

Digital Overhead Stirrer

Product Line / Selection Guide

	High Speed						High Torque					
	Analog Model		Digital Model				Analog Model		Digital Model			
	Integrated Controller		Integrated Controller		Remote Controller		Integrated Controller		Integrated Controller		Remote Controller	
	HS-50A	HS-120A	HS-30D	HS-100D	HS-30T	HS-100T	HT-50AX	HT-120AX	HT-50DX	HT-120DX	HT-50T	HT-120T
Max. Stirring Capacity (HzO)	10 Lit.	20 Lit.	10 Lit.	20 Lit.	10 Lit.	20 Lit.	40 Lit.	60 Lit.	40 Lit.	60 Lit.	40 Lit.	60 Lit.
Max. Viscosity (mPas)	10,000	50,000	10,000	50,000	10,000	50,000	100,000	150,000	100,000	150,000	100,000	150,000
Motor Rating (Input / Output)	83/75W (1/10 hp)	130/120W (1/6 hp)	83/75W (1/10 hp)	130/120W (1/6 hp)	83/75W (1/10 hp)	130/120W (1/6 hp)	83/75W (1/10 hp)	130/120W (1/6 hp)	83/75W (1/10 hp)	130/120W (1/6 hp)	83/75W (1/10 hp)	130/120W (1/6 hp)
Max. Torque (Ncm) at Chuck	85	145	85	145	85	145	300	500	300	500	300	500
Max. Impeller Diameter (mm)	8						10					
Speed Range (rpm)	200 ~ 3,000						50 ~ 1,000					
Motor Rating (Input / Output)	Direct Driven Motor						3.5:1 Ratio Worm-Geared Motor					
Controller	Analog Phase Controller		Digital Feedback Controller with Jog Shuttle Switch(Turn+Push)		Digital Feedback Controller with Jog Shuttle Switch(Turn+Push), Remote type		Analog Phase Controller		Digital Feedback Controller with Jog Shuttle Switch (Turn+Push)		Digital Feedback Controller with Jog Shuttle Switch (Turn+Push), Remote type	
Display	None		Digital LCD (Timer, RPM & Power Bar-graph)				None		Digital LCD (Timer, RPM & Power Bar-graph)			
Operating Environment	Ambient Temp. Range (°C)	0 ~ 40										
	Max. Permissible Humidity (%)	80										
Safety Device	Over Heat Protector for motor		Over Load & Heat Protector for motor				Over Heat Protector for motor		Over Load & Heat Protector for motor			
Body Dimension (w×d×h mm)	90×145×180				90×100×180		90×180×130	90×210×130	90×180×130	90×210×130	155×180×110	155×230×110
Body Weight (kg)	4.5	5.3	4.5	5.3	3*	3.8*	3.5	4	3.5	4	3.5	4
Others	- Smooth Start and Change of the Stirring Speed for stable running - Storage Function (RPM & Timer) : Only Digital Models						- Smooth Start and Change of the Stirring Speed for stable running - Storage Function (RPM & Timer) : Only Digital Models - Locking Mode (Jog-Shuttle Input disabled) : Only Digital Models - Alarm (Error Status and Timer-end) : Only Digital Models					
Power Supply**	AC 230V, 50/60Hz											

* Weight of Remote Controller = 2.5kg

** Other Specifications are Available Upon Customer's Request.

Standard Viscosity

(Unit: mPas)

Material	Viscosity	Recommended Models			
Water	1	HS-30D HS-50A HS-30T	HS-100D HS-120A HS-100T	HT-50DX HT-50AX HT-50T	HT-120DX HT-120AX HT-120T
Milk	3				
Soybean oil	160				
Varnish	500				
Lacquer	1,000				
Honey	3,000				
Standard Viscosity	10,000				
Standard Viscosity	15,000				
Ketchup	30,000				
Standard Viscosity	50,000				
Mustard	70,000				
Corn Syrup	100,000				
Standard Viscosity	150,000				
Peanut Butter	250,000				

Cat. No	Description	Articles
---------	-------------	----------

DAIHAN-brand® High-Speed Digital Overhead Stirrer, “HS-T”, with Remote Controller, 200 ~ 3,000 rpm with Remote Digital Feedback Control System, Steady & Constant Stirring Speed Against Viscosity, up to 50,000 mPas

- with Certificate & Traceability : Controlled by Serial Number, Certificate, Delivery-information, and Traceable Data Base System
- Remote Digital Feedback Controller : Steady and Constant Stirring Speed against Viscosity Change of a Sample during Reaction
- Patented Jog-Shuttle Control System
- CE Certified
- PL(Product Liability) Insurance

- * Ideal for Stirring Low-to Medium-Viscosity Material, General Purpose Basic Laboratory Mixing
- * Digital LCD for RPM, Power Bar Graph and Status
- * Overload Protection and Over-Heat Protection Functions for Motor
- * Smooth Start and Change of the Stirring Speed
- * High Speed Stirring by Direct Driven Motor
- * The Position(height) of Impeller is Adjustable
- * Storage Function for Set Value : RPM and Timer
- * Chrome-Plated & Stainless steel Chuck - Prevention from Corrosion

Specification

Stirring Capacity & Models	Max. 10 Lit. (H ₂ O) “HS-30T”	Max. 20 Lit. (H ₂ O) “HS-100T”
Maximum Viscosity	10,000 mPas	50,000 mPas
Maximum Torque	85 Ncm	145 Ncm
Speed Range & Motor	200 ~ 3,000 rpm, Direct Driven DC Motor	
Motor Rating (Input / Output)	83 / 75 W, 1/10 HP	130 / 120 W, 1/6 HP
Timer & Alarm	99hr 59min (with Continuous run.), Timer-end Alarm	
Display	Digital LCD with Back - Light Function	
Controller	Remote type Digital Feedback Controller with Jog Shuttle Switch	
Max. Impeller Shaft Diameter	φ8 mm	
Permissible Temp. & Humidity	0 ~ 40℃, 80%	
Safety Device	Overload & Heat Protector for motor	
Material	ABS and Aluminum	
Dimension & Weight*	90 × 100 × h180mm, 3 kg	90 × 100 × h180mm, 3.8 kg
Packing Size & Gross Weight	580 × 340 × h230mm, 5 kg	580 × 340 × h230mm, 8 kg
Power Consumption	75 W	120 W
Power Supply & Cord Plug**	1 Phase, AC 120 V, 60 Hz or AC 230 V, 50 / 60 Hz	

* Weight of Remote Controller = 2.5kg

** Other Specifications are available upon Customer's Request.

Ordering Information

- * “HS-30T” Package-set : Complete with ① Overhead Stirrer Unit with Remote Controller
② “PL010” Stainless steel Impeller(Rod φ8 × L500mm, Blade φ50mm) ③ “CL200” Clamp ④ “ST110” Standard Plate Stand(Rod φ16 × L800mm, Plate w20 × d35cm)
- * “HS-100T” Package-set : Complete with ① Overhead Stirrer Unit with Remote Controller
② “PL015” Stainless steel Impeller(Rod φ8 × L500mm, Blade φ70mm) ③ “CL200” Clamp ④ “ST120” Wide Plate Stand (Rod φ23 × L1,000mm, Plate w30 × d40cm)

With Remote Controller, 10 Lit. Stirring Capa., 10,000 mPas, “HS-30T” Package-set & Unit

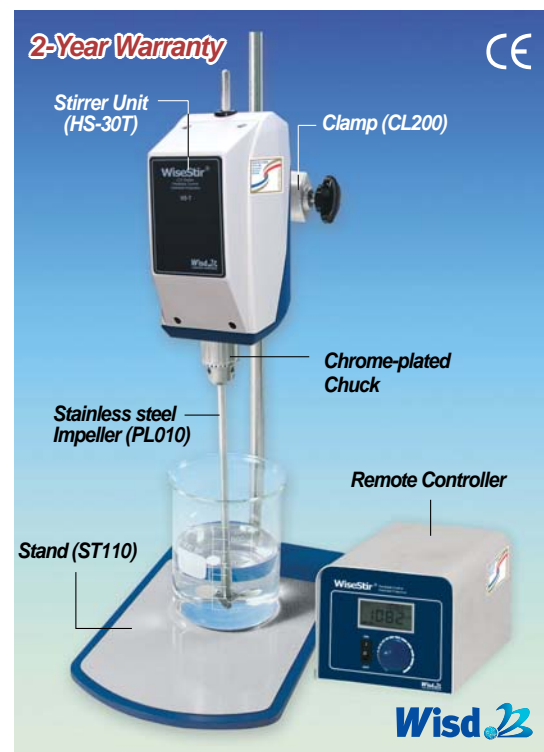
- DH.WOS01036 High Speed-type Overhead Stirrer, Package-set, 230V
DH.WOS02036 , 120V
- DH.WOS01035 High Speed-type Overhead Stirrer, Unit only, 230V
DH.WOS02035 , 120V

With Remote Controller, 20 Lit. Stirring Capa., 50,000 mPas, “HS-100T” Package-set & Unit

- DH.WOS01046 High Speed-type Overhead Stirrer, Package-set, 230V
DH.WOS02046 , 120V
- DH.WOS01045 High Speed-type Overhead Stirrer, Unit only, 230V
DH.WOS02045 , 120V

※ Refer to page 212 ~ 213 for Accessory Specifications.

※ Refer to page 204 for Product Line & Selection Guide



High-Speed Digital Overhead Stirrer,
with Remote Controller, “HS-30T” Package-set



High-Speed Digital Overhead Stirrer,
with Remote Controller, “HS-100T” Unit only

Standard Accessories for Overhead Stirrers

DAIHAN-brand® Stirring Impeller for Overhead Stirrer, Stainless steel #304



(1) Propeller-type 3×Bladed

- Specially designed Stainless steel #304 (High-grade) used
- Excellent Resistance of Acids, Chemicals, Corrosion and High Temperature.
- Universal-Types and Wide-Ranges

For Both High Speed-type & High Torque-type Overhead Stirrers

(1) Propeller-types, 3×Bladed, Rod $\phi 8 \times L500/650$ mm, Blade $\phi 50/60/80/100$ mm

DH.WOS501010 Impeller, "PL010", #304, $\phi 8 \times L500$ mm Rod, $\phi 50$ mm Blade
 DH.WOS501011 , "PL011", #304, $\phi 8 \times L500$ mm Rod, $\phi 60$ mm Blade
 DH.WOS501012 , "PL012", #304, $\phi 8 \times L650$ mm Rod, $\phi 80$ mm Blade
 DH.WOS501013 , "PL013", #304, $\phi 8 \times L650$ mm Rod, $\phi 100$ mm Blade



(2) Propeller-type 4×Bladed

(2) Propeller-types, 4×Bladed, Rod $\phi 8 \times L500/650$ mm, Blade $\phi 70/90/100$ mm

DH.WOS501015 Impeller, "PL015", #304, $\phi 8 \times L500$ mm Rod, $\phi 70$ mm Blade
 DH.WOS501016 , "PL016", #304, $\phi 8 \times L650$ mm Rod, $\phi 90$ mm Blade
 DH.WOS501017 , "PL017", #304, $\phi 8 \times L650$ mm Rod, $\phi 100$ mm Blade



(3) Diamond-type 4×Bladed

(3) Diamond-types, 4×Bladed, Rod $\phi 8 \times L500/650$ mm, Blade $\phi 90/100$ mm

DH.WOS501020 Impeller, "PL020", #304, $\phi 8 \times L500$ mm Rod, $\phi 90$ mm Blade
 DH.WOS501021 , "PL021", #304, $\phi 8 \times L650$ mm Rod, $\phi 100$ mm Blade

(4) Centrifugal-type, 2×Bladed, Rod $\phi 8 \times L500$ mm, Blade $\phi 100$ mm

DH.WOS501025 Impeller, "PL025", #304, $\phi 8 \times L500$ mm Rod, $\phi 100$ mm Blade

(5) Teflon Coated Centrifugal-type, 2×Bladed, Rod $\phi 8 \times L500/650$ mm,
 Blade $\phi 90/120$ mm

DH.WOS501030 Impeller, "PL030", #304, $\phi 8 \times L500$ mm Rod, $\phi 90$ mm Blade
 DH.WOS501031 , "PL031", #304, $\phi 8 \times L650$ mm Rod, $\phi 120$ mm Blade

(6) Anchor-types, 2×Bladed, Rod $\phi 8 \times L500/650$ mm, Blade $\phi 70/90$ mm

DH.WOS501035 Impeller, "PL035", #304, $\phi 8 \times L500$ mm Rod, $\phi 70$ mm Blade
 DH.WOS501036 , "PL036", #304, $\phi 8 \times L650$ mm Rod, $\phi 90$ mm Blade



(4) Centrifugal-type 2×Bladed

For High Torque-type Overhead Stirrers (HT-AX, HT-DX, HT-T)

(1) Propeller-types, 3×Bladed, Rod $\phi 10 \times L500/650/800$ mm, Blade $\phi 60/80/100$ mm

DH.WOS501111 Impeller, "PL111", #304, $\phi 10 \times L500$ mm Rod, $\phi 60$ mm Blade
 DH.WOS501112 , "PL112", #304, $\phi 10 \times L650$ mm Rod, $\phi 80$ mm Blade
 DH.WOS501113 , "PL113", #304, $\phi 10 \times L650$ mm Rod, $\phi 100$ mm Blade

(2) Propeller-types, 4×Bladed, Rod $\phi 10 \times L650$ mm, Blade $\phi 90/100$ mm

DH.WOS501116 Impeller, "PL116", #304, $\phi 10 \times L650$ mm Rod, $\phi 90$ mm Blade
 DH.WOS501117 , "PL117", #304, $\phi 10 \times L650$ mm Rod, $\phi 100$ mm Blade

(3) Diamond-types, 4×Bladed, Rod $\phi 10 \times L650$ mm, Blade $\phi 100$ mm

DH.WOS501121 Impeller, "PL121", #304, $\phi 10 \times L650$ mm Rod, $\phi 100$ mm Blade

(6) Anchor-types, 2×Bladed, Rod $\phi 10 \times L650/800$ mm, Blade $\phi 90/140$ mm

DH.WOS501135 Impeller, "PL135", #304, $\phi 10 \times L650$ mm Rod, $\phi 90$ mm Blade
 DH.WOS501136 , "PL136", #304, $\phi 10 \times L800$ mm Rod, $\phi 140$ mm Blade



(5) Teflon Coated Centrifugal-type



(6) Anchor-type 2×Bladed

※ Please Note!

Other Specification of a Rod or Blade is available upon Customer's Request.

Cat. No	Description	Articles
---------	-------------	----------

DAIHAN-brand® Premium Plate Stand, High Quality, with Stainless steel Rod ϕ 16/23 mm

- High-Quality Plate-type Stand with Support Rod
- Silicon Rubber Pad adhered
- Wide and Thick Steel Plate for Safety Mechanism
- Support Rod made of Stainless steel specially designed

- DH.WOS501510 (1) Standard Plate Stand, "ST110",
for Stirrer and Homogenizer
 ϕ 16 \times h800 mm/1.5P Screw Rod, "RD 511",
20 \times 35 cm Plate, with Silicone Pad
- DH.WOS501515 (2) Wide Plate Stand, "ST120",
for Stirrer and Homogenizer
 ϕ 23 \times h1000 mm/1.5P Screw Rod, Rod, "RD 522",
30 \times 40 cm Plate, with Silicone Pad



(1) "ST110" (2) "ST120"

DAIHAN-brand® Heavy Duty Safety Stand, High Safety, with Stainless steel Rod ϕ 23 mm

- Never Fall Down by Safety Mechanism.
- High-Safety H-/U-type Stand with Support Rod
- Provides Sturdy Support for Stirrers during Mixing Procedure
- Support Rod made of Stainless steel specially designed
- Adjustable Foot Distance (ST200)

- DH.WOS501520 (3) Deluxe Safety Stand, "ST200", H-type
 ϕ 23 \times h1200 mm Rod, 39 \times up to 75cm Stand Base
- DH.WOS1177 (4) Safety Stand, "KA1177", U-type
 ϕ 23 \times h800 mm Rod, 34 \times 29 cm Stand Base



(3) "ST200" (4) "KA1177"

DAIHAN-brand® Universal Jumbo Clamp Holder, for Stand/Rod

- DH.WOS502020 (5) Clamp Holder, "CL200"
Cast Aluminum, Grip Capacity, ϕ 23mm for Stand/Rod



(5) Clamp "CL200"

Usbeck® Steel Retort Base Duo Stand, up to ϕ 16mm Rods, for 2 Rods

Nonskid Feet equipped, with Hinged Screw M6, Rod Excluded

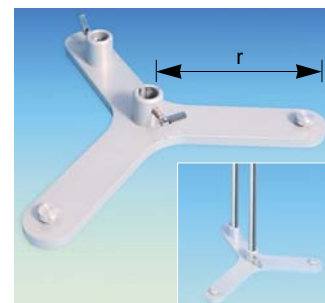
* Can Fix Rods up to 2ea (Below ϕ 16mm) * Stand Thickness : 8mm

Retort Stand, Only Stand Base

- US.2040 Stand, "US2040", r = 150 mm
US.2041, "US2041", r = 185 mm

Optional Stainless steel Rod

- DH.WOS502001 Stainless steel Rod, "RD501", ϕ 16 \times h800mm, Non-screw
DH.WOS502002, "RD502", ϕ 16 \times h1000mm, Non-screw
DH.WOS502003, "RD503", ϕ 16 \times h1200mm, Non-screw



Steel Retort Base Duo Stand

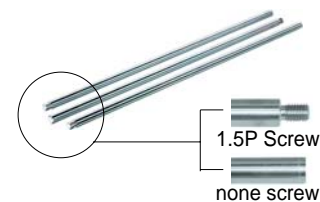
DAIHAN-brand® High-Quality Stainless steel (#304) Rod. for Plate Stand, ϕ 16/23 mm

Plain-type ϕ 16mm Rod, without Screw

- DH.WOS502001 Stainless steel Rod, "RD501", ϕ 16 \times h800mm, Non-screw
DH.WOS502002, "RD502", ϕ 16 \times h1000mm, Non-screw
DH.WOS502003, "RD503", ϕ 16 \times h1200mm, Non-screw
DH.WOS502031, "RD531", ϕ 23 \times h800mm, Non-screw
DH.WOS502033, "RD533", ϕ 23 \times h1200mm, Non-screw

1.5P Screw-type ϕ 16 & 23mm Rod

- DH.WOS502011 Stainless steel Rod, "RD511", ϕ 16 \times h800mm, 1.5P Screw
DH.WOS502012, "RD512", ϕ 16 \times h1000mm, 1.5P Screw
DH.WOS502013, "RD513", ϕ 16 \times h1200mm, 1.5P Screw
DH.WOS502021, "RD521", ϕ 23 \times h800mm, 1.5P Screw
DH.WOS502022, "RD522", ϕ 23 \times h1000mm, 1.5P Screw
DH.WOS502023, "RD523", ϕ 23 \times h1200mm, 1.5P Screw



Stainless steel Rod

DAIHAN-brand® Flexible Coupling for Safety Stirring, Up to ϕ 14mm Shafts

(6) "Witeg" Basic Rubber / Metal Coupling, for ϕ 6~10mm Shafts

- WI.1445000 Coupling, "W1-COR-6", for ϕ 6~8mm Shafts
WI.1445010, "W1-COR-8", for ϕ 8~10mm Shafts



(6) Basic-type Coupling

(7) "KGW" Heavy-duty Metal Coupling, for ϕ 6~ ϕ 14mm Shafts

- KG.40477 Coupling, Metal, "PKK-10", for ϕ 6~8mm Shafts
KG.40478, "PKK-16", for ϕ 12~14mm Shafts



(7) Heavy-duty Metal Coupling