

FRIENDLY

水溶性废液处理装置
Aqueous Liquid Waste Treatment System



<http://www.cosmotech-jp.com> E-mail: KYOTO@cosmotech-jp.com

12-2 Fukakusa Zendoji-Cho, Fushimi-Ku, Kyoto, 612-8433, Japan
Tel: +81 75 621 7431 Fax: +81 75 621 7473

天津考斯慕环保技术有限公司

天津自贸区空港经济区东五道 1 号颐景公寓 8-10

电话: +86 22 5906 0618 传真: +86 22 5906 0616

吴江考斯慕印刷器材有限公司

江苏省吴江经济开发区庞金路庞金工业坊 T1 厂房西侧

电话: +86 512 6391 2268 传真: +86 512 6391 2298



ISO9001 ISO14001

Distributor



以最经济的手段减少对环境的负荷

说到「环境保护」这个词，不论对未来的社会还是地球来说都是一个沉重的话题。虽然会使人有一种美好的印象，但是对于制造类企业来说，首先是责任感，然后是沉重的经济负担。在生产中产生的废液及废液的回收、处理费用更是其中最重要的一环。COSMOTECH公司通过**FRIENDLY**装置，从环保，安全和经济三个方面以实际行动支援那些致力于环保事业的企业。

When a company works, it has forced a sometimes big duty and responsibility, and a great burden of expense although the keyword "environmental protection" is imaged with a thing required for the society and the earth of the future, and gentle to. Processing of the liquid waste generated in a production activity and recovery expense are also the one. COSMOTECH aids the corporate activity which carries out philanthropy of the "FRIENDLY" from three sides of through, environmental protection, safety, and economical efficiency.

大幅减少废液的排出量

以前，生产工厂所产生的废液直接委托给废液处理公司进行处理。此状态下如果采用**FRIENDLY**，就可以大幅减少需要处理的废液量，进而达到降低经费的目的。

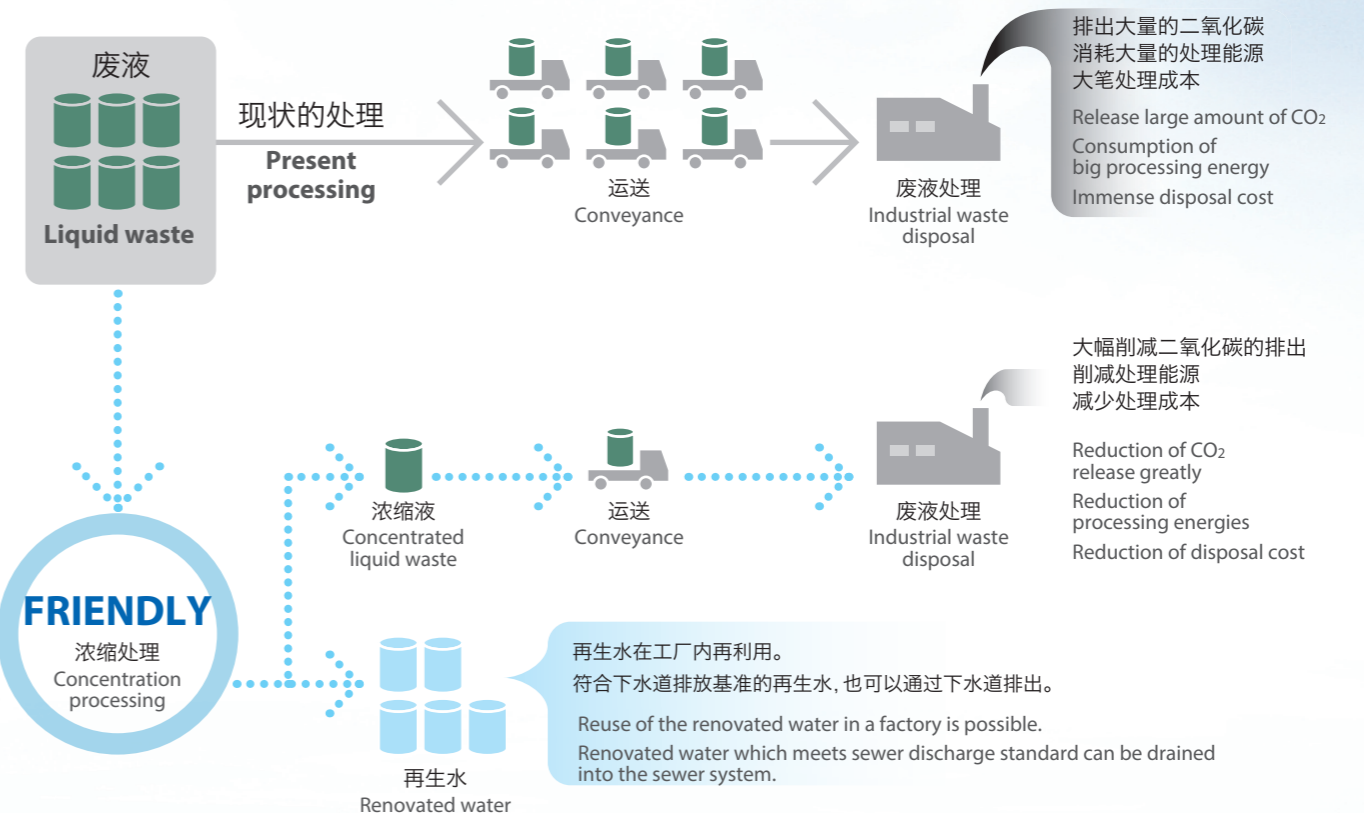
Amount of discharge of liquid waste is reduced sharply

Conventionally, liquid waste generated in a production site has been processed by requesting to an industrial waste disposal company. The amount of liquid waste in which an industrial waste disposal company takes over such the present condition is sharply reducible by introducing **FRIENDLY** without spending big expense.

环境保护 Environmental protection

安全性 Safety

经济效益 Economical efficiency



Reduction of Environmental Burdens Economically



安全有效的处理系统

A safe and efficient processing system

FRIENDLY 的特点是不使用火源, 通过「减压蒸馏方式※」可以安全有效的处理废液, 处理过程中的异臭味以及因蒸发而产生的有害物质极少。

※减压蒸馏方式是指废液自动吸引到浓缩锅内, 通过加热器减压低温沸腾使其气化后, 再通过冷却装置使其变成水的方式。

As a feature of **FRIENDLY**, safe and efficient processing by the "reduced-pressure distillation method*" which does not use fire is possible, and nasty smell under processing and generating of toxic substance by evaporation is also very few system.

*Under a reduced-pressure distillation method liquid waste is automatically aspirated into a concentrating kettle, making it aerification by decompression low-temperature boil of a heater, and changed it to water by passing through a refrigerator.

高效处理能力

- 实现了高浓缩倍率, 大幅削减了废液处理成本
实绩值: 水性废液可以浓缩到 1/20
- 各种水性废液都可以对应
处理实绩: PS 版用显影液、水性光油洗净废液、润版废液、柔印废液、切削油(水性)、水性涂料废液、食品废液等

High Processing Ability

- High concentration rate is realized and industrial waste disposal cost is reduced sharply.
Actual performance records: Aqueous liquid waste can be condensed to a maximum of 1/20.
- Various aqueous liquid waste can be processed.
Processing past records: CTP developer waste, varnish washing wastewater, dampening solution waste, cutting oil waste, painting waste, food waste, etc.

便利性和经济性

- 只需要少量的电和消泡剂
- 24 小时连续自动运转使劳动负荷减轻
- 配载浓缩锅的自动洗净机能
- 手触屏提高了操作性能
- 小型设计不用考虑设置场所

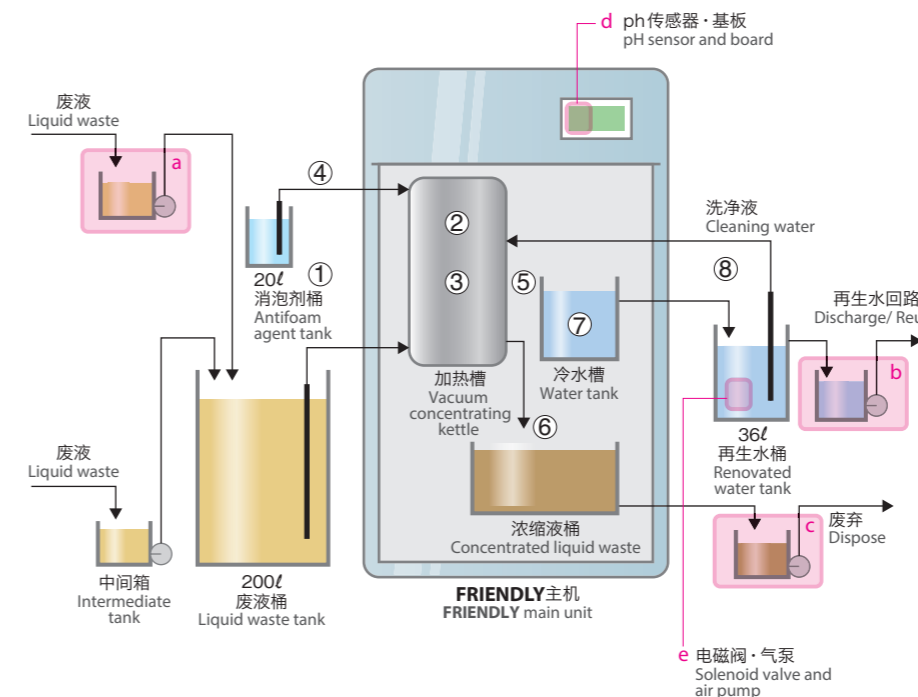
Convenience and economical efficiency

- The only required things are a little electricity and antifoam agent.
- Mitigation of labor load by 24-hour continuation automatic operation.
- Automatic cleaning function of the vacuum concentrating kettle.
- Improvement in the operativity by a touch panel.
- Compact design which doesn't choose a place of installation.

FRIENDLY 的构造

Structure of FRIENDLY

□ = 选配 OPTION



- ①从废液桶吸引废液。
- ②浓缩锅内减压。
- ③浓缩锅加热, 低温沸腾。
- ④添加消泡剂, 防止沸腾时发生泡沫。
- ⑤产生的蒸气流到冷冻机使其变成再生水。
- ⑥浓缩锅内将剩余的浓缩废液反复进行数次浓缩后, 储存在浓缩桶。
- ⑦再生水暂时储存在机器内的冷水槽, 然后再储存在外部的再生水桶。
- ⑧机器外部的再生水自动洗净时再次吸引到浓缩锅。

选配

- a) 废液中间箱
- b) 再生水中间箱
- c) 浓缩废液中间箱
- d) 再生水 pH 表示
- e) 再生水 pH 控制

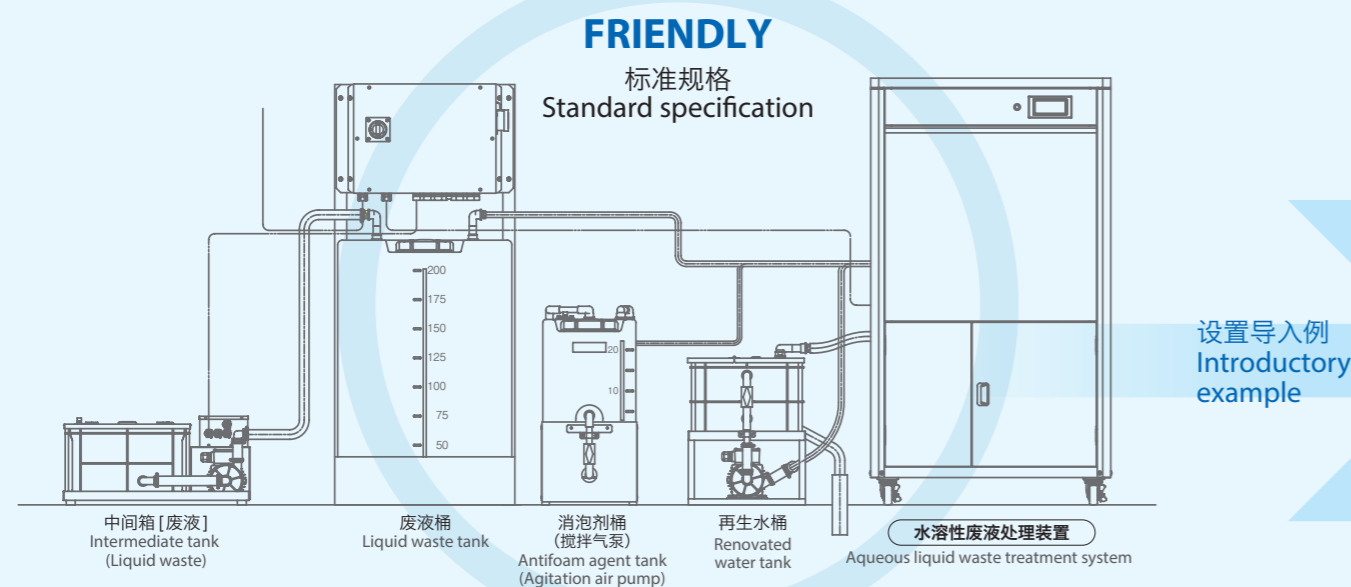
- ①Waste water is sucked into the kettle.
- ②Internal pressure of the kettle is decompressed.
- ③The kettle is heated and boils at low temperature.
- ④Antifoam agent is added in order to press down bubble generated during boiling.
- ⑤Steam flows into a refrigerator. It is cooled and changes to regenerated water.
- ⑥The concentrated liquid waste remaining in the kettle is collected in the concentrated liquid waste tank after going through several rounds of concentration.
- ⑦Regenerated water is accumulated in the internal tank of the main unit then sent to the external tank.
- ⑧Regenerated water in this external tank is sucked into the kettle when cleaning mode.

OPTION

- a) Liquid waste intermediate tank
- b) Regenerated water intermediate tank
- c) Concentrated liquid waste intermediate tank
- d) Regenerated water pH display
- e) Regenerated water pH control

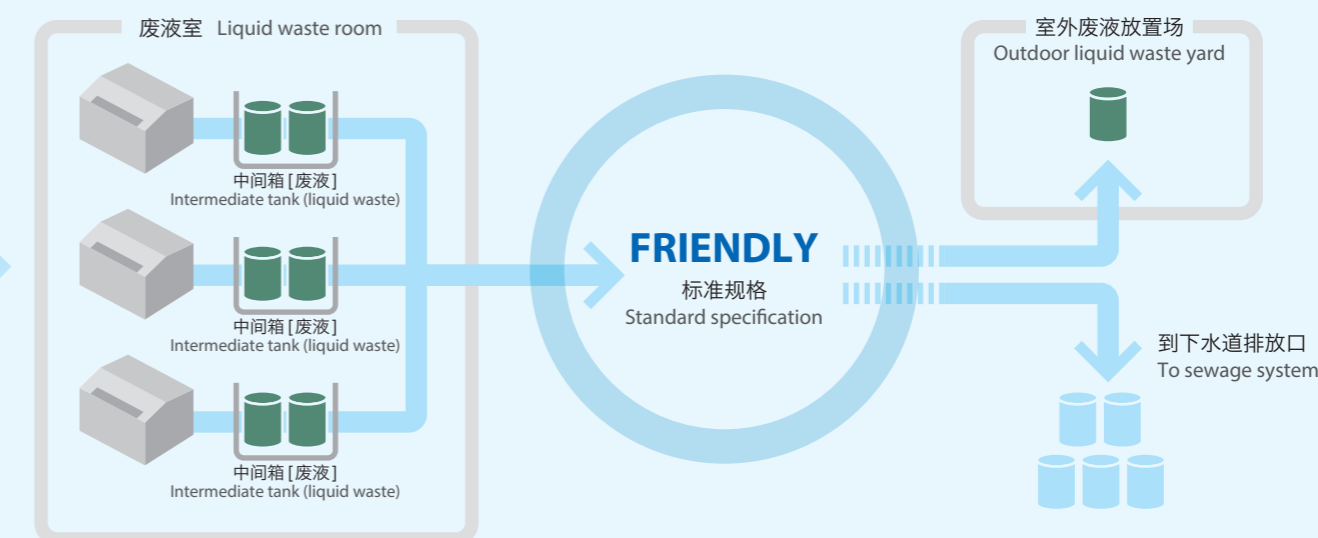
为了取得更好的效果 —— 安装布置图

In order to acquire a higher effect —— Installation layout image



自动化示意图 Automation plan

自动化的构造减轻了现场作业人员的劳动负荷, 更发挥了削减成本的效果。
An effect of its automation is demonstrated to reduction in cost by mitigation of labor load.



产品系列 Product Lineup

应顾客的要求, 水溶性废液处理装置备有多种型号可供选择。

有适用于处理量小的CT-AQ5H(每小时5L)·CT-AQ10H(每小时10L)的小型机,

处理量中型的CT-AQ25H(每小时25L), 以及大处理量的CT-AQ100H(每小时100L)大型机。各机型全部采用热泵循环方式, 实现了节能运转。不需附加其他特殊设备(加热用锅炉·冷却用冷却塔·压缩空气等)。触摸屏操作简单, 可24小时无人操作, 连续自动运行。

并且可进行从废液室到下水道(水净化池)自动处理路径的设计·施工。

In response to the demand of customers, a good selection of models which have various processing capacity is being offered. The lineup ranges from 5 liters, 10 liters, and 25 liters to 100 liters as its processing capacity per hour.

As for all models, energy-saving operation is realized by a heat pump cycle, and outside incidental facilities such as heating boilers, cooling tower and compressed air are not required. Also, "simple operation by a touch panel" and "operation unmanned for 24 hours by an automatic operation control" are enabled. When automatic processing line between a liquid waste room to sewage (purification tank) is required, design and construction are also engaged.



FRIENDLY CT-AQ5H / AQ10H



FRIENDLY CT-AQ25H



FRIENDLY CT-AQ100H

规格一览 | Specification list

名称	Name	水溶性废液处理装置 FRIENDLY Aqueous Liquid Waste Treatment System FRIENDLY			
型号	Model	CT-AQ5H	CT-AQ10H	CT-AQ25H	CT-AQ100H
处理能力	Capacity	5L/h	10L/h	25L/h	100L/h
浓缩方式	Treatment scheme	减压蒸馏方式 Reduced-pressure distillation method			
控制方式	Control method	热泵方式 Heat pump type			
对象废液	Target liquid waste	水溶性废液 Water-soluble liquid			
电源	Power supply	3相 (3 phase) 200V 50/60Hz			
电气容量/电流	Electric power capacity / current	约 (Approx.) 4.4KVA/ 约 (Approx.) 12.7A	约 (Approx.) 5.2KVA/ 约 (Approx.) 14.9A	约 (Approx.) 13.7KVA/ 约 (Approx.) 40A	约 (Approx.) 34.7KVA/ 约 (Approx.) 100A
输入电流断路器	Input breaker	30A	30A	75A	125A
运转条件	Operating condition	周围温度: 5 ~ 35°C, 湿度: 0 ~ 60% 无结露 Ambient air temperature: 5-35°C, Humidity: 0-60% Non condensing			
产品重量 (运转时)	Product weight Operation weight	约 (Approx.) 240kg (约 (Approx.) 280kg)	约 (Approx.) 260kg (约 (Approx.) 320kg)	约 (Approx.) 585kg (约 (Approx.) 825kg)	约 (Approx.) 1700kg (约 (Approx.) 2000kg)
主机尺寸(W×D×H)mm	Dimension	700×900×1430mm	800×1000×1430mm	1500×1052×1900mm	3100×1600×1900mm 2ユニット(2 Units): W1800/W1300
标准附属品	Standard accessories	<ul style="list-style-type: none"> 废液桶(200ℓ)×1个 浓缩液桶(18ℓ)×2个 废液中间箱×1台 使用说明书×1本 		<ul style="list-style-type: none"> 消泡剂桶(20ℓ)×1个 再生水桶(35.7ℓ)×1个 	
		<ul style="list-style-type: none"> Liquid waste tank (200ℓ)×1 Antifoam agent tank (20ℓ)×1 Concentrated liquid waste tank (18ℓ)×2 Renovated water tank (35.7ℓ)×1 Liquid waste intermediate tank×1 Instruction manual×1 		<ul style="list-style-type: none"> 废液桶(200ℓ)×1个 消泡剂桶(20ℓ)×1个 废液中间箱×1台 使用说明书×1本 Liquid waste tank (200ℓ)×1 Antifoam agent tank (20ℓ)×1 Liquid waste intermediate tank×1 Instruction manual×1 	
其他消耗品	Consumables	消泡剂 (必要时)※ Antifoam agent (When required)*			

※消泡剂 (若使用消泡剂, 建议使用我司推荐的产品。)

* Antifoam agent: (We recommend you to use our recommended agent.)

选配	Options
	<ul style="list-style-type: none"> 废液中间箱(追加用) 再生水中间箱 浓缩液中间箱 再生水 pH 显示功能 再生水 pH 控制功能 ※pH 控制功能和 pH 显示是配套的。 再生水着色检测传感器 电导率检测传感器 废液桶(追加用)200 L / 300 L / 500 L (含浮球式水位传感器、SUS 过滤网筒) 废液桶(搅拌泵规格)300 L / 500 L (含导向脉冲传感器、SUS 过滤网筒) 废液桶(浮油回收装置规格)200 L / 300 L / 500 L (含导向脉冲传感器、SUS 过滤网筒) ※根据主机的规格有不能追加的功能, 详细请另外相谈。
	<ul style="list-style-type: none"> Liquid waste intermediate tank (For additions) Renovated water intermediate tank Concentrated liquid waste intermediate tank Renovated water pH display Renovated water pH control (aeration) * It needs to be adopted with the renovated water pH display. Renovated water coloring detection sensor Conductivity detection sensor Liquid waste tank (For additions) 200 L / 300 L / 500 L (With float sensor & SUS strainer) Liquid waste tank (Agitation pump type) 300 L / 500 L (With water level sensor & SUS strainer) Liquid waste tank (Floating oil recovery type) 200 L / 300 L / 500 L (With water level sensor & SUS strainer) * There is the function which cannot be added by the model.

※上述处理能力的数值为清水时的能力, 实际情况根据废液的种类处理能力可能会发生变动。

* The numerical value of the processing capacity mentioned above is ability at the time of using freshwater. There is a case varying in processing capacity depending on actual liquid waste.

外形尺寸图 | Dimensional drawing

