

# Stirrer MAZELA® ZZ-2121·2221·2321

High torque and compact stirrer



ZZ-2121

## Features

- Rotation speed remote control is possible by external signal control.
- Equipped with automatic inversion function. Inversion time can be selected from 5, 10, 20, 30, 45 or 60 seconds.
- Collet chuck firmly fixes shaft even under inversion operation.
- 80W DC brushless motor is strong enough to ensure compact, high torque stirring.

## Specifications

Product Name	Stirrer			
Model	ZZ-2121	ZZ-2221	ZZ-2321	
Cat. No.	263020	263030	263040	
Rotation speed (rpm)	20~1200	10~600	5~300	
Max. torque	N·m/rpm	0.392/1200	0.784/600	1.57/300
	kgf·cm/rpm	4/1200	8/600	16/300
Rotation speed setting & display	Volume setting & digital display			
Motor	DC brushless motor 80W			
Stirring rod diameter (mm)	Φ8 collet chuck			
Dimensions (mm)	130W x 210D x 158H			
Power source	300VA AC100V			

**Point!**

### Chuck cover



Chuck cover is equipped to prevent hair from being wound up during rotation. (PAT)

Stirring bar dia.	Cat. No.
φ4	256100
φ6	256110
φ8 (standard)	256120
φ10	256130

### Free clamp



Main unit inclination at different angle is possible. Centering of seal, stirring rod, flask is easy.

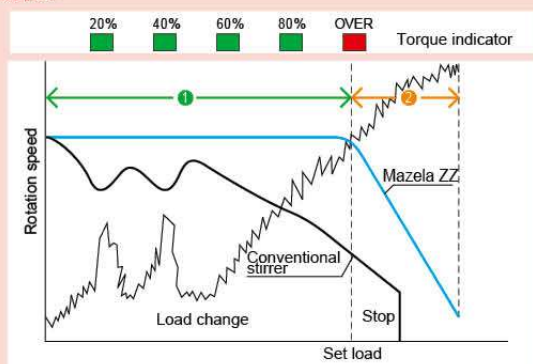
### Air purge port



Air purge port is equipped. Outside air can be charged into stirrer to prevent solvents and acid inlet into stirrer.

**Point!**

### Rotation control by speed feedback



- 1 Set rotation speed is kept even when load change happens.
- 2 When load exceeds limit, rotation continues at reduced speed.

## Optional Accessories for stirrer

### ■ Stirring Seal (Vacuum Stirrer) TBO



TBO

### Features

- Effective for stirring in vacuum or in sealed environment.
- Teflon made stirring seal with common taper joint.
- Can be depressed to 0.13hPa (0.1mmHg) while keeping rotation efficiency.
- Free fixing position to stirring bar.

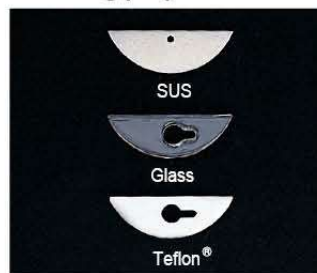
Product Name	Stirring Seal			
Model	TBO			
Cat. No.	121090	121100	121110	121120
Taper joint	¥24	¥29	¥34	¥40

### ■ Stirring bar for stirring seal



Material	ODxL(propeller)(mm)	Cat. No.
SUS	8×450、w/o slot	121520
	8×495、with slot	121560
	8×600、with slot	121570
Glass	8×450	121490
	8×600	121500
	8×800	121510
Teflon®	T-1 8×450 (80W×17H)	121590
	T-11 8×600 (80W×17H)	203210
	T-12 8×700 (100W×23H)	203220
	T-2 8×600 (120W×23H)	121600
	T-3 8×800 (150W×25H)	121610
Teflon® (anchor)	T-1A 8×450 (60W×40H)	200210
	T-2A 8×600 (80W×60H)	200220

### ■ Stirring propeller for stirring seal

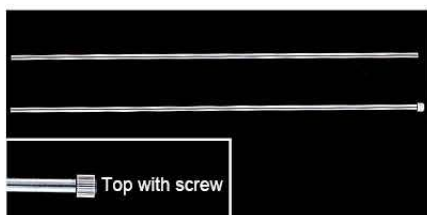


Model	Material	Dimensions(mm)	Cat. No.
G-1	SUS	58W×19H	121450
G-2		71W×19H	121460
E-1	Glass	58W×19H	121430
E-2		71W×19H	121440
F-1	Teflon	58W×19H	121470
F-2		71W×19H	121480

### ■ Stirring propeller

No.	No.1	No.2	No.3	No.4	No.5	No.6	No.7	No.8	
Shape (SUS304)									
Name	Flat blade	Curved blade	Round	Fan	Curved fan	Angled fan	Compensation fan	Marine propeller	
Stiring status									
Bar diam.	Propeller diam.	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.	
8mm	30mm	121820	122000	122180	122360	122540	122720	122900	123080
	40mm	121830	122010	122190	122370	122550	122730	122910	123090
	50mm	121840	122020	122200	122380	122560	122740	122920	123100
	60mm	121850	122030	122210	122390	122570	122750	122930	123110
	70mm	121860	122040	122220	122400	122580	122760	122940	123120
	75mm	121870	122050	122230	122410	122590	122770	122950	123130
	80mm	121880	122060	122240	122420	122600	122780	122960	123140
	85mm	121890	122070	122250	122430	122610	122790	122970	123150
	90mm	121900	122080	122260	122440	122620	122800	122980	123160
	100mm	121910	122090	122270	122450	122630	122810	122990	123170
10mm	30mm	121920	122100	122280	122460	122640	122820	123000	123180
	40mm	121930	122110	122290	122470	122650	122830	123010	123190
	50mm	121940	122120	122300	122480	122660	122840	123020	123200
	60mm	121950	122130	122310	122490	122670	122850	123030	123210
	70mm	121960	122140	122320	122500	122680	122860	123040	123220
	80mm	121970	122150	122330	122510	122690	122870	123050	123230
	90mm	121980	122160	122340	122520	122700	122880	123060	123240
	100mm	121990	122170	122350	122530	122710	122890	123070	123250

■ Shaft for stirring propeller  
(Cannot be used with stirring seal TBO)



ODxL (mm)	Cat. No.
8×495	121720
8×495 (with screw)	121730
8×800	121760
8×995	121770
10×495	121780
10×800	121800
10×995	121810

■ Teflon® impeller



Product name	Model	ODxL (mm)	Q'ty	Cat. No.
Teflon® impeller	TSB-30	8×30	5	123830
	TSB-40	8×40	5	123840
Teflon® impeller (Octagon)	TOS-15	6.5×15	5	200230
	TOS-20	6.5×20	5	200240
	TOS-25	7.5×25	5	200250
	TOS-30	7.5×30	5	200260
	TOS-35	7.5×35	5	200270
Teflon® impeller (Football)	TFS-15	6×15	5	200280
	TFS-20	10×20	5	200290
	TFS-25	10×25	5	200300
	TFS-30	15×30	5	200310
	TFS-35	15×35	5	200320
Strong teflon® impeller (Octagon)	TFS-40	20×40	5	200330
	TOX-15	6.5×15	1	200340
	TOX-20	6.5×20	1	200350
	TOX-25	7.5×25	1	200360
	TOX-30	7.5×30	1	200370
Strong teflon® impeller (Football)	TOX-35	7.5×35	1	200380
	TFX-15	6×15	1	200390
	TFX-21	10×20	1	240320
	TFX-25	10×25	1	200410
	TFX-30	15×30	1	200420
	TFX-35	15×35	1	200430
	TFX-40	20×40	1	200440

■ Reaction vessels



Jacket type reaction vessel

Model	Capacity	Cat. No.
BJ-5N	500mL	201470
BJ-10N	1000mL	201480
BJ-20N	2000mL	201490
BJ-30N	3000mL	201500
BD-5N	500mL	201510
BD-10N	1000mL	201520
BD-20N	2000mL	201530
BD-30N	3000mL	201540



\* BD with drain



Separable round bottom flask

Model	Capacity	Cat. No.
SFR-5	500mL	200450
SFR-10	1000mL	200460
SFR-20	2000mL	200470



Flask cover

Model	No. of port & Joint	Cat. No.
BC-1N	1 $\varnothing$ 29/38×1	201550
BC-2N	2 $\varnothing$ 29/38×1	201560
	$\varnothing$ 15/25×1	
BC-3N	3 $\varnothing$ 29/38×1	201570
	$\varnothing$ 15/25×2	
BC-4N	4 $\varnothing$ 29/38×1	201580
	$\varnothing$ 15/25×3	
BC-5N	5 $\varnothing$ 29/38×1	201590
	$\varnothing$ 15/25×4	

■ Reaction vessel (Separable flask)



50mL Cat. No. 261860    100mL Cat. No. 261870    300mL Cat. No. 261880

■ Reaction vessel holder



Cat. No. 261950

■ Flask cover



3 port

4 port

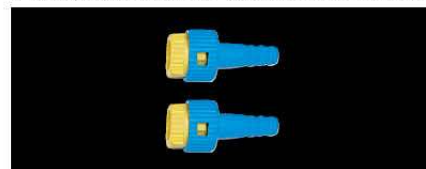
■ Flange stopper & O ring



Flange stopper  
Cat. No. 261970

O ring  
Cat. No. 261960

■ Circulation tube connection nozzle



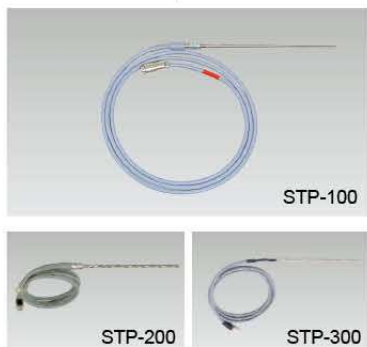
Cat. No. 185260

■ Sensor holder



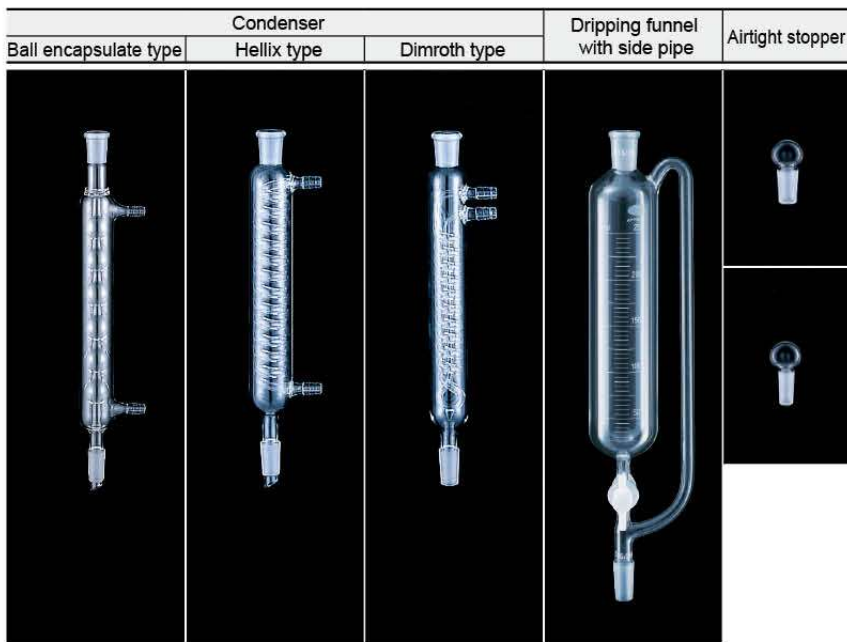
Cat. No. 209340

External temperature sensor



Applicable bath/circulator	Model	Sensor	Cat. No.
NTT-20G	STP-100	Three wire, Pt	114220
	STP-110		203230
	STP-120		203240
NCB-3100 NCB-3300 PCC-7000 NTB-221	STP-200	Four wire, Pt	113620
	STP-210		203250
	STP-220		203260
NCB-1200 NCB-2500 NCB-2600	STP-300	Thermistor	196730

Condenser, Dripping funnel, Airtight stopper



Product name	Length (mm)	Joint (寸)		Cat. No.
		Top	Bottom	
Condenser (with ball)	200	15 / 25	15 / 25	200480
Condenser (Hellix)				200490
Condenser (Dimroth)				200500
Dripping funnel	200			200510
Stopper (寸)		29 / 38		200520
		15 / 25		200530

Clamp ZC



ZC  
Cat. No. 124560  
Firmly holds stirring pole and fix to stand base.

Stand Base ZS



ZS  
Cat. No. 158710 (ZS)  
Pole height 780mm  
Cat. No. 203190 (ZS-2)  
Pole height 1200mm  
Support stirrer firmly even in case of large capacity vessel.

One touch Coupling CW-1



CW-1  
Cat. No. 123480  
One touch mounting of glass or stainless bar.  
Reaction vessel with stirring bar can be set to stirrer.  
Cannot be used with ZZ series.

Flexible Coupling CF-1



CF-1  
Cat. No. 123490  
Coupling exclusive for glass stirring bar. Centering of vessel or stirring seal is easy.  
Cannot be used with ZZ series.

Flexible Stirrer FS-1



FS-1  
Cat. No. 123570