CSTDT M-90

碟管式膜是专门针对高浓度料液的过滤分离而开发的，其耐压高，抗污染能力强，在全球范围内已经广泛应用。

CONSEPTEC

CSTDT 膜柱结构说明

膜片和配流盘安装于压力容器中，并且利用不锈钢拉杆和端面法兰固定起来。过滤膜片由两张同心八角状反渗透膜组成，膜中间夹着一层丝状支撑层使通过膜片的净水可以快速流向出口。这三层八角状材料的外环用超声波技术焊接，内环开口,为净水出口。CONSEPTEC CSTDT采用开放式流道，液体流经膜表面时与板面凸点碰撞形成湍流，增加了透过速率，而且膜片表面的进水通道非常短，使得进水产生180°的连续转向，最大限度的减少了浓差极化、生物污染和结垢现象的发生。配流盘中间的O型圈将产水与进水分开，最后渗透过去的水通过膜片中间支撑层经过配流盘 阻力很小的凹槽汇集起来流出膜柱，而浓缩液最后从进料端法兰处流出。

CSTDT技术优势

- 预处理简单，进水SDI可高达15
- 抗污染、耐高压，膜使用寿命长
- 回收率高，能耗低
- 膜组件易于维护，膜片单独更换
- 膜组件易于清洗，性能恢复好，极少的化学操作费用
- 适应范围广，出水质量高，分离性能稳定
- 系统灵活，标准模块化配置

Disc tube module is specially developed for high concentration liquid separation, advantages of high pressure resistance and strong pollution resistance make it widely used all over the world.

Membrane column structure of CONSEPTEC CSTDT

The disc and water distributor plate are mounted in a pressure vessel, fixed and compacted by the stainless steel rod and the end flange. Membrane is combined of two concentric octagonal reverse osmosis membranes,a middle layer of filamentous support allows the permeate water pass through the membrane rapidly and flow to the outlet. Ultrasonic welding technology to be used at the outer ring of the three octagonal stuff, inner ring open to outlet the permeate flow. CONSEPTEC CSTDT adopts open type channels, water flows through the membrane surface collides with the convex point on the plate surface to form a turbulence, which increases the permeability;channels on the membrane surface are very short, so that the water is continuously turned 180 degrees, which can maximumly reduces concentration polarization, biological pollution and scaling. The O-ring middle layer separates the feed water from the permeate flow, permeate flowing through the middle layer and narrow grooves between the discs together and out from the feed flange.

Membrane technology advantage

- Simply pre-treatment , the feed SDI can be up to 15.
- Anti-pollution, high pressure resistance and long service life.
- High recovery rate and low energy consumption.
- Easy maintenance and replacement of membrane module.
- The membrane module easily to be cleaned with, good performance of recovery , and low chemistry operating costs.
- Wide range of applications , high permeate quality and stable separation performance.
- Modurarity with standard modular configuration.

CONSEPTEC CSTDT突出优势
Advantages of CONSEPTEC CSTDT

比较项目 Content	其他DT膜 Other DT membrane	CSTDT膜 CSTDT membrane
能耗 Energy consumption	高 very high	比其他类似的系统减少了20%-30%的能耗，污水处理能耗可以减少1.5-2.0KW/m3 energy consumption can be reduced by 20%-30% compared with other similar systems and average energy consumption can be reduced by 1.5-2.0KW/m3
膜组件的型号 Membrane components	组件单一，最大膜面积9.5m2 single component with a maximum membrane area of 9.5m2	多种组件可选，膜面积7.6-11.4m2不等 Multiple components optional and maximum membrane area from 7.6m2 to 11.4m2

主要性能指标
Main performance index

指标（ppm） Index	COD	BOD	NH3-N	SS
进水原液 Feed flow	30000	10000	1500	1000
产水 Permeate flow	< 100	< 30	< 25	< 5
去除率 Removal rate	≥ 99%	≥ 99%	≥ 98%	≥ 99%

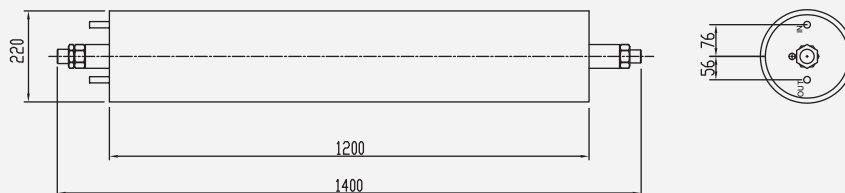## CSTDT M-90 技术参数表/CSTDT M-90 technical data sheet

膜元件结构 Membrane structure	膜片材质 Membrane material	导流盘材质 Material of guide plate	膜片数量 Membrane number	有效膜面积 Effective filtration area	标准脱盐率** Standard desalination rate	进水流量范围 Feed flowrate (l/h)	产水量 Permeate flowrate (l/h)
碟管式，耐高压玻璃钢外壳 Disc tube, high pressure FRP cylinder	聚酰胺复合膜 Polyamide composite film	ABS	209	9.4m^2 (101ft^2)	≥99%	500-1200	≤350

最大压差 Max. differential pressure	最大运行压力 Max. operating pressure	最高连续运行温度 Max. continuous operating temperature	最佳运行PH范围 Optimum operation range of PH	化学清洗PH范围@40℃ The pH range for CIP is @40℃	耐受余氯 Residual chlorine	进出水接口尺寸 Inlet&outlet size	产水接口尺寸 Permeate outlet size
9bar	90bar	40℃	6-9	2-12	≤0.1ppm	12mm (swagelock)	11.6*9mm (软管接头) (Hose fitting)

*所示的脱盐率为标准脱盐率，测试条件为在797psi（5.5MPa）条件下，NaCl浓度32000mg/l，回收率为30%，温度为25℃
The "standard desalination rate" is the desalination rate under the test conditions of 797psi (5.5MPa), NaCl concentration of 32000mg/l, recovery rate of 30%, and temperature of 25℃.

*单支产水量可能在±15%的范围变化，实际产水量根据进水水质的不同会有所差异
The actual water production rate of a single unit may vary within a range of ±15%, and the actual water production rate may vary depending on the quality of the influent water.

单位/Dimensions in : mm

应用领域   Applications

-垃圾渗滤液处理	-Treatment & re-use of Leachate from landfills
-脱硫废水零排放	-zero liquid discharge of Desulfurization waste water
-工业废水零排放	-zero liquid discharge of Industrial waste water
-纺织印染、皮革废水回用	-Effluent treatment from Textile Industry and dyeing unit
-钢铁、电子等及表面处理废水回用	-Recycling of wastewater from iron&steel, electronic and surface treatment plants.
-生物制剂、食品行业物料回收	-Common & combined effluent treatment recycling of biological and food industry wastewater
-高盐废水/RO浓水处理	-Reject treatment from Spiral RO plants
-高COD/BOD废水处理	-High COD/BOD wastewater treatment
-煤化工废水处理	-Coal chemical wastewater treatment