



Shanghai Upper Spring Environmental Protection Engineering Co., Ltd 上海上泉环保工程有限公司



# **About Upper Spring Technologies** >>>>

关于上泉环保 >>>>

Shanghai Upper Spring Environmental Protection Engineering Co., Ltd is located in Zhangjiang High-Tech Zone, Pudong New Area, Shanghai. We have manufacturing factories in Shanghai and Hangzhou to provide the ultra pure water system, water reuse system and waste water treatment system with professional experience.

Shanghai Upper Spring has a professional and experienced water treatment team to provide the water analysis, project design and installation as the earlier stage, and the system manufacturing, onsite installation, maintenance, operation staff training as the turnkey service to our customers.

上海上泉环保工程有限公司位于上海市浦东张江高科技园区内,在上海及杭州地区设有水处理设备 组装及产品制造工厂。上泉环保在国内外为工业企业提供超纯水、中水回用及废水处理解决方案有 着数十年的经验。

上泉环保拥有一支高素质、敬业的水处理专业团队,提供从前期的水质分析及实验、工程设计及施工; 到后期的设备制造及供应、安装调试及维护保养、操作培训及运行管理一体化交钥匙工程总承包服务。



Office 办公室

Manufacturing Plant ⊥厂



# Experience and Technology >>>>

经验及技术 >>>>

### **Complete In-House Capability**

- Engineering
- Lab Testing
- Pilot Testing
- Manufacturing
- Installation
- Service
- Turnkey Systems including tanks, pumps, controls

完整工程能力

工程

实验室分析

小试

制造

安装

售后服务

一体化交钥匙工程



# Our Core Technologies >>>

上泉核心技术 >>>>

Membrane separation is our core technologies. Our advantage is our rich experience and professional ability from comprehensive technical application. Shanghai Upper Spring will provide the optimal technical solutions and services while ensuring the customers' economic rationality and cost-efficiency.

膜分离为上泉环保的核心技术,上泉环保的优势在于其综合技术的应用能力及多年来通过不断吸纳 当今世界最先进技术来解决污染问题所积累的丰富经验。上泉在提供最优化技术方案及服务的同时 保证其产品及服务的经济合理性及最佳性价比。

- Sea Water Desalination
- Membrane Diffuser
- UF (Ceramic Membrane, Hollow Fiber, Tubular Membrane, MBR)
- RO/NF
- Electro-Deionization
- Chemical Treatment

- 海水淡化
- 生化曝气
- 超滤:陶瓷膜、中空纤维、 管式膜过滤、MBR
- 反渗透 / 纳滤
- 电去离子
- 化学处理



国内部分案例 >>>>

### **Chemical Wastewater**

农药废水 (陶瓷膜工艺)

Application: (应用)

Concentration of waste waters as pre-treatment for

biological treatment.

国内部分案例

(与生物处理结合处理废水)

Capacity: (处理量) 14400 m3/hr

Commissioned: (完成时间) 2008 年

Location: (地点) China 中国

Membrane Technologies Applied:

Ultrafiltration (ceramic) - removal of TSS, BOD, COD,

and oils (去除 TSS、COD、油及油脂)



# Treated Water Results(处理效果) Raw Water(原水) Turbidity (NTU)(浊度) > 200 < 0.4 TSS(总悬浮固体) > 5,000 mg/L COD(化学需氧量) 3,000 mg/L TDS(总溶解固体) 8,000 mg/L > 15,000 mg/L

### **Pulp and Paper Wastewater Treatment Reuse >>>>**

造纸废水处理回用 >>>>

Application: (应用)

Make-up water for processes and reuse of

wastewater to reduce consumption.

(生产废水回用,节能减排)

Capacity: (处理量) 1000 m3/day

Commissioned: (完成日期) May 2015

Location: (地点) Qianjiang, China

Membrane Technologies Applied:

Reverse Osmosis – reduction in TDS for reuse

(减少回用清洗水中的盐分、COD)





Treated Water Results(处理效果)						
Raw Water (原水 ) Treated Water (产水 )						
Turbidity (NTU) ( 浊度 )	8	N/D				
TSS (总悬浮固体)	60 mg/L	N/D				
Recovery 回收率	55%	55%				
TDS(总溶解固体)	4800 mg/L	< 100 mg/L				

### **Textile Wastewater Reuse >>>>**

纺织印染废水回用 >>>>

Application: (应用)

Make-up water for processes and reuse of wastewater

to reduce consumption.

(回用生产废水,减少排放)

Capacity: (处理量) 8400 m3/day Commissioned: (完成日期) May 2013

Location: (地点) Shandong, China

Membrane Technologies Applied:

Reverse Osmosis – reduction in TDS for reuse (減少回用清洗水中的盐分、COD)





# Treated Water Results(处理效果) Raw Water(原水) Turbidity (NTU)(浊度) > 10 N/D TSS(总悬浮固体) 70 mg/L N/D Recovery 回收率 65% 6000 mg/L < 100 mg/L

# **Metal Processing Wastewater zero discharge** >>>>

电镀废水零排放 >>>>

Application: (应用)

Treatment of industrial waste water from plating

operations (电镀工业废水处理)

Capacity: (处理量) 60 m3/day

Commissioned: (完成日期) April 2007 Location: (地点) Shanghai, China

Membrane Technologies Applied:

(膜技术应用)

Ultra filtration - removal of TSS, oil/grease

(去除 TSS、油、油脂)

Reverse Osmosis (BW) – reduction in TDS for reuse

(降低电导率)

Reverse Osmosis (SW) – concentrate recovery

(浓水浓缩)





Treated Water Results(处理效果)						
Raw Water (原水 ) Treated Water (产水 )						
COD 化学需氧量	<10mg/L					
TSS (总悬浮固体)	<1mg/L					
Recovery 回收率	95%					
TDS(总溶解固体)	2000 mg/L	< 150 mg/L				

# **Dye Wastewater Reuse** >>>>

化工颜料废水回用 >>>>

Application: (应用)

Treatment of industrial waste water from pigment production

operations (red, yellow, black)

(处理染料生产产生的废水:红、蓝、黑等颜色)

Capacity: (处理量) 4,000 m3/day Commissioned: (完成时间) MAY 2007 Location: (地点) Shanghai, China

Membrane Technologies Applied: Ultrafiltration (ceramic) - removal of TSS, oil/grease

(去除 TSS、油/油脂)

Reverse Osmosis (BW) – reduction in TDS for reuse

(减少回用水中的盐分)





# **Seawater Desalination Equipment >>>>**

高盐度水处理系统 >>>>

Application: (应用)

Seawater Desalination Equipment

(海水淡化处理)

Capacity: (处理量) 600m3/day Commissioned: (完成日期) April 2012 Location: (地点) Chongqing, China

Membrane Technologies Applied: (膜技术应用) MMF- removal of TSS (去除 TSS) Reverse Osmosis (BW) - reduction in TDS for reuse (降低电导率)





Treated Water Results(处理效果)						
Raw Water (原水 ) Treated Water (产水 )						
COD 化学需氧量	<10mg/L					
TSS(总悬浮固体)	270 mg/L	<1mg/L				
Recovery 回收率	70%					
TDS (总溶解固体) 2800 mg/L < 100 mg/L						

Treated Water Results(处理效果)						
Raw Water (原水 ) Treated Water (产水 )						
COD 化学需氧量	<5mg/L					
TSS(总悬浮固体)	30 mg/L	<1mg/L				
Recovery 回收率	50%	50%				
TDS(总溶解固体)	20000 mg/L	< 350 mg/L				

### Landfill Leachate Reuse >>>>

垃圾渗滤液处理回用 >>>>

Application: (应用)

Treatment of landfill leschate waste water from landfill (处理回用垃圾填埋场垃圾渗滤液)

Capacity: (处理量) 300 m3/day Commissioned: (完成时间) June 2012 Location: (地点) Guangxi, China

Membrane Technologies Applied: MBR removal of TSS, oil、COD (去除 TSS、油、化学需氧量) Reverse Osmosis (BW) – reduction in TDS, COD for

(苦咸水膜减少回用水中的盐分、COD)





# **Municipal Wastewater Treatment >>>>**

市政污水处理 >>>>

Application: (应用) Municipal Wastewater Treatment 市政污水处理

Capacity: (处理量) 300,000 m3/day Commissioned: (完成时间) MAY 2008 Location: (地点) Zhejiang, China

Membrane Technologies Applied: Anaerobic-aerobic Oxidation Process Removal of TSS, oil, COD (厌氧好氧去除 COD、BOD、NH3-N) Precipitation process - Removal of TSS, COD (沉淀去除水中的 TSS、COD)





Treated Water Results(处理效果)						
Raw Water (原水 ) Treated Water (产水 )						
COD 化学需氧量	<20mg/L					
TSS(总悬浮固体)	500 mg/L	<1mg/L				
Recovery 回收率	75%	75%				
TDS(总溶解固体)	6000 mg/L	< 150 mg/L				

Treated Water Results(处理效果)						
Raw Water (原水 ) Treated Water (产水 )						
COD 化学需氧量	<100mg/L					
TSS(总悬浮固体)	250mg/L	<80mg/L				
BOD 生化需氧量	650mg/L	30 mg/L				
NH3-N 氨氮	65 mg/L	< 20 mg/L				

# **Electronnics Manufacturing ultrapure water system >>>>**

电子制造业超纯水系统 >>>>

Application: (应用)

Electronics factory process with ultrapure water (用于电子厂工艺用水)

Capacity: (处理量) 240m3/day Commissioned: (完成日期) Oct. 2011 Location: (地点) Shanghai, China

Membrane Technologies Applied: MMF removal of TSS, COD (去除 TSS、化学需氧量) Reverse Osmosis removal of TDS (反渗透膜减少水中的盐分、COD) EDI System -removal of TDS

(EDI 系统去除水中的盐分)



### Treated Water Results(处理效果) Treated Water (产水) Raw Water (原水) Turbidity (NTU) (浊度) < 0.01 > 5 TSS(总悬浮固体) N/D 20 mg/L Recovery 回收率 65% 65% < 15 megohm resistivity TDS(总溶解固体) 1000 mg/L

# Pharmaceutical Manufacturing pure water system >>>>

制药行业纯水系统 >>>>

Application: (应用)

Pharmaceutical factory process with pure water -- GMP conformity

(用于制药厂工艺用水符合 GMP)

Capacity: (处理量) 100 m3/day Commissioned: (完成日期)Sep. 2009 Location: (地点) Shanghai, China

Membrane Technologies Applied: Two-stage Reverse Osmosis removal of TDS (两级反渗透去除水中的盐分)





Treated Water Results(处理效果)						
Raw Water (原水 ) Treated Water (产水 )						
Turbidity (NTU) ( 浊度 )	< 0.01					
TSS(总悬浮固体)	25 mg/L	N/D				
Recovery 回收率	75%	75%				
TDS (总溶解固体)	500 mg/L	< 15 us/cm				

制药行业纯水系统

### **Products for Water Treatment >>>>**

水处理产品系列 >>>>

### Stainless steel tank 不锈钢水箱

Selection Description: Material: SUS304, SUS316L; Surface Finish: Mirror polished, matt; Inlet/Outlet: threaded, flange, fast couplings, With respirators, spray balls, hydraulic meter; Manhole: with normal quick manhole, pressure quick manhole.

Horizontal tanks and cone bottom tank can be customerized.



#	Model	Capacity	Specification(ΦD×H2)	Remark(H1)
1	DZ-FX500	500L	Ф700×2150mm	Straight 1220mm
2	DZ-FX1000	1000L	Ф900×2300mm	Straight 1220mm
3	DZ-FX1500	1500L	Ф1200×2350mm	Straight 1220mm
4	DZ-FX2000	2000L	Ф1200×2750mm	Straight 1600mm
5	DZ-FX3000	3000L	Ф1400×2950mm	Straight 1700mm
6	DZ-FX5000	5000L	Ф1700×3260mm	Straight 2000mm
7	DZ-FX8000	8000L	Ф1800×4300mm	Straight 2800mm
8	DZ-FX10000	10000L	Ф2000×4600mm	Straight 3000mm
9	DZ-FX15000	15000L	Ф2400×4900mm	Straight 3000mm

### **Products for Water Treatment >>>>**

水处理产品系列 >>>>

### Precision filter 精密过滤器

Selection Description: Material: SUS304, SUS316L; Surface Finish: Mirror polish, matt; Internal Structure: pressure-type, single-pole fixed, spring gland,;Inlet/Outlet Connection: Threaded, flange, quick couplings; Tank flange: flat flange, joint flange; Filter can be customized



#	Model	Description	Specification	Inlet H1mm	Outlet H2mm	In/outlet			
1	DZ-JM0740	7-element ,40 inch	φ250×1380×2.0						DN50
2	DZ-JM1040	10-element, 40 inch	φ300×1390×2.0			DN50			
3	DZ-JM1540	15-element, 40 inch	φ350×1400×2.0			DN65			
4	DZ-JM2040	20-element, 40 inch	φ400×1420×2.5			DN65			
5	DZ-JM2540	25-element, 40 inch	φ450×1450×2.5			DN80			
6	DZ-JM3240	32-element, 40 inch	φ500×1500×2.5	650	650 160	DN80			
7	DZ-JM3540	35-element, 40 inch	φ550×1550×3.0	000		DN80			
8	DZ-JM4540	45-element, 40 inch	φ600×1600×3.0			DN80			
9	DZ-JM5540	55-element, 40 inch	φ700×1650×3.0			DN100			
10	DZ-JM7040	70-element, 40 inch	φ800×1700×4.0			DN100			
11	DZ-JM8040	80-element, 40 inch	φ900×1750×4.0			DN125			
12	DZ-JM10040	100-element, 40 inch	φ1000×1800×4.0			DN125			

### **Products for Water Treatment** >>>

水处理产品系列 >>>>

### Multi media filter 多介质过滤器

Selection DescriptionMaterial: Carbon Steel, stainless steel, FRP fiberglass;

Bottom Distribution: Porous plate drainage cap, the domed plate water distribution, water distribution claw;

Internal finish: epoxy coating, rubber lining;

External surface finish: stainless steel, matt, and mirror-

polished

水处理产品系列

Filter can be customized

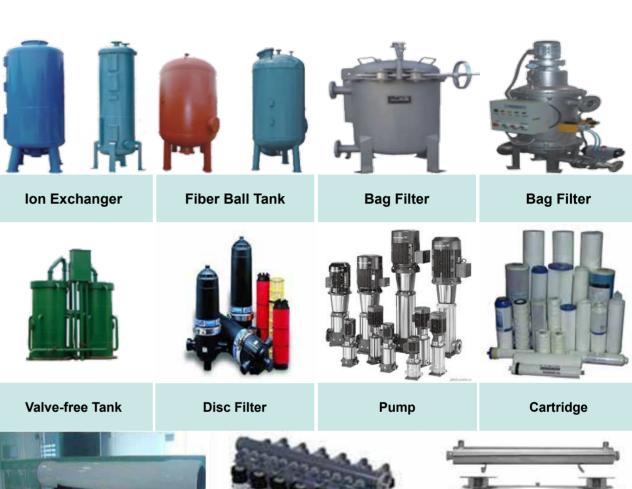




#	Model	Specification	Capacity	Connection		
#	Model	Ф×Н ( mm )	( m3/h )	Inlet	Outlet	Air
1	DZ-TL400	Ф400×2150	~ 1.5	DN32	DN32	DN20
2	DZ-TL600	Ф600×2250	~ 3	DN40	DN40	DN20
3	DZ-TL800	Ф800×2450	~ 5	DN40	DN40	DN20
4	DZ-TL1000	Ф1000×2550	~ 7.5	DN50	DN50	DN25
5	DZ-TL1200	Ф1200×2650	~ 11	DN50	DN50	DN25
6	DZ-TL1500	Ф1500×2850	~ 18	DN65	DN65	DN32
7	DZ-TL1600	Ф1600×2950	~ 20	DN65	DN65	DN32
8	DZ-TL1800	Ф1800×3050	~ 25	DN80	DN80	DN32
9	DZ-TL2000	Ф2000×3150	~ 30	DN80	DN80	DN32
10	DZ-TL2200	Ф2200×3300	~ 38	DN100	DN100	DN40
11	DZ-TL2400	Ф2400×3400	~ 45	DN100	DN100	DN40
12	DZ-TL2500	Ф2500×3450	~ 50	DN100	DN100	DN40
13	DZ-TL2600	Ф2600×3450	~ 55	DN125	DN125	DN50
14	DZ-TL2800	Ф2800×3600	~ 60	DN125	DN125	DN50
15	DZ-TL3000	Ф3000×3900	~ 70	DN150	DN150	DN50
16	DZ-TL3200	Ф3200×4500	~ 80	DN150	DN150	DN50

### Our Other Products >>>

上泉其他产品 >>>>









**UF Membrane** 



**UV Sterilization** 



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