



川源(中国)机械有限公司
GSD (China) Co., Ltd.



MJN 系列 全流场混匀系统

**MJN Series
Full Flow Field Mixing System**

MJN 全流场混匀系统

MJN series full flow field mixing system



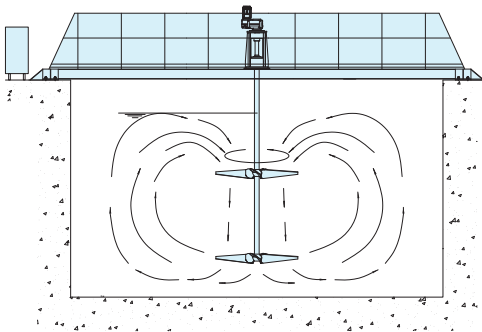
应用 Application

全流场混匀系统广泛运用在环保、化工、能源、轻工等行业需要对固、液、气搅拌混合的场合，适用于污水处理工艺中的混凝池、调节池、厌氧池、硝化和反硝化池、污泥调理和污泥均质池等。MJN 全流场混匀系统特有的电机在液面以上安装方式亦适宜在高温的液体环境下工作。

The full flow field mixing system is widely used in environmental protection, chemical industry, energy, light industry and other industries where solid, liquid and gas are required to be mixed, in the coagulation tank, regulating tank, anaerobic tank, nitrification and denitrification tank, sludge conditioning and sludge homogenization tank in the sewage treatment process. MJN full flow field mixing system has a special way of installing the motor above the liquid level, which is suitable for working in the high temperature liquid environment as well.

特点 Features

- 典型的轴流向搅拌系统，应用于水处理行业有很好的防沉降和混合效果。
- 采用变截面、变扭角的高效节能叶桨，桨叶根部到边缘压头一致，混合更充分，在厌氧、生化、缺氧等工艺，实际功耗可降低至 $2W/m^3$ 。
- 桨叶三维建模，一次冷压成型，动静平衡好；低剪切，应用于絮凝反应效果好。
- 搅拌桨叶与轴可拆卸的连接方式，便于安装、运输和维护。
- 15 米以内池深无需安装底轴承，改造更换无需清池，方便快捷。
- 高强度机架，设备运行平稳，维修保养方便。
- 搅拌轴、叶桨可选用 304、316、316L、碳钢衬塑、双相不锈钢等材质，适用水质范围广。



流态图 Flow pattern diagram

- Typical axial flow mixing system, which has good anti-settling and mixing effects in the water treatment industry.
- The blade with variable section and torsion angle is highly efficient and energy-saving. The pressure head from the root to the edge of the blade is consistent, and the mixing is more full. In anaerobic, biochemical, anoxic and other processes, the actual power consumption can be reduced to $2W/m^3$.
- Three-dimensional modeling of the blade, one-time cold pressing, better dynamic and static balance; low shear, better effect when applied to flocculation reaction.
- The mixing blade and the shaft can be disassembled connection, easy installation, transportation and maintenance.
- It is not necessary to install bottom bearings within 15 meters of the pool depth. Renovation and replacement do not need to empty the pool, convenient and simple.
- High-strength frame, more stable operation and more convenient maintenance.
- The mixing shaft and blade can be made of 304, 316, 316L, carbon steel lined with plastic, duplex stainless steel and other materials, which are suitable for a wider range of water quality.

型号说明 Type description

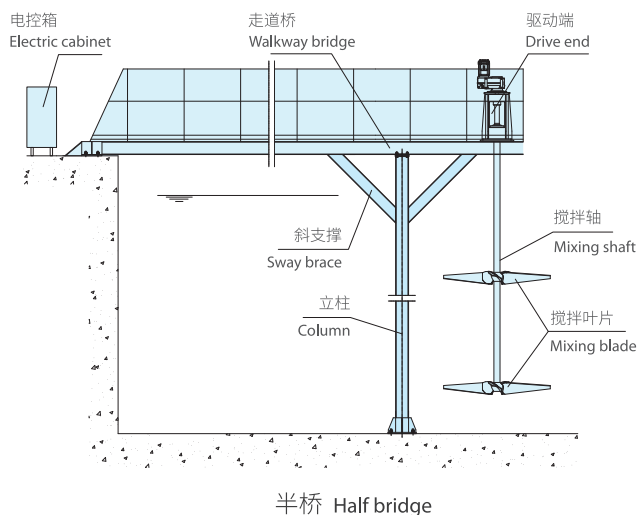
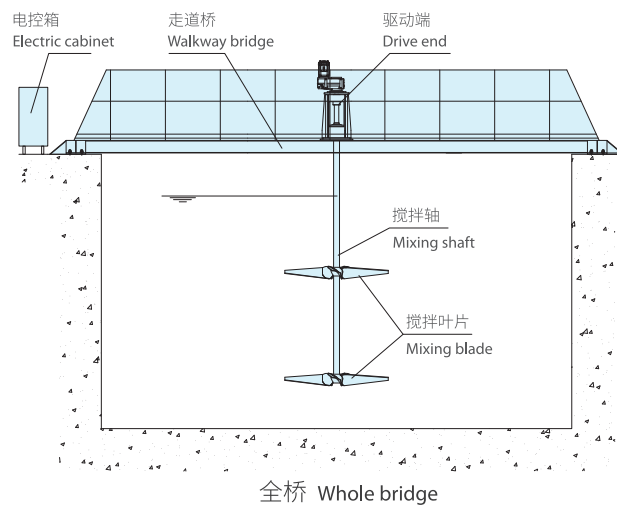
MJN - 800 / 1 - 0.55

—	功率 (kW)	Power (kW)
—	搅拌叶片层数	Mixing blade layer
—	搅拌叶片直径 (mm)	Mixing blade diameter (mm)
—	全流场混匀系统	Full flow field mixing system

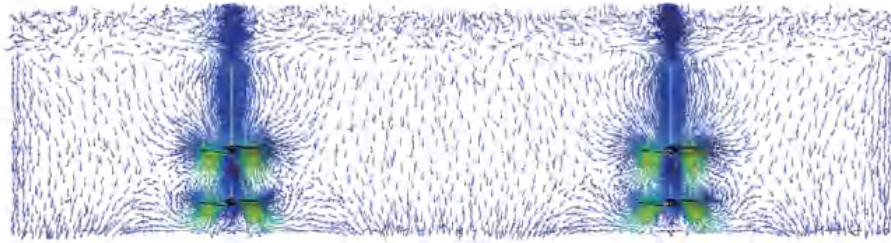
结构简图及安装方式 Structure sketch and installation method

MJN全流场混匀系统由传动部件、机座、搅拌轴、可拆卸式搅拌叶片组成。

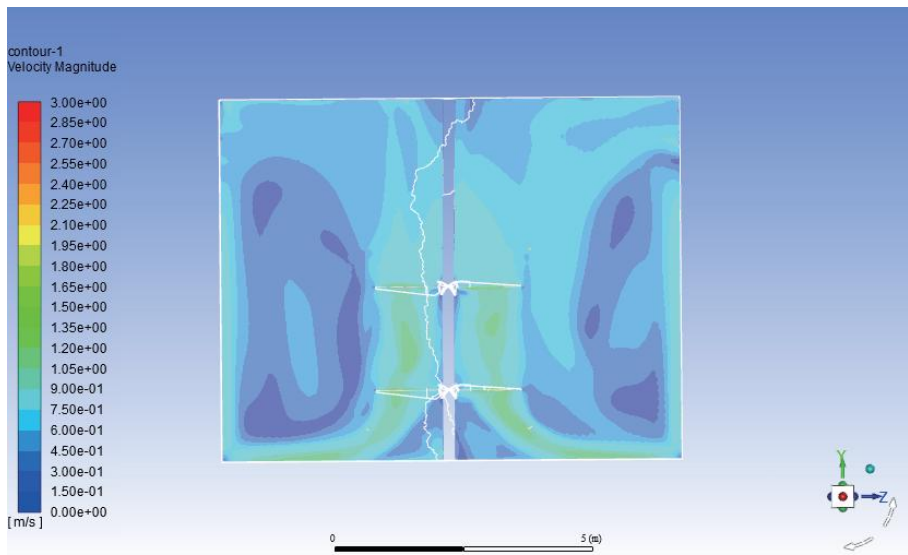
MJN full flow field mixing system consists of transmission parts, base plate, mixing shaft, and detachable mixing blades.



流场模拟图 Flow Field Simulation



速度流场云图 Velocity Flow Field Nephogram



选型参考 Model selection reference

全流场混匀系统的选型是根据现场的池型、介质参数及安装方式来确定叶桨直径、叶桨层数、功率及数量等，具体流程如下：

The selection of the full flow field mixing system is based on the pool shape, medium parameters and installation method on site to determine the blade diameter, the number of layers of blades, the power and the number of mixing equipment, etc. The specific process is as follows:

工况分析：确认容器尺寸参数、水质参数等。

工艺分析：确定搅拌要求、搅拌目的。

流量计算：根据搅拌强度确定。

功率计算：根据搅拌强度计算功率。

机械结构设计：设备受力、可靠性、稳定性临界转速等。

Working condition analysis: confirm container size parameters, water quality parameters, etc.

Process analysis: determine the mixing requirements and mixing purposes.

Flow calculation: determined according to the mixing intensity.

Power calculation: Calculate the power according to the mixing intensity.

Mechanical structure design: equipment stress, reliability, stability critical speed , etc.



性能参数 Performance parameters

型式 Form	叶片直径 Blade Diameter (mm)	转速RPM (r/min)		功率Power (kW)		服务范围 Service Range (m)	重量 Weight (kg)
		标准 Standard	范围 Range	标准 Standard	范围 Range		
MJN	600	120	80-160	0.11	0.03-0.27	1.9	5.9
	800	100	60-160	0.24	0.06-1.0	2.3	7
	1050	80	50-130	0.5	0.12-2.1	3	17
	1250	70	45-110	0.8	0.21-3.0	3.6	27
	1450	55	40-105	0.79	0.3-4.7	4.2	37
	1650	45	40-90	0.82	0.6-6.6	4.8	65
	1800	40	35-70	0.9	0.61-4.75	5.2	80
	2000	35	30-60	1.1	0.64-5.06	5.8	100
	2185	31	25-55	1.1	0.57-6.05	6.2	125
	2500	28	20-50	1.62	0.62-8.92	7.2	230
	2800	25	20-45	1.96	1.05-11.4	8	300
	3200	21	15-30	2.27	0.83-6.6	9.5	450
	3800	18	13-25	3.37	1.27-9.03	15	650
	4500	15	9-20	4.54	1.02-10.8	18	1000
	5000	13	8-18	5.01	1.17-13.29	20	1280
6000	10	8-16	5.67	2.91-23.22	24	2100	

备注：重量是指标准单层桨叶的整机重量，不同的转速所配置的驱动端规格不一样。整机重量根据方案不同而不同。

Note: The weight refers to the weight of standard complete machine with single layer blade. Motor power varies with different RPM configurations. The weight of the whole mixing system should be confirmed according to the motor rating.

各种搅拌机特点对比 Comparison of the features of various mixers

搅拌类型 Mixing Type	流向 Flow Direction	能耗 Energy consumption	防沉效果 Anti-settling Effect	机架 Frame	底支撑 Base Support	维护保养 Maintenance
双曲面Hyperboloid	轴流向Axial	低Low	差Poor	无N	无N	复杂Complicated
折叶浆Folding impeller	轴流向Axial	高High	好Good	有Y	有Y	简单Simple
框式Frame	径流向Radial	高High	差Poor	有Y	有Y	复杂Complicated
潜水Submersible	径流向Radial	低Low	差Poor	无N	无N	复杂Complicated
全流场混匀系统Full flow field mixing system	轴流向Axial	低Low	好Good	有Y	无N	简单Simple

应用场景 Job reference



如蒙洽询请指示下列各项

For further details, please fulfill the chart below.

客户 Customer _____ 承办人员 Undertaker _____
 工程名称 Name of project _____ 工程地点 Address of project _____
 电话 Telephone _____ 传真 Fax _____

基本选型参数 Model selection parameters	* 工艺名称 Processes name									
	* 安装位置 Installation site									
	* 基本池型(m) Pool shape	长 Length	宽 Width	深 Depth	长 Length	宽 Width	深 Depth	长 Length	宽 Width	深 Depth
* 有效水深(m) Available water depth										
* 介质参数 Medium parameters	介质名称 Medium name					密度 Density				
	主要成分 Main composition					PH 值 PH value				
	温 度 Temperature					黏 度 Viscosity				
	* 最高、最低水位 Highest and lowest water levels									
池形结构 Pool structure	* 池顶结构 pool top structure	* 池上有无安装桥架 有 <input type="checkbox"/> 无 <input type="checkbox"/> Whether the bridge is installed on the pool Yes No 池顶有无安装孔洞 有 <input type="checkbox"/> 无 <input type="checkbox"/> Are there any mounting holes in the pool top Yes No 安装孔洞尺寸(mm) Mounting hole dimensions _____ 设备安装中心与安装孔洞距离 Distance from mounting hole to mounting center _____								
	其它说明 Other Description	改造项目请简单图示描述目前情况: Please use the simple graphic to describe the current situation of the renovation project:								
材质要求 Material requirements	* 机架 Rack				* 搅拌轴 Mixing shaft					
	* 桨叶 Blade									
设备参数 Equipment parameters	桨叶直径(mm) Blade diameter				额定电流(A) Rated current					
	桨叶转速(r/min) Blade RPM				电机功率(kW) Motor power					
	电 压 (V) Voltage				防护等级 Protection grade					
其它要求 Others requirements										

注：项目前加注“*”号者，请务必详加填写

Note: The weight is different if using different brands of motor. Please contact our sales for details.



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搅拌机系列 | 推流器系列



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曝气机系列 | 曝气盘系列 | 曝气管系列



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GSD 的经营理念

G-Green 绿色 **S-Safe 安全** **D-Development 永续经营**



川源

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