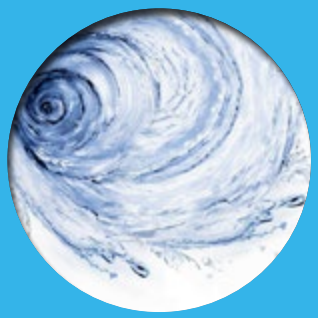


4 Overhead Stirrers

WIGGENS
THE MAGIC MOTION

WIGGENS
THE MAGIC MOTION

Overhead stirrer

Attractive design for demanding stirrers & mixing

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

High Torque / High Speed Overhead stirrer
D series
WB3000-D, WB1800-D, WB6000-D

Remotely Controllable High Torque / High Speed Stirrers, Suitable for reaction
DF series
WB3000-DF, WB1800-DF, WB6000-DF

Remotely Controllable High Torque / High Speed Stirrers
C & EC Series
WB3000-C, WB1800-C, WB3000-EC, WB1800-EC

Overhead stirrer
2000 series
WB2000-A, WB2000-M, WB2000-C

WB2000-C

WB2000-M

WB2000-A

Overhead Stirrers

WB2000-A / WB2000-M / WB2000-C

WIGGENS® offers overhead stirrers for your stirring and mixing tasks in the lab for low to high viscosities. Safety, power and intelligence were again at the core of the development of this product range. The powerful motors achieve homogeneous results-with exact speed even under changing loads or high viscosity and produce little noise. Many reliable solutions are available, according to different requirements in terms of viscosity and volume.
WIGGENS® overhead stirrers process stirring quantities of up to 100 liters.

- Brushless DC motor, which is very suitable for long-term experimental applications
- Stable and accurate stirring process due to latest micro-processor technology
- Slow ramp-up and speed limits protect you from splashes
- Totally enclosed and compact casing
- The high torque ensure maximum efficiency of minimal processing times-even high-viscosity media
- Stable and quiet working process
- Internal overload protection
- Adjustable impeller shaft for different heights
- Soft start at low speed guarantees a smooth and safe stirring process
- Suitable for applications in various environments
- The WB2000-A / C come with a reversible rotation function
- The WB2000-C employs button control and a bright LED speed display
- The standard version package entails the overhead stirrer, a stand, rod, and clamp, as well as a stainless steel impeller
- Availability of a wide range of different optional impellers

Features of the WB2000-C

- Employs all basic functions of the WB2000-C overhead stirrer
- Directly connectable to the computer via RS-232 cable for remote control
- Equipped with digital input/output ports and foot pedal port for various applications
- Suitable for stirring in reaction systems or stirring applications linked to other equipment
- Rotation speed can be lowered to 20 rpm for very sensitive stirring processes

Specifications

CE

Order No.	WB2000-A	WB2000-M	WB2000-C
Display / Control Mode	Scale Display / Knob Control	LED Digital Display /Knob Control	LCD Digital Display / On-Touch Control
Speed Accuracy (rpm)	-	±1	±1
Speed Range (rpm)	40 ~ 2000	40 ~ 2000	20-2000
Maximum Viscosity (cps)	20000	20000	20000
Maximum Torque (N-cm)	70	66	70
Maximum Capacity (L)H2O	50	50	50
Chuck range max. diameter (mm)	10	10	10
Clockwise and Counter Clockwise Mixing	Yes	No	Yes
Input / Output Power (W)	70/50	70/50	70/50
Dimensions (W x L x H in mm)	105X160X185	105X160X185	105×160×185
Order No.	100100	100300	100500

For support stand selection, please refer to Page 98
For impeller selection, please refer to Page 91

Order Information

additional order no.:WB2000-X-P1/P2/P3

Package 1 includes

Overhead Stirrer, WF12 Support stand

Package 2 includes

Overhead Stirrer, WF12 Support stand and 9004 impeller

Package 3 includes

Overhead Stirrer, WF12 Support stand and 5.240.8.2 PTFE impeller

High Torque / High Speed Overhead Stirrers

WB3000-D / WB1800-D / WB6000-D

Specially designed for optimum usability and the highest efficiency in the same class with advanced safety features.

- Brushless DC motor
- Totally enclosed and compact metal casing
- Smart and convenient on-touch control
- TFT Display for better image quality and easy navigation
- Bright TFT screen, which can display for monitoring of set speed, actual speed and torque
- Transmission can be switched between low speed / high torque, and high speed / low torque
- Easily adjustable spinning chuck
- Precise speed adjustment
- Set speed can be maintained when viscosity of liquid changes
- Easy and time saving impeller adjustments
- Digital and analog interface available
- Monitoring and control via PC software

High Torque
High Speed

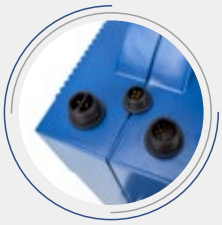
A through-shaft design allows for adjusting the impeller position to make **height adjustment more convenient**

Ease of operation

Smart and convenient on-touch control

Precise speed adjustment

Speed Range 20-3000rpm, Maintenance of constant motor speed by PID feedback control system even under conditions of changing viscosity.



RS232 / RS485

The stirrer comes equipped with a RS 232 and a RS485 interface to control and document all parameters.

Brushless DC motor

for longer life span, low maintenance and higher efficiency

Keyless chuck

It allows you to quickly and easily remove the stirring elements without any tools. Clamping range: 0.5-10mm

TFT Display

for better image quality and easy navigation

High Torque / High Speed

Offering the best mixing results, even for challenging applications

Control mode switch among Local, ANA.U, ANA.I, Foot, Remote Control

Timer mode countdown running time

Function switch

Set speed

Actual speed

Stirrer converts output current to torque, reflecting the changing load of motor

Torque mode switch

The powerful D Series stirrer can accomplish the most demanding tasks while providing the highest safety and increased performance life!

Sealed housing guarantees longevity and maintenance-free 24-hour operation in an aggressive environment

For support stand selection, please refer to Page 98
For impeller selection, please refer to Page 91

Specifications

Please note that other overhead stirrer models are available on request, please contact wiggens for further information.

Model	WB3000-D	WB1800-D	WB6000-D
Display / Control Mode	TFT Digital Display /On-Touch Control	TFT Digital Display /On-Touch Control	TFT Digital Display /On-Touch Control
Speed Accuracy (rpm)	± 1rpm	± 1rpm	± 1rpm
Torque Display	Stirrer converts output current to torque, reflecting the changing load of motor		
Speed Range (rpm)	Low: 30~600	Low: 20~360	Low: 60~1200
	High:601~3000	High: 361~1800	High:1201~6000
Torque (N-cm)	Low: 339	Low: 563	Low: 170
	High: 68	High: 113	High: 34
Maximum Viscosity (cps)	100000	150000	70000
Maximum Torque (N-cm)	339	563	170
Chuck range max. diameter (mm)	10	10	10
Maximum Capacity (L) H_2O	100	40	100
Output Power (W)	150	150	150
Dimensions (W × L × H in mm)	200x95x230	200x95x230	200x95x230
Motor Weight (Kg)	5	5	5
Order No.	100400	100600	100800

Order Information

additional order no.: WBXX00-D-P1,P2 and P3

Package 1 includes

Overhead Stirrer, WH22-D Support stand

Package 2 includes

Overhead Stirrer, WH22-D Support stand and 9004 impeller

Package 3 includes

Overhead Stirrer, WH22-D Support stand and 5.255.10.2 PTFE impeller

High Torque / High Speed Stirrers Remotely controllable, keyless chuck

WB3000-DF / WB1800-DF / WB6000-DF

Ideally perform your professional stirring tasks requiring high functionality, safety, and longevity.
Prestige touch TFT controller

Features

> Years of vibration-free and silent operation.
> Equipped with a maintenance-free BLDC motor to generate smooth, quiet, and yet powerful stirring.
> Powerful torque capable of handling high viscosity tasks.
> Maintenance of constant motor speed by control system even under conditions of changing viscosity.
> Best effort function intelligently manages its stirring speed to keep stirring even workload is out of its capacity.
> Prevention of accidental spills or splashes thanks to microprocessor controlled smooth start and stop functions.

When the overhead stirrer is installed in a higher and farther position, such as connecting with the reaction systems, the operator can not easily to operate.

Wiggens has developed and designed a remotely controllable stirrer that separates the stirring part from the control part and makes it easier to operate through a remote panel.

> Dimensions of the remote panel:150 × 100mm
> The length of the cable: 2m
> Connection mode of the cable: Quick connector
> Control and display parameters: Stir speed, torque and Stir mode

Practical external controller.

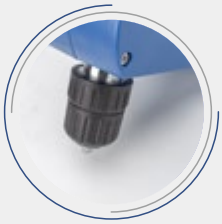
> Intuitive and easy control with touch TFT.
> It enables convenient and safe external control without opening the sash of the fume hood or safety cabinet.

Compact and slim head design for diverse flexibility in configuring other test equipment and accessories. (optional)

Safety

> Sturdy aluminum main body efficiently absorbing and emitting the heat generated by the motor.
> Separated adapter from the main body minimizes the risks of electrical hazards to the users.

A through-shaft design allows for adjusting the impeller position to make height adjustment more convenient



Keyless chuck

It allows you to quickly and easily remove the stirring elements without any tools.
Clamping range: 0.5-10mm

Specifications

Model	WB3000-DF	WB1800-DF	WB6000-DF
Display / Control Mode	TFT Digital Display /On-Touch Control		
Speed Accuracy (rpm)	± 1rpm		
Torque Display	Stirrer converts output current to torque, reflecting the changing load of motor		
Speed Range (rpm)	Low: 30~600	Low: 20~360	Low: 60~1200
	High:601~3000	High: 361~1800	High:1201~6000
Torque (N-cm)	Low: 339	Low: 565	Low: 170
	High: 68	High: 113	High: 34
Maximum Viscosity (cps)	100000	150000	70000
Maximum Torque (N-cm)	339	565	170
Chuck range max. diameter (mm)	10	10	10
Maximum Capacity (L) H_2O	100	40	100
Output Power (W)	150		
Dimensions (W × L × H in mm)	200x95x230		
Motor Weight (Kg)	5		
Order No.	100400F	100600F	100800F

High Torque / High Speed Stirrers Remotely controllable

WB3000-C / WB1800-C / WB3000-EC / WB1800-EC

> Suitable for reaction systems and other high torque / high speed applications
> Set speed can be maintained when viscosity of liquid changes
> Brushless DC motor made in Germany, for high performance stirring processes
> Maintenance-free
> Quiet and reliable
> Digitally adjustable rotation speed and direction
> Remote controller can display actual speed and actual torque as well as the set speed
> Digital (RS-232/485) and analog communication available for remote PC or PLC control

Safety

> Sturdy aluminum main body efficiently absorbing and emitting the heat generated by the motor.
> Separated adapter from the main body minimizes the risks of electrical hazards to the users.

Features

> Years of vibration-free and silent operation.
> Powerful torque capable of handling high viscosity tasks.
> Maintenance of constant motor speed by control system even under conditions of changing viscosity.
> Best effort function intelligently manages its stirring speed to keep stirring even workload is out of its capacity.
> Prevention of accidental spills or splashes thanks to microprocessor controlled smooth start and stop functions.

Practical external controller.

> Intuitive and easy control with touch TFT.
> It enables convenient and safe external control without opening the sash of the fume hood or safety cabinet.

Compact and slim head design for diverse flexibility in configuring other test equipment and accessories. (optional)

Specifications

CE

Model	WB3000-C	WB1800-C	WB3000-EC	WB1800-EC
Control Type	TFT Display for Speed and Torque and On-Touch Control			
Torque Display	Stirrer converts output current to torque, reflecting the changing load of motor			
Speed Range (rpm)	70-3000	20-800	70-3000	20-800
Speed Accuracy(rpm)	±1	±1	±1	±1
Maximum Viscosity (cps)	100000	150000	200000	300000
Maximum Torque (N-cm)	330	1320	410	1640
Rated Torque (N-cm)	47	188	116	464
Maximum Capacity (L) H_2O	100	50	100	50
Power (W)	150	150	450	450
Dimensions (W × L × H in mm)	157×65×65	216×65×65	165×75×75	225×75×75
Motor Weight (Kg)	1.8	2.3	2.8	3.4
Order No.	100401	100601	100402	100602

Accessories for Overhead Stirrers

Stirrer guides

Universal stirrer seal

Material : PTFE (Polytetrafluoroethylene)

Order No.	Description	ShaftØ (mm)	Height (mm)
KA22-02	24/40	8	60
KA22-03	29/42	8	60
KA22-04	34/45	8	60

Universal stirrer guides For standard taper ground glass joints

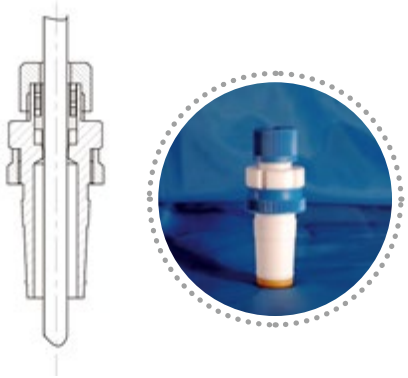
Universal stirrer guides for use with standard taper ground glass joints can be used with PTFE Shaft Stirrers and glass and meatal shaft stirrers. Unique features of the design are a permanently loaded Composite PTFE/PEEK Seal and a Glass Ball-Bearing for rigidity and smoothness of operation.

> Exceptional chemical resistance
> Anti-whip and reduced vibration
> Vaccum (5mmHg) and pressure (3-5psi) performance
> No shedding
> Maximum recommended speeds;continuous 500rpm, intermittent 800rpm

Order No.	ShaftØ (mm)	'A' Core	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 guides 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.



> The HP Stirrer Guide has the additional features:
> High level of chemical resistance
> Anti-whip and reduced vibration
> Vacuum (~5mm Hg) and pressure (3-5psi) performance
> No shedding
> Self releasing joint ring
> Maximum recommended speeds: continuous 500rpm, intermittent 800rpm

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

Order No.	ShaftØ(mm)	'B' Core	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 guides

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. It doesn’t harm the stirring rod and is highly chemical resistant. It can be used with vacuum of up to 1 Torr. The highest recommended stirring speed is 400 rpm.

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

Magnetic stirrer guides

Magnetic drives are designed for agitating a fully vacuumed flask.
Multi-functional easy to replace impeller.

> Use of rare-earth elements which is Neodymium (Nd), Samarium (Sm-Co) magnet.
> High-speed rpm, vibration free.
> Specifically designed with permanent magnets which has a dynamic torque rating.
> Small size and powerful rotating magnetic drive is useful both for laboratory and manufacturing applications.

Specifications

Model	MD-24	MD-29	MD-45	MD-15	MD-25
Ground Joint	24/40	29/42	34/45	Thread #15	Thread #25
Body / Housing	SUS316L / CR-PLATE				
Bushing / Seal	PTFE/Viton				
Vacuum	1×10^{-4} mmHg				
Pressure	5 bar				
Temp	Max. 70℃ (without cooling), Max. 300℃ (with cooling)				
Shaft Size (Ø, mm)	8 mm				
Cooling in / out Size (Ø, mm)	3.2 mm				
Dimension (Ø×L, mm)	50×200mm				
Weight (kg)	1.02	1.04	1.08	1.00	1.02
Order No.	511001	511002	511003	511004	511005

Application of Magnetic Drive

PTFE Impeller

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

Screw Propeller, 4-Bladed (PTFE Coated)

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

Order No.	Shaft Ø(mm)	Length(mm)	Rotor Ø(mm)
5.230.2	6	300	40
5.240.2	6	400	40
5.250.2	6	500	50
5.230.8.2	8	300	40
5.240.8.2	8	400	40
5.250.8.2	8	500	50
5.255.10.2	10	550	70
5.0265.10.2	10	650EX	70
5.0275.10.2	10	750EX	70
5.0265.12.2	12	650EX	80
5.0275.12.2	12	750EX	80
5.02100.12.2	12	1000EX	80
5.0275.16.2	16	750EX	80
5.0275.16.1.2	16	750EX	100
5.02100.16.2	16	1000EX	100
5.02100.16.1.2	16	100EX	120

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 midand high-speed stirring

Order No.	Shaft Ø(mm)	Length(mm)	Rotor Ø(mm)
5.430.2	6	300	40
5.440.2	6	400	40
5.450.2	6	500	50
5.430.8.2	8	300	40
5.440.8.2	8	400	40
5.450.8.2	8	500	50
5.455.10.2	10	550	70
5.0465.10.2	10	650EX	70
5.0475.10.2	10	750EX	70
5.0465.12.2	12	650EX	80
5.0475.12.2	12	750EX	80
5.04100.12.2	12	1000EX	80
5.0475.16.2	16	750EX	80
5.04100.16.2	16	1000EX	80

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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)
5.330.2	6	300	80
5.340.2	6	400	80
5.350.2	6	500	80
5.330.8.2	8	300	80
5.340.8.2	8	400	80
5.350.8.2	8	500	80
5.355.10.2	10	550	100
5.0365.10.2	10	650EX	140
5.0375.10.2	10	750EX	140
5.0365.12.2	12	650EX	140
5.0375.12.2	12	750EX	140
5.03100.12.2	12	1000EX	140
5.0375.16.2	16	750EX	140
5.0375.16.1.2	16	750EX	180
5.03100.16.2	16	1000EX	140
5.03100.16.1.2	16	1000EX	180

Retreat Curve Impeller (PTFE Coated)

The blades are formed in a 30° angle. 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)
5.80850.300	8	300	50	10
5.80875.300	8	300	75	15
5.80850.400	8	400	50	10
5.80875.400	8	400	75	15
5.81050.400	10	400	50	10
5.81075.400	10	400	75	15
5.81050.500	10	500	50	10
5.81075.500	10	500	75	15

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)	Ht(mm)	Order No.	W(mm)	Ht(mm)
2.052.1	52	14	2.1065.1	65	25
2.076.1	76	19	2.1075.1	75	25
2.090.1	90	28	2.1105.1	105	25
			2.1125.1	125	25
			2.1150.1	150	25

4 Blade Angled Type 45° Metric

Order No.	Shaft Ø(mm)	RotorØ(mm)
5.606040	6	40
5.608040	8	40
5.610060	10	60
5.610090	10	90
5.612070	12	70
5.612090	12	90
5.616100	16	100

Plain Impeller Shafts (PTFE Coated)

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)
5.100830EX	8	5	300
5.100850EX	8	5	500
5.101030EX	10	6.4	300
5.101050EX	10	6.4	500
5.101065EX	10	6.4	650
5.101250EX	12	6.4	500
5.101265EX	12	6.4	650
5.101275EX	12	6.4	750
5.1016750EX	16	10	750
5.1016100EX	16	10	1000

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)
5.530.1	6	300	5.0565.10.1	10	650EX
5.540.1	6	400	5.0575.10.1	10	750EX
5.550.1	6	500	5.05100.10.1	10	1000EX
5.530.8.1	8	300	5.0565.12.1	12	650EX
5.540.8.1	8	400	5.0575.12.1	12	750EX
5.550.8.1	8	500	5.05100.12.1	12	1000EX
			5.0575.16.1	16	750EX
			5.05100.16.1	16	1000EX

Flat Type Metric

Order No.	Shaft Ø(mm)	RotorØ(mm)
5.706070	6	70
5.708070	8	70
5.710070	10	70
5.710100	10	100
5.712100	12	100
5.712150	12	150
5.716100	16	100
5.716150	16	150

Adjustable Turbine

Order No.	Shaft Ø(mm)	RotorØ(mm)
5.90850	8	50
5.90875	8	75
5.91075	10	75
5.9100100	10	100
5.91275	12	75
5.912100	12	100
5.016100	16	100
5.916150	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 Heigh：18 mm

Order No.	Rotor Ø((mm)	Shaft Ø(mm)	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)	Shaft Ø(mm)	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 Heigh：12 mm

Order No.	Rotor Ø((mm)	Shaft Ø(mm)	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

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))	Shaft Ø(mm)	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)	Shaft Ø(mm)	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

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Pitched Leaf Impeller and Pitched Blade Impeller

Employs small shearing force. Used for mixing media in an upto-down axial flow, for mid- and high-speed stirring, for mid to low viscosity mixtures.
Blade Heigh：12 mm

Order No.	Rotor Ø((mm)	Shaft Ø(mm)	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 fix blades

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

Blade Heigh：12 mm

Order No.	Rotor Ø((mm)	Shaft Ø(mm)	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

Turbine Impeller

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

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

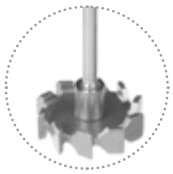
Anchor Impeller

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

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

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)	Shaft Ø(mm)	Length(mm)
9030	50	8	400
9031	50	10	400

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 Heigh：10 mm

Order No.	Rotor Ø((mm)	Shaft Ø(mm)	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

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)	Shaft Ø(mm)	Length(mm)	RPM
9020	80	10	500	200-700
9021	120	10	500	120-500

COLLAR with PTFE Gasket

Designed to be used with 8068, 8070, 8071, 8074 or 8078 stirring shafts. Handy for positioning shaft in bearing, and preventing shaft from dropping into flask. Supplied with PTFE gasket to prevent scratching top of bearing and to act as dust cover.

Description	Order No.
Collar,glass filled PTFE,10mm,w/PTFE gasket	8127-10
Collar,glass filled PTFE,19mm,w/PTFE gasket	8127-20
Collar,glass filled PTFE,28mm,w/PTFE gasket	8127-28
Collar,stainless steel,10mm,w/PTFE gasket	8127-42
Collar,stainless steel,19mm,w/PTFE gasket	8127-43
Collar,stainless steel,28mm,w/PTFE gasket	8127-44

'STIR-LUBE' Ace Trubore®, Stirrer Lubricant

A superior, low melting, silicone-base lubricant which liquifies at body temperature. Because of its composition, you need apply only a very thin film of "Stir-Lube" to a stirring shaft to increase bearing and shaft life at least three times over that of bearing lubricated with glycerine. Non-cooled ACE bearing can be operated at 1500 rpm and water-cooled bearings up to 2000 rpm for many hours with negligible wear.

Description	Order No.
28 (1 oz.)	8117-10
113 (4 oz.)	8117-20

LUBRICANT Stopcock

Smooth, stable, odorless oil based lubricants, free of silicone, suitable for lubrication of joint and piston. The melting point is 52℃ , can be cleared with xylene.

Description	Order No.
75 (2.65 oz.)	8118-10

HI-LUBE Lubricant for Strong Liquids

Resistance to acid and alkali, soluble in organic solvents, and suitable for oxidizing gases. The temperature can reach260 ℃ it is non-combustible, and non-oxidized.

Description	Order No.
30ml	8119-07

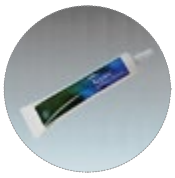
KRYTOX GPL Fluorinated Grease

Good chemical stability, no reaction with oxygen, hydrogen, hydrocarbons and other chemical substances. The usable temperature range is -35℃ ~ 290℃ .

Description	Order No.
2 oz	8115-08

KRYTOX LVP High Vacuum Grease

Very low vapor pressure, highly inert, nonflammable grease. The grease for high-vacuum systems. Vapor Pressure: torr at 20℃ - 1 x10^{-13}; torr at 200℃ -1x10^{-5}.



Description	Order No.
2 oz	8116-10

Truebore Flexible Drive Shaft Overhead Stirrer

SHAFT Fully flexible drive shaft connects the motor to any size or type of reactor stir shaft. Designed with a ball bearing motor coupling at one end, for connection to any motor with an 8mm (5/16-inch) diameter shaft. The other end has a detachable handpiece with an 8mm round aluminum pin adapter (8081-24) for connection to our 8124 chucks (supplied separately). The handpiece can be supported by a standard lab clamp or hand held. The shafts operate up to 14,000 rpm. Shafts should run in a counter-clockwise direction. Typical torque ratings: sharp bend in shaft, (4-inch loop) -4.7 Kg-cm, (4 in-lbs). Straight shaft -28 Kg-cm, (24 in-lbs). Shafts measure approximately 91.4 cm, (36 inches) or 152.4 cm, (60
inches) with handpiece and motor coupling attached. Optional adapter 8081-27 allows for connection to motors with 9.5mm (3/8-inch) O. D. shaft. Operating and lubrication instructions included. Complete units consist of: either shaft A -8081-05 or shaft A-1, 8081-06, motor coupling for 8mm motor shaft, 8081-12, handpiece with 1/4-inch collett and adapter, chuck wrench, and key chain.

	Order No.
A)Flexible shaft only, 91.4cm	8081-05
(A-1) Flexible shaft only, 152.4cm	8081-06
B) Handpiece with 8mm 8081-24 adapter, includes 1/8-inch and 1/4-inch Collets	8081-08
C)Motor Coupling (only) for 8mm shaft	8081-12
COMPLETE, 91.4cm (Consists of A, B, C & E)	8081-30
Complete, 152.4cm (consists of A-1, B, C & E)	8081-32
Additional Parts:	
(E)Chuck wrench with key and chain	8081-15
(F)Shaft lubrication, 30mL	8081-19
(G) 8mm Adapter (only) for 8081-08 handpiece	8081-24
(H)Adapter, connecting (3/8-inch O.D. motor shaft to motor coupling)	8081-27

Lifting platform

Laboratory Lifting platform

> Material : Stainless (#204)
> Available to support experiment tools such as stirrers, water baths, flasks and etc in height control
> Smoothly works with a little force
> Max Height : 270mm

Description (W x L) cm	Max Height (mm)	Order No.
S/T (15 * 15)	270	KA11-91
S/T (20 * 20)	270	KA11-93
S/T (25 * 25)	270	KA11-94
S/T (30 * 30)	270	KA11-95
S/T (15 * 15)	270	KA11-91N
S/T (20 * 20)	270	KA11-93N
A/L (15 * 15)	270	KA11-91B
A/L (20 * 20)	270	KA11-92

Clamps

Three-Prong Clamps

	Overall length(mm)	Maximum grip size(mm)	Order No.
Large Clamp	270	80	KA00-52
Medium Clamp	245	60	KA00-53
Small Clamp	210	30	KA00-54
Large Clamp	615 (Rod: 500)	80	KA00-52A

Two-Prong Clamps

Two-Prong Clamp, Dual adjustment clamp has a maximum grip size of 73mm. Two-prong design is ideal for beakers, flasks, and test tubes. Jaws adjust independently. Overall length is 255mm. Clamp extends 127mm

	Overall length(mm)	Maximum grip size(mm)	Order No.
Medium Clamp	255	60	KA00-50
Medium Clamp	605 (Rod: 500)	60	KA00-50A

Utility Clamp Flat

Grips rods up to 3/4 in. diameter (19mm). Holding angle of jaw is adjustable. Can be locked with a wingnut. Wingnut also allows length adjustment. Two-prong flat jaws for test tubes. Three-prong for irregular shapes. Vinyl and fiber glass sleeves are included. Replacement sleeves are available; contact your Fisher Customer Service Representative.

Description	Order No.
2P direct connection	KA00-57

Utility Clamp 3Prong

Grips rods up to 3/4 in. diameter (19mm). Holding angle of jaw is adjustable. Can be locked with a wingnut. Wingnut also allows length adjustment. Two-prong flat jaws for test tubes. Three-prong for irregular shapes. Vinyl and fiber glass sleeves are included.

Description	Order No.
3P direct connection	KA00-58

Square Clamp Holder

Material : Die Casting (Chromium plating)
Pipe Diameter : Ø12.7mm

Description	Order No.
Ø12.7mm	KA00-68

Foot

Material : Die Casting (Chromium plating)
Pipe Diameter : Ø12.7mm

Description	Order No.
Ø12.7mm	KA00-73

Clamp Swivel Holder

Material : Brass (Chromium plating)
Adjustable angle holder, different from the other holder fixed at 90 degrees

Description (Max Grip)	Order No.
Ø13mm	KA00-71B

Ring Clamp

Material : Stainless Steel (Chromium plating)
For Funnel & Separatory Funnel

Description (ID)	Order No.
Ø90mm	KA00-65
Ø70mm	KA00-66
Ø50mm	KA00-67

Extension-Type Ring

Material : Stainless Steel (Chromium plating)
Separatory Funnel Size : 250ml-70mm / 500ml-90mm / 1,000ml-100mm

Description (ID x OD)	Order No.
Ø50 x Ø60mm	KA00-67F
Ø70 x Ø80mm	KA00-67A
Ø90 x Ø100mm	KA00-67B
Ø110 x Ø120mm	KA00-67C
Ø130 x Ø140mm	KA00-67D
Ø150 x Ø160mm	KA00-67E

Clamp Holder (Regular)

Will grip rods up to and including 19mm diameter. Attaches clamp at right angle.

	Order No.
	11080-19

Jumbo Clamp Holder

Heavy-Duty Clamp Holder, Jumbo clamp holder has amaximum grip size of 22mm Heavy duty version of the regular holder is for use wherever clamping at 90° angle is required

Content	Order No.
Max Grip (22mm)	KA00-70A

Pinch Cock

Material : Stainless Steel (Nickel plating)

Screw Cock

Material : Brass (Nickel plating)

Content (mm)	Material	Order No.
12	Stainless Steel (Nickel Plating)	KA00-71
12	Brass (Nickel Plating)	KA00-72

Spring Steel Clip

Material : Nickel

Description	Order No.
14 / 23	KC.KCM14
19 / 26	KC.KCM19
24 / 29	KC.KCM24
29 / 32	KC.KCM29

Chain Clamp

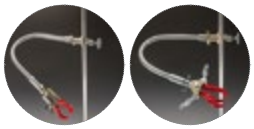
Material : Stainless Steel / Vinyl Coating

Description (Max Grip×Length)	Order No.
165 x 180mm	KA00-56
280 x 180mm	KA00-56A

Frame Holder

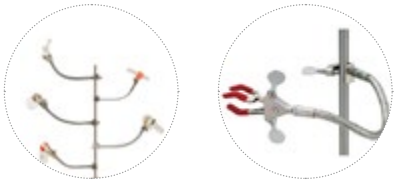
Lab frame hook connector allow one-handed assembly of two components with one adjustment screw.
Material : Die Casting (Chromium plating)
Pipe Diameter : Ø12.7mm

Pipe Diameter	Order No.
12.7mm	KA00-69
12.7mm	KA00-70C



KA00-50B KA00-50C

Description (Max Grip×Length)	Order No.
60 x 360, 2P	KA00-50B
60 x 360, 3P	KA00-50C



Clamping sytem features a 12-inch or 16-inch flex arm. Ideal for working within hoods. The system mounts to any lab frame or support stand with a 19mm or less diameter. An optional base plate or bench clamp provides increased versatility. Complete units (-10 and -12) include flex arm, two-prong head, three-prong head, spring head, and lab frame connector. Comes with an extra set of fiberglass prong covers for temperatures above 100℃ .

Order No.	Description
11058-10	Complete clamping system with 300cm arm
11058-12	Complete clamping system with 400cm arm

Clamp Holder All-Position

All-position holder connects at any angle in any plane. Consists of two holders connected by double plate-joint which sets holders 90° from each other. Each holder can be rotated 360°. Grips rods up to 19mm diameter.

	Order No.
All-Position	11090-17

Clamp Universal Swivel, "Power Hold"

Universal swivel clamp allows positioning of stirrer at any compound angle for best stirring action.
One knob — Lets you lower or raise stirrer
One knob — Locks stirrer on support rod, tilts right/left
One knob — Controls swivel setting, forward/backward
Fits support stand from 3/8-inch to 5/8-inch (9.5mm to 16mm) diameter. Will hold stirrer mounting rod from 3/8-inch to 5/8-inch diameter. Fabricated of precision machined aluminum.

	Order No.
Universal Swivel, "Power Hold"	11084-11

Clamp Holder

Only suitable for Single Rod Stand

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

Clamp Holder

Only suitable for Single Rod Stand

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

Clamp Holder

Only suitable for Double Rod Stand

Model	WH4
Clamping range - stand	16mm
Clamping range - extension arm	10~13mm
Material	cast aluminium

Extension Rod

Extend the rod to the expected length for your application

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

Stands

WF Stand

Material: Ordinary steel, stainless steel
Max. load: 5 kg
Dimensions (W x D): 315X200mm
Height: 550, 750, 950 mm

Model	Height (mm)
WF11	550
WF12	750
WF13	950

WF Stand

Material: Ordinary steel, stainless steel
Dimensions (W x D): 315X200mm
Height: 550, 750, 950 mm

Model	Height (mm)
WF11-D	550
WF12-D	750
WF13-D	950

WH Stand (Stand with base plate H-shape)

Particularly stable stand with H-shape base which prevents the stand from tipping backwards. Provides optimum stability required for larger, heavier instruments and attachments, for example with rheological measurements using overhead stirrers.

> Material: Aluminum, stainless steel
> Dimensions (W x D): 340X300mm
> Height: 550, 750, 950 mm

Model	Height (mm)
WH11-S	550
WH12-S	750
WH13-S	950

WH Stand
Stand with base plate H-shape

D

635x600mm
DS

Particularly stable stand with H-shape base which prevents the stand from tipping backwards. Provides optimum stability required for larger, heavier instruments and attachments, for example with rheological measurements using overhead stirrers.

> Material: Aluminum, stainless steel
> Height: 550, 750, 950 mm

Model	Height (mm)	Model	Height (mm)
WH21-D	550	-	-
WH22-D	750	-	-
WH23-D	950	WH23-DS	950