



生态厕所

专业·专注·专心



潍坊恒远环保水处理设备有限公司
Weifang Hengyuan Environmental Water Treatment Equipment Co.,Ltd.

服务热线: 400-000-3067
电话: 0536-8353339
地址: 山东省潍坊市潍城区乐山路888号
网址: www.wfhengyuanhuanbao.com



潍坊恒远信达

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中国·潍坊

Company profile 企业简介

潍坊恒远环保水处理设备有限公司位于美丽的世界风筝之都—潍坊市，是一家集研发、生产、销售水处理设备、消毒设备、生态厕所于一体的生产型高新技术企业。公司成立于 2011 年 1 月，建有标准化生产车间 30000 余平米。

公司拥有环保工程二级资质，发明专利 6 项、实用新型专利 36 项、外观专利 1 项、软件著作权 6 项、涉水批件 27 项、消毒备案 8 项等相关资质。通过 ISO9001 质量体系认证、ISO14001 环境管理体系认证、ISO45001 职业健康安全管理体系认证以及售后服务体系认证等多项权威认证。并被评为国家环保装备制造行业（污水治理）规范条件企业、高新技术企业、省专精特新中小企业、省创新型中小企业、一企一技术研发中心等荣誉称号。

公司主营产品有：一体化（生活、医院、养殖等）污水处理设备、气浮机（涡凹式、溶气式、竖流式、浅层式）、沉淀池（平流式、竖流式）、生态厕所、厌氧反应器、中心转动刮泥机、旋流沉砂池除砂机、回转式机械格栅、污泥处理（板框式压滤机、带式压滤机、叠螺机）、一体式净水设备、过滤装置（活性炭过滤器、除铁锰过滤器、石英砂过滤器）、加药装置（PAC 加药装置、PAM 加药装置、基本型加药装置）、消毒设备（次氯酸钠发生器、臭氧发生器、电解法二氧化氯发生器、化学法二氧化氯发生器、消毒投加器、缓释消毒器、小型医院污水处理一体机、口腔、门诊污水处理设备、高效污水消毒设备）、脱氯装置（化料器、酸雾吸收器、脱氯装置）、配套系列（PLC 控制柜、漏氯报警仪、余氯检测仪、微电脑控制仪、计量泵、曝气机、浊度仪、水射器等设备）。

目前公司污水处理设备、消毒设备服务领域涵盖市政供水、市政污水处理、医疗系统、住宅小区、高速公路、景区、各类工厂（养殖厂、化工厂等）、工业循环冷却水、中水回用等。环保生态厕所广泛应用于市政、景区、广场、港口等公共场所及繁华商业区。“恒远信达”牌系列产品畅销全国各地及墨西哥、泰国、韩国、纳米比亚、斯里兰卡等海内外多个国家，受到客户的一致好评！

公司技术力量雄厚，拥有自己的实验室和大批管理、科研技术人才，为客户提供优良的售前、售中及售后服务，并能根据客户的用水条件，设计合理的水处理设备及配备方案，做到经济实用，优质高效。

潍坊恒远环保水处理设备有限公司本着“质量为先、诚信为本”经营理念和“对外成就客户、对内成就员工”的企业宗旨，致力于水处理行业，为打造良好的生态环境奠定坚实的基础，还人类与社会“绿水青山”。

Located in the beautiful kite capital of the world-Weifang City, Weifang Hengyuan Environmental Protection Water Treatment Equipment Co., Ltd. is a comprehensive production enterprise integrating research and development, production and sales of water treatment equipment, disinfection equipment and ecological toilets. The company was founded in January 2011, built a standardized production workshop of more than 30,000 square meters.

The company has environmental protection engineering second-class qualification, 6 invention patents, 36 utility model patents, 1 appearance patent, 6 software copyrights, 27 water-related approvals, disinfection record 8 and other related qualifications. We have passed ISO9001 quality system certification, ISO14001 environmental management system certification, ISO45001 occupational health and safety management system certification and after-sales service system certification and other authoritative certifications. And was named the national environmental protection equipment manufacturing industry (sewage treatment) standard conditions of the enterprise, high-tech enterprises, the province specializing in new small and medium-sized enterprises, the province innovative small and medium-sized enterprises, an enterprise a technology research and development center and other honorary titles.

The company's main products are: integrated (life, hospitals, breeding, etc.) sewage treatment equipment, air flotation machine (vortex concave, dissolved air, vertical flow, shallow), sedimentation tank (advection, vertical flow), ecological latrines, anaerobic reactor, the center of the rotating scraper, cyclone sedimentation tank sand remover, rotary mechanical grating, sludge treatment (plate and frame filter presses, belt filter presses, stacked screw machine), integrated water purification equipment, Filtration device (activated carbon filter, iron and manganese filter, quartz sand filter), dosing device (PAC dosing device, PAM dosing device, basic dosing device), disinfection equipment (sodium hypochlorite generator, ozone generator, electrolysis chlorine dioxide generator, chemical chlorine dioxide generator, disinfection doser, slow-release disinfectant, small hospital wastewater treatment machine, oral, outpatient) Sewage treatment equipment, high-efficiency sewage disinfection equipment), dechlorination device (chemical feeder, acid mist absorber, dechlorination device), supporting series (PLC control cabinet, chlorine leakage alarm, residual chlorine detector, microcomputer controller, metering pumps, aeration machine, turbidity meter, water jets and other equipment).

At present, the company's sewage treatment equipment, disinfection equipment service areas covering municipal water supply, municipal sewage treatment, medical systems, residential communities, highways, scenic spots, various types of factories (aquaculture factories, chemical factories, etc.), industrial recycling of cooling water, water reuse and so on. Eco-toilets are widely used in public places such as municipalities, scenic spots, squares, harbors and busy commercial areas. "Hengyuan Xinda" brand series of products sell well throughout the country and in Mexico, Thailand, South Korea, Namibia, Sri Lanka and other countries at home and abroad, and have been well received by customers!

The company has strong technical force, has its own laboratory and a large number of management, scientific research and technical personnel, to provide customers with excellent pre-sales, sales and after-sales service, and according to the customer's water conditions, the design of reasonable water treatment equipment and equipped with the program, so as to achieve economic and practical, high quality and high efficiency.

Weifang Hengyuan Environmental Protection Water Treatment Equipment Co., Ltd. is committed to the water treatment industry in line with the business philosophy of "quality first, integrity-based" and the corporate purpose of "external achievement of customers, internal achievement of the staff" to build a good ecological environment to lay a solid foundation, but also the "green water" of mankind and society. Humanity and society "green water and mountains".



HONORARY QUALIFICATIONS

荣誉资质



- ★ 环保装备制造行业规范条件企业
- ★ 高新技术企业
- ★ 省专精特新中小企业
- ★ 环保工程专业承包二级资质
- ★ 省创新型中小企业
- ★ 涉及饮用水批件 27 项
- ★ 外观专利 1 项
- ★ 发明专利 6 项
- ★ 实用新型专利 36 项
- ★ 软件著作权 6 项
- ★ 消毒备案 8 项
- ★ 质量管理体系认证
- ★ 环境管理体系认证
- ★ 售后服务体系认证
- ★ 职业健康安全管理体系认证

- ★ Environmental protection equipment manufacturing industry standardized conditions of enterprises
- ★ High and New Technology Enterprises
- ★ Provincial Specialized and Specialized New Small and Medium-sized Enterprises
- ★ Environmental Protection Engineering Specialized Contractor Grade II Qualification
- ★ Provincial Innovative Small and Medium-sized Enterprises
- ★ 27 approvals related to drinking water
- ★ 1 appearance patent
- ★ 6 invention patent
- ★ 36 utility model patents
- ★ 6 software copyrights
- ★ Sterilization record 8
- ★ Quality management system certification
- ★ Environmental management system certification
- ★ After-sales service system certification
- ★ Occupational Health and Safety Management System Certification

前言 PREAMBLE

公共厕所是城市的基础公共卫生设施，随着城市的发展，城市公共厕所经历了由露天到室内，旱式到水冲式，由技术简单到复杂、综合的过程。公共厕所的内涵，也从政府部门建设管理的厕所，扩展到商场、宾馆、饭店等公共建筑向其服务对象开放的厕所。

公共厕所的功能从单纯满足人们的生理功能、保持城市市容环境卫生整洁，逐步向具备基本的方便功能、注重环境保护、体现现代城市以人为本的精神转变，其最为显著的表现就是传统的水冲式公共厕所向生态型公共厕所的转变，新型的生态公共厕所体现了可持续发展的理念，是二十一世纪人类文明发展的标志。

生态型公共厕所目前具有不对环境造成污染，并且能充分利用各种资源，强调污染物自净、资源循环利用理念和功能的一类厕所。总结起来可以归并为以下几点：**安全环保、节约资源、成本低廉、人性化、外形美观。**

环保生态厕所具有可移动性，设施轻巧，便于施工安装，占地面积小。

环保生态厕所自身具备良好的循环性，可实现微生物降解，形成无味的有机肥料。



Public toilets are the basic public sanitation facilities of the city, and with the development of the city, urban public toilets have gone through a process from open-air to indoor, from dry to flush, and from technologically simple to complex and integrated. The connotation of public toilets has also expanded from the toilets constructed and managed by government departments to the toilets in shopping malls, hotels, restaurants and other public buildings that are open to their service users. The function of public toilets from simply meet people's physiological functions, to maintain urban environmental health and cleanliness, gradually to have a basic function of convenience, pay attention to environmental protection, reflecting the spirit of the modern city of people-oriented changes, the most notable manifestation of its traditional flush public toilets to the ecological public toilets to the transformation of the new ecological public toilets embodies the concept of sustainable development, the twenty-first century is the symbol of the development of human civilization. The new ecological public toilet embodies the concept of sustainable development and is the symbol of human civilization development in the 21st century.

Ecological public toilets currently have no pollution of the environment, and can make full use of all kinds of resources, emphasizing the self-pollution of pollutants, resource recycling concepts and functions of a class of toilets. It can be summarized as follows: **safety and environmental protection, resource conservation, low cost, humane, beautiful appearance.**

Eco-toilets are portable, lightweight, easy to install and cover a small area.

Eco-toilet itself has a good circulation, can realize microbial degradation, the formation of odorless organic fertilizer.

生态厕所的类型 Types of ecological toilets

国内外生态厕所总体上可分为循环水冲式厕所和免水冲厕所两大类。我国生态厕所的研究应用刚起步，现主要有循环水冲洗型、泡沫封堵节水型、免水微生物堆肥型、免水生物降解型等生态厕所。

潍坊恒远环保水处理设备有限公司生产的生态厕所类型分为：**微生物降解生态厕所、无水环保生态厕所、泡沫型生态厕所、循环水冲式生态厕所、智能型生态厕所、太阳能生态厕所**等环保生态厕所。

Ecological toilets at home and abroad can be generally divided into two categories: circulating water-flushing toilets and water-free flushing toilets. The research and application of ecological toilets in China has just started, and now there are mainly circulating water flushing type, foam sealing water-saving type, water-free microbial composting type, water-free biodegradable ecological toilets. Weifang Hengyuan Environmental Protection Water Treatment Equipment Co., Ltd. produces ecological toilet types are divided into: microbial degradation of ecological toilets, waterless environmental protection ecological toilets, foam ecological toilets, recycled water flushing ecological toilets, intelligent ecological toilets, solar energy ecological toilets and other environmental protection ecological toilets.

微生物降解生态厕所

Microbial degradation ecological toilet



微生物降解型移动厕所是利用高效复合微生物对粪便进行生态化降解处理, 无需水冲, 微生物降解型移动厕所主要是应用于缺水、少水的地区或者对生活垃圾等污染物排放要求严格的地方, 此类厕所不需用水, 适应能力强, 无毒无害对生物体无任何危害。

Microbial degradation type portable toilet is the use of efficient composite microorganisms for ecological degradation treatment of feces, no need for flushing, microbial degradation type portable toilet is mainly used in water-scarce and water-scarce areas, the discharge of pollutants, such as domestic garbage and other stringent requirements of the local community, this type of toilets do not need water, adaptability, non-toxic, harmless and non-hazardous to living organisms.

产品特点

Product Features



节约水源

Water conservation



无污染、无异味

No pollution, no odor



无管网、自降解

Pipeless, self degrading

- 能够有效去除粪污中存在的的异味, 保持空气清新;
- 对粪污及尿液进行分解, 达到无害化排放或循环利用;
- 经过生物菌剂高温发酵可达 50~65°C, 有效的消灭粪污中存在病原菌;
- 有无水源均可使用, 方便人员日常管理;
- 阻断病原菌粪口传播, 解决因如厕带来的疾病危害;
- It can effectively remove the odor present in manure and keep the air fresh;
- Decompose the manure and urine to achieve harmless discharge or recycling;
- After high temperature fermentation of biological bacterial agent, it can reach 50~65°C , which can effectively destroy the pathogenic bacteria in fecal sludge;
- It can be used with or without water source, which is convenient for daily management of personnel;
- Blocking the fecal-oral transmission of pathogenic bacteria, solving the disease hazards brought about by toileting.

核心优势

Core Advantages

◆ 生物发酵-有机肥发酵技术

Biofermentation-Organic fertilizer fermentation technology:

本发酵菌种富含 100 多种微生物, 兼具除臭、净化、降解功能, 可快速将产生恶臭气味的有机物质转变为腐熟、稳定的有机肥, 并在发酵过程中消灭粪便中的病原菌, 抑制病原菌再次滋生。

This fermentation strain is rich in more than 100 kinds of microorganisms, both deodorization, purification, degradation function, can quickly produce foul-smelling organic material into putrefied, stable organic fertilizer, and in the process of fermentation to destroy the pathogenic bacteria in the feces, inhibit the pathogenic bacteria to breed again.

◆ 辅助加热系统

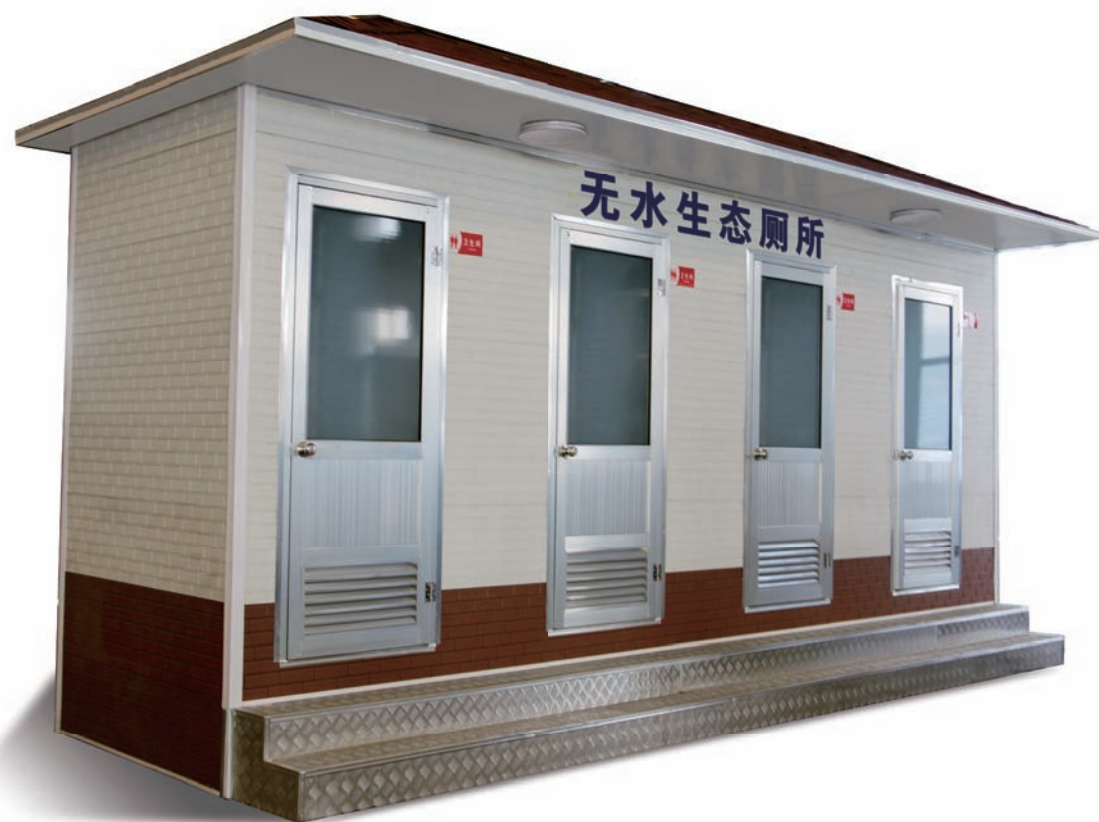
Auxiliary heating systems

具备自动加热控温系统, 可在零下 30°C - 零上 60°C 的环境中工作。

With automatic heating and temperature control system, it can work in the environment of minus 30°C -zero 60°C .

无水环保生态厕所

Anhydrous environmental protection ecological toilet



智能无水环保生态厕所是目前综合性能最好、操作维护最简单、最有推广应用前景的一种免水生态厕所。无需用水，粪便减量化达 95% 以上，生物反应产生的温度高达 50 ~ 65℃ 可以完全杀死粪便中的病原体。半年至 1 年才清掏 1 次，可作为高效有机肥料回收利用。生物填料每年只需更换 1 ~ 2 次，更新 10% ~ 20% 即可维持菌种的繁殖和正常运行，维护和管理成本低。

Intelligent waterless environmental protection eco-toilet is a waterless eco-toilet with the best comprehensive performance, the simplest operation and maintenance, and the most promising prospects for popularization and application. No need to use water, more than 95% of feces reduction, biological reaction temperature up to 50 ~ 65℃ can completely kill the pathogens in feces. It can be emptied only once in half a year to one year, and can be recycled as efficient organic fertilizer. The biological filler only needs to be replaced 1 or 2 times a year, and 10% to 20% can be renewed to maintain the propagation of bacteria and normal operation, low maintenance and management costs.

产品特点

Product Features

1 降解率高，无需用水，运行成本低。

No water use and low operating costs.

3 投入成本低，无需开挖，自由移动。

No excavation, earth foundation, easy to move.

2 无污染，无臭味，维护方便。

Resourcefulness, non-hazardousness and minimization.

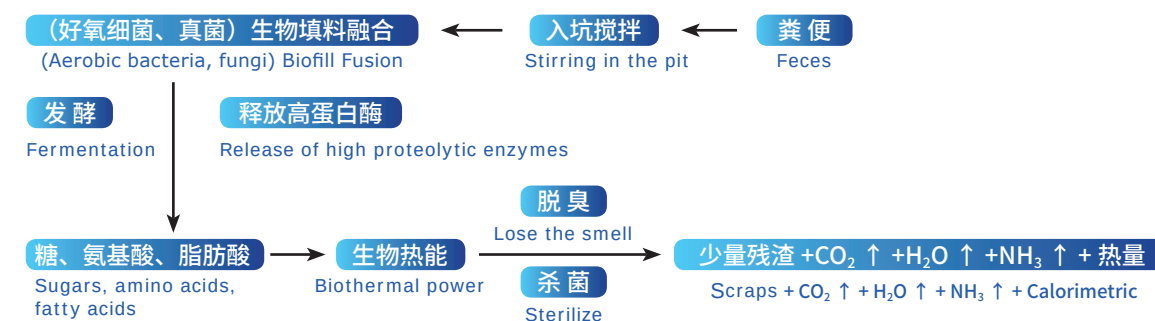
4 经久耐用，不易腐蚀、生锈

No subsurface discharge, no pollution of groundwater quality.



工艺流程

Product Features



泡沫型生态厕所

Foam type ecological toilet



泡沫式厕所是一种新型的节能环保厕所，不仅节约了大量的宝贵水资源，而且还非常的快捷、方便，有利于人们的身心健康，无需人看管，处理简单方便。它利用含水量很少的泡沫所具有的高润滑性和一定的密封性，冲排粪便和密封粪便臭气，从而达到环保节能的目的。

Foam toilet is a new type of energy-saving and environmentally friendly toilet, which not only saves a lot of valuable water resources, but also is very fast and convenient, conducive to people's physical and mental health, requires no supervision, and is simple and convenient to handle. It utilizes the high lubricity and certain sealing property of the foam which contains little water to flush out feces and seal the fecal odor, so as to achieve the purpose of environmental protection and energy saving.

工作原理

Working Principle

利用发泡液产生的泡沫代替冲洗的工作原理，光感信号对厕具泡沫进行检测，使得厕具内泡沫始终处于一定的高度，泡沫能有效的起到封堵异味的作用，同时润滑便器，使得排泄物能顺利下滑进入到生化池内进行分解处理。由于排泄物瞬间被泡沫覆盖，这样即看不到污物，又无异味泄出，给入厕者的视觉、味觉以非常舒适的感觉，而且能有效阻止排泄物中携带的各类病菌传播，阻止苍蝇、蚊虫的滋生。

The use of foaming liquid foam instead of flushing principle of work, light sensor signal to the toilet foam detection, so that the toilet foam is always at a certain height, the foam can effectively play a role in blocking the role of odor, while lubricating the commode, so that the excreta can be smoothly slipped into the decomposition of the biochemical pool for processing. As the excreta instantly covered by foam, so that can not see the dirt, and no odor leakage, to the toilet to the visual, taste to a very comfortable feeling, and can effectively prevent the excreta carry all kinds of germs spread to prevent flies, mosquitoes breeding.

产品特点

Product Features

- ◆ 少量泡沫用水可忽略不计，节水率可达 98%。
- ◆ 完全看不到污物，只有白色泡沫，视觉效果极佳。
- ◆ 无异味，厕间内不会有异味泄出。
- ◆ 耗电量极低，几乎可以忽略不计
- ◆ 维修维护简单，运行成本低。
- ◆ 可用于移动厕所，也可用于城市固定厕所和土建厕所的改造。
- ◆ 基本不受使用环境和温度限制。
- ◆ A small amount of foam uses negligible water, saving up to 98%.
- ◆ No dirt is visible at all, just white foam for a great visual effect.
- ◆ Odorless, no odors will escape from the toilet compartment.
- ◆ Very low, almost negligible power consumption.
- ◆ Simple repair and maintenance, low operating costs.
- ◆ It can be used for mobile toilets, as well as for the renovation of urban fixed toilets and civil toilets.
- ◆ It is basically not limited by the environment and temperature of use.



循环水冲式生态厕所

Circulating water flushing ecological toilet



产品特点

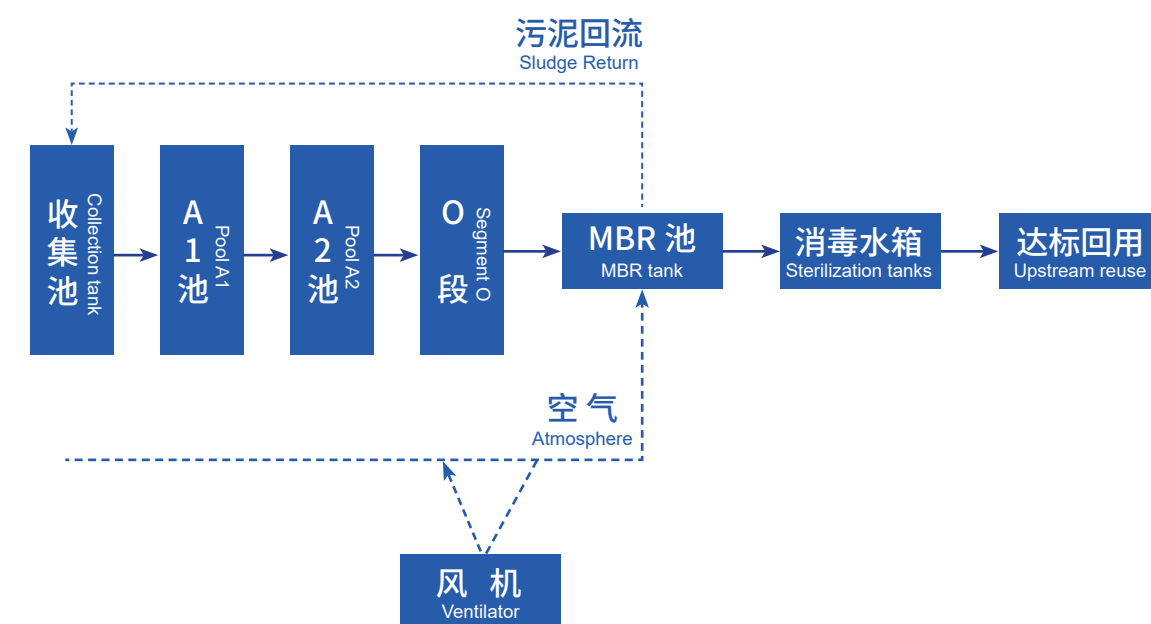
Product Features

- ◆ 设备高度一体化，安装简单。
- ◆ 技术先进、工艺成熟、稳定可靠，操作维修极为方便。
- ◆ 细菌培养方便，去除污染物质效率高。
- ◆ 能实现同时硝化 / 反硝化以去除污水中 CODcr 及氨氮，并能实现过 度生物氧化，处理效率高，出水水质好。
- ◆ 整套系统连接 PLC 控制系统，（可选择远程监控和操控），节省人员费用。
- ◆ 根据不同地区情况，用不同的方式进行保温。

- ◆ The equipment is highly integrated and easy to install.
- ◆ Advanced technology, mature process, stable and reliable, extremely convenient operation and maintenance.
- ◆ Convenient bacterial cultivation and high efficiency in removing pollutants.
- ◆ Simultaneous nitrification/denitrification can be realized to remove CODcr and ammonia nitrogen in the sewage, and excessive biological oxidation can be realized, with high treatment efficiency and good effluent quality. High treatment efficiency and good quality of effluent water.
- ◆ The whole system is connected to PLC control system (remote monitoring and control is optional), which saves personnel costs.
- ◆ According to different areas, different ways of heat preservation are used.

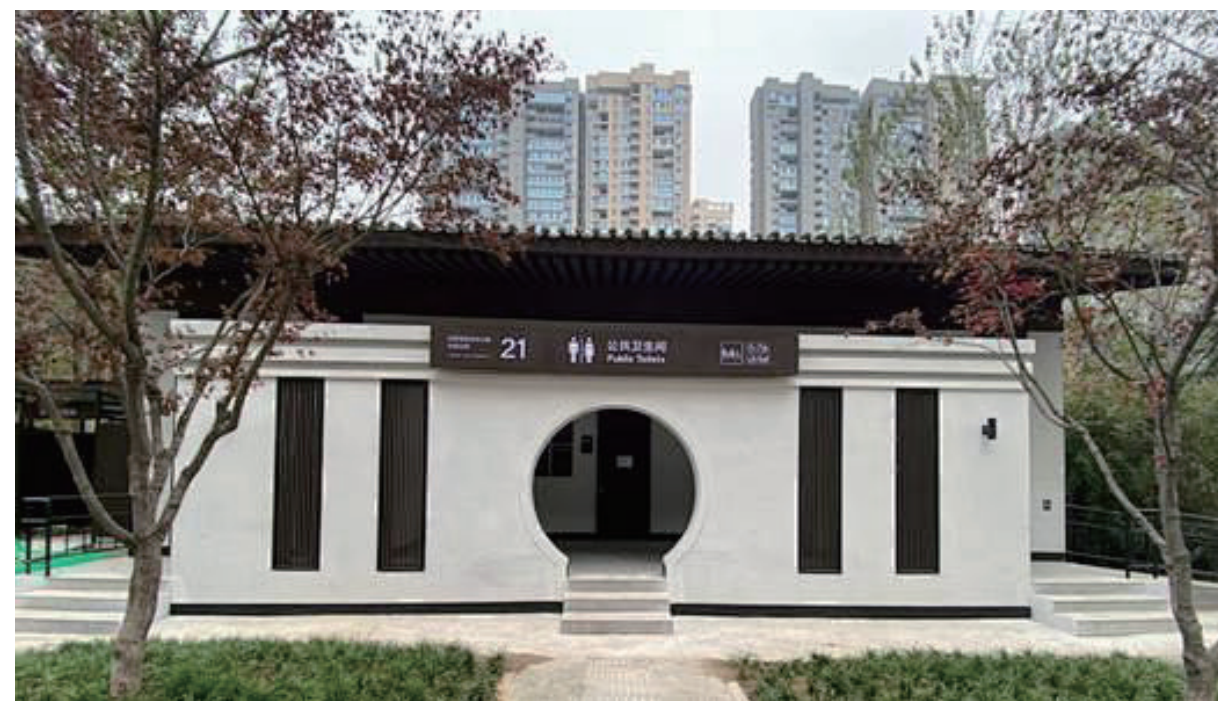
工艺流程

Processes



厕所排出的污水经过格栅后进入收集池，通过格栅截留水中较大的悬浮物，包括纸巾、硬质粪便残渣等，保证泵以及后续设备的稳定运行，收集池过后的废水自流进入 A 段池，进行反硝化反应，去除水中的有机物。A 段过后废水通过自流进入 O 段池，进行硝化作用，去除水中的氨氮，脱去一些氨氮带来的色度。同时进行回流，使得池内有机物和氨氮能够连续降低，硝化菌与反硝化菌进行回用。O 段后通过 MBR 膜处理脱去水中的 SS，并且将硝化与反硝化细菌截留下来，然后通过曝气水箱进行杀菌消毒，杀死水中的大肠菌群及其他细菌，从而使厕所污水得到净化。

Wastewater discharged from the toilet enters the collection tank after passing through the grating, which intercepts larger suspended matters in the water, including paper towels, hard fecal residues, etc., and ensures the stable operation of the pumps as well as the subsequent equipment, and the wastewater after the collection tank passes into the A-section tank by self-flow to carry out the denitrification reaction and remove the organic matters in the water. The wastewater after the A-section passes into the O-section tank by self-flow to carry out nitrification to remove ammonia nitrogen in the water, and to take off some of the After section A, the wastewater enters section O tank through self-flow to carry out nitrification to remove ammonia nitrogen from the water and take off some of the chromaticity caused by ammonia nitrogen. At the same time for reflux, so that the pool of organic matter and ammonia nitrogen can be continuously reduced, nitrifying bacteria and denitrifying bacteria for reuse. O section through the MBR membrane treatment to remove SS in the water, and nitrifying and denitrifying bacteria retained, and then through the aeration of the water tank for sterilization and disinfection, killing coliforms and other bacteria in the water, so that the toilet wastewater is purified.



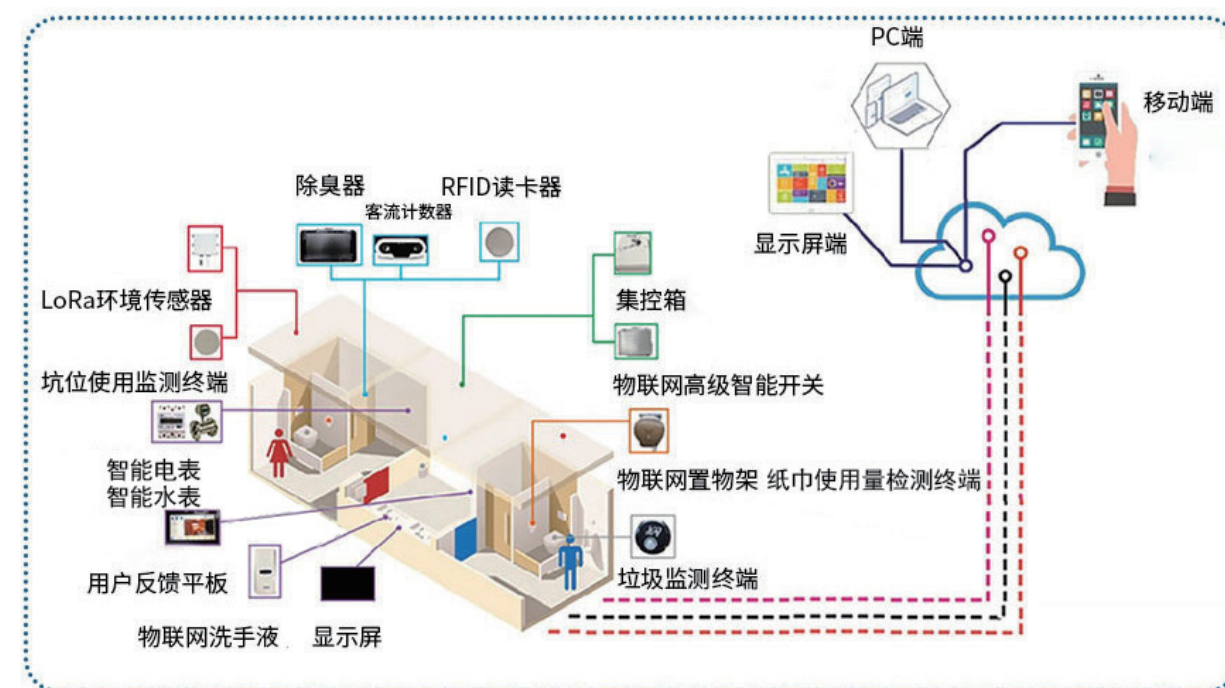
智能型生态厕所

Intelligent ecological toilet



恒远信达牌智能型生态公厕系统主要由环境监控系统、气味检测、平台管理系统、人流量检测系统、有人无人显示屏、节能系统，厕味引导系统等组成。各系统相辅相成，打造智慧公厕，完成公厕革命。

Hengyuan Xinda Brand Intelligent Ecological Public Toilet System is mainly composed of environmental monitoring system, odor detection, platform management system, human flow detection system, manned and unmanned display screen, energy-saving system, and toilet odor guidance system. The systems complement each other to create intelligent public toilets and complete the public toilet revolution.



智能生态厕所通过人工智能与多项高科技技术创造性的相结合，从而实现零排放、零污染与资源再利用的循环生态模式，不会对环境或者资源造成再次污染。

智能生态厕所，不用水冲，利用微生物技术对粪便和尿液进行分解，在分解过程中不会产生异味，最后还能产出有机肥料，对于农田的植物进行施肥真正做到了节能环保。最重要的一点就是这台智能生态厕所占地很小，适用于各种使用环境。

Intelligent ecological toilet through artificial intelligence and a number of high-tech technology creative combination, so as to achieve zero emissions, zero pollution and resource reuse of the cycle of ecological mode, will not cause recontamination of the environment or resources. Intelligent eco-toilet, without flushing, using microbial technology to decompose feces and urine, in the process of decomposition will not produce a bad smell, and finally can produce organic fertilizer, fertilizer for farmland plants really do energy saving and environmental protection. The most important point is that this intelligent ecological toilet occupies a small area, suitable for a variety of use environment.

太阳能生态厕所

Solar ecological toilet



太阳能技术已经发展成为了较为成熟的技术,全直流 24 伏技术实现了**省电、安全、抗潮湿**。在此基础上,我们进一步优化了智能电控程序、优化了用电部件,使得厕所整体更加节电,又优化了光伏电池电源管理设备,选用了恰当的蓄电池,几经完善,终于研制成功了性能稳定可以连续工作的太阳能厕所,为国内填补了空白。

创新点: 太阳能和直流系统的对接技术,使产品在阳光充足地区可完全实现脱离市电。

为了更好的适应各使用地点人群数量的比例,公司在单体厕间的基础,将太阳能厕所设计为相互独立的功能单元房间。不同功能的单元体包括:单厕间、管理间,洗手间,残障间,男士小便间。各功能单元的外观、造型统一,可以根据使用地点环境、使用空间、人流量等因素的不同,厕所的功能和厕位数量可任意调整,来满足使用的要求。

每个单厕间功能齐全,安装有面镜、扶手、手纸架、干式净手器、除臭装置、挂衣钩等功能部件,安装了太阳能供电系统的环保厕所,更环保、使用范围更广。

太阳能生态厕所的原理是对建筑外墙进行保温,并把向阳面做成集热墙集热墙上下部分别设可调式通风口,利用物理原理使吸热体内的热空气与室内的冷空气之间形成自动循环,达到冬季提高公厕内室温,防止厕内水管冻裂的目的。普通公厕无采暖设备,冬季室温降到零度以下,不仅给上厕所的人带来困难,也使厕内管道设备经常冻坏,维修量增大。

生态环保: 过各种技术手段或社会分工协作,对厕所所收集的粪污进行就地处理或异地处理,使粪污无害化后再回归于环境。在进行粪污处理时,往往会带来一些附加的好处,例如回收了粪污中的有用成份用于制药、制肥或回收水资源。

Solar technology has developed into a more mature technology, and the full DC 24-volt technology realizes power saving, safety, and humidity resistance. On this basis, we further optimize the intelligent electronic control program, optimize the power components, so that the toilet overall more energy-saving, and optimize the photovoltaic battery power management equipment, the selection of the appropriate battery, after several refinements, and finally developed a stable performance of continuous operation of the solar toilet for the country to fill the gaps. Innovative point: the docking technology of solar energy and DC system makes the product can be completely realized to be detached from the utility power in the sunny area. In order to better adapt to the proportion of the number of people in each place of use, the company has designed the solar toilet into mutually independent functional unit rooms on the basis of the single toilet. The different functional units include: single toilet room, management room, restroom, disabled room, men's urinal room. The appearance and modeling of each functional unit is unified, and the functions and number of toilet seats can be adjusted arbitrarily to meet the requirements of use according to the different factors such as the environment of the place of use, the use of space, and the flow of people. Each single toilet room is fully functional, installed with mirrors, handrails, hand towel holders, dry hand cleaners, deodorizing devices, hanging hooks and other functional components, and installed with solar power supply system of environmental protection toilets, more environmentally friendly, wider range of use.

The principle of solar energy ecological toilet is to insulate the outer wall of the building, and make the sunny side into a heat-collecting wall heat-collecting wall with adjustable vents on the lower part of the wall, the use of physical principles so that the heat-absorbing body of the hot air and the indoor cold air between the formation of an automatic cycle to achieve the purpose of raising the room temperature inside the toilet in the winter, to prevent freezing and cracking of the toilet water pipes. Ordinary public toilets without heating equipment, winter room temperature drops to below zero, not only to the toilet people bring difficulties, but also make the toilet piping equipment often freeze, maintenance increased. Ecological and environmental protection: Through various technical means or social division of labor, the fecal sludge collected by the toilet is treated on-site or off-site, so that the fecal sludge is harmless and then returned to the environment. The treatment of excreta often brings additional benefits, such as the recovery of the useful components of the excreta for use in pharmaceuticals, fertilizers or water recycling.

● 应用广泛

wide range of applications

太阳能生态厕所具有无污染并且节水等特点。使生态厕所可以广泛地应用于环境和条件受限制的地域。如大型的会议场地、广场、旅游景点等。随着这类厕所应用范围的扩大，极大地方便人民群众的生活，提高了生活水平。

太阳能发电型厕所通过厕间房顶上安装太阳能板，将太阳能转换成电能，当白天阳光充足时，太阳能供厕所用电，同时给蓄电池充电，当无阳光照射时，用蓄电池独立给厕所供电。

Solar ecological toilet has the characteristics of non-pollution and water saving. So that the ecological toilet can be widely used in the environment and conditions of the restricted area. Such as large-scale conference venues, squares, tourist attractions and so on. With the expansion of the scope of application of such toilets, it greatly facilitates the life of the people and improves the living standard. Solar-powered toilets convert solar energy into electricity by installing solar panels on the roof of the toilet room. When there is enough sunlight during the day, solar energy is used to supply electricity for the toilets while charging the batteries, and when there is no sunlight, the batteries are used to supply electricity to the toilets independently.

