

## PAD-STEAM RANGE for Laboratory

### ■ 連續式 壓吸蒸染試驗機

Offers the shortest distance between Padder and Steaming Chamber  
Excellent reproducibility especially on Sulphur & Vat Dyes.



- 提供你最短壓吸距離最好的再現性，對硫化/士林染料更佳效果



## 連續式壓吸蒸染試驗機

### 提供你最短壓吸距離最好的再現性

在連續染色的蒸處工程 (Pad-Steaming) 有些染料尤其是硫化或士林 (Vat) 對於壓吸軋輪到蒸處箱的通過時間極其重要。由於外在的影響，例如氧化 (Oxidation) 或還原 (Reduction) 的困擾往往破壞實驗室的再現性。

基於此本公司特別將壓吸羅拉 (Padding Mangle) 放置橫式且很靠近蒸箱以減少滯留在蒸箱外的時間；用此設計較傳統的機型有最安定的再現性。

同時本產品也可用於織帶或粘扣帶邊染色。

### 較市面上一般機械特性

1. 為連續方式進行，通過蒸箱，正確時間可調整并用數字指示。
2. 極短的滯留在蒸箱外的時間(從0.5~3秒)，可避免空氣不必要的外在影響。
3. 全用不銹鋼制成，沒有對於化學的腐蝕問題。
4. 布通過的導布桿 (Guide Roller) 是用特弗龍被覆 (Teflon-coated) 而成，沒有染料污染的困擾。
5. 機械設計精巧，較一般傳統型不占空間。
6. 液槽及橡膠 Roller 會自動噴水清洗。
7. 水封槽 (Water Sealing Bath) 高於特定溫度(可設定) 會自動進冷水節省水量及控制溫度。
8. 蒸箱保有6.2M長度亦可改變為3.2M的方式進行。
9. 使用空氣推動氣膜，壓吸率安定且經久不變。



## LABORATORY PAD-STEAM RANGE

### Machine Designation

During pad-steaming when carrying out continuous dyeing processes, it is extremely important for the time used to pass through after padding and before entering the steaming chamber, especially for e. g. sulphur and vat dyes. External influences such as oxidation and reduction of the dyestuff always disturb and therefore good reproducibility cannot be obtained in laboratories.

Because of the above reason, our company design the Pad-Steam Range using Horizontal type Padding Mangle and the roller nip is situated very near to entry of the steaming chamber. This of course shortens the passing time before entering the steaming zone and offers much more stable reproducibility than conventional machine types.

### Advantages in comparison to conventional machines

- (1) For continuous processing, the dwell time inside steaming chamber can be adjusted precisely also with indication.
- (2) Very short time before entering the steaming chamber after padding, it takes from 0.5 to 3 seconds and therefore avoids unnecessary external disturbance.
- (3) All stainless steel manufacture and corrosion-proof to acids or chemicals.
- (4) All guide rollers in touch with the test fabric are teflon-coated to ensure no staining problem occurs.
- (5) Compact machine design, less space required.
- (6) Automatic spray cleaning systems for the fluid beck and the padding rollers.
- (7) When temperature of the water-sealing bath is higher than the preset temperature, cooling will be done thus saving water consumption and to automatically regulate the temperature.
- (8) Fabric guided through the steaming chamber 6.2 meters as full capacity and can be changed to 3.2 meters partial loading capacity.
- (9) Pneumatically operated diaphragm valves are used to offer stable pick - up percentage even after a long time.

### Technical Specifications

#### Padding Mangle

- a. Horizontal Type with two padding rollers, 125 mm diameter and 300 mm long.
- b. Padding rollers produced of NRB rubber material of 70° shore hardness  $\pm 3^\circ$
- c. Padding roller pressure controlled by pneumatically operated diaphragm valves. Working pressure from 0.7 to 6 kg/cm<sup>2</sup>.
- d. Accessories include 2 pressure regulating valves on LHS/RHS (Made in Japan) and very precise "WIKA" pressure gauges from West Germany (tolerance  $\pm 0.1$  kg/cm<sup>2</sup>).

## 機械規格

### ■ 壓吸裝置

- 羅拉材質 × 硬度: NBR 橡膠 × 硬度 70° ± 3 × 橫式放置  
 羅拉尺寸 : 125<sup>m</sup>/m 直徑 × 300<sup>m</sup>/m 長 × 2 支  
 羅拉加壓方式 : 使用壓縮空氣推動氣膜使用壓力  
 0.7kg/cm<sup>2</sup>~6kg/cm<sup>2</sup>  
 羅拉調壓方式 : 使用日製調壓閥2組, 各別左右可調,  
 精密壓力指示德國WIKA精度0.1kg/cm<sup>2</sup>  
 藥 槽 : 容量約500c.c., 有自動上下裝置(1/16 HP  
 馬達帶動)。  
 藥槽清洗設備 : 藥槽放下時會自動噴水清洗。  
 藥槽加藥方法 : 外部、漏斗導入方式。  
 其 他 : 有噴水頭及高壓空氣預留設備。

### ■ 蒸箱

- 使用最高溫 : 飽和蒸氣溫度(103°C)。  
 蒸氣進入 : 最大5kg/cm<sup>2</sup>蒸氣進入(4分進入口)  
 蒸氣壓力調整: 日制方便的調整壓力閥精度0.1kg/cm<sup>2</sup>附  
 有壓力指示表兩只。  
 蒸氣消耗量 : 間接蒸氣(預熱用)5kg/HR  
 直接蒸氣(蒸熱用)15kg/HR  
 試布路徑 : 全程6.2M可半量3.2M或更小通過時間20  
 ~120秒(可調, 并有數字式指定)。  
 溫度指示 : 數字式指示及指針式指示各一組。  
 視 窗 : 耐溫雙層玻璃。  
 導 桿 : 每支用特弗龍被覆而成。  
 出口封密方式: 水封式(Water Sealing Type)另付溫度  
 控制器自動給水。  
 間接(預熱)蒸氣出口: 浮球式却水器含旁道(By-Pass)

### ■ 傳動系統

- 主傳動 : 3向6極 1/4 HP用電子調頻式控制  
 試布進行方式: 卷取/平擺出來, 卷取/平擺進入  
 主操作點 : ①膜閥空氣壓力  
 ②膜閥向下壓或放開  
 ③藥槽上下(噴水指示)  
 ④緊急、停動(手動及腳觸)  
 ⑤試布速度通過秒數按鈕  
 主要指示 : ①溫度、數字及指針  
 ②進入蒸氣壓力  
 ③膜閥壓力(左右)  
 其他附件 : ①4支卷取Roller  
 ②二套放布盤  
 必須指定者 : 空壓機 1/2 HP(特別要求時220V × 1  
 PHASE)鍋爐(LPG或電熱并告知電壓)  
 後續洗槽 : 2-8槽, 可指定製造  
 機械尺寸 : 長148cm × 高191cm × 寬83cm



- e. Fluid beck of padding mangle : about 500 cc capacity with automatic drop off device driven by 1/16 HP motor.  
 f. When the fluid beck drops to the lower position, spray washing starts automatically to clean the dye vat.  
 g. Dye liquor is added from outside using funnel type dispenser.  
 h. Other accessories include shower head and pressurized air reserving unit.

### ■ Steaming Chamber

- a. Maximum working temperature: 103 °C (with saturated steam)  
 b. Maximum steam pressure: 5 kg/cm<sup>2</sup> (1/2" φ steam inlet)  
 c. Pressure regulation by convenient pressure regulating valves (Made in Japan) with tolerance ± 0.1 kg/cm<sup>2</sup> also with 2 pressure gauges.  
 d. Steam Consumption:  
 5 kg/hour for indirect steam (pre-heating)  
 15 kg/hour for direct steam (saturated steaming)  
 e. Fabric passage: length of test fabric 6.2 meters maximum can be reduced to half capacity 3.2 m or even less.  
 Dwell time is from 20 to 120 seconds and can be regulated also with digital indication  
 f. Temperature indication each of digital and analog type.  
 g. View port of two layer heat resistant sight glass.  
 h. All guide rollers Teflon-coated.  
 i. Water sealing bath at outlet, also with temperature regulator for automatic cooling control.  
 j. Indirect steam preheating, outlet with float-type steam trap also with by-pass.

### ■ Driving System

- a. Main drive of 3 phase, 6-pole 1/4 HP electric motor, vari-speed control by Inverter.  
 b. Test fabric feed in roll or fold form, delivery with roll-up and/or plaiting device.

### ■ Control System

- a. Diaphragm valve pressure regulation (LHS/RHS)  
 b. Padding and/or padding roller release  
 c. Fluid beck engaged or lowered with water spray indication  
 d. Emergency switch and knee pedal  
 e. Test fabric speed and dwell time adjustment

### ■ Indication System

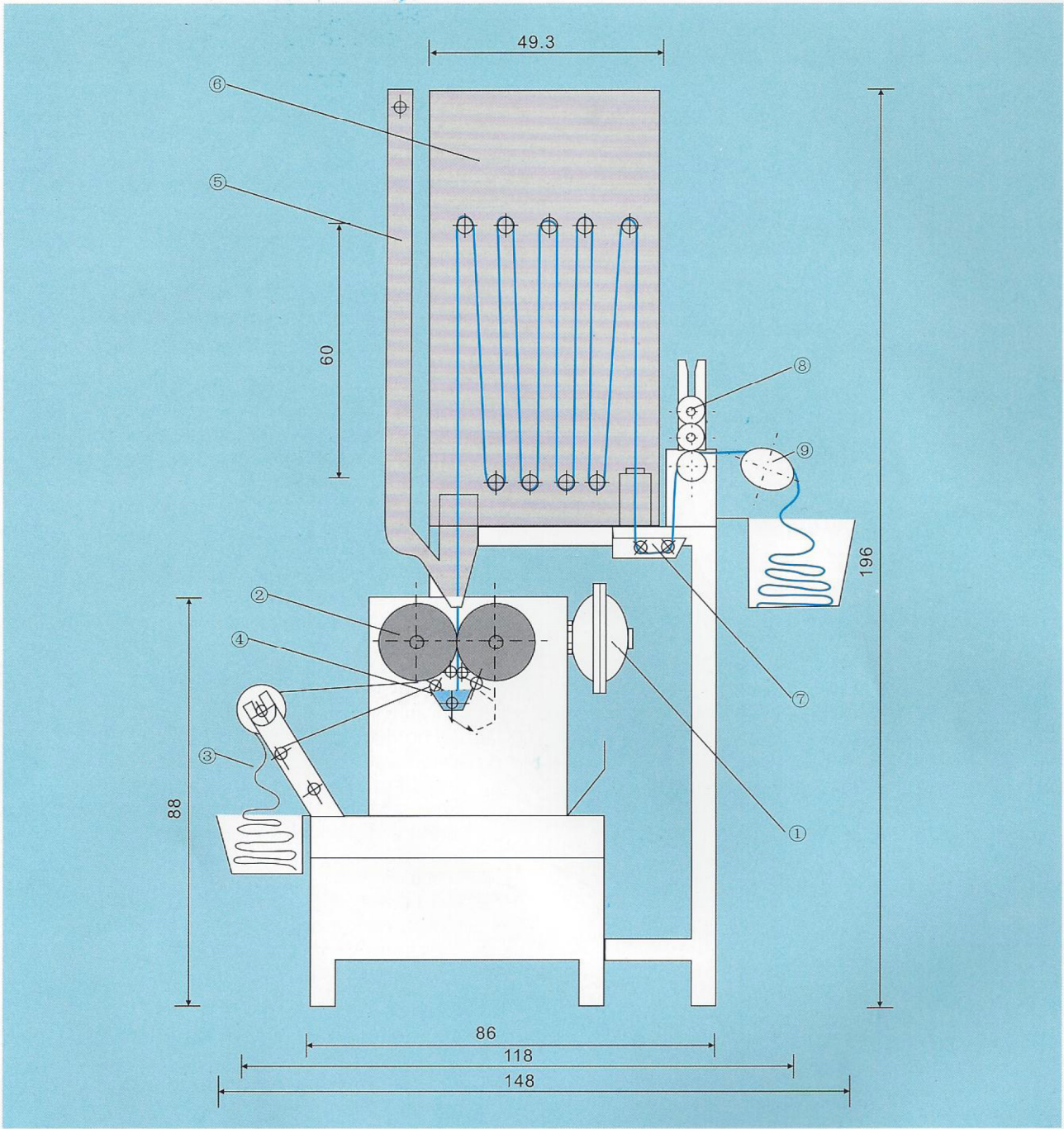
- a. Temperature gauge, each of digital and analog type.  
 b. Incoming steam pressure gauge  
 c. Diaphragm valve pressure gauges (LHS/RHS)

### ■ Other accessories

- a. 4 pcs. of bale-up rollers  
 b. 2 fabric troughs  
 c. optional: ● Air Compressor  
 1/2 HP × 220V × 1 phase  
 ● Steam Generator  
 LP GAS or electric-heated  
 ● Washing range on request 2-8 chamber type

### ■ Machine Dimensions

148 × 191 × 83cm (L × H × W)



① TWO DIAPHRAGM VALVES 氣膜閥(2)	⑥ STEAMING CHAMBER 蒸處箱
② HORIZONTAL PADDING MANGLE 壓吸裝置	⑦ WATER-SEALING BATH 水封槽
③ TEST FABRIC 試布	⑧ ROLL-UP DEVICE 卷取方式裝置
④ FLUID BECK 藥槽	⑨ PLAITING DEVICE 振落裝置
⑤ STEAM OUTLET 出蒸氣口	



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