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WIGGENS

THE MAGIC MOTION

Rotary Evaporator
Heating and Mixing
Ultrasonic Cleaner
Lab Burner / Colony Counter

About WIGGENS

What Does Wiggens Stand for?

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

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

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

ChemVak Pumps
Wiggens General Lab Equipment
Life Science Equipment

ChemTron Gas
H_2 Generators
N_2 Generators
O_2 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 Wiggens, is specialized in pump technology offering an extensive range of vacuum pumps, vacuum filtrat 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

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

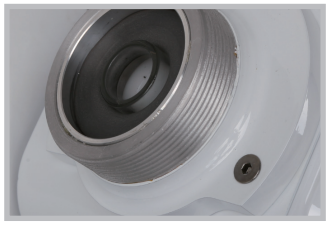
ST20 ATEX
Explosion-Proof Rotary Evaporator

Rotary Evaporator

Strike 185

Wiggens 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

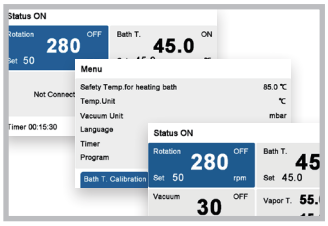
> Screen sizes (95x55 mm)

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

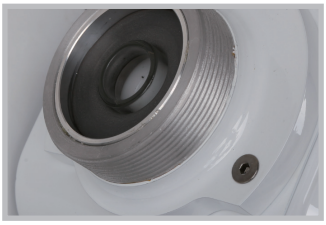
Rotary Evaporator

STRIKE 285

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.

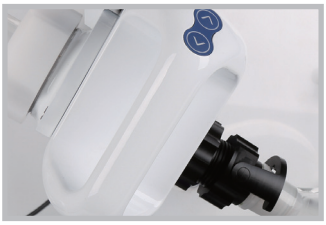
The evaporation flask is connected to vapor tube via coupling ring for easy fixing and removal of the flask, and the flask ejector design allows you to remove the sticking flasks from vapor tube in easy way by just turning the ejector.

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

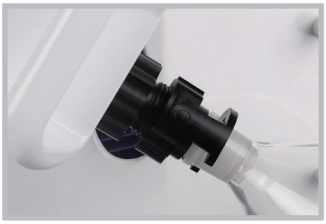


Mechanical structure

> 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

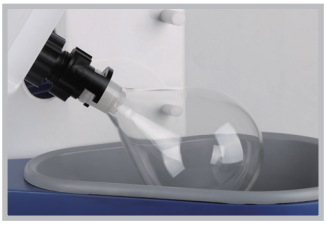
Glassware set

> 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

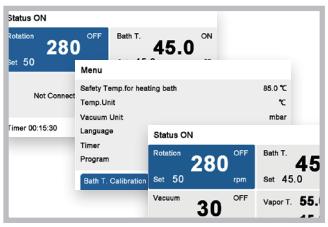
> Screen sizes (95x55 mm)

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

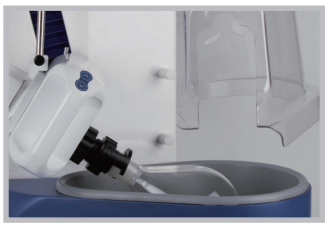


Safety

> 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

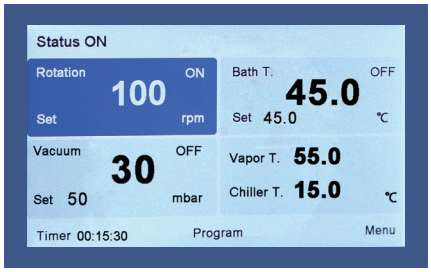
> Vapor temperature sensor with glass sleeve

> Vacuum pump, vacuum solvent recovery system, chiller, adapter and tube

Rotary Evaporator

Strike 185 / 285

Display and operation



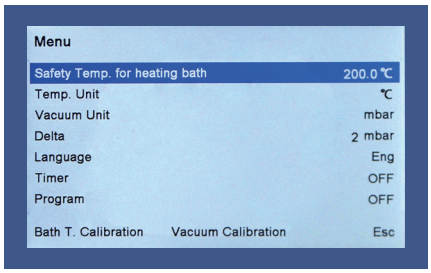
①

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

① Main Interface

Tap the screen to select a setting, then use the control knob to adjust and confirm values

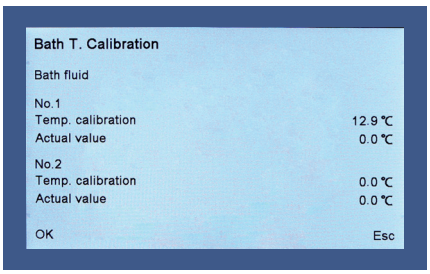
- > Rotation switch and Rotation switch and settings
- > Bath temperature switch and settings
- > Vacuum switch and settings
- > Vapor temperature display, when connected to a vapor temperature sensor
- > Cooling temperature display, when connected to a cooling temperature sensor



②

② Menu

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



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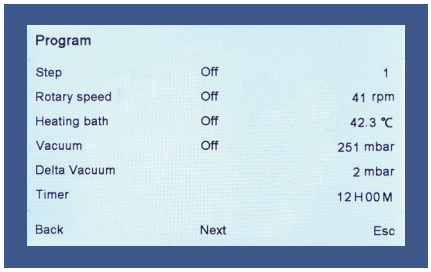
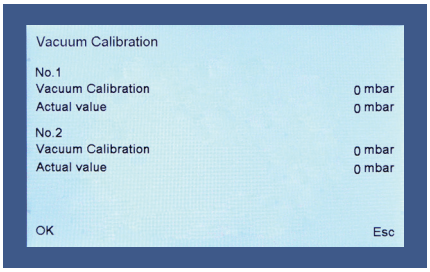


③

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



⑤

④ Bath Temperature Calibration (two points)

⑤ Vacuum Calibration (two points)

WIGGENS
THE MAGIC MOTION

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 Wiggens, 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.wiggens.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 ℃	Up to 180 ℃	Up to 185 ℃
Heating power	1400 W	1400 W	1400 W
Set temperature resolution	0.1 ℃	0.1 ℃	0.1 ℃
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 ℃	5~40 ℃	5~40 ℃
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

STRIKE 185 M1 / M4

STRIKE 185 M3 / M6

STRIKE 185 M7

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

STRIKE 285 M1 / M4

STRIKE 285 M2 / M5

STRIKE 285 M3 / M6

STRIKE 285 M7

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 Wiggens 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 Wiggens 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	SQEF059422

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

VALEGRO 350 VALEGRO 1001

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

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.	Order No.
	Standard	Coated
Diagonal condenser	SQEF059799	SQEF059798
Vertical condenser (steam sinks)	SQEF059796	SQEF059797
Vertical condenser (steam rises) , 1500 cm²	SQEF059794	SQEF059792
Vertical condenser (steam rises), 2000 cm²	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.	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

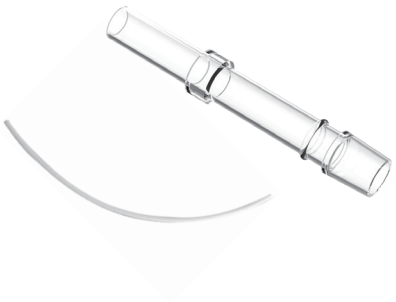
Cooling water temperature sensor

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_2Cl_2	40.7	Atm.	Atm.
Diethyl ether	$C_4H_{10}O$	34.6	Atm.	Atm.
Pentane	C_5H1_2	36.1	Atm.	Atm.
1,2 Dichloroethane(trans)	$C_2H_2Cl_2$	47.8	751	563
Acetone	C_3H_6O	56.5	556	387
Trichloromethane (chloroform)	$CHCl_3$	61.3	474	356
Diisopropyl ether	$C_6H_{14}O$	67.5	375	281
Tetrahydrofuran (THF)	C_4H_8O	66	357	268
Methanol	CH_4O	64.7	337	253
Hexane	C_6H_{14}	68.7	335	251
1,1,1-Trichloroethane	$C_2H_3Cl_3$	74.1	300	225
Tetrachloroethylene	CCl_4	76.7	271	203
2-Butanone	C_4H_8O	79.6	243	182
Ethyl acetate	$C_4H_8O_2$	77.1	240	180
Benzene	C_6H_6	80.1	236	177
Cyclohexane	C_6H_{12}	80.7	235	176
Acetonitrile	C_2H_3N	81.8	230	173
1,2 Dichloroethane	$C_2H_4Cl_2$	82.4	210	158
Trichloroethylene	C_2HCl_3	86.7	183	137

Solvent	Total formula	Boiling point (°C) at Atm.	Vacuum for a boiling at 40 °C	
1,2 Dichloroethane(cis)	$C_2H_2Cl_2$	59	479	134
Ethanol	C_2H_6O	78.4	175	131
Isopropyl alcohol	C_3H_8O	82.5	137	103
Tert.-butanol	$C_4H_{10}O$	82.9	130	98
Heptane	C_7H_{16}	98.4	120	90
1,4-Dioxane	$C_4H_8O_2$	101.1	107	80
Toluene	C_7H_8	110.6	77	58
Water	H_2O	100	72	54
N-propyl alcohol	C_3H_8O	97.8	67	50
Tetrachloroethylene	C_2Cl_4	120.8	53	40
Chlorobenzene	C_6H_5Cl	132.2	36	27
1,1,2,2-Tetrachloroethane	$C_2H_2Cl_4$	145.9	35	26
Xylene (isomers mixture)	C_8H_{10}	137-143	25	19
N-butanol	$C_4H_{10}O$	117.5	25	19
Isoamyl alcohol	$C_5H_{12}O$	130.6	14	11
Pentachlorinated Ethane	C_2HCl_5	160.5	13	10
Dimethyl formamide	C_3H_7NO	153	11	8
Amyl alcohol	$C_5H_{12}O$	137.8	11	8

WIGGENS
THE MAGIC MOTION

ST20

Pilot-Scale Rotary Evaporation for Demanding Processes

3 Options Available

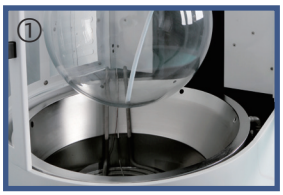
* Standard Rotary Evaporator
* ATEX Version
* Continuous Rotary Evaporator

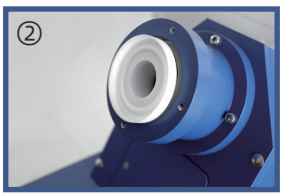
Each option is available in 6 L, 10 L, and 20 L configurations.

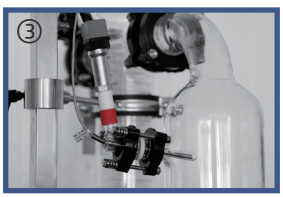
Industrial Relation System Design Concept

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.

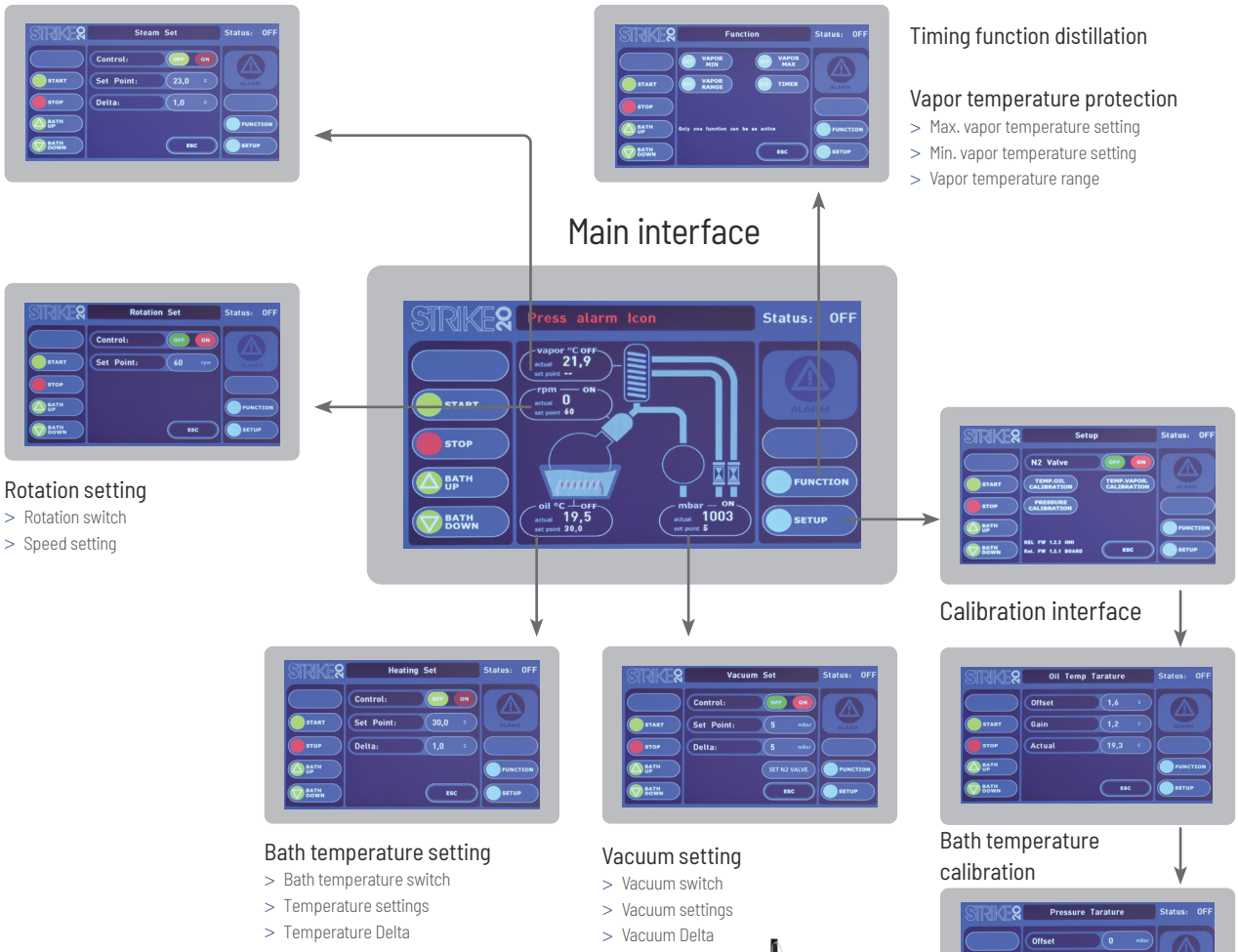
③ Vacuum and temperature

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, 2×6 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, 2×6 L receiving flask

ST20

Vertical glassware (Vapor sinking)

WIGGENS
THE MAGIC MOTION

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 m² (standard) / 1.2 m²(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

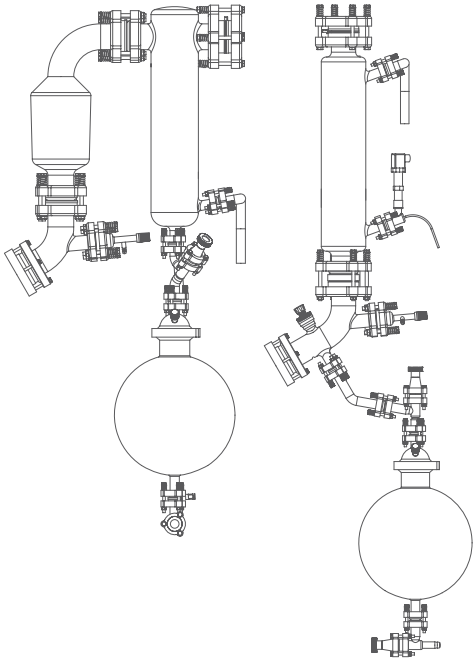
Model	C960T	C960T EX
Order No.	169960	169960EX
Max.power	370 kW	550 kW
Ultimate vacuum	<2 mbar	<3 mbar
Max. pumping speed	60 L/min	60 L/min
Inlet connection	10 mm	KF DN 25
Outlet connection	10 mm	KF DN 16
Suitable for	ST20, ST20CRE	ST20 ATEX

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 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 Wiggens 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

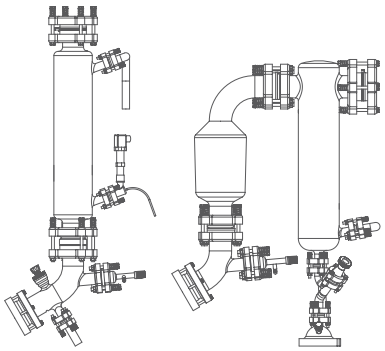
Replacement borosilicate glass for Wiggens ST20, ST20 CRE and ST20 ATEX rotary evaporators. Receiving flasks are designed to fit all large capacity rotary evaporators. Now available in coated, non-coated, amberized, and jacketed versions

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 Wiggens 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



A B

Cold trap

Replacement borosilicate glass components for Wiggens 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

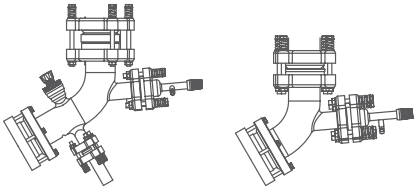
Replacement borosilicate glass components for Wiggens ST20, ST20 CRE and ST20 ATEX rotary evaporators. Upper expansion tanks for glass sets available in either poly-coated or non-coated versions

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

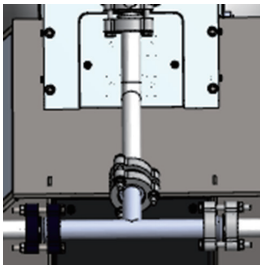


A B

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	VAJQ081056
Vacuum sensor for ST20 ATEX	VAJQ070992
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 mm^2
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 clamp

Material: SS316L
Size: DN50
Discharge area: 1781 mm^2
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 evaporaing flask handling

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

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

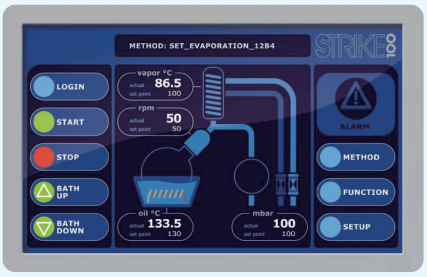
> Made of lubrificating material allowing perfect vacuum tightness.
> No maintenance required

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 evaporaing flask handling

Description	Order No.
Stainless steel trolley for evaporaing flask handling, for 50 L evaporation flask	C02039150
Stainless steel trolley for evaporaing 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

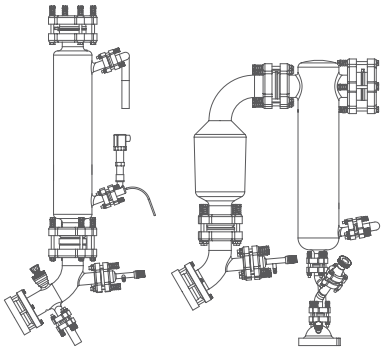
Replacement borosilicate glass for Wiggens ST50 and ST100 series rotary evaporator. Receiving flasks are designed to fit all large capacity rotary evaporators. Now available in coated, non-coated, amberized, and jacketed

Volume	Order No.	Order No.	Order No.	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 Wiggens 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



A B

Expansion vessel for steam sinks version only

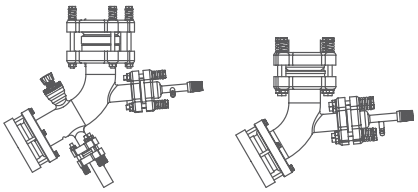
Replacement borosilicate glass components for Wiggens ST100 and ST100 ATEX rotary evaporators. Upper expansion tanks for glass sets available in either poly-coated or non-coated versions

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

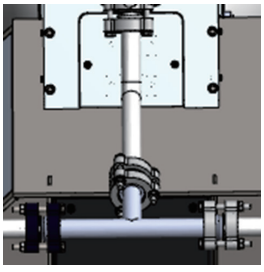


A B

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 mm^2
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

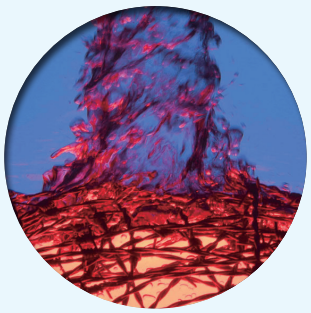
Material: SS316L
Size: DN50
Discharge area: 1781 mm^2
Burst pressure: 0.46±0.25 bar (20 °C)

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

IR Heating

WH260-AH

WH260-AR

WH260-NH

WH260-R

Pro series
large and clear LCD display
Intelligent PID
USB interface

IR Heating

WH200

WH210

WH420

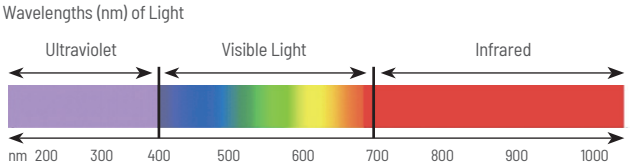
WH620

New entry level for lab heating & mixing

WIGGENS
THE MAGIC MOTION

Why Infrared Radiation Heating?

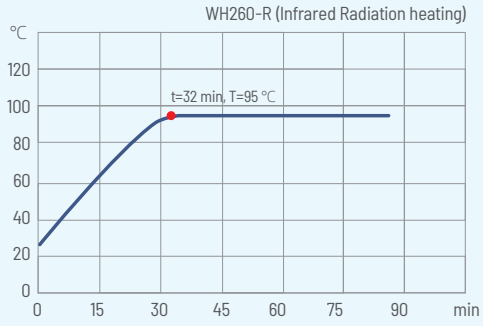
Infrared radiation heating involves the emission and transmission of light waves within the spectrum range of 700 nm to 100 µm (0.7 µm to 100 µm), enabling noticeable and directional energy transfer. Unlike conduction or convection, this transfer does not require any medium and can occur even in a vacuum. 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.

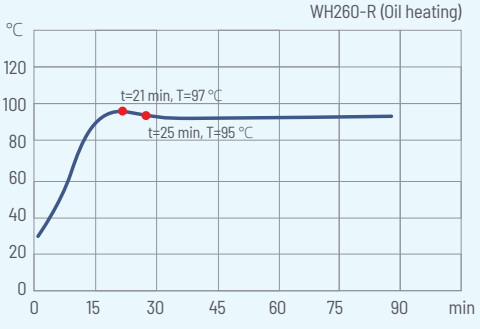


IR Heating

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.





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

Wiggens IR Heating

Oil bath

Wiggens IR Heating (Oil Bath)

Disadvantages of conventional heating method

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

WIGGENS
THE MAGIC MOTION

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_2O]	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 ℃ , 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 ℃ 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 ℃) to ensure user safety. With three sets of PID parameters, it is suitable for accurate control of smallvolume 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

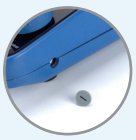
Suitable for different application, for accurately controlling the quick heating of small sample and the stable temprature control of large sample.

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 ℃ .

Ceramic top plate

WH-260AH/AR

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

Rotating knob

Easy to operate

WIGGENS
THE MAGIC MOTION

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.

WH260-AH

WH260-NH

WH260-H

WH260-AR

WH260-R

Specifications

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_2O]	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 ℃ , 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 [℃]	550
Maximum temperature setting with E-sensor [℃]	300
Safety temperature [℃]	50 ~ 600 adjustable
High temperature protection [℃]	10 ~ 50 adjustable
Temperature stability with E-sensor [℃]*	±1
Heat output [W]	1200
External temperature sensor	Pt100
Temperature control	PID, 3 sets
Speed setting range [rpm	100 ~ 1500
Stirring quantity max [L / H2O]	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 ℃
Standard includes the Hot plate / stirrer, stirrer bar

WIGGENS
THE MAGIC MOTION

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_2O]	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 Wiggens 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

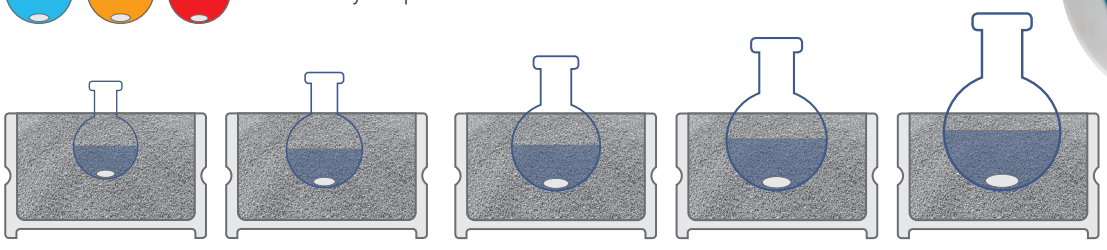
The high-quality soft dry bath developed by Wiggens offers uniform heat transfer and fast heat conduction. This makes it a great replacement for small oil baths, dry bath modules, electric heating sleeves, and other heating methods commonly used in laboratories. The aluminum bottom of the bath facilitates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

Additionally, Wiggens 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



50 mL | 100 mL | 250 mL | 500 mL | 1000 mL

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

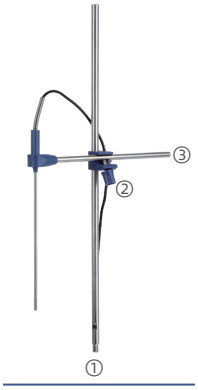
Temperature sensor Suitable for all Hot Plate / Stirrer

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

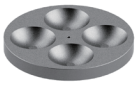
Cylindrical heating block

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	

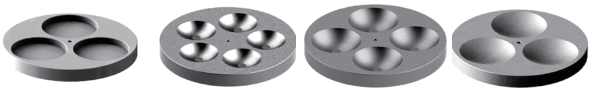
13696-01W / 02W

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 (H_2O) [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)

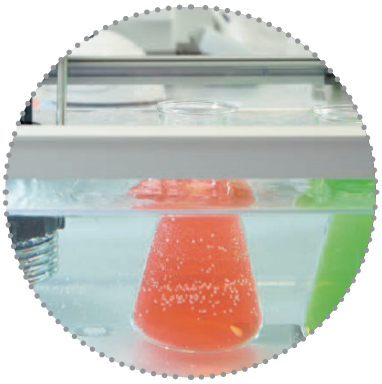
Submersible Magnetic Stirrer

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 ℃ .

Stirrer Model	S-1	B-1
Number of stirring positions	1	1
Stirring quantity max. per stirring position (H_2O) [L]	1	3
IP code	IP60	IP60
Top plate material	PP housing	PP housing
Dimensions [W x D x H (mm)]	70x70x28	155x155x45
Cable	1mxØ2.5 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

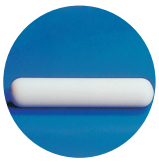
Different speed for connected stirrers
CS-4 and CB-4 controller

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 varity of applications.

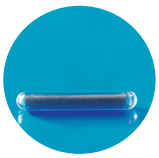
Order No.	Name	Description
W3029101	Cylindrical Stir Bar	Length: 10 mm, Diameter: 6 mm
W3029102	Cylindrical Stir Bar	Length: 15 mm, Diameter: 6 mm
W3029103	Cylindrical Stir Bar	Length: 20 mm, Diameter: 7 mm
W3029104	Cylindrical Stir Bar	Length: 20 mm, Diameter: 8 mm
W3029105	Cylindrical Stir Bar	Length: 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 withincreased 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.

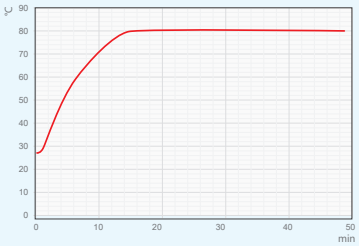
Order No.	Name	Description
W3029801	Triangular Stir Bar	Length: 20 mm, Diameter: 8 mm
W3029802	Triangular Stir Bar	Length: 40 mm, Diameter: 14 mm
W3029803	Triangular Stir Bar	Length: 50 mm, Diameter: 12 mm
W3029804	Triangular Stir Bar	Length: 80 mm, Diameter: 14 mm
W3029805	Triangular Stir Bar	Length: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

Infrared Hot Plate

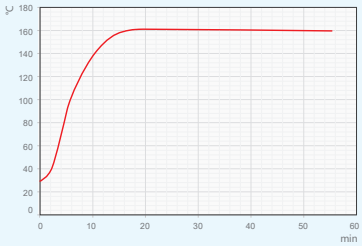
- Smooth and corrosion resistant ceramic glass top plate
- Excellent infrared transmission for efficient heat transfer
- Material can resist a thermal shock of up to 700 °C
- Corrosion-resistant, solid casing which is hermetically sealed
- Fast heating and excellent temperature stability
- Temperature 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 (H_2O) 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

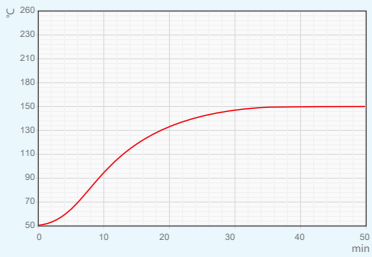
Model	SLK1-T	SLK2-T
Order No.	W3032391	W3032392
Maximum temperature setting [°C]	550	550
Maximum temperature setting with E-sensor [°C]	300	300
Safety temperature [°C]	50 ~ 600 adjustable	50 ~ 600 adjustable
High temperature protection [°C]	10 ~ 50 adjustable	10 ~ 50 adjustable
Temperature stability 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.

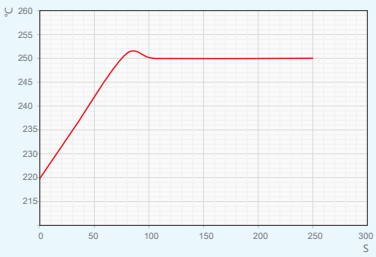
Digital Hot Plate

> 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)



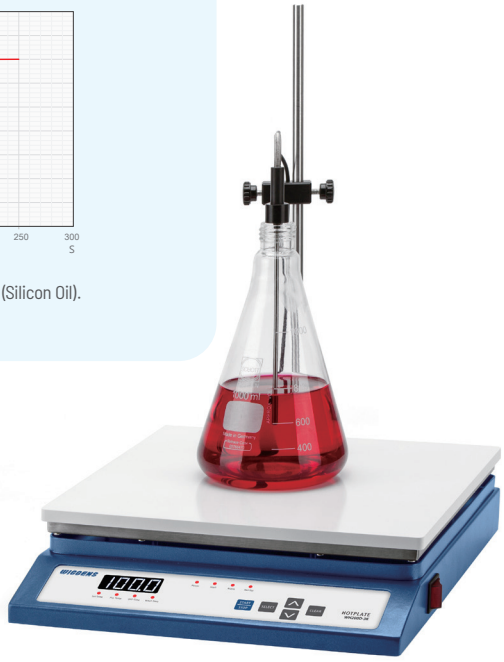
The surface temperature stability data for WH200D-2K (250 °C)



Note: Above data is based on the 220 V / 50Hz instrument with pure water (H_2O) 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

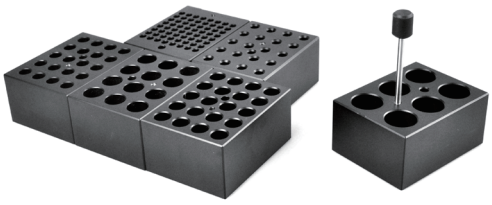
> Molecular biology
> Biochemistry

Precise temperature control

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

WD320

WD310



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 ℃ , 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 [℃]	Fixed 150.0 ℃ for COD, 60.0 ~ 200.0 ℃ adjustable
Temperature accuracy [℃]	±2 (at 150.0 ℃)
Hot top indicator	Flashing when block temperature is over 70.0 ℃
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 ±0.1 °C is ensured by the PID controller within a temperature range from ambient +5 °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

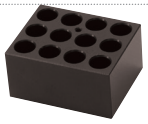
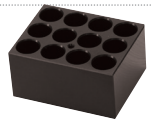
> Its polypropylene main body is highly chemical-resistant and easy to clean.
> Optimal heat transfer is achieved through the tight coupling design of the main body and corrosion-resistant anodized aluminum blocks.
> Bright VFD display with responsive touch buttons for easy operation.
> The transparent 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	±0.5 °C	±0.5 °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)

Wiggens 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 ℃
Display resolution is 0.1 ℃

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	
		℃	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 seperately
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 proceduresThe 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

450℃

Extremely high temperature

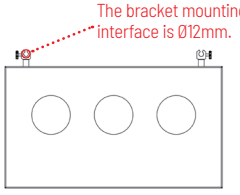
Temperature can reach up to 450 ℃
Display resolution is 0.1 ℃

650℃

Extremely high temperature

Temperature can reach up to 650 ℃
Display resolution is 0.1 ℃

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

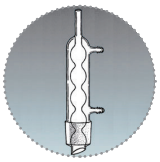
Specification				
Size	A	B	C	D
Use Thimble Size (mm)	25 x 85	35 x 90	35 x 90	45 x 130
Extractor Top Joint	34 / 45	45 / 50	45 / 50	55 / 50
Extractor Bottom Joint	24 / 40	24 / 40	29 / 42	24 / 40
Condenser Bottom Joint	34 / 45	45 / 50	45 / 50	55 / 50
Length of Siphon (mm)	190	260	260	300

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

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

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

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

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

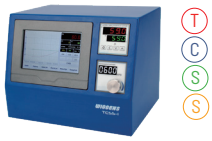
Capacity (ml)	250	300	500	1000
Order No.	189105-13	189105-14	189105-15	189105-16

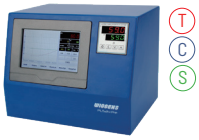
Temperature and Stirring Controller

For measuring, control and monitoring

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

T Temp C Control S Safety S 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	●	●			
	Alarm	●	●	●	●	
Options	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.

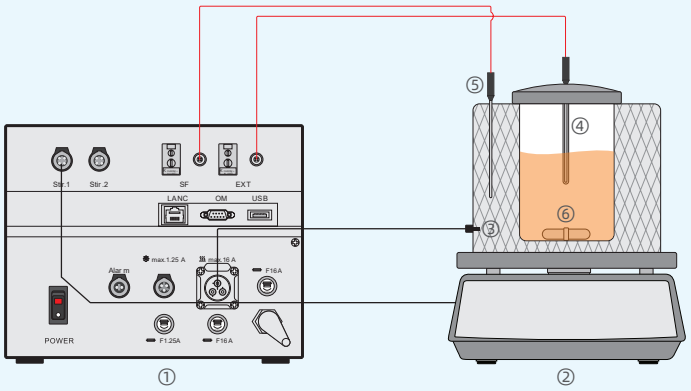
Temperature,Stirring Speed,Cooling Valve Controller

Programmable temp. Control and security protection

Temp. and Stir. Controller

Temp. Control and safety protection

Overheated safety protection



Application

External units such as heating mantles and magnetic stirrers are connected via the rear socket. Separate sensors are used for working temperature and safety temperature monitoring.

① TCSS-1
② Magnetic stirrer
③ Heating mantle
④ Working sensor
⑤ Safety sensor
⑥ stirring bar

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 Wiggens "Synchrostart" function maintains reliable magnetic coupling, preventing decoupling during start-up.
> The PL524pro-Stir is connected to the Stir Mantle via a connecting cable, oThe 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.

Complete system of stir mantle (EMS1XXP)

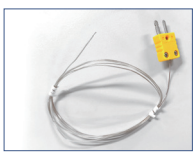
Specifications

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

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)	Wiggens hot plate stirrer (except WH200 and WH210), Hot plate, Heating block, Temperature controller
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)	
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


① ② ③


④

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.

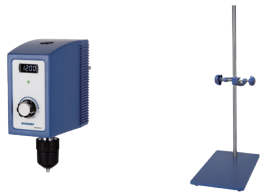
WB2000-M

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_2O]	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

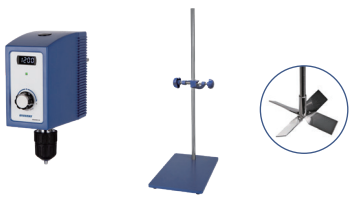
According to needs, it is convenient to choose different package

Standard Package P1 includes



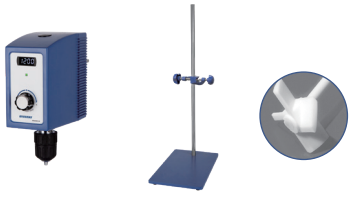
Overhead Stirrer, WF12 Support stand.

Standard Package P2 includes



Overhead Stirrer, WF12 Support stand, 9004 impeller

Standard Package P3 includes



Overhead Stirrer, includes WF12 Support stand, 5.240.8.2 PTFE impeller

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.

RS232 / RS485 Interfaces

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

Working Status Indicator

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

Timer / clocker

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

Brushless DC Motor

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

Temperature Measurement (optional)

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

Keyless Chuck

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

Direction of Rotation

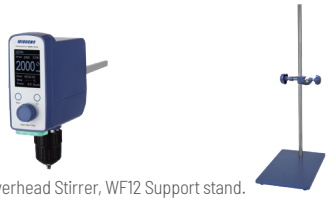
Clockwise and counterclockwise rotation (available on WOHS-10/15Pro).

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	±3 %	±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_2O]	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 Ø13x150	Extension arm Ø13x150
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

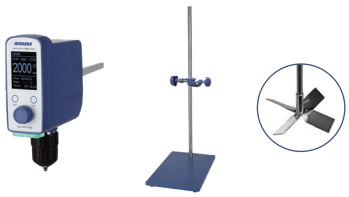
According to needs, it is convenient to choose different package:

Standard Package P1 includes



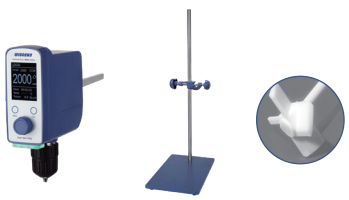
Overhead Stirrer, WF12 Support stand.

Standard Package P2 includes



Overhead Stirrer, WF12 Support stand, 9004 impeller

Standard Package P3 includes



Overhead Stirrer, includes WF12 Support stand, 5.240.8.2 PTFE impeller

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

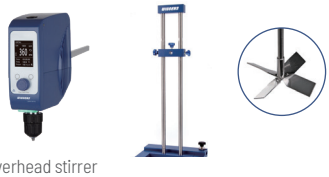
Model	WOHS-200 Pro	WOHS-400 Pro	WOHS-600Pro
Order No.	W3041030	W3041018	W3041062
Speed Range [rpm]	30 ~ 600(I)	20 ~ 360(I)	100 ~ 6,000
	601 ~ 3,000(II)	361 ~ 1,800(II)	
Maximum torque [N-cm]	339(I)	565(I)	32
	68(II)	113(II)	
Maximum Stirring volume [L / H_2O]	100	100	100
Maximum stirring viscosity [mPas]	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:

Standard Package P1 includes

Overhead stirrer
WF25-D Support stand

Standard Package P2 includes



Overhead stirrer
WF25-D support stand 9004 impeller

Standard Package P3 includes

Overhead stirrer
WF25-D support stand 5.240.8.2 PTFE impeller

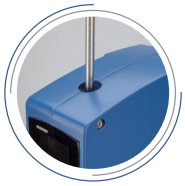
Remotely Controllable High-Torque, High-Speed Overhead Stirrers

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_2O]	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

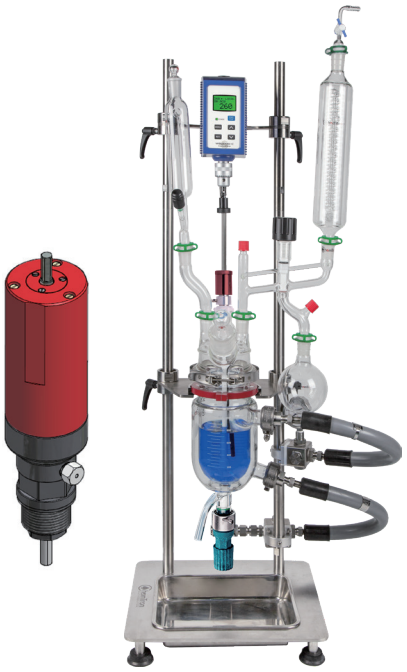
Specifications

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_2O]	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 ℃ , 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



Application of Magnetic Drive

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

Stirrer guides

Universal stirrer seal

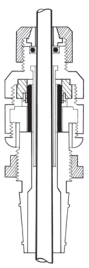
Material : PTFE (Polytetrafluoroethylene)

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



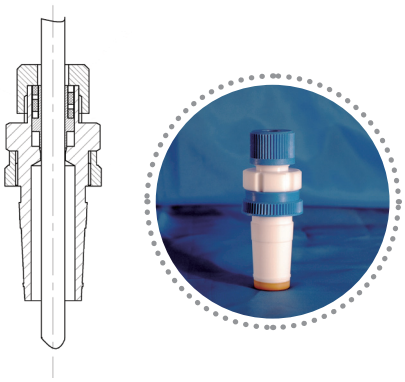
Order No.	ShaftØ(mm)	Joint Size	Height(mm) excl.joint	GuideØ(mm)
5.101.1.7	6	19/22	96	45
5.102.7	6	24/40	96	45
5.104.7	8	24/40	96	45
5.105.7	10	24/40	96	45
5.106.7	10	29/42	96	45
5.108.7	12	29/42	110	55

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



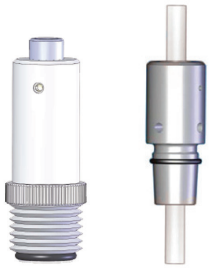
Note: PEEK has a very high level of chemical resistance with some susceptibility only to strong mineral acids

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 around is best) and stainless steel shafts of 10, 19 and 28 mm.

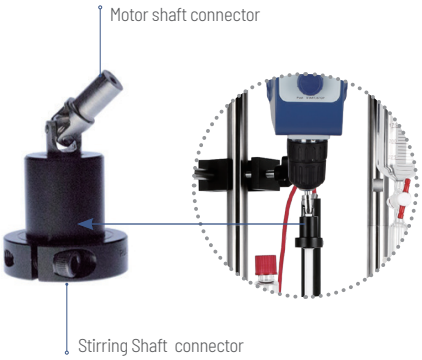
Order No.	ShaftØ(mm)	Joint Size	Replace O-Ring
8050-02	10	24/40	7859-526
8050-04	10	29/42	7859-534
8050-14	10	29/32	7859-534
8050-10	10	#15 Ace-Thred	7859-530
8050-12	10	#25 Ace-Thred	7859-534
8050-06	19	45/50	7859-573
8050-16	25.4	45/50	7859-573
8050-08	28	45/50	7859-573
8050-18	30	45/50	7859-573



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

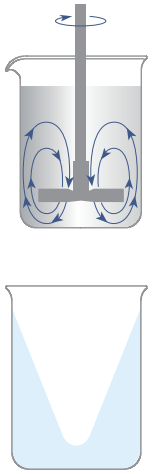
EX = Exposed Shaft.

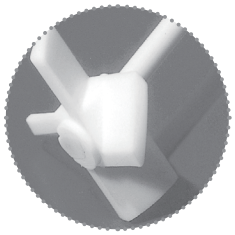
Shafts of 650 mm, 750 mm & 1000 mm in length are produced with a stainless steel core with an exposed end for more rigid clamping to the chuck drive
Shafts up to 12 mm diameter have an exposed end of 50 mm long and 6.5 mm diameter.
Shafts of 16 mm diameter have an exposed end of 50 mm long and 8.5 mm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

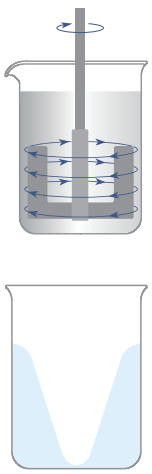




Anchor Impeller (PTFE Coated)

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

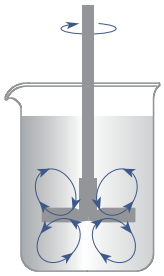
Order No.	Shaft Ø(mm)	Length(mm)	Rotor Ø(mm)
005.330.2	6	300	80
005.340.2	6	400	80
005.350.2	6	500	80
005.330.8.2	8	300	80
005.340.8.2	8	400	80
005.350.8.2	8	500	80
005.355.10.2	10	550	100
005.0365.10.2	10	650EX	140
005.0375.10.2	10	750EX	140
005.0365.12.2	12	650EX	140
005.0375.12.2	12	750EX	140
005.03100.12.2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

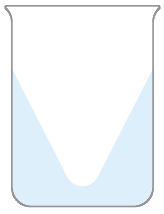
Order No.	Shaft Ø(mm)	Length(mm)	Rotor Ø(mm)
005.430.2	6	300	40
005.440.2	6	400	40
005.450.2	6	500	50
005.430.8.2	8	300	40
005.440.8.2	8	400	40
005.450.8.2	8	500	50
005.455.10.2	10	550	70
005.0465.10.2	10	650EX	70
005.0475.10.2	10	750EX	70
005.0465.12.2	12	650EX	80
005.0475.12.2	12	750EX	80
005.04100.12.2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

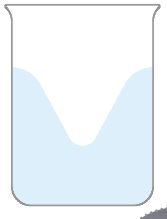
Shafts with a stainless steel core, PTFE coating, an exposed stainless steel end, as well as a hook for mounting blades

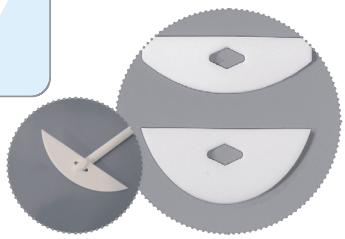
Order No.	Shaft Ø(mm)	Length(mm)	Order No.	ShaftØ(mm)	Length(mm)
005.530.1	6	300	005.0565.10.1	10	650EX
005.540.1	6	400	005.0575.10.1	10	750EX
005.550.1	6	500	005.05100.10.1	10	1000EX
005.530.8.1	8	300	005.0565.12.1	12	650EX
005.540.8.1	8	400	005.0575.12.1	12	750EX
005.550.8.1	8	500	005.05100.12.1	12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

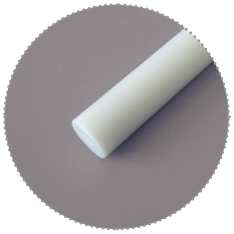




Plain Impeller Shafts (PTFE CoXated)

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

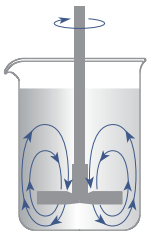
Order No.	Shaft Ø(mm)	End Ø(mm)	LengthØ(mm)
005.100830EX	8	5	300
005.100850EX	8	5	500
005.101030EX	10	6.35	300
005.101050EX	10	6.35	500
005.101065EX	10	6.35	650
005.101250EX	12	6.35	500
005.101265EX	12	6.35	650
005.101275EX	12	6.35	750
005.1016750EX	16	10	750
005.1016100EX	16	10	1000

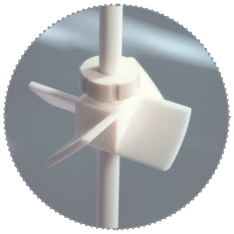


4 Blade Angled Type 45° Metric

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

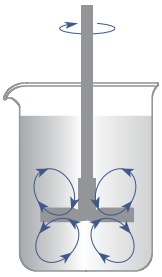




Flat Impeller

Flat impeller for use on PTFE coated shafts.

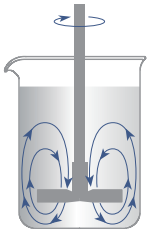
Order No.	Shaft Ø(mm)	RotorØ(mm)
005.706070	6	70
005.708070	8	70
005.710070	10	70
005.710100	10	100
005.712100	12	100
005.712150	12	150
005.716100	16	100
005.716150	16	150

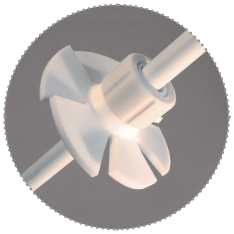


Adjustable Turbine

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



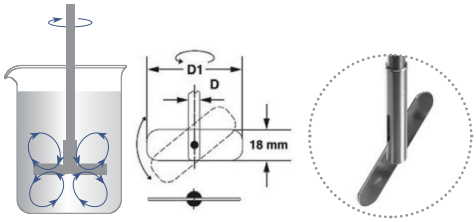


Stainless Steel Impellers

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)

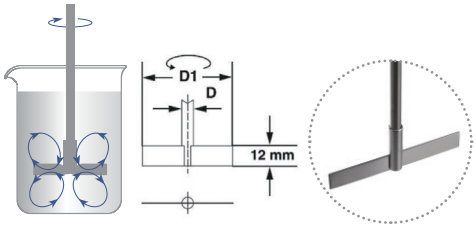
Order No.	Rotor Ø(mm) D1	Shaft Ø(mm) D	Length(mm)
9603	60	8	300
9604	60	8	400
9605	60	8	500



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)

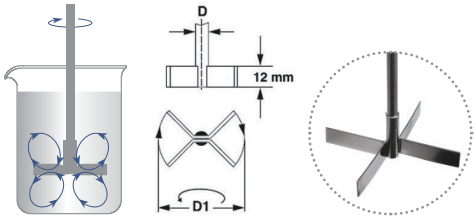
Order No.	Rotor Ø(mm) D1	Shaft Ø(mm) D	Length(mm)
9703	50	8	300
9704	50	8	400
9705	50	8	500



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)

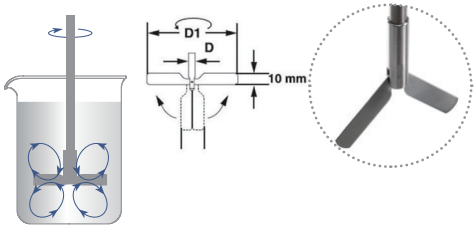
Order No.	Rotor Ø(mm) D1	Shaft Ø(mm) D	Length(mm)
9053	50	8	300
9054	50	8	400
9055	50	8	500
9056	100	10	300
9057	100	10	400
9058	100	10	500



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)

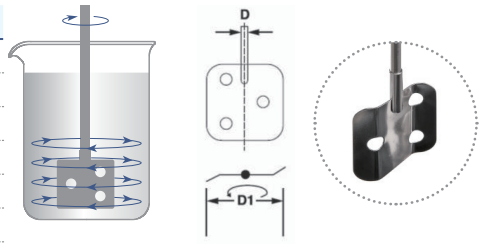
Order No.	Rotor Ø(mm) D1	Shaft Ø(mm) D	Length(mm)
9209	90/15	8	300
9210	90/15	8	400
9211	90/15	8	500
9212	90/15	10	300
9213	90/15	10	400
9214	90/15	10	500
9215	90/15	10	650



3-Hole Blade Impeller

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

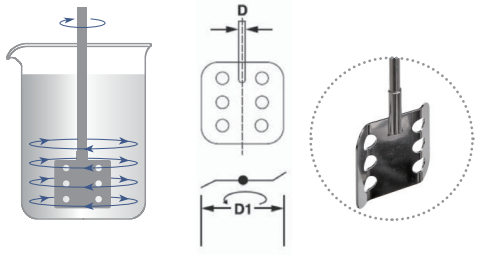
Order No.	Rotor Ø(mm) D1	Shaft Ø(mm) D	Length(mm)
9403	50	8	300
9404	50	8	400
9405	50	8	500
9406	100	10	300
9407	100	10	400
9408	100	10	500



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

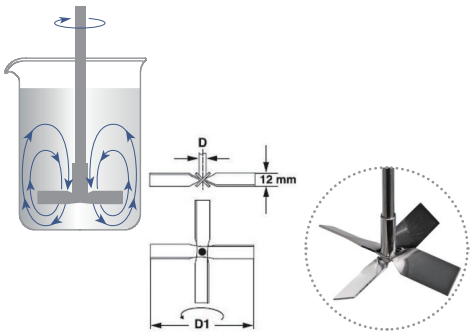


Pitched Leaf Impeller and Pitched Blade Impeller

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

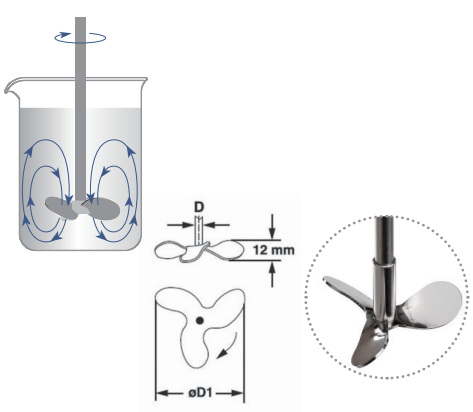


Propeller Stirrers, 3 Fixed Blades

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

Blade Height **(12 mm)**

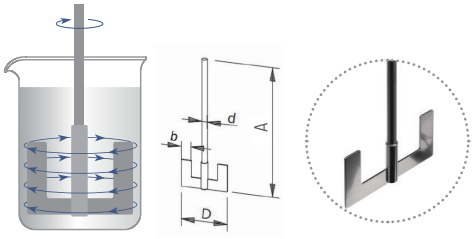
Order No.	Rotor Ø(mm) D1	Shaft Ø(mm) D	Length(mm)
9103	50	8	300
9104	50	8	400
9105	50	8	500
9109	70	8	300
9110	70	8	400
9111	70	8	500
9112	100	10	300
9113	100	10	400
9114	100	10	500
9115	70	10	650
9116	100	10	800



Anchor Impeller

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

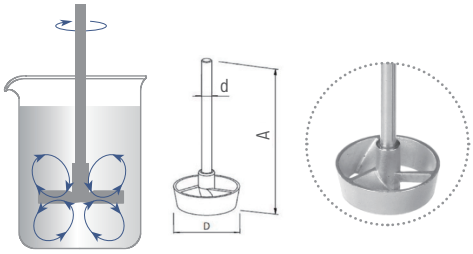
Order No.	Rotor Ø(mm) D1	Shaft Ø(mm) d	Length(mm) A
9610	70	8	500
9611	90	10	650
9612	140	10	800



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.

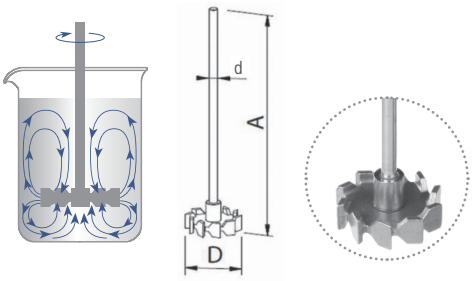
Order No.	Rotor Ø(mm) D1	Shaft Ø(mm) d	Length(mm) A
9025	45	7	400
9026	65	7	400
9025A	45	8	400
9026A	65	8	400



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.

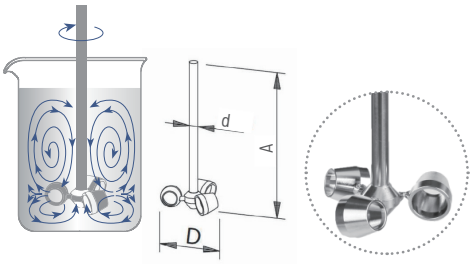
Order No.	Rotor Ø(mm) D1	Shaft Ø(mm) D	Length(mm) A
9030	50	8	400
9031	50	10	400



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

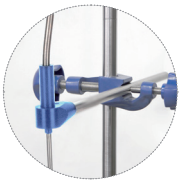
External temperature sensor Suitable for WOHS series

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 WOHS series

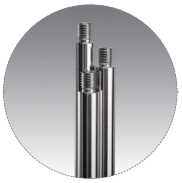
Description	Order No.
WH2S01 set contains Clamping (WH2), Sensor holder(WH220027), Extension rod(WH220095)	WH2S01

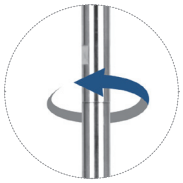


Extension Rod

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

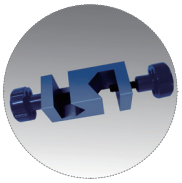


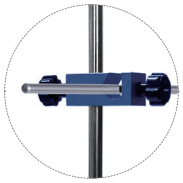


Clamp Holder

For Single Rod Stand

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

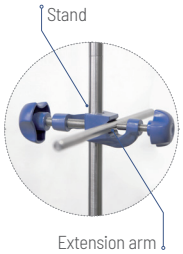




Clamp Holder

For Single Rod Stand

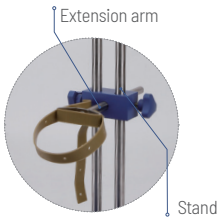
Model	WH2
Clamping range-stand	6 ~ 30 mm
Clamping range-extension arm	6 ~ 16 mm
Material	Cast aluminium



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

WF12

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.

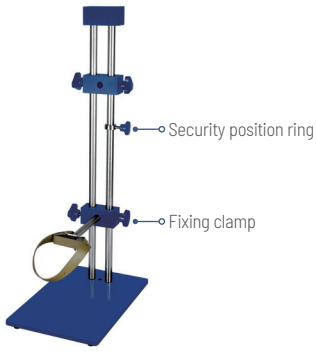
Model	Base	Shaft	Container area [W x D (mm)]	Dimensions [W x D x H (mm)]
WH11-S	Aluminum coated powder	Stainless steel	252x208	340x300x550
WH12-S	Aluminum coated powder	Stainless steel	252x208	340x300x750
WH13-S	Aluminum coated powder	Stainless steel	252x208	340x300x950

WH12-S

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



WF12-D

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.

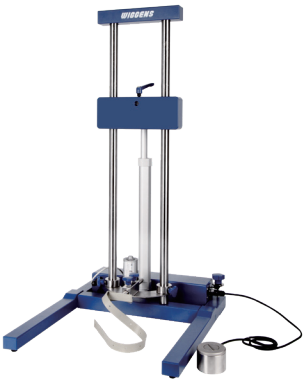
WH22-D

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

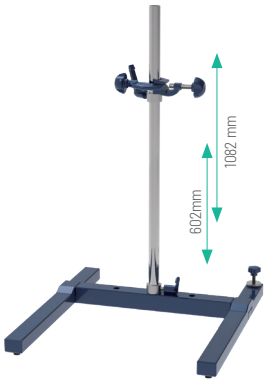
* For WB series and WOHS 10/15 overhead stirrer.
** For WOHS High Torque / High Speed Overhead Stirrer.



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

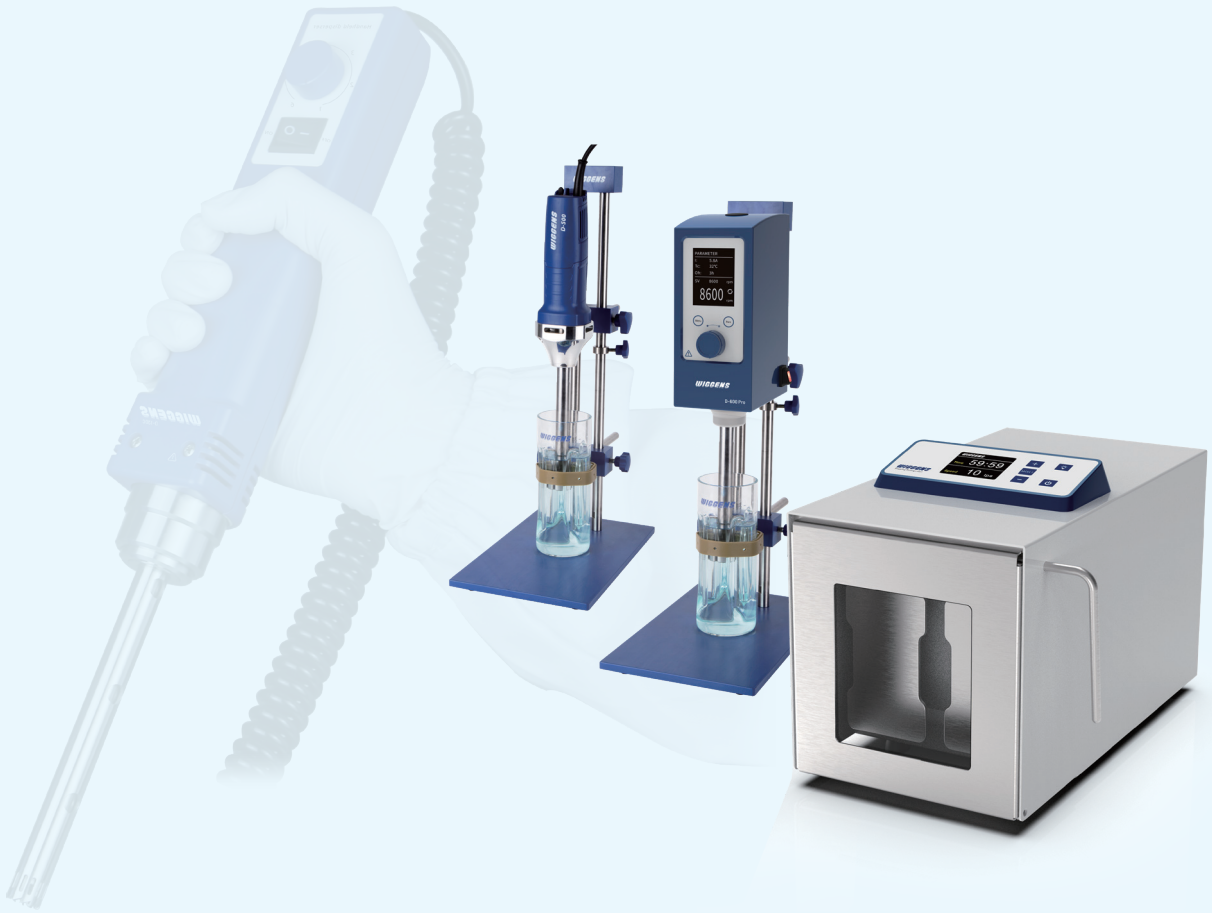


WH mobile floor stand with Ø32 mm single-rod

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_2O [mL]		0.2~50(H_2O)/3~250(H_2O)
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

Standard includes the Disperser and base. Shaft and stand require separate purchase.

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

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.

D-600 D-600 Pro

Features

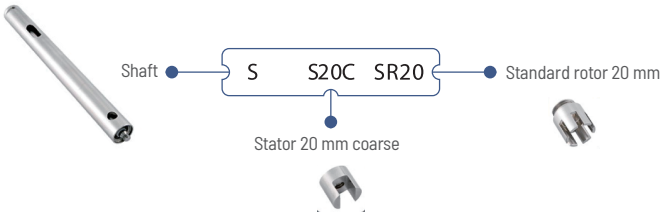
> Continuosly adjustable speeds for better results
> Continuously adjustable speed enables precise results
> Compact and lightweight design for easy operation
> Triple safety drive protection (overload protection, smooth start function and safety switch)
> Standard dispersion tools made of SS 316L stainless steel for enhanced corrosion resistance
> Viscosities up to 10,000 cps
> D-500 Pro maintains constant motor speed under varying loads via feedback control

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_2O [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 5

Includes the Shaft, PTFE bearing, 5 mm stator, 4 mm rotor

SS20CSR20

Includes the Shaft, PTFE bearing, 20 mm stator, standard rotor SR20

SS20FER20

Includes the Shaft, PTFE bearing, 20 mm stator, emulsification rotor ER20

SS30CSR30

Includes the Shaft, PTFE bearing, 30 mm stator, standard rotor SR30

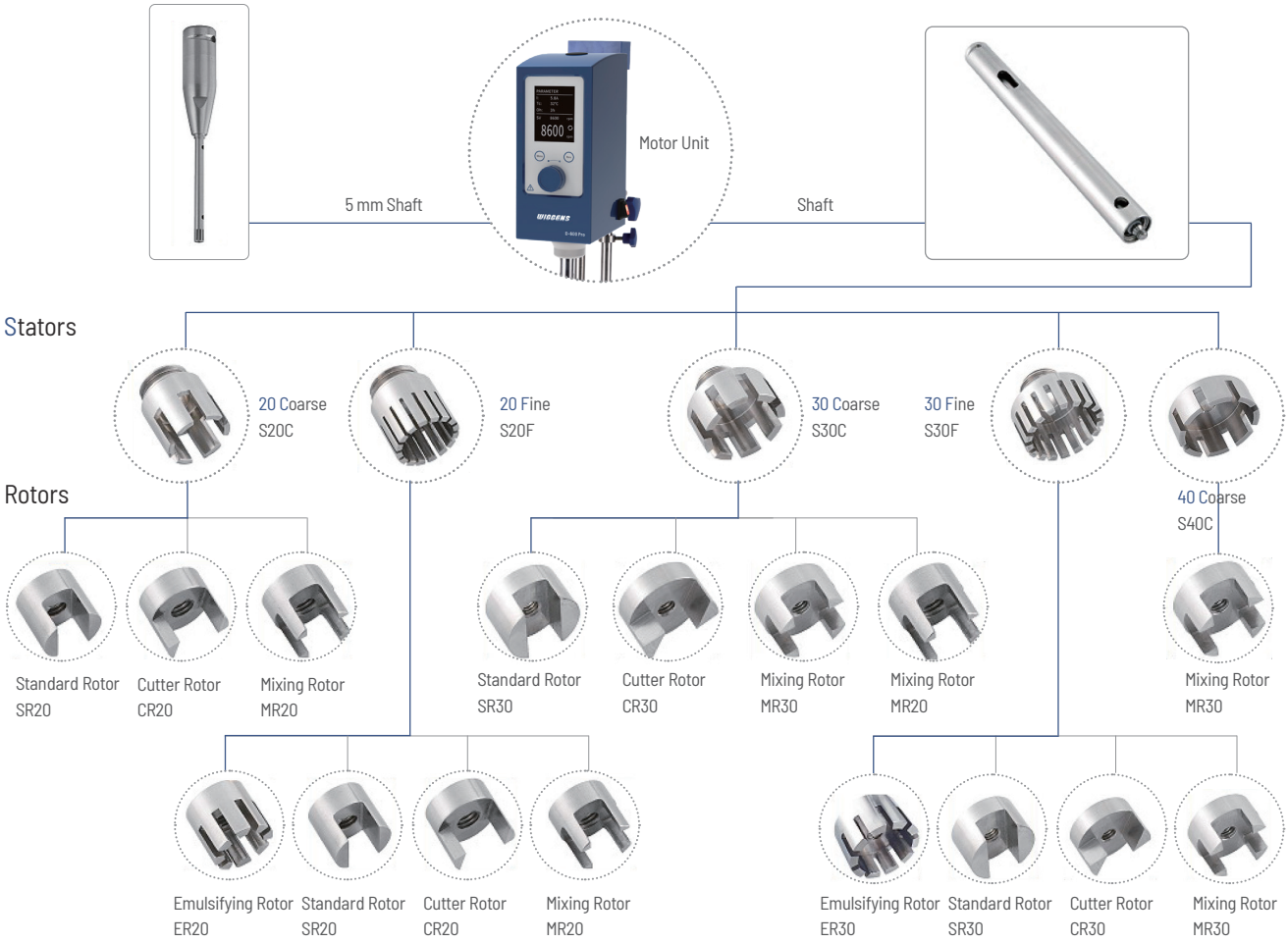
SS30FER30

Includes the Shaft, PTFE bearing, 30 mm stator, emulsification rotor ER30

SS40CMR30

Includes the Shaft, PTFE bearing, 40 mm stator, mixing rotor MR30

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		P,CI,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 = Tabacco 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

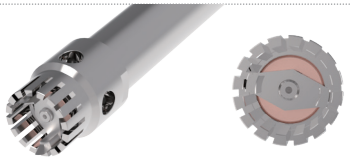
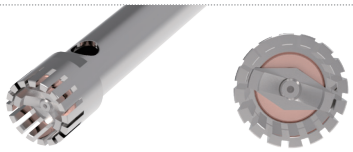
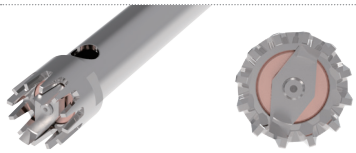
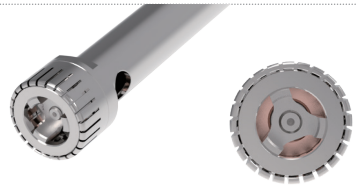
D-1500 D-1800

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 [℃]	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	**Purpose** The general shafts with two rows of teeth **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
	WK Shaft series	**Purpose** – Rotor with knives for pre-cruting lager samples than the rotors diameter **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
	WB Shaft series	**Purpose** The rotor has a tilted internal angle design for breaking up of hard samples **Applications** – For open and dispersing of pills, capsules and hard large grains, corns breaking – Hard and brittle material – Standard dispersing, emulsifying and suspending tasks
	WV Shaft series	**Purpose** – Special design to prevent clogging of the teeth **Applications** –Dispersing for fibrous / stringy materials, solid samples – Standard dispersing, emulsifying and suspending tasks
	WM Shaft series	**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% **Applications** –Fast dissolving and suspending of solid particles into liquid –Mixing at higher viscosities –Mixing of shear sensitive samples
	WP Shaft series	**Purpose** –Dissolver shaft – High-speed dissolver **Applications** –Efficient mixing –Fast mixing, dissolving – Processing of highly viscous products
	WF Shaft series	**Purpose** Multiple rows of teeth for more shear **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

Two types of shaft

Picture	Shaft type	Description
	C Shaft	C (Easy Clean) Design This is all you need for popular applications in the preparation of samples, formulation development and small scale production.
	G Shaft	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.

Shaft information

WD02FG-250WG30C2/1

- WD WIGGENS dispersal shaft
- 02 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-250WFG36C4/1	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

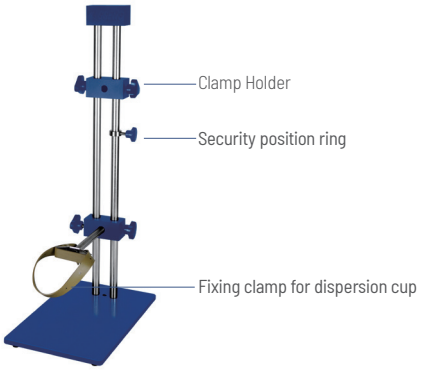
Dispersing Vessel

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

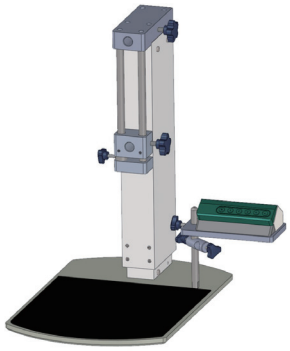


Order No.	Description	Suitable for
WF11-D	Extendable flat bracket (double rod design)	D-500 / 600
11045011	Vessel holder (without boss head clamp) for WF11-D	WF11-D, WH11-D
11045030	Safety ring for stand WF	WF11-D, WH11-D

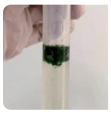
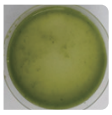
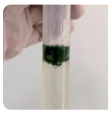
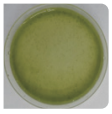
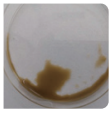
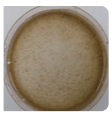
Electric stand

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.

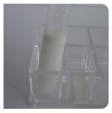
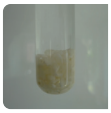
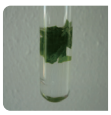
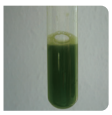
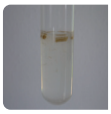
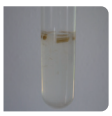
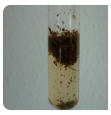
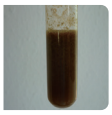
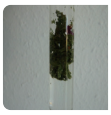
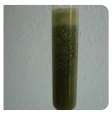
Model	WF20
Container area [W x D (mm)]	270x260
Height range	454 ~ 734 mm (With the top mounting position)
	258 ~ 698 mm (With slide rail mounting position)
	160 mm (slide rail adjustable range)
Maximum Load [kg]	15
Dimensions [W x D x H (mm)]	300x475x500 (not include the controller)
Net weight [kg]	10
Power supply	100 ~ 240 VAC, 50 / 60 Hz



Dispersing tests

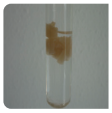
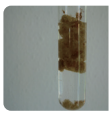
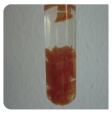
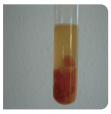
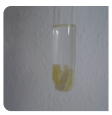
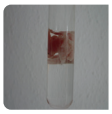
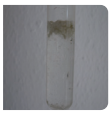
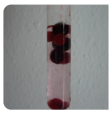
No.	Material	Amount	Pregrinded	Liquid	Vessel	Speed	Duration	Result	Test okay? Yes/no	Sample before Dispersing	Sample after Dispersing
1	Rose flower	0.2 g	no	5mL water	10mL Conical Tube	level 4	4 min	homogeneous suspension	yes		
2	Rose flower	0.2 g	no	5mL water	10mL Conical Tube	level 6	3 min	homogeneous 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

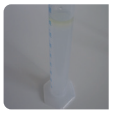
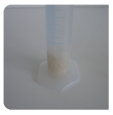
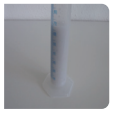
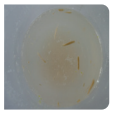
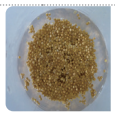
No.	Material	Amount	Pregrinded	Liquid	Vessel	Speed	Duration	Result	Remarks	Recommended or not	Sample before Dispersing	Sample after Dispersing
1	Rape oil	20 drops	no	10 mL water	test tube 16 mm	max.	1 min	stable emulsion		yes		
2	Chicken liver	1 g	5 mm pieces	10 mL water	test tube 16 mm	max.	30 s	homogeneous 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		

WIGGENS
THE MAGIC MOTION

Dispersing tests

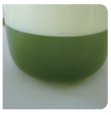
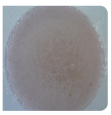
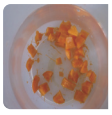
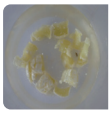
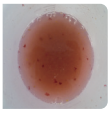
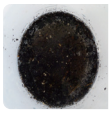
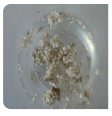
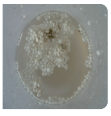
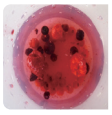
No.	Material	Amount	Pregrinded	Liquid	Vessel	Speed	Duration	Result	Remarks	Recommended or not	Sample before Dispersing	Sample after Dispersing
15	Chicken meat	2 g	5 mm pieces	10 mL water	test tube 16 mm	max.	20 s	homogeneous suspension	part of tendons wrapped around the rotor	yes		
16	Ivy	2 leaves	5 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		

WIGGENS
THE MAGIC MOTION

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.

4 Organizing the samples

It is easy to absorb and transfer because the filter bag integrates the filtering effect

5 Pipetting the filtered sample

Preparation of diluted inoculation fluid (gradient) with precision pipetting device from Socorex.

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:

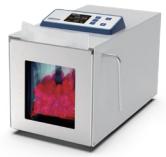
- Food microbiological analysis
- Homogenization of animal tissues, biological samples, and cosmetics
- Homogenization of meats, fish, vegetables, and fruits
- Pharmaceuticals, clinical specimens, molecular analysis, and toxin and bacterial detection

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

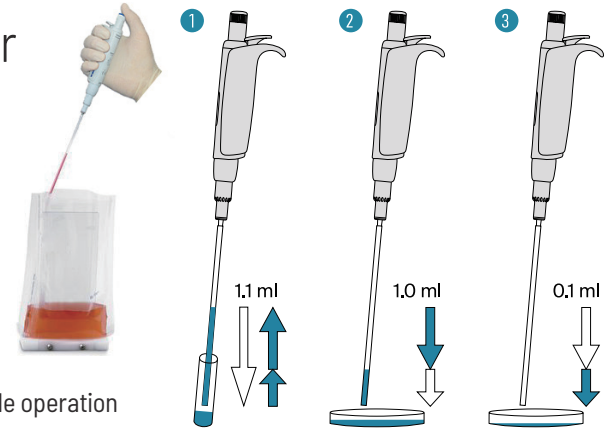
Dilution pipette Acura® manual 810

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

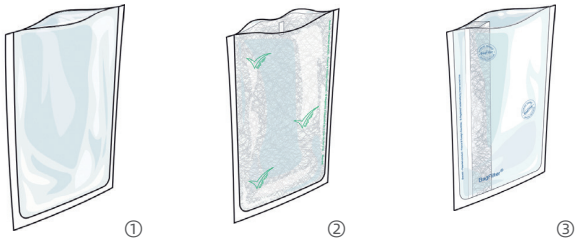
1. Depress plunger button in full, then release slowly to aspirate 1.1 mL
2. Depress plunger button to first stop, thus dispensing 1 mL in Petri dish
3. Depress plunger button to second stop, thus dispensing residual 0.1 mL in next Petri dish

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

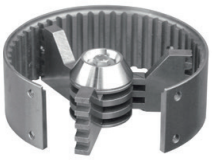
Model	WMF10
Operating principle	Cutting / Impact
Speed range [rpm]	50 to 6000
Feed hardness	6 Mohs (MF 10.2)
Funnel volume [mL]	300
Product discharge	For collection tubes with norm grinding NS29
Sieves mesh size [mm]	0.2 to 6
Grinding attachments (convertible)	Hammer grinding attachment Blade grinding 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 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

WIGGENS
THE MAGIC MOTION

Shaker

Orbital Shaker
Shaker for CO_2 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

Standard includes shaker only. Trays and clamps need to be ordered separately.

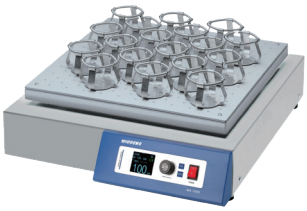
Orbital

Reciprocal

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

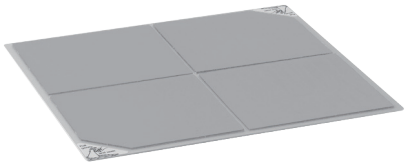


Specifications

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.

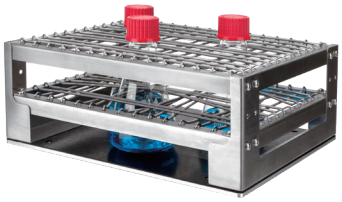
Accessories for Shaker



Sticky Tray

The Wiggens 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 Wiggens 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



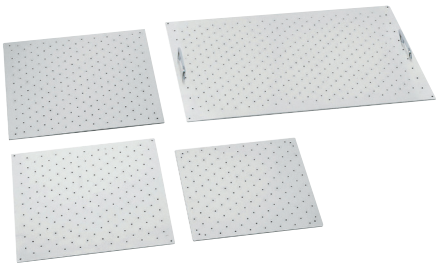
Multi-Purpose Spring Tray

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 text 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

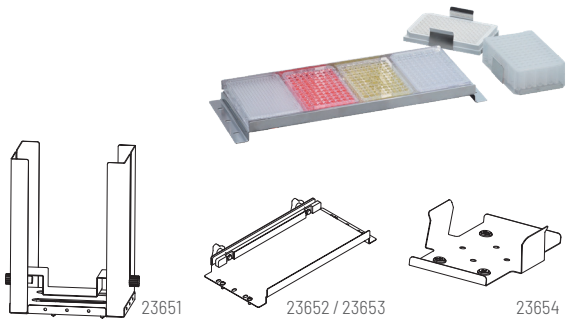
Separatory Funnel Clamp

Funnel Volumes	250ml	500ml	1 L	2 L
Order No.	23562	23563	23564	23565
Dimensions [W x D x H (mm)]	152x60	165x70	230x80	255x90

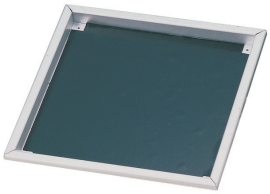
Multi-Pore Holder

The Wiggens multi-pore holders can be installed on the Wiggens sticky plates or the Wiggens 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.

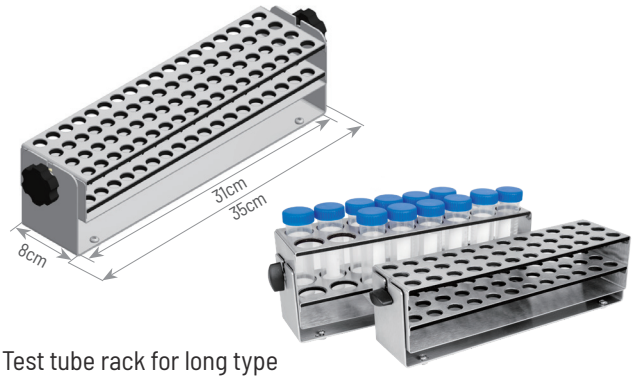
Suitable for	WS-50D/50DR	WS-100D	WS-150D	WS-200D
Order No.	3A531	31531	31532	31533
Dimensions [W x D x H (mm)]	350x290x23	352x352x23	450x450x23	775x478x90

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 CO_2 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 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.

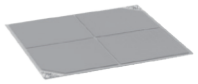
Specification

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 16 250 mL x 9 500 mL x 5 1000 mL x 4 2000 mL x 1	100 mL x 23 250 mL x 10 500 mL x 6 1000 mL x 5 2000 mL x 2	100 mL x 36 250 mL x 23 500 mL x 16 1000 mL x 9 2000 mL x 4
Order No. (25 mm)	W6100100	W6100200	W6100300
Order No. (50 mm)	W6100150	W6100250	W6100350

Standard includes shaker only. The 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

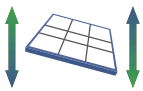
Rocking Shaker

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



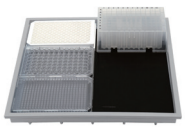
Specifications

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.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

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.

1.5mLTube rack

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

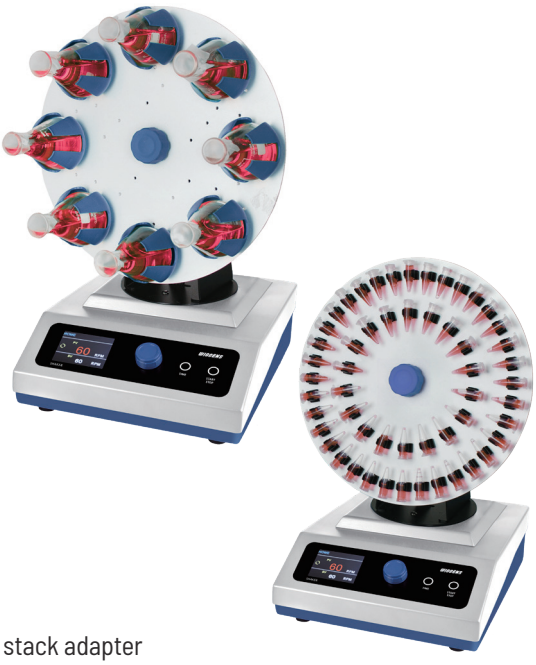
15mL Tube rack

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

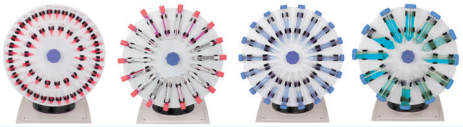
Stack adapter

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)


W5012454


W5012451


W5012452


W5012453

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 effectivae 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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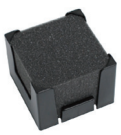
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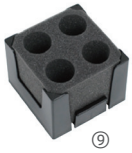
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No.	Order No.	Description
1	V0058	Platform (pop-off)
2	V0011	Platform
3	V0008	Microplate tray, Speed range reco mmendation 0-1500 rpm
4	36520	Tube holder with tray (up to Ø50 mm), Speed range reco mmendation 0-1500 rpm
5	36521	Tube holder with tray (Ø10 mm x 16 ea), Speed range reco mmendation 0-1500 rpm
6	36522	Tube holder with tray (Ø12 mm x 9 ea), Speed range reco mmendation 0-1500 rpm
7	36523	Tube holder with tray (Ø15 mm x 9 ea), Speed range reco mmendation 0-1500 rpm
8	36524	Tube holder with tray (Ø20 mm x 5 ea), Speed range reco mmendation 0-1500 rpm
9	36525	Tube holder with tray (Ø25 mm x 4 ea), Speed range reco mmendation 0-1500 rpm
10	36526	Tube holder with tray (Ø8 mm x 18 ea & Ø10 mm x 28 ea), Speed range reco mmendation 0-1500 rpm

WIGGENS
THE MAGIC MOTION

TM Series Vortex Shaker

TM-1 / TM-1F / TM-2 / TM-2F

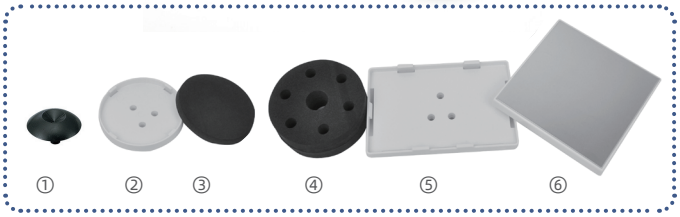
The vortex shaker is primarily used in the fields of biology, chemistry, pharmaceuticals, and general laboratories for the rapid and efficient mixing, agitation, or dissolution of liquid samples.

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

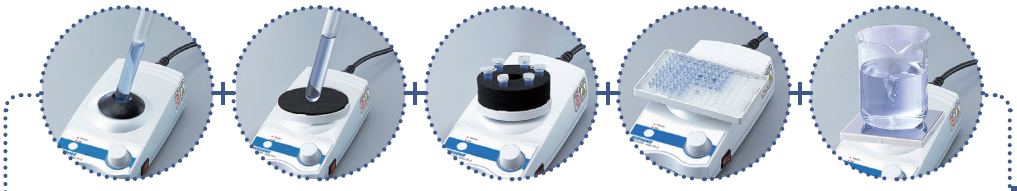
TM-1

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

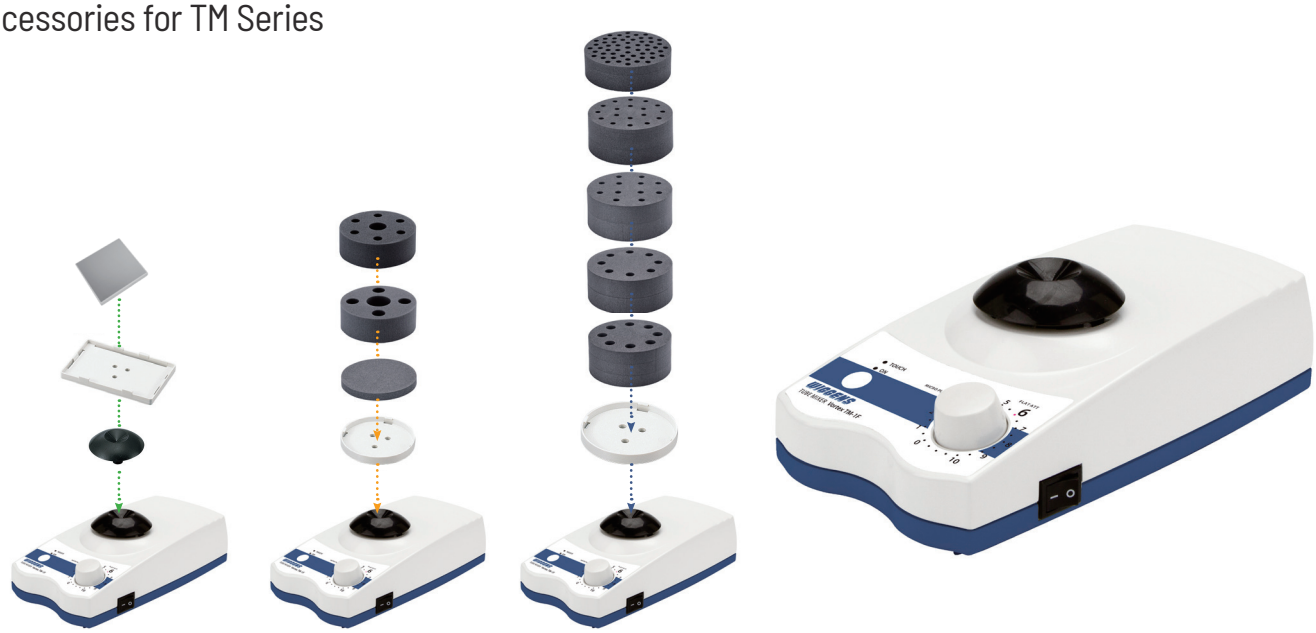
= TM-1F / 2F

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

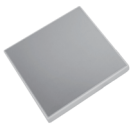
Standard TM-1 / TM-2 includes the Vortex shaker, Platform (3601-00)

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

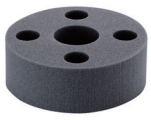
Magnetic Stirring Plate
Can be directly installed on the shaker and used for stirring of smaller samples
Stirring speed (0-1500 rpm)
Order No. 3601-02



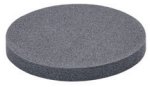
Elisa Plate Tray
Can be used with an ELISA Plate
Speed range recommendation (0-1500 rpm)
Order No. 3601-03

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

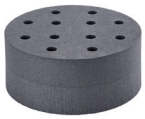


Universal Base Plate
Base plate for foam plastic platforms with 120 mm diameter
Speed range recommendation (0-1500 rpm)
Order No. 3602-01

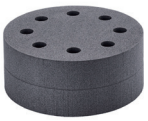
Test Tube Platform (54 Holes)
Can be used in combination with the universal base plate for shaking operation of 54 Eppendorf tubes
Speed range recommendation (0-1500 rpm)
Order No. 3602-02

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.

W Wiggens D Digital P Pulse M Mixer

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

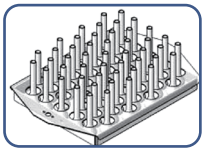
Standard includes the Mixer and adjustable cover plate.

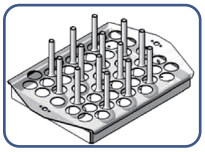
Sample Preparation

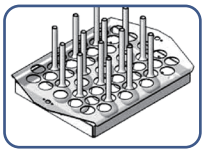
Our Digital Pulse Mixers are ideal for preparation work in volumetric flasks*.
Simply changing the chemical resistant bottom foam pad allows you to quickly switch flask sizes while using one standard hold down top.

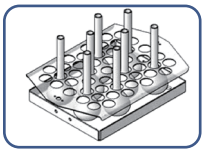
Order No.	Description
W5021101	Hold down top with holes
W5021102	15 mm pad for 25 mL vol. flask, 49 Position
W5021103	15 mm pad for 50 mL vol. flask, 14 Position
W5021104	15 mm pad for 100 mL vol. flask, 14 Position
W5021105	15 mm pad for 250 mL vol. flask, 8 Position
W5021106	15 mm pad for 500 mL vol. flask, 6 Position

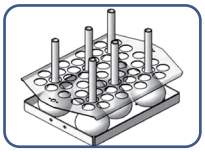
*To select the shaking attachment for a volumetric flask, top plate and pad both are necessary


25mL Vol. Flasks


50mL Vol. Flasks


100mL Vol. Flasks


250mL Vol. Flasks


500mL Vol. Flasks

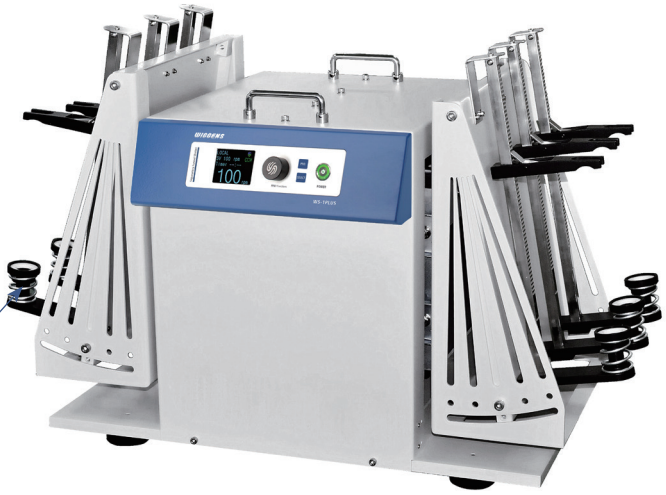

Digital Pulse Mixer Shown with 100mL Volumetric Flasks & Hold Down Top

Separatory Funnel Shaker

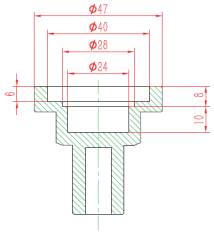
WS-1/ WS-1 PLUS

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



Standard adapter, customized if required

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

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)

* Funnel Capacities (per each side)

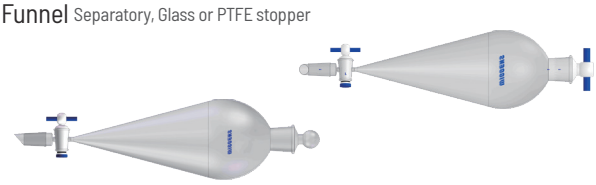
Capacity	Round type funnel	Slim type funnel
under 500 mL	3-5	5
500 mL	3	3
1 L	–	3
2 L	–	2

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)]	725x471x564	883x478x637
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

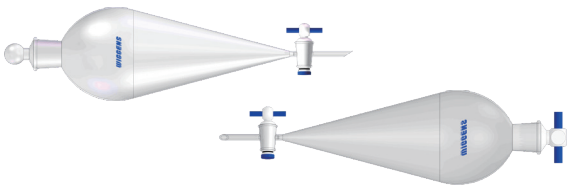
Optional accessories

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	NO.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	NO.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	NO.22	4	Glass stopper
189113-19	500	24/40	4	Glass stopper
189113-20	500	29/42	4	Glass stopper
189113-22	500	NO.27	4	Glass stopper
189113-23	1000	24/40	4	Glass stopper
189113-24	1000	NO.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	NO.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	NO.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	NO.22	4	PTFE stopper
189113-44	500	24/40	4	PTFE stopper
189113-45	500	29/42	4	PTFE stopper
189113-46	500	NO.27	4	PTFE stopper
189113-47	1000	24/40	4	PTFE stopper
189113-48	1000	NO.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
> Degassing function
> Adjustable ultrasonic power

UA Series

UE Series

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

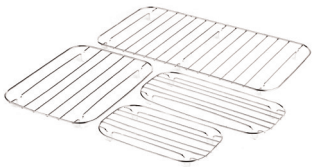
UE Series Standard includes the Ultrasonic Cleaner, Tray.
UA Series Standard includes the Ultrasonic Cleaner, Tray, Lid.

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

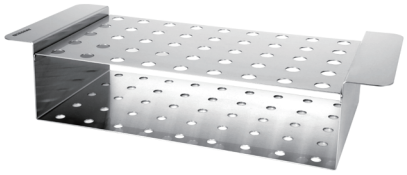
Order No.	Name	Suitable for Volume
U10103	Insert basket	3 L
U10106	Insert basket	6 L
U10110	Insert basket	10 L
U10115	Insert basket	15 L
U10122	Insert basket	22 L

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

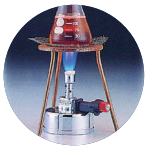
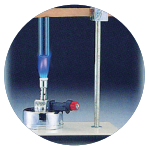
Features

> Automatic ignition due to piezo effect
> Max. Temperature 1300 °C
> Adjustable flame
> Refillable butane tank

Application

> Sterilizing
> Welding
> Heating
> Cooking





Dragon 200


Dragon 100


Dragon 220

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

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

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.

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

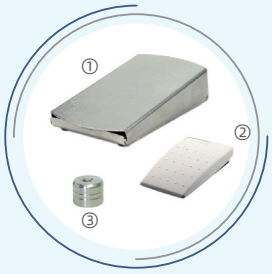
Model	Sensorturn	Sensorturn Pro
Rotary speed range [rpm]	14 ~ 110 rpm	14 ~ 210 rpm
Petri dish size	Up to Ø 100 mm (Ø 150 mm optional)	
Rotational direction	Clockwise	
Detection range IR-Sensor	5 ~ 50 mm, adjustable	
Connector for foot pedal	Yes	
Timer range Time operation	1 ~ 25 sec or 5 ~ 125 sec, adjustable	
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

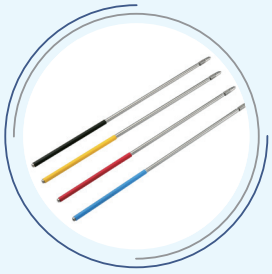
Triangle spatula (Glass) ②
Order No. 6.000.370

Triangle spatula (Stainless steel)
Order No. 6.000.369

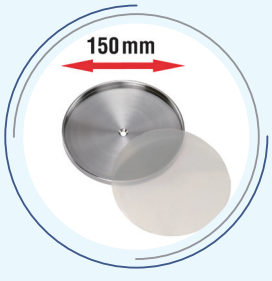
Stainless steel inoculation loop holder with sleeve nut, for loops with wire diameters of 0.6 to 1 mm

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



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.

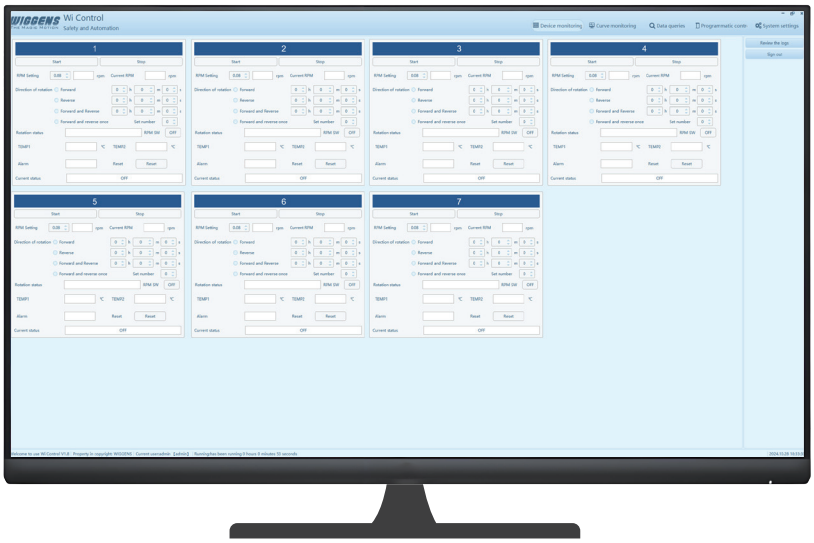
Real-time data recording and secure storage

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

H_2, N_2, O_2, 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

H_2 GENERATOR

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

N_2 GENERATOR

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

O_2 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
CO_2 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.wiggens.com

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A brand of Wiggens

CHEMTRON ANALYTICS

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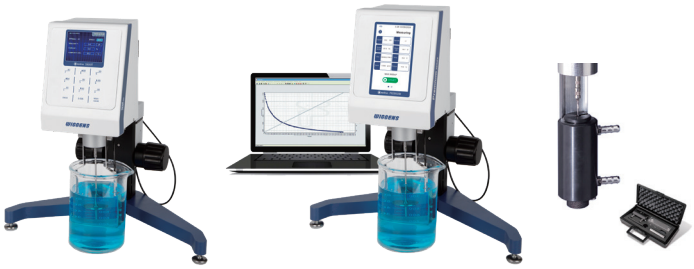
Rotational Viscometer

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

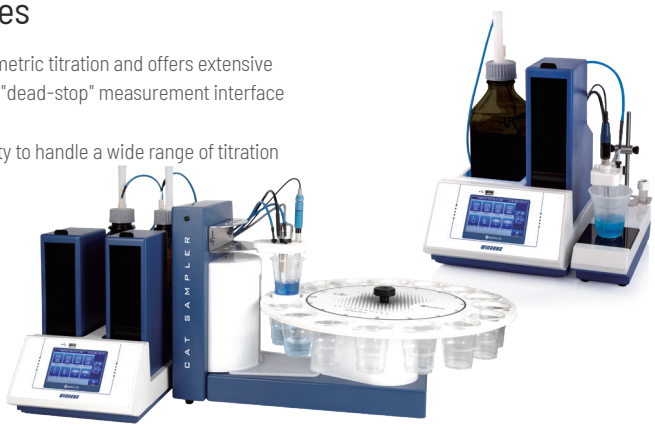
Refractometer

Scale Handheld Refractometer | Digital Refractometer

Titrators, 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

ChemTron
A brand of Wiggens

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

ChemTron
A brand of Wiggens

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

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