



青岛创梦仪器有限公司

Qingdao Chuangmeng Instrument Co., Ltd

变频高速搅拌机

Frequency Conversion HighSpeed Mixers

使用手册

InstructionManual

Revision 1.0

版本 1.0

©版权所有青岛创梦仪器有限公司

© all rights reserved, Qingdao Chuangmeng Instrument Co., Ltd

请你仔细阅读《使用手册》，正确掌握本产品的安装和使用方法。阅读后请将本《使用手册》妥善保管，以备今后进行检修和维护时使用。

Carefully read this User Manual to learn how to install and use the product correctly. After reading, properly keep the User Manual as a reference for future maintenance and repair.

联系方式 Contact:

邮编 Zip code: 266100

网址 Website: www.qdcmyq.com

电话 Tel: 86-0532-66993768

传真 Fax: 86-0532-66993744

邮箱 E-mail: cmtech@sina.com

公司地址: 中国·青岛市市北区温州路 7 号

生产基地: 青岛市城阳区流亭街道兴海路 3 号

Address: No. 7 Wenzhou Road, City Northern District, Qingdao City, China

Production base: No. 3 Xinghai Road, Liuting Street, Chengyang District, Qingdao

一、概述

变频高速搅拌机采用了目前先进的变频技术和微电脑技术。有定时、定速、单轴及多轴同时运转等功能。搅拌叶片采用 API 标准制作。具有操作简单、启动力矩大、转速平稳、可靠、噪音小等特点。是石油、勘探、化工等专用实验设备。主要用于高速搅拌各种石油钻探用的钻井液、化学试剂等，是理想的高速搅拌设备。

二、型号及规格

型号	名称	不同配置处
1613	变频高速搅拌机	①单台电机搅拌。②一只盛液杯。
1614	变频高速搅拌机	①两台电机搅拌。②两只盛液杯。
1615	变频高速搅拌机	①四台电机搅拌。②四只盛液杯。

三、仪器的主要技术参数

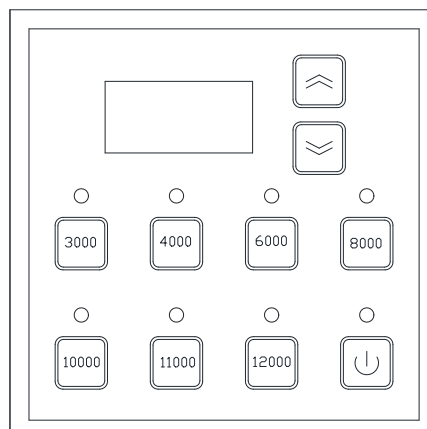
参数 项目 \ 型号	1613	1614	1615
工作电源	220V±5% AC 50/60Hz		
额定功率	200 W	200W×2	200W×4
空载转速	3000、4000、6000、8000、10000、11000、12000r/min		
搅拌体积	350ml	350ml×2	350ml×4
定时范围	1~99 分钟		
环境温度	~40℃		
环境湿度	10~85RH%		

四、仪器的结构及工作原理

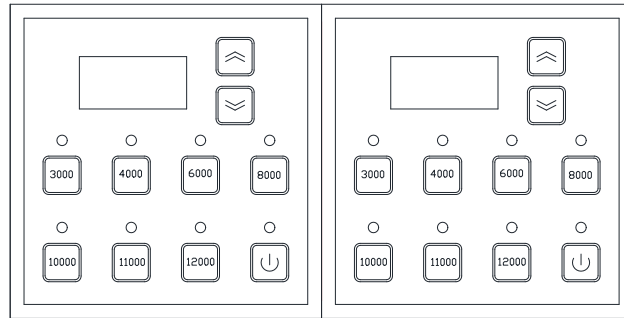
(一) 搅拌主机。

(二) 控制箱。

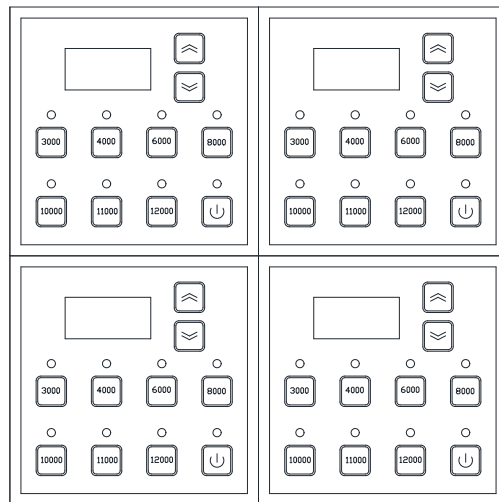
1、1613 型变频高速搅拌机控制箱示意图



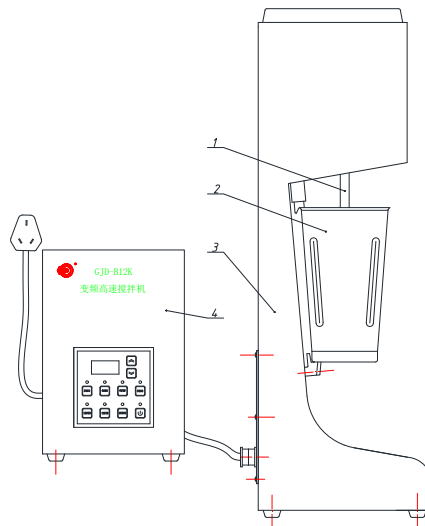
2、 1614 型变频高速搅拌机控制箱示意图



3、 1615 型变频高速搅拌机控制箱示意图



(三) 结构图及明细表



序号	名称	序号	名称
1	搅拌轴组件	3	壳体
2	盛液杯	4	控制箱

高速搅拌机结构明细表

五、仪器的操作


1、将仪器和相应电压电源接通，

注：四轴搅拌机有两根输出线，应分别连接各自的主机。

2、将样品倒入盛液杯。为防止样品搅拌时溢出，样品注入量一般不多于 2/3。

3、将盛液杯上口对准压杯组件开口处，上提将杯放于下支撑座上。盛液杯被压杯组件和下支撑座抱住紧固。

4、选择运行时，要对照转速表选择档位并设定搅拌时间() 键选择所需时间，最后按下() 键仪器开始运转，运行时档位数字闪烁。

5、选择停止时，(1) 按下() 键。(2) 设定时间到，仪器自动停止。注：定时只能在仪器停止运转时调整。

6、搅拌完毕，将搅拌机的盛液杯，握紧盛液杯用力上提，脱离下支撑座取出盛液杯。

六、仪器的维护与保养

1、清洗各部件并干燥待用，仪器置于干燥环境中。

2、移动、维修或保养仪器时。要轻拿、轻放，以免造成部件变形影响精度和使用。

3、搅拌轴不得碰撞，以免弯曲变形，损坏仪器。

4、电动机和调速器应经常保持清洁干燥不能受潮，要定期检查，严禁将腐蚀性化学药品与本机同存放。

5、搅拌叶片若重量低于 5.1 克需更换。其原始重量约为 5.5 克。

七、故障的判定与排除

故障	原因	维修方法
电机噪音增大	电机损坏	更换电机
电机不转动	①电机损坏 ②线路板出现故障	①更换电机 ②更换线路板
只有部分转速	“转速转换按钮”损坏	更换转速转换按钮
搅拌叶片不转	紧固螺钉松动	将紧固螺钉拧紧

八、一年备件（选购）

编号	名称及规格	单位	数量	备注
	盛液杯	套	2	
	电机	个	2	
	叶片	个	30	

I .Summary

The frequency conversion high speed mixer adopts the advanced frequency conversion technology and microcomputer technology at present. It has functions of timing, constant speed, single shaft and multi axis simultaneous operation. Mixing blades were made by API standard. It has the characteristics of simple operation, large starting torque, stable speed, reliability and low noise. It is a special experimental equipment for petroleum, exploration and chemical industry. Mainly used for high-speed stirring various oil drilling fluids, chemical reagents, etc., is an ideal high-speed stirring equipment.

II.Type and specification

Model	Parts
1613	1 electric motor ,1 liquid cup.
1614	2 electric motor ,2 liquid cup 。
1615	4 electric motor ,4 liquid cup.

III.Parameters of the instrument

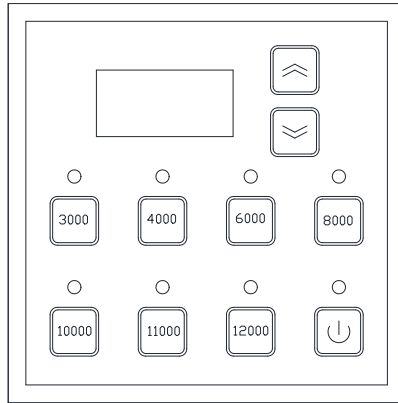
Parts Model Name	1613	1614	1615
Working power supply	220V±5% AC 50/60Hz		
Rated power	200 W	200W×2	200W×4
Unloaded speed	3000、4000、6000、8000、10000、11000、12000r/min		
Stirring volume	350ml	350ml×2	350ml×4
Timing range	1~99min		
Atemperature	~40℃		
Ambient humidity	10~85RH%		

IV. Structure and working principle

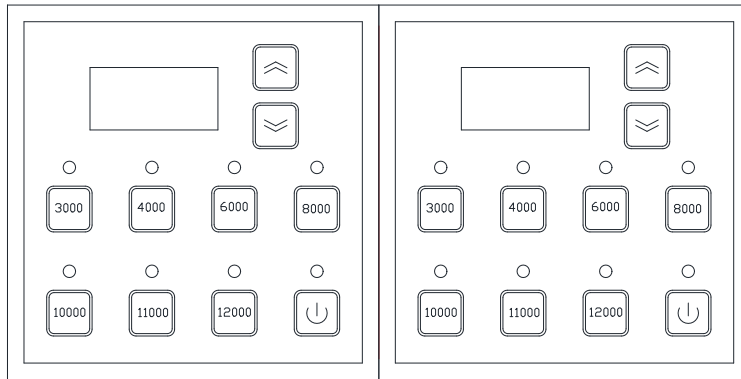
(1)Mixer.

(2) Control box

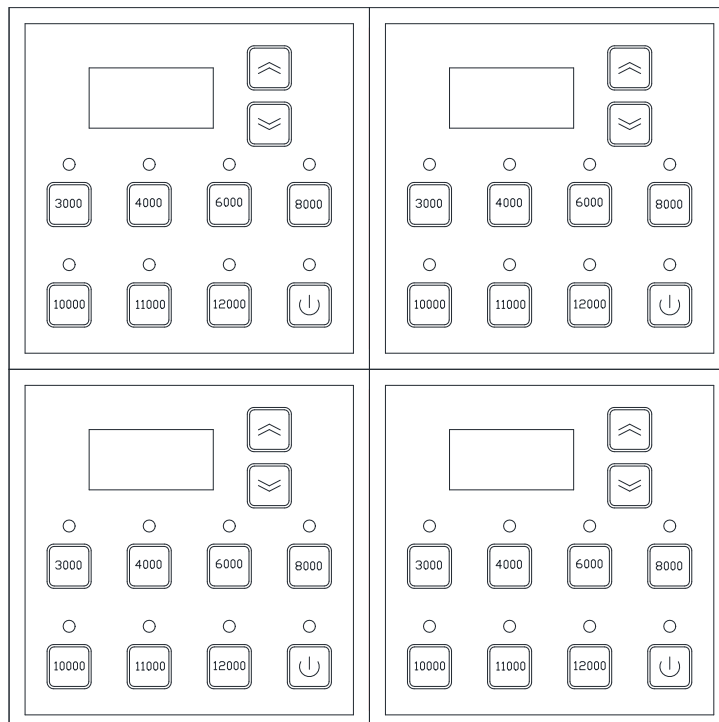
1.Schematic diagram of Model 1613 high speed mixer control box



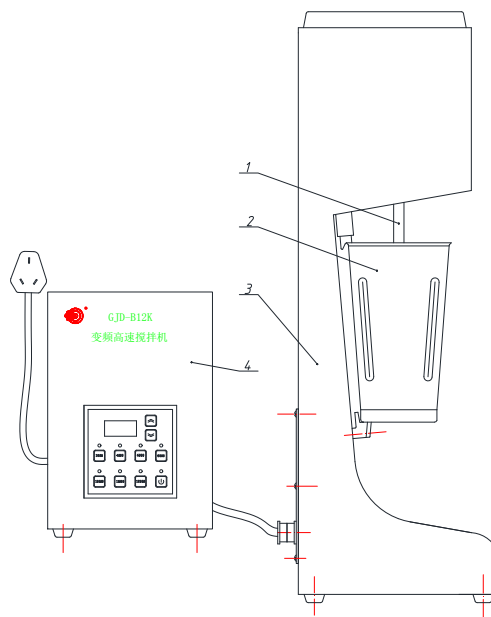
2.Schematic diagram of Model 1614 high speed mixer controlbox



3. Schematic diagram of Model 1615 high speed mixer control box



(3) Structure chart and schedule



No	Name	No	Name
1	Shaft as-mixing	3	Housing
2	Liquid cup	4	Control box

V. Instrument operation

1. Connect the instrument to the corresponding voltage and power supply.

Note: the four axis mixer has two output lines, which should be connected to their respective mainframe respectively.

2. Pour the sample into the liquid cup. In order to prevent overflow when sample is stirred, the injection amount of sample is generally not more than 2/3.

3. Place the top of the liquid cup on the opening of the cup assembly, and place the cup on the lower support seat. The liquid cup is held tightly by the pressing cup assembly and the lower supporting seat.

4. When selecting the operation, select the gear according to the tachometer and set the mixing time. Finally, press the gear key to start the operation of the instrument, and the gear number flashes during the operation.

5. Select stop, (a) press the gear knob. (b) set the time until the instrument stops automatically. Note: gear position and timing can only be adjusted when the instrument is stopped.

6. After stirring, hold the cup tightly and lift it forcefully. Remove the cup from the lower support.

Comparison table between gear and speed:

Gear	1	2	3	4	5	6	7
Speed	3000	4000	6000	8000	10000	110000	120000

VI.Maintenance and maintenance.

1. Clean the components and dry them up. The instruments are placed in a dry environment.
2. When moving, repairing or maintaining instruments. It is necessary to take lightly and put it lightly so as not to cause deformation of parts and affect accuracy and use.
- 3.The stirring shaft must not collide, so as to avoid bending deformation and damage the instrument.
- 4.Motor and speed regulator should be kept clean, dry and not damp. Regular inspection should be carried out. It is strictly forbidden to store corrosive chemicals with the machine.
- 5.If the weight of the stirring blade is less than 5.1g, it needs to be replaced. Its original weight is about 5.5g.

VII.Judgement and elimination of faults

Fault	Reason	Maintenance method
Motor noise increase	Motor damage	Replace motor
Motor does not rotate	1. Motor damage 2. Circuit board failure.	1. Replace the motor 2. Replacing circuit boards
Only partial rotation speed	"Speed conversion button" damage	Change the speed conversion button.
Stirring blades do not turn.	Loosening of fastening screws	Tighten fastening screws.

VIII.One year spare parts (optional)

No	Name	Quantity	Remark
1	Liquid cup	2	
2	Electric machinery	2	
3	Blade	30	

青岛创梦仪器有限公司 装箱单
Qingdao Chuangmeng Instrument Co., Ltd. Packing list

生产企业：青岛创梦仪器有限公司

Manufacturing enterprise: Qingdao Chuangmeng Instrument Co.,Ltd.

生产地址：青岛市城阳区流亭街道兴海路 3 号

Production address:No. 3 Xinghai Road, Liuting Street, Chengyang District, Qingdao

主机型号：变频高速搅拌机

Model of the main motor:Frequency Conversion High Speed Mixer

出厂编号：

Manufacturing No:

序号 No	编号 Model	名称 Name	数量 Qty
1		主机 Master	
2		控制箱 Control box	1
3		浆杯 Slurry cup	
4		杯盖 Cup cover	
5		控制线 Control line	
6		电源线 power cord	1
7		使用手册 Instruction Manual	1
8		合格证 Certificate	1