

SS241H系列高温高压纱线染色机
 SS241H Series HTHP Yarn Dyeing Machine

Advantage (New Generation)

- ◇ Eco-friendly & high-tech yarn dyeing machine with extra-low liquor ratio
- ◇ Patented design low liquor ratio main circulation pump.
- ◇ Liquor ratio as low as 1:2.8-1:3.5
- ◇ Process water consumption ≤ 50 ton/ton cotton yarn, over 65%, compared with traditional machines
- ◇ Steam consumption ≤ 3 ton/ton cotton yarn, saving over 45%, compared with traditional machines.
- ◇ Electrical consumption less than 500KWH per ton cotton yarn, saving over 45%, compared with traditional machines.
- ◇ Improving production by over 20% compared with traditional machines
- ◇ Capacity range from 1kg-1956kg (based on 1.2kg/package)

主要特点

- ◇ 节能环保系列小浴比高温高压筒子纱线染色机
- ◇ 专利设计的小浴比染色主泵
- ◇ 浴比：低至1: 2.8-1: 3.5
- ◇ 耗水量：小至50吨/吨棉纱，比传统同类染色机节省约65%以上
- ◇ 耗蒸汽量：小于3吨/吨棉纱，比传统同类染色机节省约45%以上
- ◇ 耗电量：小于500千瓦时/吨棉纱，比传统同类染色机节省约45%以上
- ◇ 生产效率：比传统同类染色机产能提高约20%以上
- ◇ 载纱量：1只-1956只筒子纱(每只纱可按1.2公斤计算载量)

技术数据

- ◇ 设计温度：160°C
- ◇ 最高工作温度：140°C
- ◇ 设计压力：0.5Mpa
- ◇ 最高工作压力：0.5Mpa
- ◇ 加热率：20°C-130°C约30分钟(蒸汽压力为0.7Mpa)
- ◇ 冷却率：130°C-80°C约20分钟(冷却水压为0.3Mpa)

Technical Data

- ◇ Liquor ratio: 1:2.8-3.5
- ◇ Design temperature: 160°C
- ◇ Maximum working temperature: 140°C
- ◇ Design pressure: 0.5Mpa
- ◇ Max working pressure: 0.45Mpa
- ◇ Heating rate: 20°C~130°C in about 30 minutes (steam pressure 0.7Mpa)
- ◇ Cooling rate: 130°C~80°C in about 20 minutes (cooling water pressure 0.3Mpa)

SS241C系列高温高压纱线染色机
 SS241C Series HTHP Yarn Dyeing Machine

主要特点

- ◇ 循环染液流量控制：根据不同纱种和染色工艺要求，通过主泵变频调速系统达到节省能源并给于合理的流量，实现同步染色控制最佳化。
- ◇ 结构紧凑：热交换器、对衡式离心水泵和180°平板换向一体化装置，管路布置紧凑，节省空间。
- ◇ 采用高效节能的管道外置式换热器，换热效果好，缩短染液循环管路、减小浴比。
- ◇ 低浴比设计(1:6-1:7)。节省染料、助剂和能源，减少排污量，提高经济效益。
- ◇ 快速的清洗系统，有效节省清洗时间及用水量。
- ◇ 液流换向时，主泵不停顿，增加了循环次数，提高了染色质量。
- ◇ 溢流式加料系统，可进行动态化料，有效控制加料的速率和量，保证均匀的上染率。
- ◇ 快速进水、排水功能，在重复的染色加工中节省加工时间。

标准结构

- ◇ 主缸和所有与染液接触部分均采用优质奥氏体不锈钢制造。
- ◇ 配备机械密封装置的高效率不锈钢对衡式离心水泵，由变频器控制的电动机驱动。
- ◇ 垂直式缸体，配备平衡重锤开关缸盖及手动控制缸锁，并配备电气安全联锁装置。(SS241C-900规格以上缸盖由气缸辅助重锤开关)。
- ◇ 结构紧凑的液流换向器及流向转换自动控制系統。
- ◇ 新颖高效的管道外置式热交换器。
- ◇ 配备溢流式加料系统、回流系统、化料系统的颜料桶。
- ◇ 主缸加压、卸压系统。
- ◇ 全自动比例式升降温系统。

- ◇ 快速清洗系统。
- ◇ 带可编程微机控制器的主电箱。
- ◇ 定量渐进加料系统(仅供气垫式为标准配置)
- ◇ 染液内外循环冷凝系统(仅供全充满式为标准配置)

Main Features

- ◇ Control of flow rate of the dye liquid: the main pump is subjected to frequency conversion speed regulating system as per different kinds of yarns and dyeing processes in order to economize on energy consumption and rationalize flow rate, thereby realizing optimum control of synchronous dyeing.
- ◇ Compact structure: heat exchanger, balance centrifugal pump and the 180° commutating plate are an integral group with compact pipeline setup to save space.
- ◇ High efficiency and energy conserving heat exchanger with external pipeline has excellent heat exchange effectiveness, serves to shorten dye liquid circulating pipeline length and reduce bath ratio.
- ◇ Design of low bath ratio(1:6-1:7), to economize on dyes, agents and energy and reduce emission of waste to improve economic efficiency.
- ◇ Fast cleaning system to effectively reduce cleaning time and water consumption. Dyeing flow changeover without stopping the main pump, hence increase the circulation cycles and improve dyeing quality.
- ◇ Overflow type of material feeding system to effect dynamic mode of material digestion, effectively control speed and quantity of material feeding in order to ensure a homogeneous dyeing rate. Fast water in-feed and water drain to save processing time in repeated dyeing process.

Typical Structure

- ◇ Main vat has all parts in contact with dye liquid made with fine quality Austenite stainless steel.
- ◇ High efficiency balanced centrifugal pump with mechanical seals driven by electric motor with frequency conversion control.
- ◇ Vertical type of vat body, with lid open/close by balanced weight dropper and manually controlled vat lock, complete with electric safe interlocking setup (vat lid for SS241C-900 and up is fitted with air cylinder-aided weight dropper for opening/closing).
- ◇ Compact structured dye flow commutation and auto control system for switchover.
- ◇ Latest type high efficiency heat exchanger with external pipeline.
- ◇ Overflow type of material feeding system and return flow system and material digestion system are equipped with dye containers.
- ◇ Systems for main vat pressurizing and pressure relieving.
- ◇ Fully automatic proportional temperature rising system.
- ◇ Fast cleaning system.
- ◇ Main electric cabinet with programmable computer control.
- ◇ Quantified gradual material feeding system (standard setup for air-cushion type only)
- ◇ Internal/external dye condensing system (standard setup for fully filled type only)