resistance to various acid, base, or organic solvent gases.
Dimensions [W x D x H (mm)]	170x218x207





Accessories for Chemical-Resistant Diaphragm Pumps

General purpose valves

A range of plug valves for applications requiring pressure and temperature resistance, with a maximum operating pressure of 1 bar and a maximum vacuum of 7 mbar.

Note: Rapid changes in temperature in excess of 25 °C /min may cause these valves to leak due to the expansion properties of PTFE. It can be sterilized at 135 °C .

Straight Through Bayonet

Order No.	Outer Diameter [mm]	Inner Diameter [mm]
016.702.5.2	4.5	2
016.702.2	6.0	2
016.703.7.2	6.8	3
016.703.2	8.0	3
016.704.9.2	9.0	4
016.704.2	10.0	4
016.705.2	11.0	5
016.706.2	16	10



Straight Through Screw

Order No.	Outer Diameter [mm]	Inner Diameter [mm]
016.1202.6.2	6	2
016.1203.2	8	3
016.1204.2	8	4



T-Shape Bayonet

Order No.	Outer Diameter [mm]	Inner Diameter [mm]
016.802.5.2	4.5	2
016.802.2	6.0	2
016.803.7.2	6.8	3
016.803.2	8.0	3
016.804.9.2	9.0	4
016.804.2	10.0	4
016.805.2	11.0	5



T-Shape Screw

Order No.	Outer Diameter [mm]	Inner Diameter [mm]
016.1302.6.2	6	2
016.1303.2	8	3
016.1304.2	8	4



Straight Through Connector

Order No.	Outer Diameter [mm]	Inner Diameter [mm]
016.902.5.2	4.5	2
016.902.2	6.0	2
016.903.7.2	6.8	3
016.903.2	8.0	3
016.904.9.2	9.0	4
016.904.2	10.0	4
016.905.2	11.0	5
016.907.2	16	10



L-Shape Connector

Order No.	Outer Diameter [mm]	Inner Diameter [mm]
016.1002.5.2	4.5	2
016.1002.2	6.0	2
016.1003.7.2	6.8	3
016.1003.2	8.0	3
016.1004.9.2	9.0	4
016.1004.2	10.0	4
016.1005.2	11.0	5
016.1006.2	16	10



T-Shape Connector

Order No.	Outer Diameter [mm]	Inner Diameter [mm]
016.1102.5.2	4.5	2
016.1102.2	6.0	2
016.1103.7.2	6.8	3
016.1103.2	8.0	3
016.1104.9.2	9.0	4
016.1104.2	10.0	4
016.1105.2	11.0	5
016.1106.2	16	10



4-Way Connector

Order No.	Outer Diameter [mm]	Inner Diameter [mm]
016.1112.5.2	4.5	2
016.1112.2	6.0	2
016.1113.7.2	6.8	3
016.1113.2	8.0	3
016.1114.9.2	9.0	4
016.1114.2	10.0	4
016.1115.2	11.0	5
016.1116.2	16	10



Accessories For Chemical-Resistant Diaphragm Pumps

PTFE Connector

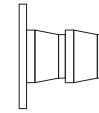
Order No.	Description
C410015	Barbed fitting for tubing 10 mm ID, M10x1, suitable for C300 / 400 / 500 / 600 / 900 series



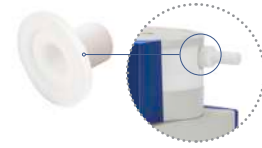
PTFE Connector with O-ring

Adapter

Order No.	Description
C410055	Barbed fitting for tubing 10 mm to KF25 adapter, suitable for C300 / 400 / 510 / 600 / 900 series
C410056	Barbed fitting for tubing 12 mm ID, KF25, suitable for C1200 / 2000 series
C410057	Barbed fitting for tubing 19 mm ID, KF25, suitable for C1200 / 2000 series
C410058	Barbed fitting for tubing 25 mm ID, KF25, suitable for C1200 / 2000 series



C410056



C410055

Silencer

Order No.	Description
C900E030	Suitable for Chemical-Resistant Diaphragm Pumps

Note: Use of a silencer will have a slight impact on the flow rate



Silencer

Diaphragm and Valve Plate Sets

Suitable for	diaphragm	valve plates	Number of pump heads *
C300	C410005	C510013	1
C400/410	C410005	C510013	2
C510/600/610/	C510011	C510013	2
C420	C2000005	C2000013	2
C520/602	C2000006	C2000013	2
C 900E/Z/T/V	C510011	C510013	4
C1200 E/Z/T/V	C2000005	C2000013	4
C2000 E/Z/T/V	C2000005	C2000013	8

*Notes. Replacement of consumables for one pump head requires replacement of one diaphragm and two valve plates



Diaphragm



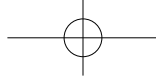
Valve Plate

Diaphragm and valve plates set

Order No.	Description
410001	Diaphragm and valve plates set, 1 diaphragm and 2 valve plate, Suitable for C300/400/410
510001	Diaphragm and valve plates set, 1 diaphragm and 2 valve plates, Suitable for C500/510/600/610/900
1200001	Diaphragm and valve plates set, 1 diaphragm and 2 valve plate, Suitable for C402/420/520/602/1200/2000 series



Diaphragm and valve plates set



Tubing

Order No.	Outer Diameter, mm	Inner Diameter, mm	Thickness, mm	Length, m
PTFE Tubing				
016.1706.01	6	4	1	1
016.1708.01	8	6	1	1
016.1712.01	12	10	1	1
016.1714.01	14	12	1	1
016.1716.01	20	18	1	1
016.1718.01	28	25	1.5	1
Viton Tubing				
168000-01	12	6	3	1
168001-01	14	8	3	1
168002-01	16	10	3	1
168003-01	18	12	3	1
168004-01	25	19	3	1
168005-01	31	25	3	1
Length upon request (min. 1 m)				



PTFE Tubing

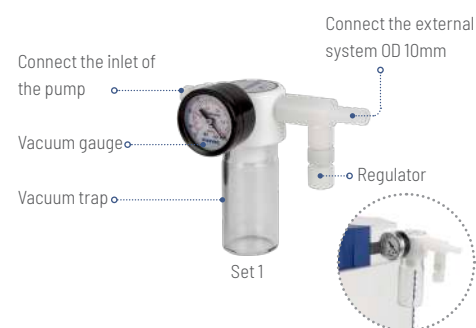


Viton Tubing

Chemical Resistant Vacuum Regulator / Filter Equipment

Order No.	Description
169311-06	Set 1 (Includes vacuum trap, regulator and vacuum gauge)
169312-06	Set 2 (Includes vacuum trap, regulator and digital meter DVM150C)
169313-06	Basic model without vacuum gauge, includes vacuum trap and regulator

Part	Material	Part	Material
Pressure Regulating Valve	PVDF	Filter Bottle	Borosilicate Glass
Filter cartridge	PTFE	Adapter	PTFE
Filter Bracket	ABS	Vacuum Sensor	Stainless Steel



Set 1



Set 2

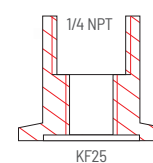
Digital Vacuum Meter

- > Designed for Chemical-Resistant Diaphragm Pumps
- > Compact design, flange connector, strong tightness
- > TFT high brightness screen, easy to read from multiple angles and at long distances
- > Can be directly connected to a vacuum pump via a flange connection

Models	DVM150C
Voltage	100-240V, 50/60Hz
Display screen	High brightness TFT
Display resolution	0.1 mbar
Testing range	0.1-1000 mbar
Material of sensor	Ceramic
Material for contact parts of the gas	PTFE and Ceramic
Connection	KF25 or 1/4NPT female
Dimensions [W x D x H (mm)]	72x65x141
Order No.	15060-01



DVM150C



Oil-free piston vacuum pump

The Chemvak V Series vacuum pump is a piston-powered, oil-free pump. It combines innovative electronic and mechanical technology with a user-friendly design concept, offering a compact, lightweight structure that is clean, maintenance-free, safe, and comfortable to use.

Features

No air pollution, maintenance-free

The Chemvak V Series pumps are piston-driven, requiring no lubrication or oil changes, ensuring maintenance-free operation and no risk of oil contamination.

Moisture trap with filter cartridge

The Chemvak V Series pumps are equipped with a filter cartridge at the air inlet to remove particles and moisture, effectively extending the pump's lifespan.

Oil-free

The oil-free piston vacuum pump provides continuous, reliable, high flow vacuum for your container.

Vacuum regulator

The ChemVak V Series pumps are equipped with a vacuum regulator to adjust vacuum.

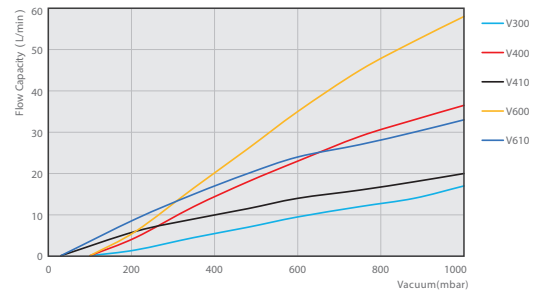
Thermal protection device

Each motor in the Chemvak V Series pumps features built-in thermal protection, which automatically shuts off the pump when it overheats and resumes operation once the temperature cools down.

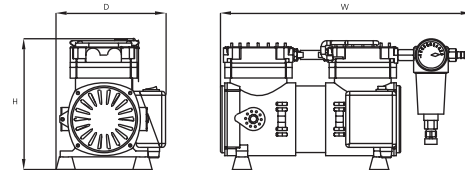
Application

- > Biology laboratories
- > Food industry
- > Microbiological detection
- > Vacuum extraction
- > Liquid filtration
- > Vacuum drying
- > Suspended solids measurement

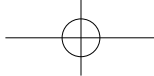
Oil-Free Piston Vacuum Pumps flow curve



Note: Above data is based on the 220V/50Hz instrument



Model / Specifications	V300DC	V300	V400	V410	V600	V610	V800	V810
Order No.	167330	167300	167400	167410	167600	167610	167800	167810
Flow rate [m ³ /h] at atm. pressure	1.02	1.02	2.04	1.14	3.6	2.4	4.8	3
Flow rate [L/min] at atm. pressure	17	17	34	19	60	40	80	50
Ultimate vacuum [mbar]	150	100	100	30	120	30	100	30
Power [W]	35	60	80	80	190	210	220	220
Max. current [A]	3	0.3	0.4	0.4	1	1	1	1
Motor speed [rpm]	1450	1450	1450	1450	1450	1450	1450	1450
Hose connections OD [mm]	9	9	9	9	9	9	9	9
IP code	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20
Sound pressure level [dB]	50	50	60	50	52	65	75	75
Dimensions [W x D x H (mm)]	294x120x171	274x120x167	308x140x167	308x140x167	350x170x197	350x170x197	336x170x197	336x170x197
Weight [kg]	4.4	4.4	5.4	5.4	8.6	8.6	8.6	8.6
Power supply	DC12	220V/50Hz	220V/50Hz	220V/50Hz	220V/50Hz	220V/50Hz	220V/50Hz	220V/50Hz



Oil-free Portable Vacuum/Pressure Pump

The vacuum/pressure dual-purpose pump is piston-driven and is equipped with independent vacuum and pressure gauges. The vacuum level and pressure can be easily adjusted through a control valve. It also features a filter to prevent liquid backflow into the pump body.

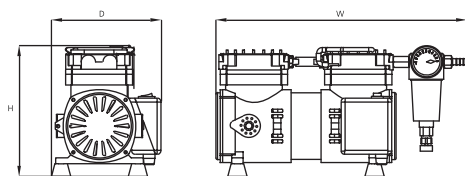
The pump is suitable for applications in various fields, including life sciences, environmental testing, and industrial production.

Features

- > Easy-to-adjust vacuum and pressure regulators with individual gauges
- > Includes traps and filter unit to protect pump
- > Thermal protection
- > Efficient and compact, saving space

Application

- > Vacuum adsorption/handling
- > Printing and packaging (paper adhesion, positioning)
- > Product inspection (leak testing)



Specifications

Model	V430
Order No.	167430
Flow rate [m ³ /h] at atm. pressure	1.68
Flow rate [L/min] at atm. pressure	28
Ultimate vacuum / pressure [mbar]	150/5500
Power [W]	125
Max. current [A]	0.6
Motor speed [rpm]	1450
Hose connections OD [mm]	9
IP code	IP20
Sound pressure level [dB]	50
Dimensions W x D x H [mm]	247x235x200
Weight [kg]	5.5
Power supply	220 V / 50 Hz

Accessories for Oil-Free Piston Pumps

Connector

Replace the inlet port on the pump

Description	Suitable for	Order No.
Connectors		
Outlet Diameter 9.5 mm	Oil-Free Piston Pumps	167300-20
Outlet Diameter 8 mm	Oil-Free Piston Pumps	167300-21
Outlet Diameter 6.4 mm	Oil-Free Piston Pumps	167300-26
Outlet Diameter 4.8 mm	Oil-Free Piston Pumps	167300-23
Outlet Diameter 3.2 mm	Oil-Free Piston Pumps	167300-24
L-Shape Connector		
Outlet Diameter 8 mm	Oil-Free Piston Pumps	167300-25
Quick Connection Outlet		
Outlet Diameter 12 mm	Oil-Free Piston Pumps	168100-12
Outlet Diameter 10 mm	Oil-Free Piston Pumps	168100-10
Outlet Diameter 8 mm	Oil-Free Piston Pumps	168100-08
Outlet Diameter 6 mm	Oil-Free Piston Pumps	168100-06
Outlet Diameter 4 mm	Oil-Free Piston Pumps	168100-04



Silencer

Replace the outlet silencer on the pump

Description	Suitable for	Order No.
Silencer	V300/400/410/V430	167300-42
Silencer	V600/610/V800/V810	167600-42



Tubing

Outer Diameter mm	Inner Diameter mm	Thickness mm	Length m	Suitable for	Order No.
PER Tubes					
6	4	1	1	A,C,V Pumps	168010-01
8	6	1	1	A,C,V Pumps	168011-01
10	8	1	1	A,C,V Pumps	168012-01
12	10	1	1	A,C,V Pumps	168013-01
Silicon Tubes					
12	6	3	1	V Pumps	168020-01
14	8	3	1	V Pumps	168021-01
16	10	3	1	V Pumps	168022-01

Length upon request (min. 1 m)



Foot switch

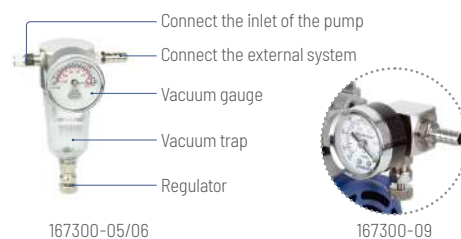
Description	Suitable for	Order No.
Foot switch*	Applicable to C and V Series Vacuum Pumps	167200-41

*Factory installation



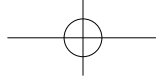
Non-Chemical-Resistant Filtration Device

Description	Suitable for	Order No.
Non-Chemical-Resistant Filtration Device Set 1 (including pressure gauge)	V300/400/410/V430	167300-05
Non-Chemical-Resistant Filtration Device Set 1 (including pressure gauge)	V600/610	167300-06
Non-Chemical-Resistant Filtration Device Set 1 (including pressure gauge)	V800/V810	167300-09



167300-05/06

167300-09



Rotary Vane Vacuum Pump

Oil-sealed rotary vane vacuum pumps are widely used in research and production, which can be used independently, they can be used independently or as backing pumps for molecular pumps or diffusion pumps. WIGGENS direct-driven rotary vane pumps are available as one and two-stage versions, covering the range from desktop lab pumps to production line pumps, featuring low noise, stable operating temperature under common voltages and frequencies, and a long service life. Various application areas may include vacuum distillation, vacuum filtration, vacuum testing, vacuum freeze drying, vacuum coating, vacuum leak detection, vacuum packaging, vacuum adsorption, etc.



R-4SN



R-8SN



R-16SN



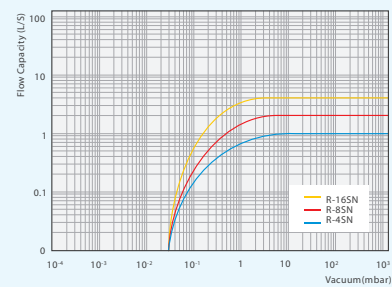
Oil level indication



Connector and adapter



Pumping rate curve



Note: The above data is based on a 220 V / 50 Hz unit

Model / Specifications	R-4SN	R-8SN	R-16SN
Order No.	900101*	900102*	900104**
Flow rate [m ³ /h] at atm. pressure	3	7.2	14.4
Flow rate [L/min] at atm. pressure	50	120	240
Ultimate vacuum [mbar]	2.5 x 10 ⁻²	2.5 x 10 ⁻²	2.5 x 10 ⁻²
Power [W]	180	250	550
Motor speed [rpm]	1400	1400	1400
Inlet connection	SAE 3/8" / UNF 7/16-20	SAE 3/8" / UNF 7/16-20	DN25KF
Outlet connection	DN25KF	DN25KF	DN25KF
Oil filling volume [L]	0.25	0.33	1
IP code	IP20	IP20	IP20
Sound pressure level [dB]	54	54	54
Dimensions [W x D x H (mm)]	314x280x122	314x288x142	512x300x158
Weight [kg]	9	11	22
Power supply	220 V / 50 Hz	220 V / 50 Hz	220V/50Hz

*Standard package includes the pump only. Pump oil must be purchased separately

**Standard package includes the pump, a barbed fitting adapter for tubing ID 12 mm, and two KF25 flange clamps with sealing rings. Pump oil must be purchased separately



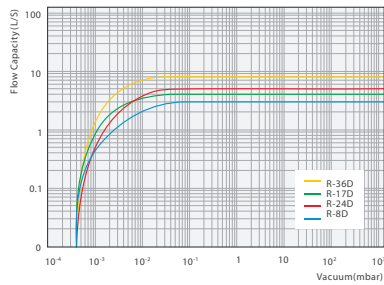
Features

- > Compact structure
- > Very good sealing
- > No backflow
- > Prevents oil spillage
- > Low noise
- > Oil inspection window
- > Handle for easy transportation
- > Long service life
- > Low and stable ultimate vacuum
- > High evaporation resistance
- > Comparatively high chemical resistance
- > High longevity
- > Low maintenance requirements
- > Low oil mist
- > Gas ballast valve
- > Overcurrent protection

Application

- > Vacuum distillation
- > Vacuum filtration
- > Vacuum testing
- > Vacuum freeze drying
- > Vacuum coating
- > Leak detection
- > Vacuum packaging
- > Vacuum adsorption
- > As a backing pump for turbo-molecular pumps or diffusion pumps

Pumping rate curve



Note: Above data is based on the 220V/50Hz instrument

Model / Specifications	R-8D	R-17D	R-24D	R-36D
Order No.	900111	900112	900025	900035
Flow rate [m ³ /h] at atm. pressure	10.8	16.8	21.6	32.4
Flow rate [L/min] at atm. pressure	180	280	360	540
Ultimate vacuum [mbar]	4.0 x 10 ⁻⁴	4.0 x 10 ⁻⁴	4.0 x 10 ⁻⁴	4.0 x 10 ⁻⁴
Power [W]	550	750	750	1100
Motor speed [rpm]	1400	1400	1400	1400
Hose connections of inlet	DN25KF	DN25KF	DN25KF	DN25KF
Hose connections of outlet	DN25KF	DN25KF	DN25KF	DN25KF
Oil filling volume [L]	1.1	1.4	1.9	2.1
IP code	IP20	IP20	IP20	IP20
Sound pressure level [dB]	54	54	56	56
Dimensions [W x D x H (mm)]	485 x 252 x 165	510 x 252 x 165	570 x 288 x 205	600 x 288 x 205
Weight [kg]	29	31	37	39
Power supply	220V/50Hz	220V/50Hz	220V/50Hz	220V/50Hz

Standard package includes the pump, a barbed fitting adapter for tubing ID 12 mm, and two KF25 flange clamps with sealing rings. Pump oil must be purchased separately.

Chemical Hybrid Vacuum Pump

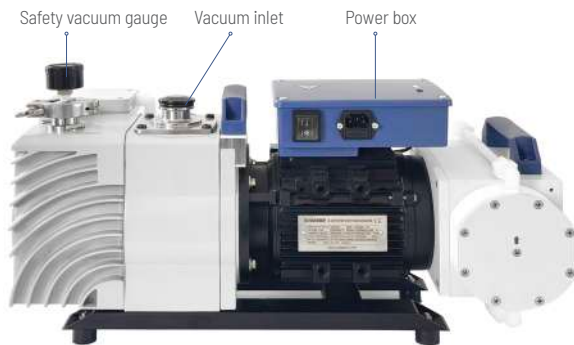
The Wiggins chemical hybrid vacuum pump is an optimized, corrosion-resistant combination of a two-stage rotary vane pump and a chemistry diaphragm pump. The diaphragm pump continuously maintains the oil reservoir of the rotary vane pump under vacuum, preventing condensation in the oil-sealed components under defined pressure and temperature conditions. This design significantly reduces oxidation and the condensation of corrosive gases, thereby extending the overall service life of the pump while retaining the high vacuum performance characteristic of rotary vane pumps.

The chemical hybrid vacuum pump is ideal for high-vacuum applications involving chemical reagents. Typical applications include lyophilization, distillation, vacuum drying ovens, and concentrators.

Features

- > High vacuum and chemical-resistant design
- > Integrated gas-liquid separator to collect oil mist condensation
- > Sight glass for easy monitoring of oil level and quality
- > The cost-effective design may eliminate the need for a separate cold trap in certain applications
- > KF25 vacuum inlet with multiple adapter options
- > Integrated safety vacuum gauge for real-time oil chamber monitoring
- > Available accessories: vacuum tubes, adapters, valves, and digital vacuum meter

Structure Overview



Model / Specifications	Hybrid-6D	Hybrid-8D
Order No.	W1062010	W1062020
Pump head	2 + 2	2 + 2
Flow rate [m ³ /h] at atm. pressure	4.5	10.8
Flow rate [L/min] at atm. pressure	75	180
Ultimate vacuum [mbar]	4 x 10 ⁻⁴	4 x 10 ⁻⁴
Ultimate vacuum with gas ballast [mbar]	4 x 10 ⁻²	4 x 10 ⁻²
Water vapor tolerance with gas ballast [mbar]	50	50
Oil filling volume [L]	0.65~0.85	0.65~0.9
Max. outlet pressure [bar]	1.1	1.1
Inlet connection	KF DN 25	KF DN 25
Outlet connection [mm]	12	12
Power [kW]	0.55	0.75
Motor speed [rpm]	1400	1400
IP code	IP 40	IP 40
Dimensions [W x D x H (mm)]	599 x 307 x 305	678 x 311 x 295
Weight [kg]	37.5	45.5
Sound pressure level [dB]	55	60
Power supply	AC230V 50Hz	AC230V 50Hz

Standard includes the pump, adapter barbed fitting for tubing ID 12mm, one KF25 flange clamp with sealing rings, one vacuum gauge. Pump oil must be purchased separately

Accessories for Rotary Vane Vacuum Pumps

Oil Mist Filter

The gas discharged from the outlet often contains oil mist, which can affect the surrounding environment and may also pose potential health risks. ChemVak's exhaust filter effectively captures nearly all oil mist, redirecting it back into the pump to minimize environmental impact. Additionally, it helps to reduce operational noise for a quieter working environment.

Name	Suitable for	Order No.
Oil mist trap	R-4SN, R-8SN (Direct connection, outlet DN25KF)	900101-1
Oil mist trap	R-16SN, R-8D, R-17D, R-24D, R-36D (Direct connection, outlet DN25KF)	900111-1



Condensate Separator, Dust Filter

Name	Suitable for	Order No.
Filter element for oil mist trap	Replacement for 900111-1 oil mist trap	900111-2
Dust Filter	R-16SN, R-8D, R-17D, R-24D, R-36D	900111-4



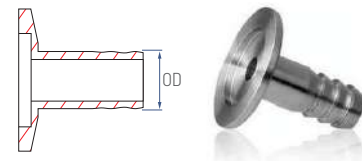
Adapter

Name	Description	Order No.
Adapter	Barbed fitting for tubing ID 8 mm, 3/8 SAE. Suitable for R-4SN / R-8SN	168900-82
Adapter	Barbed fitting for tubing ID 10 mm, 3/8 SAE. Suitable for R-4SN / R-8SN	168900-83
Adapter	Barbed fitting for tubing ID 12 mm, 3/8 SAE. Suitable for R-4SN / R-8SN	168900-84



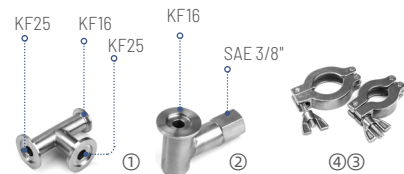
Flange adapter

Name	Description	Order No.
Flange adapter	Barbed fitting for tubing ID 8 mm, KF25. Suitable for R-16SN, R-8D, R-17D, R-24D, R-36D	168900-08
Flange adapter	Barbed fitting for tubing ID 10 mm, KF25. Suitable for R-16SN, R-8D, R-17D, R-24D, R-36D	168900-10
Flange adapter	Barbed fitting for tubing ID 12 mm, KF25. Suitable for R-16SN, R-8D, R-17D, R-24D, R-36D	168900-12
Flange adapter	Barbed fitting for tubing ID 19 mm, KF25. Suitable for R-16SN, R-8D, R-17D, R-24D, R-36D	168900-19
Flange adapter	Barbed fitting for tubing ID 25 mm, KF25. Suitable for R-16SN, R-8D, R-17D, R-24D, R-36D	168900-25



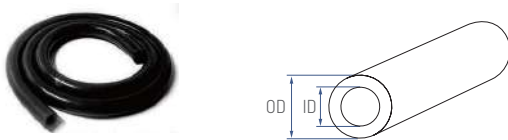
Adapter

No.	Description	Order No.
①	Connector, KF16 to KF25, suitable for R-16SN, R-8D, R-17D, R-24D, R-36D	DVM150BJFL001
②	Connector, KF16 to threaded fitting, suitable for R-4SN, R-8SN	DVM150BJFL002
③	KF16 flange clamp, with sealing ring	BJFL003
④	KF25 flange clamp, with sealing ring	BJFL004



Thick Vacuum Tubing

Thick rubber tubing designed for high-vacuum applications, offering excellent durability, flexibility, and airtight performance to ensure reliable operation under extreme conditions.



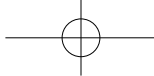
Inner Diameter (mm)	Thickness (mm)	Length (m)	Order No.
8	5	1	22690-06
10	9.5	1	22690-11
12	9.5	1	22690-13
19	9.5	1	22690-21
25	9.5	1	22690-26

Digital Vacuum Meter

- > Designed for rotary vane pumps
- > Compact design with flange connection, ensuring strong sealing performance
- > High-brightness TFT screen for easy viewing from multiple angles and at long distances
- > Direct flange connection to vacuum pumps, with stainless steel materials for gas-contacting parts
- > Standard KF16 connection



Model	Display resolution	Testing range	Material of sensor	Dimensions [W x D x H (mm)]	Order No.
DVM150Pro	0.001 mbar	0.001-9.999 mbar	PIRANI	100x65x55	15060-02



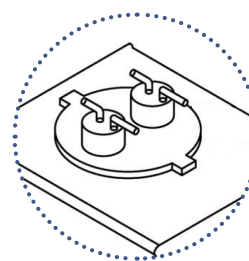
Cold Trap with Refrigerated System

Cold traps are designed to capture condensation from humidity or solvents by providing a low-temperature surface where vapors condense into liquids or solids. Commonly used alongside vacuum pumps, they play a critical role in protecting pumps and maintaining system integrity.

These devices are essential in applications involving vacuum distillation, freeze-drying, and volatile compound separation. They are particularly effective in high-vacuum setups, such as those using oil diffusion or turbo-molecular pumps, where they prevent contamination and reduce pump load. Cold traps are also widely employed in systems with rotating evaporators to efficiently collect solvent vapors.

Features

- > Compact design with a small footprint
- > State-of-the-art control technology for fast and precise results
- > User-friendly and intuitive operation
- > Extra-bright display, easy to read from a distance
- > Removable venting grid for quick and easy cleaning
- > Two glass cold traps can be configured in series or parallel



Bath lid

Additional advantages of CTB-40C

Protective functions, adjustable high temperature cut-off or dry-running protection

With just three keys, the CTB-40C allows for easy temperature settings.



Specifications

Model	CTB-40	CTB-40C
Working temperature	-40 °C	-40 °C ~+20 °C
Temperature display resolution	0.1 °C	0.1 °C
Temperature control mode	Without control	PID control
Bath volume	4.8 L	4.8 L
Dimensions [W x D x H (mm)]	340x446x562	340x446x561
Power supply	220V/50Hz, 3A	220V/50Hz, 3A
Tube connection	Barbed fittings for tubing 10mm inner dia	Barbed fittings for tubing 10mm inner dia

Standard includes the refrigerator, two glass cold traps

Optional natural refrigerant version available

For ordering, please add "N" after the ordering number

Order Information

Order No.	Part	Description
W8603040	CTB-40	Refrigerated system with cold trap, without temperature control
W8603041	CTB-40C	Refrigerated system with cold trap, with temperature control
W01110	Glass cold trap	Borosilicate glass material, 2 each barbed fittings for tubing 10mm inner dia

Electrical aspirator pump

Portable dual-channel, water-jet aspirator pump.

VE-11 creates a vacuum using an aspirator pump that is dependent on the vapor pressure of water. Ideal for rotary vacuum evaporators, decompressing distillatories, vacuum dryers, and vacuum filtering units.

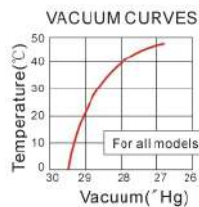
Features

- > Economic use of resources
- > Vacuum can be regulated between 20 mmHg and 74 mmHg
- > Employs two water flow and gas suction devices, a check valve, and an upstream prevention device
- > Housing is made of PP to enhance longevity
- > Small amounts of liquid in the machine don't harm the system. Built-in circulating pump and water tank makes this unit portable and eliminates water waste.
- > Circulating pump continuously forces water quietly across a set of aspirators, and therefore clean and efficient.
- > Included (2) metal aspirators to create a vacuum with a built-in check valve to prevent backflow of water into the aspirator pump.
- > Submerged parts: 304 stainless steel, polypropylene silicone, and nickel-coated brass.
- > Tank features a drain port and spigot for easy water changes.
- > Unlike other vacuum pumps the VE-11 can suck a little bit of solvent. (water)



Standard

- > Tank / Aspirating pump / Tank closure.
- > Two aspirators.
- > Two ø6mm (0.02") silicone rubber tube 20cm (0.7 ft) in length and an additional ø6mm (0.02") silicone rubber tube 100cm (3.3 ft) in length.



VE-11

Vacuum gauge / regulator are optional

Specifications & Ordering Information

Model	VE-11	
Max. Flow Rate	36 L/min (18 L/min*2)	
Water Tank Capacity [L]	9.5	
Ultimate vacuum [mbar]	100	
Motor Power [W]	150	
Material (Water Tank)	Polypropylene	
Dimensions	Water Tank [W x D x H (mm)]	298 x 210 x 227
	Case [W x D x H (mm)]	330 x 265 x 390
	Absorption nozzle [mm]	Ø9.5 x 2
	Overflow nozzle [mm]	Ø17
Safety Devices	Fuse, check valve, overheat protection	
IP code	IP20	
Weight [kg]	5.7	
Order No.	900701	

Application Area

- > Filtration
- > Distillation
- > Rotary evaporation



Vacuum Gauge / Regulator (Option)

Optional Accessories

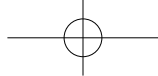
- > Vacuum gauge / regulator: to monitor and control the vacuum pressure. (between 0.0267~0.0998MPa / 7.9~29.5" Hg)
- > Cooling coil: to prevent vacuum from decreasing due to temperature increase.

Accessories

Description	Order No.
Vacuum Gauge / Regulator	900701-1
VC-10 Cooling Coil	900701-2



VC-10 Cooling Coil



Single position vacuum filtration system

Bench-top vacuum filtration system



Vacuum pump and filtration sets



Multi-position vacuum filtration system

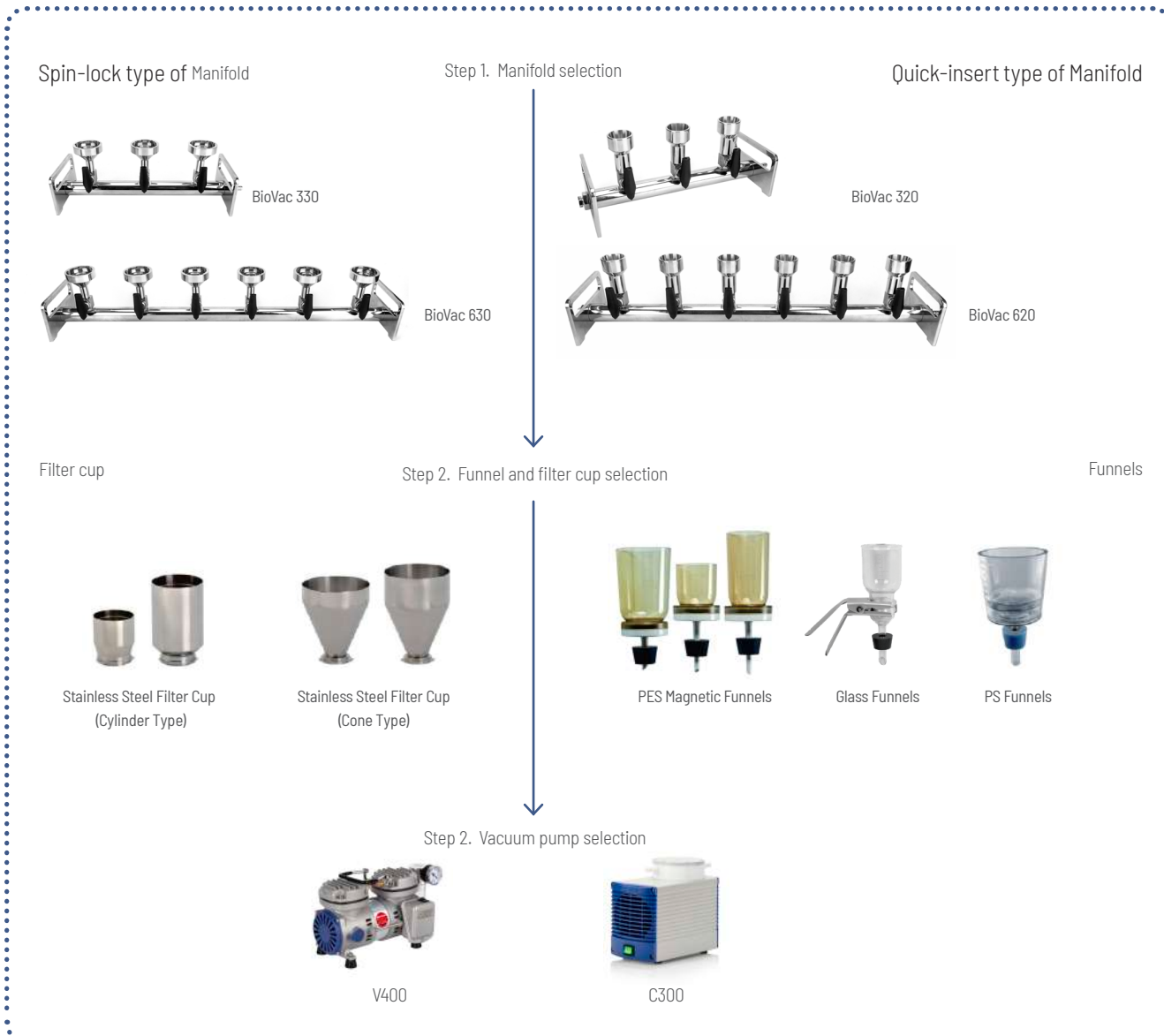
Spin-lock type



Quick-insert type



Vacuum pump and filtration sets



Bench-top vacuum filtration system

Features

- > Wide range of pumps and filtration flasks
- > High quality components
- > Quick filtration results
- > Easily exchangeable elements

Application

- > Suspended solids measurement
- > HPLC
- > Gas chromatography
- > AA micro-analysis
- > Mobile phase decontamination
- > Food and beverages industry
- > Pharma industry



Product	Features	Standard content	Application
V300A	<ul style="list-style-type: none"> > Modular design > Environmentally friendly > Maintenance-free > Low noise > Additional filters for extended pump life 	<ul style="list-style-type: none"> > Oil-free vacuum pump > VF6 filtration flask set > Silicone tube > Fiberglass filter membranes (47mm / 1 µm) > PTFE disc filter 	<ul style="list-style-type: none"> Water quality measurement Normal liquid filtration
V300B	<ul style="list-style-type: none"> > Modular design > Magnetic Stability Cup > Environmentally friendly > Maintenance-free > Low noise > Additional filters for extended pump life 	<ul style="list-style-type: none"> > Oil-free vacuum pump > VF1 magnetic filtration flask set > Silicone tube > Fiberglass filter membranes (47mm / 1 µm) > PTFE disc filter 	<ul style="list-style-type: none"> Suspended solids measurement Normal liquid filtration
V300SS	<ul style="list-style-type: none"> > Modular design > Flame-sterilizable > Spin-Lock system > Environmentally friendly > Maintenance-free > Low noise > Additional filters for extended pump life 	<ul style="list-style-type: none"> > Oil-free vacuum pump > VF2 filtration flask set > Dragon 100 lab burner > Silicone tube > Fiberglass filter membranes (47mm / 1 µm) > PTFE disc filter 	<ul style="list-style-type: none"> Microbiological detection All kinds of liquid filtration
C300A	<ul style="list-style-type: none"> > Chemical-resistant design > Modular design > Environmentally friendly > Low maintenance > Low noise > Additional filters for extended pump life 	<ul style="list-style-type: none"> > Chemical resistant vacuum pump > VF3 filtration flask set > High-pressure resistant tube > PTFE disc filter 	<ul style="list-style-type: none"> Sample pretreatment for HPLC, GC, and AA analysis Purification of various solvents (mobile phases)

Specifications

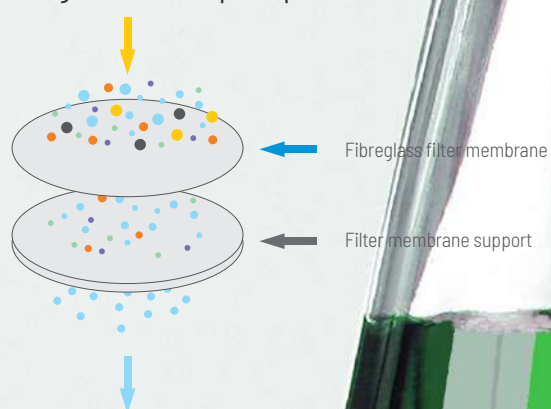
Model	V300A	V300B	V300SS	C300A
Pump Flow Rate [L/min]	17	17	17	22
Ultimate Vacuum [mbar]	150	150	150	210
Filtration Glass Set	VF6	VF1	VF2	VF3
Suction Bottle Capacity [mL]	1000	1000	1000	1000
Filter Diameter [mm]	47/50	47/50	47/50	47/50
Filter Flask Capacity [mL]	300	300	100	300
Filter Flask Material	(Glass Filter Cup)	(Magnetic Filter Cup)	(Stainless Steel Filter Cup)	(Glass Filter Cup)
Effective Filtration Area [cm ²]	8	9.6	9.6	8
Tube I.D. [mm]	8	8	8	8
Order No.	167301	167302	167303	169301

Filtration set

- > Vacuum filtration technique is widely used in liquid filtration in microbiological detection, suspended solid detection, sample pre-process or solvent purification, mostly for microanalysis of HPLC, GC, or AA in food, medicine, beverage, drinking water, etc.
- > This unique design combines a filtration funnel with a receiver flask with drain, together with magnetic weighted base, guaranteeing the efficiency and stability.

Model	VF1	VF2	VF3	VF5	VF6	VF7	VF8
Funnel	PES	SUS316	Borosilicate Glass	Borosilicate Glass	Borosilicate Glass	Borosilicate Glass	Borosilicate Glass
Funnel Base	PES	SUS316	Borosilicate Glass	Borosilicate Glass	Borosilicate Glass	Borosilicate Glass	Borosilicate Glass
Material							
Membrane Support	PP	SUS316	Borosilicate Glass	Borosilicate Glass	Borosilicate Glass	Stainless Steel Micro-Strainer	Stainless Steel Micro-Strainer
Stopper	Silicon	Silicon	—	Silicon	Silicon	Silicon	Silicon
Receiver Flask with Drain	Borosilicate Glass	Borosilicate Glass	Borosilicate Glass	Borosilicate Glass	Borosilicate Glass	Borosilicate Glass	Borosilicate Glass
Funnel Capacity [mL]	300	100	250	15	250	250	15
Filtration Flask Capacity [mL]	1000	1000	1000	125	1000	1000	125
Filter Diameter [mm]	47	47	47	25	47	47	25
Effective Filtration Area [cm ²]	9.6	9.6	8	2.2	8	8	2.2
Tube I.D. [mm]	8	8	8	8	8	8	8

Drawing for filtration principle





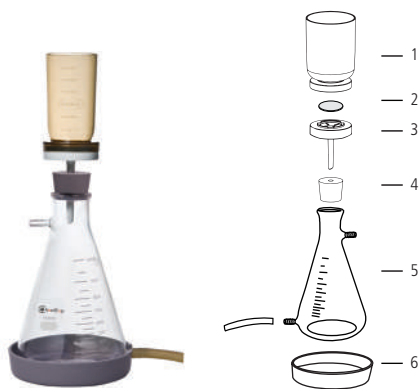
Model	VF9	VF10	VF11	VF12	VF30	VF32	VF33
Funnel	SUS316	Borosilicate Glass	SUS316	Borosilicate Glass	PES	SUS316	SUS316
Funnel Base	SUS316	Borosilicate Glass	SUS316	Borosilicate Glass	PES	SUS316	SUS316
Membrane Support	SUS316	Borosilicate Glass	SUS316	Borosilicate Glass	PP	SUS316	SUS316
Stopper	Silicon	—	Silicon	Silicon	Silicon	Silicon	Silicon
Receiver Flask with Drain	Borosilicate Glass	Borosilicate Glass	Borosilicate Glass	Borosilicate Glass	Borosilicate Glass	Borosilicate Glass	Borosilicate Glass
Funnel Capacity [mL]	300	1000	500	250	300	100	300
Filtration Flask Capacity [mL]	1000	4000	2000	1000	1000	1000	1000
Filter Diameter [mm]	47	47	47	47	47	47	47
Effective Filtration Area [cm ²]	9.6	9.6	9.6	9.6	9.6	9.6	9.6
Tube I.D. [mm]	8	8	8	8	8	8	8

Order Information

300ml Magnetic Filtration set

47mm, PP membrane support

For solvent purification, general filtration and waste inhalation



VF1 167200-01

Magnetic filter funnel 300 ml (1+2+3+4)	167100-18
1 300 ml Magnetic filter cup	167000-34
2 PP Membrane support	167000-37
3 PES Filtration base	167000-35
4 Silicone stopper	167110-17
5 Receiver flask with drain, 1000 ml	167300-08
6 Weighted base	167200-04

100ml Stainless Steel Filtration Set

47mm, Stainless steel membrane support

For filtration requiring the sterilization such as microbiology test or use for purification of corrosive liquid, solvent etc.



VF2 167200-02

100ml Stainless steel filter set (1+2+3+4)	167103-10
1 Stainless steel funnel, 100 ml	167103-61
2 Stainless steel support screen	167100-31
3 Stainless steel support base	167103-60
4 Silicone stopper	167110-17
5 Receiver flask with drain, 1000 ml	167300-08
6 Weighted base	167200-04

300ml Stainless Steel Filtration Set

47mm, Stainless steel membrane support

For filtration requiring the sterilization such as microbiology test or use for purification of corrosive liquid, solvent etc.



VF9	167200-09
300ml Stainless steel filter set (1+2+3+4)	167103-30
1 Stainless steel funnel, 300 ml	167103-63
2 Stainless steel membrane support	167100-31
3 Stainless steel support base	167103-60
4 Silicone stopper	167110-17
5 Receiver flask with drain, 1000 ml	167300-08
6 Weighted base	167200-04

500ml Stainless Steel Filtration Set

47mm, Stainless steel membrane support

For filtration requiring the sterilization such as microbiology test or use for purification of corrosive liquid, solvent etc.



VF11	167200-11
500ml Stainless steel filter set (1+2+3+4)	167103-50
1 Stainless steel funnel, 500 ml	167103-65
2 Stainless steel membrane support	167100-31
3 Stainless steel support base	167103-60
4 Silicone stopper	167110-17
5 Receiver flask with drain, 2000 ml	167200-13

250ml Glass Filtration Set

47mm, Sintered glass membrane support

Ideal for the purification of organic, corrosive liquid such as solvent (mobile phase) for HPLC analysis.

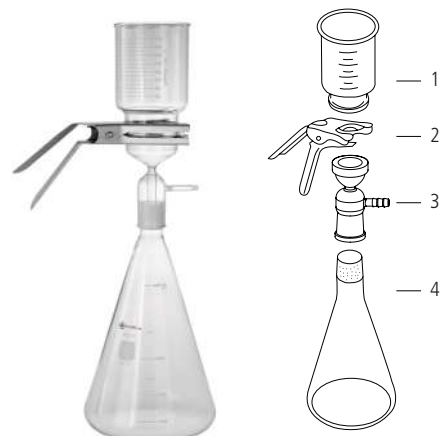


VF3	167200-03
250ml Glass filter set (1+2+3)	167120-30
1 Glass funnel, 250 ml	167210-03
2 Aluminum magnesium alloy clamp	167240-01
3 Glass support base & tubulated cap	167230-01
4 Ground joint flask, 1000 ml	167250-01

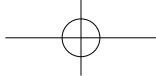
1000ml Glass Filtration Set

47mm, Sintered glass membrane support

Ideal for the purification of organic, corrosive liquid such as solvent (mobile phase) for HPLC analysis.



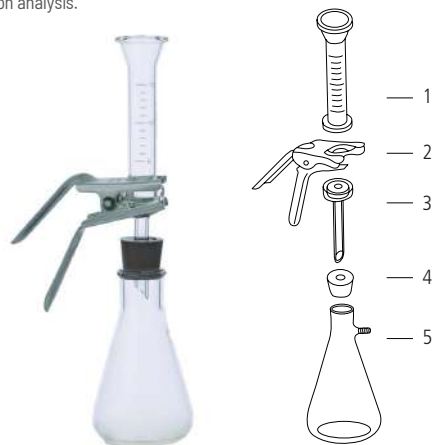
VF10	167200-10
1000ml Glass filter set (1+2+3)	167210-35
1 Glass funnel, 1000 ml	167210-10
2 Anodized aluminum clamp	167240-01
3 Glass support base & tubulated cap	167230-01
4 Ground joint flask, 4000 ml	167250-06



15ml Small Volume Glass Filtration Set

25mm, Sintered glass membrane support

Ideal for small volume vacuum filtration for biological analysis or particulate contamination analysis.



VF5	167200-05
15 ml Glass filter set (1+2+3+4)	167120-32
1 Glass funnel, 15 ml	167220-15
2 Anodized aluminum clamp	167240-05
3 Glass support base	167230-04
4 Silicone stopper	167110-18
5 125 ml Receiver flask	167250-05

15ml Small Volume Glass Filtration Set

25mm, Stainless steel membrane support

Ideal for small volume vacuum filtration for biological analysis or particulate contamination analysis.

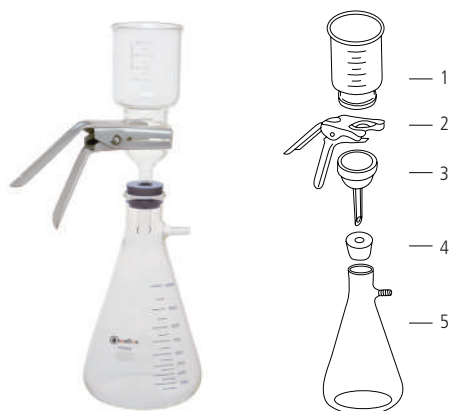


VF8	167200-08
15 ml Glass filter set (1+2+3+4+5)	167120-40
1 Glass funnel, 15 ml	167220-15
2 Anodized aluminum clamp	167240-05
3 Stainless steel support screen	167230-32
4 Glass support base	167230-08
5 Silicone stopper	167110-18
6 125 ml Receiver flask	167250-05

250ml Glass Filtration Set

47mm, Sintered glass membrane support

Ideal for solvent purification and general filtration for microbiology, suspended solid analysis etc.



VF6	167200-06
250ml Glass filter set (1+2+3+4)	167120-31
1 Glass funnel, 250 ml	167210-03
2 Anodized aluminum clamp	167240-01
3 Glass support base	167230-03
4 Silicon stopper	167110-17
5 Receiver flask, 1000 ml	167250-03

250ml Glass Filtration Set

47mm, Stainless steel membrane support

Ideal for solvent purification and general filtration for microbiology, suspended solid analysis etc.

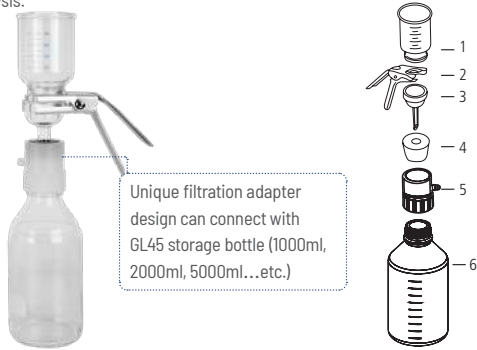


VF7	167200-07
250ml Glass filter set (1+2+3+4+5)	167120-33
1 250 ml Glass Filter Cup	167210-03
2 Anodized aluminum clamp	167240-01
3 Stainless steel support screen	167230-31
4 Glass support base	167230-07
5 Silicon stopper	167110-17
6 Receiver flask, 1000 ml	167250-03

250ml Glass Filtration Set

47mm, Sintered glass membrane support

Ideal for the purification of organic, corrosive liquid such as solvent (mobile phase) for HPLC analysis.



VF12	167200-12
250ml Glass filter set (1+2+3+4)	167120-31
1 Glass funnel, 250 ml	167210-03
2 Anodized aluminum clamp	167240-01
3 Glass support base	167230-03
4 Silicone stopper	167110-16
5 Filtration adapter	167000-65
6 1000ml Glass storage bottle (Duran)	21801545

300ml PES Magnetic Filtration set

47mm, PP membrane support, float to prevent overflow

For general filtration and waste inhalation



VF30	197010-30
Magnetic filter funnel 300 ml (2+3+4+5)	167100-18
1 PP Funnel Lid	167130-32
2 Magnetic filter cup, 300ml	167000-34
3 PP Membrane support	167000-37
4 PES support base	167000-35
5 Silicone stopper	167110-17
PC waste bottle with cover,1000 ml (6+7+8)	197000-11-PC
6 PC cover	197000-32-PC
7 Overflow protection	197000-39
8 PC bottle, 1000 ml	197000-31-PC

100ml Stainless Steel Filtration Set

47mm, Stainless steel membrane support, float to prevent overflow

For filtration requiring the sterilization such as microbiology test or use for purification of corrosive liquid, solvent etc.



VF32	197010-32
100ml Stainless steel filter set (1+2+3+4)	167103-10
1 Stainless steel funnel, 100 ml	167103-61
2 Stainless steel membrane support	167100-31
3 Stainless steel support base	167103-60
4 Silicone stopper	167110-17
PC waste bottle with cover,1000 ml (5+6+7)	197000-11-PC
5 PC cover	197000-32-PC
6 Overflow protection	197000-39
7 PC bottle, 1000 ml	197000-31-PC

300ml Stainless Steel Filtration Set

47mm, Stainless steel membrane support, float to prevent overflow

For filtration requiring the sterilization such as microbiology test or use for purification of corrosive liquid, solvent etc.



VF33	197010-33
300ml Stainless steel filter set (1+2+3+4)	167103-30
1 Stainless steel funnel, 300 ml	167103-63
2 Stainless steel membrane support	167100-31
3 Stainless steel support base	167103-60
4 Silicone stopper	167110-17
PC waste bottle with cover,1000 ml (5+6+7)	197000-11-PC
5 PC cover	197000-32-PC
6 Overflow protection	197000-39
7 PC bottle, 1000 ml	197000-31-PC

Multi-position filtration system

Features

Construction

The entire manifold is made of SS316 stainless steel, providing excellent chemical resistance and compatibility with autoclave sterilization.

Spin-lock design

Features a spin-lock connection for quick, stable installation without the need for clamps.

Individual control valves

Each branch is equipped with an individual control valve for precise operation.

Versatile funnel compatibility

Supports 100 mL, 300 mL, and 500 mL funnels, offering flexibility for various applications.

Magnetic filter set

Allows one-handed operation, ensuring reliable and efficient performance while preventing potential twisting or tearing of the membrane.

Application

- > Biological laboratories
- > Chemical industry
- > Microbiological detection
- > All kinds of liquid filtration



Specifications

Model	BioVac330B	BioVac630B	BioVac320A	BioVac320B
Max. Flow Rate [L/min]	34	58	34	34
Ultimate Vacuum [mbar]	150	150	150	150
Waste Bottle (Capacity in mL / Material)	3000, PC	3000, PC	3000, PC	3000, PC
Number of Branches	3	6	3	3
Manifold Material	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Filter Diameter [mm]	47 / 50	47 / 50	47 / 50	47 / 50
IP code	IP20	IP20	IP20	IP20
Filter Cup (Capacity in mL / Material)	100 / Stainless Steel	100 / Stainless Steel	300 / Magnetic	250 / Glass
Effective Filtration Area [cm ²]	9.6	9.6	9.6	9.6
Tube I.D. [mm]	8	8	8	8

Configuration

	Model	Order No.	Model	Order No.	Model	Order No.	Model	Order No.
Model	BioVac330B	167403	BioVac630B	167601	BioVac320A	167405	BioVac320B	167406
Contains								
Pump	V400	167400	V600	167600	V400	167400	V400	167400
Manifold	BioVac330 3-branch Stainless steel	167103-23	BioVac630 6-branch Stainless steel	167103-26	BioVac320 3-branch Stainless steel	167110-23	BioVac320 3-branch Stainless steel	167110-23
Filter Cups	3 x 100 mL Stainless steel	167103-61	6 x 100 mL Stainless steel	167103-61	3 x 300 mL PES (magnetic base)	167100-18	3 x 250 mL Glass	167120-31
Waste Bottle	3000 mL / PC	167200-33	3000 mL / PC	167200-33	3000 mL / PC	167200-33	3000 mL / PC	167200-33
Bunsen Burner	Dragon 100	177100-00	Dragon 100	177100-00	Without	Without	Without	Without
Filter Membranes	Pall GN-6 MCE *	167100-52	Pall GN-6 MCE *	167100-52	Pall GN-6 MCE *	167100-52	Pall GN-6 MCE *	167100-52
Silicon Tube	2 x 1m	168021-01	2 x 1m	168021-01	2 x 1m	168021-01	2 x 1m	168021-01

* Pall GN-6 MCE / 0.45µm, 200 pcs

Multi-position manifolds

Vacuum filtration is widely used in laboratory for various tests such as microorganism test in food, pharmacy, beverage, drinking water industries and suspended solid test in environment protection field, sample or solution pretreatment before HPLC, GC, AA analysis etc.

WIGGENS is one of the leading suppliers of vacuum filtration apparatuses in the world. WIGGENS manufactures quality and cost effective vacuum pumps, compressors, manifolds as well as funnels and filters for different applications, WIGGENS provides you with filtration solutions.

Features

Manifold made of SS316

The BioVac 330 and 630 manifolds are constructed entirely from SS316 stainless steel, ensuring excellent chemical resistance. They are also designed for quick sterilization using either flame or steam.

Spin-Lock Design

The innovative spin-lock connection enables fast and secure installation without the need for clamps, enhancing ease of use and efficiency.

Individual control Valves

Each branch features an individual control valve, allowing for precise and independent operation.

Compatible with various funnel sizes

The BioVac 330 and 630 manifolds are compatible with 100 ml, 300 mL, and 500 ml funnels, offering flexibility to suit your application needs.



3-Branch stainless steel manifold BioVac330
Order No.: 167103-23



Stainless steel filter cup (Cylinder type)



3-Branch stainless steel manifold set (100ml, 300ml, 500ml)
Order No.: 167103-24, 167101-23, 167101-24

3-Branch stainless steel manifold set

Model	BioVac330	BioVac331	BioVac333	BioVac335
Order No.	167103-23	167103-24	167101-23	167101-24
Number of Branches	3	3	3	3
Filter Diameter [mm]	47/50	47/50	47/50	47/50
Effective Filtration Area [cm ²]	9.6	9.6	9.6	9.6
Tube I.D. [mm]	8	8	8	8
Dimensions [LxWxH (cm)]	50x15x15	80x15x20	50x15x23	50x15x26
Filter Cup Material	/	Stainless steel	Stainless steel	Stainless steel
Filter Cup Capacity [mL]	/	100	300	500
Product Description	3-Branch stainless steel manifold BioVac 330	3-Branch stainless steel manifold BioVac 330 + 3 x 100 ml stainless steel filter cups	3-Branch stainless steel manifold BioVac 330 + 3 x 300 ml stainless steel filter cups	3-Branch stainless steel manifold BioVac 330 + 3 x 500 ml stainless steel filter cups



The 6-branch stainless steel manifold BioVac 630
Order No.: 167103-26



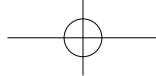
Stainless steel filter cup (Cylinder type)



6-Branch stainless steel manifold set BioVac 631
Order No.: 167103-27

6-Branch stainless steel manifold set

Model	BioVac630	BioVac631	BioVac633	BioVac635
Order No.	167103-26	167103-27	167101-26	167101-27
Number of Branches	6	6	6	6
Filter Diameter [mm]	47/50	47/50	47/50	47/50
Effective Filtration Area [cm ²]	9.6	9.6	9.6	9.6
Tube I.D. [mm]	8	8	8	8
Dimensions [LxWxH (cm)]	80x15x15	80x15x20	80x15x23	80x15x26
Filter Cup Material	/	Stainless steel	Stainless steel	Stainless steel
Filter Cup Capacity [mL]	/	100	300	500
Product Description	6-Branch stainless steel manifold BioVac 630	6-Branch stainless steel manifold BioVac 630 + 6 x 100 ml stainless steel filter cups	6-Branch stainless steel manifold BioVac 630 + 6 x 300 ml stainless steel filter cups	6-Branch stainless steel manifold BioVac 630 + 6 x 500 ml stainless steel filter cups



Multi-position filtration manifolds

3-branch stainless steel manifold set



Model	BioVac320	BioVac341	BioVac343	BioVac345	BioVac351	BioVac353	BioVac355	BioVac363	BioVac364
Order No.	167110-23	167111-31	167111-33	167111-35	167112-31	167112-33	167112-35	167113-33	167113-34
Number of Branches	3	3	3	3	3	3	3	3	3
Filter Diameter [mm]	47/50	47/50	47/50	47/50	47/50	47/50	47/50	47/50	47/50
Effective Filtration Area [cm ²]	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
Tube I.D. [mm]	8	8	8	8	8	8	8	8	8
Dimensions [LxWxH (cm)]	50x15x12	50x15x23	50x15x27	50x15x30	50x15x30	50x15x30	50x15x33	50x15x30	50x15x30
Filter Cup Material	Without	Stainless Steel	Stainless Steel	Stainless Steel	Magnetic	Magnetic	Magnetic	Borosilicate Glass	Glass funnel with Micro-Strainer
Filter Cup Capacity [mL]	Without	100	300	500	150	300	500	250	250

6-branch stainless steel manifold set



Model	BioVac620	BioVac641	BioVac643	BioVac645	BioVac651	BioVac653	BioVac655	BioVac663	BioVac664
Order No.	167110-26	167111-61	167111-63	167111-65	167112-61	167112-63	167112-65	167113-63	167113-64
Number of Branches	6	6	6	6	6	6	6	6	6
Filter Diameter [mm]	47/50	47/50	47/50	47/50	47/50	47/50	47/50	47/50	47/50
Effective Filtration Area [cm ²]	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
Tube I.D. [mm]	8	8	8	8	8	8	8	8	8
Dimensions [LxWxH (cm)]	80x15x12	80x15x23	80x15x27	80x15x30	80x15x30	80x15x30	80x15x33	80x15x30	80x15x30
Filter Cup Material	Without	Stainless Steel	Stainless Steel	Stainless Steel	Magnetic	Magnetic	Magnetic	Borosilicate Glass	Glass funnel with Micro-Strainer
Filter Cup Capacity [mL]	Without	100	300	500	150	300	500	250	250

Customized assembling options for multi-position filtration system

WIGGENS provides you with filtration solutions, allowing customers to design their own filtration system based on different application requirements.

Filtration System Components Package I

Vacuum pump ①、PP/PC Waste Bottle ②、Filter Membranes ④、Silicon Tubing ⑤、Filtration combination ⑥



Multi-Position Filtration System

Configuration table for multi-position filtration system

No.	Name				
1	Vacuum pump	V400	V600	V410	V610
	Order No.	167400	167600	167410	167610
2	Suction bottle	1000 ml	2000 ml	3000 ml	-
	Order No.	167200-31	167200-32	167200-33	-
4	Filter Membranes	Fiberglass Filter Membranes	MCE Filter Paper	-	-
	Order No.	167100-20	167100-52	-	-
5	Silicon Tubing	Outer Diameter 14 mm, Inner Diameter 8 mm, Length 1 m			-
	Order No.	167021-01			-
6	Combination	BioVac351, BioVac353, BioVac355, BioVac363, BioVac364, BioVac651, BioVac653, BioVac655, BioVac663, BioVac664, BioVac311, BioVac313, BioVac315, BioVac301, BioVac303, BioVac305, BioVac323, BioVac324,			

Filtration System Components Package II

Vacuum pump ①、PP/PC Waste Bottle ②、Lab Burners ③、Filter Membranes ④、Silicon Tubing ⑤、Filtration combination ⑥



Multi-Position Filtration System

Configuration table for multi-position filtration system

No.	Name				
1	Vacuum pump	V400	V600	V410	V610
	Order No.	167400	167600	167410	167610
2	Suction bottle	1000 ml	2000 ml	3000 ml	-
	Order No.	167200-31	167200-32	167200-33	-
3	Lab Burners	Dragon 100	Dragon 220	-	-
	Order No.	177100-00	177220-00	-	-
4	Filter Membranes	Fiberglass Filter Membranes	MCE Filter Paper	-	-
	Order No.	167100-20	167100-52	-	-
5	Silicon Tubing	Outer Diameter 14 mm, Inner Diameter 8 mm, Length 1 m			-
	Order No.	167021-01			-
6	Combination	BioVac331, BioVac333, BioVac335, BioVac631, BioVac633, BioVac635, BioVac341, BioVac343, BioVac345, BioVac641, BioVac643, BioVac645			

Accessories for filtration system

47mm glass funnel holder

Features

- > Made of chemical-resistant borosilicate glass
- > High temperature resistant
- > Autoclavable

Specifications

Name	Glass Funnel	Glass funnel with support screen
Funnel	Borosilicate Glass	Borosilicate Glass
Funnel Base	Borosilicate Glass	Borosilicate Glass
Membrane Support	Sintered Glass	Stainless Steel Support Screen + PTFE Gasket
Clamp	Aluminum	Aluminum

Type		
Funnel Capacity (ml)	250	250
Filter Diameter (mm)	47	47
Effective Filtration Area (cm ²)	9.6	9.6

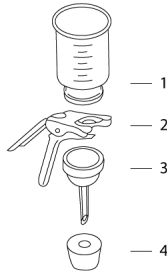
Ordering information

47mm Glass Funnel	167120-31
250ml Glass Filter Cup ①	167210-03
Aluminum Clamp ②	167240-01
Glass Filter Base ③	167230-03
Silicon Stopper ④	167110-16

47mm glass funnel with micro strainer	167120-33
250ml Glass Filter Cup ①	167210-03
Aluminum Clamp ②	167240-01
Stainless Steel Support Screen ③	167230-31
47mm Glass Filter Base ④	167230-07
Silicon Stopper ⑤	167110-16



Glass Funnel



Glass funnel with support screen

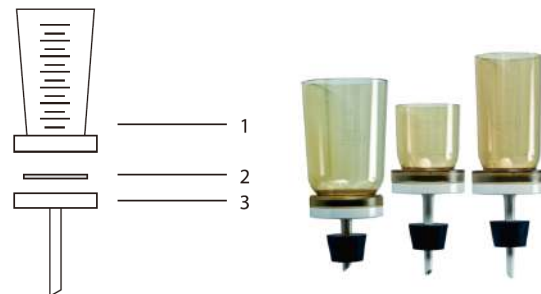


PES funnels with magnetic base

- > Unique magnetic connection design
- > No clamps needed
- > High temperature sterilization possible

Name	Material
Filter Cup	PES
Membrane Support	PP
Filter Base	PES
Rubber	Silicon

Specifications	
Magnetic filter funnel 150 ml	167130-15
Magnetic filter funnel 300 ml	167100-18
Magnetic filter funnel 500 ml	167130-50



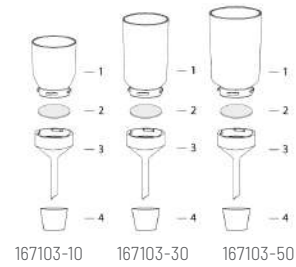
47mm Stainless steel funnel

- > Quick and effective spin-lock system
- > No clamp needed
- > SUS316 stainless steel
- > Heat sterilization can be applied



Specification

Name	100 ml	300 ml	500 ml
Funnel	SUS316	SUS316	SUS316
Funnel base	SUS316	SUS316	SUS316
Membrane support	SUS316	SUS316	SUS316
Funnel lid	SUS316	SUS316	SUS316
Specifications			
Funnel capacity (ml)	100	300	500
Filter diameter (mm)	47 / 50	47 / 50	47 / 50
Effective filtration area (cm ²)	9.6	9.6	9.6



Ordering Information

100 ml Stainless steel funnel	167103-10
100ml stainless steel filter cup ①	167103-61
Stainless steel support screen ②	167100-31
47mm stainless steel filter base ③	167103-60
Silicon stopper ④	167110-17
300 ml Stainless steel funnel	167103-30
300 ml ①	167103-63
Stainless steel support screen ②	167100-31
47mm stainless steel filter base ③	167103-60
Silicon stopper ④	167110-17
500 ml Stainless steel funnel	167103-50
500ml stainless steel filter base ①	167103-65
Stainless steel support screen ②	167100-31
47mm stainless steel filter base ③	167103-60
Silicon stopper ④	167110-17

Stainless steel filter cup (Cylinder type)



Order No.	167103-61	167103-63	167103-65
Filter cup	SUS316	SUS316	SUS316
Funnel capacity (ml)	100	300	500
Filter diameter (mm)	47 / 50	47 / 50	47 / 50
Effective filtration area (cm ²)	9.6	9.6	9.6
Suitable for	BioVac 330/630	BioVac 330/630	BioVac 330/630

Stainless steel filter cup (Cone type)



Order No.	167102-50	167102-75	167102-99
Filter cup	SUS316	SUS316	SUS316
Funnel capacity(ml)	500	700	1000
Filter diameter(mm)	47 / 50	47 / 50	47 / 50
Effective filtration area(cm ²)	9.6	9.6	9.6
Suitable for	BioVac 330/630	BioVac 330/630	BioVac 330/630

Stainless steel funnel lid

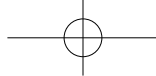


Description	Order No.
100 ml stainless steel funnel lid, suitable for 100 ml stainless steel filter cup (Cylinder type)	167103-11
300 ml stainless steel funnel lid, suitable for 300 ml stainless steel filter cup (Cylinder type)	167103-13
500 ml stainless steel funnel lid, suitable for 500 ml stainless steel filter cup (Cylinder type)	167103-15
Stainless steel funnel lid, suitable for 500 ml / 750 ml / 1000 ml stainless steel filter cups (Cone type)	167110-20

PP Funnel lid



Order No.	167130-32		
Specification	Material		
Suitable for funnel	Pall 4242 / 167100-18	Main body	PP
Number of inlets	3	Cover	Silicon
Inlet type	Female luer slip	Filter material	PTFE
Filter diameter	25 mm	Pore size	0.2 μm
Package	1		



Filtration flask for liquid

Order No.	167100-13	167100-14
Includes		
Glass bottle	167300-08	167300-08
Rubber stopper	167110-16	167110-17
Weighted base	167200-04	167200-04
Specification		
Capacity [mL]	1000	1000
Inlet / outlet diameter [mm]	8	8
Water outlet	Yes	Yes
The diameter of hole in center of rubber stopper [mm]	Ø15	Ø9.5



Weighted base

Description	Order No.
1000ml Filtration flask base with a unique stabilization design	167200-04



Disc filter

Name	Pinhead filter	Small disc filter
Order no.	194225-01	167200-35-02
Brand	Pall	Pall
Filter diameter / pore size	25 mm / 0.2 µm	50 mm / 0.2 µm
Outer diameter [mm]	30	63
Material	PTFE	PTFE
Outer material	PP	PP
Number of filters per package	1	1
Suitable for	PP Funnel Lid	BioVac 225 / 235series



Filter membrane

Name	Fiberglass filter membranes	MCE filter paper
Order no.	167100-20	167100-52
Brand	Pall	Pall
Filter diameter [mm]	47	47
Filter pore size [µm]	1	0.45
Material	Fiberglass	MCE
Number of filters per package	100	200



PP/PC Waste bottle

Order no.	167200-31	167200-32	167200-33	167120-34
Bottle	PC	PC	PC	PC
Bottle cover	PC	PC	PC	PC
Spill-proof buoy	PP	PP	PP	PP
Capacity (ml)	1000	2000	3000	4000
Outlet (mm)	8	8	8	8
Spill-proof buoy	Yes	Yes	Yes	Yes
Autoclavability (121 °C)	Yes	Yes	Yes	Yes



Stand for Suction Bottle

Order No.	Description	
167200-39-1	Stand for suction bottles, designed for stabilizing the bottle in filtration work	1000ml
167200-39-2		1500ml
167200-39-3		3000ml



Foot switch

Description	Order No.
Suitable for c series and v series vacuum pumps*	167200-41

*Factory installation



Silicon tubing

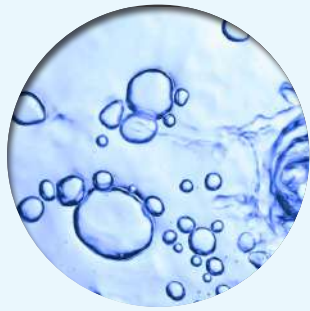
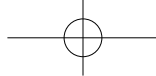
Order No.	Outer diameter (mm)	Inner diameter (mm)	Thickness (mm)	Length (m)
168020-01	12	6	3	1
168021-01	14	8	3	1
168022-01	16	10	3	1

Length upon request (min. 1 m)

Silicon drainage tubing

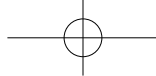
Order No.	Outer diameter (mm)	Inner diameter (mm)	Thickness (mm)	Length (m)
168030-01	12	8	2	1

Length upon request (min. 1 m)



Liquid Handling Equipment





Peristaltic Pump

Advancing the Science of Liquid Handling



Advanced Control Features

- > Icon Driven User Interface allows for easy setup and operation
- > Large Backlit LCD Display is easy to view from a distance
- > Durable Front Overlay is resistant to chemicals
- > Polarized and Angled Screen allows for glare free viewing
- > "Trouble-Free" Calibration Screen allows for accurate and quick calibration
- > Ultra High Precision Stepper Motor ensures repeatability and accuracy

User-Friendly Design Features

- > Low-profile design minimizes the space required on the bench or in a hood
- > Pump settings can be saved and recalled, saving time in multi-use environments. Nine preset configurations are stored for rapid retrieval
- > Multi-language help screens support English, Chinese, German, French, Japanese, Korean, and Spanish

Vdose® ELITE Additional Features

- > Multiple stacking pump heads enable higher volumes and facilitate various filling applications with a single pump
- > Compatible with 2, 3, 6, and 8 mm tubing
- > The pump allows for different ramping profiles to prevent splashing and foaming
- > Suitable for a wide range of dispensing and process applications

Suggested Application

Research, Development, and Quality Control

Transfer and distribution of fluids into smaller containers, serial dilutions, sample preparation, and media dispensing.

Pharmaceutical and Biotechnology

Dispensing microbiological media, pill coating, dilutions, transferring live cells, additions and harvests to and from bioreactors, packaging and filling.

Food and Beverage

Common uses include dispensing flavorings, colorings, vitamins, and other additives in processing applications, and simple dispensing of end products on production lines or into shelf packages.

Waste Water and Sample Collection

Industrial and QC applications, environmental compliance hazardous/toxic materials evaluation and site sampling for liquids, sludge, earth/soil, water, etc. Ideal for sampling from barrels and drums.

International

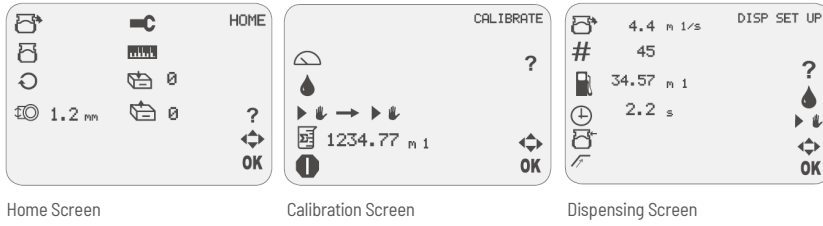
The Icon Driven display and multi-language help screen work well in laboratories abroad.

Functionality	Vdose® PRO	Vdose® ELITE
Modes	Dispense Mode	Dispense Mode and Flow Mode
Motor	Dual Speed 75 and 150 rpm	Variable Speed 0.5 to 400 rpm
Direction	Unidirectional; Clockwise	Bidirectional; Clockwise and Counterclockwise
Ramp	Not Offered	User Ramp Control for Dispense and Flow Modes 5 Profiles
Drawback	Not Offered	For Filling into a Closed Container
Pump Heads	Single	Single, Dual
Overall dimension [W x D x H (mm)]	223x331x180	223x331x180
Order No.	W1100100	W1100200

Standard package includes the Peristaltic pump, Single pump head (2.3mm wall thickness), Silicone tube(ID 3mm, with built-in delivery nozzle and glass sinker, length 1.5m (Order NO. 374311), Silicone tube(ID 6mm, with built-in delivery nozzle and glass sinker, length 1.5m (Order NO. 374313).

Technical Specification

Model Pump	Power supply [V]	Capacity [W]	Operating Speed [rpm]	Tubing Sizes Available [mm ID]	Dispense Ranges for Tubing [ml]	Flow Rate Ranges for Tubing [mL/min]	Accuracy Midrange	Delay Time [S]	Weight [kg]	Optional Pump Head Support
Vdose® ELITE	100-240	37	0.5-400	2	0.01-9999.99	20.4-174	≤±1%	0.5-99.9	5.4	<ul style="list-style-type: none"> > Stack up to 2 Pump Heads > Stacking Pump Head for 2.3mm Wall Tubing > Pump Head for 1.6mm Wall Tubing > Stacking Pump Head for 1.6mm Wall Tubing
				3	0.01-9999.99	60-330	≤±1%			
				6	0.01-9999.99	270-1080	≤±2.5%			
				8	0.01-9999.99	200-1746	≤±2.5%			
Vdose® PRO	100-240	37	75&150	2	0.01-9999.99	30&60	≤±1%	0.5-99.9	5.4	Pump Head for 1.6mm Wall Tubing Pump Head for 2.3mm Wall Tubing
				3	0.01-9999.99	60&120	≤±2%			
				6	0.01-9999.99	210&426	≤±2%			
				8	0.01-9999.99	540&1080	≤±2.5%			



Home Screen

Calibration Screen

Dispensing Screen



Single Pump

Optional Pump Heads

Order No.	Description	Qty/Case
W1100101	Single Pump Head for 2.3mm Wall Tubing	1
W1100102	Optional Pump Head for 1.6mm Wall Tubing	1

Peristaltic Pumps Accessories

Order No.	Description	Qty/Case
Tubing Accessories		
W1100103	Hose Barb/Luer Adapter (fits 2 and 3mm)	1
W1100104	Footswitch	1
W1100111	2 and 3mm Polypropylene Nozzle	6
W1100112	6mm Polypropylene Nozzle	6
W1100113	8mm Polypropylene Nozzle	6
W1100121	Small Glass Sinker (fits 2 and 3mm ID tubing)	6
W1100122	Large Glass Sinker (fits 6 and 8mm ID tubing)	6
Tubing Support Stand		
W1100105	Tubing Support Stand	1
Silicone Tubing Assembly, 2.3 mm wall thickness		
W1100151	2mm ID, 5 ft Section (1.5m)	1
W1100152	3mm ID, 5 ft Section (1.5m)	1
W1100153	6mm ID, 5 ft Section (1.5m)	1
W1100154	8mm ID, 5 ft Section (1.5m)	1
Silicone Tubing, 2.3mm wall thickness		
W1100155	2mm ID, 25 ft Section (7.62m)	1
W1100156	3mm ID, 25 ft Section (7.62m)	1
W1100157	6mm ID, 25 ft Section (7.62m)	1
W1100158	8mm ID, 25 ft Section (7.62m)	1
Microtest Manifolds		
W1100141	4 Position, Straight, 24 Well	1
W1100142	8 Position, Straight, 96 Well	1
W1100143	4 Position, Angular, 24 Well	1
W1100144	8 Position, Angular, 96 Well	1
W1100145	12 Position, Straight, 96 Well	1
W1100146	12 Position, Angular, 96 Well	1
Dispensing Cannulas w/Luer Lock		
W1100131	18 Gauge x 2 in	1
W1100132	14 Gauge x 4 in	1

Hose Barb/Luer Adapter

The luer adapter enables connectivity with devices featuring a female luer lock connector.



Tubing Support Stand

The optional tubing support stand is designed to secure the tubing in position during filling operations.



Footswitch

Utilize the convenience of a handsfree pump by installing the optional footswitch.



Silicone Tubing

Assembly consists of 1.5m (5-foot) section of silicone tubing with a wall thickness of 2.3mm, a borosilicate glass sinker, and a polypropylene delivery nozzle. Bulk tubing is also available.



Polypropylene Nozzle & Glass Sinker

The nozzle connects to the pump tubing for liquid dispensing. The glass sinker is used to secure the tubing when drawing from a container.



Microtest Manifolds & Dispensing Cannulas

Compatible with 24- and 96-well microplates. This dispensing system facilitates rapid sample inoculation and cell feeding under sterile conditions.



Portable Suction Unit (Aspirator)

Adopts oil-free vacuum pump

No lubricant is required; the unit is maintenance-free, low-noise, and durable.

Double Overflow Protection

A built-in float switch, along with a 0.2 µm PTFE hydrophobic disc filter situated between the suction bottle and the pump, prevents liquids and bacteria from entering the pump

Autoclavable

Only the waste bottles, disk filters, and the interconnecting tubing are autoclavable; the suction tubing and suction head are not autoclavable.

- > The entire unit is constructed from ABS plastic and aluminum alloy
- > Various precision components are developed and assembled through extensive testing
- > The piston pump operates quietly, is wear-resistant, pollution-free, and requires no maintenance

High-Temperature Sterilization
The waste bottle and disc filter are autoclavable

Double Protection Against Liquid Overflow

- > Waste bottle, floating ball
- > 0.2 µm PTFE disc filter
- > Protection against liquid overflow
- > Keeps liquid from entering the pump

Vacuum Regulator

Delivers the correct vacuum level for various applications

Stable and Durable Casing

The casing is constructed from lightweight ABS material, making it easy to clean

Wire Storage Box

The system includes storage space for the foot switch cable, which makes it easy and convenient to use



Employment of an Oil-Free Vacuum Pump
The oil-free vacuum pump is maintenance-free and operates at low noise levels

Application

- > Biochemical cultivation
- > Separation of culture fluids
- > Waste liquid suction in cell cultivation
- > All kinds of waste liquid suction in laboratory environments



BioVac 225



BioVac 235



BioVac 240

Single-branch suction head



1

Handheld controller



2

8-branch "tip" plastic suction head



3

Single-branch stainless steel suction head



4

Specifications

Order No.	Model series	Power [W]	Ultimate Vacuum [mbar]	Max. Flow Rate [L/min]	Foot Switch	Dimensions [WxDxH(cm)]	Suction bottle	Weight [kg]	Accessories included
W1080225	BioVac 225	60	100	25	-	37x15x25	1000mL x 1	4.3	4
W1080226	BioVac 225 PLUS	60	100	25	-	37x15x25	1000mL x 1	4.3	1, 2, 3, 4
W1080235	BioVac 235	60	100	35	-	27x30x28	1500mL x 2	6.9	4
W1080236	BioVac 235 PLUS	60	100	35	-	27x30x28	1500mL x 2	6.9	1, 2, 3, 4
W1080240	BioVac 240	80	80	40	yes	54x26x35	3000mL x 1	12	4
W1080241	BioVac 240 PLUS	80	80	40	yes	54x26x35	3000mL x 1	12	1, 2, 3, 4

Accessories

Bio-Suction Kit

Successful removal of supernatants using a vacuum aspiration system requires precise vacuum control and an aspirator tip matched to the specific container. The WIGGENS vacuum aspiration tool is engineered to accommodate a wide variety of laboratory vessels. Various adapters can be fitted to the manual handpiece, converting a standard vacuum source into a versatile system for aspirating liquids from tubes, dishes, bottles, T-flasks, as well as 24-well and 96-well plates.

Quick-lock design

The ergonomic handle with a lock switch enables continuous suction without the need to hold down a button.

Single-handed tip ejection

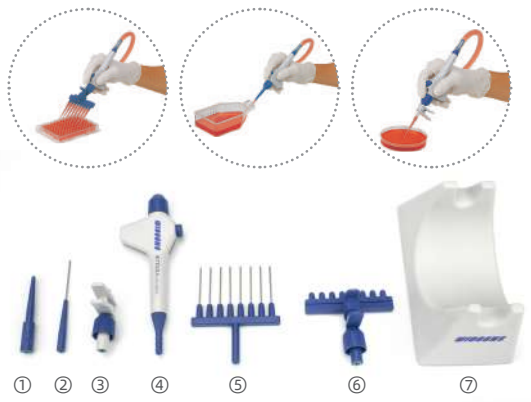
The tip ejection design facilitates one-handed operation.

Quick fitting change

The quick-connect coupling between the handle and fittings allows for quick replacement of any fitting.

Vapor sterilization can be applied

The complete kit, except for the rack, is made of autoclavable POM and stainless steel.



Specifications

No.	Order No.	Name	Quantity
1	167200-42	Single-branch suction head	1
2-1	167200-44	Single-branch stainless steel suction head, needle length 5cm	1
2-2	167200-44L	Suction Head Single-branch stainless steel suction head, needle length 11cm (Option)	1
3	167200-45	Single-branch "tip" plastic suction head	1
4	167200-46	Handheld controller	1
5	167200-47	8-branch stainless steel suction head	1
6	167200-48	8-branch "tip" plastic suction head	1
7	167200-49	ABS Depositing rack	1

Name	Bio-Suction Kit
Order No.	167200-37
Operation Form	Vacuum Suction
Outlet Diameter(mm)	5 mm



Disc Filter

Name	Disc Filter
Order No.	167200-35-02
Filter Diameter / Pore Size	50 mm / 0.2 μm
Outer Diameter	63 mm
Material	PTFE
Outer Material	PP
Number of Filters per Package	1
Suitable for	BioVac225 / BioVac235 series

Silicon Tube

Order No.	Outer Diameter mm	Inner Diameter mm	Thickness mm	Length m
168021-01	14	8	3	1
168022-01	16	10	3	1



Order No.	Name	Description
167200-50	Manual suction tube	The outer diameter of the connector is 8mm, The outer diameter of the PP tube is 5mm
167200-51	High pressure silicone tube	For the tube, the outer diameter is 10mm, and the inner diameter is 6mm, with hose joints at both ends



Order No.	Name	Description
167200-52	Plastic stoppers	Suitable for the tube of which the outer diameter is 10mm or 12mm



PP/PC Waste Bottle

Material	167200-31	167201-35	167201-36	167200-34
Order No.	167200-31	167201-35	167201-36	167200-34
Bottle	PC	PC	PC	PC
Bottle Cover	PC	PC	PC	PC
Spill-Proof Buoy	PP	PP	PP	PP
Description				
Capacity (ml)	1000	1500	1500	3000
Outlet (mm)	8	8	8	8
Spill-Proof Buoy	With	Without	With	With
Autoclavable	Yes	Yes	Yes	Yes
Suitable for	BioVac225	BioVac235	BioVac235	BioVac240 / 350 / 650

If you need other bottles of different volumes, please choose 167200-39 below



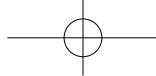
Stand for Suction Bottle

Order No.	Description	Capacity
167200-39-1	Stand for suction bottles, designed for stabilizing	1000ml
167200-39-2	the bottle in filtration work	1500ml
167200-39-3		3000ml



Foot switch

Order No.	Description
167200-40	Foot switch, Suitable for BioVac240
167200-54	Foot switch, Suitable for BioVac225 / BioVac235



Vdose Syringe Pump

The standard syringe pump comprises a dispensing unit and a controller, with options for single-channel or dual-channel configurations. The Vdose series syringe pump enables precise liquid transfer automatically. In addition, the system can be programmed via a PC for complex liquid dosing operations.

Features

- > The bright TFT display clearly presents dosing parameters on a single screen
- > Nine syringe sizes are available, ranging from 50 μ L to 25 mL, and syringes can be changed easily
- > Dosing speed ranges from 1.25 μ L/min to 375 mL/min
- > All components in contact with liquids are made of glass or PTFE, ensuring chemical resistance
- > The three-port valve automatically switches to facilitate repeated withdrawal and dosing
- > Valve ports can be configured for convenient liquid recovery without disassembling the tubing
- > RS-232/485 digital communication ports are provided for remote PC or PLC control

Specifications

Model	Vdose4200	Vdose4400
Number of dosing channel	Single-channel	Dual-channel
Flow rate	1.25 μ L/min-375 mL/min	1.25 μ L/min-375 mL/min
Precision	$\leq 5 \%$	$\leq 5 \%$
Weight [kg]	5.5	9.1
Outer Dimensions [W x D x H (mm)]	305 x 89 x 330	305 x 178 x 330
Syringe	Size	50 μ L-25 mL
	Material	Glass and PTFE wetted
	Dispense Resolution	1/6000 of the syringe size in use
	Feature	Easily interchangeable
Valve	Material	PTFE
	Interface Port	RS232 / 485
Power supply	110-240 V, 50/60 Hz	110-240 V, 50/60 Hz
Order No.	V900705	V900704

Standard package includes the syringe pump only. The glass syringe with PTFE plunger and the start-up kit must be ordered separately.

Order Information

Order No.	Description
V900705	Single-channel Syringe pump, with dosing unit and controller (need to specify the valve ports and glass syringe volume)
V900704	Dual-channel Syringe pump, with dosing unit and controller (need to specify the valve ports and glass syringe volume)
Accessories	
V900700-5	50 μ L glass syringe with Teflon plunger
V900700-6	100 μ L glass syringe with Teflon plunger
V900700-7	250 μ L glass syringe with Teflon plunger
V900700-8	500 μ L glass syringe with Teflon plunger
V900700-9	1ml glass syringe with Teflon plunger
V900700-10	2.5ml glass syringe with Teflon plunger
V900700-11	5ml glass syringe with Teflon plunger
V900700-12	10ml glass syringe with Teflon plunger
V900700-13	25ml glass syringe with Teflon plunger
Start up kit	
V900700-19	Tubing Length: 6m; Outer Diameter: 1/8" ; Includes: 12 nuts and 6 ferrules
V900700-20	Tubing Length: 30m; Outer Diameter: 1/8" ; Includes: 24 nuts and 6 ferrules
V900700-21	Tubing Length: 6m; Outer Diameter: 1/16" ; Includes: 12 nuts and 6 ferrules
V900700-22	Tubing Length: 30m; Outer Diameter: 1/16" ; Includes: 24 nuts and 6 ferrules



Vdose4200



Vdose4400



Glass syringe with PTFE plunger



Tube

WI-control software

WI-control is software designed for controlling devices, automating processes, and documenting measurements and results. It integrates WIGGENS laboratory devices and supports devices from other manufacturers. The software can network up to 128 devices simultaneously via a single PC, enhancing the efficiency and ease of automating laboratory experiments and processes.

Save time and improve efficiency

On the PC, you can automate laboratory processes, store custom recipes and data, manage workflows, and perform calculations during experiments. All connected devices can operate in cascade mode, allowing machines to automatically function when specified conditions are met.

Increase safety

Safety conditions can be configured to trigger alarms or shutdowns when activated, triggering alarms or shutdowns when activated. In remote operation, you can control complex reactions from a safe distance. The numerous automation options for recipes and processes enhance process reliability, improve user safety, and increase the reproducibility of all procedures.

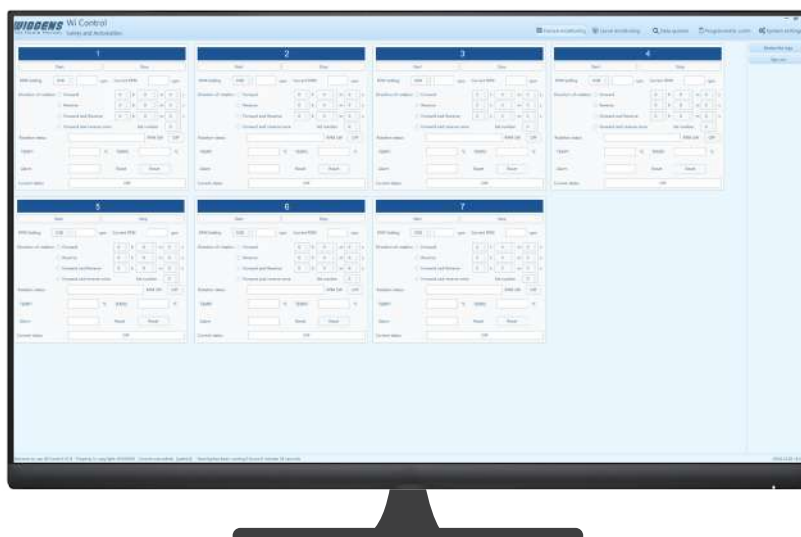
Real-time data recording and secure storage

Measurement data generated during a process can be exported in XLS and PDF formats for documentation and further analysis. All operations and changes to settings are recorded, facilitating the repetition of the experimental process.

System requirements

The WI-control software can be installed on any PC that meets the following system requirements.

System requirement	Minimum	Recommended
Operating system	Windows®7 or later, 32-bit	Windows®7 or later, 64-bit
Memory	2 GB	4 GB
Processor	2.5 GHz dual-core processor	2.5 GHz 4-core processor
Interfaces	1 x USB or 1 x RS232	depending on the number of units controlled
Display	6,500 colors	16 million colors
Screen resolution	1,400 x 1,050 pixels	1,680 x 1,050 pixels



GAS GENERATORS

- H₂, N₂, O₂, Compressor, Purified Air, and Zero Air
- > Hydrogen generator (PEM technology)
- > Hydrogen and Zero Air Generator (Two-in-One)
- > Nitrogen Generator (PSA Technology or Hollow Fiber Membrane)
- > Nitrogen and Zero air generator (Two-in-one)
- > Compressor and purified air system
- > Zero air generator / Ultra zero air generator



H₂ GENERATOR

Purity: 99.9996% or 99.99996%
Flow rate: 100mL/min-20 L/min
General Version, Flat Version, Tower Version, and 19" Rack Version



N₂ GENERATOR

Flow rate: 100 mL/min-20 L/min
Purity: 95-99.9999%



O₂ GENERATOR

Flow rate: 6 L/min, 10 L/min
Density: 95%



ZERO AIR GENERATOR

Flow rate: 1.5-30 L/min
HC & CO Content: < 0.05 ppm
CO₂ Content: < 1 ppm
NO_x, SO_x Content: < 0.1 ppm

COMPRESSED AIR SYSTEM / PURIFIED AIR SYSTEM

Flow rate: 20-900 L/min
Pressure: 5 - 10 bar



Product brochure
online at
www.wiggins.com



CHEMTRON ANALYTICS



Rotational Viscometer

Provides professional and accurate viscosity measurements tailored to your specific requirements.



Falling Ball Viscometer

The Viscoball precisely measures the viscosity of transparent Newtonian liquids and gases using a specialized ball.



Automatic Viscosity Measurement System (Capillary viscometer)

Semi-automatic or automatic viscosity measurement system.



Density Meter

Portable Density / Specific Gravity / Concentration Meter



pH / Cond. / DO Meter

Precise, reliable, and selective in the lab and in the field



Refractometer

Scale Handheld Refractometer | Digital Refractometer



Titration, Auto Sampler, Software and Electrodes

With its broad performance range, the Chemtron titrator is well suited for potentiometric titration and offers extensive possibilities for expansion and automation. Its high-resolution, precise pH/mV, and "dead-stop" measurement interface enable swift, reliable, and accurate determinations of a multitude of parameters.

Chemtron titrators are typically known for their precision, ease of use, and capability to handle a wide range of titration applications.

- > Burettes and Titrators
- > Burettes and Titrators with interchangeable cell
- > Karl Fischer Titration
- > Sample changers and accessories
- > Titration software
- > Electrodes for Titration
- > Related reagent



CHEMTRON REACTION & PURIFICATION SYSTEM

Featuring Reactors from Lab to Production Scale

Energy | Petrochemical | Life Sciences | Cosmetics | Pharmaceutical | Environmental

Glass Reactor and Peripheral Units

These systems are essential tools for research, scale-up, and production across a wide range of scientific disciplines. Designed for maximum diversity and ease of use, we have developed a simple base system building platform that allows each reactor system to be customized.

- > Bench-top glass reactor (250 mL-5 L)
- > Pilot plant glass reactor (10-100 L)
- > Glass spherical reactor (up to 200 L)
- > Glass industrial production equipment
- > Glass filter reactor (150 mL-150 L)
- > Glass pressure reactor (up to 6 L)
- > Homogenization reactor
- > Ultrasonic, photochemical and hydrogenation reactor
- > Parallel reaction station
- > Stirrer & Pump
- > Dosing unit
- > pH measurement and control
- > Auto reaction software

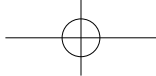


Stainless Steel Reactor and Peripheral Units

The requirements of our customers for the reaction vessels are as varied as the respective processes which are carried out in them. In recent decades, we have developed a modular system with standardized connection components, in order to economically implement individual solutions. This greatly simplifies the design and construction of our custom-made products.

- > High-pressure reactor, up to 200 bar
- > Low pressure reactor, up to 25 bar
- > Stainless steel reactor for atmospheric pressure or vacuum
- > Nutch filter reactor
- > Temperature control system
- > Stirrer unit: mechanical or magnetic coupling
- > Dosing unit
- > Ball valve, needle valve, solenoid valve, pneumatic valve
- > Auto reaction software





WIGGENS
THE MAGIC MOTION



WIGGENS China

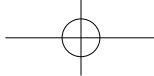
Building No. 45, Tianshan International Enterprise Base,
Yanjiao Economic Development Zone, Beijing, China
Tel : +86-4008092068
office@wiggens.de



WIGGENS GmbH

Wiescher Str. 11a
42277 Wuppertal Germany
Tel:+49 1520 84 20 996
www.wiggens.com

Authorized Distributor



Contents

Rotary Evaporator	04
Large-capacity Rotary Evaporator	20
Industrial Rotary Evaporator	30
Hot Plate / Stirrer Heating Element.....	36
Multi-Purpose Heater / Dry Bath.....	54
Temperature and Stirring Controller	64
Overhead Stirrer.....	67
Homogenizer	87
Laboratory Mill	102
Shaker	104
Ultrasonic Cleaner / Ultrasonic Shaker	121
Lab Burner.....	126
Colony Counter	126
Sensor-controlled Turntable for Petri Dishes	127

Rotary Evaporator

Laboratory Rotary Evaporator
Up to 3 L (Strike 185 / Strike 385)



STRIKE
185
Rotary Evaporator



STRIKE
285
Rotary Evaporator



STRIKE
385
Rotary Evaporator

Large Rotary Evaporator
6 L, 10 L, 20 L



ST20
Large Capacity Rotary Evaporator



ST20 CRE
Continuous Operation Rotary Evaporator
Reliable PLC controlling system



ST20 ATEX
Explosion-Proof Rotary Evaporator

Rotary Evaporator

Strike 185

STRIKE 185

Wiggins Strike series rotary evaporators are specially designed for distillation, concentration, purification, powder drying and separation of one or several solvents, with maximum safety, efficiency and ease of use. All functions can be viewed and monitored on the large and clear touch screen display, the parameters can be set by touch screen, the turning knob or using both the same time for fast adjustment, the user can reduce the process time by using the programs for automatic distillation with the integrated temperature controller, vacuum controller, timer and other special features.

Features



● Sealing system

- > The unique sealing system allows a perfect vacuum-tight and anti-corrosion
- > With chemically resistant gasket, suitable for various samples
- > This sealing system is a standard feature in all strike models and can be used with all types of glassware set



● Mechanical structure

- > With electric lifting device, adjustable stroke, and it can also stop at any position
- > With powerful rotation motor, the speed up to 300 rpm
- > Adjustable angle of the evaporating flask can be individually set according to your needs



● Glassware set

- > All glassware sets are also available with a transparent plastic coating for added safety
- > Four types of condensers
- > Different volumes of evaporating and receiving flasks
- > Standard package includes one 1000 mL evaporating flask and one 1000 mL receiving flask
- > Other accessories are optional, such as adapters, anti-sprinkling bubbles, vapor tubes...



● Vapor tube

- > Evaporating flasks and vapor tubes come with a standard NS 29/32 joint
- > PTFE sleeves provide a tight seal while preventing the glassware from sticking together
- > Easy to disassemble, clean and replace the parts



● Thread locking design

- > The easy clamp is made of highly durable materials, ensuring long-lasting performance
- > The integrated clamp design minimizes the risk of loss during operation
- > The easy clamp can easily remove the flask



● Display and operation

- > Touch screen with multi-language user interface
- > Easy to operate using the turning knob
- > Multifunction display, All parameters can be display on the same screen
- > Screen sizes (95x55 mm)



● Function

- > Custom method, one-click start, after starting to save the last settings
- > Up to 9 steps programmable distillation conditions
- > Timing function distillation, the distillation program will be stopped automatically when the setting time is reached



● Safety

- > The heating bath includes independent over-temperature protection
- > In case of a power outage, the electric lifting drive the evaporation flask remove from the heating bath to prevent the safety issues and potential thermal damage to your sample



● Heating bath

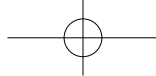
- > With the same heating bath, you can choose the water or oil bath fluid in the MENU
- > Two bath fluid modes, up to 85 °C with water; up to 180 °C with oil
- > High quality stainless steel (304) bath tank
- > The position of the bath can be easily adjusted to fix the evaporation position for different volume evaporating flasks



● Optional accessories and peripheral modules

- > Vacuum controller, the vacuum can be set and displayed directly on the touch screen
- > Vapor temperature sensor with glass sleeve
- > Vacuum pump, vacuum solvent recovery system, chiller, adapter and tube





Rotary Evaporator

STRIKE 285

STRIKE 285

The rotary evaporator STRIKE 285 combines excellent operating characteristics and high performance levels, all in an ergonomic design, offering excellent separation, concentration and purification solutions. All functions can be viewed and monitored on the large and clear touch screen display, the parameters can be set by touch screen, the turning knob or using both the same time for fast adjustment, the user can reduce the process time by using the programs for automatic distillation with the integrated temperature controller, vacuum controller, timer and other special features.

The evaporation flask is connected to vapor tube via coupling ring for easy fixing and removal of the flask, and the flask ejector design allows you to remove the sticking flasks from vapor tube in easy way by just turning the ejector.

Features



● Sealing system

- > The unique sealing system allows a perfect vacuum-tight and anti-corrosion
- > With chemically resistant gasket, suitable for various samples
- > This sealing system is a standard feature in all strike models and can be used with all types of glassware sets



● Mechanical structure

- > With electric lifting device, adjustable stroke, and it can also stop at any position
- > With powerful rotation motor, the speed up to 280 rpm
- > Adjustable angle of the evaporating flask can be individually set according to your needs



● Glassware set

- > All glassware sets are also available with a transparent plastic coating for added safety.
- > Four types of condensers
- > Different volumes of evaporating and receiving flasks
- > Standard package includes one 1000 mL evaporating flask and one 1000 mL receiving flask
- > Other accessories are optional, such as adapters, anti-sprinkling bubbles, vapor tubes...



● Vapor tube

- > Evaporating flasks and vapor tubes come with a standard NS 29/32 joint
- > PTFE sleeves provide a tight seal while preventing the glassware from sticking together
- > Easy to disassemble, clean and replace the parts



● Thread locking design

- > With screw thread locking function, screw cap is fixed by clip spring to prevent loss
- > The screw cap can be removed for installing other evaporating flasks with different connectors
- > Made of corrosion-resistant material



● Display and operation

- > Touch screen with multi-language user interface
- > Easy to operate using the turning knob
- > Multifunction display, for bath temperature, rotation speed, vacuum, vapor and condenser cooling water temperature
- > Screen sizes (95x55 mm)



● Function

- > Custom method, one-click start, after starting to save the last settings
- > Up to 9 steps programmable distillation conditions
- > Timed distillation program. The distillation program will be closed automatically when the setting time is reached



● Safety

- > A safety heating bath with overheat
- > In case of a power outage, electric lifting device remove the flask from the heating bath to prevent the safety issues and potential thermal damage to your sample
- > A protective shield is included as standard and can be positioned for convenient operator access



● Heating bath

- > With the same heating bath, you can choose the water or oil bath fluid in the MENU
- > Two bath fluid modes, up to 85 °C with water, up to 185 °C with oil
- > High strength stamped inner bath and anti-corrosion PTFE coating
- > With high quality protective shell, prevent scald
- > The position of the bath can be easily adjusted to fix the evaporation position for different volume evaporating flasks



● Optional accessories and peripheral modules

- > Vacuum controller, the vacuum can be set and displayed directly on the touch screen
- > Vapor temperature sensor with glass sleeve
- > Vacuum pump, vacuum solvent recovery system, chiller, adapter and tube



Rotary Evaporator Strike 185 / 285

Display and operation

① Main Interface

- Tap the screen to select a setting, then use the control knob to adjust and confirm values
- > Rotation switch and Rotation switch and settings
 - > Bath temperature switch and settings
 - > Vacuum switch and settings
 - > Vapor temperature display, when connected to a vapor temperature sensor
 - > Cooling temperature display, when connected to a cooling temperature sensor

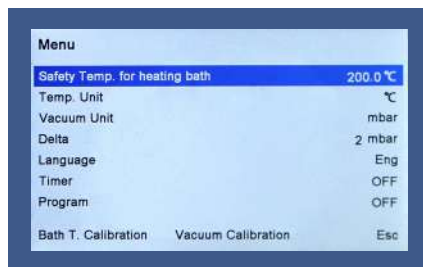


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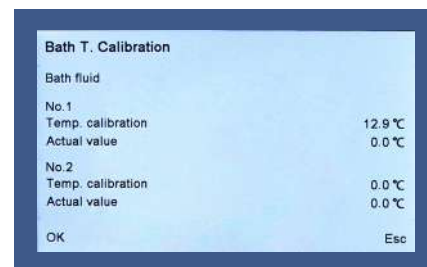
During the experiment, all information can be displayed on the same screen

② Menu

- > Safety temperature settings for the bath
- > Temperature unit
- > Vacuum unit
- > Delta of vacuum
- > Language
- > Timer



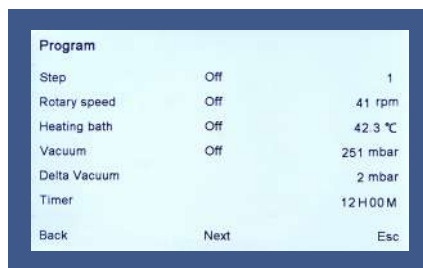
②



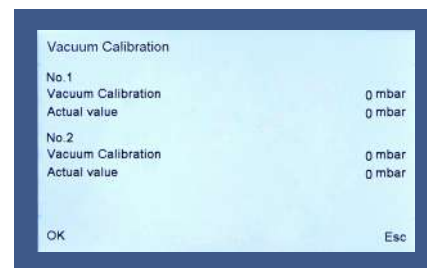
④

③ Program

- All the parameters:
Up to 9 steps programmable distillation conditions including the bath temperature, rotation speed, vacuum, vacuum delta and can be set separately in each step



③



⑤

④ Bath Temperature Calibration (two points)

⑤ Vacuum Calibration (two points)



BEST PERFORMANCE IN SEPARATION & PURIFICATION

From universities to research institutes, laboratories around the world require high-performance rotary evaporators for demanding applications. The new Strike 385 has been specially developed by Wiggins, incorporating pioneering technologies to meet these requirements, and is manufactured to the highest quality standards.

The new Strike 385 is available with a heating bath, rotational device, vacuum system, as well as vapor and cooling temperature monitoring.

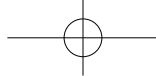
The new Strike 385 is intelligent. Operate your Strike 385 intuitively via the touch screen. Its large display offers programming options and is exceptionally easy to read.



Contact us for more information

or to request a quotation for the new version of the Strike 385.

www.wiggins.com



Specifications

Model	STRIKE 185	STRIKE 285	STRIKE 385
Type of condenser	4 types, Diagonal condenser / Vertical condenser (vapor rises / vapor descends) / Dry ice condenser		
Plastic coated safety glassware	Available for condenser and receiving flask		
Condensing area	1500 cm ² (standard) / 2000 cm ² (optional)		
Available evaporation flasks	50 / 100 / 250 / 500 / 1000 / 2000 / 3000 mL	50 / 100 / 250 / 500 / 1000 / 2000 mL	50 / 100 / 250 / 500 / 1000 / 2000 / 3000 mL
Available receiving flasks	250 / 500 / 1000 / 2000 mL	250 / 500 / 1000 / 2000 mL	250 / 500 / 1000 / 2000 mL
Motor	DC	DC	DC
Speed range	20-300 rpm	20-300 rpm	20-300 rpm
Lifting system	Electric drive, the evaporation flask leaves the heating bath automatically after power failure		
Stroke	130mm, adjustable, and can be stopped at any position		
Bath temperature range	Up to 180 °C	Up to 180 °C	Up to 185 °C
Heating power	1400 W	1400 W	1400 W
Set temperature resolution	0.1 °C	0.1 °C	0.1 °C
Bath volume	5 L (round opening)	5 L (pear-shaped opening)	5 L (round opening)
Material of heating bath	Stainless steel	PTFE coated aluminum	Stainless steel
Vacuum controller	ST280 (optional)	ST280(optional)	ST280 (optional)
Vacuum range	1-1014 mbar (ultimate vacuum depends on the performance of the vacuum pump)		
Vacuum accuracy	1 mbar	1 mbar	1 mbar
Vapor temperature sensor	Optional	Optional	Optional
Cooling temperature sensor	Optional	Optional	Optional
Timer	Yes	Yes	Yes
Storage method	None	None	21
Distillation procedure	1x9 steps	1x9 steps	21x5 steps (manually) 21x5 steps (Automatically)
Vapor temperature detection	Yes (vapor temp. sensor is needed)	Yes (vapor temp. sensor is needed)	Yes (vapor temp. sensor is needed)
Vapor temperature protection	No	No	Vapor range / Vapor min / Vapor max
Dimensions	790x410x700mm (M1/M4) 650x410x890mm (M3/M6) 650x410x890mm (M7)	690x430x700mm (M1/M4) 690x430x790mm (M3/M6)	790x410x700mm (M1/M4) 650x410x890mm (M3/M6) 650x410x890mm (M7)
Weight	30 kg	26 kg	30 kg
Permissible ambient temperature	5-40 °C	5-40 °C	5-40 °C
Permissible relative humidity	80%	80%	80%
Protection class	IP20	-	IP20
RS 232 interface	Yes, for firmware update only	Yes, for firmware update only	Yes, USB disk, PC software
Material of cover	Powder coated stainless steel	Plastic	Powder coated stainless steel
Power supply	230 VAC, 50 / 60 Hz	230 VAC, 50 / 60 Hz	230 VAC, 50 / 60 Hz



Models of STRIKE 185

	Model	Order No.	Model	Order No.
	With standard glassware		With plastic coated safety glassware	
Diagonal condenser	Strike 185 M1	SQED148113	Strike 185 M4	SQED148419
Vertical condenser (steam rises)	Strike 185 M3	SQED148111	Strike 185 M6	SQED148417
Dry ice condenser			Strike 185 M7	SQED148420



Models of STRIKE 285

	Model	Order No.	Model	Order No.
	With standard glassware		With plastic coated safety glassware	
Diagonal condenser	STRIKE 285 M1	SQED158113	STRIKE 285 M4	SQED158419
Vertical condenser (steam rises)	STRIKE 285 M3	SQED158111	STRIKE 285 M6	SQED158417
Dry ice condenser			STRIKE 285 M7	SQED158420

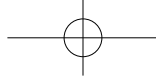


STRIKE 385 M3 / M6

Models of STRIKE 385

	Model	Order No.	Model	Order No.
	With standard glassware		With plastic coated safety glassware	
Diagonal condenser	Strike 385 M1	SQED160113	Strike 385 M4	SQED160419
Vertical condenser (steam rises)	Strike 385 M3	SQED160111	Strike 385 M6	SQED160417
Dry ice condenser			Strike 385 M7	SQED160420

Standard delivery includes the Basic unit Strike, Heating bath, Guard shield, Condenser, 1 L Evaporation flask, 1 L Receiving flask and tube set



Five steps to building up your rotary evaporator

Step 1



STRIKE 185
Slanting glassware

STRIKE 185
Vertical glassware (Vapor rising)

STRIKE 185
Dry ice condenser

Rotary evaporator STRIKE 185 / 285 / 385

- > Three sets of glassware available
- > Two kinds of glass materials available: Borosilicate glass / Borosilicate glass with safety coating
- > Evaporating flasks, 1000 mL (optional 50-2000 mL)
- > Collecting flasks, 1000 mL (optional 250-2000 mL)



Step 2



Recirculating chiller
-20 ~ +40 °C

Chiller

Various chillers available for different applications

	0.5-1 L	up to 2 L	
STRIKE	1	2	3-4
Chiller	VALEGRO 350	VALEGRO 500 VALEGRO 801	VALEGRO 1001

Step 3



C420 / C520
Vacuum pump

CSH420 / CSH520
Solvent Recovery System

CSC420 / CSC520
Vacuum solvent recovery system

Vacuum system

Different vacuum systems are optional according to different experimental requirements

	C series	CSH series	CSC series
Vacuum pump	●	●	●
Vacuum controller	○	○	●
Condensers	○	●	●
Separator	○	●	●
Collecting flasks	○	●	●

Step 4



ST280
Vacuum controller

DVR480
Vacuum controller

Vacuum controller

- > If a vacuum controller is selected, different vacuum can be controlled
- > ST280 is a mounting vacuum control accessory for Wiggins rotary evaporator, the vacuum setting and display are through the touch screen of rotary evaporator
- > DVR480 can set and display the vacuum value directly
- > CSC Vacuum solvent recovery system series already contain the vacuum controller

Step 5



Possible to operate according to vapor temperature (if optional probe is present)

Temperature sensor

- > Possible to operate according to vapor temperature (if optional probe is present)
- > STRIKE285 can also display cooling water temperature (if optional probe is present)
- > Glass temperature sensor, corrosion resistant
- > Vapor temperature can be displayed on the screen of rotary evaporators
- > All models can display the cooling water temperature

Accessories

Chemical Resistant Pump

Chemical resistant diaphragm pump with double stage

Model	A410	A510	C410	C420	C510	C520	C610
Order No.	170410	170510	169410	169420	169510	169520	169610
Max.power [W]	95	245	95	95	245	150	245
Ultimate vacuum [mbar]	13	8	13	15	8	10	2-4
Max.Flow Rate [L/min]	25	40	25	35	34	50	37
Outlet connection [mm]	10	10	10	10	10	10	10

The above are the specifications of 220 V models. Suitable for Strike 185/285/385



Solvent Recovery System, without vacuum control

Included chemical resistant diaphragm pump, glassware and support stand

Model	CSH410	CSH510	CSH520
Order No.	900512	900513	900515
Power [W]	95	245	150
Ultimate Vacuum[mbar]	13	8	10
Max. Flow Rate [L/min]	25	34	50
Outlet connection [mm]	10	10	10

The above are the specifications of 220 V models. Suitable for Strike 185/285/385



Solvent Recovery System, with vacuum control

Fully controllable stand-alone vacuum pump including vacuum controller

Model	CSC 410	CSC 510	CSC 520
Order No.	900522	900523	900525
Power [W]	95	245	150
Ultimate Vacuum [mbar]	13	8	10
Pump max. Flow Rate [L/min]	25	34	50
Outlet connection [mm]	10	10	10

The above are the specifications of 220 V models. Suitable for Strike 185/285/385



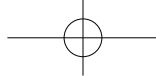
Solvent Recovery System, with vacuum control

Fully controllable stand-alone vacuum pump including vacuum controller

Model	CSP410	CSP510	CSP520
Order No.	900542	900543	900545
Power [W]	95	245	150
Ultimate Vacuum [mbar]	13	8	10
Pump max. Flow Rate [L/min]	25	34	50
Outlet connection [mm]	10	10	10

The above are the specifications of 220 V models. Suitable for Strike 185/285/385





Vacuum controller

ST280 is a mounting vacuum control accessory for Wiggins rotary evaporator, the vacuum setting and display are through the touch screen of rotary evaporator for accurate vacuum control of Strike 185/285/385 or valve regulated vacuum pumps.

Vacuum range: 1–1014 mbar

Vacuum accuracy: 1 mbar



Description	Model	Order No.
Vacuum controller of Strike 185 / 285	ST280	S0EF059422

Recirculating Chillers

The new VALEGRO recirculating coolers are environmentally friendly all-rounders for a wide range of cooling and heating tasks. They are characterized by a good ratio between cooling capacity and unit size as well as an optimal usability.

Features

- > Climate-friendly thanks to natural refrigerant
- > OLED touch display with intuitive menu navigation
- > Good ratio between cooling capacity and size
- > USB-C and RS232 as standard, Ethernet available as option
- > Illuminated, easy-to-clean level indicator

Model	VALEGRO 350	VALEGRO 500	VALEGRO 801	VALEGRO 1001
Order No.	9610035	9610050	9610081	9610101
Working temperature range [°C]	-20...+40	-20...+40	-20...+40	-20...+40
Temperature stability [°C]	±0.3	±0.3	±0.3	±0.3
Cooling capacity [kW]	0.35	0.5	0.8	1
Pump capacity flow pressure [L/min]	16	19	15...23	15...23
Pump capacity pressure [bar]	0.6	0.85	0.5...1.1	0.5...1.1



VALEGRO 350

VALEGRO 1001

Tubing and clamp

Description	Order No.
Vacuum tube, Viton, OD=14 mm, ID=8 mm	168001-01
Vacuum tube, PTFE, OD=12 mm, ID=10 mm	016.1712.01
Cooling water tube	8930008
2 Tube clamps, size 1, tubing 8 mm inner dia.	8970480
2 Tube clamps, size 2, tubing 10-12 mm inner dia.	8970481



Glassware set

Included condenser, evaporation flask and receiving flask in each glassware set, the ventilation and replenishment valve, clamp and adapter



GS1 / GS4



GS2 / GS5



GS3 / GS6

Model	Condenser	Evaporation flask	Receiving flask	Order No.
GS1	SQEF059799	SQFY015937	SQUA015796	SQED159113GS
GS2	SQEF059796	SQFY015937	SQUA015796	SQED159112GS
GS3	SQEF059794	SQFY015937	SQUA015796	SQED159111GS
GS4	SQEF059798	SQFY015937	SQUA015789	SQED159419GS
GS5	SQEF059797	SQFY015937	SQUA015789	SQED159418GS
GS6	SQEF059792	SQFY015937	SQUA015789	SQED159417GS
GS7	SQEF059793	SQFY015937	SQUA015789	SQED159420GS



GS7

Condenser

Made of high quality borosilicate glass or plastic coated safety glassware

Type of condenser	Order No.	
	Standard	Coated
Diagonal condenser	SQEF059799	SQEF059798
Vertical condenser (steam sinks)	SQEF059796	SQEF059797
Vertical condenser (steam rises), 1500 cm ²	SQEF059794	SQEF059792
Vertical condenser (steam rises), 2000 cm ²	SQEF059894	SQEF059892
Dry ice condenser	SQEF059793	



Diagonal condenser



Vertical condenser (steam sinks)



Vertical condenser (steam rises)



Dry ice condenser

Evaporation flask

The flask is made of high quality borosilicate glass

Volume	Order No.	
	NS 29/32	NS 24/40
50 mL	SQFY051171	SQFY051181
100 mL	SQFY015948	SQFY015958
250 mL	SQFY015949	SQFY015959
500 mL	SQFY015941	SQFY015951
1000 mL	SQFY015937	SQFY015947
2000 mL	SQFY015946	SQFY015956
3000 mL (for Strike 185 only)	SQFY015945	SQFY015957





Powder flask

The flask is made of high quality borosilicate glass

Volume	Order No.	Order No.
	NS 29/32	NS 24/40
500 mL	SQFY146060	SQFY146070
1000 mL	SQFY146062	SQFY146072
2000 mL	SQFY146061	SQFY146071
3000 mL (for Strike 185 / 385 only)	SQFY146063	SQFY146073



Receiving flask

The flask is made of high quality borosilicate glass or plastic coated safety glassware, spherical joint 35/20

Volume	Order No.	Order No.
	Standard	Coated
250 mL	SQUA015797	SQUA015788
500 mL	SQUA015798	SQUA015791
1000 mL	SQUA015796	SQUA015789
2000 mL	SQUA015792	SQUA015790
Accessories		
Spherical joint clamp, 35/20, stainless steel		FLMM016694



Spider

Made of high quality borosilicate glass

Inner joint	Outer joint	Order No.
NS 29/32	3xNS 24/29	SQUA162436
NS 29/32	4xNS 24/29	SQUA162437
NS 29/32	3xNS 29/32	SQUA162434
NS 29/32	4xNS 29/32	SQUA162435
Accessories		
Joint clip, PTFE, 24/29		JRS-7596-24
Joint clip, PTFE, 29/32		JRS-7596-29



Foam brake

The rising foam produces bursts in the glass ball extension. This stops foam from entering the receiving flask. Made of high quality borosilicate glass, the maximum recommended load is 1.5 kg

Bubble volume	Top Outer	Bottom Inner	Order No.
50 mL	NS 29/32	NS 29/32	SQFW126450
100 mL	NS 29/32	NS 29/32	SQFW126451
100 mL	NS 29/32	NS 24/29	SQFW126452
250 mL	NS 29/32	NS 29/32	SQFW126453
250 mL	NS 29/32	NS 24/29	SQFW126454



Vapor temperature sensor

Vapor temperature can be displayed on the screen of Strike 185/285/385 when the vapor temperature sensor is connected. But only vapor temperature can be connected with Strike 385, in addition to monitoring the vapor temperature, safety vapor temperature can be set (vapor max./vapor min./vapor range)

Description	Order No.
Vapor temperature sensor, for Strike 185/285/385. With glass dip tube	SQEF059420



Cooling water temperature sensor

Cooling water temperature is displayed on the Strike 185/285 screen when the optional temperature sensor is connected. Not available on Strike 385

Description	Order No.
M+R in-lin temperature sensor, for Strike 185/285	SQEF059424



Replacement Vapor Tube, PTFE Filling Tube and Sealing Gasket

Description	Order No.
Glass vapor tube, 29/32	SQEF082902
Glass vapor tube, 24/40	SQEF087532
PTFE filling tube	BQRY024329
Sealing gasket	VAJS285022



Ventilation and Replenishment Valve

Used for release the vacuum and refilling during the process

Description	Order No.
Ventilation and replenishment valve	SQEF162449



PTFE sleeves

PTFE sleeves are for use with glass adapters to prevent the joint from freezing, as well as allow ease of removal for ground glass joints. These sleeves are sturdy and reusable

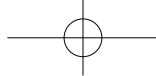
Joint size	Order No.
NS 29/32	KAMY011542
NS 24/29	KAMY011544
NS 19/22	KAMY011546
NS 14/23	KAMY011547



Spherical joint clamp

Description	Order No.
Spherical joint clamp, 35/20, stainless steel	FLMM016694





Practical Guide for Efficient Rotary Evaporation

The graph shows the relationship between the pressure and boiling temperature of a selection of solvents.

The temperature difference between the vapor temperature and the cooling medium should be at 20 °C to result in sufficient condensation.

The temperature difference between the heating bath and vapor temperature should be at 20K to result in a sufficient Distillation rate (dT)

i.e.: Set a vacuum for a boiling point at 40 °C, set the heating bath temperature at 60 °C.



Solvent data

Solvent	Total formula	Boiling point (°C) at Atm.	Vacuum for a boiling at 40 °C
Dichloroethane	CH ₂ Cl ₂	40.7	Atm. Atm.
Diethyl ether	C ₄ H ₁₀ O	34.6	Atm. Atm.
Pentane	C ₅ H ₁₂	36.1	Atm. Atm.
1,2 Dichloroethane(trans)	C ₂ H ₂ Cl ₂	47.8	751 563
Acetone	C ₃ H ₆ O	56.5	556 387
Trichloromethane (chloroform)	CHCl ₃	61.3	474 356
Diisopropyl ether	C ₆ H ₁₂ O	67.5	375 281
Tetrahydrofuran (THF)	C ₄ H ₈ O	66	357 268
Methanol	CH ₄ O	64.7	337 253
Hexane	C ₆ H ₁₄	68.7	335 251
1,1,1-Trichloroethane	C ₂ H ₃ Cl ₃	74.1	300 225
Tetrachloroethylene	CCl ₄	76.7	271 203
2-Butanone	C ₄ H ₈ O	79.6	243 182
Ethyl acetate	C ₄ H ₈ O ₂	77.1	240 180
Benzene	C ₆ H ₆	80.1	236 177
Cyclohexane	C ₆ H ₁₂	80.7	235 176
Acetonitrile	C ₂ H ₃ N	81.8	230 173
1,2 Dichloroethane	C ₂ H ₄ Cl ₂	82.4	210 158
Trichloroethylene	C ₂ HCl ₃	86.7	183 137

Solvent	Total formula	Boiling point (°C) at Atm.	Vacuum for a boiling at 40 °C
1,2 Dichloroethane(cis)	C ₂ H ₂ Cl ₂	59	479 134
Ethanol	C ₂ H ₆ O	78.4	175 131
Isopropyl alcohol	C ₃ H ₈ O	82.5	137 103
Tert.-butanol	C ₄ H ₁₀ O	82.9	130 98
Heptane	C ₇ H ₁₆	98.4	120 90
1,4-Dioxane	C ₄ H ₈ O ₂	101.1	107 80
Toluene	C ₇ H ₈	110.6	77 58
Water	H ₂ O	100	72 54
N-propyl alcohol	C ₃ H ₈ O	97.8	67 50
Tetrachloroethylene	C ₂ Cl ₄	120.8	53 40
Chlorobenzene	C ₆ H ₅ Cl	132.2	36 27
1,1,2,2-Tetrachloroethane	C ₂ H ₂ Cl ₄	145.9	35 26
Xylene (isomers mixture)	C ₈ H ₁₀	137-143	25 19
N-butanol	C ₄ H ₁₀ O	117.5	25 19
Isoamyl alcohol	C ₆ H ₁₂ O	130.6	14 11
Pentachlorinated Ethane	C ₂ HCl ₅	160.5	13 10
Dimethyl formamide	C ₃ H ₇ NO	153	11 8
Amyl alcohol	C ₆ H ₁₂ O	137.8	11 8

ST20

Pilot-Scale Rotary Evaporation for Demanding Processes

3 Options Available

- * Standard Rotary Evaporator
- * ATEX Version
- * Continuous Rotary Evaporator

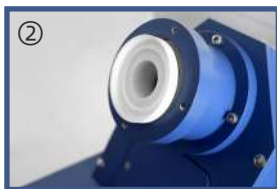
Each option is available in 6 L, 10 L, and 20 L configurations.

Industrial Relation System Design Concept



Vertical glassware (Vapor sinking)

ST20 - Large-capacity rotary evaporator



ST20 has both industrial and laboratory rotary evaporation features. It meets all the process needs by using borosilicate glass and PTFE permitting aggressive substance treatment. The plant allows for evaporation of volatile components (low boiling point) so as to separate them from the residual ones (high boiling point) due to the difference of their boiling points. Easy and totally safe startup, check and stop procedures of the process: ST20 is provided with a transparent protection shield for the evaporation flask and the thermostatic bath.

① Heating bath

The heating bath is lifted by means of a hydraulic system which, in case of power failure, goes automatically down to avoid fluid overheating and bumping.

② Sealing system

A great feature of ST20 is its sealing system made of self-lubricating material which guarantees perfect vacuum tightness. This sealing system does not require any maintenance.

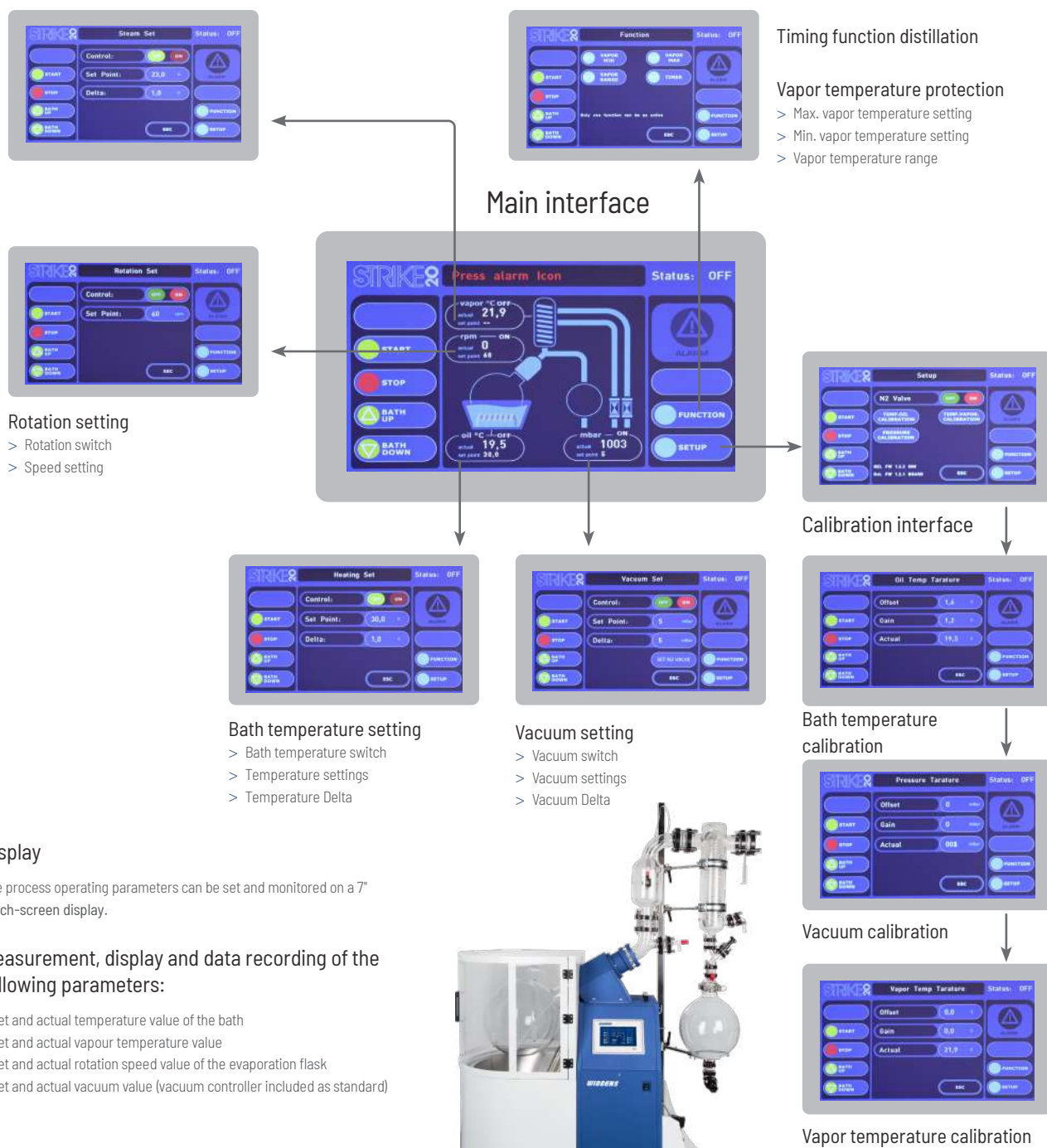
③ Vacuum and temperature

ST20 runs under atmospheric pressure conditions or vacuum. It guarantees perfect vacuum tightness up to 8 mbar. The perfect sealing up to 8 mbar allows for reduced process time due to low evaporation temperature of the fluid. The thermostatic bath can run both with water and oil, and the maximum temperature can reach 150 °C; it also permits evaporation of any solvent under atmospheric pressure conditions. The heating bath is supplied with 3 kW electric heaters.

④ Measurement, visual display and recording of the following parameters:

- > Bath pre-set and real temperature
- > Vapor pre-set and real temperature
- > Pre-set and real rotation speed
- > Pre-set and real vacuum reading and setting

Display and operation



Display

The process operating parameters can be set and monitored on a 7" touch-screen display.

Measurement, display and data recording of the following parameters:

- Set and actual temperature value of the bath
- Set and actual vapour temperature value
- Set and actual rotation speed value of the evaporation flask
- Set and actual vacuum value (vacuum controller included as standard)



Order information

Order No.	Model	Configuration
C02034001	ST20	with descending condenser, 20 L evaporation flask, 10 L receiving flask
C02034002	ST20	with descending condenser, 20 L evaporation flask, 2x6 L receiving flask
C02034003	ST20	with ascending condenser, 20 L evaporation flask, 10 L receiving flask
C02034004	ST20	with ascending condenser, 20 L evaporation flask, 2x6 L receiving flask

ST20

Vertical glassware (Vapor sinking)

ST20 CRE

Continuous distillation rotary evaporator ST20 CRE

Reliable PLC Control System

All standard functions of the ST20 are included, in addition to an automatic continuous distillation feature.



Order information of ST20 CRE

Order No.	Model	Configuration
C02034011	ST20 CRE	with descending condenser, 20 L evaporation flask, 10 L receiving flask, 4 x Liquid level sensors, Solenoid valve set
C02034013	ST20 CRE	with ascending condenser, 20 L evaporation flask, 10 L receiving flask, 4 x Liquid level sensors, Solenoid valve set

● Parameter

- > Bath temperature: RT+5 ~ +150 °C
- > Rotation speed: 10 ~ 150 rpm
- > Vacuum: 8 mbar

● Display

- > Touch screen
- > Bath temperature, speed, vacuum, vapor temperature and safety features
- > The distillation mode can be switched by one button

● Process mode

- > Batch distillation (Conventional mode)
- > Continuous distillation (Cascade mode)

● Glassware

- > Vapor sinking type
- > Vapor rising type
- > Evaporating flask: 6/10/20 L
- > Collection flask: 2x6 L or 1x10 L

● Liquid level sensors

- > Monitoring the liquid level in evaporation flasks
- > Monitoring the liquid level in collection flasks
- > Low level alarm for the reservoir of solutions which have to be evaporated
- > High level alarm for the reservoir of the distilled solvent

● Solenoid valve set

- > Vacuum control valve
- > Nitrogen gas valve to have inert atmosphere protection for sample
- > Refill valve
- > Discharge valve

● Safety

- > Over temperature protection
- > Automatic liquid level monitoring and alarm function
- > Standard protective cover

ST20 ATEX

Large-Capacity rotary evaporator Explosion-proof type - ST20 ATEX

ATEX version for enhanced process and operator safety



For more detailed information, please contact WIGGENS

Order information

Order No.	Model	Configuration
C02034021	ST20 ATEX	with descending condenser, 20 L evaporation flask, 10 L receiving flask
C02034022	ST20 ATEX	with descending condenser, 20 L evaporation flask, 2x6 L receiving flask
C02034023	ST20 ATEX	with ascending condenser, 20 L evaporation flask, 10 L receiving flask
C02034024	ST20 ATEX	with ascending condenser, 20 L evaporation flask, 2x6 L receiving flask





Specifications

Model	ST20	ST20 ATEX	ST20 CRE
	Batch processing	Batch processing	Batch or Continuous processing
Type of condenser	2 types: Vertical condenser (Steam rises or steam sinks)		
Plastic coated safety glassware	Possible for condenser and receiving flask		
Condensing area	0.6 m ² (standard) / 1.2 m ² (optional)		
Available evaporation flasks [L]	6/10/20	6/10/20	6/10/20
Available receiving flasks [L]	1x10 or 2x6	1x10 or 2x6	1x10
Motor	AC	AC, EX	AC
Speed range [rpm]	10 ~ 150	10 ~ 100	10 ~ 150
Lifting system	Electric drive	Pneumatic drive	Electric drive
Stroke [mm]	190	190	225
Max. bath temperature	150 °C (standard) 180 °C (option)	150 °C , EX	150 °C (standard) 180 °C (option)
Heating power [kW]	3	3	3
Set temperature resolution [°C]	0.1	0.1	0.1
Bath volume [L]	25	25	25
Material of heating bath	Stainless steel	Stainless steel	Stainless steel
Vacuum controller	Integrated	Integrated, EX	Integrated
Vacuum range [mbar]	1 ~ 1014	1 ~ 999	1 ~ 1014
Vacuum accuracy [mbar]	1	1	1
Vapor temperature sensor	Integrated	Integrated	Integrated
Timer [min]	0 ~ 999	0 ~ 999	0 ~ 999
Vapor temperature detection	Yes	Yes	Yes
Vapor temperature protection	Yes	Yes	Yes
Dimensions [mm]	1355x725x2070	1355x725x2070	1355x725x2070
Weight [kg]	160	160	163
Permissible ambient temperature [°C]	5 ~ 40	5 ~ 40	5 ~ 40
Permissible relative humidity	80%	80%	80%
Protection class	IP20	IP20	IP20
Interface	USB-B	Without	USB-A / Ethernet
Solenoid valve group	–	–	Integrated
Sample level sensor	–	–	Integrated
Power supply	230 VAC, 50 / 60 Hz	230 VAC, 50 / 60 Hz	230 VAC, 50 / 60 Hz

Accessories

Vacuum pump

Chemical resistant diaphragm pump with triple stage

Model	C960T	C960T EX
Order No.	169960	169960EX
Max. power	370 kW	550 kW
Ultimate vacuum	<2 mbar	<3 mbar
Max. pumping speed	60 L/min	60 L/min
Inlet connection	10 mm	KF DN 25
Outlet connection	10 mm	KF DN 16
Suitable for	ST20, ST20CRE	ST20 ATEX



C960T

Glassware set

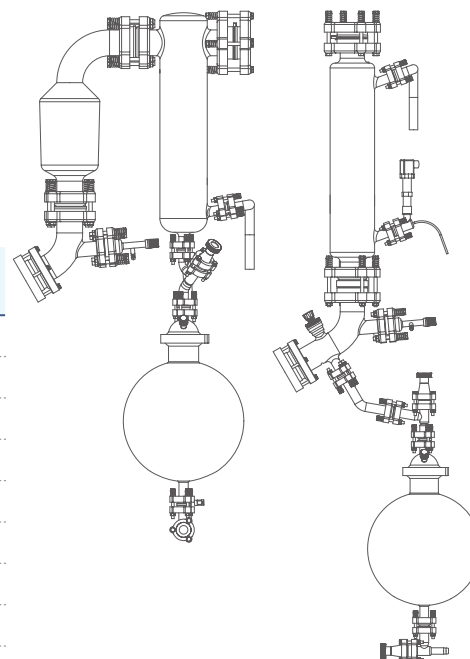
GS10 and GS20 suitable for high-boiling distillation

GS30 and GS40 suitable for liquids with a boiling point up to 100 °C or foaming liquids

GS50 and GS60 suitable for low-boiling solvents; refrigerated with dry ice

GS11 and GS22 suitable for very high rates of distillation, especially for foaming liquids

Model	Condenser	Evaporation flask	Receiving flask	Order No.
GS10	Vertical condenser (steam rises)	20 L	10 L	C02039123
GS20	Vertical condenser (steam rises)	20 L	2x6 L	C02039124
GS30	Vertical condenser (steam sinks)	20 L	10 L	C02039125
GS40	Vertical condenser (steam sinks)	20 L	2x6 L	C02039126
GS50	Cold trap	20 L	10 L	C02039127
GS60	Cold trap	20 L	2x6 L	C02039128
GS11	2pcs of vertical condensers (steam rises & steam sinks)	20 L	10 L	C02039129
GS22	2pcs of vertical condensers (steam rises & steam sinks)	20 L	2x6 L	C02039130



Evaporation flask

Replacement borosilicate glass for Wiggins ST20, ST20 CRE and ST20 ATEX rotary evaporators. Evaporation flasks are designed to fit all large capacity rotary evaporators.

Volume	Order No.
6 L	C02039102
10 L	C02039103
20 L	C02039104



Evaporation flask

The flask is made of plastic coated safety glassware, Plastic coated flasks are clear and will withstand temperatures up to 100 °C.

Volume	Order No.
6 L	C02039105
10 L	C02039106
20 L	C02039107



Evaporation flask

The flask is made of high quality glassware with an amber coating to protect light-sensitive contents
Note: Flasks can be plastic-coated upon request.

Volume	Order No.
6 L	C02039108
10 L	C02039109
20 L	C02039110



Powder flask

Also referred to as drying flasks, particularly suited for drying of powdered samples. The baffles, indented into the glass provide better circulation and mixing of the powders while rotating.

Volume	Order No.
10 L	C02039111
20 L	C02039112

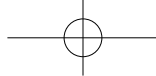


Receiving flask

Replacement borosilicate glass for Wiggins ST20, ST20 CRE and ST20 ATEX rotary evaporators. Receiving flasks are designed to fit all large capacity rotary evaporators. Now available in coated, non-coated, amberized, and jacketed versions

Volume	Order No.	Order No.	Order No.	Order No.
	Standard	Coated	Jacketed	Amberized
6 L	C02039113	C02039115	C02039117	C02039119
10 L	C02039114	C02039116	C02039118	C02039120
Replacement parts and accessories				
	Glass lid of receiving flask			SQEG083572
	Bottom valve of receiving flask			20-227-001
	Open ring supports with long extension arms for supporting receiving flask			KC29429

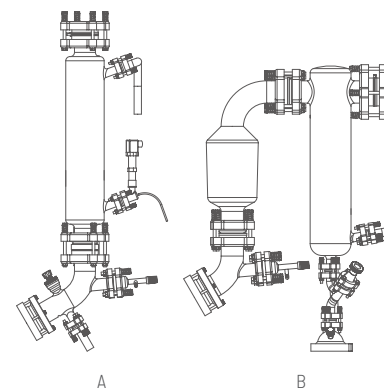




Condenser

Replacement borosilicate glass components for Wiggins ST20, ST20 CRE and ST20 ATEX rotary evaporators. Condensers are designed to fit all large capacity rotary evaporators. Available poly-coated or non-coated.

Description	Order No.	Order No.
	Standard	Coated
Vertical condenser (steam rises), A	C02039121	C02039123
Vertical condenser (steam sinks), B	C02039122	C02039124



Cold trap

Replacement borosilicate glass components for Wiggins ST20, ST20 CRE and ST20 ATEX rotary evaporators. Inner and outer cold trap components for glassware set. Available poly-coated or non-coated.

Description	Order No.	Order No.
	Standard	Coated
Inner cold trap	C02039125	-
Outer cold trap	C02039126	-
Outer cold trap	-	C02039127



Expansion vessel for steam sinks version only

Replacement borosilicate glass components for Wiggins ST20, ST20 CRE and ST20 ATEX rotary evaporators. Upper expansion tanks for glass sets available in either poly-coated or non-coated versions

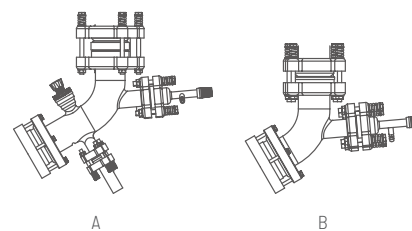
Description	Order No.	Order No.
	Standard	Coated
Expansion vessel for steam sinks version only	C02039128	C02039129



Distillation head

Replacement components for ST20, ST20 CRE and ST20 ATEX rotary evaporators, available poly-coated or non-coated

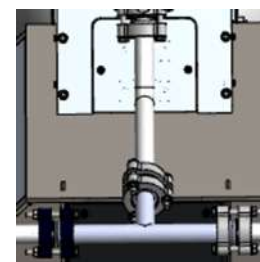
Description	Order No.	Order No.
	Standard	Coated
For ST20 and ST20 ATEX, steam rises version (A)	C02039130	C02039134
For ST20 and ST20 ATEX, steam sinks version (B)	C02039131	C02039135
For ST20 CRE, steam rises version	C02039132	C02039136
For ST20 CRE, steam sinks version	C02039133	C02039137



Glass tube set

Replacement components for ST20, ST20 ATEX rotary evaporators, available poly-coated or non-coated

Description	Order No.	Order No.
	Standard	Coated
Glass tube set for connect condenser and 2pcs of 6 L receiving flask, for ST20 and ST20 ATEX	C02039138	C02039139



Vacuum sensor and vapor temperature sensor

Description	Order No.
Vacuum sensor for ST20 and ST20 CRE	VAJ0081056
Vacuum sensor for ST20 ATEX	VAJ0070992
Vapor temperature sensor	KC29481



Level sensor and Solenoid valve for ST20 CRE only

Monitoring of low liquid level in evaporation flask and evaporation tank
Monitoring of high liquid level in receiving flask and receiving tank
The solenoid valve group can switch automatically according to the program:

Description	Order No.
Level sensor in 20 L evaporation flask, quartz	20-0623-04
Level sensor in the receiving flask, quartz	20-0623-05
Level sensor in the sample tank	SQAF2000-05
Level sensor in the receiving tank	SQAF2000-06
Solenoid valve (N/O), DN8, G1/4"	20-0623-07
Solenoid valve (N/C), DN15, G1/2"	20-0623-09



Flange clamp and PTFE gasket

Flange size	Coupling, Insert ring, Bolt, compression spring, washer and nut	PTFE gasket
DN15	SQQI007876	SQQI011682
DN25	SQQI007877	SQQI011688
DN50	SQQI007878	SQQI011696

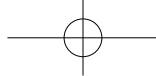


Rupture disc and Nitrogen solenoid valve

Material: SS316L
Size: DN50
Discharge area: 1781 mm²
Burst pressure: 0.46±0.25 bar (20 °C)

Description	Order No.
Rupture disc	VAJ0077020
Holder of rupture disc	VAJ0077021
Nitrogen solenoid valve, for protect oxygen-sensitive substances	VAJ0077022





Tubing and clamp

Material: SS316L

Size: DN50

Discharge area: 1781 mm²

Burst pressure: 0.46±0.25 bar (20 °C)

Description	Order No.
Vacuum tube (ID=19 mm)	8930319
Reinforced tubing for cooling water (ID=12 mm)	8930312
Tubing insulation (ID=23 mm), for 8930312	8930413
2 Tube clamps, size 3, for Reinforced tubing (ID=12 mm)	8970482
2 Tube clamps, size 4, for Reinforced tubing (ID=19 mm)	8970483



Guard shield

with safety design, the distillation process can be started only when the guard shield of heating bath is closed

Description	Order No.
Guard shield of heating bath	C02039140
Guard shield of condenser and receiving flask	C02039141



Trolley

for evaporating flask handling

Description	Order No.
Stainless steel trolley for evaporating flask handling, for ST20, ST20 CRE	SQFW080270
Stainless steel trolley for evaporating flask handling, for ST20 ATEX	SQFW080271



ST20

Industrial Rotary Evaporator

ST50 / ST100 / ST50 ATEX / ST100 ATEX

ST50 / ST100 series are large capacity rotary evaporator designed for industrial plants. It meets all the process needs by using Borosilicate glass and PTFE permitting aggressive substances treatment.

The unit works under vacuum or atmosphere conditions. The rotation of the 50 or 100 L evaporation flask in the heating bath results in a forced convection and homogenous distribution of the product, thus preventing sedimentation. Moreover, it ensures high evaporating exchange surface. The sealing system guarantees the perfect vacuum tightness and maintenance-free operation. Possibility to customize glassware as for Clients needs.

The highest performance proposal For your evaporation processes!

Safety

ST50 / ST100 series are supplied with an optional transparent protection shield for the evaporation flask.

The special shaped and robust shield ensures utmost protection from evaporation flask breakage and spray during process at high temperature.

- > The heating bath and the protective shield are lifted by an electronically monitored system.
- > An automatic system lowers the heating bath in case of power failure, overheating and any other bad occurrences.
- > ST50 / ST100 series are supplied with a rupture disk, a safety device, positioned on the glassware to prevent overpressure.

Vacuum sealing system

- > Made of lubricating material allowing perfect vacuum tightness.
- > No maintenance required

Heating bath

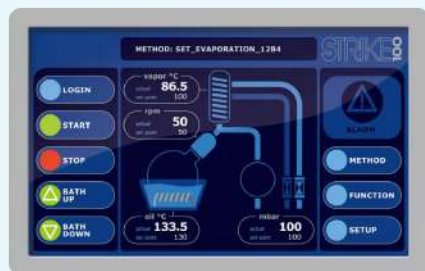
Lifted by means of a powered system, the heating bath, in case of power failure or alarms, goes automatically down to prevent fluid overheating, and the process will immediately stop.

Its electric heater enhanced to 8 kW ensures continuous evaporation of a wide range of products even in critical working conditions.

Measurement, display and data recording of the following parameters:

- > Set and actual temperature value of the bath
- > Set and actual vapor temperature value
- > Set and actual rotation speed value of the evaporation flask
- > Set and actual vacuum value (vacuum controller included as standard)





Screen of ST50 / 100

Parameters measurement, visual display and recording of the following:

- Bath pre-set and real temperature
- Vapor pre-set and real temperature
- Pre-set and real rotation speed
- Pre-set and real vacuum reading and setting

Specifications

Model	ST50	ST100	ST50 ATEX	ST100 ATEX
	Batch processing	Batch processing	Batch processing	Batch processing
Type of condenser	2 types, Vertical condenser (Steam rises or steam sinks)		2 types, Vertical condenser (Steam rises or steam sinks)	
Plastic coated safety glassware	Possible for condenser and receiving flask		Possible for condenser and receiving flask	
Condensing area	0.6 m ² (50 L system)	1.43 m ² (100 L system)	0.6 m ² (50 L system)	1.43 m ² (100 L system)
Available evaporation flasks [L]	50	100	50	100
Available receiving flasks	20 L, 2x20 L, 50 L (optional), 100 L (optional)		20 L, 2x20 L, 50 L (optional), 100 L (optional)	
Motor	AC	AC	AC, EX	AC, EX
Speed range [rpm]	5 ~ 100	5 ~ 100	5 ~ 100	5 ~ 100
Lifting system	Electric drive	Electric drive	Pneumatic drive	Pneumatic drive
Stroke	300mm, adjustable, and can be stopped at any position		300mm, adjustable, and can be stopped at any position	
Max. bath temperature	150 °C (standard)	150 °C (standard)	150 °C , EX	150 °C , EX
Temperature accuracy [°C]	±2	±2	±2	±2
Heating power [kW]	8	8	8	8
Set temperature resolution [°C]	0.1	0.1	0.1	0.1
Bath volume [L]	110	110	110	110
Material of heating bath	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Vacuum controller	Integrated	Integrated	Integrated, EX	Integrated, EX
Vacuum range [mbar]	0 ~ 999	0 ~ 999	0 ~ 1014	0 ~ 1014
Vacuum accuracy [mbar]	1	1	1	1
Vapor temperature sensor	Integrated	Integrated	Integrated	Integrated
Timer	Yes	Yes	Yes	Yes
Vapor temperature detection	Yes	Yes	Yes	Yes
Vapor temperature protection	Yes	Yes	Yes	Yes
Dimensions [mm]	1830x890x2110	1830x890x2110	1830x890x2110	1830x890x2110
Weight [kg]	370	370	400	400
Permissible ambient temperature [°C]	5 ~ 40	5 ~ 40	5 ~ 40	5 ~ 40
Permissible relative humidity	80%	80%	80%	80%
Interface	USB-B	USB-B	Without	Without
RS 232 interface	Yes, for firmware update only	Yes, for firmware update only	Yes, for firmware update only	Yes, for firmware update only
Power supply	400 V / 3 PNPE / 50 Hz	400 V / 3 PNPE / 50 Hz	400 V / 3 PNPE / 50 Hz	400 V / 3 PNPE / 50 Hz

Order information

Order No.	Model	Configuration
C02035001	ST50	with descending condenser, 50 L evaporation flask, 20 L receiving flask
C02035002	ST50	with descending condenser, 50 L evaporation flask, 2x20 L receiving flask
C02035003	ST50	with ascending condenser, 50 L evaporation flask, 20 L receiving flask
C02035004	ST50	with ascending condenser, 50 L evaporation flask, 2x20 L receiving flask

Order No.	Model	Configuration
C02035005	ST100	with descending condenser, 100 L evaporation flask, 20 L receiving flask
C02035006	ST100	with descending condenser, 100 L evaporation flask, 2x20 L receiving flask
C02035007	ST100	with ascending condenser, 100 L evaporation flask, 20 L receiving flask
C02035008	ST100	with ascending condenser, 100 L evaporation flask, 2x20 L receiving flask



Order information

Order No.	Model	Configuration
C02035021	ST50 ATEX	with descending condenser, 50 L evaporation flask, 20 L receiving flask
C02035022	ST50 ATEX	with descending condenser, 50 L evaporation flask, 2x20 L receiving flask
C02035023	ST50 ATEX	with ascending condenser, 50 L evaporation flask, 20 L receiving flask
C02035024	ST50 ATEX	with ascending condenser, 50 L evaporation flask, 2x20 L receiving flask

Order No.	Model	Configuration
C02035025	ST100 ATEX	with descending condenser, 100 L evaporation flask, 20 L receiving flask
C02035026	ST100 ATEX	with descending condenser, 100 L evaporation flask, 2x20 L receiving flask
C02035027	ST100 ATEX	with ascending condenser, 100 L evaporation flask, 20 L receiving flask
C02035028	ST100 ATEX	with ascending condenser, 100 L evaporation flask, 2x20 L receiving flask



Accessories

Trolley

for evaporating flask handling

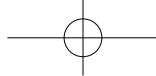
Description	Order No.
Stainless steel trolley for evaporating flask handling, for 50 L evaporation flask	C02039150
Stainless steel trolley for evaporating flask handling, for 100 L evaporation flask	C02039151



Vacuum pump

Chemical resistant diaphragm pump with triple stage

Model	C2000T
Order No.	W032002
Max. power	750 kW
Ultimate vacuum	<2 mbar
Max. pumping speed	180 L/min
Inlet connection	KF25
Outlet connection	G1/2



Evaporation flask

Replacement borosilicate glass for Wiggens ST50 and ST100 series rotary evaporator. Evaporation flasks are designed to fit all large capacity rotary evaporators.

Volume	Order No.
50 L	C02039152
100 L	C02039153



Evaporation flask

The flask is made of plastic coated safety glassware , Plastic coated flasks are clear and will withstand temperatures up to 100°C .

Volume	Order No.
50 L	C02039154
100 L	C02039155



Evaporation flask

The flask is made of high quality glassware with an amber coating to protect light-sensitive contents
Note: Flasks can be plastic-coated upon request.

Volume	Order No.
50 L	C02039156
100 L	C02039157



Powder flask

Also referred to as drying flasks, particularly suited for drying of powdered samples. The baffles, indented into the glass provide better circulation and mixing of the powders while rotating.

Volume	Order No.
50 L	C02039158
100 L	C02039159



Receiving flask

Replacement borosilicate glass for Wiggens ST50 and ST100 series rotary evaporator. Receiving flasks are designed to fit all large capacity rotary evaporators. Now available in coated, non-coated, amberized, and jacketed

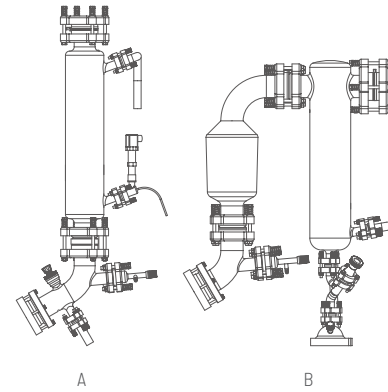
Volume	Order No.			
	Standard	Coated	Jacketed	Amberized
20 L	C02039160	C02039161	C02039162	C02039163
Replacement parts and accessories				
Glass lid of receiving flask				C02039164
Bottom valve of receiving flask				20-227-001
Open ring supports with long extension arms for supporting receiving flask				KC29429



Condenser

Replacement borosilicate glass components for Wiggins ST50 and ST100 series rotary evaporator. Condensers are designed to fit all large capacity rotary evaporators. Available poly-coated or non-coated

Description	Order No.	Order No.
	Standard	Coated
Vertical condenser (steam rises), A	SQEG034294	SQEG034284
Vertical condenser (steam sinks), B	SQEG034293	SQEG034283



Expansion vessel for steam sinks version only

Replacement borosilicate glass components for Wiggins ST100 and ST100 ATEX rotary evaporators. Upper expansion tanks for glass sets available in either poly-coated or non-coated versions

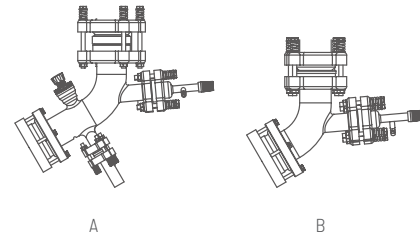
Description	Order No.	Order No.
	Standard	Coated
Expansion vessel for steam sinks version only	C02039165	C02039166



Distillation head

Replacement components for ST50 and ST100 series rotary evaporator, available poly-coated or non-coated

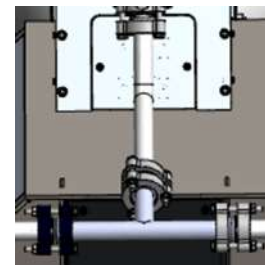
Description	Order No.	Order No.
	Standard	Coated
For ST50 and ST100 series, steam rises version (A)	C02039167	C02039169
For ST50 and ST100 series, steam sinks version (B)	C02039168	C02039170

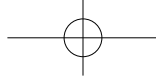


Glass tube set

Replacement components for ST50 and ST100 series rotary evaporator, available poly-coated or non-coated

Description	Order No.	Order No.
	Standard	Coated
Glass tube set for connect condenser and 2pcs of 20 L receiving flask, for ST50 and ST100 series	C02039171	C02039172





Vacuum sensor and vapor temperature sensor

Description	Order No.
Vacuum sensor for ST50 / ST100	VAJQ081056
Vacuum sensor for ST50 ATEX / ST100 ATEX	VAJQ070992
Vapor temperature sensor	KC29481



Flange clamp and PTFE gasket

Flange size	Coupling, Insert ring, Bolt, compression spring, washer and nut	PTFE gasket
DN15	SQQI007876	SQQI011682
DN25	SQQI007877	SQQI011688
DN50	SQQI007878	SQQI011696
DN80	SQQI007879	SQQI011697



Rupture disc and Nitrogen solenoid valve

Material: SS316L
 Size: DN50
 Discharge area: 1781 mm²
 Burst pressure: 0.46±0.25 bar (20 °C)

Description	Order No.
Rupture disc	VAJQ077020
Holder of rupture disc	VAJQ077021
Nitrogen solenoid valve, for protect oxygen-sensitive substances	VAJQ077022



Tubing and clamps

Material: SS316L
 Size: DN50
 Discharge area: 1781 mm²
 Burst pressure: 0.46±0.25 bar (20 °C)

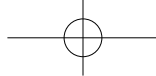
Description	Order No.
Vacuum tube (ID=19 mm)	8930319
Reinforced tubing for cooling water (ID=12 mm)	8930312
Tubing insulation (ID=23 mm), for 8930312	8930413
2 Tube clamps, size 3, for Reinforced tubing 12 mm or 1/2 " ID	8970482
2 Tube clamps, size 4, for Reinforced tubing 3/4 " ID	8970483



Guard shield

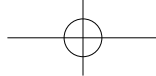
with safety design, the distillation process can be started only when the guard shield of heating bath is closed

Description	Order No.
Guard shield of heating bath	C02039173
Guard shield of condenser and receiving flask	C02039174



Hot Plate / Stirrer Heating Element





WIGGENS
THE MAGIC MOTION

Laboratory Hotplate Stirrer

Attractive design for demanding heating & mixing application

Our new complete range laboratory hotplate stirrers will meet your high demands every day!

More Powerful Units



WH380



WH390

Intelligent heating technology for your very demanding applications



WH260-AH



WH260-AR



WH260-NH



WH260-R

Pro series
large and clear LCD display
Intelligent PID
USB interface



WH200



WH210



WH420



WH620

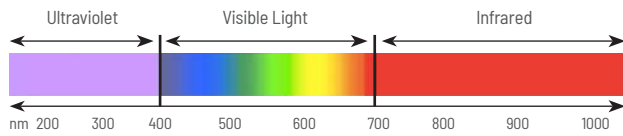
New entry level for lab heating & mixing



Why Infrared Radiation Heating?

Infrared radiation heating involves the emission and transmission of light waves within the spectrum range of 700 nm to 100 μm (0.7 μm to 100 μm), enabling noticeable and directional energy transfer. Unlike conduction or convection, this transfer does not require any medium and can occur even in a vacuum. Infrared heating specifically utilizes electromagnetic waves with wavelengths between 2.5 μm and 15 μm , a range commonly used in heating applications. These waves propagate at the speed of light, significantly faster than energy transfer via conduction or convection.

Wavelengths (nm) of Light

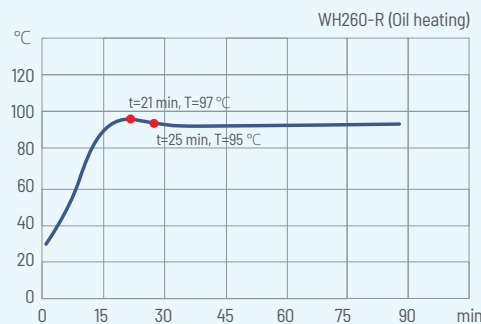
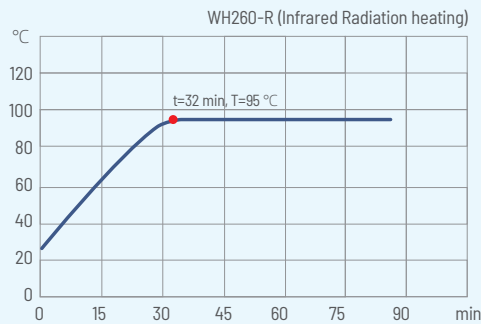


The magnetic heating stirrer incorporates advanced infrared radiation (IR) technology, providing direct, clean, and safe heating. This innovative heating method allows the WIGGENS hotplate-stirrer to quickly heat various shaped vessels, including round-bottom flasks, with the solution inside reaching a maximum temperature of 450 °C in a short time. Unlike oil heating, infrared radiation heating eliminates the need for bath oil, ensuring a direct and clean heating process without oil splashing.

The high infrared permeability facilitates fast and efficient transfer of heating energy with minimal loss, resulting in faster heating of liquids and significant time and energy savings. With PID control or advanced ICC technology, excellent temperature stability can be achieved. By connecting a Pt-100 sensor, temperature-controlled operations with a stability of ± 2 °C can be achieved in most applications.



Disadvantages of conventional heating method



Glass bath:
Used for sample splashing
or other accidents
occurring protection



Wiggins IR Heating



Oil bath



Wiggins IR Heating (Oil Bath)

Digital Hot Plate / Stirrer

New entry level for lab heating & mixing

WH200 / WH210 / WH220

- > Our laboratory hotplates and stirrers are designed and manufactured in compliance with high international quality standards to ensure superior performance and durability. Equipped with an advanced microprocessor control system, they offer exceptional reliability and precise temperature stability for consistent experimental results. A bright and clear LED digital display allows convenient monitoring and adjustment of the working temperature and stirring speed.
- > The built-in memory function retains stirring speed and temperature settings, making it ideal for experiments requiring fixed conditions. A liquid drainage system above the control board prevents liquids from entering and damaging the system. Direct connection for the thermocouple sensor allows precise control of the sample temperature.
- > The new entry level hot plate and stirrers are suitable for general laboratory applications, offering reliable performance across a variety of use cases. A hot-top indicator lights up above 60 °C to ensure user safety.



Safety protection

A flashing high-temperature indicator provides a warning to prevent accidental contact and potential injury.



Liquid drainage

A groove above the control panel prevents solution splashes.



Temperature and speed display

WH200 and WH210 simultaneously display temperature and speed while retaining the last operation settings.



Top plate material

WH200 features an aluminum plate, while WH210 and WH220 are equipped with an SS304 plate coated with ceramic.



Specifications

Model	WH200	WH210	WH220
Order No.	400302	400402	400400
Maximum temperature setting [°C]	250	350	380
Maximum temperature setting with E-sensor [°C]	250	350	380
Safety temperature [°C]	280	380	50 ~ 430 adjustable
Temperature stability with E-sensor [°C]*	±1	±1	±1
Heat output [W]	300	500	500
External temperature sensor	Thermocouple	Thermocouple	Pt100
PID parameter	1 set	1 set	2 sets
Speed setting range [rpm]	100 ~ 1500	100 ~ 1500	100 ~ 1500
Temperature and Speed display	LED display	LED display	LCD display
Temperature and Speed setting	Turning knob	Turning knob	Turning knob
IP code	IP21	IP21	IP21
Top plate material	Aluminium alloy	Stainless steel coated with ceramic	Stainless steel coated with ceramic
Top plate dimensions [mm]	165x150	180x145	180x145
Dimensions [W x D x H (mm)]	191x226x87	224x250x127	230x200x100
Weight [kg]	1.5	3.0	3.1
Power supply	220 V / 50 Hz	220 V / 50 Hz	220 V / 50 Hz

* Measured with 500 ml water at 80 °C

Standard includes the Hot plate / stirrer, stirrer bar

Digital Hot Plate / Stirrer Multi-position heating & mixing

WH420 / WH620

- > Advanced microprocessor controlling system guarantees the reliability and temperature stability
- > Bright and clear LED digital display and setting for the working temperature, stirring speed, working time, and safety temperature
- > Memory function for stirring speed and temperature setting, convenient for experiments with fixed conditions
- > Liquid drainage above the control board to prevent liquids from accessing the system
- > Direct connection for Pt100 temperature sensor for convenient solution temperature control
- > Sealed outer shell and isolated critical parts design for enhanced longevity even in a harsh laboratory environment
- > When the temperature of the top plate is above 60 °C , hot-top indicator will light up for the user's safety protection



LED selectable

LED display for simultaneous monitoring of temperature and speed, and remember the last working parameters.



Safety protection

A flashing high-temperature indicator provides a warning to prevent accidental contact and potential injury.



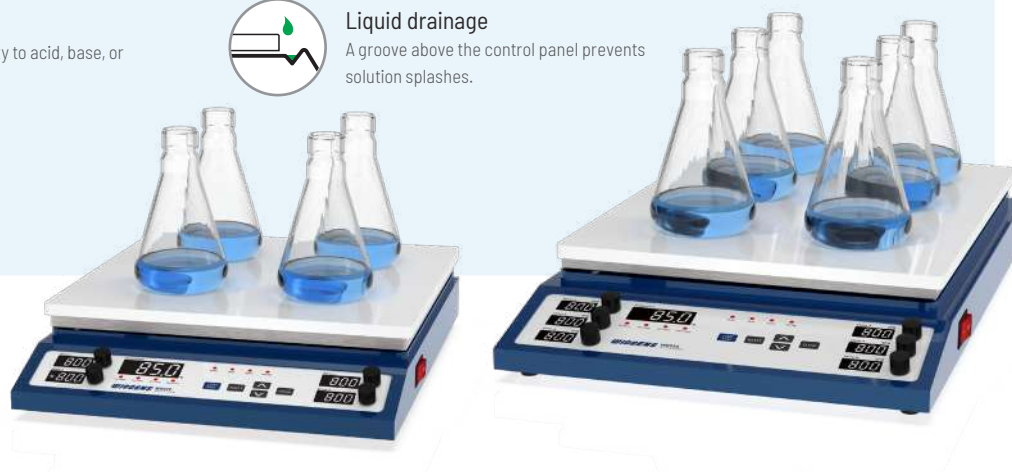
Ceramic top plate

Great anti-corrosive ability to acid, base, or organic solvents.



Liquid drainage

A groove above the control panel prevents solution splashes.



Specifications

Model	WH420	WH620
Order No.	400315	400316
Number of stirring positions	4	6
Maximum temperature setting [°C]	300	300
Maximum temperature setting with E-sensor [°C]	300	300
Safety temperature [°C]	370	370
Temperature stability with E-sensor [°C]*	±1	±1
Total heating output [W]	1000	1500
External temperature sensor	Pt100	Pt100
PID parameter	1 set	1 set
Speed setting range [rpm]	150 ~ 1500	150 ~ 1500
Stirring quantity max [L / H ₂ O]	2	2
Temperature and Speed display	LED display	LED display
Temperature and Speed setting	Turning knob	Turning knob
Time setting	1 ~ 9959min / continuous	1 ~ 9959min / continuous
IP code	IP21	IP21
Top plate material	Aluminium coated with ceramic	Aluminium coated with ceramic
Top plate dimensions [mm]	(160x155) x4	(150x133) x6
RS 232 interface	Yes	Yes
Dimensions [W x D x H (mm)]	327x401x89	334x526x88
Weight [kg]	8.5	9.0
Power supply	220 V / 50 Hz	220 V / 50 Hz

*Measured with 500 ml water at 80 °C

Standard includes the Hot plate / stirrer, stirrer bars 4 or 6 pcs

Infrared Hot Plate / Stirrer

Attractive design for demanding heating & mixing

WH260-NH / WH260-H / WH260-R / WH260-RL

The WIGGENS new hotplate stirrer offers several advantages due to its ceramic glass top plate. It provides chemical resistance, high surface quality, and can withstand temperature shocks of over 700 °C, making it a superior choice compared to conventional heating surface materials. The high infrared permeability ensures efficient transfer of heating energy with minimal loss, resulting in fast heating of liquids and significant time and energy savings. PID control ensures good temperature stability, and when a Pt-100 sensor is connected, temperature-controlled work with a stability of ± 1 °C can be achieved in most applications.

The device features a large and clear LCD display that allows users to view and monitor essential parameters such as working temperature, stirring speed, working time, and safety temperature. It also includes a memory function for stirring speed and temperature settings, making it convenient for experiments with fixed conditions. To prevent liquids from reaching the touching board and electronics, there is liquid drainage above the control board. Additionally, a direct connection for a Pt100 temperature sensor enables easy solution temperature control.

The hotplate stirrer is designed with a sealed outer shell and isolated critical parts to enhance its longevity, even in harsh laboratory environments. It offers high safety protection, automatically shutting off the heating when exceeding the safety range of the hotplate (adjustable between 10-50 °C) to ensure user safety. With three sets of PID parameters, it is suitable for accurate control of small volume samples, rapid heating, and stable temperature control of large volume.



LCD display

Simultaneously displaying various parameters, memory of the last working parameters.



Ceramic glass top plate

Great anti-corrosive ability to acid, base, or organic solvents.



Safety protection

A flashing high-temperature indicator provides a warning to prevent accidental contact and potential injury.



Liquid drainage

A groove above the control panel prevents solution splashes.



3 sets of PID parameters

Suitable for different application, for accurately controlling the quick heating of small sample and the stable temperature control of large sample.



Overheating protection

If the internal temperature exceeds the permissible temperature that may damage the internal electronic components, the heating power will be reduced automatically.



RS232 interface

Enable the unit to be connected to a PC for operating



Safety temperature

The safety temperature is an adjustable circuit designed to prevent the unit from exceeding a specified set temperature. It can be adjusted using a special tool provided with the product.



Ceramic glass top plate

WH260H/R/RL/NH

Ceramic Glass by Schott combines chemical resistance, top quality surfaces and resistance to temperature shocks of greater than 700 °C.



Ceramic top plate

WH-260AH/AR

Great anti-corrosive ability to acid, base, or organic solvents.



Rotating knob

Easy to operate

Strong & Robust



WH260-R



WH260-NH

In addition to speedy heating up and good temperature control, WH260-NH also offers well controlled liquids mixing from gentle to intense, being suitable for big volume viscous media as well.

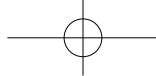


Specifications

	WH260-AH	WH260-NH	WH260-H	WH260-AR	WH260-R	WH260-RL
Model	WH260-AH	WH260-NH	WH260-H	WH260-AR	WH260-R	WH260-RL
Order No.	W3012601	W3012602	W3012603	W3012604	W3012605	W3012606
Maximum temperature setting [°C]	380	450	450	380	450	450
Maximum temperature setting with E-sensor [°C]	200	300	300	200	300	300
Safety temperature [°C]	50 ~ 430 adjustable	50 ~ 500 adjustable	50 ~ 500 adjustable	50 ~ 430 adjustable	50 ~ 500 adjustable	50 ~ 500 adjustable
High temperature protection [°C]	10 ~ 50 adjustable	10 ~ 50 adjustable	10 ~ 50 adjustable	10 ~ 50 adjustable	10 ~ 50 adjustable	10 ~ 50 adjustable
Temperature stability with E-sensor [°C]*	±1	±1	±1	±1	±1	±1
Heat output [W]	800	1000	800	800	800	800
External temperature sensor	Pt100	Pt100	Pt100	Pt100	Pt100	Pt100
PID parameter	3 sets	3 sets	3 sets	3 sets	3 sets	3 sets
Speed setting range [rpm]	100 ~ 1500	100 ~ 1500	100 ~ 1500	100 ~ 1500	100 ~ 1500	100 ~ 1500
Stirring quantity max [L / H ₂ O]	20	20	20	20	20	20
Temperature and Speed display	LCD display	LCD display	LCD display	LCD display	LCD display	LCD display
Temperature and Speed setting	Turning knob	Turning knob	Turning knob	Turning knob	Turning knob	Turning knob
Time setting	1 ~ 1999min / continuous	1 ~ 1999min / continuous	1 ~ 1999min / continuous	1 ~ 1999min / continuous	1 ~ 1999min / continuous	1 ~ 1999min / continuous
IP code	IP21	IP21	IP21	IP21	IP21	IP21
Top plate material	Aluminium coated with ceramic	Ceramic glass	Ceramic glass	Aluminium coated with ceramic	Ceramic glass	Ceramic glass
Top plate dimensions [mm]	180x180	180x180	180x180	Ø140	Ø135	Ø145
RS232 interface	Yes	Yes	Yes	Yes	Yes	Yes
Dimensions [W x D x H (mm)]	187x315x86	187x315x84	187x315x95	187x315x86	187x315x90	187x315x88
Weight [kg]	2.8	2.8	3.1	2.8	3.0	3.0
Power supply	220 V / 50 Hz	220 V / 50 Hz	220 V / 50 Hz	220 V / 50 Hz	220 V / 50 Hz	220 V / 50 Hz

*Measured with 500 ml water at 80 °C

Standard includes the Hot plate / stirrer, stirrer bar



Infrared Hot Plate / Stirrer with large plate

WH380



Extra large heating plate

Top plate dimensions: 280x280mm
Heating zone: Ø190 mm



Ceramic glass top plate

Great anti-corrosive ability to acid, base, or organic solvents.



Rapid heating up speed

Temperature can reach up to 550 °C , and one liter of water can be boiled in approx. 9 minutes



Heating power

With 1200 W heating power, rapid heating speed.



WH380

Note! Application Restrictions

Infrared heating units utilize infrared radiation for heating. Do not cover the surface of the heating plate with aluminum foil or Polished metal surface, as those surface can create a mirror-like reflection that may easily lead to internal overheating of the instrument.

Specifications

Model	WH380
Order no.	W3013803
Maximum temperature setting [°C]	550
Maximum temperature setting with E-sensor [°C]	300
Safety temperature [°C]	50 ~ 600 adjustable
High temperature protection [°C]	10 ~ 50 adjustable
Temperature stability with E-sensor [°C]*	±1
Heat output [W]	1200
External temperature sensor	Pt100
Temperature control	PID, 3 sets
Speed setting range [rpm]	100 ~ 1500
Stirring quantity max [L / H ₂ O]	30
Display	LCD
Mixing direction	Clockwise
Time setting	1 ~ 1999min / continuous
IP code	IP21
Top plate material	Ceramic glass
Top plate dimensions [mm]	280x280
Communication interface	RS232
Dimensions [W x D x H (mm)]	255x392x105
Weight (Kg)	4.0
Power supply	220 V / 50 Hz

*Measured with 500 ml water at 80 °C

Standard includes the Hot plate / stirrer, stirrer bar

Infrared Hot Plate / Stirrer with High-power

WH390 / WH390-NH



Ceramic glass top plate

Great anti-corrosive ability to acid, base, or organic solvents.



3 sets of PID parameters (WH390)

Suitable for a broad range of demanding heating tasks, from rapid heat-up of small samples to stable heating of larger volumes.



Rapid heating up speed.

Temperature can reach up to 550 °C., and one liter of water can be boiled in approx. 9 minutes.



Heating power

With 1800 W heating power, rapid heating up speed. 2000 W (WH390-NH)

Note! Application Restrictions

Infrared heating units utilize infrared radiation for heating. Do not cover the surface of the heating plate with aluminum foil or Polished metal surface, as those surface can create a mirror-like reflection that may easily lead to internal overheating of the instrument.

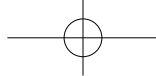


Specifications

Model	WH390	WH390-NH
Order no.	W3013902	W3013903
Maximum temperature setting [°C]	550	450
Maximum temperature setting with E-sensor [°C]	300	300
Safety temperature [°C]	50 ~ 600 adjustable	50 ~ 500 adjustable
High temperature protection [°C]	10 ~ 50 adjustable	10 ~ 50 adjustable
Temperature stability with E-sensor [°C]*	±1	±1
Heat output [W]	1800	2000
External temperature sensor	Pt100	Pt100
Temperature control	PID, 3 sets	PID, 3 sets
Speed setting range [rpm]	100 ~ 1500	100 ~ 1500
Stirring quantity max [L / H ₂ O]	30	30
Display	LCD	LCD
Mixing direction	Clockwise	Clockwise
Time setting	1 ~ 1999min / continuous	1 ~ 1999min / continuous
IP code	IP21	IP21
Top plate material	Ceramic glass	Ceramic glass
Top plate dimensions [mm]	280x280	280x280
Communication interface	RS232	RS232
Dimensions [W x D x H (mm)]	283x445x110	280x405x81
Weight [kg]	4.1	4.1
Power supply	220 V / 50 HZ	220 V / 50 HZ

*Measured with 500 ml water at 80 °C

Standard includes the Hot plate / stirrer, stirrer bar



Soft Dry Bath -one for all shapes of vessels

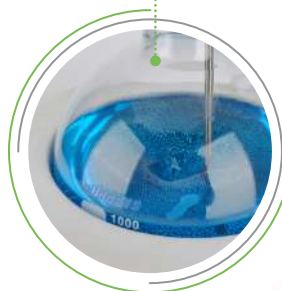
Heating in reflux, distillation and rectification, Oil free heating, completely new experience

The Wiggins Soft Dry Bath provides a clean and flexible heating solution for vessels of different shapes. It can serve as an alternative to small oil baths, heating mantles, and conventional dry bath modules. The aluminum bottom aids in quick heat transfer to alloy particles, while the PTFE material provides insulation and anticorrosion properties. With infrared heating (IR) technology and ICC self-tuning temperature control, the Soft Dry Bath offers faster heating and improved temperature stability. It seems like a reliable and efficient tool for laboratory heating applications

The high-quality soft dry bath developed by Wiggins offers uniform heat transfer and fast heat conduction. This makes it a great replacement for small oil baths, dry bath modules, electric heating sleeves, and other heating methods commonly used in laboratories. The aluminum bottom of the bath facilitates rapid heat transfer to alloy particles, while the PTFE material surrounding it provides insulation and protects against corrosion.

Additionally, Wiggins has incorporated infrared heating (IR) technology and ICC self-tuning temperature control into their soft dry bath. This combination allows for faster heating and improved temperature stability, making it a reliable and efficient heating solution for laboratory applications.

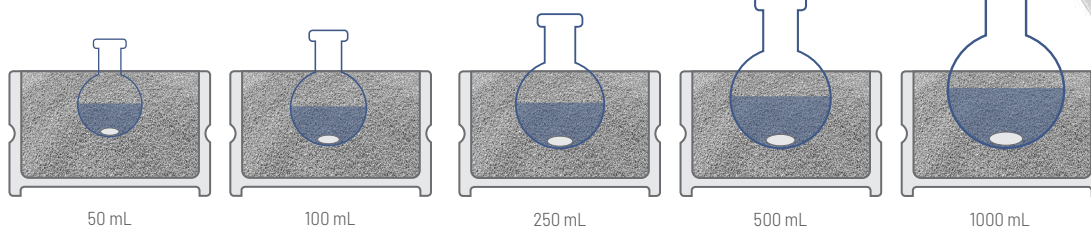
- Suitable for containers of any shape ●
- Replacement of Silicon oil ●
- Replacement of thermostat module ●
- High temperature ●
- Safety ●
- New experience ●
- No cleaning required ●
- Energy conservation and environmental protection ●
- The exclusive technology ●



One For All



Suitable for containers of any shape



Order information

Order No.	Model	Description
SDB-1	Dry bath tank and jacket	Usable bath opening Ø140×98 mm
SDB-2	Alloy seeds	Aluminum alloy seeds, diameter 1.2 mm. 2 kg

Heating magnetic stirrer needs to be separately selected, recommended to use WH260 or 280

Accessories for Hot Plate / Stirrer

Thermometer

Order No.	Description
PR5500	Temperature resolution (1 °C or 0.1 °C) Standard package with two sensors Pt100 (250×Ø4mm), temperature range (-50.0 ~ 400.0 °C) Type K thermocouple (170×Ø4 mm), temperature range (-50.0 ~ 500.0 °C)
PR5600	Temperature resolution (0.01 °C or 0.001 °C) Standard with two sensors Pt100 (250×Ø4 mm), temperature range (-50.0 ~ 400.0 °C) Type K thermocouple (170×Ø4 mm), temperature range (-50.0 ~ 500.0 °C)
Order No.	Description
PR5000-1	Pt100 (250×Ø4 mm), temperature range: -50.0 ~ 400.0 °C ; Suitable for PR5500 or PR5600
PR5000-2	Type K thermocouple (170×Ø4 mm, temperature range: -50.0 ~ 500.0 °C ; Suitable for PR5500 or PR5600



Protective Cover

Order No.	Description
400-0011	Silicone, suitable for WH260-NH and WH260-H
400-0012	Silicone, suitable for WH260-R and WH260-RL
400-0013	Silicone, suitable for WH280-NH and WH280-H
400-0014	Silicone, suitable for WH280-R and WH280-RL



Temperature sensor Suitable for all Hot Plate / Stirrer

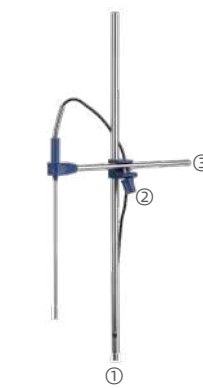
Order No.	Description
PT100-01	PT100, Type I; -30 ~ 300 °C ; Length: 170 mm; Diameter: 4 mm; Material: Stainless steel
PT100-02	PT100, Type II; -30 ~ 300 °C ; Length: 300 mm; Material: Stainless steel, Fig. ①
PT100-03	PT100, Type III; -30 ~ 250 °C ; Length: 170 mm; Material: Stainless steel, PTFE coated, Fig. ②
PT100-04	PT100, Type IV; -30 ~ 250 °C ; Length: 300 mm; Material: Stainless steel, PTFE coated
PT100-06	PT100, Type VI; -30 ~ 300 °C ; Length: 250 mm; Diameter: 4 mm; Material: Glass; Fig. ③
600.170.1	K type thermocouple 0 ~ 500 °C ; Length: 170 mm; Diameter: 4 mm; Material: Stainless steel



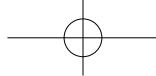
Temperature sensor

Holder for temperature sensor Suitable for all Hot Plate / Stirrer

Order No.	Description
PT100-05	Holder and clamp for PT100 temperature sensor, Fixed temperature sensor PT100-05: ①②③
WH220017	① installation stand
WH220026	② Boss head clamp
WH220027	③ Sensor holder



Holder and clamp



Glass oil bath with spout

Order No.	Model	Description
213115407	G1000	Oil bath, Glass, 900 ml, inner Ø 140 mm, 75 mm height
213115904	G2000	Oil bath, Glass, 2 L, inner Ø 190 mm, 90 mm height
213116309	G3500	Oil bath, Glass, 3.5 L, inner Ø 230 mm, 100 mm height



Stainless steel oil bath

for WH260-R, WH280-R, Ø 135mm

Order No.	Model	Description
H220000	H1000	Oil Bath, stainless steel, 1.9 L, inner Ø 177 mm, 83 mm height

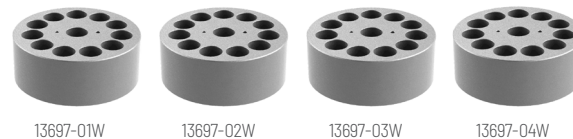


Cylindrical heating block

Order No.	Description	For
13696-01W	Stainless T-shape handle, length: 20 cm, width: 80 mm	All types of heating block
13696-02W	Stainless T-shape handle, length: 30 cm, width: 80 mm	All types of heating block
13697-01W	28×30 (ID x H in mm) 11 Holes	WH260-R, WH280-R, Ø 135 mm
13697-02W	28×50 (ID x H in mm) 11 Holes	
13697-03W	26×30 (ID x H in mm) 11 Holes	
13697-04W	26×50 (ID x H in mm) 11 Holes	
13697-11W	28×30 (ID x H in mm) 15 Holes	WH260-R, WH280-R, Ø 135 mm
13697-12W	28×50 (ID x H in mm) 15 Holes	
13697-13W	26×30 (ID x H in mm) 15 Holes	
13697-14W	26×50 (ID x H in mm) 15 Holes	
13699-04W	60.3 mm Diameter, 4 holes	WH260-R, WH280-R, Ø 135 mm
13699-03F	69 mm Diameter, 3 Holes	WH260-R, WH280-R, Ø 135 mm
13699-05W	48.5 mm Diameter, 5 Holes	
13699-150	62.2 mm Diameter, 4 Holes	
13699-01W	100 ml round-bottom flask, 3 Holes	
13699-02W	62.2 mm Diameter, 3 Holes	
13707-250	250 ml round-bottom flask	WH260-R, WH280-R, Ø 135 mm
13707-500	500 ml round-bottom flask	
13707-1000	1000 ml round-bottom flask	
13707-2000	2000 ml round-bottom flask	



13696-01W / 02W

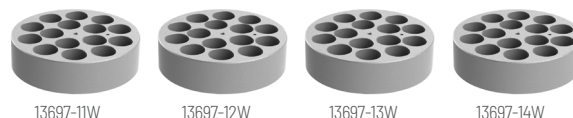


13697-01W

13697-02W

13697-03W

13697-04W

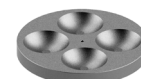


13697-11W

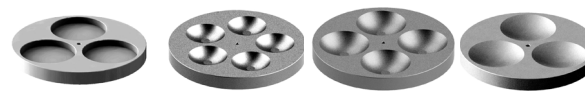
13697-12W

13697-13W

13697-14W



13699-04W



13699-03F

13699-05W

13699-150

13699-01W

13699-02W



13707-250

13707-500

13707-1000

13707-2000

Magnetic Stirrer -Reliable Mixing Without Heating

- > LED Display, Convenient control and real-time monitoring of stirring speed
- > Microprocessor Technology, Accurate and stable stirring speed control
- > Stirring Plate Surface, Powder-coated stainless steel for durability and corrosion resistance
- > Speed Range, 150 to 1500 rpm, suitable for various applications
- > Individual Plate Control, Independent operation for each plate



WH-210D



WH-410D

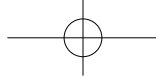


WH-610D

Specifications

Model	WH-210D	WH-410D	WH-610D
Order No.	400214	400215	400216
Number of stirring positions	1	4	6
Stirring quantity max. per stirring position (HzO) [L]	3	2	2
Speed setting range [rpm]	150 ~ 1500	150 ~ 1500	150 ~ 1500
Speed display	LED display	LED display	LCD display
Speed setting	Turning knob	Turning knob	Turning knob
IP code	IP21	IP21	IP21
Top plate material	Powder coated stainless steel	Powder coated stainless steel	Powder coated stainless steel
Top plate dimensions [mm]	15x 143	(151x156) x4	(151x156) x6
Dimensions [W x D x H (mm)]	194x214x54	347x377x60	510x373x50
Weight [kg]	1.8	2.5	4.0
Power supply	220 V / 50 Hz	220 V / 50 Hz	220 V / 50 Hz

Standard includes the Stirrer, stirrer bar 4/6 (Corresponding to the mixing position Order No. 1.230.8)



Submersible Magnetic Stirrer

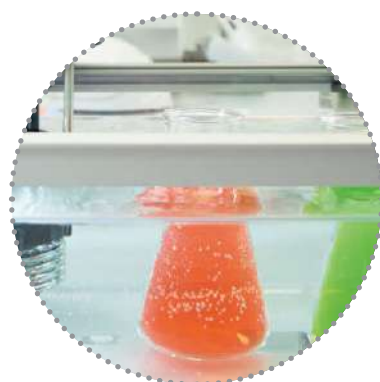
Fully encapsulated and hermetically sealed PP housing, and suitable for the use in incubators and ovens. water-, dust-, and germ proof, submersible in water. Suitable for working temperature range, 0-60 °C .

Stirrer Model	S-1	B-1
Number of stirring positions	1	1
Stirring quantity max. per stirring position (H ₂ O) [L]	1	3
IP code	IP60	IP60
Top plate material	PP housing	PP housing
Dimensions [W x D x H (mm)]	70x70x28	155x155x45
Cable	1m x Ø2.5 mm	
Recommend stirrer bar	Approximately 30 mm	
Power supply	The power supplied by remote controller	

The standard includes, one stirrer and one connection adapter.



Order No.	Description
S-1-01	Connection adapter to fix several stirrers together as one multi-position stirrer, Suitable for S-1
B-1-01	Connection adapter to fix stirrers together as one multi-position stirrer, Suitable for B-1



Working inside with the thermostatic bath



Same speed for all connected stirrers
CS-1 and CB-1 controller



Different speed for connected stirrers
CS-4 and CB-4 controller

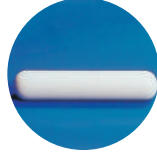
Controller for submersible magnetic stirrers

Controller Model	CS-1	CS-4	CB-1	CB-4
Suitable for	S-1	S-1	B-1	B-1
Working mode	Same speed for all connected stirrers	Different speed for connected stirrers	Same speed for all connected stirrers	Different speed for connected stirrers
Maximum number of stirrer to connect	4	4	4	4
IP code	IP60	IP60	IP60	IP60
Speed setting range [rpm]	100 ~ 1500	100 ~ 1500	100 ~ 1500	100 ~ 1500
Speed setting	Turning knob	Turning knob	Turning knob	Turning knob
Dimensions [W x D x H (mm)]	95x158x56	95x158x56	95x158x56	95x158x56
Power supply	220V / 50 Hz	220V / 50 Hz	220V / 50 Hz	220V / 50 Hz

Stirrer Bar

Cylindrical Stirrer Bar

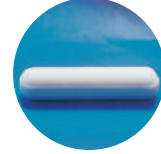
Cylindrical Stirrer Bars have a smooth round profile. A popular general purpose stirrer for a wide variety of applications.



Order No.	Name	Description
W3029101	Cylindrical Stir Bar	Length: 10 mm, Diameter: 6 mm
W3029102	Cylindrical Stir Bar	Length: 15 mm, Diameter: 6 mm
W3029103	Cylindrical Stir Bar	Length: 20 mm, Diameter: 7 mm
W3029104	Cylindrical Stir Bar	Length: 20 mm, Diameter: 8 mm
W3029105	Cylindrical Stir Bar	Length: 25 mm, Diameter: 8 mm
W3029106	Cylindrical Stir Bar	Length: 30 mm, Diameter: 8 mm
W3029107	Cylindrical Stir Bar	Length: 40 mm, Diameter: 8 mm
W3029108	Cylindrical Stir Bar	Length: 45 mm, Diameter: 8 mm
W3029109	Cylindrical Stir Bar	Length: 50 mm, Diameter: 8 mm
W3029110	Cylindrical Stir Bar	Length: 80 mm, Diameter: 10 mm

Plain Stirrer Bar

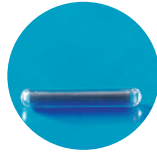
Plain Stirrer Bars have similar functions as the cylindrical but give more turbulence at low speed.



Order No.	Name	Description
W3029401	Plain Stir Bar	Length: 15 mm, Diameter: 6 mm
W3029402	Plain Stir Bar	Length: 20 mm, Diameter: 7 mm
W3029403	Plain Stir Bar	Length: 30 mm, Diameter: 7 mm
W3029404	Plain Stir Bar	Length: 40 mm, Diameter: 8 mm
W3029405	Plain Stir Bar	Length: 50 mm, Diameter: 8 mm
W3029406	Plain Stir Bar	Length: 60 mm, Diameter: 10 mm
W3029407	Plain Stir Bar	Length: 70 mm, Diameter: 10 mm
W3029408	Plain Stir Bar	Length: 80 mm, Diameter: 10 mm

Glass Covered Stirrer Bar

For use with very abrasive media which may erode PTFE



Order No.	Name	Description
W3029201	Glass Covered Stir Bar	Length: 12 mm, Diameter: 5 mm
W3029202	Glass Covered Stir Bar	Length: 25 mm, Diameter: 6 mm
W3029203	Glass Covered Stir Bar	Length: 45 mm, Diameter: 8 mm
W3029204	Glass Covered Stir Bar	Length: 60 mm, Diameter: 8 mm

Cross Stirrer Bar

Cross Stirrer Bars are very stable general purpose stirrers.



Order No.	Name	Description
W3029501	Cross-Shaped Stir Bar	Length: 20 mm, Diameter: 8 mm
W3029502	Cross-Shaped Stir Bar	Length: 38 mm, Diameter: 11 mm
W3029503	Cross-Shaped Stir Bar	Length: 60 mm, Diameter: 20 mm

Oval Stirrer Bar

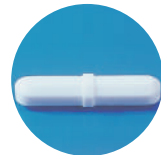
Oval Stirrer Bars are for round bottom flasks.



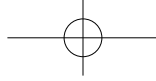
Order No.	Name	Description
W3029301	Oval Stir Bar	Length: 20 mm, Diameter: 10 mm
W3029302	Oval Stir Bar	Length: 25 mm, Diameter: 10 mm
W3029303	Oval Stir Bar	Length: 30 mm, Diameter: 16 mm
W3029304	Oval Stir Bar	Length: 35 mm, Diameter: 16 mm
W3029305	Oval Stir Bar	Length: 40 mm, Diameter: 20 mm
W3029306	Oval Stir Bar	Length: 50 mm, Diameter: 17 mm
W3029307	Oval Stir Bar	Length: 50 mm, Diameter: 20 mm

Octahedral Stirrer Bar

Octahedral Stirrer Bars use have similar functions as Pivot Ring type but with increased turbulence at low speeds.



Order No.	Name	Description
W3029601	Octahedral Stir Bar	Length: 15 mm, Diameter: 8 mm
W3029602	Octahedral Stir Bar	Length: 25 mm, Diameter: 8 mm
W3029603	Octahedral Stir Bar	Length: 38 mm, Diameter: 10 mm
W3029604	Octahedral Stir Bar	Length: 51 mm, Diameter: 10 mm
W3029605	Octahedral Stir Bar	Length: 75 mm, Diameter: 13 mm



Double Ended Stirrer Bar

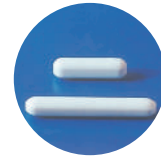
Double Ended Stirrer Bars have a double paddle action for efficient stirring plus high stability.



Order No.	Name	Description
W3029701	Double Ended Stir Bar	Length: 35 mm, Diameter: 8 mm
W3029702	Double Ended Stir Bar	Length: 55 mm, Diameter: 8 mm
W3029703	Double Ended Stir Bar	Length: 35 mm, Diameter: 8 mm
W3029704	Double Ended Stir Bar	Length: 55 mm, Diameter: 8 mm

Micro Stirrer Bar

Micro Stirrer Bars are for the smallest containers. Note: Always use the largest stirrer bar possible.



Order No.	Name	Description
W3029901	Micro Stir Bar	Length: 2 mm, Diameter: 2 mm
W3029902	Micro Stir Bar	Length: 6 mm, Diameter: 3 mm
W3029903	Micro Stir Bar	Length: 8 mm, Diameter: 1.5 mm
W3029904	Micro Stir Bar	Length: 13 mm, Diameter: 3 mm

Tube Stirrer Bar

Tube Stirrer Bars are designed for use with standard cuvettes.



Order No.	Name	Description
W3029801	Triangular Stir Bar	Length: 20 mm, Diameter: 8 mm
W3029802	Triangular Stir Bar	Length: 40 mm, Diameter: 14 mm
W3029803	Triangular Stir Bar	Length: 50 mm, Diameter: 12 mm
W3029804	Triangular Stir Bar	Length: 80 mm, Diameter: 14 mm
W3029805	Triangular Stir Bar	Length: 136 mm, Diameter: 36 mm



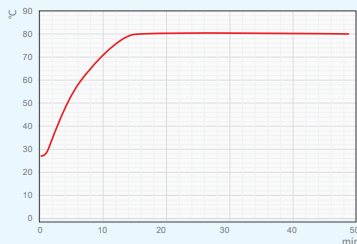
Infrared Hot Plate

- > Smooth and corrosion resistant ceramic glass top plate
- > Excellent infrared transmission for efficient heat transfer
- > Material can resist a thermal shock of up to 700 °C
- > Corrosion-resistant, solid casing which is hermetically sealed
- > Fast heating and excellent temperature stability
- > Temperature can be externally controlled by the connection of a Pt100 temperature sensor
- > Large LCD screen displays the set and actual temperature
- > A high-temperature indicator warns the user and prevents burning injuries
- > Can be connected to an external temperature sensor for direct and precise temperature control

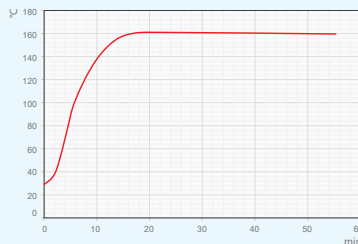


SLK1-T / SLK2-T

SLK2-T heating up 1 L water up to 80 °C with external control mode in 15min



SLK2-T heating up 1 L oil up to 160 °C with external control mode in 18min



Note: Above data is based on the 220 V / 50 Hz instrument with pure water (H₂O) and simethicone (Silicon Oil).

Note! Application Restrictions

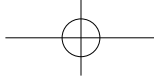
Infrared heating units utilize infrared radiation for heating. Do not cover the surface of the heating plate with aluminum foil or Polished metal surface, as those surface can create a mirror-like reflection that may easily lead to internal overheating of the instrument.

Specifications

Model	SLK1-T	SLK2-T
Order No.	W3032391	W3032392
Maximum temperature setting [°C]	550	550
Maximum temperature setting with E-sensor [°C]	300	300
Safety temperature [°C]	50 ~ 600 adjustable	50 ~ 600 adjustable
High temperature protection [°C]	10 ~ 50 adjustable	10 ~ 50 adjustable
Temperature stability with E-sensor [°C]*	±1	±1
Heat output [W]	1200	1800
External temperature sensor	Pt100	Pt100
PID parameter	3 sets	3 sets
Temperature display	LCD display	LCD display
Temperature setting	Turning knob	Turning knob
Time setting	1 ~ 1999min / continuous	1 ~ 1999min / continuous
IP code	IP21	IP21
Top plate material	Ceramic glass	Ceramic glass
Top plate dimensions [mm]	280x280	280x280
Heating zone [mm]	Ø190	Ø190
USB Interface	Yes	Yes
Dimensions [W x D x H (mm)]	282x445x110	282x445x110
Weight [kg]	4.1	4.1
Power supply	220 V / 50 Hz	220 V / 50 Hz

*Measured with 500 ml water at 80 °C

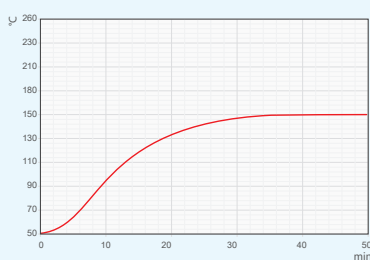
Standard includes the hot plate. Sensor and bracket need to be ordered separately.



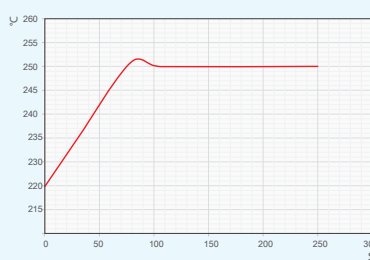
Digital Hot Plate

- > PID temperature control technology for accurate and reliable results
- > Suitable for applications requiring precise and reliable temperature control
- > Bright LED screen can display both set value and actual temperature
- > Timer function for automatic heating up to 100 hours
- > Alarm signal output which can be applied to stop the operation of the hot plate and other connected devices
- > External Pt100 temperature sensor connection for direct and precise control of the actual sample temperature

The data for WH200D-2K heating up the high-temperature oil from 50 to 150 °C (with external temperature sensor)



The surface temperature stability data for WH200D-2K (250 °C)



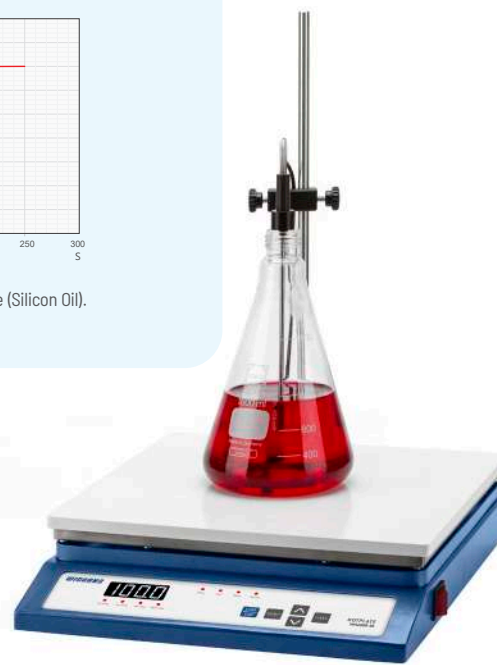
Note: Above data is based on the 220 V / 50Hz instrument with pure water (H₂O) and simethicone (Silicon Oil).



WH200D-1K



WH200D-2K



WH200D-3K

Specifications

Model	WH200D-1K	WH200D-2K	WH200D-3K
Order No.	400110	400111	400112
Maximum temperature setting	300	300	300
Maximum temperature setting with E-sensor [°C]	300	300	300
Temperature stability [°C]*	±1	±1	±1
Heat output [W]	680	1000	1500
External temperature sensor	Pt100	Pt100	Pt100
Temperature display	LED display	LED display	LED display
Temperature setting	Turning knob	Turning knob	Turning knob
IP code	IP21	IP21	IP21
Top plate material	Aluminum coated with ceramic	Aluminum coated with ceramic	Aluminum coated with ceramic
Top plate dimensions [mm]	170x170	320x320	400x300
Dimensions [W x D x H (mm)]	191x210x92	320x396x84	413x368x90
Weight [kg]	2.5	7.5	9.0
Power supply	220 V / 50 Hz	220 V / 50 Hz	220 V / 50 Hz

*Measured with 500 ml water at 80 °C

Standard includes the hot plate. Sensor and bracket need to be ordered separately.

Multi-Purpose Heater / Dry Bath

WIGGENS dry block heaters are highly versatile suitable for broad range of applications.

- > DNA extractions
- > DNA analysis
- > Melting point determination
- > Nucleic acid hybridization
- > Coagulation studies
- > Biochemical processes
- > Incubation and activation of cultures
- > Blood examinations
- > Fertile ground processing
- > Restriction digest
- > Denaturation
- > Boiling point determination
- > Enzymatic processes
- > Enzyme activity studies
- > Blood-urea-nitrogen determinations
- > Immunoassays
- > Enzyme reactions
- > In situ hybridization



Picture	Model	Temperature setting range [°C]	Mountable Capacity of Blocks (block size W×L×Hmm)	Dimensions [W x D x H (mm)]
	WD310	50 ~ 150 °C Temperature setting range with E-sensor 40~150 °C	1 79x104x50	200x270x80
	WD320	50~150 °C Temperature setting range with E-sensor 40~150 °C	2 79x104x50	200x270x80
	WD325	Fixed 150 °C for COD, 60 ~ 200 °C adjustable	1 140x140x61.5	189x315x116
	WB-350HC	4 ~ 95 °C	1 99x77.5x36	249x330x168
	WB-350T	RT+5 to 130 °C	2 98x76.5x51	249x330x250
	WB-350S	RT+5 to 130 °C	2 98x76.5x51	249x330x125

Multi-Purpose Heater / Dry Bath

Microprocessor control

An integrated microprocessor ensures precise and reliable temperature control for a wide range of laboratory applications.

Heating chamber in one piece

The heating tank is made of molded aluminum bath coated with PTFE.

Various optional heating blocks

A wide range of heating blocks is available, including custom block options.

Application

- > Molecular biology
- > Biochemistry

Precise temperature control

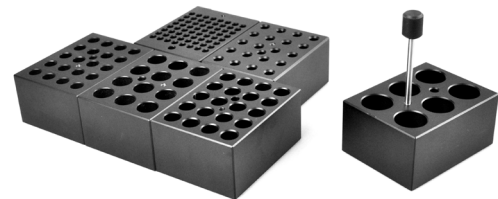
- > Rapid heat up speed
- > Exceptional temperature uniformity
- > External PT 100 temperature sensor included



WD310



WD320



Specifications

Model	WD310	WD320
Order No.	179310	179320
Temperature setting range [°C]	50 ~ 150	50 ~ 150
Temperature setting range with E-sensor [°C]	40 ~ 150	40 ~ 150
Safety temperature [°C]	170	170
Temperature stability [°C]	±2	±2
Time setting [min]	1 ~ 9959 / off	1 ~ 9959 / off
External temperature sensor	Pt100	Pt100
IP code	IP21	IP21
Temperature setting	Touch button	Touch button
Number of heating blocks × (block size W×L×Hmm)	1x(79x104x50)	2x(79x104x50)
Dimensions [W x D x H (mm)]	200x322x87	200x323x91
Weight [kg]	2.6 (w/o the block)	2.8 (w/o the block)
Power supply	220 V / 50 Hz, 1 A	220 V / 50 Hz, 2 A

Standard includes the Multi-Purpose Heater, removing block rod, block need to be ordered separately.

Heating Blocks for WD310 and WD320

Order No.	Size	Number of Holes	Ø x H (mm)
179300-01	0.2 mL	64	6x17 mm
179300-02	0.5 mL	20	8x25 mm
179300-03	1.5 / 2.0 mL	20	11x35 mm
179300-04	10 mL	20	10x33 mm
179300-05	13 mL	20	13x36 mm
179300-06	20 mL	12	20x48 mm
179300-07	25 mL	6	25x45 mm
179300-10	17 mL	12	17x44 mm

COD Reactor

Features

Special COD program

Just press the start/stop button, and the reactor will begin heating up to 150 °C , maintain the temperature for a 2-hour countdown, and then shut down automatically with a 10-second audio alarm.

Three additional program settings

Three built-in additional heating programs are available for users to store and execute as needed.

Auto shut off and audio alarm

The WD325 stops heating and then shuts off automatically with an audio alarm when each program is completed.

Application

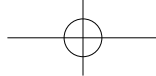
- > Waste water from factories
- > Water quality in lake, pond and river



Specifications

Model	WD325
Order No.	179200
Temperature setting range [°C]	Fixed 150.0 °C for COD, 60.0 ~ 200.0 °C adjustable
Temperature accuracy [°C]	±2 (at 150.0 °C)
Hot top indicator	Flashing when block temperature is over 70.0 °C
Time setting [min]	1 ~ 1999 with audible alarm and automatic shutoff or continuous operation
Heat output [W]	220
Temperature display	LED display
Temperature setting	Touch button
IP code	IP21
Number of heating block (block size)	1 (25 holes, Ø16.5x55 mm)
Housing material	Stainless steel with powder paint coating
Heating block material	Aluminium alloy
Dimensions [W x D x H (mm)]	188x313x111
Weight [kg]	4.5
Power supply	220 V / 50 Hz

Standard includes the COD Reactor, 1 block (25 holes, Ø16.5x55 mm).



Heating & Cooling Bath

Rapid cooling and heating of centrifuge tubes, sample vials, and microtubes within a broad temperature range of 4 to 95 °C . The outstanding temperature compensation function ensures precise temperature control.

Features

- > Wide temperature control range from 4 to 95 °C with rapid cooling and heating times.
- > Up to 9 temperature range-specific calibration points.
- > Memory function for programmed protocols.
- > Up to 10 protocols can be stored in memory.
- > Each protocol can have up to 10 steps.
- > Two timer modes:
 - Timer 1 starts only after reaching the set temperature.
 - Timer 2 starts immediately after the timer is set.

Convenience

- > Cooling is controlled by Peltier elements, ensuring an energy-efficient and compact design.
- > Bright VFD display with responsive touch buttons for easy operation.
- > The polypropylene main body is highly chemical-resistant and easy to clean.
- > Optimal heat transfer is achieved through the tight coupling design of the main body and corrosion-resistant anodized aluminum blocks.
- > The transparent lid allows for easy sample monitoring and ensures even temperature distribution.
- > Blocks can be easily interchanged using the included block lifter.



Specifications

Model		WB-350HC
Order No.		W3033350
Control system		Feedback control PID
Display		VFD (0.1 °C resolution)
Temperature	Range	4 to 95 °C
	Stability at 37 °C	±0.5 °C
Dimensions [W x D x H (mm)]	Interior	99x77.5x36
	Exterior	244x329x183
	Weight [kg]	5.0
IP code		IP21
Electrical requirements		230 V, 50 / 60 Hz

Permissible environmental conditions: temperature (2-60 °C) and relative humidity (up to 80%)
 Standard includes the Heating & Cooling bath, cover,removing block rod, block need to be ordered separately.

Multi-Purpose Heater / Dry Bath

Ideal for simultaneously heating multiple vials or test tubes with uniform and precise temperature control.

Features

- > Accuracy of $\pm 0.1^\circ\text{C}$ is ensured by the PID controller within a temperature range from ambient $+5^\circ\text{C}$ to 130°C .
- > Its built-in temperature limit setting feature (with a maximum overshoot of 0.2°C)
- > Allows you to perform highly temperature-sensitive reactions, such as isothermal amplifications.
 - Automatic power cutoff:
 - If the temperature of the main body exceeds 150°C .
 - If the internal circuit overheats.
 - Two timer modes:
 - Timer 1 starts only after reaching the set temperature.
 - Timer 2 starts immediately after the timer is set.

Convenience

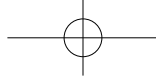
- > Its polypropylene main body is highly chemical-resistant and easy to clean.
- > Optimal heat transfer is achieved through the tight coupling design of the main body and corrosion-resistant anodized aluminum blocks.
- > Bright VFD display with responsive touch buttons for easy operation.
- > The transparent lid allows for easy sample monitoring and ensures even temperature distribution.
- > Blocks can be easily interchanged using the included block lifter.



Specifications

Model		WB-350T	WB-350S
Order No.		W3033351	W3033352
Control system		Feedback control PID	Feedback control PID
Display		VFD (0.1°C resolution)	VFD (0.1°C resolution)
Temperature	Range	RT+5 to 130 °C	RT+5 to 130 °C
	Stability at 37 °C	$\pm 0.5^\circ\text{C}$	$\pm 0.5^\circ\text{C}$
Dimensions [W x D x H (mm)]	Interior	154x99x37	154x99x37
	Exterior	249x330x250	249x330x125
	Weight [kg]	4.3	3.9
IP code		IP21	IP21
Electrical requirements		230 V, 50 / 60 Hz	230 V, 50 / 60 Hz

Standard includes the Multi-Purpose Heater, cover, removing block rod, block need to be ordered separately.



Blocks for WB-350S / 350T / 350HC


Block	Order No.	Description	WxDxH (mm)	Mountable Capacity of Blocks		
				WB-350S	WB-350T	WB-350HC
	W3033001	0.2ml x 96 holes (microtube)	153x98x41	1	1	-
	W3033002	0.5ml x 48 holes (microtube)	98x76.5x41	2	2	1
	W3033003	1.5ml x 48 holes (microtube)	153x98x41	1	1	-
	W3033004	15ml x 15 holes (centrifuge tube)	98x76.5x51	2*	2	1*
	W3033005	50ml x 6 holes (centrifuge tube)	98x76.5x51	2*	2	1*
	W3033006	50ml x 6 holes (centrifuge tube)	98x76.5x87	2	2	1*
	W3033007	Ø10 x 35 holes	98x76.5x51	2*	2	1*
	W3033008	Ø12 x 24 holes	98x76.5x51	2*	2	1*
	W3033009	Ø13 x 24 holes	98x76.5x51	2*	2	1*
	W3033010	Ø15 x 20 holes	98x76.5x51	2*	2	1*
	W3033011	Ø16 x 16 holes	98x76.5x51	2*	2	1*
	W3033012	Ø18 x 12 holes	98x76.5x51	2*	2	1*
	W3033013	Ø20 x 12 holes	98x76.5x51	2*	2	1*

* Available to use only when the lid is opened.


Soxhlet Extraction System (SES)

Wiggins Soxhlet Extraction System is based on the Soxhlet extraction principle and integrates such functions as soaking, extraction, leaching, heating, condensation and solvent recovery. It features sealed metal bath heating with automatic temperature control, ensuring uniform heating and safe operation; six samples can be tested at the same time, and optimal temperature can be selected according to the difference between reagent boiling point and RT so as to achieve quick analysis; reagents can also be recycled to reduce test cost; and soaking, extraction and solvent recovery can be done in one step. Therefore, this device is characterized by reasonable design, stable performance, good reproducibility, high accuracy, easy operation, saving time and effort, and so on.


SES can quickly separate one substance from solid or semi-solid mixtures, can determine the soluble organic compounds contained in foods, feeds, medicines, soil, sludge, polymers, fiber products, petrochemical products, detergent, rubbers, plastics and other materials.




LED display
The set temperature and actual temperature can be displayed simultaneously




Extremely high temperature
Temperature can reach up to 450 °C
Display resolution is 0.1 °C



Independent temperature control
According to the experimental requirements, different position can be run at the same or different temperature



Glassware
Both round and flat bottom flasks can be ordered with 300 ml and 500 ml volume



Cellulose fiber extraction thimbles
Optional, good retention, seamless, high quality extraction thimbles, single thickness.
Readily permeable to the flow of ether and other organic solvents.

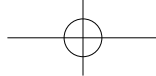


Specifications

Order No.	Model	Temperature range	Heat output	Flask volume		Glass extraction thimbles	
		°C	Each position [W]	volume [ml]	Bottom	ID x H [mm]	Sintered glass
3-place Soxhlet Extraction System (Multi-position heating mantle with stand)							
W3030350	SES350	RT +5 ~ 450	180W	500	Flat	45 x 130	20-35µm / 100-200 µm
W3030355	SES355	RT +5 ~ 450	180W	500	Round	45 x 130	20-35µm / 100-200 µm
W3030395	SES395	RT +5 ~ 450	290W	1000	Round	45 x 130	20-35µm / 100-200 µm
6-place Soxhlet Extraction System (Multi-position heating mantle with stand)							
W6030630	SES630	RT +5 ~ 450	125W	300	Flat	45 x 130	20-35µm / 100-200 µm
W6030635	SES635	RT +5 ~ 450	125W	300	Round	45 x 130	20-35µm / 100-200 µm

Glassware need to be ordered separately

Standard includes, Multi-position heating mantle with stand



Multi-Position Heating Mantle

WIGGENS Multi-Position Heating Mantle has always been the mantle of choice for repetitive extraction, refluxing, and distillation procedures in laboratories across the food, textile fiber, water and wastewater, petroleum, and many other industries. The latest WIGGENS version offers unprecedented safety and convenience in a multi-position heating mantle.

- > Lower-profile design for space-saving convenience
- > Revolutionary heating element container system allows for easy replacement of burned-out elements
- > Available in two space-saving configurations
- > The ideal mantle for Kjeldahl, Soxhlet, and other extraction procedures



LED display

The set temperature and actual temperature can be displayed at the same time



Independent temperature control

According to the experimental requirements, each position can be set at the same or different temperature



Extremely high temperature

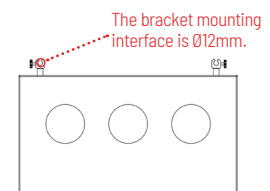
Temperature can reach up to 450 °C
Display resolution is 0.1 °C



Extremely high temperature

Temperature can reach up to 650 °C
Display resolution is 0.1 °C

Order No.	Model	Flask Size ml	Maximum Diameter mm	Bottom	Rating Per Position
450°C Three-Place - medium temperature					
W3031350	RX350	500	103	Flat	180W
W3031354	RX354	500	101	Round	180W
W3031394	RX394	1000	130	Round	290W
650°C Three-Place - high temperature					
W3031356	RJ356	500	103	Flat	300W
W3031358	RJ358	500	101	Round	300W
450°C Six-Place - medium temperature					
W3031630	RX630	250/300	87	Flat	125W
W3031634	RX634	250/300	87	Round	125W
650°C Six-Place - high temperature					
W3031636	RJ636	250/300	87	Flat	210W
W3031638	RJ638	250/300	87	Round	210W



WIGGENS offers bracket customization services.

Table C - Soxhlet Lipid Extraction Apparatus (for Combo Mantles)

Size	Flask volume (ml)	Extractor Top Joint	Extractor Bottom Joint	Package Order No.	Condenser Order No.	Extractor Order No.	Extraction Thimbles Order No.	Flask Order No.
Suitable for Wiggins Combo Mantles (Six positions Flat Bottom)								
A	100	34 / 45	24 / 40	189100-11	189102-01	189101-01	189103-01	189105-01
A	100	34 / 45	24 / 40	189100-12	189102-01	189101-01	189103-02	189105-01
A	125	34 / 45	24 / 40	189100-01	189102-01	189101-01	189103-01	189105-02
A	125	34 / 45	24 / 40	189100-02	189102-01	189101-01	189103-02	189105-02
B	250	45 / 50	24 / 40	189100-03	189102-02	189101-02	189103-03	189105-03
B	250	45 / 50	24 / 40	189100-04	189102-02	189101-02	189103-04	189105-03
D	300	55 / 50	24 / 40	189100-05	189102-03	189101-04	189103-05	189105-04
D	300	55 / 50	24 / 40	189100-06	189102-03	189101-04	189103-06	189105-04
Suitable for Wiggins Combo Mantles (Six positions Round Bottom)								
A	100	34 / 45	24 / 40	189100-21	189102-01	189101-01	189103-01	189104-01
A	100	34 / 45	24 / 40	189100-22	189102-01	189101-01	189103-02	189104-01
A	125	34 / 45	24 / 40	189100-23	189102-01	189101-01	189103-01	189104-02
A	125	34 / 45	24 / 40	189100-24	189102-01	189101-01	189103-02	189104-02
B	250	45 / 50	24 / 40	189100-25	189102-02	189101-02	189103-03	189104-03
B	250	45 / 50	24 / 40	189100-26	189102-02	189101-02	189103-04	189104-03
D	300	55 / 50	24 / 40	189100-27	189102-03	189101-04	189103-05	189104-04
D	300	55 / 50	24 / 40	189100-28	189102-03	189101-04	189103-06	189104-04
Suitable for Wiggins Combo Mantles (Three positions Flat Bottom)								
D	500	55 / 50	24 / 40	189100-07	189102-03	189101-04	189103-05	189105-05
D	500	55 / 50	24 / 40	189100-08	189102-03	189101-04	189103-06	189105-05
Suitable for Wiggins Combo Mantles (Three positions Round Bottom)								
D	500	55 / 50	24 / 40	189100-41	189102-03	189101-04	189103-05	189104-05
D	500	55 / 50	24 / 40	189100-42	189102-03	189101-04	189103-06	189104-05
D	1000	55 / 50	24 / 40	189100-43	189102-03	189101-04	189103-05	189104-06
D	1000	55 / 50	24 / 40	189100-44	189102-03	189101-04	189103-06	189104-06



Extraction Thimbles - Glass

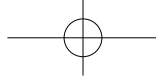
With a Wiggins fritted disc sealed in, it can be used in any standard Soxhlet extraction apparatus. The sizes below correspond to the size specifications of extraction bodies and will fit those units.

Size	A	A	B/C	B/C	D	D
ID x H (mm)	25 x 85	25 x 85	35 x 90	35 x 90	45 x 130	45 x 130
Sintered glass	20-35µm	100-200µm	20-35µm	100-200µm	20-35µm	100-200µm
Order No.	189103-01	189103-02	189103-03	189103-04	189103-05	189103-06

Specifications for Wiggins Extractor Bodies

Specification	A	B	C	D
Size	A	B	C	D
Use Thimble Size (mm)	25 x 85	35 x 90	35 x 90	45 x 130
Extractor Top Joint	34 / 45	45 / 50	45 / 50	55 / 50
Extractor Bottom Joint	24 / 40	24 / 40	29 / 42	24 / 40
Condenser Bottom Joint	34 / 45	45 / 50	45 / 50	55 / 50
Length of Siphon (mm)	190	260	260	300





Extractor Body

Size	A	B	C	D
Extractor Top Joint	34 / 45	45 / 50	45 / 50	55 / 50
Extractor Bottom Joint	24 / 40	24 / 40	29 / 42	24 / 40
Order No.	189101-01	189101-02	189101-03	189101-04



Flask

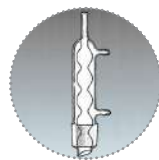
Round bottom with short neck and outer joint.

24/40 Joint

Capacity (ml)	100	125	250	300	500	1000
Order No.	189104-01	189104-02	189104-03	189104-04	189104-05	189104-06

29/42 Joint

Capacity (ml)	100	250	500	1000
Order No.	189104-11	189104-13	189104-15	189104-16



Extraction Apparatus

Bulb type for use with regular extraction apparatus. Improved design permits greater condensing capacity.

Size	A	B/C	D
Extractor Top Joint	34/45	45/50	55/50
Tubing Size (mm)	190	260	300
Height (mm)	275	365	405
Order No.	189102-01	189102-02	189102-03



Flask

Single Neck, Flat Bottom

24/40 Joint

Capacity (ml)	100	125	250	300	500	1000
Order No.	189105-01	189105-02	189105-03	189105-04	189105-05	189105-06

29/42 Joint

Capacity (ml)	250	300	500	1000
Order No.	189105-13	189105-14	189105-15	189105-16

Extraction Thimbles

CELLULOSE FIBER. Good retention. Seamless, high quality extraction thimbles, single thickness. Readily permeable to the flow of ether and other organic solvents. Packed 25 per box.



Size (Ø x H)	27 x 80	27 x 60	30 x 80	33 x 94	40 x 123
Order No.	6811-08	6811-14	6811-20	6811-22	6811-24

Temperature and Stirring Controller

For measuring, control and monitoring

WIGGENS temperature controllers measure, control and monitor applications in laboratories such as heating mantle and chemical reactors.

T
C
S
S
 Temp Control Safety Stirring



Ordering Information

Models / Specifications	TCSS	PL524 Pre	PL524 Pro-Stir	PL524 Pro	PC524
Name	Programmable controller for temperature and stirring	Programmable controller for temperature	Temperature and stirring controller	Temperature controller	Safety temperature protector
Screen	5" TFT touch screen	●	●		
	LED			●	●
Function	Heating	●	●	●	●
	Cooling	●	●		
	Programming	●	●		
	Stirring	●		●	
	Safety temperature	●	●	●	●
Interface	RS485	●	●		
	RS232	●	●	●	
	Ethernet	●	●	●	
	USB-A	●	●		
Options	Alarm	●	●	●	●
	Pt100	●	●	●	●
	Thermocouple	●	●	●	●
Heating mantle	○	○	○	○	
Matching unit	○ please reference Note 3		○ please reference Note 3		
Solenoid valve for cooling	○				

Note 1, ● Standard configuration ○ Options

TCSS, PL524 Pre, PL524 Pro-Stir, PL524 Pro standard includes a controller, one PT100-01, and one PR5600-009.

PC 524 standard includes a controller, one PT100-01.



Temperature, Stirring Speed, Cooling Valve Controller



Programmable temp. Control and security protection



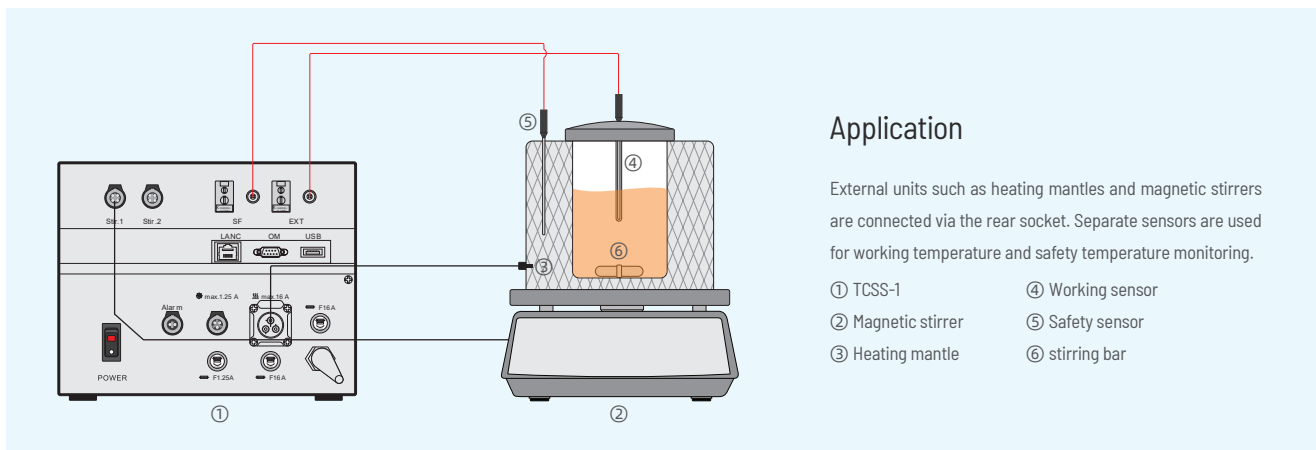
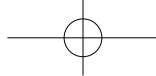
Temp. and Stir. Controller



Temp. Control and safety protection



Overheated safety protection



Heating Mantle

Aluminum Housed Mantle

- > Rigid housing provides strength and durability while supporting the weight of the vessel.
- > Fabric interior softly nests glass vessels and reduces the chance of thermal shock.
- > Adaptable to most vessels, including larger sizes.
- > Withstands internal operating temperatures of up to 450 °C , providing enough power for most applications.
- > Can be adapted for special applications with custom sizes, bottom holes, and specialized electrical devices.
- > Feet on smaller sizes are designed to provide stability and promote cooler exterior temperatures.

Spherical Flask Mantle

- > The Series TM spherical flask mantle covers only the bottom half of the flask, allowing full visibility of its contents. Larger sizes feature multiple circuits for improved temperature control when the flask is less than half full.
- > Poncho Safety Shields are compatible with sizes 500 mL (TM107) and larger.

Specifications

Complete System Order No.	Mantle Order No.	Flask Capacity ml	Max. Flask Diameter mm	Watts W	Depth mm	Outside Dia. mm	Height mm	Weight kg
WTM95	TM95	50	48	60	24	159	121	1.0
WTM97	TM97	100	60	80	30	159	121	1.0
WTM99	TM99	125	70	80	35	159	121	1.0
WTM101	TM101	200	76	100	38	159	121	1.0
WTM103	TM103	250	83	180	41	159	121	1.1
WTM105	TM105	300	86	180	43	159	121	1.1
WTM107	TM107	500	101	270	51	159	127	1.1
WTM109	TM109	1000	130	380	65	191	127	1.4
WTM111	TM111	2000	170	500	86	254	152	2.1
WTM113	TM113	3000	183	500	91	254	152	2.1
WTM115	TM115	5000	220	600	109	305	178	2.8
WTM117	TM117	12000	293	2@650	147	419	229	6.8
WTM119	TM119	22000	347	2@770	173	483	254	8.5
WTM121	TM121	50000	456	3@1000	228	610	330	18.6
WTM122	TM122	72000	522	3@2000	259	660	356	20.0



WTM series
Spherical flask mantle with temp. control and security protection, the flask is not included



TM series
Spherical flask mantle only, the flask is not included

Stir Mantle

- > The PL524pro-Stir generates a stable rotating magnetic field and ensures precise synchronization with the stir bar. When restarting—for example after removal and reinsertion of the flask—the Wiggins "Synchrostart" function maintains reliable magnetic coupling, preventing decoupling during start-up.
- > The PL524pro-Stir is connected to the Stir Mantle via a connecting cable, the controller can be positioned outside the fume hood for easier operation and longer service life.
- > The PL524pro-Stir is supplied with connecting cables and a stir bar, and is fully grounded and fused in accordance with international safety standards.

Specifications

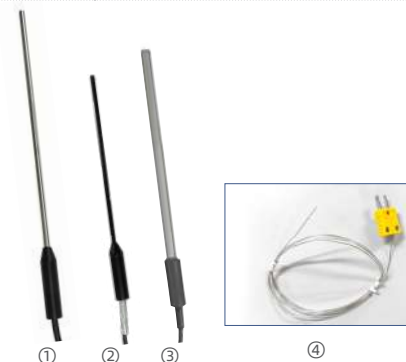
Complete System Order No.	Order No.	Flask Capacity [ml]	Depth [mm]	Watts [W]	Outside Dia. [mm]	Height [mm]	Weight [kg]
EMS103P	EMS103	250	42	180	159	121	2.0
EMS105P	EMS105	300	43	180	159	121	2.0
EMS107P	EMS107	500	51	270	159	133	2.0
EMS109P	EMS109	1000	65	380	191	140	2.4
EMS111P	EMS111	2000	85	500	254	165	2.5
EMS113P	EMS113	3000	91	500	254	165	2.9

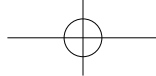


Complete system of stir mantle (EMS1XXXP)

Temperature sensor

Order No.	Description	Suitable for
PT100-01	Type I, External Pt100 sensor, -30 ~ 300 °C ; Length (170 mm); Diameter (4 mm); Material (Stainless steel)	
PT100-02	Type II, External Pt100 sensor, -30 ~ 300 °C ; Length (300 mm); Material (Stainless steel) Fig. ①	
8981003W	WP206S, External Pt100 sensor, 200 x Ø6 mm, stainless steel, 1.5 m cable.	
8981010W	WP306S, External Pt100 sensor, 300 x Ø6 mm, stainless steel, 1.5 m cable.	
PT100-03	Type III, External Pt100 sensor, -30 ~ 250 °C ; Length (170 mm); Material (Stainless steel, PTFE coated) Fig. ②	
PT100-04	Type IV, External Pt100 sensor, -30 ~ 250 °C ; Length (300 mm); Material (Stainless steel, PTFE coated)	Wiggins hot plate stirrer (except WH200 and WH210), Hot plate, Heating block, Temperature controller
PT100-06	Type VI, External Pt100 sensor, -30 ~ 300 °C ; Length (250 mm); Diameter(4 mm); Material (Glass) Fig. ③	
PT100-07	Type 07, External Pt100 sensor, 240 x Ø3.15 mm, stainless steel, 1.5 m cable.	
8981017W	WP206P, External Pt100 sensor, 200 x Ø6 mm, stainless steel / PTFE coated, 3 m cable.	
8981015W	WP306P, External Pt100 sensor, 300 x Ø6 mm, stainless steel / PTFE coated, 3 m cable.	
W8981017W	WP206P, External Pt100 sensor, 200 x Ø6 mm, stainless steel / PFA coated, 3 m cable.	
W8981015W	WP306P, External Pt100 sensor, 300 x Ø6 mm, stainless steel / PFA coated, 3 m cable.	
600.170.1	K type thermocouple, Length (170 mm); Diameter (4 mm); Material (Stainless steel); Admissible temperature (0-500 °C)	WH200 / WH210
PR5600-009	K type thermocouple, -50-1200 °C; Length (1m) ④ The temperature tolerance of the protective cover shall not exceed 350 °C degrees Celsius	PL524, TCSS, PR series





Overhead stirrer

Attractive design for demanding stirrers & mixing

Our new, complete range of laboratory overhead stirrers is designed to meet demanding laboratory applications with reliable performance in daily operation.



High Torque / High Speed Overhead Stirrer Pro series



Remotely Controllable High Torque / High Speed Stirrers, Suitable for reaction DF series



Remotely Controllable High Torque / High Speed Stirrers C & EC Series

Overhead Stirrer WB 2000 series



WB2000-M

Overhead Stirrer WOHS series



WOHS-15 Pro



Overhead Stirrer

WB2000-M

WIGGENS offers a comprehensive range of overhead stirrers for stirring and mixing applications across low to high viscosities in laboratory environments.

Safety, power, and intelligent control are at the core of the development of this product range. Powerful motors ensure homogeneous mixing results with precise speed control, even under changing load conditions or when handling high-viscosity media, while maintaining quiet operation. A wide range of reliable solutions is available to meet different application requirements in terms of viscosity and working volume.

Features of the WB2000M

- > Maintenance-free brushless DC motor, ideal for long-term experimental applications
- > Stable and precise stirring performance enabled by advanced microprocessor control technology
- > Controlled soft start and adjustable speed limits to reduce splashing and improve safety
- > Fully enclosed, compact housing for enhanced durability and protection
- > Stable and quiet operation for continuous laboratory use
- > Integrated internal overload protection for enhanced operational safety
- > Adjustable impeller shaft to accommodate different vessel heights
- > Suitable for use in a wide range of laboratory environments
- > Standard delivery includes overhead stirrer, stand, support rod, clamp, and stainless steel impeller



Clear LED Display

High-contrast LED display clearly shows the set stirring speed.



Control Knob

Rotate to adjust speed; press to start or stop operation.



Keyless Chuck

Tool-free chuck for quick stirring tool changes.
Clamping range: 0.5-10 mm.

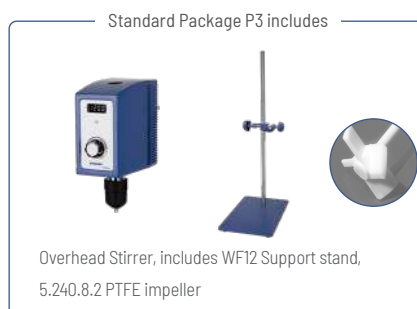


WB2000-M

Specifications

Model	WB2000-M
Order No.	100300
Speed range [rpm]	40 ~ 2,000
Setting accuracy speed [rpm]	1
Deviation of speed measurement n > 300 rpm	±3 %
Display	LED display
Rotation direction	Clockwise
Speed setting	Turning knob
Stirring quantity max [L / H ₂ O]	50
Input power [W]	70
Output power [W]	50
Motor principle	Brushless DC motor
Maximum torque [N-cm]	66
Maximum mixing viscosity [mPas]	20,000
Fastening	Keyless chuck, easy to install and replace the shaft.
Chuck range diameter [mm]	0.5 ~ 10
Hollow shaft, inner diameter [mm]	10.2
Fastening on stand [mm]	Extension arm Ø13x124
IP code	IP42 IP40
Housing material	Cast aluminum coated
Communication	-
Dimension [W x D x H (mm)] (Without fixed rod)	101x192x251
Weight [kg]	3.5
Power supply	100 ~ 240 VAC, 50 / 60 Hz

According to needs, it is convenient to choose different package



Overhead Stirrer

WOHS-10/15 Pro

The WOHS range of overhead stirrers is designed for reliable stirring and mixing applications. Featuring advanced technology and high-quality construction, the instruments meet the demanding requirements of laboratories and research institutions worldwide.



TFT Display

High-contrast TFT display ensures clear readability, even from a distance.



Precise Speed Control

All operating parameters are intuitively adjusted via the central control knob and touch keys, enabling precise and reproducible speed control.



Working Status Indicator

LED status indicator provides clear visual feedback for standby (blue), operation (green), and alarm conditions (red).



Brushless DC Motor

Maintenance-free brushless DC motor ensures long service life, low maintenance requirements, and quiet operation.



Keyless Chuck

Tool-free keyless chuck allows quick and easy exchange of stirring tools. Clamping range: 0.5–10 mm.



RS232 / RS485 Interfaces

Integrated RS232 and RS485 interfaces enable control, monitoring, and documentation of all operating parameters.



Timer / clocker

Adjustable timer up to 99 h 99 min with automatic countdown function during operation.



Temperature Measurement (optional)

Measuring range (–10 to 350 °C)
Resolution (0.1 °C)



Direction of Rotation

Clockwise and counterclockwise rotation (available on WOHS-10/15Pro).

Specifications

Model	WOHS-10 Pro	WOHS-15 Pro
Order No.	W3041010	W3041015
Speed range [rpm]	40 ~ 2000	40 ~ 2000
Setting accuracy speed [rpm]	1	1
Deviation of speed measurement $n > 300$ rpm	$\pm 3\%$	$\pm 3\%$
Display	TFT display	TFT display
Rotation direction	Clockwise or counterclockwise	Clockwise or counterclockwise
Speed setting	Touch key and turning knob	Touch key and turning knob
Time setting range	99h59min59s	99h59min59s
Temperature measuring range [°C]	-10 ~ 350	-10 ~ 350
Temperature measurement resolution [°C]	0.1	0.1
Stirring quantity max [L / H ₂ O]	20	50
Maximum mixing viscosity [mPas]	10,000	20,000
Working status indicator	Standby (blue) , Running (green) , Alarm (red)	Standby (blue) , Running (green) , Alarm (red)
Output Power [W]	30	60
Motor principle	Brushless DC motor	Brushless DC motor
IP code	IP42 IP40	IP42 IP40
Maximum torque [N-cm]	15	29
Torque display	The mixer converts output current into torque, reflecting the motor load variation trend	
Fastening	Keyless chuck, easy to install and replace the shaft	Keyless chuck, easy to install and replace the shaft
Chuck range diameter [mm]	0.5 ~ 10	0.5 ~ 10
Hollow shaft, inner diameter [mm]	10.2	10.2
Fastening on stand [mm]	Extension arm $\varnothing 13 \times 150$	Extension arm $\varnothing 13 \times 150$
Communication	RS232/485, Analog communication	RS232/485, Analog communication
Dimension [W x D x H (mm)] (Without fixed rod)	67x173x223	67x173x223
Housing material	Cast aluminum coating / thermoplastic polymer	Cast aluminum coating / thermoplastic polymer
Power supply	100 ~ 240 VAC, 50 / 60 Hz	100 ~ 240 VAC, 50 / 60 Hz

According to needs, it is convenient to choose different package:



High-Torque, High-Speed Overhead Stirrers Pro series

Designed for reliable mixing of medium- to high-viscosity liquids as well as solid-liquid mixtures, the Pro series overhead stirrers deliver consistent performance in demanding laboratory applications.

The series is widely used in chemical synthesis, pharmaceutical processing, physicochemical analysis, petrochemical research, cosmetics, food technology, biotechnology, and related fields where precise speed control and high torque are required.

Features

- > Designed for large-volume and high-viscosity stirring applications
- > Advanced microprocessor control ensures stable and reproducible stirring speed
- > Maintenance-free brushless DC motor engineered for continuous, high-load laboratory operation
- > High torque output at low speed enables efficient mixing of challenging media
- > Compatible with a wide range of standard mixing impellers



TFT Display

High-contrast display for clear readability.



Precise Speed Control

Knob and touch keys for precise speed setting (± 1 rpm).



Working Status Indicator

LED status indication: standby, operation, alarm.



Brushless DC Motor

Maintenance-free, quiet, and durable.



Keyless Chuck

Tool-free chuck, 0.5–10 mm.



RS232 / RS485

Interfaces for remote control and data logging.



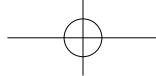
Timer / clocker

Timer with automatic countdown (99 h 59 min 59 s).



Temperature Measurement (optional)

-10 to 350 °C, resolution 0.1 °C.



Specifications

Model	WOHS-200 Pro	WOHS-400 Pro	WOHS-600Pro
Order No.	W3041030	W3041018	W3041062
Speed Range [rpm]	30 ~ 600(I) 601 ~ 3,000(II)	20 ~ 360(I) 361 ~ 1,800(II)	100 ~ 6,000
Maximum torque [N-cm]	339(I) 68(II)	565(I) 113(II)	32
Maximum Stirring volume [L / H ₂ O]	100	100	100
Maximum stirring viscosity [mPas]	100,000	150,000	20,000
Setting accuracy speed [rpm]	1	1	1
Deviation of speed measurement n > 300 rpm	±3 %	±3 %	±3 %
Speed Display	TFT	TFT	TFT
Rotation direction	Clockwise		
Speed setting	Touch key and turning knob		
Time setting range	99h59min59s		
Temperature measuring range [°C]	-10 ~ 350	-10 ~ 350	-10 ~ 350
Temperature measurement resolution [°C]	0.1	0.1	0.1
IP code	IP42 IP40	IP42 IP40	IP42 IP40
Working status indicator	Standby (blue) , Running (green) , Alarm (red)		
Communication	RS232/485, Analog communication		
Output Power [W]	150	150	150
Motor principle	Brushless DC motor	Brushless DC motor	Brushless DC motor
Fastening	Keyless chuck, easy to install and replace the shaft	Keyless chuck, easy to install and replace the shaft	Keyless chuck, easy to install and replace the shaft
Chuck range diameter [mm]	0.5 ~ 10	0.5 ~ 10	0.5 ~ 10
Hollow shaft, inner diameter [mm]	10.2	10.2	10.2
Fastening on stand [mm]	Extension arm Ø16x220		
Dimension [W x D x H (mm)](Without fixed rods)	100x241x295	100x241x295	100x241x295
Power supply	100 ~ 240 VAC, 50 / 60 Hz	100 ~ 240 VAC, 50 / 60 Hz	100 ~ 240 VAC, 50 / 60 Hz

According to needs, it is convenient to choose different package:



Remotely Controllable High-Torque, High-Speed Overhead Stirrers

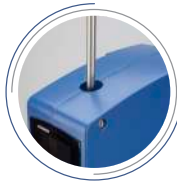
WB3000-DF / WB1800-DF

Designed for demanding laboratory stirring applications, the WB-DF series combines high performance with flexible remote control.

A separate TFT remote controller enables safe and convenient operation when direct access to the stirrer is limited.

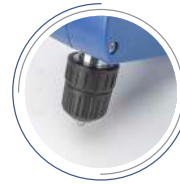
Features

- > Maintenance-free brushless DC motor ensures smooth, quiet, and powerful stirring performance
- > High torque output enables reliable handling of high-viscosity stirring tasks
- > Advanced control system maintains constant stirring speed, even under changing viscosity and load conditions
- > Intelligent control continuously manages stirring speed to prevent overload and ensure stable operation
- > Microprocessor-controlled soft start and stop functions reduce splashing and enhance operational safety



Through-Shaft Design

Through-shaft construction allows flexible vertical adjustment of the impeller position, enabling convenient height adjustment for different vessel sizes.



Keyless Chuck

Tool-free keyless chuck enables quick and easy replacement of stirring tools. Clamping range: 0.5–10 mm.

Specifications

Model	WB3000-DF	WB1800-DF
Order No.	100400F	100600F
Speed range [rpm] ¹⁾	30 ~ 600 (I) 601 ~ 3,000 (II)	20 ~ 360 (I) 361 ~ 1,800 (II)
Setting accuracy speed [rpm]	1	1
Deviation of speed measurement n > 300 rpm	±3 %	±3 %
Speed Display	TFT display	TFT display
Rotation direction	Clockwise	Clockwise
Speed setting	Touch key and turning knob	Touch key and turning knob
Power [W]	150	150
Stirring quantity max [L / H ₂ O]	100	100
Motor principle	Brushless DC motor	Brushless DC motor
Torque max. at stirring shaft [N-cm] ²⁾	339(I) / 68(II)	563(I) / 113(II)
Maximum mixing viscosity [mPas]	100,000	150,000
Fastening	Keyless chuck, easy to install and replace the shaft	
Chuck range diameter [mm]	0.5 ~ 10	0.5 ~ 10
Hollow shaft, inner diameter [mm]	10.2	10.2
Fastening on stand	Extension arm	Extension arm
Extension arm diameter [mm]	13	13
Extension arm length [mm]	124	124
IP code	IP42 IP40	IP42 IP40
Housing material	Cast aluminum coating	Cast aluminum coating
Communication	RS232/485, Analog communication	
Dimension [W x D x H (mm)] (Without fixed rod)	104x206x294 (stirrer), 95x115x161 (controller)	
Weight [kg]	5	5
Power supply	100 ~ 240 VAC, 50 / 60 Hz	100 ~ 240 VAC, 50 / 60 Hz

¹⁾ Two grades of stirring speed are for this series. The low-speed has more torque, and is suitable for chemical reaction system. And the high-speed is suitable for sample pretreatment. According to the set speed, it can be switched automatically between them.

²⁾ The two speed ranges correspond to different maximum torque.

Standard includes, Overhead Stirrer, remote controller

Remotely Controllable High Torque / High Speed Stirrer

WB1800-C / WB1800-EC

Designed for demanding laboratory stirring applications, the WB-DF series combines high performance with flexible remote control.

A separate TFT remote controller enables safe and convenient operation when direct access to the stirrer is limited.

Features

- > Designed for reaction systems and other high-torque, high-speed stirring applications
- > Maintenance-free brushless DC motor for high-performance and long-term operation
- > Quiet and reliable operation, even under continuous high-load conditions
- > Digitally adjustable rotation speed and direction for precise process control
- > Remote controller displays set speed, actual speed, and real-time torque values
- > Digital (RS232 / RS485) and analog interfaces available for remote PC or PLC control



External Controller

- > Touch TFT interface for intuitive operation
- > Enables safe external control without opening the fume hood sash
- > Compact, slim design for flexible system configuration

Safety Design

- > Aluminum housing for efficient heat dissipation
- > Separated adapter design reduces electrical risk and enhances safety



Specifications

Model	WB1800-C	WB1800-EC
Order No.	100601	100602
Speed range [rpm]	20 ~ 800	20 ~ 800
Setting accuracy speed [rpm]	1	1
Deviation of speed measurement n > 300 rpm	±3 %	±3 %
Speed Display	TFT display	TFT display
Rotation direction	Clockwise or counterclockwise	
Speed setting	Touch key and turning knob	Touch key and turning knob
Stirring quantity max [L / H ₂ O]	100	100
Power [W]	150	250
Motor principle	Brushless DC motor	Brushless DC motor
Torque max. at stirring shaft [N-cm]	1320	1640
Maximum mixing viscosity [mPas]	150,000	300,000
Housing material	Powder Coated Metal	
IP code	IP42	IP42
Communication	RS232/485, Analog communication	
Dimension [W x D x H (mm)]	65x65x192 (stirrer), 121x150x215 (controller)	65x65x212 (stirrer), 121x150x215 (controller)
Weight (Stirrer / Controller) [kg]	2.3 / 0.5	3.4 / 0.5
Power supply	100 ~ 240 VAC, 50 / 60 Hz	100 ~ 240 VAC, 50 / 60 Hz

Standard includes the overhead stirrer, remote controller

Accessories for Overhead Stirrer

Magnetic clutch RV 100 made of SS 316 TI with Reed contact, torque 100 N-cm, 300 °C , max. viscosity 4,000 mPa.s at max.10,000 mL

Magnetic coupling bearings, also known as non-contact magnetic bearings, utilize magnetic forces to enable torque transmission and rotational support without physical contact between components. These systems offer unique advantages for laboratory environments where contamination, maintenance, or precise control are critical concerns

Applications

- > Magnetic stirrers with complete vessel isolation
- > Reactor agitators for hazardous materials
- > Bioreactor impellers maintaining sterile integrity
- > Cell culture apparatus with minimized contamination risk
- > Cryogenic apparatus rotating components
- > Ultra-high vacuum manipulators
- > Optical table components requiring minimal vibration



Application of Magnetic Drive

Stirrer guides

Universal stirrer seal

Material : PTFE (Polytetrafluoroethylene)

Order No.	Joint Size	Shaft Size(Ø, mm)	Height(mm)
KA22-02	24/40	8	60
KA22-03	29/42	8	60
KA22-04	34/45	8	60

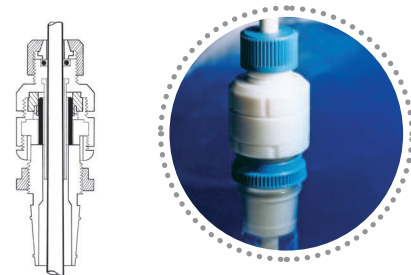


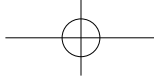
Universal stirrer guide

For standard taper ground glass joints
Universal stirrer guides for use with standard taper ground glass joints can be used with PTFE Shaft Stirrers, glass and metal shaft stirrers. Unique features of the design are a permanently loaded Composite PTFE/PEEK Seal, a Glass Ball-Bearing for rigidity and smoothness of operation.

- > Exceptional chemical resistance
- > Anti-whip and reduced vibration
- > Vacuum (6.6 mbar) and pressure (0.2 - 0.35 bar) performance
- > No shedding
- > Maximum recommended speeds, continuous 500 rpm intermittent 800 rpm

Order No.	ShaftØ(mm)	Joint Size	Height(mm) excl.joint	GuideØ(mm)
5.101.7	6	19/22	96	45
5.102.7	6	24/40	96	45
5.104.7	8	24/40	96	45
5.105.7	10	24/40	96	45
5.106.7	10	29/42	96	45
5.108.7	12	29/42	110	55





High performance stirrer guide

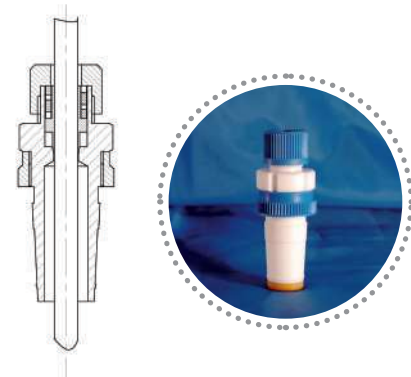
For standard taper ground glass joints
This product is designed to provide an effective guide for Glass and Metal Shaft stirrers over a range of temperatures without shedding particles from the seal, whilst maintaining a vacuum. The seal is manufactured from a specially formulated PTFE-PEEK composite and is permanently pressure loaded.

Features:

- > High level of chemical resistance
- > Anti-whip and reduced vibration
- > Vacuum (6.6 mbar) and pressure (0.2 ~ 0.35 bar) performance
- > No shedding
- > Self-releasing joint ring
- > Maximum recommended speeds, continuous 500 rpm intermittent 800 rpm

Note: PEEK has a very high level of chemical resistance with some susceptibility only to strong mineral acids

Order No.	ShaftØ(mm)	Joint Size	Height(mm) excl.joint	GuideØ(mm)
5.0.0619	6	19/22	60	42
5.0.0624	6	24/40	60	42
5.0.0819	8	19/38	60	42
5.0.0824	8	24/40	60	42
5.0.1024	10	24/40	60	42
5.0.1029	10	29/42	60	50
5.0.1034	10	34/45	60	50
5.0.1045	10	45/50	60	58
5.0.1229	12	29/42	70	50
5.0.1945	19	45/50	70	58



High vacuum stirrer guide

The newest design of mechanical stirring seals with all parts that are in contact with liquid or vapor being made of PTFE, RULON, or PEEK material. Rated for up to 400 rpm with both glass (polished, rather than precision ground is best) and stainless steel shafts of 10, 19 and 28 mm.

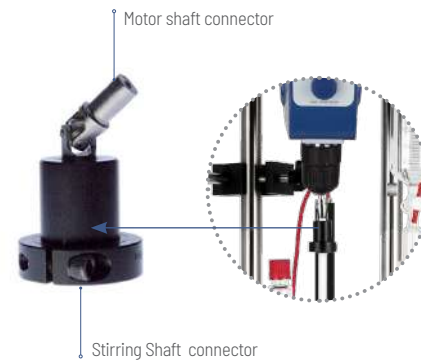
Order No.	ShaftØ(mm)	Joint Size	Replace O-Ring
8050-02	10	24/40	7859-526
8050-04	10	29/42	7859-534
8050-14	10	29/32	7859-534
8050-10	10	#15 Ace-Thred	7859-530
8050-12	10	#25 Ace-Thred	7859-534
8050-06	19	45/50	7859-573
8050-16	25.4	45/50	7859-573
8050-08	28	45/50	7859-573
8050-18	30	45/50	7859-573



Coupling

The universal swivel coupling is designed for connection to a metal chuck. The compression connection is secured via Allen screw, and attaches to various O.D. glass stirring shafts. When used with pass-through assemblies, the coupling allows for easy, flexible height adjustment.

Motor shaft (OD)	Shaft size (OD)	Order No.
6 mm	6 mm	8126-05
6 mm	10 mm	8126-10



PTFE Impeller

- > Stainless steel core surrounded by PTFE mantle
- > Chemical resistant
- > Economical
- > Strong structure which doesn't break easily
- > Can be used up to a max. temperature of 280 °C
- > The stainless steel core is revealed at the upper part and can be plugged into the stirrer
- > The length of the revealed part is 50 mm

EX = Exposed Shaft.

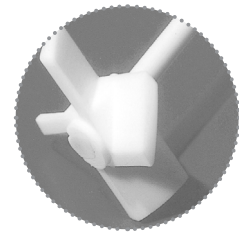
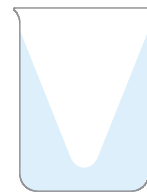
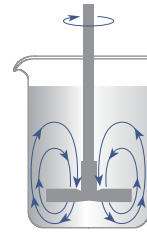
Shafts of 650 mm, 750 mm & 1000 mm in length are produced with a stainless steel core with an exposed end for more rigid clamping to the chuck drive
Shafts up to 12 mm diameter have an exposed end of 50 mm long and 6.5 mm diameter.
Shafts of 16 mm diameter have an exposed end of 50 mm long and 8.5 mm diameter.



Screw Propeller, 4-Bladed (PTFE Coated)

Creates shearing force. Used for mixing media in an up-to-down axial flow, for mid and high-speed stirring, and for mid and low viscosity.

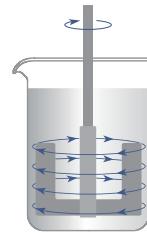
Order No.	Shaft Ø(mm)	Length(mm)	Rotor Ø(mm)
005.230.2	6	300	40
005.240.2	6	400	40
005.250.2	6	500	50
005.230.8.2	8	300	40
005.240.8.2	8	400	40
005.250.8.2	8	500	50
005.255.10.2	10	550	70
005.0265.10.2	10	650EX	70
005.0275.10.2	10	750EX	70
005.0265.12.2	12	650EX	80
005.0275.12.2	12	750EX	80
005.02100.12.2	12	1000EX	80
005.0275.16.2	16	750EX	80
005.0275.16.1.2	16	750EX	100
005.02100.16.2	16	1000EX	100
005.02100.16.1.2	16	1000EX	120

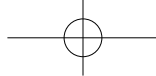


Anchor Impeller (PTFE Coated)

Produces tangential flow and strong shearing force. Used for slow-speed stirring, for high viscosity mixtures.

Order No.	Shaft Ø(mm)	Length(mm)	Rotor Ø(mm)
005.330.2	6	300	80
005.340.2	6	400	80
005.350.2	6	500	80
005.330.8.2	8	300	80
005.340.8.2	8	400	80
005.350.8.2	8	500	80
005.355.10.2	10	550	100
005.0365.10.2	10	650EX	140
005.0375.10.2	10	750EX	140
005.0365.12.2	12	650EX	140
005.0375.12.2	12	750EX	140
005.03100.12.2	12	1000EX	140
005.0375.16.2	16	750EX	140
005.0375.16.1.2	16	750EX	180
005.03100.16.2	16	1000EX	140
005.03100.16.1.2	16	1000EX	180

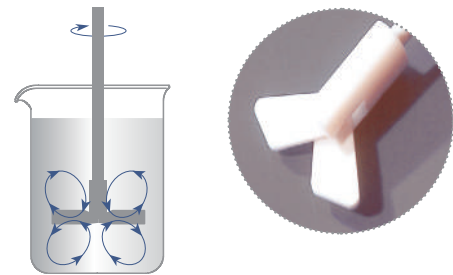




Centrifugal Stirrer, 2-Bladed (PTFE Coated)

2-Blade Impeller which will open up depending on the stirring speed. Used for round vessels with narrow openings, for mixing media in an up-to-down axial flow, for mid and high-speed stirring

Order No.	Shaft Ø(mm)	Length(mm)	Rotor Ø(mm)
005.430.2	6	300	40
005.440.2	6	400	40
005.450.2	6	500	50
005.430.8.2	8	300	40
005.440.8.2	8	400	40
005.450.8.2	8	500	50
005.455.10.2	10	550	70
005.0465.10.2	10	650EX	70
005.0475.10.2	10	750EX	70
005.0465.12.2	12	650EX	80
005.0475.12.2	12	750EX	80
005.04100.12.2	12	1000EX	80
005.0475.16.2	16	750EX	80
005.04100.16.2	16	1000EX	80



Retreat Curve Impeller (PTFE Coated)

The blades are formed in a 30° angle. It creates tangential and axial flow as well as high shearing force. Used for mid- and slow-speed stirring, and for all levels of viscosity.

Order No.	Shaft Ø(mm)	Length(mm)	Rotor Ø(mm)	Blade Ht(mm)
005.80850.300	8	300	50	10
005.80875.300	8	300	75	15
005.80850.400	8	400	50	10
005.80875.400	8	400	75	15
005.81050.400	10	400	50	10
005.81075.400	10	400	75	15
005.81050.500	10	500	50	10
005.81075.500	10	500	75	15



Impeller Shafts for Blades (PTFE Coated)

Shafts with a stainless steel core, PTFE coating, an exposed stainless steel end, as well as a hook for mounting blades

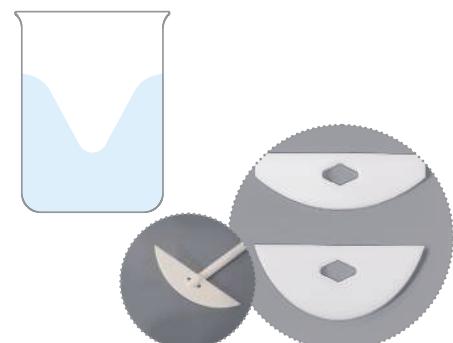
Order No.	Shaft Ø(mm)	Length(mm)	Order No.	Shaft Ø(mm)	Length(mm)
005.530.1	6	300	005.0565.10.1	10	650EX
005.540.1	6	400	005.0575.10.1	10	750EX
005.550.1	6	500	005.05100.10.1	10	1000EX
005.530.8.1	8	300	005.0565.12.1	12	650EX
005.540.8.1	8	400	005.0575.12.1	12	750EX
005.550.8.1	8	500	005.05100.12.1	12	1000EX
			005.0575.16.1	16	750EX
			005.05100.16.1	16	1000EX



Blades (PTFE Coated)

Impeller blades that fit to "Impeller Shaft, with Hook (PTFE Coated)". Completely inert and highly scratch-resistant. (Hole diameter 6.5 mm)

Order No.	W(mm)	H(mm)	Order No.	W(mm)	H(mm)
002.052.1	52	14	002.1065.1	65	25
002.076.1	76	19	002.1075.1	75	25
002.090.1	90	28	002.1105.1	105	25
			002.1125.1	125	25
			002.1150.1	150	25



Plain Impeller Shafts (PTFE CoXated)

Plain shafts with a stainless steel core and PTFE coating, as well as an exposed stainless steel end.

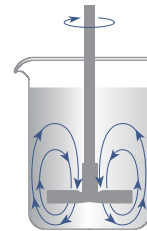
Order No.	Shaft Ø(mm)	End Ø(mm)	LengthØ(mm)
005.100830EX	8	5	300
005.100850EX	8	5	500
005.101030EX	10	6.35	300
005.101050EX	10	6.35	500
005.101065EX	10	6.35	650
005.101250EX	12	6.35	500
005.101265EX	12	6.35	650
005.101275EX	12	6.35	750
005.1016750EX	16	10	750
005.1016100EX	16	10	1000



4 Blade Angled Type 45° Metric

Pitched impeller for use on PTFE coated shafts.

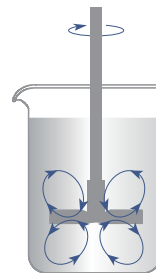
Order No.	Shaft Ø(mm)	RotorØ(mm)
005.606040	6	40
005.608040	8	40
005.610060	10	60
005.610090	10	90
005.612070	12	70
005.612090	12	90
005.616100	16	100



Flat Impeller

Flat impeller for use on PTFE coated shafts.

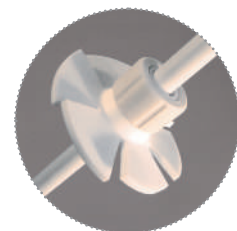
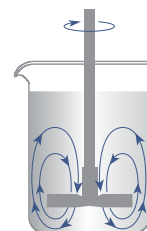
Order No.	Shaft Ø(mm)	RotorØ(mm)
005.706070	6	70
005.708070	8	70
005.710070	10	70
005.710100	10	100
005.712100	12	100
005.712150	12	150
005.716100	16	100
005.716150	16	150

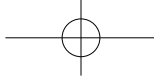


Adjustable Turbine

Flat impeller for use on PTFE coated shafts.

Order No.	Shaft Ø(mm)	RotorØ(mm)
005.90850	8	50
005.90875	8	75
005.91075	10	75
005.9100100	10	100
005.91275	12	75
005.912100	12	100
005.016100	16	100
005.916150	16	150





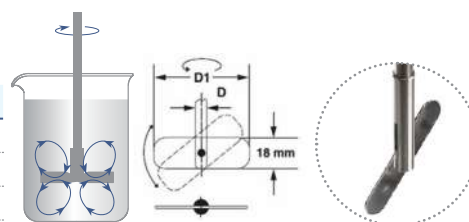
Stainless Steel Impellers

Pivoting Blade Impeller

For mixing media from coarse to liquid, for mid-speed stirring, and for mid to low viscosity mixtures.

Blade Height (18 mm)

Order No.	Rotor \varnothing (mm) D1	Shaft \varnothing (mm) D	Length(mm)
9603	60	8	300
9604	60	8	400
9605	60	8	500

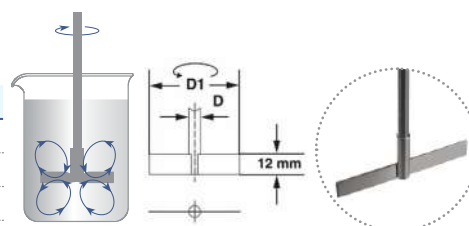


Straight 2-Blade Impeller

For mixing media from coarse to liquid, for mid-speed stirring, and for mid to low viscosity mixtures.

Blade Height (12 mm)

Order No.	Rotor \varnothing (mm) D1	Shaft \varnothing (mm) D	Length(mm)
9703	50	8	300
9704	50	8	400
9705	50	8	500

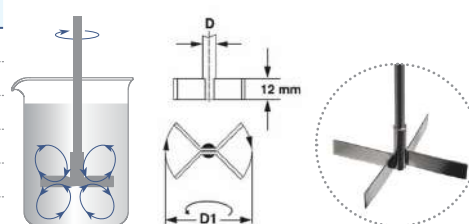


Straight 4-Blade Impeller

For mixing media from coarse to liquid, for mid-speed stirring, and for mid to low viscosity mixtures.

Blade Height (12 mm)

Order No.	Rotor \varnothing (mm) D1	Shaft \varnothing (mm) D	Length(mm)
9053	50	8	300
9054	50	8	400
9055	50	8	500
9056	100	10	300
9057	100	10	400
9058	100	10	500

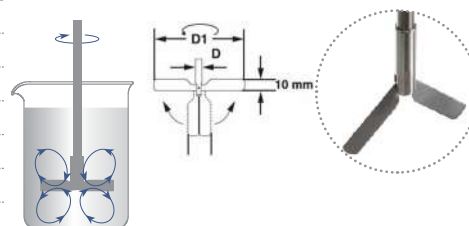


Centrifugal Impeller

2-Blade Impeller which will open up depending on the stirring speed. Used for round vessels with narrow openings, for mixing media in an up-to-down axial flow, for mid- and high-speed stirring.

Blade Height (10 mm)

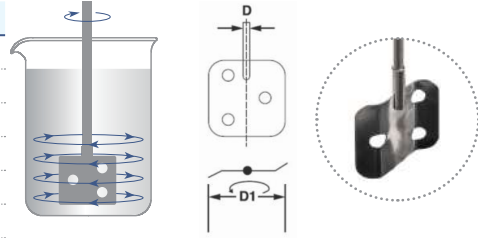
Order No.	Rotor \varnothing (mm) D1	Shaft \varnothing (mm) D	Length(mm)
9209	90/15	8	300
9210	90/15	8	400
9211	90/15	8	500
9212	90/15	10	300
9213	90/15	10	400
9214	90/15	10	500
9215	90/15	10	650



3-Hole Blade Impeller

For mixing media from coarse to liquid, for mid-speed stirring, and for mid to low viscosity mixtures.

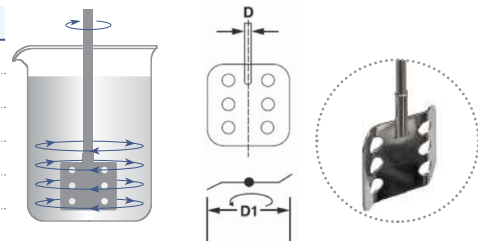
Order No.	Rotor Ø(mm) D1	Shaft Ø(mm) D	Length(mm)
9403	50	8	300
9404	50	8	400
9405	50	8	500
9406	100	10	300
9407	100	10	400
9408	100	10	500



6-Hole Blade Impeller

For mixing media from coarse to liquid, for mid-speed stirring, and for mid to low viscosity mixtures.

Order No.	Rotor Ø(mm) D1	Shaft Ø(mm) D	Length(mm)
9503	50	8	300
9504	50	8	400
9505	50	8	500
9506	100	10	300
9507	100	10	400
9508	100	10	500

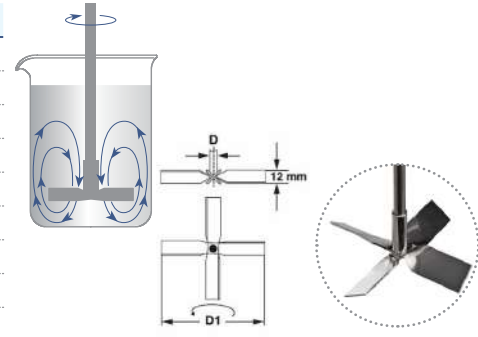


Pitched Leaf Impeller and Pitched Blade Impeller

Employs small shearing force. Used for mixing media in an up-to-down axial flow, for mid- and high-speed stirring, for mid to low viscosity mixtures.

Blade Height (12 mm)

Order No.	Rotor Ø(mm) D1	Shaft Ø(mm) D	Length(mm)
9003	50	8	300
9004	50	8	400
9005	50	8	500
9009	100	8	300
9010	100	8	400
9011	100	8	500
9012	70	8	500
9013	100	10	650
9014	100	10	800

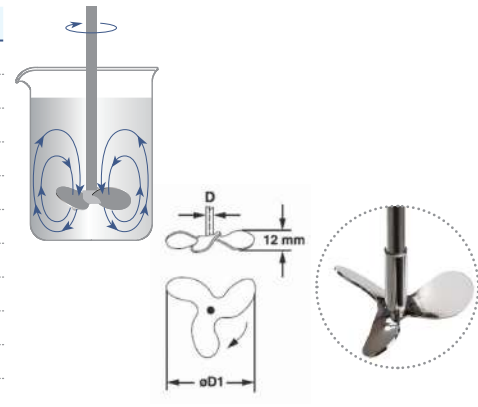


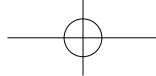
Propeller Stirrers, 3 Fixed Blades

- > rpm-range middle
- > Mixing of media with low and middle viscosity
- > Ideal for homogenising and suspending
- > Axial flow

Blade Height (12 mm)

Order No.	Rotor Ø(mm) D1	Shaft Ø(mm) D	Length(mm)
9103	50	8	300
9104	50	8	400
9105	50	8	500
9109	70	8	300
9110	70	8	400
9111	70	8	500
9112	100	10	300
9113	100	10	400
9114	100	10	500
9115	70	10	650
9116	100	10	800

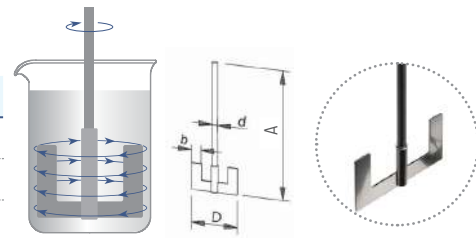




Anchor Impeller

Produces tangential flow and strong shearing force. Used for slow-speed stirring, for high viscosity mixtures.

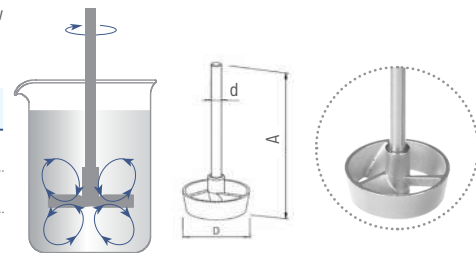
Order No.	Rotor Ø(mm) D1	Shaft Ø(mm) d	Length(mm) A
9610	70	8	500
9611	90	10	650
9612	140	10	800



Turbine Impeller

Creates shearing force. Used for mixing media in an up-to-down axial flow, for mid and high-speed stirring, for mid to low viscosity mixtures.

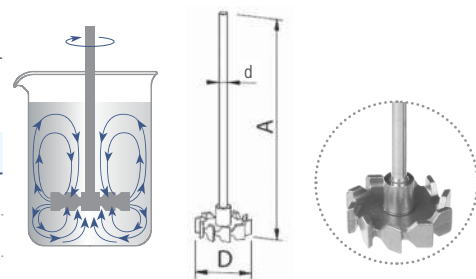
Order No.	Rotor Ø(mm) D1	Shaft Ø(mm) d	Length(mm) A
9025	45	7	400
9026	65	7	400
9025A	45	8	400
9026A	65	8	400



Radial Flow Impeller

Creates a strong flow and shearing force. Used for mixing media in an up-to-down axial flow, for mid-speed stirring, for mid viscosity under 500mpas. Especially useful for aerating.

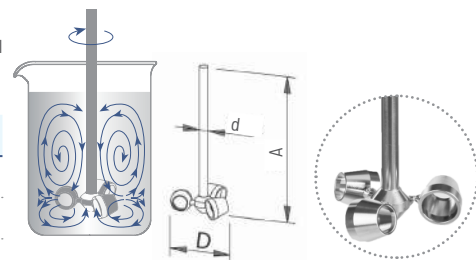
Order No.	Rotor Ø(mm) D1	Shaft Ø(mm) D	Length(mm) A
9030	50	8	400
9031	50	10	400



Multi-Purpose Impeller

Can generally be used in low to high viscosity mixtures. Even with slow stirring speed, it will produce a very good radial stirring outcome.

Order No.	Rotor Ø(mm) D	Shaft Ø(mm) d	Length(mm) A	rpm
9020	80	10	500	200-700
9021	120	10	500	120-500



Foot switch

Order No.	Description	Suitable for
W1672041	Overhead stirrer is controlled by the foot switch in "FOOT Mode"	WOHS series



External temperature sensor Suitable for WOHS series

Order No.	Model	Description
PT100-01	Type I	External Pt100 sensor, 170 x Ø4 mm, stainless steel, 1.5 m cable.
PT100-02	Type II	External Pt100 sensor, 300 x Ø4 mm, stainless steel, 1.5 m cable.
8981003W	WP206S	External Pt100 sensor, 200 x Ø6 mm, stainless steel, 1.5 m cable.
8981010W	WP306S	External Pt100 sensor, 300 x Ø6 mm, stainless steel, 1.5 m cable.
PT100-03	Type III	External Pt100 sensor, 170 x Ø4 mm, stainless steel, 1.5 m cable.
PT100-04	Type IV	External Pt100 sensor, 300 x Ø4 mm, stainless steel, 1.5 m cable.
PT100-06	Type VI	External Pt100 sensor, 250 x Ø4 mm, stainless steel, 1.5 m cable.



Clamps

For installing the PT100 sensor for W0HS series

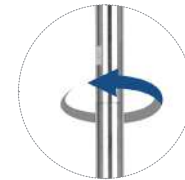
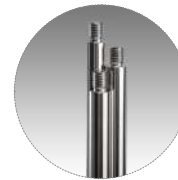
Description	Order No.
WH2S01 set contains Clamping (WH2), Sensor holder(WH220027), Extension rod(WH220095)	WH2S01



Extension Rod

Extend the rod to the desired height

Order No.	Diameter (mm)	Height (mm)
WE-11	16	200
WE-12	16	400
WE-13	16	550



Clamp Holder

For Single Rod Stand

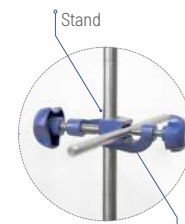
Model	WH1
Clamping range-stand	6 ~ 16 mm
Clamping range-extension arm	6 ~ 16 mm
Material	Cast aluminium



Clamp Holder

For Single Rod Stand

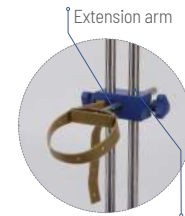
Model	WH2
Clamping range-stand	6 ~ 30 mm
Clamping range-extension arm	6 ~ 16 mm
Material	Cast aluminium

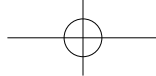


Clamp Holder

For double rod stand

Model	WH4	WH6	WH6-1
Clamping range-stand	16 mm	16 mm	16 mm
Clamping range-extension arm	10 ~ 13 mm	10 ~ 13 mm	13 ~ 16 mm
Material	Cast aluminium	Cast aluminium	Cast aluminium





Support stand

Plate stand with Ø16mm single-rod

Particularly stable position with plate base to prevent tilting of the position backward, single-rod provide stability. Used for supporting overhead stirrer and accessories.

Model	Base	Shaft	Container area [W x D (mm)]	Dimensions [W x D x H (mm)]
WF11	Cast Iron coated powder	Stainless steel, OD16 mm	315x200	315x200x550
WF12	Cast Iron coated powder	Stainless steel, OD16 mm	315x200	315 x 200x750
WF13	Cast Iron coated powder	Stainless steel, OD16 mm	315x200	315x200x950



WH-stand with Ø16 mm single-rod

Particularly stable position with H-shaped base to prevent tilting of the position backward, single-rod provide stability. Used for supporting overhead stirrer and accessories.

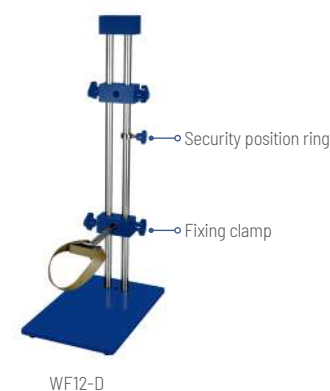
Model	Base	Shaft	Container area [W x D (mm)]	Dimensions [W x D x H (mm)]
WH11-S	Aluminum coated powder	Stainless steel	252x208	340x300x550
WH12-S	Aluminum coated powder	Stainless steel	252x208	340x300x750
WH13-S	Aluminum coated powder	Stainless steel	252x208	340x300x950



Plate stand with Ø16 mm double-rod

Particularly stable position with H-shaped base to prevent tilting of the position backward, double-rod provide optimum stability, standard with security position ring and fixing clamp for containers. Used for supporting high torque / high speed overhead stirrer and accessories, or for high speed homogenizer.

Model	Base	Shaft	Container area [W x D (mm)]	Dimensions [W x D x H (mm)]
WF11-D	Cast Iron coated powder	Stainless steel	315x200	315x200x550
WF12-D	Cast Iron coated powder	Stainless steel	315x200	315x200x750
WF13-D	Cast Iron coated powder	Stainless steel	315x200	315x200x950



H-stand with Ø16 mm single-rod

Particularly stable position with H-shaped base to prevent tilting of the position backward, double-rod provide optimum stability. Used for supporting high torque / high speed overhead stirrer and accessories, or for large volume of containers.

Model	Base	Shaft	Container area [W x D (mm)]	Dimensions [W x D x H (mm)]
WH23-DS *	Stainless steel	Stainless steel	635x600	635x600x1010
WH24-DS **	Stainless steel	Stainless steel	635x600	635x600x1010

* For WB series and WOHS-15Pro overhead stirrer.

** For WOHS High Torque / High Speed Overhead Stirrer.



H-stand with Ø20 mm double-rod

Particularly stable position with H-shaped base to prevent tilting of the position backward, double-rod provide optimum stability, Used for supporting high torque / high speed overhead stirrer and accessories

Model	Base	Shaft	Container area [W x D (mm)]	Dimensions [W x D x H (mm)]
WH21-D*	Aluminum coated powder	Stainless steel	226x220	340x300x550
WH22-D*	Aluminum coated powder	Stainless steel	226x220	340x300x750
WH23-D*	Aluminum coated powder	Stainless steel	226x220	340x300x950
WH24-D**	Aluminum coated powder	Stainless steel	226x220	340x300x550
WH25-D**	Aluminum coated powder	Stainless steel	226x220	340x300x750
WH26-D**	Aluminum coated powder	Stainless steel	226x220	340x300x950

* With clamp holder WH6, suitable for WB series and WOHS 10/15 overhead stirrer.

** With clamp holder WH6-1, suitable for WOHS High Torque / High Speed Overhead Stirrer.



WH22-D

Electric H-stand with Ø16 mm double-rod

Particularly stable position with H-shaped base to prevent tilting of the position backward, double-rod provide optimum stability, integrated electric putter and controller. Used for supporting high torque / high speed overhead stirrer and accessories, even can be used as a stand for bench-top reaction system.

Model	Base	Shaft	Stroke (mm)	Container area [W x D (mm)]	Dimensions [W x D x H (mm)]
WH30*	Aluminum coated powder	Stainless steel	250	370x320	450x500x890
WH31**	Aluminum coated powder	Stainless steel	250	370x320	450x500x890

* For WB series and WOHS 10/15 overhead stirrer.

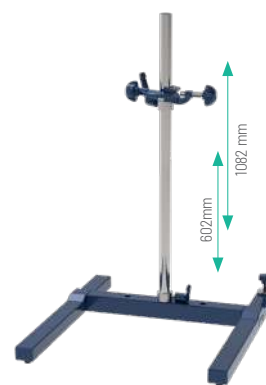
** For WOHS High Torque / High Speed Overhead Stirrer.



WH-stand

With Ø32 mm single-rod
Height range (602 ~ 1082 mm)
Leg distance (370 mm)
Stability adjustment

Model	Base	Shaft	Container area [W x D (mm)]	Dimensions [W x D x H (mm)]
WH33-S	Aluminum coated powder	Stainless steel	320x370	450x500 / 602 ~ 1082

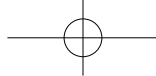


WH mobile floor stand with Ø32 mm single-rod

Mobile floor stand with strong Foma wheels, specially designed for the application with big vessels

Model	Base	Shaft	Container area [W x D (mm)]	Dimensions [W x D x H (mm)]
WH43-S	Stainless steel	Stainless steel	614x385	786x692 / 1319





Homogenizer

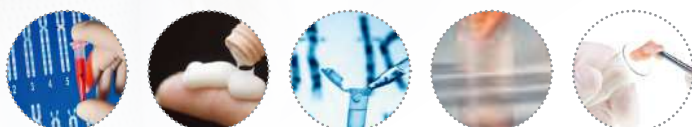


Handheld disperser

D-130C

When speed & high quality meet creating power to disperse

Handheld Design – Compact and lightweight for one-handed operation. During use, the dispersing head is immersed into the sample. The motor drives the rotor to rotate at high speed, homogenizing or dispersing the sample in the gap between the stator and rotor.



Features

- > Brushless DC motor
- > Suitable for mixing, emulsifying, dispersing and shearing
- > Handheld design, compact and lightweight for one-handed operation
- > Sterilizable stainless steel dispersing head
- > High-performance motor ensures speed stability (0-25,000 rpm)
- > Quick-release coupling for easy assembly/disassembly of dispersing head
- > Dual-switch power control for safety and preventing misuse
- > Includes 2 m spiral extension cable between main unit and handheld homogenizer for convenient operation

Application

- > General homogenization applications (dispersion and emulsification)
- > Homogenising of tumour tissue sample, for research of diverse tissue diseases
- > Fast dissolving of pills, sugar-coated tablets for quality control purposes
- > Sample preparation for subsequent extraction of pharmaceutical agents (API)
- > Cell disruption, RNA / DNA isolation from tissue
- > Dispersion of small quantities from plants, animals or human tissue
- > Solving of solid materials



Specifications

Model	D-130C	
Order No.	W3050130	
Speed range with zero-load [rpm]	0 ~ 25000	
Sample volume H ₂ O [mL]	0.2-50(H ₂ O)/3-250(H ₂ O)	
Power [W]	100	
The wet part for dispersing shaft	316L stainless steel and PTFE	
IP code	IP30	
Overall dimensions [W x D x H (mm)]	165x185x225	
Weight [kg]	Host	0.59
	Power base	1.5

D-130C Stand

Order No.	W3050132
Container area [W x D (mm)]	160x160
Dimensions [W x D x H (mm)]	160x240x457



Stand

Shaft for D-130C

Model	Volume Range(mL)	Linear Speed(m/s)	Rotor Diameter(mm)	Stator Diameter(mm)	Min/Max Immersion Depth(mm)	Dispersed Particle Size(Micro)
Shaft 5E	0.2-50	4.7	3	5.5	25/75	Suspensions 10-50 Emulsions 1-10
Shaft 12E	3-250	14.1	9	12	40/110	Suspensions 10-50 Emulsions 1-10



Standard includes the Disperser and base. Shaft and stand require separate purchase.

High speed homogenizer

D-500 / D-500 Pro / D-600 / D-600 Pro

Used for homogenizing, emulsifying, and suspending applications. High-performance homogenizer with electronic speed control ranging from 500 to 30,000 rpm. A variety of purpose-engineered dispersing tools are offered.

Features

- > Continuously adjustable speeds for better results
- > Continuously adjustable speed enables precise results
- > Compact and lightweight design for easy operation
- > Triple safety drive protection (overload protection, smooth start function and safety switch)
- > Standard dispersion tools made of SS 316L stainless steel for enhanced corrosion resistance
- > Viscosities up to 10,000 cps
- > D-500 Pro maintains constant motor speed under varying loads via feedback control



D-600

D-600 Pro







Specifications

Model	D-500	D-500 Pro	D-600	D-600 Pro
Order No.	1710500	1710500P	W3050600	W3050601
Speed setting	Knob	Knob	Knob	Knob
Speed display	Scale	LED	LED	LCD
Process Range H ₂ O [mL]	10 ~ 40,000	10 ~ 40,000	10 ~ 40,000	10 ~ 40,000
Speed with Zero-Load [rpm]	10,000 ~ 30,000	500 ~ 30,000	500 ~ 30,000	500 ~ 30,000
Applicable aggregates [mm]	Ø4 ~ Ø23	Ø4 ~ Ø23	Ø4 ~ Ø23	Ø4 ~ Ø23
Sound pressure level with Zero-Load [dB]	72 dB (30,000 rpm)	66 dB (2500 rpm) 72 dB (30,000 rpm)	66 dB (2500 rpm) 72 dB (30,000 rpm)	66 dB (2500 rpm) 72 dB (30,000 rpm)
Motor	AC	AC	AC	AC
Output Power [W]	500	500	600	600
Supply voltage [V]	220 V / 50 ~ 60 Hz	220 V / 50 Hz	220 V / 50 Hz	220 V / 50 Hz
Relative humidity [max.]	80% RH	80% RH	80% RH	80% RH
Operating temperature [°C]	0 ~ 40	0 ~ 40	0 ~ 40	0 ~ 40
Communicate interface	-	-	-	RS232/485
IP Code	IP30	IP30	IP30	IP30
Dimensions [W x D x H (mm)]	Driver, 88x88x361	Driver, 77x163x236	Driver, 100x163x235	Driver, 103x161x234

Standard includes homogenizer only. Shaft and stand need to be ordered separately.

Shaft Selection Guide for High Speed Homogenizer

Shaft S S20C SR20 Standard rotor 20 mm
Stator 20 mm coarse

 <p>Shaft 5 Includes the Shaft, PTFE bearing, 5 mm stator, 4 mm rotor</p>	 <p>SS30CSR30 Includes the Shaft, PTFE bearing, 30 mm stator, standard rotor SR30</p>
 <p>SS20CSR20 Includes the Shaft, PTFE bearing, 20 mm stator, standard rotor SR20</p>	 <p>SS30FER30 Includes the Shaft, PTFE bearing, 30 mm stator, emulsification rotor ER30</p>
 <p>SS20FER20 Includes the Shaft, PTFE bearing, 20 mm stator, emulsification rotor ER20</p>	 <p>SS40CMR30 Includes the Shaft, PTFE bearing, 40 mm stator, mixing rotor MR30</p>

Composition diagram



Shaft / Order Table

Rotor Name	Function Description	Process Volume	Linear Velocity	Rotor Diameter	Stator Diameter	Min. / Max.	Ultimate Fineness (in microns)	Disinfection Method	Application*
Order No.		[mL]	[m/s]	[mm]	[mm]	Immersion Depth	suspension emulsion		
SS20CSR20(E)	Solid-Liquid Mixing Material	10-5000	23.5	15	20	40/170	10-50	1-10	PCI,PC,SD
SS20CCR20(E)	Fiber Material	10-5000	23.5	15	20	40/170	10-50	1-10	SP,M,F,PT,TI
SS20CMR20(E)	Solid-Liquid Mixing Material	10-5000	23.5	15	20	40/170	10-50	1-10	CI,PI
SS20FER20(E)	Latices	10-5000	23.5	15	20	40/170	10-50	1-10	SP,PI,PT,P
SS20FCR20(E)	Fiber Material	10-5000	23.5	15	20	40/170	10-50	1-10	SP,BT,M,F,PT,TI
SS20FMR20(E)	Solid-Liquid Mixing Material	10-5000	23.5	15	20	40/170	10-50	1-10	CI,C,PI,F,PT,PC
SS30CMR20(E)	Stirring Paddle Function	250-20000	36.1	15	30	40/170	High-speed mixer		CI,F,SP
SS30CSR30(E)	Solid-Liquid Mixing Material	100-8000	36.1	23	30	40/170	5-25	1-5	SP,M,F,PT,P
SS30CCR30(E)	Fiber Material	100-8000	36.1	23	30	40/170	5-25	1-5	SP,M,F,PT,P
SS30CMR30(E)	Solid-Liquid Mixing	100-8000	36.1	23	30	40/170	5-25	1-5	all methods CI,PI
SS30FSR30(E)	Solid-Liquid Mixing Material	100-8000	36.1	23	30	40/170	5-25	1-5	SP,PI,PT,P
SS30FER30(E)	Latices	100-8000	36.1	23	30	40/170	5-25	1-5	SP,PI,PT,P
SS30FCR30(E)	Fiber Material	100-8000	36.1	23	30	40/170	5-25	1-5	SP,PI,PT,P
SS30FMR30(E)	Solid-Liquid Mixing Material	100-8000	36.1	23	30	40/170	5-25	1-5	CI,C,P,F,DT,TI
SS40CMR30(E)	Stirring Paddle	1000-40000	36.1	23	40	40/170	High-speed mixer		CI,F,SP
Shaft 5(E)	Solid-Liquid Mixing Material	0.2-50	6.3	4	5	40/60	10-50	1-10	BT,M
Shaft 10 (E)	Solid-Liquid Mixing Material	1-250	6.3	9	10	10/60	10-50	1-10	BT,M
Shaft 14(E)	Solid-Liquid Mixing Material	100-1000	6.3	13	14	10/60	10-50	1-10	BT,M

Note! BT = Biology; F = Food Industry; P = Pharmaceutical Industry; C = Cosmetic Industry; M = Medical Analysis; PC = Petrochemical Industry; PT = Paper Production Industry; SP = Wastewater Analysis; CI = Ceramic Industry; CH = Chemical Industry; PI = Paint Industry; TI = Tobacco Industry (E)E for D-600Pro

Batch Lab & Pilot Plant Homogenizer

D-1500 / 1800

Batch homogenizer for laboratory and pilot plant applications. A wide selection of dispersing elements ensures versatile applications for efficient emulsification, homogenization, dispersion, and suspension, achieving particle size reduction to the micrometer range.

Features

- > Quick coupling for dispersing shafts
- > TFT display screen with intelligent control
- > Reproducible operations due to constant speed, even with variations in viscosity
- > Accommodate working volumes ranging from approximately 0.1 L to 50 L
- > It offers a high speed range , allowing users to operate at high circumferential speeds even with small rotor diameters



D-1500

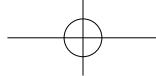
D-1800





Specifications

Model	D-1500	D-1800
Order No.	W3051500	W3051800
Display screen	TFT	TFT
Motor	AC	AC
Speed with Zero-Load [rpm]	500 ~ 30000	500 ~ 26500
For volumes Range [mL]	100 ~ 40,000	100 ~ 40,000
Applicable shafts [mm]	Ø5 ~ Ø36	Ø5 ~ Ø65
Power [W]	1500	1800
Operating temperature [°C]	0 ~ 40	0 ~ 40
Relative humidity [max.]	80% RH	80% RH
IP Code	IP20	IP20
Communicate interface	RS 232/485	RS 232/485
Supply voltage [V]	220 V / 50 ~ 60 Hz	220 V / 50 ~ 60 Hz
Dimensions Excluding dispersing shaft [W x D x H (mm)]	144x173x271	160x209x300



Standard includes homogenizer only. Shaft and stand need to be ordered separately

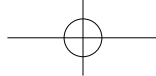


Composite structure of rotor and stator

Picture	Shaft series	Description
	WG Shaft series	<p>Purpose The general shafts with two rows of teeth</p> <p>Applications - For general laboratory applications, and it is reliable and efficient - All standard dispersing, emulsifying and suspending tasks - Dispersing of plant, human or animal tissues, resins in a variety of buffers and volumes - Sample preparation for the extraction and dissolution of organic materials - Mixing, dissolving solids</p>
	WK Shaft series	<p>Purpose - Rotor with knives for pre-cruting lager samples than the rotors diameter</p> <p>Applications - Outside blades pre-crush samples. Subsequently, they can be dispersed inside - Dispersing of samples with larger diameters made simple - Standard dispersing, emulsifying and suspending tasks</p>
	WB Shaft series	<p>Purpose The rotor has a tilted internal angle design for breaking up of hard samples</p> <p>Applications - For open and dispersing of pills, capsules and hard large grains, corns breaking - Hard and brittle material - Standard dispersing, emulsifying and suspending tasks</p>
	WV Shaft series	<p>Purpose - Special design to prevent clogging of the teeth</p> <p>Applications - Dispersing for fibrous / stringy materials, solid samples - Standard dispersing, emulsifying and suspending tasks</p>
	WM Shaft series	<p>Purpose - High-turbulence mixing with low shear forces and energy inputs - Time saving with improved results compared to stirrers and dissolvers of up to 90%</p> <p>Applications - Fast dissolving and suspending of solid particles into liquid - Mixing at higher viscosities - Mixing of shear sensitive samples</p>
	WP Shaft series	<p>Purpose - Dissolver shaft - High-speed dissolver</p> <p>Applications - Efficient mixing - Fast mixing, dissolving - Processing of highly viscous products</p>
	WF Shaft series	<p>Purpose Multiple rows of teeth for more shear</p> <p>Applications - Fine emulsions and suspensions - Mixes and reduces highly intensive solids into fluids - Extractions - Gasses solutions - Separates fibre and cellular material into very small particles</p>

Two types of shaft

Picture	Shaft type	Description
	C Shaft	<p>C (Easy Clean) Design This is all you need for popular applications in the preparation of samples, formulation development and small scale production.</p>
	G Shaft	<p>G (GAS TIGHT) Design GAS TIGHT - Integrated mechanical seals FOR PRESSURE / VACUUM (0-3 bar). For under pressure or vacuum; Preventing air from being added to emulsions; Corrosive acid mixtures.</p>



Shaft information



WD02FG-250WG30C2/1

- WD WIGGENS dispersal shaft
- O2 Quick-coupling shaft
- FG Adapt to disperser models
- 250 Length of shaft / stator tube in mm
- WG Composite Structure of rotor and stator
- 30 Diameter of the stator in mm
- C Types of shaft. C (Easy Clean) Design; G (GAS TIGHT) Design
- 2 Number of teeth rows of rotor and stator
- 1 Subdivision numbers for similar shaft

Order No.	Description	Ø / length (mm)	Volume range (ml)	max. Tip speed (m/s)
WD02FG-250WG30C2/1	WG Shaft	30/250	100-4000	30
WD02FG-250WG36C2/1	WG Shaft	36/250	200-4500	34
WD02FG-250WG40C2/1	WG Shaft	40/250	200-5000	36
WD02FG-250WG45C2/1	WG Shaft	45/250	200-8000	40
WD02FG-250WG50C2/1	WG Shaft	50/250	300-10000	44
WD02FG-250WG60C2/1	WG Shaft	60/250	300-30000	50
WD02FG-250WV30C2/1	WV Shaft	30/250	100-4000	30
WD02FG-250WV36C2/1	WV Shaft	36/250	200-4500	34
WD02FG-250WK30C2/1	WK shaft	30/250	100-4000	30
WD02FG-250WK36C2/1	WK shaft	36/250	200-4500	34
WD02FG-250WK30C2/2	WK shaft (With WV stator)	30/250	100-4000	30
WD02FG-250WK36C2/2	WK shaft (With WV stator)	36/250	200-4500	34
WD02FG-250WB30C2/1	WB shaft	30/250	100-4000	30
WD02FG-250WF30C4/1	WF shaft	30/250	100-4000	30
WD02FG-250WF36C4/1	WF shaft	36/250	200-4500	34
WD02FG-250WM36C2/1	WM shaft	36/250	500-10000	34
WD02FG-250WP30C2/1	WP shaft	30/250	500 - 10000	30
Shafts with gas tight				
WD02FG-273WG30G2/1	WG shaft	30/273	100-4000	30
WD02FG-273WG36G2/1	WG shaft	36/273	200-4500	34
WD02FG-273WF30G4/1	WF shaft	30/273	100-4000	30
WD02FG-273WK30G2/1	WF shaft	30/273	100-4000	30

Dispersing Vessel

WIGGENS vessels with deep baffles simplify the mixing process. The baffles reduce vortex formation at high dispersing speeds by interrupting radial flow and increasing opposing forces, resulting in enhanced turbulence in the liquid.

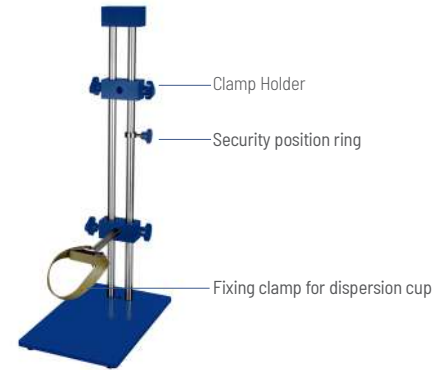


Model	Dim. (mm) Ø / H	Working Vol.	Shape	Material	Features	Order No.
DV500	80 / 200	500 mL	Cloverleaf shaped	Borosilicate glass	Top open without cover	W3050100

Stand

- > Strong base for optimal weight distribution
- > Base made of cast iron and shafts made of stainless steel
- > High quality clamp and fixing set included in the package of stand

Order No.	Description	Suitable for
WF11-D	Extendable flat bracket (double rod design)	D-500 / 600
11045011	Vessel holder (without boss head clamp) for WF11-D	WF11-D, WH11-D
11045030	Safety ring for stand WF	WF11-D, WH11-D



Electric stand

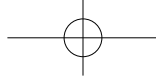
Electric stand with lifting telescopic bar for more ease of use. The controller can directly control the lifting and lowering, and it also supports preset positions for one-touch lift/lower operation.

Model	WF20
Container area [W x D (mm)]	270x260
Height range	454 ~ 734 mm (With the top mounting position) 258 ~ 698 mm (With slide rail mounting position) 160 mm (slide rail adjustable range)
Maximum Load [kg]	15
Dimensions [W x D x H (mm)]	300x475x500 (not include the controller)
Net weight [kg]	10
Power supply	100 ~ 240 VAC, 50 / 60 Hz



Dispersing tests





























No.	Material	Amount	Pregrinded	Liquid	Vessel	Speed	Duration	Result	Test okay? Yes/no	Sample before Dispersing	Sample after Dispersing
1	Rose flower	0.2 g	no	5mL water	10mL Conical Tube	level 4	4 min	homogeneous suspension	yes		
2	Rose flower	0.2 g	no	5mL water	10mL Conical Tube	level 6	3 min	homogeneous suspension	yes		
3	Rose flower	0.1 g	no	5mL water	10mL Conical Tube	level 4	1 min	homogeneous suspension	yes		
4	Rose flower	0.1 g	no	5mL water	10mL Conical Tube	level 4	1 min	homogeneous suspension	yes		
5	Rose stamens	0.05 g	no	1.5mL water	2mL Conical Tube	level 4	1 min	homogeneous suspension	yes		
6	Rose stamens	0.1 g	no	2mL water	10mL Conical Tube	level 4	2 min	homogeneous suspension	yes		

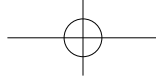


Dispersing tests

No.	Material	Amount	Pregrinded	Liquid	Vessel	Speed	Duration	Result	Remarks	Recommended or not	Sample before Dispersing	Sample after Dispersing
1	Rape oil	20 drops	no	10 mL water	test tube 16 mm	max.	1 min	stable emulsion		yes		
2	Chicken liver	1 g	5 mm pieces	10 mL water	test tube 16 mm	max.	30 s	homogeneous suspension	sample completely homogenized	yes		
3	Rice	1 g	no	10 mL water	test tube 16 mm	max.	1 min	homogeneous suspension	only very small pieces of rice left	yes		
4	Basil leaf	1 piece	5 mm pieces	10 mL water	test tube 16 mm	max.	1 min	homogeneous suspension	only small pieces of leaves left	yes		
5	Spelt flakes	2 g	no	15 mL water	test tube 16 mm	max.	1 min	homogeneous pulp		yes		
6	Cooked ham	2 g	5 mm pieces	50 mL water	150 mL beaker	max.	30 s	homogeneous suspension	only very small pieces of leaves left	yes		
7	Confetti	about 20 pieces	no	10 mL water	test tube 16 mm	max.	1 min	homogeneous cellulose suspension		yes		
8	Wood	1 toothpick	5 mm pieces	10 mL water	test tube 16 mm	max.	1 min	The pick was not grinded	slight abrasion of the wood pieces	no		
9	Tobacco	0.5 cigarettes	no	10 mL water	test tube 16 mm	max.	30 s	homogeneous Pulp	a few fibres stick in the gaps of the stator	yes		
10	Cloves	5 pieces	no	10 mL water	test tube 16 mm	max.	1 min	no grinding effect	no cloves was grinded	no		
11	Mustard seeds	1 g	no	10 mL water	test tube 16 mm	max.	1 min	homogeneous suspension	all seeds were grinded	yes		
12	Herbal tea	0.5 g	no	10 mL water	test tube 16 mm	max.	1 min	homogeneous suspension	the herbal tea was completely Grinded	yes		
13	Sunflower seeds	2 g	no	15 mL water	test tube 16 mm	max.	1,5 min	homogeneous suspension	all seeds were grinded	yes		
14	Dragee	1 piece	no	10 mL water	test tube 16 mm	max.	1 min	homogeneous suspension	the dragee was completely grinded	yes		

Dispersing tests





























No.	Material	Amount	Pregrinded	Liquid	Vessel	Speed	Duration	Result	Remarks	Recommended or not	Sample before Dispersing	Sample after Dispersing
15	Chicken meat	2 g	5 mm pieces	10 mL water	test tube 16 mm	max.	20 s	homogeneous suspension	part of tendons wrapped around the rotor	yes		
16	Ivy	2 leaves	5 mm pieces	10 mL water	test tube 16 mm	max.	2 min	inhomogeneous suspension	20 % of the leaves were not grinded	no		
17	Rose blossom	2 leaves	5 mm pieces	10 mL water	test tube 16 mm	max.	1 min	homogeneous suspension	some fibres stick in the gaps of the stator	yes		
18	Whole grain Bread	2 g	5 mm pieces	15 mL water	test tube 16 mm	max.	30 s	homogeneous suspension		yes		
19	Carrot	2 g	5 mm pieces	10 mL water	test tube 16 mm	max.	2 min	no grinding effect	carrots are too hard	no		
20	Harzer cheese	2 g	5 mm pieces	10 mL water	test tube 16 mm	max.	10 s	homogeneous sample		yes		
21	Rapes with Kernels	5 pieces	5 mm pieces	10 mL water	test tube 16 mm	max.	1 min	homogeneous suspension	only very small pieces of rapes left	yes		
22	Coffee beans	1 piece	quartered	10 mL water	test tube 16 mm	max.	1 min	homogeneous suspension	only very small pieces of coffee left	yes		
23	Soil sample	1 g	no	10 mL water	test tube 16 mm	max.	30 s	homogeneous suspension	only very small pieces of stones left	yes		
24	Pork meat (fat and sinewy)	1 g	5 mm pieces	10 mL water	test tube 16 mm	max.	1 min	homogeneous suspension	part of tendons wrapped around the rotor	yes		
25	Pet food	1 g	5 mm pieces	10 mL water	test tube 16 mm	max.	30 s	homogeneous suspension	part of tendons wrapped around the rotor	yes		
26	Styrofoam	0.5 cm ³	5 mm pieces	10 mL water	test tube 16 mm	max.	1 min	no grinding effect		no		
27	Berries mix	2 g	no	10 mL water	test tube 16 mm	max.	30 s	homogeneous suspension	all berries are grinded	yes		
28	Tomatoes	15 g	10 mm pieces	without	50 mL beaker	max.	2 min	homogeneous tomato pulp	parts of the bowl are not grinded	yes		



Dispersing tests D-500 / D-500Pro / D-600

No.	Material	Amount	Pregrinded	Liquid	Vessel	Speed	Duration	Result	Remarks	Recommended or not	Sample before Dispersing	Sample after Dispersing
1	Rape oil	5 mL	no	80 mL water	100mL measuring cylinder	max.	1 min	stable emulsion		yes		
2	Liver	20 g	10 mm pieces	200 mL water	500 mL beaker	max.	30 s	homogeneous suspension	sample completely homogenized	yes		
3	Rice	20 g	no	80 mL water	100mL measuring cylinder	max.	1 min	homogeneous suspension	only small pieces of rice left	yes		
4	Basil leaf	10 pieces	10 mm pieces	200 mL water	500 mL beaker	max.	1 min	homogeneous suspension	only small pieces of leaves left	yes		
5	Spelt flakes	25 g	no	80 mL water	100mL measuring cylinder	max.	1 min	homogeneous Pulp		yes		
6	Cooked ham	20 g	1 cm pieces	200 mL water	500 mL beaker	max.	30 s	homogeneous suspension	only very small pieces of fibres left	yes		
7	Confetti	about 200 pieces	no	70 mL water	100mL measuring cylinder	max.	1 min	homogeneous cellulose suspension	a very small part stick between the rotor and the stator	yes		
8	Wood	5 toothpicks	1 cm pieces	200 mL water	500 mL beaker	max.	1 min	about 60 % of the picks were grinded	some psrts of the Picks are not grinded and stick	yes		
9	Tobacco	1 cigarette	no	150 mL water	250 mL beaker	max.	1 min	bad homogenizing Most of the tobacco floats ungrinded on the surface	a few fibres stick in the gaps between the rotor and the stator	no		
10	Cloves	30 pieces	no	200 mL water	500 mL beaker	max.	1 min	homogeneous suspension	all cloves were grinded	yes		
11	Mustard seeds	10 g	no	150 mL water	500 mL beaker	max.	1 min	homogeneous suspension	all seeds were grinded	yes		
12	Herbal tea	2 g	no	500 mL water	2 l beaker	max.	1 min	homogeneous suspension	the herbal tea was completely Grinded	yes		
13	Sunflower seeds	20 g	no	150 mL water	500 mL beaker	max.	1 min	homogeneous suspension	all seeds were grinded	yes		
14	Dragees	5 pieces	no	60 mL water	100mL measuring cylinder	max.	1 min	homogeneous suspension	the dragee was completely grinded	yes		

Dispersing tests D-500 / D-500Pro / D-600

No.	Material	Amount	Pregrinded	Liquid	Vessel	Speed	Duration	Result	Remarks	Recommended or not	Sample before Dispersing	Sample after Dispersing
15	Chicken meat	10 g	10 mm pieces	200 mL water	500 mL beaker	max.	20 s	homogeneous suspension	part of tendons wrapped around the rotor	yes		
16	Ivy	10 leaves	10 mm pieces	200 mL water	500 mL beaker	max.	2 min	homogeneous suspension	only very small pieces of leaves left	yes		
17	Rose blossom	10 leaves	10 mm pieces	200 mL water	500 mL beaker	max.	2 min	homogeneous suspension	only very small pieces of leaves left	yes		
18	Whole grain Bread	20 g	10 mm pieces	200 mL water	500 mL beaker	max.	2 min	homogeneous suspension	the vessel must be moved	yes		
19	Carrot	10 g	10 mm pieces	200 mL water	500 mL beaker	max.	2 min	homogeneous suspension	the vessel must be moved	yes		
20	Harzer cheese	20 g	10 mm pieces	200 mL water	500 mL beaker	max.	20 s	homogeneous suspension	the vessel must be moved	yes		
21	Rapes with Kernels	5 pieces	10 mm pieces	200 mL water	500 mL beaker	max.	1 min	homogeneous suspension	only very small pieces of rapes left	yes		
22	Coffee beans	10 pieces	no	60 mL water	100 mL measuring cylinder	max.	1 min	homogeneous suspension	only very small pieces of coffee left	yes		
23	Soil sample	20 g	no	200 mL water	500 mL beaker	max.	1 min	homogeneous suspension	only very small pieces of stones left	yes		
24	Pork meat (fat and sinewy)	10 g	10 mm pieces	200 mL water	500 mL beaker	max.	1 min	homogeneous suspension	part of tendons wrapped around the rotor	yes		
25	Pet food	20 g	10 mm pieces	200 mL water	500 mL beaker	max.	30 s	homogeneous suspension	part of tendons wrapped around the rotor	yes		
26	Styrofoam	2 cm ³	10 mm pieces	200 mL water	500 mL beaker	max.	1 min	no grinding effect		no		
27	Berries mix	20 g	no	200 mL water	500 mL beaker	max.	30 s	homogeneous suspension	all berries were grinded	yes		
28	Tomatoes	50 g	10 mm pieces	without	250 mL beaker	max.	2 min	homogeneous tomato pulp	the vessel must be moved	yes		

Flapping Homogenizer

From sample collection to microbiological analysis

WIGGENS provides a complete solution



1

Collecting the sample

Place the sample in sterile filter bag. The bag stands upright.



2

Diluting the sample

Add the right amount of diluent into the sterile bag



3

Homogenizing the sample

The sample is homogenized with the Flapping Homogenizer. There is no contact between the sample and the machine to avoid cross-contamination.



5

Pipetting the filtered sample

Preparation of diluted inoculation fluid (gradient) with precision pipetting device from Socorex.



4

Organizing the samples

It is easy to absorb and transfer because the filter bag integrates the filtering effect



6

Preparing your media

Preparation and subpackage of medium with peristaltic pump from WIGGENS



7

Plating

Diluting coating method

Please choose Petri dish automatic turntable from WIGGENS



Flat plate crossed inoculation

Please choose automatic sterilization device from WIGGENS for automatic sterilization of inoculation rings



8

Counting the colonies

It is very fast for counting when using the colony counter from WIGGENS



Flapping Homogenizer (Stomacher)

HG400VW / HG400 Pro

The Flapping Homogenizer, also known as the Sterile Homogenizer, for simple and effective sample preparation. The original samples and diluents are placed into a sterile bag, which is then inserted into the homogenizer. The paddles flap rapidly, using pressure, shaking, and vibration to achieve a homogenized state.

Application:

- > Food microbiological analysis
- > Homogenization of animal tissues, biological samples, and cosmetics
- > Homogenization of meats, fish, vegetables, and fruits
- > Pharmaceuticals, clinical specimens, molecular analysis, and toxin and bacterial detection



Features

- > Samples in sterilization bags are homogenized by paddles, effectively reducing the risk of cross-contamination
- > Effective bacterial extraction without cell destruction
- > Advanced microprocessor technology for precise flap control
- > Adjustable flapping speed for optimal results
- > Continuous or pre-set working time options
- > Maintenance-free brushless DC motor.
- > Stainless steel housing with plastic coating for HG400VW or full stainless steel for HG400Pro
- > Digital settings and displays for working time
- > Digital and analog interfaces for remote control

HG400 Pro

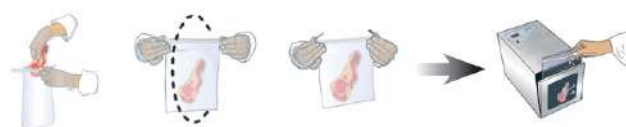
- > Parallel impact plates balance shear strength and gentle processing
- > Tight closures ensure a secure bag seal
- > Quick removal and installation of paddles allow for easy cleaning of the chamber.
- > The illumination unit enables clear observation of the entire process



HG400 Pro

- > Useful volume (50-400 mL)
- > Variable speed (1-10 strokes/s)
- > Variable blending time (1 s-59 min 59 s)
- > Paralleled paddles stop
- > Safety drip tray
- > Adjustable blending power

Sterile bag for sampling and samples homogenization.



Easy transportation of the sample

Specifications

Mode	HG400VW	HG400 Pro
Order No.	W3050210	W3050200
Door	SS-Door with Observation Window	SS-Door with Observation Window
Blending volume [mL]	50 ~ 400	50 ~ 400
Speed	10 ~ 300 (rpm)	1 ~ 10strokes/s
Variable blending time	1 min to 24h	1 second to 59min 59s
IP code	IP30	IP30
Exterior dimensions [W x D x H (mm)]	251x454x270	304x420x295
Interior dimensions [W x D x H (mm)]	190x100x220	190x100x220
Sound pressure level [dB]	≤ 50	≤ 50
Weight [kg]	16	16
Power	100 ~ 240V / 50 ~ 60 Hz	100 ~ 240V / 50 ~ 60 Hz

Standard includes homogenizer only. Stomacher bag need to be ordered separately.

Accessories for flapping homogenizer

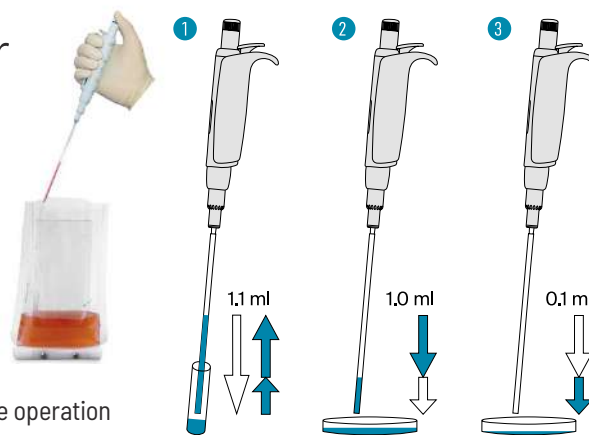
Dilution pipette Acura® manual 810

The air displacement pipette features two pre-calibrated settings for pipetting 1 mL and 0.1 mL of the same liquid. Its metal nozzle is compatible with long straw tips, enabling efficient aspiration from narrow or deep containers, such as Stomacher® bags. This pipette serves as an ideal alternative to graduated glass pipettes for performing serial 1:10 dilutions in bacteriology.

Features

- > Two pre-calibrated fixed volumes – no setting required
- > Smooth activation with ergonomic design
- > Interchangeable nozzle filter for protection
- > Justip™ system – adjustable tip ejector height
- > Independent calibration per volume

Easy to maintain, clean, and disinfect
Fully autoclavable at 121 °C / 250 °F

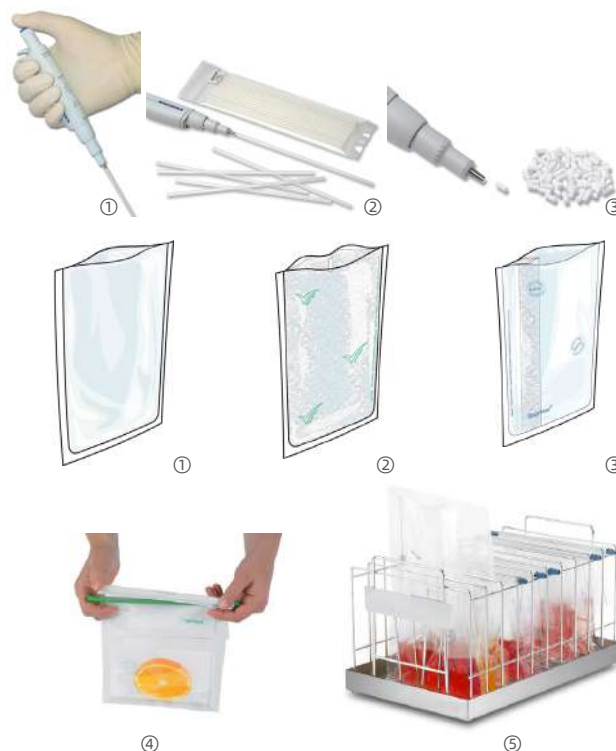


Simple operation

1. Depress plunger button in full, then release slowly to aspirate 1.1 mL
2. Depress plunger button to first stop, thus dispensing 1 mL in Petri dish
3. Depress plunger button to second stop, thus dispensing residual 0.1 mL in next Petri dish

Pipette order information

Order No.	Packaging	Description
810.1100	1 / pk	1 mL / 0.1 mL ①
313.1119.40	40x25 / pk	Straw tips, polypropylene, sterilized (L-190 mm, Ø-4 mm) ②
322.810	100 / pk	Nozzle protection filter, PE material ③



Stomacher bag order information

Order No.	Name	Capacity	Content
2125C25	Standard bag	400 mL	25 pcs ①
2150C25	Standard bag	400 mL	50 pcs ①
4125C15	Full-page filter bag	400 mL	25 pcs ②
6125C15	Lateral filter bag	400 mL	25 pcs ③
SMCLIP	Clip for sterilization bags		④
9125R15	Rack for sterilization bags		10 Position ⑤

Laboratory Mill

WMF 10

In some analyses or quality control experiments, finely ground samples are required. WIGGENS Laboratory mill is easy to change grinding attachments and sieves extend the range of any samples that can be processed. Excellent crushing performance is guaranteed by a combination of variable rotational speeds ranging from 50 rpm to 6 000 rpm.

The Laboratory Mill is designed for preparing finely ground samples essential for various analytical and quality control applications. Interchangeable grinding attachments and sieves expand the range of samples that can be processed, with rotational speeds adjustable from 50 rpm to 6,000 rpm. This laboratory mill features a robust design with solid milled parts and hardened components, making it suitable for high wear applications such as grinding stones with a hardness of up to 6 on the Mohs scale.

Features

- > Dust-protected main safety switch for enhanced safety
- > Hinged lid funnel prevents dust splashing
- > Continuous sample refilling during operation
- > Safety lock ensures the mill starts only with the grind chamber door closed
- > Quickly changeable grinding attachments for versatility
- > Automatic motor stop when the grind chamber is opened
- > Streamlined cleaning process for easy maintenance

APPLICATION RANGES

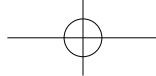
- > Grinding of solids for general sample preparation
- > Grinding samples for dry analysis or analysis in liquids
- > Sample preparation in content analysis and preparation for QC



Technical information

Model	WMF10
Operating principle	Cutting / Impact
Speed range [rpm]	50 to 6000
Feed hardness	6 Mohs (MF 10.2)
Funnel volume [mL]	300
Product discharge	For collection tubes with norm grinding NS29
Sieves mesh size [mm]	0.2 to 6
Grinding attachments (convertible)	Hammer grinding attachment Blade grinding attachment
Motor	Wear-free three-phase motor; Gearless direct drive; Security system auto-off
Drive power [W]	1000
Results are crucial	Attainable particle sizes, < 40µm (depending on product)
Sound level (without load) [70 dB(A)]	70 for 6000 rpm
Supply voltage	100 ~ 230 V ± 10 %, 50Hz / 60Hz
Maximum relative humidity	80 % in storage; 80 % during operation
Operating temperature [°C]	0 ~ 40
Protection class according to DIN	IP 20
Overall dimensions [W x D x H (mm)]	325x251x480
Weight [kg]	13
Order no.	W3050410 Hammer-grinding (WMF-10S) W3050420 Blade-grinding (WMF-10C)

Standard includes the mill, Intercepting tubes (3508004), Rack for tubes (3508003), disassemble tools, brush. Grinding and sieve attachments need to be ordered separately.



Accessories

Grinding attachments

Order No.	Product	Description
W3050411	Hammer grinding attachment	Ideal for processing of dried, brittle and fat-free materials, such as Dried grains, oats, malt, pectin, raw and roasted coffee beans, dry beans, fish skeletons, nut shells, bones, pebbles, rock, amber, ceramics, etc. Consists of 3-armed rotor and grooved stator / tool included.
W3050421	Blade grinding attachment	Ideal for processing of dry, stringy, fibrous and fat-free materials such as Wood, bark, roots, leaves, straw, corks, dried fruit, dried fat-free meat, fish fins, fish bones, feathers, leather, leather skin, wool, cotton, linen, paper, coals, turf, grass, dried resins, synthetic materials, fiber glass, plastic pellets, various textiles, felt, etc. Consists of 3-armed rotor with cutting knives and stator with 3 cutting bars / tool included.



W3050411



W3050421

Grinding attachments

Order No.	Product	Description
W3050402	Sieve 0.2	Hole diameter 0.2 mm
W3050405	Sieve 0.5	Hole diameter 0.5 mm
W3050408	Sieve 0.8	Hole diameter 0.8 mm
W3050409	Sieve 1.0	Hole diameter 1.0 mm
W3050415	Sieve 1.5	Hole diameter 1.5 mm
W3050419	Sieve 2.0	Hole diameter 2.0 mm
W3050430	Sieve 3.0	Hole diameter 3.0 mm
W3050440	Sieve 4.0	Hole diameter 4.0 mm
W3050450	Sieve 5.0	Hole diameter 5.0 mm
W3050460	Sieve 6.0	Hole diameter 6.0 mm



Depending on the sample, finer results can be achieved by grinding with two or more sieves with progressively smaller
Each mill includes a 2.0 mm sieve attachment
Particle diameter (The approximate attainable particle size is one-fifth of the sieve diameter)
Example (For a 0.2 mm sieve, the achievable particle size is 0.04 mm (40 µm))

Stodger

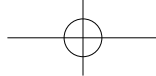
Order No.	Product	Description
W3050401	Stodger	For active insertion of fibrous materials, which do not reach the grinding chamber due to their weight.



Other accessories

Order No.	Product	Description
W3050404	Intercepting tubes	12 intercepting tubes
W3050406	Rack for tubes	Rack with a drawer for 12 intercepting tubes





Shaker

- Orbital Shaker
- Shaker for CO₂ Incubator
- Rocking Shaker
- Waving Shaker
- Microplate Shaker
- Heating Shaker
- Vortex Shaker
- Digital Pulse Mixer
- Separatory Funnel Shaker



Orbital Shaker

WS-50D / WS-50DR

Commonly used for bacterial cultures, fermentation, hybridization, biochemical reactions, and enzyme or tissue research. The special and economical models provide optimal shaking motion with two types of movement, orbital or reciprocal. Three varieties of shaking throws are available. The compact, interchangeable platform design accommodates various vessel types and sizes and can also be used inside the chamber.

Features

- > Corrosion-resistant power-coated stainless steel housing
- > Easy to clean and maintain
- > Suitable for various vessels (round flasks, Erlenmeyer flasks, culture flasks, and culture bottles)
- > Wide range of accessories available



Model	WS-50D	WS-50DR
Motion Type	Orbital	Reciprocal
Speed Range [rpm]	10 to 300	10 to 250
Accuracy [rpm]	±2 (100 rpm)	±2 (100 rpm)
Timer	1min to 99 hrs 59 min	1min to 99 hrs 59 min
Shaking Throw	8 / 14 / 20 Available - Standard 20	8 / 14 / 20 Available - Standard 20
Maximum Load [kg]	7	7
IP code	IP21	IP21
Power [W]	80	80
Platform dimensions [W x D (mm)]	320x260	320x260
Overall dimensions [W x D x H (mm)]	360x368x158	360x368x158
Weight [kg]	20	20
Order No.	3A126C	3A226C



Orbital



Reciprocal

Standard includes shaker only. Trays and clamps need to be ordered separately.

Dual-Action Shakers

Benchtop platform shakers with advanced dual-shaking features. The orbital and reciprocal action, along with variable-speed control, provides gentle to vigorous agitation. User-friendly operating and safety features ensure reliable shaking of laboratory glassware.



Multi-function Shaking System

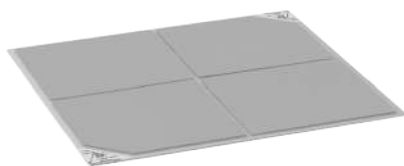


Specifications

Model	WS-100D	WS-150D	WS-200D
Display and Control	TFT Digital Display / On-Touch Control	TFT Digital Display / On-Touch Control	TFT Digital Display / On-Touch Control
Motion Type	Orbital or reciprocal motion selectable	Orbital or reciprocal motion selectable	Orbital or reciprocal motion selectable
Accuracy [rpm]	±1 (100 rpm)	±1 (100 rpm)	±1 (100 rpm)
Speed Range [rpm]	10 ~ 300	10 ~ 300	10 ~ 300
Shaking Throw [mm]	20, 30, 40 Available - Standard 30	20, 30, 40 Available - Standard 30	30, 40, 50, 60, 70 Available - Standard 30
Timer	1min to 99 hrs 59 min		
Maximum Load [kg]	7	15	30
IP code	IP21	IP21	IP21
Power [W]	100	110	130
Platform [W x D (mm)]	350x350	450x450	755x481
Overall [W x D x H (mm)]	418x505x170	518x610x171	826x602x171
Weight [kg]	24	29	50
Order No.	200200C	200300C	200400C

Standard includes shaker only. Trays and clamps need to be ordered separately.

Accessories for Shaker



Sticky Tray

The Wiggins Sticky tray can be loaded with any kind of vessels with a smooth base. Even at a speed of up to 220 rpm the vessel sticks to the plate. Other vessels, like microtitre plates can be shaken on the Wiggins Sticky Plate as well.

Suitable for	WS-50D/50DR	WS-100D	WS-150D	WS-200D
Order No.	3A901	31901	31902	31903
Dimensions [W x D (mm)]	320x260	350x350	450x450	755x481
Sticky (single piece) (need 4 pieces for replacement on the tray)	3A901-1	31901-1	31902-1	31903-1
Tray (Without sticky pieces)	3A901-2	31901-2	31902-2	31903-2



Multi-Purpose Spring Tray

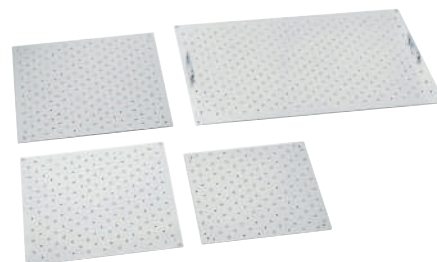
The multi-purpose tray is made of stainless steel and can be used for a diverse range of unusual specifications.

Suitable for	WS-50D/50DR	WS-100D	WS-150D	WS-200D
Order No.	3A521	31521	31522	31523-W
Dimensions [W x D x H (mm)]	320x260x120	350x350x120	450x450x120	754x478x97
Max. Load of Flasks				
50 mL	12	16	25	40
100 mL	6	9	16	28
250 mL	3	4	9	15
300 mL	3	4	9	15
500 mL	3	4	5	10
1 L	2	2	4	8
2 L	-	1	2	4
2.8 L	-	1	2	4



Adjustable Bar Tray

Suitable for	WS-50D/50DR	WS-100D	WS-150D	WS-200D
Order No.	3A511	31511	31512	31513
Dimensions [W x D x H (mm)]	320x260x97	350x350x97	450x450x97	754x478x97
Number of bar	3	3	3	6
Order No. of bar	3A511-05	31511-05	31512-05	31513-05



Universal Tray

The Universal Trays have a drilled grid for individual loadings of test tube holders with clamps, molds for microtitre plates, and deep-well plates.

Suitable for	WS-50D/50DR	WS-100D	WS-150D	WS-200D
Order No.	3A501	31501	31502	31503
Dimensions [W x D (mm)]	320x260	350x350	450x450	755x481
Max. Load of Flask Clamps				
50 mL	20	32	49	96
100 mL	9	25	36	65
250 mL	9	13	25	40
300 mL	6	13	25	40
500 mL	4	9	13	24
1 L	2	4	8	12
2 L	1	2	5	11
4 L	-	2	2	4
Max. Load of Separatory Funnel Clamps				
250 mL	4	4	6	11
500 mL	3	3	4	9
1 L	2	2	3	5
2 L	-	1	2	4



Erlenmeyer flask clamp

Size of flask	Order No.
25 mL	23549
50 mL	23550
100 mL	23551
250 mL	23552
300 mL	23556
500 mL	23553
1000 mL	23554
2000 mL	23555
3000 mL	23560
4000 mL	23558
5000 mL	23561
6000 mL	23559

Separatory Funnel Clamp

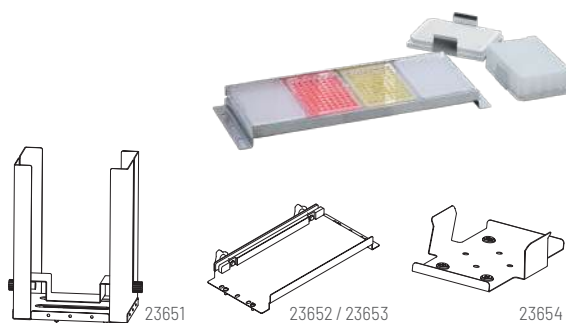


Funnel Volumes	250ml	500ml	1L	2L
Order No.	23562	23563	23564	23565
Dimensions [W x D x H (mm)]	152x60	165x70	230x80	255x90

Multi-Pore Holder

The Wiggins multi-pore holders can be installed on the Wiggins sticky plates or the Wiggins universal trays. All holders can be installed on small pores and deeper holes in total, four different multi-pore holders are available:

1. Multi-Layer Holder
2. Single-Layer Single-Position Holder
3. Single-Layer Three-Position Holder
4. Single-Layer Four-Position Holder



Max. No. of Mountable Holders	Multi-Layer	Four-Position	Three-Position	Single-Position
Order No.	23651	23652	23653	23654
Dimensions [W x D x H (mm)]	131x91x181	380x161x48	300x161x48	129x89x31
Max. mountable holders				
WS-50D/50DR	4	-	1	6
WS-100D	6	-	2	8
WS-150D	10	2	3	15
WS-200D	16	3	5	25



Rubber Mat

Designed for low-speed applications, non-skid rubber mats allow quick addition or removal of flasks, plates or tubes.

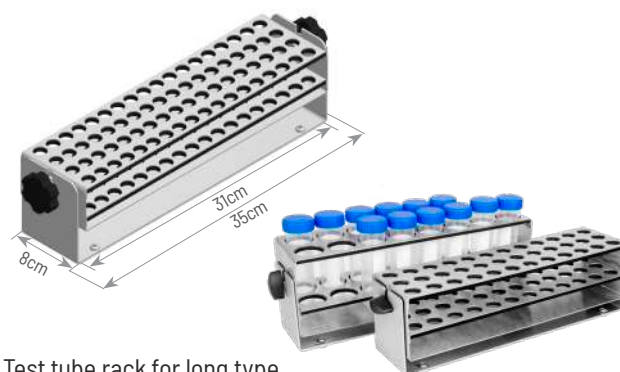
Suitable for	WS-50D/50DR	WS-100D	WS-150D	WS-200D
Order No.	3A531	31531	31532	31533
Dimensions [W x D x H (mm)]	350x290x23	352x352x23	450x450x23	775x478x90

Plastic clamps for Erlenmeyer flask

Order No.	Description	Order No.	Description
31285	100 mL	31287	500 mL
31286	250 mL		

Stainless steel clamps for Fernbach flask

Order No.	Description	Order No.	Description
31283	1.8 L	31284	2.8 L



Test tube rack for long type

Order No.	Description	Order No.	Description
31342	144 x Ø8 mm	31356	39 x Ø18 mm
31343	100 x Ø10 mm	31358	36 x Ø20 mm
31347	72 x Ø12 mm	31359	33 x Ø22 mm
31352	64 x Ø14 mm	31360	20 x Ø25 mm
31354	36 x Ø16 mm	31361	16 x Ø30 mm

Test tube rack for short type

Order No.	Description
31348	72 x Ø12 mm
31353	64 x Ø14 mm
31357	39 x Ø18 mm (Suitable for Greiner Bio-one tube)

Rack for plastic test tube

Order No.	Description
31355	36x Ø16 mm (15 mL)
31362	16x Ø30 mm (50 mL)

187mm test tube rack for short type

Order No.	Description	Order No.	Description
31344	44 x Ø12 mm	31349	21 x Ø20 mm
31346	24 x Ø18 mm		

Shaker for CO₂ Incubator

SRC / CRC / MRC

This compact shaker offers benefits such as a small footprint and easy mobility. The non-belt magnetic drive ensures low noise and low vibration. Despite its compact size, it delivers powerful shaking and has a spacious platform for various vessels.



Celshak[®]



Specification

Model	SRC	CRC	MRC
Motion	Orbital		
Control	Microprocessor Digital		
Motor	Plate BLDC motor		
Drive System	Direct Magnetic Drive		
Display	LED display		
Speed Range[rpm]	30 ~ 300	30 ~ 300	30 ~ 300
Accuracy[rpm]	±1	±1	±1
Shaking Throw[mm]	25 / 50	25 / 50	25 / 50
Time Range	Continuous or up to 99 hours 59min		
Time Increment	1min		
Shaker size [W x D x H (mm)]	302x357x99	496x414x120	519x465x132
Weight [(25 / 50 mm) kg]	7.5 / 11.5	20 / 20	25 / 25
Tray Size[W x D (mm)]	300x330	440x370	455x455
IP code	IP21	IP21	IP21
Control box Size [W x D x H (mm)]	162x100x30 / 0.5		
Power	100 ~ 240 V 50 / 60 HZ		
Load Capacity	100 mL x 16	100 mL x 23	100 mL x 36
	250 mL x 9	250 mL x 10	250 mL x 23
	500 mL x 5	500 mL x 6	500 mL x 16
	1000 mL x 4	1000 mL x 5	1000 mL x 9
Order No. (25 mm)	W6100100	W6100200	W6100300
	Order No. (50 mm)	W6100150	W6100250

Standard includes shaker only. The tray need to be ordered separately.

Features

Gentle magnetic drive

The non-belt magnetic drive design allows for high water resistance performance. This gentle drive unit features exceptionally smooth start-up and braking behavior, making it particularly suitable for cell cultures.

Made of stainless steel

The entire housing of the shaker is made of stainless steel (SUS304), meeting GMP cleaning requirements. It allows for easy removal of unwanted liquids and can be cleaned with chemicals.

No gas leaks

The thin wire cable connection between the shaker and the control box can pass through the sealed section of the inner glass door, even in the absence of an access port in the incubator.

Placing remote controller with Magnet

Depending on the material type of the incubator or the situation of the lab, placing remote controller is available with integrated magnets.

Accessories

Order No.	Name
Suitable for SRC	
W6100101	Sticky Tray
W6100102	Universal Tray
W6100103	Multi-Purpose Tray
W6100104	Microplate Rack
Suitable for CRC	
W6100201	Sticky Tray
W6100202	Universal Tray
W6100203	Multi-Purpose Tray
W6100204	Microplate Rack
Suitable for MRC	
W6100301	Sticky Tray
W6100302	Universal Tray
W6100303	Multi-Purpose Tray
W6100304	Microplate Rack



Sticky Plate



Universal Tray



Multi-Purpose Tray



Microplate Rack

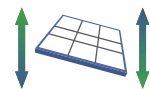
Rocking Shaker

WS-350R

WIGGENS Rocking Shaker is meticulously engineered for diverse laboratory applications. Such as mixing blood samples, DNA extractions, blotting techniques, staining and destaining gels, hybridizations. WS-350R model features a controlled seesaw motion, while other models provide a smooth, low-foaming 3D wave motion.

Features

- > Bright TFT display with a resolution of 1 rpm
- > Smooth start function to prevent sample spillage
- > BLDC motor ensures low noise levels and high durability
- > In the event of an overload, an overload indicator is activated, triggering an alarm and stop running



Specifications

Model		WS-350R
Shaking System	Speed range [rpm]	5 ~ 100
	Speed control type	Feedback Control
	Tilt Angle	Easy adjustable from 7° to 13°
	Timer	1 min to 99 h 59 min, Count-down time
Safety device	Over current protection	
Max. Load including attachment [kg]	5	
Motor type	BLDC motor	
Control panel	TFT, Delete touch keys and the control knob	
Dimensions	Overall Dimensions [W x D x H (mm)]	275x345x171
	Tray dimensions [W x D (mm)]	276x276
	Net Weight [kg]	6.9
Materials	PP, PET, Powder coated steel (Housing)	
IP code	IP21	
Electrical requirement	100 ~ 240 VAC, 50 / 60 Hz	
Order No.	W5011001	

Standard includes shaker and tray with dimpled mat (Order No.W5011102)

Accessories

Order No.	Part	Description
W5011101	Removable tray	Included tray, black rubber mate and universal harness (6ea)
W5011102	Removable tray (Standard)	Included tray, white rubber mat and universal harness (6ea)
W5011201	Tray	Tray only
W5011202	Rubber mat	Rubber mat
W5011203	Dimpled mat	Dimpled mat
W5011204	Universal harness, 6ea	Universal harness, 6ea



W5011101



W5011102

Waving Shaker

WS-350W

WIGGENS Rocking Shaker is meticulously engineered for diverse laboratory applications. Such as mixing blood samples, DNA extractions, blotting techniques, staining and destaining gels, hybridizations. WS-350W model features a controlled orbital motion, while other models provide a smooth, low-foaming 3D wave motion.

Features

- > Bright TFT display with a resolution of 1 rpm
- > Smooth start function to prevent sample spillage
- > BLDC motor ensures low noise levels and high durability
- > In the event of an overload, an overload indicator is activated, triggering an alarm and stop running



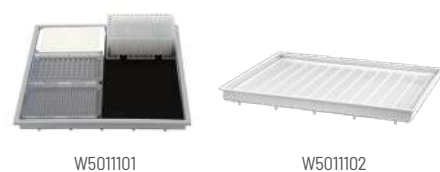
Specifications

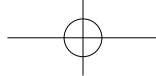
Model	WS-350W	
Shaking System	Speed range [rpm]	8 ~ 100
	Speed control type	Feedback Control
	Tilt Angle	Easy adjustable from 0° to 13°
	Timer	1 min to 99 h 59 min, Count-down time
Safety device	Over current protection	
Max. Load including attachment [kg]	5	
Motor type	BLDC motor	
Control panel	TFT, Delete touch keys and the control knob	
Dimensions	Overall Dimensions [W x D x H (mm)]	275x359x161
	Tray dimensions [W x D (mm)]	276x276
	Net Weight [kg]	7.3
Materials	PP, PET, Powder coated steel (Housing)	
IP code	IP21	
Electrical requirement	100 ~ 240 VAC, 50 / 60 Hz	
Order No.	W5011002	

Standard includes shaker and tray with dimpled mat (Order No.W5011002)

Accessories

Order No.	Part	Description
W501101	Removable tray	Included tray, black rubber mate and universal harness (6ea)
W501102	Removable tray (Standard)	Included tray, white rubber mat and universal harness (6ea)
W5011201	Tray	Tray only
W5011202	Rubber mat	Rubber mat
W5011203	Dimpled mat	Dimpled mat
W5011204	Universal harness, 6ea	Universal harness, 6ea





Microplate Shaker

WS-350P

Suitable for microplates, micro-tubes, and conical tubes. Microplate shaker is powered by a brushless DC motor. It is primarily used for mixing operations involving enzyme-linked plates (96-well and 384-well plates), cell culture plates (24-well, 48-well, and 96-well plates), micro-tubes, and conical tubes. Applications include immunoassays, staining, and various other laboratory experiments. The compact design ensures simple and convenient operation, while providing safety, stability, and low noise levels.



Features

- > Bright TFT display with a resolution of 1 rpm
- > Smooth start function to prevent sample spillage
- > Compatible with 1.5 mL micro-tubes and 15 mL and 50 mL conical tubes
- > BLDC motor ensures low noise levels and high durability
- > In the event of an overload, an overload indicator is activated, triggering an alarm and stop running

Specifications

Model		WS-350P
Shaking System	Speed range [rpm]	150 ~ 1,200 (No-load running)*
	Speed control type	Feedback Control
	Orbital diameter [mm]	3
	Timer	1 min to 99 h 59 min, Count-down time
Safety device	Over current protection	
Max. Load including attachment [kg]	4	
Motor type	BLDC motor	
Control panel	TFT, Delete touch keys and the control knob	
Dimensions	Overall Dimensions [W x D x H (mm)]	267x345x120
	Tray dimensions [W x D (mm)]	267x183
	Net Weight [kg]	10.3
Materials	PP, PET, Powder coated steel (Housing)	
IP code	IP21	
Electrical requirement	100 ~ 240 VAC, 50 / 60 Hz	
Order No.	W5011003	

* Maximum speed at full load is 600 rpm

Standard includes the shaker and tray for 4 SBS micro-plates with skirt.

Accessories

Order No.	Part	Description
W5011301	Tube rack	1.5 mL Tube rack
W5011302	Tube rack	15 mL Tube rack
W5011303	Tube rack	50 mL Tube rack



1.5mL Tube rack



15mL Tube rack



50mL Tube rack

Rotator

WT-350R

Variable speed adjustment allows for mixing from gentle sloshing to rapid agitation. Powered by a continuously operating motor, the device is built to withstand demanding schedules and extended hours of use. Suitable applications include immunoprecipitation reactions, prevention of clotting, latex diagnostics, tissue culture specimens, blood cell suspensions, sediment washing, tablet disintegration, extraction, slow-dissolving samples, homogenization of blood solids in plasma, and rotation of airtight containers for dialysis bags.

Features

- > Compact design with flexible configuration options
- > Compatible with a variety of glass containers ranging from 1.5 to 300 mL
- > Variable speed motor enhances the mixing process, making it faster, safer, and more thorough
- > Stepper motor ensures durability and smooth operation
- > Interchangeable tray suitable for most rotating processes
- > Replaceable tray design allows for customization to accommodate specific applications
- > Motors and controls are designed for use in fume hoods and incubators

Specifications

Model	WT-350R
Order No.	W5013350
Speed range [rpm]	2 ~ 70
Adjustable tilt angle	0 ~ 90°, the tray can be adjusted from horizontal to vertical rotation
Display	VFD comfort display
Max. load [kg]	4
Timer	1 minute to 99 hours and 59 minutes
Overall dimensions [W x D x H (mm)]	248x348x353 (without tray)
Weight [kg]	7.5
Power supply	100 ~ 240 V, 50 / 60 Hz

Please note that the trays and clamps needs to be ordered separately



Easy to adjust the rotation angle



Easy to stack and replace the tray

Accessories

Stack adapter

with this adapter, two tube trays can be stacked together



Order No.	Description
W5013006	Stack adapter, with this adapter, two tube trays can be stacked together



Tube tray and stack adapter

This aluminum tray is equipped with spring clamps to hold test tubes for procedures such as blood agitation, isotopic competitive protein-binding assays, and similar operations. A clutch mechanism allows the rotation head to be stopped, enabling tubes to be inserted and removed without turning off the motor. The clamps are designed to accept tubes inserted radially from the side rather than from the top. All clamps are adjustable.



Order No.	Description	Max. load
W5013001	Base tube tray with tube clamps for 1.5 mL / Ø10 mm tube	60
W5013002	Base tube tray with tube clamps for 5 mL / Ø12 mm tube	18
W5013003	Base tube tray with tube clamps for 15 mL / Ø16.5 mm tube	18
W5013004	Base tube tray with tube clamps for 50 mL / Ø29 mm tube	12

Customized tube tray is also possible

Base tray and spring clamps for Erlenmeyer flasks

This unit is designed for simultaneous rotation of multiple Erlenmeyer flasks. It features a simple yet durable construction. The tray is pre-drilled with multiple threaded holes, allowing different spring clamps to be securely mounted to accommodate various container sizes. Please note that the spring clamps must be ordered separately



Order No.	Description	Max. load
W5013010	Base tray for assembling spring clamps on a mix and match basis	/
W5013011	Spring clamp for 50 mL flasks, stainless steel	13
W5013012	Spring clamp for 100 mL flasks, stainless steel	8
W5013013	Spring clamp for 300 mL flasks, stainless steel	6
W5013014	Spring clamp for 50 mL flasks, plastic	13
W5013015	Spring clamp for 100 mL flasks, plastic	8
W5013016	Spring clamp for 300 mL flasks, plastic	6

Heating Shaker

WS-350B

The heating shaker is widely used in cell culture, enzyme reactions, DNA/RNA extraction, chemical synthesis, as well as the mixing of various liquid samples and temperature-controlled storage in experiments. It is an indispensable tool in the laboratory. In summary, the heating shaker, with its efficient, flexible, and reliable performance, provides great convenience and support for researchers during their experimental processes.

Features

- > Bright VFD display with responsive touch buttons
- > The powder-coated stainless steel body is highly chemical-resistant and easy to clean.
- > Optimal heat transfer is achieved through the tight coupling design of the main body and the corrosion-resistant anodized aluminum blocks
- > Blocks can be easily interchanged using the included block lifter
- > Low-profile design with rubber feet minimizes vibration and noise
- > Microprocessor PID control ensures consistent shaking motion and precise accuracy
- > Memory function allows for storage of programmed protocols, including parameters such as temperature, rpm, and duration for each step
- > Two timer modes
 - Timer 1 starts only after reaching the set temperature
 - Timer 2 begins immediately upon setting



Specifications



Model	WS-350B		
Order No.	W5012350		
Control	Feedback control PID		
Display	VFD (0.1 °C resolution)		
Temperature	Range [°C]	RT+5 ~ 100	
	Stability at 80 °C [°C]	±0.3	
	Variation at 80 °C [°C]	±0.7	
	Heating power [W]	360	
Shaking System Dimensions [W x D x H]	Motion Type	Orbital	
	Speed range [rpm]	96-well tube block	150 ~ 1500
		0.5 mL tube block	150 ~ 1000
		1.5 mL tube block	150 ~ 1000
		50 mL tube block	150 ~ 800
Orbit Size [mm]	2		
IP code	IP21		
Overall dimensions [W x D x H (mm)]	240x327x102		
Weight [kg]	8.3		
Electrical requirements	230 V, 50 / 60 Hz, 1.7 A		

Standard only includes Heating Shaker. block need to be ordered separately.

Accessories

Order No.	Description	Max. Mountable Tube
W5012451	0.5 mL Tube Block Set with Cover	0.5 mL x 48 holes (microtube)
W5012452	1.5 mL Tube Block Set with Cover	1.5 mL x 24 holes (microtube)
W5012453	50 mL Tube Block Set with Cover	50 mL x 6 holes (centrifuge tube)
W5012454	96-well Tube Block Set with Cover	0.2 mL x 96 holes (microtube)



Vortex Shaker

Vortex 3000 Elite

The vortex shaker is primarily used in the fields of biology, chemistry, pharmaceuticals, and general laboratories for the rapid and efficient mixing, agitation, or dissolution of liquid samples. The low-profile design and highly touch-sensitive sensor reduce wrist strain when pushing and holding experimental tools, resulting in less fatigue and discomfort.

Features

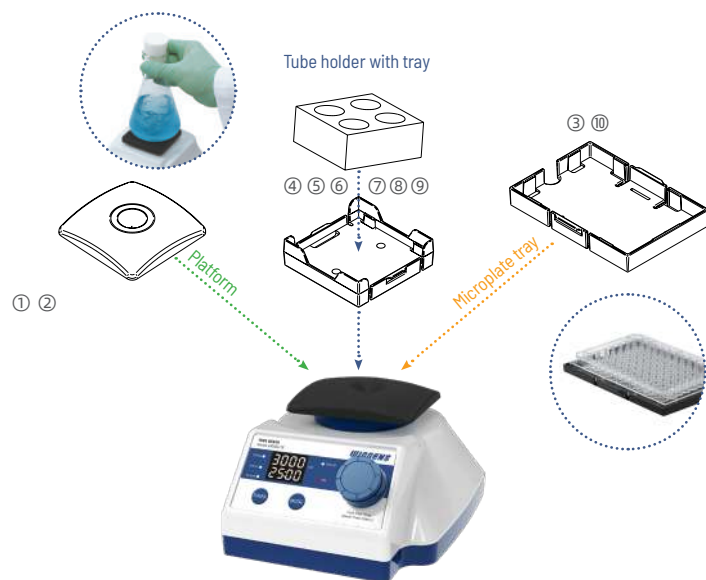
- > Elaborate design ensures safe and reliable vortex shaking
- > Suitable for use in fume hoods and sterile workbenches
- > Provides effective vortex mixing for test tubes and cap vials
- > Shaking operation can be switched between continuous and touch-operated modes
- > Countdown timer function allows for tracking experiment duration
- > LED light indicates the set mixing speed
- > Rubber feet ensure stability during operation
- > Power cut-off function protects against electrical overload or excess current
- > Chemically resistant polypropylene (PP) housing
- > A selection of accessories is offered



Specifications

Model	Vortex3000 Elite
Order No.	W3060215
Motion	Orbital
Shaking throw [mm / inch, Ø]	4 / 1.6
Operation mode	Touch/Continuous
Timer	Yes
Interface	RS232, USB (B)
Display	Dual LED
Operation panel	Glass
Control mode	Knob / Button
Speed range [rpm]	100 ~ 3000
Speed increment [rpm]	10
Speed resolution [rpm]	1
Time increment [min/s]	1
Time range	1s-99min 59s or 1min-99h 59min
Max. Load [kg]- incl. attachment	0.5
IP code	IP21
Power [V]	DC24 V, 0.75 A
Dimensions [W x D x H (mm)]	149x177x96
Output [W]	15
Net weight [kg]	2.8

Standard includes the Vortex shaker, Platform (V0058)



Accessories application

Vortex Shaker

Features

- > Elaborate design ensures safe and reliable vortex shaking
- > Suitable for use in fume hoods and sterile workbenches
- > Provides effective vortex mixing for test tubes and cap vials
- > Shaking operation can be switched between continuous and touch-operated modes
- > LED light indicates the set mixing speed
- > Rubber feet ensure stability during operation
- > Power cut-off function protects against electrical overload or excess current
- > Chemically resistant polypropylene (PP) housing
- > A selection of accessories is offered



Specifications

Model	Vortex3000	
Technical Data	Motion	Orbital
	Speed Range [rpm]	0 ~ 3,000 (Turning knob scale display)
	Control	Scale
	Shaking Throw [mm / inch, Ø]	4 / 0.16
	Operating Mode	Touch, Continuous
	Motor Rating Input / Output [W]	12 / 6
	Motor	BLDC motor
	Max. Load [kg / lbs] - incl. attachment	0.5 / 1.1
General Data	Material	Body: Polypropylene Platform: Silicone rubber
	Dimensions [W x D x H (mm)]	149x163x92
	Net Weight [kg]	2.6
	Safety Device	Current limit protection
	IP code	IP 21
Order No.	360115	

Standard includes the Vortex shaker, Platform (V0058)



Accessories for Vortex 3000 Series

No.	Order No.	Description
1	V0058	Platform (pop-off)
2	V0011	Platform
3	V0008	Microplate tray, Speed range recommendation 0-1500 rpm
4	36520	Tube holder with tray (up to Ø50 mm), Speed range recommendation 0-1500 rpm
5	36521	Tube holder with tray (Ø10 mm x 16 ea), Speed range recommendation 0-1500 rpm
6	36522	Tube holder with tray (Ø12 mm x 9 ea), Speed range recommendation 0-1500 rpm
7	36523	Tube holder with tray (Ø15 mm x 9 ea), Speed range recommendation 0-1500 rpm
8	36524	Tube holder with tray (Ø20 mm x 5 ea), Speed range recommendation 0-1500 rpm
9	36525	Tube holder with tray (Ø25 mm x 4 ea), Speed range recommendation 0-1500 rpm
10	36526	Tube holder with tray (Ø8 mm x 18 ea & Ø10 mm x 28 ea), Speed range recommendation 0-1500 rpm

TM Series Vortex Shaker

TM-1 / TM-1F / TM-2 / TM-2F

The vortex shaker is primarily used in the fields of biology, chemistry, pharmaceuticals, and general laboratories for the rapid and efficient mixing, agitation, or dissolution of liquid samples.

Features

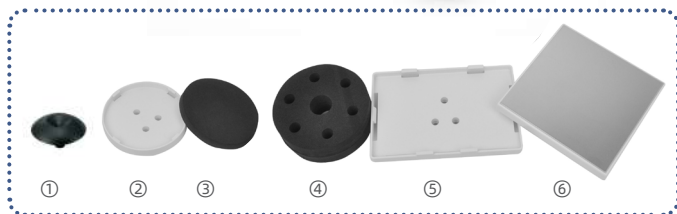
- > High precision shaking speed achieved through the microchip speed controller
- > Stable and dependable performance
- > Shaking operation can be switched between continuous and touch-operated modes
- > Suitable for shaking test tubes and small volume vials
- > Offers a wide range of platforms and accessories
- > Compatible with deep well titer plates
- > Can function as a stirrer and flask shaker with the appropriate accessories



TM-1



TM-1F



TM-1F / 2F Accessories

TM-1F / 2F 6 in 1 Package



Platform (standard) ①

One-hand insert ③
Order No. 3601-06
Universal Tray ②
Order No. 3601-01

Test Tube Platform (6 Holes) ④
Order No. 3601-04
Universal Tray ②
Order No. 3601-01

Elisa Plate Tray ⑤
Order No. 3601-03

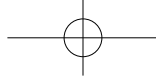
Magnetic Stirring Plate ⑥
Stirring Speed 0 ~ 1500 rpm
Order No. 3601-02

TM-1F / 2F

Specifications

Model	TM-1	TM-1F	TM-2	TM-2F
Shaking Speed [rpm]	0 ~ 2500	0 ~ 2500	0 ~ 2500	0 ~ 2500
Max. Volume [L] in Stirring Mode	2	2	2	2
Housing Material	Plastic-Aluminum	Plastic-Aluminum	Plastic-Aluminum	Plastic-Aluminum
Shaking Throw [mm]	4.5	4.5	4.5	4.5
Speed Control / Display	Turning Knob / Scale Display	Turning Knob / Scale Display	Turning Knob / LED Display	Turning Knob / LED Display
Operation Mode	Continuous / On-Touch	Continuous / On-Touch	Continuous / On-Touch	Continuous / On-Touch
Accessories	Shaker Tray	Accessory Pack	Shaker Tray	Accessory Pack
IP code	IP21	IP21	IP21	IP21
Power [W]	17.3	17.3	17.3	17.3
Dimensions [W x D x H (mm)]	115x230x60	115x230x60	115x230x60	115x230x60
Order No.	360110	36011F	360120	36012F

Standard TM-1 / TM-2 includes the Vortex shaker, Platform (3601-00)



Accessories for TM Series



Universal Tray

Can be used with different foam plastic platforms for simultaneous shaking of several test tubes
Order No. 3601-01



Magnetic Stirring Plate

Can be directly installed on the shaker and used for stirring of smaller samples
Stirring speed (0-1500 rpm)
Order No. 3601-02



Elisa Plate Tray

Can be used with an ELISA Plate
Speed range recommendation (0-1500 rpm)
Order No. 3601-03



Test Tube Platform (6 Holes)

Can be used in combination with the universal tray for shaking operation of 6 test tubes with 12 mm diameter
Speed range recommendation (0-2000 rpm)
Order No. 3601-04



Test Tube Platform (4 Holes)

Can be used in combination with the universal tray for shaking operation of 4 test tubes with 16 mm diameter
Speed range recommendation (0-2000 rpm)
Order No. 3601-05



One-hand insert

80mm
Speed range recommendation (0-800 rpm)
Order No. 3601-06



Universal Base Plate

Base plate for foam plastic platforms with 120 mm diameter
Speed range recommendation (0-1500 rpm)
Order No. 3602-01



Test Tube Platform (54 Holes)

Can be used in combination with the universal base plate for shaking operation of 54 Eppendorf tubes
Speed range recommendation (0-1500 rpm)
Order No. 3602-02



Test Tube Platform (18 Holes)

Can be used in combination with the universal base plate for shaking operation of 18 test tubes with 10 mm diameter
Speed range recommendation (0-1500 rpm)
Order No. 3602-03



Test Tube Platform (12 Holes)

Can be used in combination with the universal base plate for shaking operation of 12 test tubes with 12 mm diameter
Speed range recommendation (0-1500 rpm)
Order No. 3602-04



Test Tube Platform (8 Holes)

Can be used in combination with the universal base plate for shaking operation of 8 test tubes with 16 mm diameter
Speed range recommendation (0-1500 rpm)
Order No. 3602-05



Test Tube Platform (8 Holes)

Can be used in combination with the universal base plate for shaking operation of 8 test tubes with 20 mm diameter
Speed range recommendation (0-1500 rpm)
Order No. 3602-06



Digital Pulse Mixer

Performing high or low speed pulse vortexing/mixing for most applications

WIGGENS Digital Pulse Mixer is designed for high and low-speed pulse vortexing and mixing across a broad range of applications. The digital pulse mixer can be used for solution-phase synthesis, solid-phase chemistry, bacterial cultivation, etc. This unit accommodates various glassware, racks, well plates, and reactor blocks to ensure accurate and repeatable results. Microprocessor-based control technology enables the display of speed, multifunction timer, and pulse profiling.



Features

- > Bright TFT display with a resolution of 1 rpm
- > User-selectable pulse profile with adjustable pulses per minute (1-100) and duty cycle (1-99%)
- > Timer and pulse mode can be combined for timed-pulse operation
- > Fail-safe mode prevents speed fluctuations
- > BLDC motor ensures low noise and high durability
- > User-friendly operating panel with four buttons
- > Smooth start function protects samples from spilling
- > RS232 interface

Specifications

Model	DPM-24
Order No.	W5021001
Working speed range[rpm]	100 – 1500
Speed control type	Feedback Control
Control panel	TFT, Push button
Motor type	BLDC motor
Quick timing mode	30s, 60s, 90s, 120s are available
Pulse mode	Pulses adjustment range(min) 1-100 Duty Cycle adjustment range(%) 1-100
Timer and Pulse mode	Timer (00:00:00 to 24:60:60) Pulses adjustment range (min) 1-100 Duty Cycle adjustment range (%) 1-100
Communicate interface	RS-232
IP code	IP21
Dimensions [W x D x H (mm)]	511x455x427
Electrical requirement	110 or 240 VAC, 50 / 60 Hz

Standard includes the Mixer and adjustable cover plate.

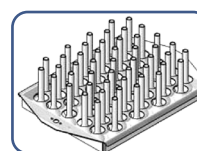
Sample Preparation

Our Digital Pulse Mixers are ideal for preparation work in volumetric flasks*.

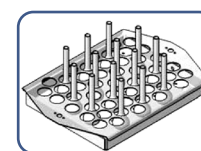
Simply changing the chemical resistant bottom foam pad allows you to quickly switch flask sizes while using one standard hold down top.

Order No.	Description
W5021101	Hold down top with holes
W5021102	15 mm pad for 25 mL vol. flask, 49 Position
W5021103	15 mm pad for 50 mL vol. flask, 14 Position
W5021104	15 mm pad for 100 mL vol. flask, 14 Position
W5021105	15 mm pad for 250 mL vol. flask, 8 Position
W5021106	15 mm pad for 500 mL vol. flask, 6 Position

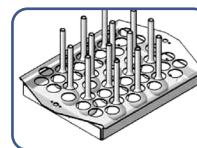
*To select the shaking attachment for a volumetric flask, top plate and pad both are necessary



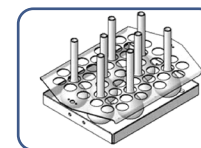
25mL Vol. Flasks



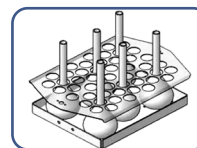
50mL Vol. Flasks



100mL Vol. Flasks



250mL Vol. Flasks



500mL Vol. Flasks



Digital Pulse Mixer Shown with 100mL Volumetric Flasks & Hold Down Top

Separatory Funnel Shaker

WS-1/ WS-1 PLUS

Intensive vertical reciprocal shaker designed for quick solvent extraction.

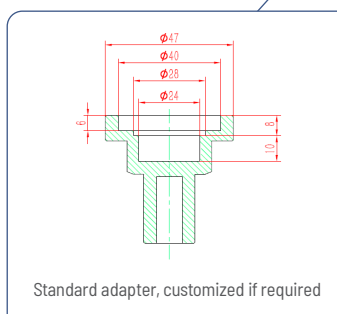
The separatory funnel shaker accommodates six samples simultaneously, ensuring identical conditions for series or comparative protocols in chemistry, biotechnology, and medical laboratories.



WS-1
Angle is not adjustable



WS-1PLUS
0 ~ 20° Angle adjustable



Features

- > Intensive vertical shaking mechanism. Capable of shaking six samples simultaneously under identical conditions
- > Primarily used in chemical, biotechnology, and medical laboratories
- > Bright TFT display for easy speed monitoring
- > Feedback loop connected to a digital controller
- > Automatic stop at the end of a shaking session with an audible alarm
- > Easily adjustable flask holder (up to 5 flasks per side)
- > Includes six standard funnel holders, accommodating up to 1000 mL
- > WS-1 PLUS model features an adjustable flask holder to modify the shaking angle

* Funnel Capacities (per each side)

Capacity	Round type funnel	Slim type funnel
under 500 mL	3-5	5
500 mL	3	3
1 L	—	3
2 L	—	2

Accessories Included

- 500 mL Separatory Funnel Holder (Order No. 32500)
- 1 L Separatory Funnel Holder (Order No. 32501)
- 2 L Separatory Funnel Holder (Order No. 32502)

Specifications

Model	WS-1	WS-1 PLUS
Motion Type	Vertical reciprocal	
Speed Range [rpm]	50 ~ 300	
Accuracy[± rpm]	± 1	
Vertical Stroke Length [mm]	40	
Timer	0-60 min or continuous operation	
Fixed center point distance [mm]	178	125
Overall [W×D×H (mm)]	725×471×564	883×478×637
Max. Load per each Side [kg]	3	
Power [W]	90	
Fixture	6	
IP code	IP21	
Weight [kg]	77	90
Shaking Angle	Fixed	Angle adjustable 0-16°
Order No.	32012KA	32012KB

Standard includes the Shaker, Six funnel holders that can hold up to 1000 mL each

Funnel Separatory, Glass or PTFE stopper



Order No.	Capacity (mL)	Joint	Plug Bore (mm)	Stopper
189111-05	50	14/20	2	PTFE stopper
189111-06	50	19/22	2	PTFE stopper
189111-07	100	14/20	2	PTFE stopper
189111-08	100	19/22	2	PTFE stopper
189111-09	125	14/20	2	PTFE stopper
189111-10	125	19/22	2	PTFE stopper
189111-11	125	24/40	2	PTFE stopper
189111-12	250	14/20	4	PTFE stopper
189111-13	250	19/22	4	PTFE stopper
189111-14	250	24/40	4	PTFE stopper

Order No.	Capacity (mL)	Joint	Plug Bore (mm)	Stopper
189111-19	50	14/20	2	Glass stopper
189111-20	50	19/22	2	Glass stopper
189111-21	100	14/20	2	Glass stopper
189111-22	125	14/20	2	Glass stopper
189111-23	100	19/22	2	Glass stopper
189111-24	125	19/22	2	Glass stopper
189111-25	125	24/40	2	Glass stopper
189111-26	250	14/20	4	Glass stopper
189111-27	250	19/22	4	Glass stopper
189111-28	250	24/40	4	Glass stopper

Optional accessories

Order No.	Description
189111-29	2mm PTFE locking stopper
189111-30	4mm PTFE locking stopper
189111-31	14/20 Glass stopper
189111-32	19/22 Glass stopper
189111-33	14/20 PTFE locking stopper
189111-34	19/22 PTFE locking stopper
189111-35	24/40 PTFE locking stopper

Funnel Separatory, PTFE locking stopper



Order No.	Capacity (mL)	Stopper Size (mm)	Plug Bore (mm)	Stopper
189112-02	60	16	2	PTFE
189112-03	125	22	2	PTFE
189112-04	250	22	4	PTFE
189112-05	500	27	4	PTFE
189112-06	1000	27	4	PTFE

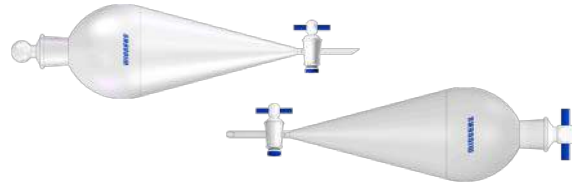
Optional accessories

Order No.	Description
189112-07	2 mm Glass locking stopper
189112-08	4 mm Glass locking stopper

Optional accessories

Order No.	Description
189113-49	2 mm PTFE locking stopper
189113-50	4 mm PTFE locking stopper

Funnel Separatory, Glass or PTFE stopper



Order No.	Capacity (mL)	Joint	Plug Bore (mm)	Stopper
189113-06	50	14/20	2	Glass stopper
189113-07	50	19/22	2	Glass stopper
189113-08	60	N0.16	2	Glass stopper
189113-09	100	14/20	2	Glass stopper
189113-10	100	19/22	2	Glass stopper
189113-11	125	14/20	2	Glass stopper
189113-12	125	19/22	2	Glass stopper
189113-13	125	24/40	2	Glass stopper
189113-14	125	N0.22	2	Glass stopper
189113-15	250	19/22	4	Glass stopper
189113-16	250	24/40	4	Glass stopper
189113-17	250	29/42	4	Glass stopper
189113-18	250	N0.22	4	Glass stopper
189113-19	500	24/40	4	Glass stopper
189113-20	500	29/42	4	Glass stopper
189113-22	500	N0.27	4	Glass stopper
189113-23	1000	24/40	4	Glass stopper
189113-24	1000	N0.27	4	Glass stopper

Order No.	Capacity (mL)	Joint	Plug Bore (mm)	Stopper
189113-31	50	14/20	2	PTFE stopper
189113-32	50	19/22	2	PTFE stopper
189113-33	60	N0.16	2	PTFE stopper
189113-34	100	14/20	2	PTFE stopper
189113-35	100	19/22	2	PTFE stopper
189113-36	125	14/20	2	PTFE stopper
189113-37	125	19/22	2	PTFE stopper
189113-38	125	24/40	2	PTFE stopper
189113-39	125	N0.22	2	PTFE stopper
189113-40	250	19/22	4	PTFE stopper
189113-41	250	24/40	4	PTFE stopper
189113-42	250	29/42	4	PTFE stopper
189113-43	250	N0.22	4	PTFE stopper
189113-44	500	24/40	4	PTFE stopper
189113-45	500	29/42	4	PTFE stopper
189113-46	500	N0.27	4	PTFE stopper
189113-47	1000	24/40	4	PTFE stopper
189113-48	1000	N0.27	4	PTFE stopper

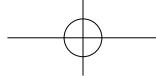
Pressure Release Valves

These pressure release valves reduce the hazards of pressure build-up. They simply slip over the drain of a WIGGENS funnel and tighten down with a twist of the wrist. The valve can be easily removed when it is time to drain the funnel. Each valve is made of Teflon resin and is factory preset to release at 1 psi of pressure.

The valve can be adjusted to release at pressures up to 5 psi by turning the pressure release slug on the top of the valve with a screwdriver.



Order No.	Description
PRV6	For WIGGENS funnels SEP0060-SEP1000 or spout OD 7.5-9.5 mm
PRV10	For WIGGENS SEP2000 or spout OD 12.5-13.0 mm



Ultrasonic Cleaner Ultrasonic Shaker



Ultrasonic Cleaner

The Ultrasonic Cleaner is engineered for precision cleaning applications in manufacturing, aerospace, automotive, and laboratory environments. It employs high-frequency sound waves to generate controlled cavitation within the cleaning solution, ensuring thorough removal of contaminants including grease, particulate matter, and oxides from substrate surfaces.

Features

UE Series

- > Capacity options range from 3 L to 22 L
- > TFT touchscreen control
- > Constructed from stainless steel for both inner and outer components
- > Constructed with a stainless steel 304 tank and powder-coated stainless steel to meet antiseptic and hygienic lab standards
- > Automatically saves the last parameters and recalls them when the unit is turned back on.
- > Non-slip feet and flexible surface contact minimize ultrasonic vibration
- > Features frequency overload and thermal protection

Application

- > Laboratories (laboratory material, precision instruments, pipettes, sieves, etc)
- > Medicine (instrumentation in general, surgical material, etc)
- > Odontology (dental prosthesis, instrumentation, etc)
- > Optics (instrumentation, opticals, frames, etc)
- > Industry (printed circuits, electronic components, etc)
- > Jewellery (watches, jewels, etc)
- > Automation (Injector clearing)
- > Degasification or liquid dissolution
- > Compact substances disgregation

UA Series

- > Includes all advantages of the Eco series
- > Maintains ultrasonic efficiency across different temperatures
- > Equipped with a heating function for higher cleaning efficiency
- > Degasing function
- > Adjustable ultrasonic power

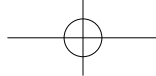


Specifications

Order No.	Model	Capacity [L]	Internal Size [W x D x H (mm)]	Overall Size [W x D x H (mm)]	Ultrasonic Power [W]	Heater Power [W]	Temperature Setting Range [°C]	Frequency [kHz]	Timer [min]	Drainage outlet
UE Series										
W3080303	UE03	3	240x140x100	270x160x240	90	—	—	40	1 ~ 99	Without
W3080306	UE06	6	300x150x150	330x180x290	160	—	—	40	1 ~ 99	With
W3080310	UE10	10	300x240x150	360x270x310	250	—	—	40	1 ~ 99	With
W3080315	UE15	15	330x300x150	390x330x310	350	—	—	40	1 ~ 99	With
W3080322	UE22	22	500x300x150	570x330x330	500	—	—	40	1 ~ 99	With
UA Series										
W3080403	UA03	3	240x137x103	301x163x342	Max 100 (Adjustable 40-100%)	88	20 ~ 80	37	1 ~ 999	Without
W3080406	UA06	6	300x153x150	362x180x305	Max 150 (Adjustable 40-100%)	170	20 ~ 80	37	1 ~ 999	With
W3080410	UA10	10	300x240x150	383x267x305	Max 200 (Adjustable 40-100%)	270	20 ~ 80	37	1 ~ 999	With
W3080415	UA15	15	330x300x150	390x330x310	Max 350 (Adjustable 40-100%)	420	20 ~ 80	37	1 ~ 999	With
W3080422	UA22	22	500x300x150	584x327x327	Max 400 (Adjustable 40-100%)	550	20 ~ 80	37	1 ~ 999	With

UE Series Standard includes the Ultrasonic Cleaner, Tray.

UA Series Standard includes the Ultrasonic Cleaner, Tray, Lid.



Accessories for Ultrasonic Cleaner

Some accessories are very suitable for the Ultrasonic Cleaner, protecting the tank, and some small parts need special containers to ensure to be placed at the bottom of the tank.

Lid for reducing the noise



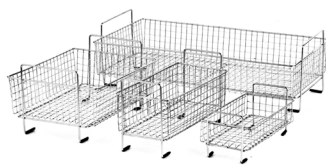
Order No.	Name	Suitable for Volume
U10003	SS Lid	3 L
U10006	SS Lid	6 L
U10010	SS Lid	10 L
U10015	SS Lid	15 L
U10022	SS Lid	22 L

Tray



Order No.	Name	Suitable for Volume
U10203	Tray	3 L
U10206	Tray	6 L
U10210	Tray	10 L
U10215	Tray	15 L
U10222	Tray	22 L

SS Insert basket



Order No.	Name	Suitable for Volume
U10103	Insert basket	3 L
U10106	Insert basket	6 L
U10110	Insert basket	10 L
U10115	Insert basket	15 L
U10122	Insert basket	22 L

Positioning lid

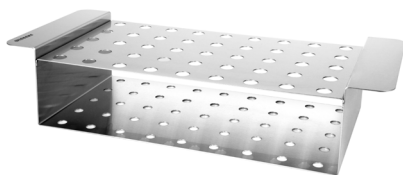


Order No.	Name	Suitable for Volume
U10403	Lid	3 L
U10406	Lid	6 L
U10410	Lid	10 L
U10415	Lid	15 L
U10422	Lid	22 L

Application Tip

Insert capacity of test tube racks for each bath

- 3 L bath (1pc)
- 6 L bath (1pc)
- 10 L bath (2pcs)
- 15 L bath (3pcs)
- 20 L bath (4pcs)



Test tube holder / Drain pipe

Order No.	Description
U10503	Test tube rack, for 24 test tubes, 16/17 mm dia. for 3 L bath
U10504	Test tube rack, for 50 test tubes, 16/17 mm dia. for 6-22 L bath
U10505	Test tube rack, for 90 test tubes, 12/13 mm dia. for 6-22 L bath
U10506	Test tube rack, for 90 microliter tubes, 11/12 mm dia. for 6 ~ 22 L bath
U10507	Test tube rack, for 21 test tubes, 30 mm dia. for 6 ~ 22 L bath
U10606	Drain pipe, suitable for 3 ~ 22 L Ultrasonic Cleaner

Stabilizing rings for Erlenmeyer

- > PVC covered steel
- > Suitable for Erlenmeyers, flasks, etc
- > Application (The weight of the ring prevents flasks from floating when placed in a thermal bath)



Order No.	Model	Colour	Size (OD) x (ID)	Weight
5660	Type S	Red	Ø 70xØ 27 mm	0.3 kg
5661	Type M	Yellow	Ø 105xØ 52 mm	0.5 kg
5662	Type L	Blue	Ø 140xØ 76 mm	1.2 kg

Ultrasonic Shaker

Ultrasonic bath with a shaking device for sample preparation. The WIGGENS ultrasonic shaker integrates the functions of an ultrasonic cleaner and a shaking water bath. Both processes can be performed simultaneously or separately, allowing a sample to be pre-homogenized at a specified shaking frequency before achieving final homogenization rapidly using ultrasound.



Features

- > Reciprocal shaker with standard options of 20 mm, 30 mm, and 40 mm
- > Multi-purpose spring tray is easy to remove for convenience
- > Equipped with a drainage outlet
- > Includes a bath lid to reduce noise and minimize liquid loss due to evaporation
- > Speed range (20 to 200 rpm)

Application

Biochemical research, material testing, enzyme and tissue studies, homogenization, routine laboratory tasks, corrosion tests, fermentation, incubation, blood plasma thawing, temperature tests of food and beverages

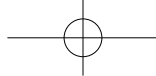
Max. Load of flasks

- > 6 x 250 mL
- > 6 x 300 mL
- > 2 x 500 mL
- > 2 x 1 L
- > 1 x 2 L

Specifications

Model	WUS22
Order No.	W3080122
Display and Control	7-inch TFT touchscreen control
Temperature range [°C]	20 ~ 80
Frequency [kHz]	37
Working Power [W]	Max.400 (40-100% adjustable)
Heater Power [W]	550
Timer [min]	1 ~ 199
Drainage outlet	Yes
Capacity [L]	20
Shaking stroke [mm]	20 (30 / 40)
Tray dimension [W x D (mm)]	390x250
Overall dimension [W x D x H (mm)]	701x389x504

Standard includes the Ultrasonic Shaker, Multi-Purpose spring tray, Lid.



Lab Burner
Colony Counter
Sensor-controlled turntable for Petri dishes



Lab Burner

Features

- > Automatic ignition due to piezo effect
- > Max. Temperature 1300 °C
- > Adjustable flame
- > Refillable butane tank

Application

- > Sterilizing
- > Welding
- > Heating
- > Cooking



Specifications

Model	Dragon 100	Dragon 200	Dragon 220
Max. temperature [°C]	1300	1300	1300
Fuel tanker capacity [g]	45	45	45
Working time [min]	60	60	60
Dim. [W x D x H (mm)]	161x137x79	92x115x79	94x115x78
weight [g]	380	407	425
Safety switch	yes	—	—
Order No.	177100-00	177200-00	177220-00



Colony Counter

- > Adjustable dish holder accommodates Petri dishes of various sizes, with diameters from 90 mm to 150 mm, as well as special 60 mm dishes
- > Pressure sensor enables the use of any marking pen without contaminating the sample
- > Suitable for total bacterial and total coliform counts

Specifications

Model	Galaxy 230
Order No.	175200
Display	LED
Magnification	2 ~ 3 Times
Petri Dish Diameter	60 mm, 90 ~ 150 mm Adjustable
Zero Reset	Yes
Illumination	Ring-Shaped Lamp
Pressure Sensitivity	Adjustable
Dimensions [W x D x H (mm)]	313x360x346
Net Weight [kg]	5.2

Standard includes the Colony Counter, Marker pen.

Marker pen

It's used to mark the colony of culture dish
Marking pen 5 sets Order No. 175200-48
Single marker Order No. 175200-35



Sensor-controlled turntable for Petri dishes

The touch-free IR sensor technology of the Sensorturn/Sensorturn Pro ensures simple operation through hand movements, with the option for foot pedal control. Its exceptionally low working height facilitates effortless use, while the stainless steel construction guarantees a high degree of sterility. Additionally, the device is high-performance, UV-resistant, and flame-sterilizable.

Both models provide multiple operating modes, featuring programmable start-stop functions and a secondary timer with an adjustable period of 1 to 25 seconds (extendable to 125 seconds). Rotation speed is continuously variable, ranging from 14 to 110 rpm for the Sensorturn model and 14 to 210 rpm for the Sensorturn Pro model, enabling uniform plating of Petri dishes with diameters up to 100 mm. An optional holder extends compatibility to dishes up to 150 mm.



Features

- > Stainless steel construction
- > Variable rotational speed control: Sensorturn (14 ~ 110 rpm); Sensorturn Pro (14 ~ 210 rpm)
- > Short time operation ranging from 1 to 125 seconds
- > Turntable with autoclavable silicone covering and centering ring
- > Hand or foot pedal activation for switching on and off
- > UV-resistant and flame-sterilizable
- > Minimal space requirement
- > Includes IR sensor and connector for foot pedal
- > Five operating modes
 - IR Sensor (Time / Constant)
 - Foot Pedal (Standard / Start-Stop / Time)
- > Turntable with transparent silicone covering and centering ring
- > Screwdriver included for adjusting IR sensor detection range

Specifications

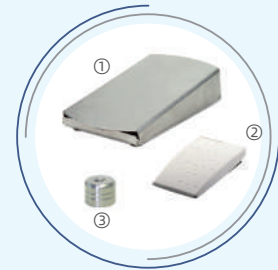
Model	Sensorturn	Sensorturn Pro
Rotary speed range [rpm]	14 ~ 110 rpm	14 ~ 210 rpm
Petri dish size	Up to Ø 100 mm (Ø 150 mm optional)	
Rotational direction	Clockwise	
Detection range IR-Sensor	5 ~ 50 mm, adjustable	
Connector for foot pedal	Yes	
Timer range Time operation	1 ~ 25 sec or 5 ~ 125 sec, adjustable	
Constant operation	Unlimited	
Operating voltage / input	9 V ~ 15 V DC / 1.5 VA	
Measurements [W x D x H (mm)]	160x109x74	
Weight [g]	980	
Order No.	7.001.000	7.002.000

Others

Foot pedal (Stainless steel) ①
Order No. 6.000.402

Pedal mini (Plastic) ②
Order No. 6.000.403

Benchtop switch (Stainless steel) ③
Order No. 6.000.405



Tray, installable on either the right or left side (Stainless steel) ①
Order No. 8.000.340

Triangle spatula (Glass) ②
Order No. 6.000.370

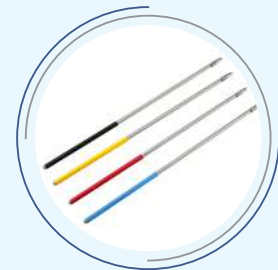
Triangle spatula (Stainless steel)
Order No. 6.000.369



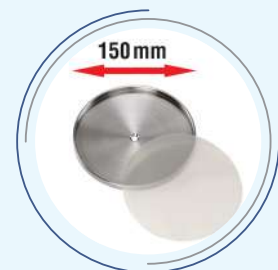
Stainless steel inoculation loop holder with sleeve nut, for loops with wire diameters of 0.6 to 1 mm

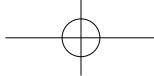
length 245 mm
Order No. 6.000.360

length 215 mm
Order No. 6.000.365



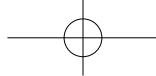
The extra wide design accommodates Petri dishes up to 150 mm and features a transparent silicone covering
Order No. 7.000.150





Contents

Constant Temperature Incubator	05
Peltier-cooled Incubator	07
Low Temperature Incubator	08
CO ₂ Incubator	12
Peltier-cooled CO ₂ Incubator	14
Portable Mini CO ₂ Incubator	15
Tri-Gas Incubator.....	16
CO ₂ Incubator for Cell Factory	17
Mega Constant Temperature Incubator.....	18
Mega CO ₂ Incubator	20
Shaker Incubator	25
Roller Rack CO ₂ Incubator.....	29
Shaker CO ₂ Incubator	30
Shaker for CO ₂ Incubator	35
Cell Culture Roller Rack	36
Forced Convection Oven	40
Vacuum Oven.....	42



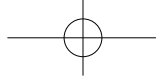
WIGGENS
THE MAGIC MOTION

Incubator

- Constant Temperature Incubator
- Low Temperature Incubator
- Peltier-cooled Incubator
- CO₂ Incubator
- Peltier-cooled CO₂ Incubator
- Portable Mini CO₂ Incubator
- Copper Chamber CO₂ Incubator
- Tri-Gas Incubator
- Constant Temperature & Humidity Chamber



www.wiggins.com



Constant Temperature Incubator

Versatile Air-jacket Incubators

Designed for uniform temperature distribution and reduced contamination risk caused by external air intrusion. Suitable for life science, pharmaceutical, medical, chemical, and biological applications requiring stable temperature incubation.

Features

- > Digital temperature display and control
- > PID controller for temperature stability and safety protection
- > Environmentally friendly design
- > Easy to clean with stainless steel shelves that are height adjustable
- > Tempered glass observation window for safety and effective sealing
- > Magnetic door with a high-quality gasket ensures superior sealing
- > Fan and heating elements stop when the door is opened
- > Alarm activates if the door remains open for more than 60 seconds



Specifications

Model	WH-05	WH-10	WH-15	WH-25
Order No.	W6031050	W6031100	W6031150	W6031250
Display and Control	LED display button control			
Volume [L]	50	100	150	260
Temperature Range [°C]	RT + 5 ~ 65	RT + 5 ~ 65	RT + 5 ~ 65	RT + 5 ~ 65
Temperature Uniformity [°C]	±0.3 at 37 °C (RT 25 °C)	±0.3 at 37 °C (RT 25 °C)	±0.3 at 37 °C (RT 25 °C)	±0.3 at 37 °C (RT 25 °C)
Temperature Stability [°C]	±0.1 at 37 °C	±0.1 at 37 °C	±0.1 at 37 °C	±0.1 at 37 °C
Timer	1 min ~ 99 h 59 min	1 min ~ 99 h 59 min	1 min ~ 99 h 59 min	1 min ~ 99 h 59 min
Safety	Independent over-temperature protection and door-open alarm			
Heating Capacity [W]	340	340	340	610
Shelves [included / max.]	2/10	2/14	2/20	3/17
Inner Dimensions [W x D x H (mm)]	345x368x375	480x480x495	500x480x620	530x590x900
Outer Dimensions [W x D x H (mm)]	440x488x621	560x569x761	559x586x873	633x688x1177
IP code	IP20	IP20	IP20	IP20
Weight [kg]	35	50	65	115
Power supply	AC 220~240 V, 50/60 Hz			



Over-temperature Protection

Heating is automatically cut off by a safety device in the event of temperature control failure or excessive heating beyond the set point.



Easy to Clean

Rounded Corner allows easy cleaning. The entire chamber is made of stainless steel (SUS304)



Perforated Shelves

Perforated shelves promote natural airflow and are made of stainless steel for corrosion resistance and contamination control.

Materials

Housing	Powder coated stainless steel
Interior	Stainless steel
Shelves	Stainless steel
Inner transparent door	High temperature resistant glass, Thickness: 5 mm



WH-400



WH-850

Model	WH-400	WH-650	WH-850	WH-850X*
Order No.	W6031400	W6031650	W6031850	W6031851
Display and Control	LED display button control			
Volume [L]	400	650	850	850
Temperature Range [°C]	RT + 5 ~ 65	RT + 5 ~ 65	RT + 5 ~ 65	RT + 5 ~ 65
Temperature Uniformity [°C]	<±0.5 at 37 °C (RT 25 °C)	<±0.5 at 37 °C (RT 25 °C)	<±0.5 at 37 °C (RT 25 °C)	<±0.5 at 37 °C (RT 25 °C)
Temperature Stability [°C]	±0.1 at 37 °C	±0.1 at 37 °C	±0.1 at 37 °C	±0.1 at 37 °C
Timer	1 min ~ 99 h 59 min	1 min ~ 99 h 59 min	1 min ~ 99 h 59 min	1 min ~ 99 h 59 min
Safety	Independent safety temperature protection, Open door alarm function			
Heating Capacity [W]	700	1100	1400	1400
Shelves [included / max.]	3/18	3/23	3/26	0/26
Inner Dimensions [W x D x H (mm)]	600x630x1100	700x650x1430	700x800x1530	868x720x1530
Outer Dimensions [W x D x H (mm)]	781x762x1433	859x822x1765	857x963x1856	993x887x1911
IP code	IP20	IP20	IP20	IP20
Weight [kg]	160	230	260	299
Power supply	AC 220~240 V, 50/60 Hz			

* WCI-850X Standard includes the incubator only, shelves need to be ordered separately. The rails are built at the bottom allows easy installation, positioning, and movement of roller culture devices.

Peltier-cooled Incubator

This series combines heating and Peltier cooling technology to provide precise, energy-efficient temperature control with minimal fluctuation. It is suitable for applications requiring stable incubation conditions in life science, pharmaceutical, medical, chemical, and biological laboratories.

Features

- > Pre-set start time and timer function
- > Four editable temperature programs, each with up to five steps
- > Four preset temperature shortcuts
- > For temperature units, you can choose between °C and °F
- > Over-temperature alarm with automatic power cut-off
- > Tempered glass observation window
- > Adjustable stainless-steel shelves
- > Automatic restart or stop after power recovery
- > Fan and heating stop when the door is opened
- > Peltier cooling for energy-efficient temperature control
- > Circulation method prevents air pollution and ensures precise temperature distribution



Specifications

Model	WH-01	WH-02	WH-10P	WH-15P
Order No.	W6053015	W6053050	W6053100	W6053150
Display and Control	5-inch TFT touchscreen control			
Temperature Control Method	Forced circulation			
Volume [L]	15	50	100	150
Temperature Range [°C]	+4 ~ 60 (at 20 °C RT)	+4 ~ 60 (at 20 °C RT)	+10 ~ 60 (at 20 °C RT)	+10 ~ 60 (at 20 °C RT)
Temperature Stability [°C]	±0.1	±0.1	±0.1	±0.1
Timer	1 min ~ 999h 59 min / continuous			
Heating Capacity [W]	150	300	450	450
Max. Cooling Capacity [W]	350	350	350	350
Shelves [included / max.]	2/4	2/6	2/8	2/10
Inner Dimensions [W x D x H (mm)]	315x200x240	335x370x380	480x478x500	480x500x625
Outer Dimensions [W x D x H (mm)]	402x416x440	442x556x613	622x675x801	620x696x930
IP code	IP20	IP20	IP20	IP20
Weight [kg]	24	35	65	80
Power supply	AC 220 ~ 240V, 50/60 Hz			

Low Temperature Incubator

Designed for low-temperature storage and incubation of samples in life science, pharmaceutical, medical, chemical, and biological laboratories.

Features

- > Six-side direct heating system for stable temperature uniformity and fast heat-up/recovery
- > High-quality compressors and eco-friendly refrigerants
- > The independent over-temperature protection device cuts off heating upon reaching the safe temperature
- > Programmable temperature control
- > Forced-air circulation combined with perforated shelves ensures uniform airflow
- > When the door is opened, the circulation fan and heater automatically stop running

Application

- > Life science
- > Microbiological laboratories
- > Hospital laboratories
- > Pharmaceutical laboratories
- > Food testing laboratories
- > Scientific laboratories in universities
- > Cosmetic industry
- > Food and beverage
- > Agricultural industry



WH-15C

Specifications

Model	WH-15C	WH-26C	WH-45C	WH-75C
Order No.	W6055151	W6055260	W6055450	W6055750
Display and Control	LED display button control			
Temperature Control Method	Forced circulation method			
Volume [L]	150	260	450	750
Chamber material	304 stainless steel			
Temperature Range [°C]	+4 ~ +60			
Temperature Stability [°C]	±0.1 (at 37 °C)			
Temperature Uniformity [°C]	< ±0.5 (at 37 °C)	< ±0.5 (at 37 °C)	< ±1 (at 37 °C)	< ±1 (at 37 °C)
Heating Capacity [W]	1350	1350	1400	1400
Max. Cooling power [W]	350	550	550	550
Shelves [included / max.]	2/5	2/9	2/8	2/18
Inner Dimensions [W x D x H (mm)]	560x500x535	640x500x800	1040x600x720	1040x600x1200
Outer Dimensions [W x D x H (mm)]	781x682x1220	861x682x1485	1300x819x1629	1300x837x1968
Communication interface	RS232/485			
IP code	IP20			
Weight[kg]	145	175	213	279
Power supply	220V / 50 or 60Hz			

Optional natural refrigerant version available
For ordering, please add "N" after the ordering number



Low Temperature Incubator

WH-150C / 260C / 450C / 750C

With touchscreen and more options

With a touchscreen interface, the WH series cooled incubators offer intuitive operation, flexible parameter setting, and expanded control functions.

Features

- > Double-door design with an inner glass door
- > 7-inch touch display for intuitive operation
- > Overheat and overcurrent protection
- > Auto-start function allows selection between auto-run or auto-stop after power recovery
- > The independent over-temperature protection device cuts off heating upon reaching the safe temperature
- > The USB port is designed for data storage

APPLICATION

- > Life science
- > Microbiological laboratories
- > Hospital laboratories
- > Pharmaceutical laboratories
- > Food analyzing laboratories
- > Scientific laboratories in universities
- > Cosmetic industry
- > Food and beverage
- > Agricultural industry



WH-260C

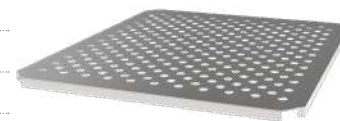
Specifications

Model	WH-150C	WH-260C	WH-450C	WH-750C
Order No.	W6056150	W6056260	W6056450	W6056750
Display and Control	7-inch TFT touchscreen control			
Volume [L]	150	260	450	750
Temperature Range [°C]	+4 ~ +60	+4 ~ +60	+4 ~ +60	+4 ~ +60
Temperature Stability [°C]	±0.1 (at 37 °C)	±0.1 (at 37 °C)	±0.1 (at 37 °C)	±0.1 (at 37 °C)
Temp. Uniformity [°C]	<±0.5 (at 37 °C)	<±0.5 (at 37 °C)	<±1 (at 37 °C)	<±1 (at 37 °C)
Cooling mode	Compressor	Compressor	Compressor	Compressor
Heating Capacity [W]	1350	1350	1400	1400
Max. Cooling power [W]	350	550	550	550
Number of shelves [included / max.]	2/5	2/9	2/8	2/18
Timer	1min-999h59min	1min-999h59min	1min-999h59min	1min-999h59min
Communication interface	RS232/485	RS232/485	RS232/485	RS232/485
Inner Dimensions [W x D x H (mm)]	560x500x535	640x500x800	1040x600x720	1040x600x1200
Outer Dimensions [W x D x H (mm)]	781x682x1220	861x682x1485	1300x819x1629	1300x837x1968
Weight [kg]	145	175	213	279
Power supply	220V / 50 or 60Hz	220V / 50 or 60Hz	220V / 50 or 60Hz	220V / 50 or 60Hz

Optional natural refrigerant version available
For ordering, please add "N" after the ordering number

Accessories

Order No.	Part	Description	Suitable for
W6041151	Perforated Shelf	Max. load up to 30kg	WH-15C/WH-150C/WHT-150
W6041261	Perforated Shelf	Max. load up to 30kg	WH-26C/WH-260C/WHT-260
W6041451	Perforated Shelf	Max. load up to 30kg	WH-45C/WH-450C/WHT-450
W6041751	Perforated Shelf	Max. load up to 30kg	WH-75C/WH-750C/WHT-750
W6041152	Reinforced perforated shelf	Max. load up to 60kg	WH-15C/WH-150C/WHT-150
W6041262	Reinforced perforated shelf	Max. load up to 60kg	WH-26C/WH-260C/WHT-260
W6041452	Reinforced perforated shelf	Max. load up to 60kg	WH-45C/WH-450C/WHT-450
W6041752	Reinforced perforated shelf	Max. load up to 60kg	WH-75C/WH-750C/WHT-750
W6041153	Illumination equipment	Cold white light, 0~100% adjustable, 10000 Lux, -20...+45 °C	WHT series
W6041154	Inner power socket	230V/2.6A output, IP68	WHT series
W6041158	Water storage tanks	Includes 2 L water tank, filter lid, and water tube	WHT series
W6041159	Water tube	Connect humidity controller and water storage tanks	WHT series



Incubator Accessories

Order No.	Item	Description	Suitable for
Incubator shelf for holding cultures in the chamber			
W6030501	Perforated Shelf kit		WH-05
W6031001	Perforated Shelf kit		WH-10
W6031501	Perforated Shelf kit	Perforated shelf to improve uniformity, Stainless steel material can effectively resist corrosion and pollution, load 15kg	WH-15
W6032501	Perforated Shelf kit		WH-25
W60530151	Perforated Shelf kit		WH-01
W60530501	Perforated Shelf kit		WH-02
W60531001	Perforated Shelf kit		WH-10P
W60531501	Perforated Shelf kit	Perforated shelf to improve uniformity, Stainless steel material can effectively resist corrosion and pollution, load 15kg	WH-15P
W6034001	Perforated Shelf kit		WH 400
W6036501	Perforated Shelf kit	Perforated shelf to improve uniformity, Stainless steel material can effectively resist corrosion and pollution, load 15kg	WH-650
W6038501	Perforated Shelf kit	Perforated shelf to improve uniformity, Stainless steel material can effectively resist corrosion and pollution, load 50kg	WH-850



Roller base: Placed at the bottom of the incubator for support and easy movement			
W6010402	Roller base	To move incubator easily	WH-05
W6031002	Roller base	To move incubator easily	WH-10
W6031502	Roller base	To move incubator easily	WH-15



Roller base

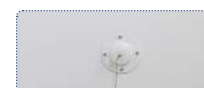
Stacking kit: to stack and fix the incubator			
W6031003	Stacking kit	To stack and fix the incubator	WH-10
W6031503	Stacking kit	To stack and fix the incubator	WH-15



Stacking kit

Other Accessories

W6011806	UV lamp	A 4W UV lamp is placed at the top of the chamber, next to the circulating fan. UV rays do not radiate the sample and can be sterilized during culture.	All series incubator (Except dry heat sterilization incubators)
W6011816	Access port for auxiliary monitoring	Diameter of 30mm (40mm customizable), for sampling, experimental verification and penetration of additional equipment power or signal cables in the incubator	All series incubator
W6011809	Monitoring system	PC-based monitoring software for remote real-time monitoring of incubator operating status	All series incubator
W6011809-1	Connecting wire	With anti-shedding interface for PC to the incubator, unit/m	All series incubator
W6051502	Power socket in chamber	Three-jack socket, 220 V, for power supply inside the chamber, not exceed 1000 W	All series incubator
W6051503	LED lamp	Installed on the top of the chamber, with an independent lighting switch	All series incubator (Except dry heat sterilization incubators)



CO₂ Incubator

The WIGGENS CO₂ incubator is designed for cell culture applications requiring precise temperature and CO₂ control, including the cultivation of animal cells, embryos, sperm and ova, anaerobic cells, microorganisms, and specialized tissues.

Features

Fast Heat-Up, Fast-Recovery, Stable Control

6 Sides Direct Heating System

Electric heating wires surround the chamber, ensuring stable temperature uniformity and enabling rapid heat-up and recovery. The heating section has three parts, each independently controlled and calibrated by its own temperature sensor.

Dry Wall and Air Jacket

Warm air generated by the heating wires is retained in the space between the chamber and the insulation layer, facilitating faster temperature recovery and reducing heat loss. The insulated dry wall requires no regular maintenance.

DUAL BEAM IR CO₂ Sensor

Fast & precise detection for CO₂ gas regardless of temperature and humidity.

Natural Humidification Using Water Tray

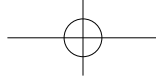
The bottom heater warms the water in the tray to create humidity, while the circulation fan distributes the moisture throughout the entire chamber.



Specifications

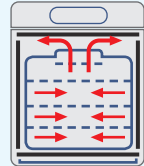
Temp. Range:	RT +5 ~ 60 °C
Temp. Resolution:	0.1°C
Dry Heat:	Up to 125 °C (WCI-40 / 180 / 260)
Temp. Control:	Digital PID
CO ₂ Range:	0% ~ 20%
CO ₂ Accuracy:	±0.1% (5% / 37 °C)
CO ₂ Resolution:	0.1%
CO ₂ Sensor:	IR CO ₂ Sensor
Display and Control:	LED display button control
IP code:	IP20
Operating panel:	Individual 2-Channel Touch Button
Jacket type:	Air Jacket Type (6 sides heat)
Chamber material:	Stainless Steel (304)

Model	WCI-40	WCI-120
Order No. Standard	W6011040	W6011120
Order No. Sterilization	W6012040	W6012120
Chamber volume [L]	40	120
Temperature Stability [°C]	±0.1 (37 °C)	±0.1 (37 °C)
Temp. Uniformity [°C]	±0.3 (37 °C / RT20 °C)	±0.3 (37 °C / RT20 °C)
Heating Capacity [W]	320	320
CO ₂ Inlet pressure range [bar]	0.3 ~ 0.5	0.3 ~ 0.5
Number of shelves [included / max.]	2/9	3/15
Chamber dimensions [W x D x H (mm)]	320x350x375	480x470x520
Overall dimensions [W x D x H (mm)]	430x469x572	590x570x767
Weight [kg]	35	65



Alarm System

Buzzer alerts for low or high deviations in CO₂ levels and temperature.



Gentle Air and Moisture Convection

Natural air and moisture convection. Air and moisture in the chamber are gently distributed by six-sided heating and the air circulation fan.



Easy to Clean

Easy-to-clean design with rounded corners. Chamber crafted entirely from SUS304 (AISI 304) stainless steel.



Over-temperature Protection

Heating is automatically cut off by a safety device in the event of temperature control failure or excessive heating beyond the set point.



Perforated Shelves

Perforated shelves promote natural air flow and are made of stainless steel, which is resistant to rust and contamination.



No Condensation

Heating from the front door heater and frame heater prevents condensation inside the chamber and on the glass door.



Microprocessor PID Control

Intelligence Control for CO₂ density, Temperature, Alarm, Automatic Decontamination (Optional).



HEPA Filtration

HEPA filtration actively removes airborne particles to protect cell cultures and ensure stable chamber conditions.

Options

Customize your incubator with these options



Access Port

30mm Access Port is available at left side. (Upon ordering and additional charge)



UV Sterilization

4W UV is placed on the chamber ceiling and beside the circulation fan. The UV light cannot reach sample and sterilization is operated during culturing.



WCI-40, WCI-180, WCI-260 with a maximum dry heat temperature of 125 °C
No need to remove IR CO₂ sensor



Monitoring System

Connection port has been designed to observe equipment in real time even in the far distance.



Reduce gas consumption and heat loss, enabling faster recovery—ideal for various samples

5 Split Door for WCI-40
6 Split Door for WCI-180



WCI-260

Model		WCI-180	WCI-260	WCI-650	WCI-850	WCI-850X*
Order No.	Standard	W6011180	W6011260	W6011650	W6011850	W6011851X
	Sterilization	W6012180	W6012260	W6012650	W6012850	-
Chamber volume [L]		180	260	650	850	850
Temperature Stability [°C]		±0.1 (37 °C)	±0.1 (37 °C)	±0.1 (37 °C)	±0.1 (37 °C)	±0.1 (37 °C)
Temp. Uniformity [°C]		±0.3 (37 °C / RT20 °C)	±0.4 (37 °C / RT20 °C)	±0.5 (37 °C / RT20 °C)	±0.5 (37 °C / RT20 °C)	±0.5 (37 °C / RT20 °C)
Heating Capacity [W]		320	610	1100	1400	1400
CO ₂ Inlet pressure range [bar]		0.3 ~ 0.5	0.6 ~ 0.7	0.7 ~ 1.0	0.7 ~ 1.0	0.7 ~ 1.0
Number of shelves [included / max.]		3/17	3/16	3/23	3/26	0/26
Chamber dimensions [W x D x H (mm)]		528x473x710	590x530x900	700x650x1430	700x800x1530	840x700x1590
Overall dimensions [W x D x H (mm)]		570x633x947	670x706x1177	857x823x1763	858x964x1856	993x887x1911
Weight [kg]		80	115	230	260	299

* WCI-850X Standard includes the incubator only, shelves need to be ordered separately. The rails are built at the bottom allows easy installation, positioning, and movement of roller culture devices.

Peltier-cooled CO₂ Incubator

This series combines CO₂ control with Peltier-based cooling and heating, allowing incubation below ambient temperature with high precision and low energy consumption. These innovations provide exceptional control accuracy with minimal fluctuations.

Specifications

Temp. Range:	+20 ~ 60 °C
Temp. Resolution:	0.1 °C
Dry Heat:	Up to 125 °C (WCI-40P / 180P)
Temp. Control:	Digital PID
CO ₂ Range:	0% ~ 20%
CO ₂ Accuracy:	±0.1% (5% / 37 °C)
CO ₂ Resolution:	0.1%
CO ₂ Sensor:	IR CO ₂ Sensor
Display and Control:	LED display button control
IP code:	IP20
Operating panel:	Individual 2-Channel Touch Button
Jacket type:	Dry Wall Type (6 sides heat)
Chamber material:	Stainless Steel (304)



Model	WCI-40P	WCI-120P	WCI-180P	
Order No.	Standard	W6013040	W6013120	W6013180
	Sterilization	W6014040	W6014120	W6014180
Chamber volume [L]	40	120	180	
Temperature Stability [°C]	±0.1 (37 °C)	±0.1 (37 °C)	±0.1 (37 °C)	
Temp. Uniformity [°C]	±0.3 (37 °C / RT20 °C)	±0.3 (37 °C / RT20 °C)	±0.3 (37 °C / RT20 °C)	
Heating Capacity [W]	320	320	320	
CO ₂ Inlet pressure range [bar]	0.3 ~ 0.5	0.3 ~ 0.5	0.3 ~ 0.5	
Number of shelves [included / max.]	2/9	3/15	3/17	
Chamber dimensions [W x D x H (mm)]	320x350x375	480x470x520	528x473x710	
Overall dimensions [W x D x H (mm)]	420x513x572	580x646x767	560x694x947	
Weight [kg]	46	82	88	

Model	WCI-260P	WCI-650P	WCI-850P
Order No.	W6013260	W6013650	W6013850
Chamber volume [L]	260	650	850
Temperature Stability [°C]	±0.1 (37 °C)	±0.1 (37 °C)	±0.1 (37 °C)
Temp. Uniformity	±0.4 (37 °C / RT20 °C)	±0.5 (37 °C / RT20 °C)	±0.5 (37 °C / RT20 °C)
Heating Capacity [W]	610	1100	1400
CO ₂ Inlet pressure range [bar]	0.6 ~ 0.7	0.7 ~ 1.0	0.7 ~ 1.0
Number of shelves [included / max.]	3/16	3/23	3/26
Chamber dimensions [W x D x H (mm)]	590x530x900	700x650x1430	700x800x1530
Overall dimensions [W x D x H (mm)]	630x766x1177	820x860x1740	821x973x1856
Weight [kg]	125	260	296

Portable Mini CO₂ Incubator

Compact & Economical Mini CO₂ Incubator

Features

- > Portable design with carrying handles (car plug available)
- > Economical price and compact design for personal use
- > Suitable size for workstations or clean benches
- > Digital control for temperature and CO₂ levels
- > Forced air circulation by fan
- > Excellent temperature uniformity
- > Quick recovery and precise CO₂ control using IR sensor
- > Low-noise cooling operation
- > Two stainless steel shelves (standard)
- > Natural humidification via water tray
- > Cooling and heating using Peltier technology
- > Stainless steel water tray
- > Power plug and car jack



Car Jack



WCI-15R

Product Name	WCI-15R	
Chamber Volume [L]	15.2	
Temperature	Range [°C]	15 ~ 45 (at Ambient 25 °C)
	Accuracy [°C]	±0.25
	Control	Digital
CO ₂	Range	0 ~ 20%
	Sensor	Dual Beam IR Sensor
	Accuracy	±0.1% (5%)
	CO ₂ Inlet pressure range [bar]	0.7Bar (Max.1Bar)
Humidity	Up to 80%	
Display	LED Display	
Cooling & Heating	Peltier (thermoelectric elements)	
Number of shelves [included / max.]	2/3, Stainless steel	
Inner & Outside Material	ABS	
IP code	IP20	
Inside [W x D x H (mm)]	224x200x340	
Outside [W x D x H (mm)]	292x333x433	
Weight [kg]	6.8	
Power Supply	220 V, 50 / 60 Hz / DC 12 V	
Power Consumption	DC-COLD (46W), HOT (48W)	
	AC-COLD (63W), HOT (63W)	
Order No.	189221	

Accessories & Options

Order No.	Name
189231	Shelf (Stainless steel)
189232	Access port (Ø12mm)

Copper Chamber CO₂ Incubator

The copper chamber version provides improved antimicrobial performance for contamination-sensitive applications while retaining all the standard features of the stainless-steel model.

Specifications

Temp. Range:	RT +5 ~ 60 °C
Temp. Resolution:	0.1°C
Dry Heat:	Up to 125 °C
Temp. Control:	Digital PID
CO ₂ Range:	0% ~ 20%
CO ₂ Accuracy:	±0.1% (5% / 37 °C)
CO ₂ Resolution:	0.1%
CO ₂ Sensor:	IR CO ₂ Sensor
Display and Control:	LED display button control
IP code:	IP20
Operating panel:	Individual 2-Channel Touch Button
Jacket type:	Dry Wall Type (6 sides heat)
Chamber material:	Stainless Steel (304)

Model	WCI-40Cu	WCI-180Cu
Order No.	Standard	W6028040
	Sterilization	W6028041
Chamber volume [L]	40	180
Temperature Stability [°C]	±0.1 (37 °C)	±0.1 (37 °C)
Temp. Uniformity [°C]	±0.3 (37 °C / RT20 °C)	±0.3 (37 °C / RT20 °C)
Heating Capacity [W]	320	320
CO ₂ Inlet pressure range [bar]	0.3 ~ 0.5	0.3 ~ 0.5
IP code	IP20	IP20
Number of shelves [included / max.]	2/9	3/17
Chamber dimensions [W x D x H (mm)]	320x350x375	528x473x710
Overall dimensions [W x D x H (mm)]	420x460x570	560x688x952
Weight [kg]	38	80



WCI-180Cu

Standard package includes: incubator, shelves, water tray.

Tri-Gas Incubator (CO₂ / O₂ / N₂)

The Tri-Gas incubator is ideal for experiments involving the cultivation of animal cells, sperm and ova, anaerobic cells, various types of microbial cells, hatching and germination, as well as specialized tissues.



O₂ Control

Multi Gas Supply (N₂ & O₂) is available for all CO₂ incubators.



Specifications

Model	WCI-40T	WCI-120T	WCI-180T	WCI-260T	WCI-850T	
Display and Control	LED display button control					
Temperature	Range [°C]	Ambient+5 ~ 60	Ambient+5 ~ 60	Ambient+5 ~ 60	Ambient+5 ~ 60	Ambient+5 ~ 60
	Accuracy [°C]	±0.1 (37 °C)	±0.1 (37 °C)	±0.1 (37 °C)	±0.1 (37 °C)	±0.1 (37 °C)
	Resolution [°C]	0.1	0.1	0.1	0.1	0.1
	Control	Digital PID	Digital PID	Digital PID	Digital PID	Digital PID
CO ₂	Range	0% ~ 20%	0% ~ 20%	0% ~ 20%	0% ~ 20%	0% ~ 20%
	Accuracy	±0.1% (5% / 37 °C)	±0.1% (5% / 37 °C)	±0.1% (5% / 37 °C)	±0.1% (5% / 37 °C)	±0.1% (5% / 37 °C)
	Resolution	0.1%	0.1%	0.1%	0.1%	0.1%
	Sensor	IR CO ₂ Sensor	IR CO ₂ Sensor	IR CO ₂ Sensor	IR CO ₂ Sensor	IR CO ₂ Sensor
	Control	Microprocessor	Microprocessor	Microprocessor	Microprocessor	Microprocessor
O ₂	Inlet pressure range [bar]	0.5 ~ 0.6	0.6 ~ 0.7	0.6 ~ 0.7	0.6 ~ 0.7	0.9 ~ 1.0
	Range	0.6 ~ 85%	0.6 ~ 85%	0.6 ~ 85%	0.6 ~ 85%	0.6 ~ 85%
	Sensor	Zirconium dioxide sensor	Zirconium dioxide sensor	Zirconium dioxide sensor	Zirconium dioxide sensor	Zirconium dioxide sensor
Operating panel	Individual 2-Channel Touch Button					
Jacket type	Air jacket					
Chamber material	Stainless Steel (304)					
IP code	IP20					
Number of shelves [included / max.]	2/9	3/15	3/17	3/16	3/26	
Chamber dimensions [W x D x H (mm)]	320x350x375	480x470x520	528x473x710	530x590x900	700x800x1530	
Overall dimensions [W x D x H (mm)]	421x467x580	579x569x767	599x623x952	631x705x1177	852x971x1859	
Weight [kg]	35	65	78	115	266	
Order No. for standard version	W6021040	W6021120	W6021180	W6021260	W6021850	
Order No. for dry heat sterilization version	W6022040	W6022120	W6022180	W6022260	W6022850	

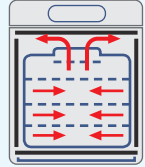
CO₂ Incubator for cell factory

Specially designed for 10-layer cell factory applications and large-scale animal cell culture.



Alarm System

Buzzer alerts for low or high deviations in CO₂ levels and temperature.



Gentle Air and Moisture Convection

Natural air and moisture convection. Air and moisture in the chamber are gently distributed by six-sided heating and the air circulation fan.



Easy to clean

Easy-to-clean design with rounded corners. Chamber crafted entirely from SUS304 (AISI 304) stainless steel.



Over-temperature Protection

Heating is automatically cut off by a safety device in the event of temperature control failure or excessive heating beyond the set point.



Perforated Shelves

Perforated shelves promote natural air flow and are made of stainless steel, which is resistant to rust and contamination.



No Condensation

Heating from the front door heater and frame heater prevents condensation inside the chamber and on the glass door.



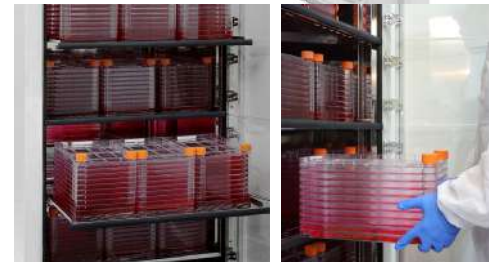
Microprocessor PID Control

Intelligence Control for CO₂ density, Temperature, Alarm, Automatic Decontamination (Optional).

- > Five separate glass-door compartments inside one cabinet
- > Reduced gas consumption and minimized heat loss
- > Faster recovery after door opening
- > Convenient sample segregation and batch management
- > Each compartment designed for high-capacity cell factory loading



WCI-850C



Specifications

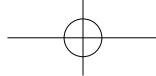
Temp. Range:	RT +5~60 °C
Temp. Resolution:	0.1 °C
Dry Heat:	100 °C
Temp. Control:	Digital PID
CO ₂ Range:	0% ~ 20%
CO ₂ Accuracy:	±0.1% (5% / 37 °C)
CO ₂ Resolution:	0.1%
CO ₂ Sensor:	IR CO ₂ Sensor
Display and Control:	LED display button control
IP code:	IP20
Operating panel:	Individual 2-Channel Touch Button
Jacket type:	Air Jacket Type (6 sides heat)
Chamber material:	Stainless Steel (304)

Model	WCI-850C	
Order No.	Standard	W6011851
	Sterilization	W6012851
Chamber volume [L]	850	
Temperature Stability [°C]	±0.1 (37 °C)	
Temp. Uniformity [°C]	±0.5 (37 °C / RT.20 °C)	
Heating Capacity [W]	1400	
CO ₂ Inlet pressure range [bar]	0.7 ~ 1.0	
Number of shelves	5	
Chamber dimensions [W x D x H (mm)]	700x800x1530	
Overall dimensions [W x D x H (mm)]	860x971x1859	
Weight [kg]	280	

Mega Constant Temperature Incubator

Large-capacity constant temperature incubators for high-throughput cultivation and multi-device placement. The optimized heating system and high-efficiency air circulation ensure uniform temperature distribution throughout the chamber.





Features

- > Five-side direct heating system for stable temperature uniformity and rapid heat-up/recovery
- > Three independently powered internal sockets are built in as standard (quantity customizable). Each socket is separately fused and operates independently of the chamber power supply
- > Built-in bottom rails allow easy installation, positioning, and movement of roller culture devices
- > 30mm Access Port is located in the middle of the right side of the chamber, facilitating sampling, subculturing, process monitoring, and equipment validation
- > The independent over-temperature protection device cuts off heating upon reaching the safe temperature



WH-1200



WH-2000

For information on selecting a roller rack, please refer to P38.

Specifications

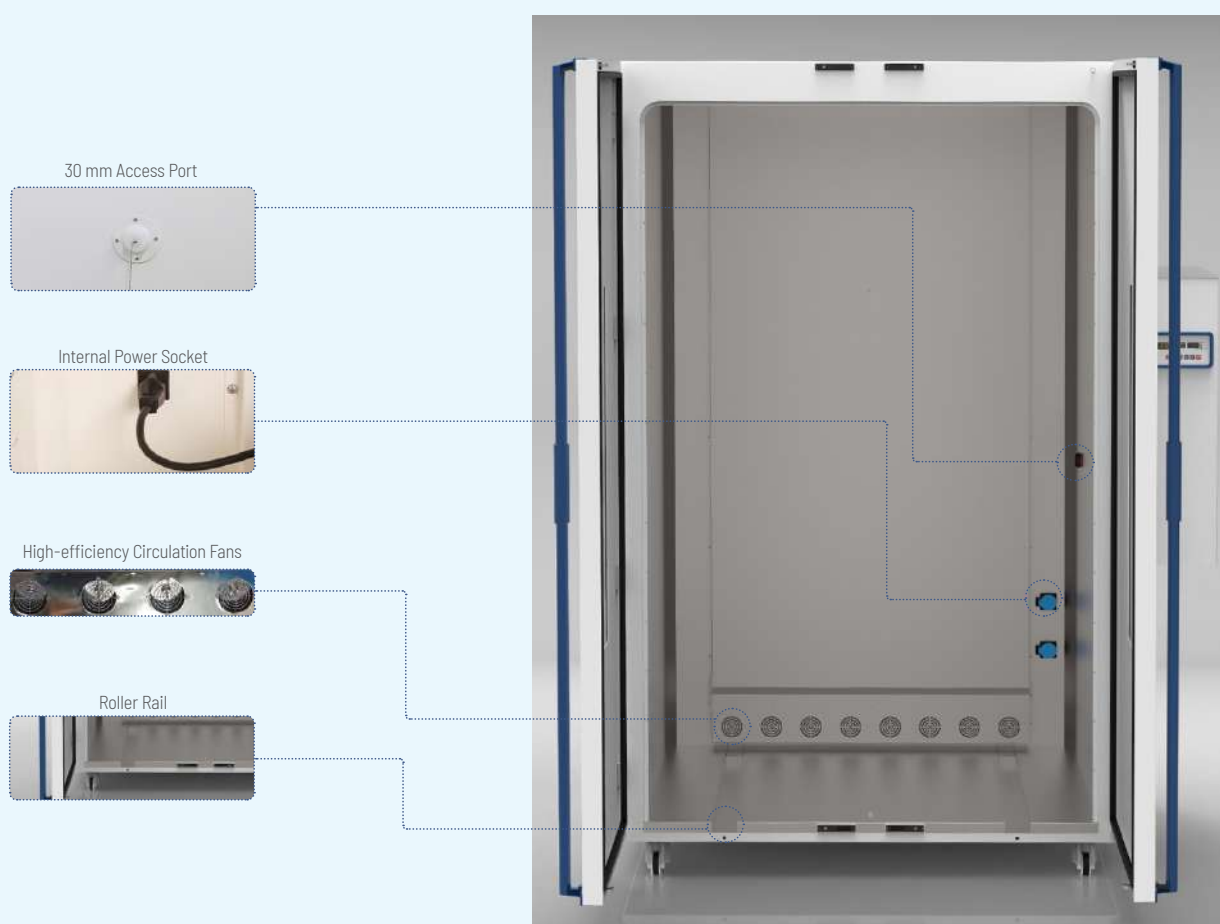
Model	WH-850X	WH-1200	WH-2000
Order No.	W6031851	W6031122	W6031202
Display and Control	LED display button control	LED display button control	LED display button control
Chamber volume [L]	850	1200	2000
Temperature range [°C]	RT +5 ~ +65 (RT 25 °C)	RT +7 ~ +60 (RT 25 °C)	RT +7 ~ +60 (RT 25 °C)
Temp. Uniformity [°C]	±0.5 at 37 °C (RT 25 °C)	±0.5 at 37 °C (RT 25 °C)	±1 at 37 °C (RT 25 °C)
Heating Capacity [W]	1400	1600	2800
Temperature Stability [°C]	±0.1 (at 37 °C)	±0.1 (at 37 °C)	±0.1 (at 37 °C)
Built-in alarm settings	Temperature / Open the door		
Shelves [included / max.]	0/26	0/35	0/12
Number of internal power sockets	2	3	2
Communication interface	RS-232/485	RS-232/485	RS-232/485
Door	Left-opening door	Left-opening door	Center-opening door
Chamber dimensions [W x D x H (mm)]	840x700x1590	868x720x1927	1240x870x2000
Overall dimensions [W x D x H (mm)]	993x887x1911	990x855x2123	1695x1098x2291
Chamber Material	SUS 304 Stainless steel		
Power supply	220V / 50 or 60Hz		

Mega CO₂ Incubator

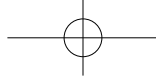
Large-capacity CO₂ incubators designed for high-density cell culture, multi-device integration, and uniform temperature/CO₂ distribution throughout the chamber.

Features

- > Five-side direct heating system
- > High-precision PID temperature control
- > Dual-beam IR CO₂ sensor
- > Internal independently powered sockets
- > Built-in roller rail design
- > Access port for sampling and validation
- > Dual-beam IR CO₂ sensor for fast and accurate CO₂ measurement independent of temperature and humidity



WCI-2000



Specifications

Model	WCI-850	WCI-1200	WCI-2000
Order.No	W6011851X	W6011122	W6011142
Display and Control	LED display button control	LED display button control	LED display button control
Chamber volume [L]	850	1200	2000
Temperature range [°C]	RT +5 ~ +60 (RT 25 °C)		
Temp. Uniformity [°C]	±0.5 at 37 °C (RT 25 °C)	±0.5 at 37 °C (RT 25 °C)	±1 at 37 °C (RT 25 °C)
Heating power [W]	1400	1600	2800
Temperature Stability [°C]	±0.1 (at 37 °C)		
CO ₂ Range	0 ~ 20%		
CO ₂ Sensor	IR CO ₂ Sensor		
CO ₂ Accuracy	±0.1% at 5%		
Safety Settings	Independent Over-Temperature Protection Cut-Off		
Built-in alarm settings	Temperature / CO ₂ / Open the door		
Shelves [included / max.]	0/26	0/35	0/12
Number of internal power sockets	2	3	2
Communication interface	RS-232/485	RS-232/485	RS-232/485
Door	Left-opening door	Left-opening door	Center-opening door
Chamber dimensions [W x D x H (mm)]	840x700x1590	868x720x1927	1240x870x2000
Overall dimensions [W x D x H (mm)]	993x887x1911	1150x918x2128	1700x1100x2260
Chamber Material	SUS 304 Stainless steel		
Power supply	220V / 50 or 60Hz		

CO₂ Incubator Accessories

Order No.	Part	Description	Suitable for
W 6031221	Perforated shelf kit	Max. load up to 25kg	WH-1200 / WCI-1200
W 6031222	Reinforced perforated shelf kit	Max. load up to 50kg	WH-1200 / WCI-1200
W 6051502	Inner power socket	Three-jack socket, 220 V, for power supply inside the chamber, not exceed 1000 W	All series incubator



WH/WCI-2000 series shelf kits offer customization service

CO₂ Incubator Accessories

Order No.	Item	Description	Suitable for
Incubator shelf for holding cultures in the chamber			
189231	Stainless steel shelf		WCI-15R
W6010401	Perforated Shelf kit	Perforated shelf to improve uniformity, Stainless steel material can effectively resist corrosion and pollution, load 15kg	WCI-40 series
W6011201	Perforated Shelf kit	Perforated shelf to improve uniformity, Stainless steel material can effectively resist corrosion and pollution, load 15kg	WCI-120 series
W6011801	Perforated Shelf kit	Perforated shelf to improve uniformity, Stainless steel material can effectively resist corrosion and pollution, load 15kg	WCI-180 series
W6011801-U	Reinforced perforated shelf kit	Perforated shelf to improve uniformity, Stainless steel material can effectively resist corrosion and pollution, load 50kg	WCI-180 series
W6011801-Cu	Perforated Shelf kit	Perforated shelf to improve uniformity, Copper material can effectively resist corrosion and pollution, load 15kg	WCI-180Cu
W6011801-Cu-U	Reinforced perforated shelf kit	Perforated shelf to improve uniformity, Copper material can effectively resist corrosion and pollution, load 50kg	WCI-180Cu
W6012601	Perforated Shelf kit	Perforated shelf to improve uniformity, Stainless steel material can effectively resist corrosion and pollution, load 15kg	WCI-260
W6012601-U	Reinforced perforated shelf kit	Perforated shelf to improve uniformity, Stainless steel material can effectively resist corrosion and pollution, load 50kg	WCI-260
W6016501	Perforated Shelf kit	Perforated shelf to improve uniformity, Stainless steel material can effectively resist corrosion and pollution, load 15kg	WCI-650
W6016501-U	Reinforced perforated shelf kit	Perforated shelf to improve uniformity, Stainless steel material can effectively resist corrosion and pollution, load 50kg	WCI-650
W6018501	Perforated Shelf kit	Perforated shelf to improve uniformity, Stainless steel material can effectively resist corrosion and pollution, load 15kg	WCI-850
W6018501-U	Reinforced perforated shelf kit	Perforated shelf to improve uniformity, Stainless steel material can effectively resist corrosion and pollution, load 50kg	WCI-850
W6011851X1	Perforated Shelf kit	Perforated shelf to improve uniformity, Stainless steel material can effectively resist corrosion and pollution, load 15kg	WCI-850X
W6011851X1-U	Reinforced perforated shelf kit	Perforated shelf to improve uniformity, Stainless steel material can effectively resist corrosion and pollution, load 50kg	WCI-850X
Roller Base (Installed beneath the incubator for easier movement)			
W6010402	Roller base	To move incubator easily	WCI-40 series
W6010602	Roller base	To move incubator easily	WCI-120 series
W6011802	Roller base	To move incubator easily	WCI-180 series
Stacking Kit (For safe stacking and positioning of incubators)			
W6011803	Stacking kit	To stack and fix the incubator	WCI-180
W6012603	Stacking kit	To stack and fix the incubator	WCI-260
HEPA Filter (For gas circulation filtration)			
W6011804	HEPA	Set at the gas supply inlet to ensure the cleanliness of the gas in the incubator	WCI-40 / 120 / 180
W60112604	HEPA		WCI-260
W6018504	HEPA		WCI-650 / 850
Water tray (Used for humidification during culture to reduce medium evaporation)			
W6010405	Water tray	Moisture is generated by heating the Water tray at the bottom, which is filled throughout the chamber by a circulating fan	WCI-40 / 120
W6011805	Water tray	Moisture is generated by heating the Water tray at the bottom, which is filled throughout the chamber by a circulating fan	WCI-180 / 180T / 180R/S
W6012605	Water tray	Moisture is generated by heating the Water tray at the bottom, which is filled throughout the chamber by a circulating fan	WCI-260
W6016505	Water tray	Moisture is generated by heating the Water tray at the bottom, which is filled throughout the chamber by a circulating fan	WCI-650 / 850



Roller base

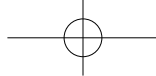
Stacking kit



HEPA



Water tray



Order No.	Item	Description	Suitable for
UV lamp			
W6011806	UV lamp	A 4W UV lamp is placed at the top of the chamber, next to the circulating fan. UV rays do not radiate the sample and can be sterilized during culture.	All series incubator (The operating temperature should not exceed 60 °C)
Software			
W6011809	Monitoring system	PC-based monitoring software for remote real-time monitoring of incubator operating status	All series incubator
W6011809-01	Connecting wire	With anti-shedding interface for PC to the incubator, unit/m	All series incubator
Airway			
W6011810	Gas regulator	For pressure regulation from the air supply to the chamber	All series incubator
W6011816	Access port for auxiliary monitoring	Diameter of 30mm (40mm customizable), for sampling, experimental verification and penetration of additional equipment power or signal cables in the incubator	All series incubator
189232	Measuring hole	Used for measure sensor access on the side of the incubator	WCI-15R
WCI180065	Tubing	Outer diameter 6mm, inner diameter 4mm for CO ₂ tubing. Unit/meter	All series incubator
ZFC100-06	Filter	For incubator inlet air filtration, CO ₂ filter	All series incubator
Divided door: To Reduce chamber's environmental changes when the door is opened			
W6011812	Divided door	5-Split Door glass door for easy individual experimental operations	WCI-40/40T
W6011813	Divided door	3-Split Door glass door for easy individual experimental operations	WCI-180/180T
W6011814	Divided door	6-Split Door glass door for easy individual experimental operations	WCI-180/180T
W6012606	Divided door	3-Split Door glass door for easy individual experimental operations	WCI-260
W6012607	Divided door	6-Split Door glass door for easy individual experimental operations	WCI-260
W6016506	Divided door	3-Split Door glass door for easy individual experimental operations	WCI-650
W6016507	Divided door	5-Split Door glass door for easy individual experimental operations	WCI-650
W6018506	Divided door	3-Split Door glass door for easy individual experimental operations	WCI-850
W6018507	Divided door	5-Split Door glass door for easy individual experimental operations	WCI-850
Printer / Power supply / LED lamp			
W6011815	Stylus printer	To print incubator data	All series incubator
W6051502	Power socket in chamber	Three-jack socket, 220 V, for power supply inside the chamber, not exceed 1000 W	All series incubator
W6051503*	LED lamp	Installed on the top of the chamber, with an independent lighting switch	All series incubator



UV lamp



Connecting wire



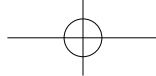
Access port for auxiliary monitoring



Filter



*The temperature must not exceed 40 °C when LED lamp is present



Shaker Incubator
Shaker CO₂ Incubator
Roller Rack CO₂ Incubator

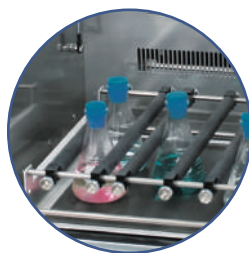


Shaker Incubator

Combining incubation/refrigeration with dual shaking modes, the WS series supports a wide range of biological and biotechnology applications.

Shaking Features

- > Dual shaking modes: orbital or reciprocal
- > Speed range: 30 to 300 rpm
- > Programmable shaking motion
 - Timer range: 10 sec to 999 hr 59 min 59 sec
 - Forward & Backward, Pause: 10 sec to 59 min 59 sec
- > Selectable shaker throw: 20, 30, 40mm



Operating Features

- > Microprocessor PID control
- > High temperature limit setting and open door alarm
- > Convenient preset function for 3 most commonly used temperature settings
- > Up to 9 temperature steps and maximum 200 cycles of repetition and programmable for each profile
- > Intuitive control panel with bright LED display (0.1 °C resolution) and push button keypad
- > RS-232 interface

Optional Accessories

- > Universal / Dedicated Platforms, Rubber Mats, Universal Attachments
- > Flask Clamps, Funnel Clamps
- > Test Tube Racks, Spring Wire Racks
- > Microplate Holders (three styles)

Constructional Features

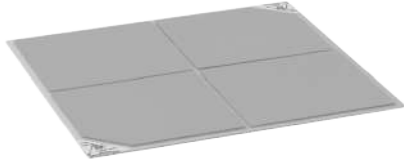
- > Maintenance-free and durable BLDC motor
- > High-velocity fan ensuring uniform temperature distribution and rapid thermal recovery
- > Convenient sample monitoring thanks to the transparent acrylic lid and the fluorescent lamp
- > Gas-spring-supported lid for smooth opening, soft closing, and stable positioning
- > Environmentally friendly, CFC-free refrigerant

Specifications

Product Name	WS-300	WS-300R	WS-600	WS-600R	
Volume (L)	53	53	83	83	
Temperature	Range [°C]	RT +5 ~ 60	15 ~ 60	RT +5 ~ 60	15 ~ 60
	Accuracy [°C]	±0.1 (37 °C)	±0.1 (37 °C)	±0.1 (37 °C)	±0.1 (37 °C)
	Stability [°C]	±1.0 (37 °C)	±1.0 (37 °C)	±1.0 (37 °C)	±1.0 (37 °C)
	Controller	Push button keypad, Digital Display with PID automatic regulation			
	Heater	Heating Plate, 800 W			
Timer	Start / Stop / Duration setting: 10sec ~ 999hr 59min 59sec				
Shaker	Controller	PID automatic regulation			
	Power Unit	Brushless motor			
	Methods	Orbital Standard, Reciprocating (Option)			
	Shaking Throw [mm]	20, 30 (standard), 40	20, 30 (standard), 40	20, 30 (standard), 40	20, 30 (standard), 40
	Speed [rpm]	30 ~ 300	30 ~ 300	30 ~ 300	30 ~ 300
Stability [rpm]	±1 (at 150 rpm)	±1 (at 150 rpm)	±1 (at 150 rpm)	±1 (at 150 rpm)	
Dimensions	Platform [W x D (mm)]	350x350	350x350	450x450	450x450
	Inside [W x D x H (mm)]	410x410x320	410x410x320	510x510x320	510x510x320
	Outside [W x D x H (mm)]	438x737x624	438x737x624	573x839x624	573x839x624
IP code	IP30	IP30	IP30	IP30	
Net Weight [kg]	74	85	91	102	
Max. Load [kg]	10	10	15	15	
Order No.	W6091050	W6095050	W6091080	W6095080	

Standard includes shaker only. Tray need to be ordered separately.
Optional natural refrigerant version available
For ordering, please add "N" after the ordering number

Accessories for Shaker Incubator



Sticky Tray

The WIGGENS sticky tray can accommodate any type of vessel with a smooth base. Even at speeds of up to 220 rpm, the vessel remains securely adhered to the plate.

Suitable for	WS-300/300R	WS-600/600R
Order No.	31901	31902
Dimensions (W x D in mm)	350x350	450x450
Sticky (singal piece) (need 4 pieces for replacement on the tray)	31901 -1	31902 -1
Tray (Without sticky pieces)	31901 -2	31902 -2

Sticky plate includes: Tray, 4 pieces of stickies.



Multi-Purpose Tray

The multi-purpose tray is made of stainless steel and can be used for a diverse range of unusual specifications.

Suitable for	WS-300/300R	WS-600/600R
Order No.	31521	31522
Dimensions (W x D in mm)	350x350	450x450
Max. Load of Flasks		
50ml	16	25
100ml	9	16
250ml	4	9
300ml	4	9
500ml	4	5
1L	2	4
2L	1	2
2.8L	1	2

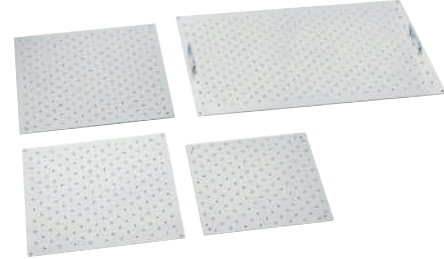
Multi-Purpose tray includes: Tray, Springs.



Adjustable bar tray

Suitable for	WS-300/300R	WS-600/600R
Order No.	31514	31515
Dimensions (W x D in mm)	300x300	400x400
Number of bar	3	3
Order No. of bar	31514-05	31515-05

Adjustable bar tray includes, 3 pieces of bars.



Universal Tray

The Universal Trays employ a drilled grid for individual loadings of test tube holders, microtitre plates, and deep well plates.

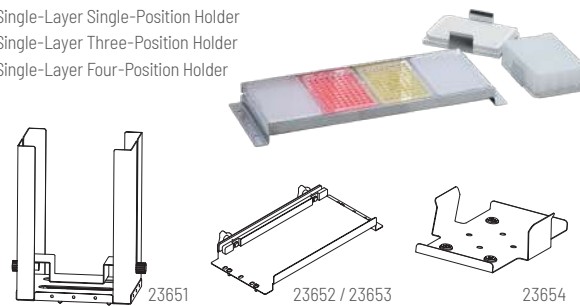
Suitable for	WS-300/300R	WS-600/600R
Order No.	31501	31502
Dimensions (W x D in mm)	350x350	450x450
Max. Load of Flask Clamps		
50ml	28	45
100ml	24	36
250ml	13	18
300ml	13	18
500ml	10	13
1L	5	7
2L	4	5
2.8L	1	2
Max. Load of Separatory Funnel Clamps		
250ml	4	6
500ml	2	3
1L	-	2

Universal tray includes: Tray. Clamps need to be ordered separately.

Multi-Pore Holders

The Wiggins multi-pore holders can be installed on the Wiggins sticky plates or the Wiggins universal trays. All holders can be installed on small pores and deeper holes. In total, four different multi-pore holders are available:

1. Multi-Layer Holder
2. Single-Layer Single-Position Holder
3. Single-Layer Three-Position Holder
4. Single-Layer Four-Position Holder



Max. No. of Mountable Holders	Multi-Layer	Four-Position	Three-Position	Single-Position
Order No.	23651	23652	23653	23654
Max. mountable holders				
WS-300/300R	6	-	2	8
WS-600/600R	10	2	3	15



Rubber mat

Designed for low-speed applications, non-skid rubber mats allow quick addition or removal of flasks, plates or tubes.

Suitable for	WS-300/300R	WS-600/600R
Order No.	31531	31532
Dimensions(W x D x H mm)	352x352x23	450x450x23



Separatory funnel clamp

Funnel Volumes	250ml	500ml	1L	2L
Order No.	23562	23563	23564	23565
	152x60	165x70	230x80	255x90



Erlenmeyer flask clamp

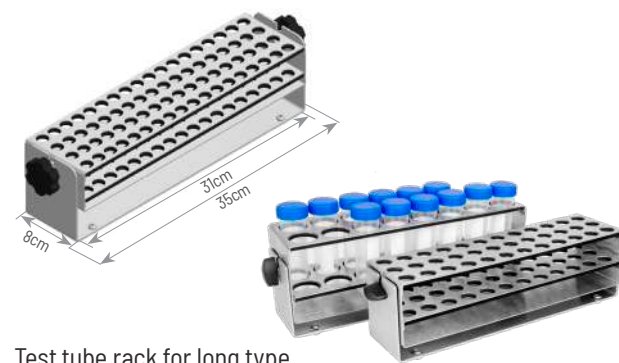
Size of flask	Order No.
25ml	23549
50ml	23550
100ml	23551
250ml	23552
300ml	23556
500ml	23553
1000ml	23554
2000ml	23555
2800ml Fernbach	23557
3000ml	23560
4000ml	23558
5000ml	23561
6000ml	23559

Plastic clamps for erlenmeyer flask

Order No.	Description	Order No.	Description
31285	100ml	31287	500ml
31286	250ml		

Stainless steel clamps for fernbach flask

Order No.	Description	Order No.	Description
31283	1.8L	31284	2.8L



Test tube rack for long type

Order No.	Description	Order No.	Description
31342	144 x Ø8mm	31356	39 x Ø18mm
31343	100 x Ø10mm	31358	36 x Ø20mm
31347	72 x Ø12mm	31359	33 x Ø22mm
31352	64 x Ø14mm	31360	20 x Ø25mm
31354	36 x Ø16mm	31361	16 x Ø30mm

Test tube rack for short type

Order No.	Description
31348	72 x Ø12mm
31353	64 x Ø14mm
31357	39 x Ø18mm (Suitable for Greiner Bio-one tube)

Rack for plastic test tube

Order No.	Description
31355	36x Ø16mm (15ml)
31362	16x Ø30mm (50ml)

187mm test tube rack for short type

Order No.	Description	Order No.	Description
31344	44 x Ø12mm	31349	21 x Ø20mm
31346	24 x Ø18mm		

Shaker Incubator

Laboratory space is both limited and costly. The WSI series successfully combines flexibility, user-friendly operation, and operational safety with optimal space utilization. Its modular construction and downward-opening door allow it to function as a standalone unit for use on or under the laboratory bench, or as part of a stacked system.

Features

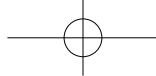
- > Easy to complete the stacking process
- > Electromagnetic drive technology ensures stable shaking with low noise
- > Integrated shaking unit accommodates flasks with a volume of up to 2 liters
- > The opening direction of the outer door can be switched for flexibility
- > Built-in circulation fan ensures uniform temperature distribution
- > Stainless steel chamber is easy to clean. Alarm for temperature deviations, speed deviations, or when the door is open
- > Independent safety temperature control prevents overheating
- > A variety of optional accessories are available
- > WSI-50R adopts Peltier cooling



Specifications

Model		WSI-50	WSI-50R
Temperature	Range [°C]	RT+7 ~ 60 (25 °C)	RT-10 ~ 60 (25 °C)
	Accuracy [°C]	±0.1	±0.1
	Uniformity [°C]	±0.5 (at 37 °C)	±0.5 (at 37 °C)
Shaking (Optional)	Speed [rpm]	20 ~ 300	20 ~ 300
	Accuracy	± 1%FS	± 1%FS
	Amplitude [mm]	25	25
Chamber Volume		71 L	71 L
Platform [W x D (mm)]		300x330	300x330
Capacity		100mlx16	100mlx16
		250mlx9	250mlx9
		500mlx5	500mlx5
		1000mlx4	1000mlx4
Dimensions [W x D x H (mm)]	1 deck	453x530x625	470x599x625
	2 decks	453x530x1250	453x530x1250
IP code		IP30	IP30
Two layers weight [kg]		110	140

Standard includes the Incubator, SRC shaker. The tray need to be ordered separately.

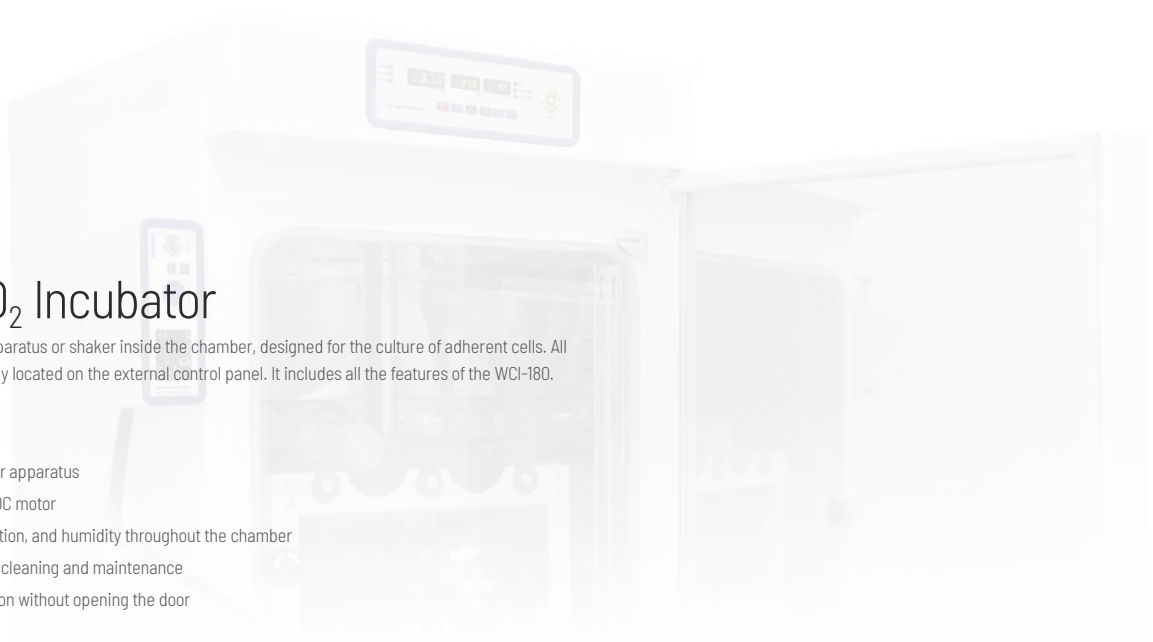


Roller Rack CO₂ Incubator

WIGGENS CO₂ incubator with a roller apparatus or shaker inside the chamber, designed for the culture of adherent cells. All operations and controls are conveniently located on the external control panel. It includes all the features of the WCI-180.

Features

- > 180 L CO₂ incubator with built-in roller apparatus
- > Low-noise, low-vibration brushless DC motor
- > Uniform temperature, CO₂ concentration, and humidity throughout the chamber
- > Removable roller apparatus for easy cleaning and maintenance
- > External speed controller for operation without opening the door



External controller

Accommodates four roller bottles with diameters of 100-120 mm. The speed controller is mounted externally. The external controller allows speed monitoring and adjustment without opening the incubator door.

Specifications

Model	WCI-180R	
Display of the incubator	LED	
Chamber Volume [L]	180	
Temperature	Range [°C]	RT+5-60
	Display Precision [°C]	±0.1 (37 °C)
	Resolution [°C]	0.1
Speed control	Speed [rpm]	2 ~ 30
	Accuracy [rpm]	±1
	Resolution [rpm]	0.1
	Control	PID microprocessor
Humidity	≤70% (at 37 °C)	
	accuracy	±0.1% (5% / 37 °C)
CO ₂	Resolution	0.1%
	Sensor	Dual infrared CO ₂ sensor
	Control	PID microprocessor
Timer (Roller)	Continuous or up to 99h 59min	
Jacket style	Air-jacket, six-side heating	
Chamber Material	304 stainless steel	
Shelf	One for roller apparatus, and above space for static culture	
Order No.	W6026180	

Standard includes the Incubator, Water tray, Shelf, Roller.



Celrol Mini

Shaker CO₂ Incubator

WIGGENS CO₂ incubator with a shaker inside the chamber, designed for the culture of adherent cells. All operations and controls are conveniently located on the external control panel. It includes all the features of the WCI-180.

Features

- > 180 L CO₂ incubator with an integrated shaker apparatus
- > Low noise operation with a low-vibration DC brushless motor
- > Uniform CO₂ concentration, humidity, and temperature throughout the chamber
- > Compatible with various plate types, including Erlenmeyer flasks (100 mL, 250 mL, 500 mL, 1000 mL), test tube clamps, and 96-well plates
- > External controller allows individual control of internal shaker, with speed displayed on the remote controller
- > Temperature and CO₂ levels are monitored and adjusted via the LED screen

Flasks with volumes ranging from 100 to 1000 mL can be placed on the internal shaker. The brushless DC motor ensures low vibration, dust-free operation, and minimal noise, making it ideal for cell culture.



More information, please refer to shaker SRC



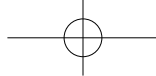
WCI-180CH

Please note: the sticky tray shown in the image must be ordered separately.

Specifications

Model	WCI-180S	WCI-180CH	
Application	Incubator and shaker can be separate for Independent use	Integrated version	
Display	LED	LED	
Chamber Volume [L]	180	180	
Platform Size [W x D (mm)]	300x330	300x330	
Temperature	Range [°C]	RT+5 ~ 60	RT+5 ~ 60
	Display Precision [°C]	±0.1 (37 °C)	±0.1 (37 °C)
	Resolution [°C]	0.1	0.1
Speed control	Speed [rpm]	30 ~ 300	30 ~ 300
	Accuracy [rpm]	±1	±1
	Resolution [rpm]	1	1
	Control	PID microprocessor	PID microprocessor
Humidity	≥70% (at 37 °C)	≥70% (at 37 °C)	
CO ₂	Accuracy	±0.1% (5% / 37 °C)	±0.1% (5% / 37 °C)
	Resolution	0.1%	0.1%
	Sensor	Dual infrared CO ₂ sensor	Dual infrared CO ₂ sensor
	Control	Microprocessor	Microprocessor
Jacket style	Air-jacket, six-side heating	Air-jacket, six-side heating	
Interior material	304 stainless steel	304 stainless steel	
Shelf	One for shaker	One for shaker	
Order No.	W6027180	W6027181	

Standard includes the Incubator, Water tray, Shelf, Shaker. The tray for shaker need to be ordered separately.



Shaker CO₂ Incubator

WIGGENS shaker CO₂ incubator is ideal for applications in biosimilar production, proteomics, crystallography, genomics, cell biology, and new drug development. This large-capacity CO₂ incubator features separable, long-life shakers, providing an optimal solution for cell suspension culture.

The internal chamber is divided into three compartments, each equipped with a separable orbital shaker designed to hold Erlenmeyer flasks, cylindrical flasks, or deep-well blocks. A dual beam infrared sensor ensures precise CO₂ control, while a six-side heating system guarantees excellent temperature control, recovery, and humidity management. An advanced air circulation system maintains temperature uniformity across all compartments.

The uniquely patented orbital shakers are made of stainless steel to minimize contamination and facilitate easy cleaning. The well-sealed plate-type magnetic drive motor allows these shakers to operate reliably in highly humid environments without generating noise, vibration, or particulates. These powerful shakers are built for long-term use, ensuring consistent performance and reliability.



Features

Cell suspension culture

The shaker CO₂ incubator is designed for the suspension culture of eukaryotic cells, such as CHO, HEK, and HeLa; however, it can also be used as a static incubator if required.

Infrared sensor

Industry standard dual beam infrared sensor is used to maintain control of CO₂ density

Pullout shaker platform

The platform of each shaker can be pulled out for efficiently loading flasks on each shaker.

Sticky mat & various holders

The orbital shakers can be used with sticky mats, dedicated flask holder trays, or universal flask/tube holder plates.

Individual shaker control

Each orbital shaker can be individually controlled using an external control panel.

Excellent temperature control

All six sides are directly heated and integrated with PID control to ensure rapid temperature attainment and consistent uniformity. Additionally, the system employs both forced air and natural convection to maintain optimal temperature uniformity at all times.

High and natural humidification

A deep and wide humidity tray allows high and natural humidity to be generated.

Split inner glass doors

The internal chamber is divided into three compartments, each equipped with its own shelf, shaker, and glass door. This design minimizes excessive heat and CO₂ loss when removing flasks and other items.

Humidity display (option)

The LED display shows the actual humidity levels in the chambers, notifying the user when it is time to replenish the water in the humidity tray.

Auto restart function

Each shaker is equipped with an auto-start/stop function. It stops when the inner glass door of its compartment is opened and restarts automatically once the door is closed. The auto-restart also activates after a power outage.

UV lamp

The UV lamp located next to the circulation fan can sterilize the air in the incubator even during the cell culture process. The UV lamp can be turned on or off using an external switch.

Stain resistant interior

The inner chamber and all orbital shakers are crafted from SUS304 stainless steel, a material chosen for its suitability in GMP facilities and corrosion resistance in high-humidity environments.

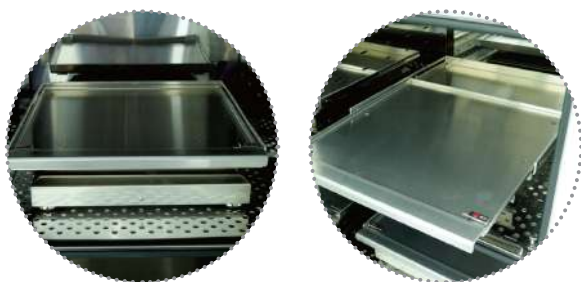
Anti-bacterial filter

A HEPA filter, positioned after the circulation fan, captures airborne microbes to maintain a sterile environment.

Specifications

Model		WCI-650CH	WCI-850CH	
Display		LED	LED	
Chamber volume [L]		650	850	
Temp.	Range [°C]	Ambient +5 ~ 60	Ambient +5 ~ 60	
	Accuracy [°C]	±1 (at 37 °C)	±1 (at 37 °C)	
Shaker	Shaking motion	Orbital	Orbital	
	Speed range [rpm]	30 ~ 300	30 ~ 300	
	Speed accuracy [rpm]	±1	±1	
	Speed increment [rpm]	1	1	
	Orbit diameter [mm]	25	25	
Humidity		≥70% (at 37 °C)	≥70% (at 37 °C)	
CO ₂	Range	0-20%	0-20%	
	Accuracy	±0.3% (at 5% at 37 °C)	±0.3% (at 5% at 37 °C)	
	Sensor	IR CO ₂ sensor	IR CO ₂ sensor	
	Inlet pressure [bar]	0.7 ~ 1.0	0.7 ~ 1.0	
Time	Time range	Continuous or up to 99h59min	Continuous or up to 99h59min	
	Time accuracy	±1%	±1%	
	Time increment [min]	1	1	
Jacket type		Air jacket type (6-side heating)	Air jacket type (6-side heating)	
Filter		Anti-Bacterial HEPA filter	Anti-Bacterial HEPA filter	
Sterilization		U.V 4Wx1ea	U.V 4Wx1ea	
Shelves		3ea	3ea	
Dimensions	Chamber dimensions [W x D x H (mm)]	700x650x1430	700x800x1530	
	Platform size [W x D (mm)]	520x520	520x520	
	Compartment dimensions [W x D x H (mm)]	Compartment 1 (Bottom)	700x650x430	700x800x410
		Compartment 2, 3 (Middle,Top)	700x650x380	
		Overall dimensions [W x D x H (mm)]	855x816x1763	
IP code		IP20	IP20	
Weight [kg]		32.3	39.3	
Power		220 V, 50 / 60 Hz	220 V, 50 / 60 Hz	
Order No.		W6027650	W6027850	

Standard includes the Incubator, Water tray, 3 shakers, 3 sticky plates.



Maximum allowance for flask capacity

WCI-650CH	WCI-850CH
100ml x 156	100ml x 156
250ml x 90	250ml x 90
500ml x 60	500ml x 60
1000ml x 48	1000ml x 48
2000ml x 9	2000ml x 27

For optimum performance under maximum load, a shaking speed of 150 rpm is recommended.



Universal Tray

The Universal Trays employ a drilled grid for individual loadings of test tube holders, microtitre plates, and deep well plates.



Suitable for	WCI-650CH / WCI-850CH
Order No.	W6100402
Dimensions [W x D (mm)]	520x520

Sticky Tray

WIGGENS Sticky tray can accommodate any type of vessel with a smooth base. Even at speeds of up to 300 rpm, vessels remain securely adhered to the plate. Additionally, microtiter plates can also be shaken on the WIGGENS Sticky Plate, but only at speeds up to 220 rpm.



Suitable for	WCI-650CH / WCI-850CH
Order No.	W6100401
Dimensions [W x D (mm)]	520x520

Multi-Purpose Tray

The multi-purpose tray is made of stainless steel springs and can be used for a diverse range of unusual specifications.



Suitable for	WCI-650CH / WCI-850CH
Order No.	W6100403
Dimensions [W x D (mm)]	520x520



Erlenmeyer Flask Clamp

Size of flask	Order No.
25ml	23549
50ml	23550
100ml	23551
250ml	23552
300ml	23556
500ml	23553
1000ml	23554
2000ml	23555
2800ml Fernbach	23557
3000ml	23560
4000ml	23558
5000ml	23561
6000ml	23559

Biomix for CO₂ Incubators



CO₂ Incubator & Shaker

- > Improves cell growth through continuous and uniform mixing
- > Enhances oxygen transfer efficiency
- > Reduces medium gradients through effective mixing
- > Minimizes cell sedimentation and accumulation in suspension culture

CO₂ Incubator & Roller

- > With the WIGGENS roller rack, cells achieve improved growth
- > Suitable for serum bottles, media bottles, and culture tubes
- > Suitable for cell culture or staining process
- > Speed range from 0.2~8.1 rpm



CO₂ Incubator & Magnetic Stirrer

- > With a specialized magnetic stirrer and vessel, cells achieve improved growth
- > IP68 class, ensuring a long service life
- > Remote speed control system
- > Low heat dissipation minimizes interference with chamber temperature and CO₂ control

CO₂ Incubator & Biological Culture

This biological culture system uses a semi-permeable membrane to separate the cell compartment from the medium compartment, helping overcome the limitations of conventional culture systems related to oxygen transfer, nutrient supply, and metabolite accumulation. It supports high-density culture and high-concentration product expression.

- > A disposable cell culture device that is ready for use at any time
- > Reduces consumable usage
- > Supports high cell density and product concentration
- > Stackable design for efficient space-saving
- > Time-saving design that eliminates the need for external equipment

Shaker for CO₂ Incubator

SRC / CRC / MRC

This compact shaker offers benefits such as a small footprint and easy mobility. The non-belt magnetic drive ensures low noise and low vibration. Despite its compact size, it delivers powerful shaking and has a spacious platform for various vessels.



Features

Gentle magnetic drive

The non-belt magnetic drive design allows for high water resistance performance. This gentle drive unit features exceptionally smooth start-up and braking behavior, making it particularly suitable for cell cultures.

Made of stainless steel

The entire housing of the shaker is made of stainless steel (SUS304), meeting GMP cleaning requirements. It allows for easy removal of unwanted liquids and can be cleaned with chemicals.

No gas leaks

The thin connection cable can pass through the sealed inner glass door area without requiring an additional access port, helping maintain chamber sealing integrity.

Magnetic Remote Controller Placement

Depending on the material type of the incubator or the situation of the lab, placing remote controller is available with integrated magnets.

Specification

Model	SRC	CRC	MRC
Motion	Orbital		
Control	Microprocessor Digital		
Motor	Plate BLDC motor		
Drive System	Direct Magnetic Drive		
Display	LED display		
Speed Range[rpm]	30 ~ 300	30 ~ 300	30 ~ 300
Accuracy[rpm]	±1	±1	±1
Shaking Throw[mm]	25 / 50	25 / 50	25 / 50
Time Range	Continuous or up to 99 hours 59min		
Time Increment	1min		
Shaker size [W x D x H (mm)]	302x357x99	496x414x120	519x465x132
Weight [(25/50mm) Kg]	7.5 / 11.5	20 / 20	25 / 25
Tray Size[W x D (mm)]	300 x 330	440x370	455 x 455
IP code	IP21	IP21	IP21
Control box Size [W x D x H (mm)]	162x100x30 / 0.5		
Power	100-240V 50/60HZ		
Load Capacity	100ml x 16	100ml x 23	100ml x 36
	250ml x 9	250ml x 10	250ml x 23
	500ml x 5	500ml x 6	500ml x 16
	1000ml x 4	1000ml x 5	1000ml x 9
	2000ml x 1	2000ml x 2	2000ml x 4
Order No. (25mm)	W6100100	W6100200	W6100300
Order No. (50mm)	W6100150	W6100250	W6100350

Standard includes shaker only. Tray need to be ordered separately.

Accessories

Order No.	Name
Suitable for SRC	
W6100101	Sticky Tray
W6100102	Universal Tray
W6100103	Multi-Purpose Tray
W6100104	Microplate Rack
Suitable for CRC	
W6100201	Sticky Tray
W6100202	Universal Tray
W6100203	Multi-Purpose Tray
W6100204	Microplate Rack
Suitable for MRC	
W6100301	Sticky Tray
W6100302	Universal Tray
W6100303	Multi-Purpose Tray
W6100304	Microplate Rack



Sticky Plate



Universal Tray



Multi-Purpose Tray



Microplate Rack

Cell Culture Roller Rack

The WIGGENS cell culture roller rack, available in the Celrol Mini and Celrol Mid models, offers high operational flexibility for use both inside an incubator and on a work table. A remote control box can be conveniently attached to the incubator surface, and the flat cable does not require special installation measures, such as an access port. The Celrol Mini accommodates up to four 2000 mL bottles, while the Celrol Mid can hold six 2000 mL bottles simultaneously. With a speed range of 0.2 to 8.1 rpm, these racks are designed to optimize the performance of adherent cell cultures.

Features

- > Steel-reinforced polyurethane timing belts
- > Brushless DC motor
- > Powder-coated aluminum for durability and cleanliness
- > Non-slip rubber material for optimal rolling performance
- > Drive-belt design eliminates idle rollers for consistent bottle rotation



Specifications

Model	Celrol Mini	Celrol Mid
Speed range [rpm]	0.2-8.1	0.2-8.1
Accuracy [rpm]	0.1	0.1
Increment [rpm]	0.1	0.1
Control	Microprocessor digital PID	Microprocessor digital PID
Time Range	Continuous or up to 999h 59min	Continuous or up to 999h 59min
Display	LED Display	LED Display
Motor type	Brushless DC motor	Brushless DC motor
Bottle diameter [mm]	110 to 120 4ea	110 to 120 6ea
Roller deck dimensions [W x D x H (mm)]	362x299x212	362x299x412
Overall dimensions [W x D x H (mm)]	384x393x354	384x393x524
Bottle Positions	4	6
Decks	2	3
Power	220 V, 50 / 60 Hz	220 V, 50 / 60 Hz
Weight [kg]	12.5	13.5
Order No.	W6110100	W6110200

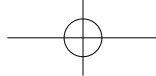
Standard includes roller rack only. Roller bottles need to be ordered separately



Celrol Mini

Outside controller

The external controller allows speed adjustment without opening the incubator door.



Cell Culture Roller Rack



Celrol Pro

- > Smooth ramping with digitally controlled rotation accurate to 0.01 rpm
- > Maintenance-free precision brushless motor
- > Bright TFT display for easy operation
- > Connectable to a printer
- > Belt break alarm

Specifications

Model	Celrol Pro
Display	TFT
Capacity	5-55 Positions
Bottle Speed (110mm Bottle) [rpm]	0.08-2.5
Diameter of roller bottles [mm]	108-121
Length of roller bottles [mm]	Max. 550
Accuracy [rpm]	0.01
Drive	Belt Driven
Motor Type	Brushless DC
Rotation Direction	Clockwise and Counter-Clockwise
Options	Temperature Alarm and Battery Backup
Communication Interface	RS232
Humidity	80% up to 37 °C
Operating Temperature [°C]	10 to 40
Electrical	220 V, 50/60 Hz

Standard includes roller rack only. Roller bottles need to be ordered separately.

Celrol Elite

- > Robust touch screen interface, easily viewable from a distance
- > Recognizable icons for intuitive navigation
- > Digitally controlled, maintenance-free motor accurate to 0.01 rpm
- > Connectable to a printer
- > Belt break alarm

Specifications

Model	Celrol Elite / GMP
Display	SIMATIC HMI Touch Screen
Capacity	8-88 Positions 5-55 Positions
Bottle Speed (110mm Bottle) [rpm]	0.08-2.5
Diameter of roller bottles [mm]	108-121
Length of roller bottles [mm]	Max. 550
Accuracy [rpm]	0.01
Drive	Belt Driven
Motor Type	Brushless DC
Rotation Direction	Clockwise and Counter-Clockwise
Options	Temperature Alarm and Battery Backup
Communication Interface	RS-485, Modbus RTU, RJ45, Modbus TCP and TCP/IP
Humidity	80% up to 37 °C
Operating Temperature [°C]	10 to 40
Electrical	220 V, 50/60 Hz

Standard includes roller rack only. Roller bottles need to be ordered separately.

Incubator and roller rack pairing recommendation

Layer	Celrol Pro	Celrol Elite
11		1800mm
10		1647mm ²⁾
9	1614mm ²⁾	1495mm
8	1452mm	1342mm ¹⁾
7	1291mm ¹⁾	1190mm
6	1129mm	1037mm
5	968mm	885mm
4	806mm	732mm
3	645mm	580mm
2	483mm	427mm
1	322mm	275mm

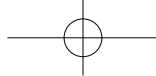
¹⁾Suitable for WH/WCI-850X

²⁾suitable for WH/WCI-1200



Ordering Information

Order No.	Position	Deck distance(cm)	Decks	Width(cm)	Depth(cm)	Height(cm)	Bottle Positions	Rack material
Celrol Pro								
WPBWRA501	5	18	1	79	63	35	5	AL
WPBWRA503	5	18	3	79	63	71	15	AL
WPBWRA505	5	18	5	79	63	107	25	AL
WPBWRA508	5	18	8	79	63	161	40	AL
WPBWRA509	5	18	9	79	63	179	45	AL
WPBNRS501	5	15	1	79	63	35	5	SS304
WPBNRS503	5	15	3	79	63	65	15	SS304
WPBNRS505	5	15	5	79	63	95	25	SS304
WPBNRS508	5	15	8	79	63	140	40	SS304
WPBNRS509	5	15	9	79	63	155	45	SS304
WPBNRS510	5	15	10	79	63	170	50	SS304
WPBNRS511	5	15	11	79	63	185	55	SS304
Celrol Elite								
WEBNRS501	5	15	1	79	63	35	5	SS304
WEBNRS503	5	15	3	79	63	65	15	SS304
WEBNRS505	5	15	5	79	63	95	25	SS304
WEBNRS508	5	15	8	79	63	140	40	SS304
WEBNRS509	5	15	9	79	63	155	45	SS304
WEBNRS510	5	15	10	79	63	170	50	SS304
WEBNRS511	5	15	11	79	63	185	55	SS304
WEBNRS809	8	15	9	120	63	155	72	SS304
WEBNRS810	8	15	10	120	63	170	80	SS304
WEBNRS811	8	15	11	120	63	185	88	SS304



Forced Convection Oven Vacuum Oven



Forced Convection Oven

The WF-G models are designed for high-temperature storage and feature a user-friendly design, making them suitable for all sterilization and drying tasks. They are ideal for drying applications that require gentle airflow.

Features

- > Microprocessor PID control and calibration
- > Over-temperature limit protection and door opening alarm
- > Conveniently preset for three commonly used temperature settings
- > Rounded inner chamber corners for easy cleaning and improved airflow
- > Stainless steel interior
- > Adjustable slide vents for controlling inner air vapor circulation



Venting valve

Regulate the air exchange between chamber and outside



High temperature protection

Alarm activates when the temperature exceeds the set point



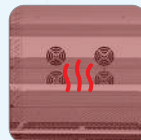
RS232 interface

Remote control by PC software



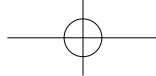
Wide temperature range

Up to 250 °C / 300 °C



Uniform distribution

Accurate temperature control and forced convection



Specifications

Model	WF-02G	WF-12G	WF-22G	
Display and Control	LED display button control			
Chamber Volume [L]	50	100	150	
Temperature	Range [°C]	RT+10 ~ 250	RT+10 ~ 250	RT+10 ~ 250
	Stability at 100 °C [°C]	0.5	0.6	0.8
Dimensions [W x D x H (mm)]	Interior	349x400x420	480x460x500	500x480x625
	Exterior	573x753x622	632x692x837	660x750x920
Number of shelves [included / max.]	2/8	2/12	2/14	
IP code	IP20	IP20	IP20	
Weight [kg]	55	62	72.5	
Power supply	230 V, 50 / 60 Hz	230 V, 50 / 60 Hz	230 V, 50 / 60 Hz	
Order No.	Without glass window	W6061050	W6061100	W6061150
	With glass window	W6061051	W6061101	W6061151

Model	WF-05G	WF-10G	WF-15G	WF-25G	WF-40G	WF-72G	
Display and Control	LED display button control	LED display button control	LED display button control	LED display button control	TFT touchscreen control	TFT touchscreen control	
Chamber Volume [L]	50	100	150	250	400	720	
Temperature	Range [°C]	RT+10 ~ 300	RT+10 ~ 300	RT+10 ~ 300	RT+10 ~ 300	RT+10 ~ 300	
	Stability at 100 °C [°C]	0.5	0.5	0.5	0.5	0.5	
Dimensions [W x D x H (mm)]	Interior	388x334x407	395x465x501	470x464x603	630x520x760	1080x574x840	1078x571x1200
	Exterior	606x577x746	694x655x840	694x945x656	850x845x1031	1252x895x1123	1280x900x1483
Number of shelves [included / max.]	2/6	2/8	2/14	2/11	3/11	3/16	
IP code	IP20	IP20	IP20	IP20	IP20	IP20	
Weight [kg]	55	62	72.5	78.5	210	250	
Heating power [kW]	1.2	1.3	1.5	2.6	3.4	5.1	
Power supply	230 V, 50 / 60 Hz	230 V, 50 / 60 Hz	230 V, 50 / 60 Hz	380 V	380 V	380 V	
Order No.	Without glass window	W6062050	W6062100	W6062150	W6062250	W6062400	W6062720
	With glass window	W6062051	W6062101	W6062151	W6062251	-	-

Standard includes the oven and shelves

Accessories & Options

Perforated Shelves

Stainless steel shelves are tool-free and easily removable for convenient cleaning.

Order No.	Description [W x D (mm)]	Model
W6060501	365x315	WF-02G / 05G
W6061001	450x380	WF-10G / 12G
W6061501	465x400	WF-15G / 22G
W6062501	558x440	WF-25G
W6064001	988x490	WF-40G
W6067201	1068x565	WF-72G



Glass viewing window

The threefold tempered glass viewing window enables easy sample monitoring.



Vacuum Oven

The vacuum oven is optimally designed for separating solvents from solutions or other samples with high boiling points. By creating a vacuum, the boiling point of the solvent is reduced, which protects the sample and simplifies the separation process. This equipment is widely used in biochemistry, chemical industry, pharmaceuticals, medical and health fields, agricultural research, and environmental protection for applications such as powder drying, baking, and sterilization of various glass containers. It is particularly suitable for the rapid and efficient drying of heat-sensitive, easily decomposed, or oxidized materials, as well as complex components.

Features

Operation

- > Push-button control panel for easy operation
- > Three preset temperature points for quick program start
- > Ball valve for vacuum operation in the oven
- > Needle valve for controlled venting
- > All connections for vacuum and venting are located at the rear

Temperature Control

- > Integrated programmer with one temperature profile, up to 9 steps, and up to 200 loop repetitions for selected steps

Structural and Safety

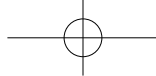
- > Toughened glass doors provide easy access to the oven interior
- > Safety door cover protects users and laboratories in the event of glass breakage
- > Overcurrent and over-temperature protection
- > The chamber is constructed from stainless steel with a smooth, even finish



Specifications

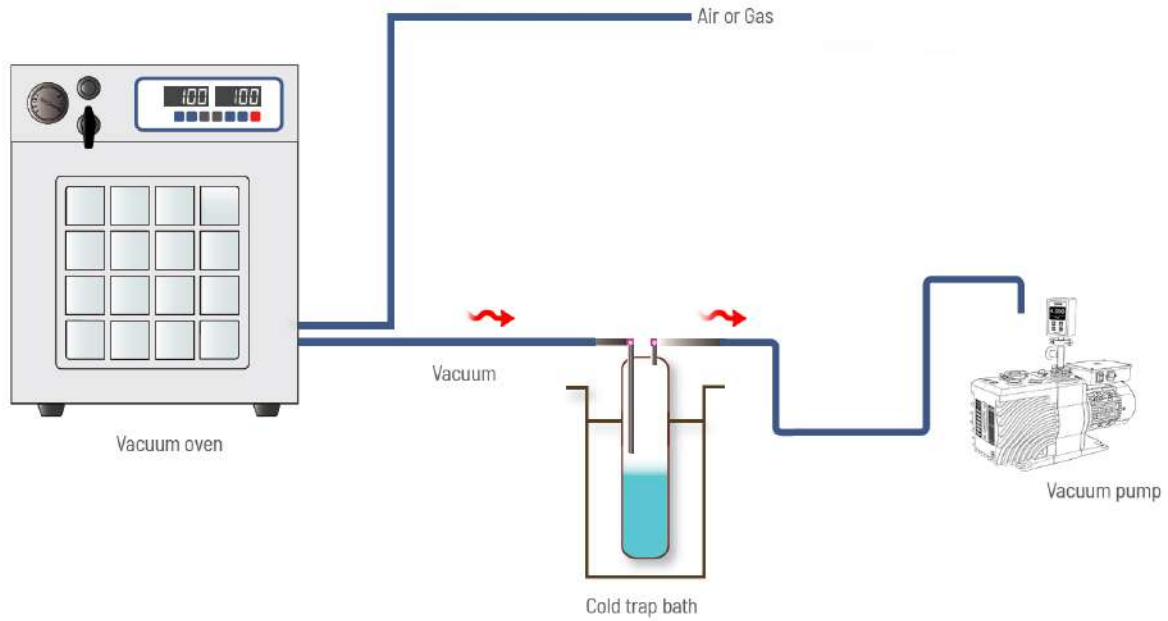
Model	WOV-30	WOV-65	WOV-120
Order No.	W6071030	W6071065	W6071120
Display and Control	Temperature LED display button control, vacuum gauge display		
Volume [L]	30	65	120
Temperature range [°C]	RT+5 ~ 250	RT+5 ~ 250	RT+5 ~ 250
Temperature resolution [°C]	0.1	0.1	0.1
Temperature variation [°C]	±3.7 (at 100°C)	±3.7 (at 100°C)	±3.7 (at 100°C)
Heating power [W]	2100	2100	2550
Vacuum range	0 ~ 1 atm	0 ~ 1 atm	0 ~ 1 atm
Timer	1min ~ 99h59min	1min ~ 99h59min	1min ~ 99h59min
Number of shelves	3	3	3
IP code	IP20	IP20	IP20
Vacuum connector [mm]	Ø10	Ø10	Ø10
Venting connector [mm]	Ø10	Ø10	Ø10
Communication interface	RS-232	RS-232	RS-232
Chamber dimension [W x D x H (mm)]	311x317x309	394x388x387	486x500x496
Overall dimension [W x D x H (mm)]	642x589x630	719x628x707	746x779x807
Power supply	220-240 V, 50 / 60 Hz		
Weight [kg]	63	103	147

Standard includes the oven and shelves



Related Products for Vacuum Ovens

Organization chart for use of Vacuum oven with Pump and Cold trap bath



Accessories

Gasket

Installed between chamber and door.

Order No.	Part	Suitable for
W6071032	Gasket, silicone	W0V-30
W6071062	Gasket, silicone	W0V-65
W6071122	Gasket, silicone	W0V-120



Vacuum Pump and Cold Trap

Order No.	Part	Suitable for
169520	Vacuum pump C520	W0V series
900104	Vacuum pump R-16SN	W0V series
W8603040	Cold trap	W0V series



WI-control software

WI-control is software designed for controlling devices, automating processes, and documenting measurements and results. It integrates WIGGENS laboratory devices and supports devices from other manufacturers. The software can network up to 128 devices simultaneously via a single PC, enhancing the efficiency and ease of automating laboratory experiments and processes.

Save time and improve efficiency

On the PC, you can automate laboratory processes, store custom recipes and data, manage workflows, and perform calculations during experiments. All connected devices can operate in cascade mode, allowing machines to automatically function when specified conditions are met.

Increase safety

Safety conditions can be configured to trigger alarms or shutdowns when activated, triggering alarms or shutdowns when activated. In remote operation, you can control complex reactions from a safe distance. The numerous automation options for recipes and processes enhance process reliability, improve user safety, and increase the reproducibility of all procedures.

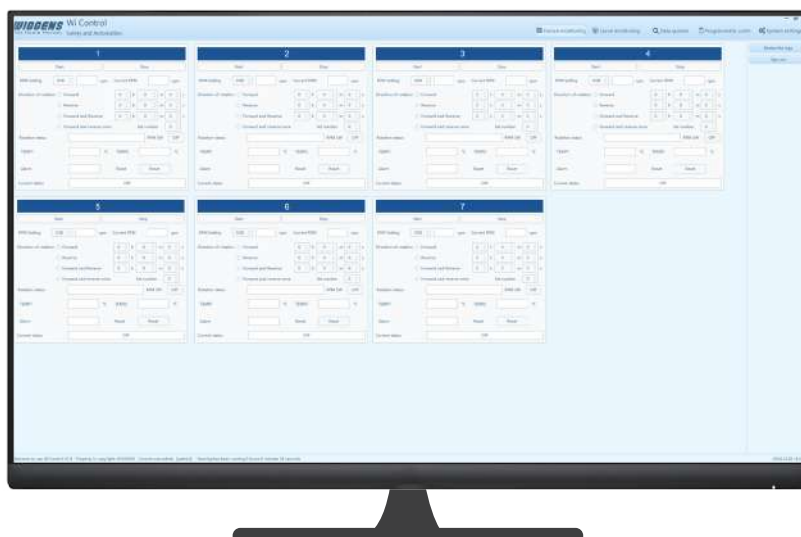
Real-time data recording and secure storage

Measurement data generated during a process can be exported in XLS and PDF formats for documentation and further analysis. All operations and changes to settings are recorded, facilitating the repetition of the experimental process.

System requirements

The WI-control software can be installed on any PC that meets the following system requirements.

System requirement	Minimum	Recommended
Operating system	Windows®7 or later, 32-bit	Windows®7 or later, 64-bit
Memory	2 GB	4 GB
Processor	2.5 GHz dual-core processor	2.5 GHz 4-core processor
Interfaces	1 x USB or 1 x RS232	depending on the number of units controlled
Display	6,500 colors	16 million colors
Screen resolution	1,400 x 1,050 pixels	1,680 x 1,050 pixels



GAS GENERATORS

- H₂, N₂, O₂, Compressor, Purified Air, and Zero Air
- > Hydrogen generator (PEM technology)
 - > Hydrogen and Zero Air Generator (Two-in-One)
 - > Nitrogen Generator (PSA Technology or Hollow Fiber Membrane)
 - > Nitrogen and Zero air generator (Two-in-one)
 - > Compressor and purified air system
 - > Zero air generator / Ultra zero air generator

H₂ GENERATOR

Purity: 99.9996% or 99.99996%
Flow rate: 100mL/min-20 L/min
General Version, Flat Version, Tower Version, and 19" Rack Version

N₂ GENERATOR

Flow rate: 100 mL/min-20 L/min
Purity: 95-99.9999%

O₂ GENERATOR

Flow rate: 6 L/min, 10 L/min
Density: 95%

Air ZERO AIR GENERATOR

Flow rate: 1.5-30 L/min
HC & CO Content: < 0.05 ppm
CO₂ Content: < 1 ppm
NO, SO_x Content: < 0.1 ppm

COMPRESSED AIR SYSTEM / PURIFIED AIR SYSTEM

Flow rate: 20-900 L/min
Pressure: 5 - 10 bar



Product brochure
online at
www.wiggins.com

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A brand of Wiggins

CHEMTRON ANALYTICS



Rotational Viscometer

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Falling Ball Viscometer

The Viscoball precisely measures the viscosity of transparent Newtonian liquids and gases using a specialized ball.



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Semi-automatic or automatic viscosity measurement system.



Density Meter

Portable Density / Specific Gravity / Concentration Meter



pH / Cond. / DO Meter

Precise, reliable, and selective in the lab and in the field



Refractometer

Scale Handheld Refractometer | Digital Refractometer



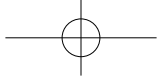
Titration, Auto Sampler, Software and Electrodes

With its broad performance range, the Chemtron titrator is well suited for potentiometric titration and offers extensive possibilities for expansion and automation. Its high-resolution, precise pH/mV, and "dead-stop" measurement interface enable swift, reliable, and accurate determinations of a multitude of parameters.

Chemtron titrators are typically known for their precision, ease of use, and capability to handle a wide range of titration applications.

- > Burettes and Titrators
- > Burettes and Titrators with interchangeable unit
- > Karl Fischer Titration
- > Sample changers and accessories
- > Titration software
- > Electrodes for Titration
- > Related reagent





CHEMTRON REACTION & PURIFICATION SYSTEM

Featuring Reactors from Lab to Production Scale

Energy | Petrochemical | Life Sciences | Cosmetics | Pharmaceutical | Environmental

Glass Reactor and Peripheral Units



These systems are essential tools for research, scale-up, and production across a wide range of scientific disciplines. Designed for maximum diversity and ease of use, we have developed a simple base system building platform that allows each reactor system to be customized.

- > Bench-top glass reactor (250 mL-5 L)
- > Pilot plant glass reactor (10-100 L)
- > Glass spherical reactor (up to 200 L)
- > Glass industrial production equipment
- > Glass filter reactor (150 mL-150 L)
- > Glass pressure reactor (up to 6 L)
- > Homogenization reactor
- > Ultrasonic, photochemical and hydrogenation reactor
- > Parallel reaction station
- > Stirrer & Pump
- > Dosing unit
- > pH measurement and control
- > Auto reaction software



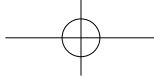
Stainless Steel Reactor and Peripheral Units



The requirements of our customers for the reaction vessels are as varied as the respective processes which are carried out in them. In recent decades, we have developed a modular system with standardized connection components, in order to economically implement individual solutions. This greatly simplifies the design and construction of our custom-made products.

- > High-pressure reactor, up to 200 bar
- > Low pressure reactor, up to 25 bar
- > Stainless steel reactor for atmospheric pressure or vacuum
- > Nutch filter reactor
- > Temperature control system
- > Stirrer unit: mechanical or magnetic coupling
- > Dosing unit
- > Ball valve, needle valve, solenoid valve, pneumatic valve
- > Auto reaction software





WIGGENS
THE MAGIC MOTION



WIGGENS China

Building No. 45, Tianshan International Enterprise Base,
Yanjiao Economic Development Zone, Beijing, China
Tel : +86-4008092068
office@wiggens.de



WIGGENS GmbH

Wiescher Str. 11a
42277 Wuppertal Germany
Tel: +49 1520 84 20 996
www.wiggens.com

Authorized Distributor