

HEAT REFLUX EXTRACTING CONCENTRATOR

热回流提取浓缩器

RH

Equipment characteristics

Great quantity of feeding materials. The quantity of feeding materials is one time greater than common distillation type.

Good technical adaptability. Water or alcohol solvent distillation in conditions of negative pressure, normal pressure and positive pressure, especially low-temperature distillation of heat sensitive materials can be made.

High rate of ointment-collecting. Because of the dynamic distillation of medicine the solute content in the medicine and solvent keeps high gradient, which increases the pushing force of lixiviation and increases ointment-collecting rate. It can extract 5-20% more than normal method.

Saving solvent. Totally seal close-loop cycling. 30-50% energy can be completed in one step, and concentration can be completed in one step, and re flux of this unit are greater by one time than common type. The period for whole procedure is only 4-6 hours.

Low-energy consumption. Second-time steam is used as heat source.

Distillation and concentration can be made at one time. Temperature of reflux condensing liquids is nearly as same as boiling temperature in distillation tank. Foaming polyurethane is used as the heat preservation layer, and temperature, degree of vacuum can be controlled automatically. In the unit, above 50% steam can be saved.

Quality of distilled medicines is greatly improved. The period for distillation is short, and temperature can be controlled automatically, so quality of distilled materials can be improved greatly.

Highly automatic. Temperature, pressure, flow, liquid level and concentration can be set and in automatic control. It is easy to operate, stable in

Performance. All instruments, meters, executive devices and PLC are of famous brands from foreign countries. Therefore they are highly reliable.

Inlet and outlet of materials are made at one time in the heating concentrator. So agglomeration and solidification are not likely to happen. Specific gravity of concentration liquid can be 1.1-1.3. To special materials (likely to agglomerate and solidify), natural cycling can be changed into compelled cycling for satisfying customer requirements.

New technologies and new materials are utilized for excellent performance of unit. The areas of the unit contacting with medical liquids and solvents in instruments, equipments and pipes, are made of superior stainless steel. There are no any dead corners inside. Mirror is polished. It is easy to clean. The sealing of bottom cover is of air pressure seal to improve reliability. Distillation tank has two filtering layers to prevent jamming. Distillation tank, separator are attached with dual-purpose bubble eliminator. Seamless fine and smooth pipes are adopted in condenser. For having double sides, they have good performance in heat transfer. Heaters and industrial control computers are attached in the system to make its adaptability, reliability and stability in performance and operation be in the leading place in China.

设备特点

投料量大。投药量可比常用规提取增加一倍。

工艺适应性好。能采用常压、负压、正压工艺操作水提和醇提，特别是热敏性物料的低温提取、浓缩。收膏率高。因药物动态提取，药物与溶剂间含溶质高梯度，增加了浸出推动力，增加了得膏率。可比常规法多提5-20%以上。

节约溶媒。全封闭循环，可节约30-50%。

节省时间。提取、浓缩一步完成，且本机组采用比常规大一倍的回流量，全过程仅需4-6小时。

能耗降低。因采用二次蒸汽作为热源，提取、浓缩同时进行，且回流冷凝液温度又接近提取罐内沸腾温度；且又有聚胺脂发泡作保温绝热层，另温度、真空度是随机自控，本机组可节约蒸汽50%以上。

提取物药用成份质量提高。由于提取时间短，温度又随机自控，提取物质量明显提高。

自动化程度高。温度、压力、流量、液面、浓度均能设定、自控、操作方便，性能稳定。仪器仪表、执行元件、PLC均是精选的国内外名牌产品，可靠性。

加热浓缩器可一面出料，一面进料，不易结垢、结焦。浓缩液比重可达1.1-1.3。特殊物料（易结垢、结焦物料）可改自然循环为强制循环系统。以满足客户特殊物料需要。

新技术、新工艺、新材料应用多，机组综合工艺性能好。本机组凡与药物、溶剂接触的仪器、设备、管道等材料材质均采用优质不锈钢。内部均无死角，抛光至镜面，易清洗；底盖的密封改为气压密封，可靠性提高；提取罐出液改为双过滤层，不易堵塞；提取罐、分离器均设双作用惯性除沫器，效果好；加热器采用高光洁度薄壁小口径无缝管；冷凝器中采用薄壁小口径无缝管，双管程，传热效果好；系统设置升温器，工控机等配置，使得该机组的工艺适应性，性能的可靠性，运行的稳定性，都领先于国内其它同类机组。



技术参数 Technology parameter

提取罐容积(m ³)	0.5	1	2	3	6
浓缩器蒸发量(L)	250	500	800	1000	2000
水提温度(°C)			90~100		
醇提温度(°C)			78~83		
提取时间			5~6小时/批		
真空度(MPa)			-0.05~-0.08		
设计压力(MPa)			0.09~0.3		